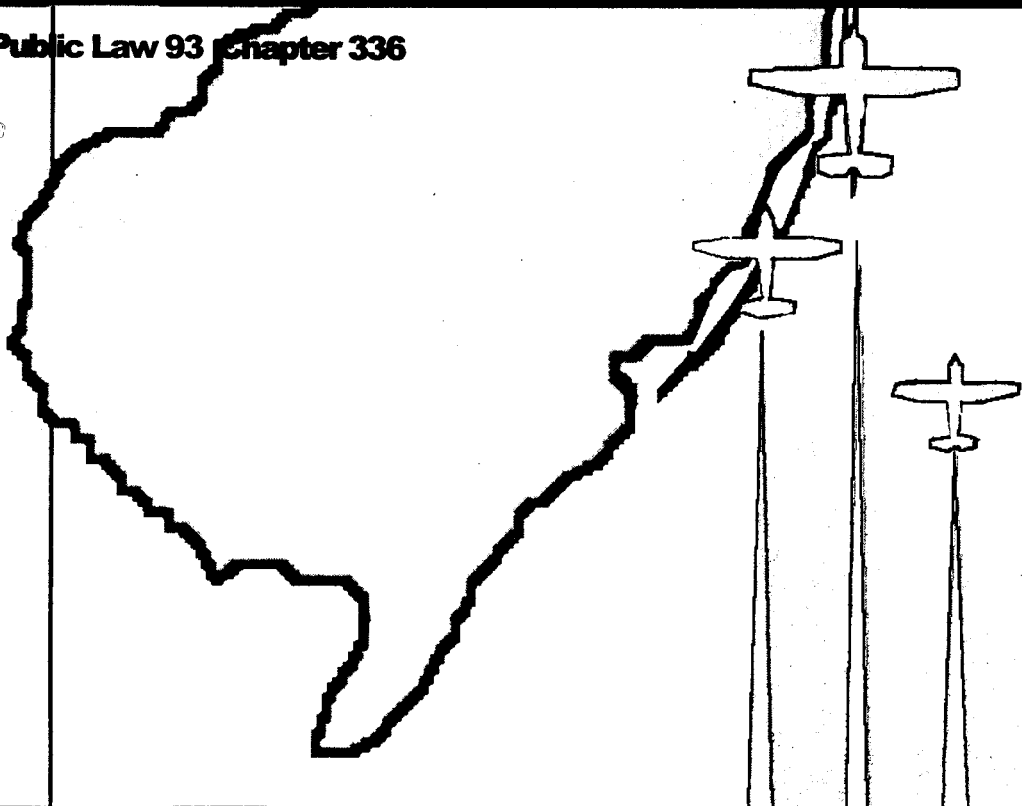


**Report of the
NEW JERSEY
GENERAL AVIATION STUDY COMMISSION**

Commissioned Public Law 93 Chapter 336



CHAPTER 336

AN ACT creating a General Aviation Study Commission to study and make recommendations concerning the role of general aviation in the State's transportation system.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. The Legislature finds and declares:

a. The general aviation facilities of this State are responsible for attracting upwards of \$1.5 billion into the State, employing over 8,000 people, and serving as a magnet to businesses which are attracted to the convenience of shuttling business personnel and providing business services reliant on air transportation;

b. Within the recent past, nine aviation facilities of regional significance within the State have closed, accelerating a trend that will ultimately result in an economic slowdown having far-reaching effects on the total economy of the State and the region, a result made all the more remarkable by the relative lack of awareness of the many benefits which accrue to the economy of the State through the operation of general aviation airports;

c. General aviation facilities which have been designated by the Federal Aviation Administration as reliever airports play a particularly important role in providing both general aviation uses and service to aircraft when the area's major airports are unable to do so;

d. Conflicts between municipalities and the general aviation airports located within them or adjacent thereto have occurred based on residential and other development in the vicinity of the airport and subsequent problems with the perceived incompatible uses of the airport facility;

e. The State of New Jersey acting through the Department of Transportation is given the statutory responsibility for developing, promoting and regulating aviation in the State and of preparing the New Jersey State Airport System Plan, which has recently been issued in revised form;

f. It is important for the State of New Jersey to determine the proper "mix" of private and public facilities in the area of general aviation, the feasibility of direct State intervention through outright purchase of these facilities, a "public-private" partnership for this purchase, or any other arrangement which will facilitate the preservation or expansion of the system of general aviation airports; and

g. It is in the public interest to establish a commission to study the role of general aviation in the State's transportation system, with particular reference to the function of these airports as reliever facilities, their relation to the larger transportation system, appropriate methods to preserve or expand the system of general aviation airports, including both public and private involvement.

2. There is created a 16 member commission to be known as the "General Aviation Study Commission." The membership of the commission shall consist of:

a. Four members appointed by the President of the Senate, one of whom shall be a member of the Senate, one of whom shall be a representative of a privately owned public use general aviation airport, one of whom shall be a representative of a publicly owned general aviation airport and one of whom shall be a person who has been licensed as a private pilot for more than ten years.

b. Four members appointed by the Speaker of the General Assembly, one of whom shall be a member of the General Assembly, one of whom shall be a representative of a privately owned public use general aviation airport, and one of whom shall be a representative of a publicly owned general aviation airport and one of whom shall be a member of the public.

c. The Commissioner of Transportation, the Commissioner of Commerce, Energy and Economic Development and the Executive Director of the Port Authority of New York and New Jersey, or their designees, who shall serve ex officio except that the Executive Director of the Port Authority of New York and New Jersey shall have no vote; and

d. Five public members appointed by the Governor with the advice and consent of the Senate, one of whom shall be a local government official, one of whom shall be an expert on aviation

matters, two of whom shall be members of the business community which use general aviation airports, and one of whom shall be an owner of a commercial enterprise providing aviation services to the general public.

Members who are legislators appointed by the President of the Senate or the Speaker of the General Assembly shall serve only as long as they hold the legislative seat they held at the time of their appointment.

Vacancies in the membership of the commission shall be filled in the same manner as the original appointments were made. Members shall serve without compensation, but the commission may, within the limits of funds appropriated or otherwise made available for these purposes, reimburse its members for expenses necessarily incurred in the discharge of their official duties.

Any public member of the commission may be removed by the appointing authority, for cause, after a hearing.

3. It shall be the duty of the commission to study the role of general aviation in the State's transportation system. Of particular importance in this study shall be the role of general aviation airports as reliever airports in the State's airport system, the closure of general aviation airports and ways to reverse that trend, the integration of the State's Airport System Plan with the State's general Transportation Master Plan, and the relation between municipalities in this State and the general aviation airports located in or adjacent to those municipalities. In addition, the commission shall focus on the proper "mix" of private and public facilities in the area of general aviation, the feasibility of direct State intervention through outright purchase of private facilities, a "public-private" partnership for the purchase, or any other arrangement which will facilitate the improvement of the system of general aviation airports.

4. The commission shall organize as soon as possible after the appointment of its members and shall elect a chairman and a vice-chairman from among its members. The chairman shall appoint a secretary who need not be a member of the commission.

5. The commission shall be entitled to call to its assistance and avail itself of the services of employees of any State, county or municipal department, board, bureau, commission or agency as it may require and as may be available to it for its purposes. The commission shall further be entitled to employ counsel and stenographic and clerical assistance and incur traveling and other

miscellaneous expenses as it may deem necessary in order to perform its duties, within the limits of funds appropriated or otherwise made available to it for its purposes.

6. The commission may meet and hold public hearings at such place or places as it shall designate during the sessions or recesses of the Legislature and shall issue a final report of its findings and recommendations, which shall include draft legislation if the commission recommends that legislation is necessary, to the Governor and Legislature as soon as is practicable, but not more than 24 months following the organization of the commission. The commission shall dissolve upon the 30th day following the issuance of its final report.

7. The commission shall have all of the powers provided by the provisions of chapter 13 of Title 52 of the Revised Statutes.

8. This act shall take effect immediately and shall expire upon the 30th day following the issuance of the commission's final report.

Approved December 27, 1993.

**THE REPORT OF THE NEW JERSEY GENERAL AVIATION STUDY
COMMISSION**

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**NEW JERSEY GENERAL AVIATION STUDY
COMMISSION**

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EX OFFICIO

**COMMISSIONER OF COMMERCE
COMMISSIONER OF TRANSPORTATION
EXECUTIVE DIRECTOR - PORT AUTHORITY OF NEW YORK AND NEW
JERSEY**

DEDICATION

SENATOR C. WILLIAM HAINES

The Commissioners of the New Jersey General Aviation Study Commission dedicate their work herein to the memory of Senator C. William Haines, one of our fellow Commissioners, who succumbed to cancer during his term on this Commission. Faced with what would be his last legislative effort, Senator Haines continued to attend meetings and perform his functions on this Commission without interruption. Descended, as he was, from Quakers who settled in Burlington County in 1684, Senator Haines, like his ancestors, lived his life as a hard working farmer and a dedicated public servant. He was a war hero and a pilot who served as Chairman of the Transportation Committee for most of his 15 years in the Senate. During the last year of his life, he stated that he must continue his work on this Commission because the general aviation airport system in New Jersey, too long neglected, promised to be the improvement to our State's transportation system most important to the economic health of our State throughout the next century. It is with great respect for the Senator, and profound gratitude for the privilege of having served with him, that we dedicate this report.

ACKNOWLEDGEMENTS

The Commission wants to acknowledge the assistance of Mr. Daniel Herr who so generously donated his time and expertise to review transcripts and documentary evidence and summarize them in preparation of the first draft of this report. Thomas Hall, Esq., reviewed the conclusions of law set forth in Appendix G. Susan Feeney, Esq. and Michael Guariglia, Esq. briefed the Commission respecting tax laws affecting New Jersey transportation systems. We would like to thank Pfizer Inc. for its continuous support and particularly the legal assistance of John Kilbourne, Esq. in reviewing the Commission's paper. We must also acknowledge with great gratitude the continued assistance of Mr. Harry White and his staff at the Office of Legislative Services in arranging meeting rooms, recording the minutes of our hearings, marking evidence and providing the Commissioners with timely transcripts for its deliberations. In addition, we express our thanks to Mr. Emmett O'Hare, Mr. Gil Maupin, Mr. Neal Tully, Ms. Teresa Manna, Ms. Linda Zajac and the other staff members of the Department of Transportation who were helpful whenever called upon to conduct research and attend to clerical work.

NEW JERSEY GENERAL AVIATION STUDY COMMISSION BIOGRAPHIES

John J. (Jack) McNamara, Esq., Chairman

Jack McNamara is a lifelong resident of New Jersey where he has been engaged in the private practice of law for almost 30 years. He specializes in corporate, commercial and aviation law and has testified before or consulted on aviation matters with committees of both Houses of the New Jersey Legislature, the US House of Representatives and the Vice President of the United States. After graduating from the Delbarton School in Morristown in 1959, Mr. McNamara received his BS in Foreign Service from the School of Foreign Service at Georgetown University, a Doctor of Law from The School of Law at Fordham University, studied Quantitative Analysis in the Graduate School of Business at New York University and Airway Science in the Odegard Center for Aerospace Sciences at the University of North Dakota. Mr. McNamara is recognized as the first pilot and flight instructor ever to be certified without limitation by the Federal Aviation Administration at the highest level in every category and class of aircraft. He is President of the Lawyer Pilot Bar Association, President of the Council on Aviation Accreditation and a founding member of the National Transportation Safety Board Bar Association. Among his many civic responsibilities, Mr. McNamara was Chairman of the Planning Board of Far Hills. Mr. McNamara is married and has nine children.

Frederick W. Telling, Ph.D., Vice-Chairman

Dr. Frederick W. Telling is a Corporate Vice President of Pfizer Inc. and head of its Corporate Strategic Planning and Policy Division. In addition to his position at Pfizer, Dr. Telling is a commercial pilot with multi-engine and instrument ratings in aircraft and helicopters. He is a member of both the Aircraft Owners and Pilots Association (AOPA) and the Experimental Aircraft Association (EAA), with an active involvement in aviation policy and history. Dr. Telling is a Trustee and Executive Committee Member of the New Jersey Aviation Hall of Fame and a member of the Board of Trustees of the HealthCare Institute of New Jersey. Dr. Telling's professional career has focused on the areas of health policy, innovation, education and research. He is Vice Chairman for the American Foundation for Pharmaceutical Education and an invited faculty lecturer at the Harvard University School of Public Health and Cornell University. Dr. Telling is involved in numerous health-care related professional organizations. He received his B.A. from Hamilton College and his Masters of Industrial Labor Relations and Ph.D. in Economics and Public Policy from Cornell University. A New Jersey resident for 21 years, Dr. Telling resides in Woodcliff Lake with his wife Barbara and daughter Jennifer.

Stephen M. Ketyer, LL.M., Secretary

Stephen Ketyer currently practices law in Maplewood, New Jersey. He received a B.A. from Union College (NY), a J.D. from Touro Law Center, where he was an associate editor of the Law Review, and an LL.M. from the Institute of Air and Space Law, McGill University. Admitted to practice in New Jersey and the District of Columbia, Mr. Ketyer is a member of the Lawyer-Pilots Bar Association, the National Transportation Safety Board Bar Association, the American Bar Association Forum on Air & Space Law, and the Institute of Air and Space Law Association of McGill University. He recently served as an external reviewer for the United States General Accounting Office on a report concerning civil aviation matters.

Abraham Abuchowski, Ph.D.

Abraham Abuchowski is the founder of Enzon, Inc. and serves as its Chairman, President and Chief Executive Officer. Under his leadership, Enzon became New Jersey's first Biotech company to obtain FDA approval of a new product. Prior to forming Enzon in 1983, Dr. Abuchowski was an assistant professor in the Department of Biochemistry at Rutgers University, where he received his doctoral degree in that field. In addition, Dr. Abuchowski was named a Scholar of the Leukemia Society of America in 1981 for his work in childhood leukemia. He was also a trustee of the Society and vice president of the Central Jersey Chapter. In 1996, Dr. Abuchowski resigned from Enzon Inc., to develop New Paradigm Consulting, Inc. A recipient of numerous awards and honors, Dr. Abuchowski was named by New Jersey Business Magazine as among the top 100 Business Leaders in the State.

Richard H. Bagger

Richard H. Bagger is currently a member of the New Jersey General Assembly. He is Chairman of Assembly Appropriations Committee for the 1998-1999 legislative session and also holds the positions of Majority Budget Officer and Co-Chairman of the Joint Budget Oversight Committee. Previously, Assemblyman Bagger was elected by his legislative colleagues to serve as Majority Conference Leader of the Assembly for both the 1994-95 and 1996-97 sessions. A lifelong resident of Westfield, Assemblyman Bagger was educated in the Westfield Public Schools and attended Princeton University, where he received his A.B. degree from the Woodrow Wilson School of Public and International Affairs in 1982. He received his J.D. from Rutgers Law School, graduating with honors in 1986. In addition to his legislative responsibilities, Assemblyman Bagger works as a corporate manager for Pfizer Inc., in New York. Assemblyman Bagger is married with three daughters.

Linda Fritsche Castner

Linda Castner is an owner of Alexandria Field airport. She represents the second generation of family ownership and operation of a New Jersey public use airport, which was built by her father, William Fritsche, in 1944, on land owned by the family for 200 years. In addition, she is a partner in the fixed base operation that includes an active flight school utilizing Piper, Cessna and tail wheel aircraft. In 1989, she formed Up, Up, and Away In Hunterdon, Inc., the corporation that runs the award-winning Magic of Alexandria Balloon Festival, which introduces over 65,000 people each year to the mystique of aviation and has donated over \$180,000 to charity. Mrs. Castner, who is a private pilot, received her B.S. in Health and Physical Education from the University of Bridgeport Arnold College Division and her M.S. in Physical Education from Smith College. She was a faculty member at Bryn Mawr College for 11 years followed by six years with Johnson & Johnson in the Live for Life Program, as the product manager for fitness center design and management. Mrs. Castner subsequently returned to the family business, working with her husband, Corkey and brother, Bill Fritsche, developed the first airpark in New Jersey.

Andrew R. Ciesla

Andrew Ciesla is currently the New Jersey State Senator from the 10th Legislative District. In this capacity, he serves as Chairman of the Transportation Committee and is a member of the Environment Committee. In addition, Senator Ciesla is Vice President of Finance for L & H Supply, Inc., prior to which he was Executive Director and Operations Manager for the Brick Township Municipal Utilities Authority. Senator Ciesla received his B.A., *summa cum laude* in 1975 and his Masters of Public Administration in 1976, both from Syracuse University. In 1992, he was a New Jersey State delegate to the 1992 Republican National Convention. The Senator lives in Brick with his wife and three sons.G

Jack Elliott

Jack Elliott has written a general aviation column for the *Sunday Star-Ledger* for 35 years and has contributed to more than a dozen aviation publications and has received numerous awards and citations for his work. In 1986, Mr. Elliott was inducted into the Aviation Hall of Fame in New Jersey. In 1993, the New Jersey Senate and Assembly passed a resolution honoring him for three decades of dedication to the aviation community of New Jersey through his "Wings Over New Jersey" column. A native of New Jersey, Mr. Elliott received his B.A. from New York University in 1948. He holds a commercial pilot license with instrument, glider and seaplane ratings.

Philip W. Engle

Philip Engle has been involved in the aviation industry for over 30 years. Since 1982, he has served as Airport Manager for Teterboro Airport and Principal Operations Advisor for the Airport Management Services Division of Johnson Controls World Services, Inc. He directs the overall operation of Teterboro Airport and participates in all operational concerns of the Division. Prior to assuming his present position, Mr. Engle was responsible for the development of special projects and consultation for Pan Am World Airways. He received a B.S. in Meteorology from New York State Maritime College in 1964.

Senator C. William Haines

Senator C. William Haines represented the Eighth Legislative District, which covers parts of Atlantic, Camden and Burlington County from 1985 until his death. Senator Haines was descended from the Quakers who first settled Burlington County in 1684. He lived his life as a hard working farmer and was Chairman of Larchmont Farms Inc., which farms 900 acres of peaches, nectarines and apples in Salem and Cumberland Counties. Senator Haines was married for 41 years and has four children and ten grandchildren, all living within 30 minutes of his lifelong home in Mount Laurel. Senator Haines attended the Moorestown Friends School during his primary and secondary school education and went on to the George School in Newton, PA for High School. He received his B.S. from the University of Massachusetts in Horticulture. In addition, Senator Haines served in the U.S. Army, Seventh Cavalry Regiment, where he was a Korea Combat Medic in 1951. Senator Haines will be remembered for his efforts in the realm of public service, which included agriculture and transportation issues.

Peter S. Hines

Peter S. Hines served as Vice President and General Manager of a major fixed base operation for 27 years where he had overall responsibility for the operational, marketing, financial and administrative performance of the company. During those 27 years, he developed a small helicopter company into a major aviation fixed base operation providing a wide range of products and services to the general public, private industry, and government agencies, and directed the design and construction of a 80,000 square foot complex of hangars and offices. Following high school graduation, Mr. Hines enrolled in the aeronautical engineering program at Ohio State University until he enlisted in the U.S. Air Force following his sophomore year. After his Honorable Discharge, Mr. Hines completed his college education at Kent State University, receiving a B.S. in Business Administration. For the next 13 years, Mr. Hines was employed by a major manufacturer of consumer products where he spent one year as a Field Auditor, six years as Branch Sales Office Manager, Washington, D.C. and six years as Division Sales Office Manager, New York City. Desiring a return to aviation, he joined

the management team of a small fixed base operation for almost three years before joining the aviation subsidiary of a major New Jersey corporation. Throughout his 40 years of management experience, Mr. Hines received numerous awards for his achievements. He is currently active in various aviation and civic associations. Mr. Hines, a New Jersey resident since 1960, is married with two daughters and four grandchildren.

Wesley W. Jost

Wesley W. Jost served as Mayor and Deputy Mayor of Wall Township at a time when Wall underwent major infrastructure improvements. He served in the U.S. Army from 1951-1953 and in the Army Reserves from 1953-1959, where he received numerous medals and citations. Mr. Jost is a member of the Newark International Airport Aviation Advisory Committee, the Monmouth Airport Advisory Committee. Mr. Jost has been in the automotive business for 50 years. After graduating from Manasquan High School in 1948, Mr. Jost was admitted to NYU for aeronautical engineering but joined the family auto business instead. Most recently, he was President of Jost Auto Sales from 1986-1997 and is currently President of WES Properties. Mr. Jost lives in Wall and is married with nine children.

Suzanne S. Nagle

Suzanne S. Nagle is the second generation co-owner of Solberg Airport and has been actively involved in all aspects of operating this public use facility since 1970. Ms. Nagle is presently Secretary of AERO NJ (an organization for airport owners and operators of New Jersey), where she is currently Chairman of the Operations and Licensing Committee of the New Jersey Aviation Advisory Council and a member of the Governor's Air and Space Medal Nominating Committee. Ms. Nagle received her B.A. in American Studies from the University of Miami in 1970. A private pilot since 1968, Ms. Nagle lives in Readington with her husband and two sons.

Joseph A. Odenheimer

Joseph A. Odenheimer was Mayor of Washington Township in 1994. Prior to that he served as deputy mayor, recreation commissioner and public works coordinator. Mr. Odenheimer is a resident of Washington Township and has served the community in many ways. Presently, he is a member of the Municipal Utilities Authority and the Township Planning Board. Mr. Odenheimer is owner and President of Automotive Headquarters, Inc., a full service wholesale and retail auto parts store serving the Robbinsville, Hamilton, Hightstown, Cranbury and Trenton areas.

Henry M. Rowan

Henry (Hank) Rowan is founder and President of Inductotherm Industries, Inc. in Rancocas, New Jersey. Inductotherm is the world leader in the design and manufacture of equipment for induction melting, heat-treating, and welding. Mr. Rowan, a native of Raphine, Virginia, was raised in Ridgewood, New Jersey. Following graduation from Deerfield Academy, he attended Williams College and Massachusetts Institute of Technology (MIT) before interrupting his studies to enlist in the Army Air Corps in 1943. After earning silver pilot wings and a Second Lieutenant's commission, Mr. Rowan piloted both B-17's and B-29's. After the war, he returned to MIT where he received his BSEE with honors in 1947. A Learjet pilot, Mr. Rowan lives in Rancocas. He has a daughter and two grandchildren.

Dispatch is the soul of business

Letters
February 5, 1750
Philip Dormer Stanhope
Earl of Chesterfield

NEW JERSEY GENERAL AVIATION STUDY COMMISSION

EXECUTIVE SUMMARY OF FINDINGS AND RECOMMENDATIONS

The New Jersey General Aviation Commission

Created in 1993 by the New Jersey Legislature, the New Jersey General Aviation Study Commission (hereinafter “Commission”) was charged with studying issues concerning the role of aviation and general aviation within New Jersey’s transportation system. General aviation encompasses a wide range of air transportation and offers a variety of services to the public. The term “general aviation” includes all categories of aircraft, including airplanes, seaplanes, helicopters, blimps and balloons. It does not include commercial airlines or military aircraft. Generally, this study does not include Newark International or Atlantic City International airports.

The Commission is comprised of five members appointed by the Governor, four members appointed by the President of the Senate and four members appointed by the Speaker of the Assembly. By statute, the Commissioner of Commerce, the Commissioner of Transportation and the Executive Director of the Port Authority of New York and New Jersey, are *ex officio* members of the Commission.

Testimony was taken and information was solicited from State and national experts in the field of aviation, economics, noise and psychoacoustics, from the League of Municipalities, from all communities that host and neighbor general aviation facilities, and from all owners and operators of those facilities.

The Problem

New Jersey’s 48 general aviation airports are in peril. New Jersey has irrevocably lost half of its aviation infrastructure, 53 airports, since the end of the Second World War. While New Jersey’s sister states are expanding their general aviation infrastructure and attracting new businesses, today, there are only six airports in New Jersey that reasonably can be expected to support modern business aircraft. Each airport closing has significant economic, tourism and open-space preservation implications for the State. Currently, nearly 70,500 people are employed directly and indirectly because of the State’s general aviation industry. Many of New Jersey’s general aviation airports help preserve and protect the open space, woodlands and wetlands that they encompass. By contrast, there are now housing and commercial developments where airports once stood.

New Jersey has the highest number of people per airport in the nation. It has the second-largest percentage of privately owned public use airports in the United States. Its airports are of outdated design and are deteriorating after decades of State neglect. Despite recent increases, New Jersey continues to rank poorly compared to other states in expenditures for airport improvements. Private

owners of public use airports—many of whom are second generation—are fighting a losing battle, dealing with often-conflicting regulatory oversight of State agencies and hostile municipalities. Too often, their profits are low or disappear due to high property taxes. They are continually tempted to close the airport, sell their greatly appreciated land to developers and earn greater income effortlessly by investing the proceeds in the public money markets.

The Benefits of New Jersey's General Aviation Airports

With a total economic impact of \$1.7 billion to the State, individual general aviation airports have a substantial economic impact on their communities and contribute essential business-related services. Usually the community is unaware of its airport's economic contribution. New Jersey's airports are a significant factor in corporate relocation decisions for both small and large businesses. Companies such as AT&T, Lucent Technologies, Warner Lambert, Johnson & Johnson, Merck, AlliedSignal, BASF, Schering-Plough, Union Camp, American Home Products and many others rely on general aviation airports in the State.

New Jersey's general aviation infrastructure also provides many health, welfare and social benefits. Members of the medical community, schools, fire and emergency services, law enforcement, tour operators (and other related travel services) and traffic surveillance also benefit from and utilize the State's general aviation airports.

Findings and Recommendations

After extensive deliberation considering the testimony of expert and lay witnesses and hundreds of exhibits, the Commission has developed 19 recommendations that involve private voluntary activities or State legislative or regulatory initiatives. These recommendations are broken down into four categories: preservation of public use aviation facilities; maintenance and improvement of safety of operations and facilities; enhancement of State oversight and integration within New Jersey's transportation system; and long-term planning. These recommendations are designed to enable New Jersey's air transportation infrastructure to survive, become competitive with airports of other states, and provide essential services far into the next century.

I. Preservation of Public Use Aviation Facilities

Finding

New Jersey is unique in the United States for having the highest percentage of, and the greatest reliance upon, privately owned public use general aviation facilities. However, rising costs of operation, high tax burdens, low levels of net income and increasing alternative use valuation contribute to the inexorable attrition in facilities, and to the detriment of the State's economic health and transportation efficiency. Despite this tax burden, most municipalities testifying

indicated that tax revenue received from its airport is an insignificant part of total revenue. In addition, the continued existence of a publicly owned municipal airport can depend on the whims of a local politician, who, while in office, can close the airport without regard to the consequences on the State's general aviation infrastructure.

Recommendations

1. Establish a State program enabling private airport owners to sell and transfer their development rights either to other private parties or to the State. The State must stand ready to purchase these development rights when offered.
2. Amend the New Jersey Tax Act to alleviate the real estate tax burden on airports. Exempt all lands, buildings, paved areas and other improvements dedicated to public use.

The specific recommended legislative proposals are as follows:

- Exempt from municipal property taxes all public use portions of privately owned airports, including runways, taxiways, ramp and parking areas for aircraft and automobiles, terminals and land required as a safety buffer for future development.
 - Subject other lands and improvements used or reserved for general aviation purposes to a State property tax at a uniform statewide rate and exempt them from municipal taxation.
 - Lands and improvements not used or reserved for general aviation purposes should remain subject to local property taxes.
3. Expand the State's capital improvement funding for airports. Assure stable annual funding through inclusion as a budgetary line item.
 4. Provide resources for the Division of Aeronautics to assure New Jersey receives its fair share of Federal Airport Improvement Program (AIP) funding for general aviation airports in a timely manner.
 5. As a condition of receiving State aid for an airport improvement, provide that the airport proprietor deed to the State a right of first refusal to purchase the airport in the event it or any subsequent airport owner seeks to change its use to a non-airport use.
 6. A municipality or county that accepts State aid for any transportation purpose should not be permitted to close its airport except upon approval of the Commissioner of Transportation.

7. Develop a plan, to be integrated into the existing tourism grant program, which would provide incentives to those general aviation facilities that elect to develop an economic base in tourism related businesses (e.g., sightseeing, sky diving, balloon festivals, air shows, etc.).

II. Maintain and Improve Safety of Operations and Facilities

Finding

The confusing and occasionally hostile municipal regulatory environment that operators of privately owned public use airports face is a major impediment to the improvement of such airport facilities and makes it increasingly difficult to assure safe airport operations. Popular opposition to airport improvements often results from unreasonable fears and sometimes by intentional dissemination of misinformation. Sometimes municipal boards reviewing applications for airport improvements do not make a positive effort to discover the truth respecting the impact of the proposed improvement. Airport owners complain they are not given a fair hearing. Neighboring municipalities complain that their concerns are not given equal consideration by the host municipality and that a State agency like NJDOT should review these applications ab initio. There are numerous instances of expensive litigation arising from the ambiguous phrase "supervision over aeronautics" used to describe the powers of the Commissioner of Transportation. The private airport owner has not established effective lines of communication with the community.

Recommendations

1. Amend Municipal Land Use Law to create an airport zone, which includes, at a minimum, all land within airport boundaries and at a maximum, all land to the projected 65 Ldn noise contour. Conforming uses within the airport zone include the airport and all uses compatible with it, such as all aviation-related businesses, car rentals, restaurants, overnight accommodations, commercial offices and airfreight stations and terminals.
2. Amend Aviation Act to provide NJDOT the exclusive authority to hear applications for improvements within the airport zone.
3. Establish local airport committee programs to promote positive relationships and encourage communication between general aviation facilities and their host and neighboring communities.
4. Promote utilization of the general aviation facility in location decisions for State and county highway maintenance department facilities, local fire and police stations and similar emergency assistance services within the community.

5. Expand the zone of notification to potential purchasers of real estate, set forth in The New Jersey Airport Safety and Zoning Act of 1983, to a radius of five statute miles from the geographical center of the airport.

III. Enhancement of State Oversight and Integration within New Jersey's Transportation System

Finding

Operators of privately owned public use airports face a maze of regulatory requirements from multiple State agencies as well as from municipal governments. The most serious form of regulatory conflict arises between NJDOT and NJDEP regulations applicable to trees, wetlands and wildlife. Contrasted to its highways and railroads, New Jersey's general aviation transportation system has not been included in State planning.

Recommendations

1. Amend all laws regulating land, land use, and environmental protection, to provide that the New Jersey Department of Transportation (NJDOT) shall administer all State regulations respecting any land on an airport or within an Airport Zone.
2. Authorize NJDOT to perform certain maintenance functions on privately owned public use airports that are ordinarily performed on roads but require dedicated equipment not readily available to the airport operator. Those items should include off airport obstruction removal, runway and taxiway crack sealing, painting of runways and taxiways to provide uniform markings specified by the FAA and if the equipment is available, snow removal.
3. Revise the State Development and Redevelopment Plan to include the State's general aviation system in those parts relating to intermodal transportation hubs and open spaces.
4. Incorporate the general aviation system into any economic development plan and materials when promoting New Jersey for corporate and institutional relocations.
5. Provide incentives for businesses, compatible and appropriate to the airport zone, to become airport tenants and to locate in the area surrounding the airport.

IV. Long-Term Planning

Finding

The suitability and viability of a general aviation airport depends upon three factors: aviation and public safety, environmental compatibility and economic viability. All three of these are a function of the quantity of land available to the airport. The starting point in determining how much land is necessary for a general aviation airport is the lengths of runways, which are determined by the type of aircraft to be served. The Commission has determined that 800 acres of land will be required for a safe, environmentally compatible and economically viable general aviation airport designed to serve business aircraft. A total of 1,400 acres will be required for an intermodal transportation station with a terminal and facilities accommodating major highways, mass transit systems and air transportation.

Recommendations

1. The State must develop a long-term plan, as part of the State Airport System Plan, wherein an airport serves each county (where feasible) with a main runway of sufficient length to accommodate every aircraft in the business fleet in all weather conditions and a crosswind runway approximately 70 percent of the length of the main runway. Both runways will have weight-bearing capacity limited to exclude airline-type heavy aircraft. The State should incorporate in this plan facilities for an intermodal transportation system suitable for the year 2050. Each intermodal transportation station should accommodate an airport, a rapid mass transit interchange and a car pooling facility.
2. The State must identify land, in 1,400 acre parcels, in each county (where feasible) to “bank” for future intermodal station development. This land banking should be compatible with open space preservation and airport zoning.

Aviation is to-day an established method of transportation. The future, even the near future will make it still more general. The city that is without the foresight to build the ports for the new traffic may soon be left behind in the race of competition. Chalcedon was called the city of the blind, because its founders rejected the nobler site of Byzantium lying at their feet. The need for vision of the future in the governance of cities has not lessened with the years. The dweller within the gates, even more than the stranger from afar, will pay the price of blindness.

Chief Judge Cardozo
Hesse v. Rath . 249 N.Y. 436 [1928]

THE NEW JERSEY GENERAL AVIATION STUDY COMMISSION

Authorization and Assignment of the Commission

Established by P.L. 1993, ch. 336 of the New Jersey State Legislature on December 27, 1993, the New Jersey General Aviation Study Commission (hereinafter “Commission”) was mandated to study and determine:

1. The effectiveness of New Jersey’s general aviation airports as reliever airports;
2. The history of closures of New Jersey’s general aviation airports and recommendations on reversing this trend;
3. The relationships between municipalities and the airports located in or adjacent to them;
4. The proper balance (or “mix”) between publicly- and privately- owned public use airports;
5. The feasibility of direct State intervention through the purchase of private facilities, a public-private partnership for the purchase, or any other arrangement that would facilitate the improvement of general aviation airports; and
6. Recommended measures to preserve and improve New Jersey’s general aviation airports.

Constitution of the Commission

The Commission consists of 16 members, including four members appointed by the President of the Senate;¹ four members appointed by the Speaker of the General Assembly;² five public members appointed by the Governor with the advice and consent of the Senate;³ the Commissioner of

¹Section 2(a) Public Law 1993, Chapter 336. The Senate President shall appoint four members to the Commission, “one of whom shall be a member of the Senate, one of whom shall be a representative of a privately owned public use general aviation airport, one of whom shall be a representative of a publicly owned general aviation airport and one of whom shall be a person who has been licensed as a private pilot for more than ten years.”

²Section 2(a) Public Law 1993, Chapter 336. The Speaker of the General Assembly shall appoint four members to the Commission, “one of whom shall be a member of the General Assembly, one of whom shall be a representative of a privately owned public use general aviation airport, one of whom shall be a representative of a publicly owned general aviation airport and one of whom shall be a member of the public.”

³Section 2(d) Public Law 1993, Chapter 336. The Governor shall appoint with advice and consent of the Senate five

Transportation; the Commissioner of Commerce, Energy and Economic Development; and the Executive Director of the Port Authority.⁴ Finally, the Secretary was appointed by the Chairman in accord with the law's provision.

Appointments to the Commission were completed by November 1994 and the first meeting was held in January 1995. More than 80 witnesses testified during the 23 Commission hearings conducted over a two-year period. Testimony was heard from representatives of the New Jersey Department of Transportation, the Federal Aviation Administration, New Jersey League of Municipalities, individual municipalities that host and neighbor airports, experts on noise pollution from both the Massachusetts Institute of Technology and the State of New Jersey, real estate evaluation experts, New Jersey residents and operators of both privately and publicly owned airports in the State. The Commission has received and evaluated over 10,000 pages of documentary evidence. Commission subcommittees have conducted seven surveys and held more than 100 meetings. The entire Commission met numerous times to deliberate its findings and to prepare this report.

REVIEW OF FINDINGS SET FORTH IN P.L. 1993, ch. 336

The Legislature mandated specific inquiries in the enabling statute. The following paragraphs briefly respond to these inquiries. Further elaboration is included later in this report.

Economic Impact of General Aviation Airports

With reference to P.L. 1993, ch. 336 §1(a), the Commission was tasked with determining the economic impact of general aviation airports on New Jersey. In 1993, the New Jersey State Legislature believed that general aviation airports affected 8,000 jobs and upwards of \$1.5 billion on revenue to New Jersey. The Commission found that New Jersey's system of airports substantially impacts the economies of the State, the region and host and neighboring municipalities. According to a study conducted during 1995/1996 by The Airport Technology and Planning Group Inc. (AirTech), general aviation at airports in New Jersey, excluding Newark International and Atlantic City International, create 70,500 jobs and generate an economic impact of \$1.3 billion to the State. Including general aviation activity at Newark International and Atlantic City International creates a total economic impact from general aviation of \$1.7 billion.

public members, "one of whom shall be a local government official, one of whom shall be an expert on aviation matters, two of whom shall be members of the business community which use general aviation airports, and one of whom shall be an owner of a commercial enterprise providing aviation services to the general public."

⁴Section 2(c) Public Law 1993, Chapter 336. The Executive Director of the Port Authority of New York and New Jersey shall have no vote on the Commission.

Almost every economic sector in New Jersey, even those that never directly use an airport or its many services, receives some benefit from general aviation airports. Individuals who benefit from the aviation infrastructure include employees of businesses and corporations that base their corporate aircraft at New Jersey airports; commercial and industrial employers whose shipments arrive or depart via these airports; the proprietors and employees of area retail establishments who provide shopping opportunities for visitors arriving by air; and the proprietors and employees of hotels, restaurants and tourist-related activities whose patrons arrive at the local general aviation facilities. Annual economic activity associated with the general aviation airports, when combined with the businesses that depend on them, exceeds \$4.6 billion.

General Aviation Airport Closures

With reference to P.L. 1993, ch. 336 §1(b), the Legislature determined that nine general aviation facilities of regional significance had closed in recent years. Through its study, the Commission determined that 53 general aviation airports have closed in New Jersey since 1952. In 1952, 87 percent of the airports were privately owned. This attrition is a direct function of that private ownership. The leading causes of these airport closures are high property taxes, refusal of the host community to allow these businesses to evolve, and the growing temptation to sell airport land for non-airport uses due to increased real estate values. It can be anticipated that privately owned public use airports will continue to close at the historic rate. If allowed to continue, the closure of these general aviation facilities will ultimately result in an irreversible economic slowdown that will have far-reaching effects on the State's economy; irreversible because once airport land is lost to non-airport development and use, it is lost forever.

Role of Reliever Airports

With reference to P.L. 1993, ch. 336 §1(c), the Commission was charged with reviewing the role of reliever airports⁵ in New Jersey. Reliever airports in New Jersey are general aviation airports designated by the Administrator of the Federal Aviation Administration (FAA) to relieve congestion at Newark and Philadelphia International airports. They are vital since they serve as alternative landing areas for general aviation traffic during inclement weather and help to ease crowded airspace situations. They are also eligible for certain Federal Airport Improvement Program (AIP) Funds.

Officials of the Port Authority of New York and New Jersey testified that New Jersey's reliever airports are important and that they must be preserved and enhanced to handle the growth in the region's air traffic. The two leading obstacles to an integrated regional airspace system are airspace sharing and funding for ground infrastructure. Adequate funding mechanisms for both air carrier and

⁵ See Appendix G, note 6.

reliever facilities are essential to support the growth of air commerce in the New York-New Jersey-Philadelphia region.

According to the Port Authority, the demands placed on the primary airports, Newark, JFK, and La Guardia, often exceed the capacity of those airports. These three airports handle 5,000 flights per day, approximately one-tenth of the national total. Additionally, these airports are unable to accommodate general aviation aircraft without incurring expensive delays for commercial airlines and the traveling public. For every year but one since 1991, Newark International Airport has been the worst airport in the nation for delays in scheduled airline service, with six to nine percent of its flights delayed (28,454 flights arrived late because of congestion at Newark in 1996). In 1997, La Guardia ranked as the second worst in the nation and JFK ranked ninth. The delays at Newark inconvenienced approximately four million passengers in 1996. The Administrator of the FAA, speaking about delays at Newark, stated that "[people] are terribly upset about the delays. [They] have missed appointments, missed conferences and missed connections."⁶ It is estimated that delays cost the airlines more than a billion dollars annually.

Relationship with Host and Neighboring Communities

With reference to P.L. 1993, ch. 336 §1(d), the Commission was tasked with determining the relationship between general aviation airports and their host and neighboring communities. The Commission has found the quality of this relationship to be one of the more important factors in determining the longevity of privately owned airports. These relationships range from very cordial to very hostile depending on the township, the persons in office or whether an airport improvement is proposed. Where this relationship is less than cordial, there is usually a lack of effective communication between the airport and the community officials. Community officials generally lack training in technical aviation matters and where there is a gap in communication misperceptions can flourish. This is sometimes exacerbated by the intentional dissemination of misinformation by community residents opposed to the proposed airport improvement.

There is also a general lack of awareness in communities of the economic and social benefits provided by general aviation facilities. Most municipal officials testified that airports had little or no economic value to their community. Some of the community's problems are self-induced. For example, many municipal representatives testified of conflicts resulting from their allowing residential development in close proximity to long established airports.

⁶ "U.S. To Remap Routes to Ease Air Congestion," *New York Times*, April 14, 1998.

New Jersey State Airport System Plan

With reference to P.L. 1993: ch. 336 §1(e), upon the establishment of the Commission, the Legislature accurately recognized the statutory responsibility of the State of New Jersey, acting through the Department of Transportation to develop, promote and regulate aviation in the State. However, the Commission discovered that New Jersey's planning mechanism has broken down. The NJDOT State Airport System Plan is incomplete and needs revision. The New Jersey Development and Redevelopment Plan does not even include a reference to the State Airport System Plan. Both of these plans will require substantial revisions to take into consideration the findings of the Commission set forth in this report.

The Proper "Mix" of Privately Owned to Publicly Owned General Aviation Facilities

With reference to P.L. 1993: ch. 336 §1(F), the Commission was tasked with determining the proper "mix" of private and public facilities, the feasibility of direct State intervention through outright purchase of the facilities, a public-private partnership in particular airports or other arrangements which would facilitate the preservation and expansion of the State's general aviation airports.

Airports are the sole method of transportation in New Jersey that remain privately held. Roads, railways, bus transportation, ports and publicly owned public use airports are all maintained with public capital. Unless some form of public support is brought to privately owned public use airports, New Jersey risks losing this vital means of transportation entirely. Fortunately, New Jersey may be able to preserve and improve this public service infrastructure without bearing the entire cost of doing so. Certain costs can be borne by Federal Aid Programs. Certain cost can continue to be borne privately.

The Commission concluded that the most cost-effective and timely arrangement to preserve the State's aviation system would be an agreement between the State and private airport owners. Such an agreement would provide that:

1. The State will pay all the costs, which are not paid by the federal government, to upgrade the airport to a modern facility.
2. The State will purchase, at fair market value, all the development rights of the land committed to the airport whenever the owner desires to sell them.
3. The State will give the private owner a financial incentive to remain in the airport business by assuring the owner a reasonable opportunity to develop airport business. This is accomplished by amending the Municipal Land Use Law to create an airport zone, which will include all of the airport land and where all uses reasonably compatible with an airport will be allowed (including maintenance and storage hangars, terminals, restaurants, car rental, overnight accommodation, air freight servicing centers, commercial offices, etc.).

4. The State will authorize the Commissioner of Transportation, in weighing approval or disapproval of an airport improvement, to make aviation safety the paramount concern over any competing concerns, including environmental concerns, particularly with regard to improvements such as the lengthening of runways and taxiways, the crossing of wetlands, or the removal of obstacles.
5. The State will exercise its power of eminent domain to add such land as is necessary to existing airports to make them safe, economically viable and environmentally compatible. The State will thereafter retain title to the land acquired in this manner and grant an easement to the airport owner for airport uses.
6. The State will not allow real estate taxes to be assessed on the portions of the airport that are committed to public use (including runways, taxiways, terminals, aircraft and car parking areas, driveways) and all undeveloped land perpetually committed to clear areas or future airport use.
7. The private owner will agree to commit all airport land to the airport use in perpetuity.

The Commission's recommendation is designed to avoid an outright purchase of New Jersey's aviation infrastructure. The Commission estimates that direct purchase by the State of general aviation airports would cost \$1.6 billion. Of this amount, \$235 million would result from condemning and purchasing existing aviation facilities.⁷ In certain areas, the State would have to also purchase land adjoining the airport as needed for improvements, estimated at \$1.125 billion.⁸ Actual improvements to aviation facilities would cost an additional \$250 million.⁹ While New Jersey can avoid substantial amounts of these costs altogether and delay incurring the balance of them for substantial periods, it will have to plan to spend those amounts required to defray the State's share to purchase development rights and adjoining land, and to make certain safety improvements.

While the federal government could be expected to contribute a portion of this amount, it may not be able to do so fast enough to preserve the general aviation system infrastructure. It is the Commission's estimate that if the federal government could provide 65 percent of the funds over a ten-year period,

⁷ The State's 34 privately owned general aviation airports contain 4,561 acres that, it is estimated, have a value of \$40,000 per acre, indicating a purchase price of \$182,440,000, as well as improvements at each of these airports which average \$1,500,000, combining for a total purchase price of \$233,440,000.

⁸ It is estimated that the minimum land needed for a safe, economically viable, environmentally compatible business aircraft airport is 800 acres. The 48 general aviation airports in New Jersey require 24,000 acres. They currently have 11,215. However, five airports (Teterboro, Trenton-Mercer, Milleville, Cape May and Allaire) already have 940 acres more than 800 acres each. Thus, 28,125 acres are needed at an estimated average cost of \$40,000 per acre, for a total estimated price of \$1.125 billion.

⁹ Estimated costs include runways at \$200 per foot and taxiways at \$100 per foot,

the total cost to New Jersey would be \$460 million over ten years or \$46 million per year. One benefit of this is that by preserving the present system of private ownership the State need not take over the cost of providing management and staff to operate these facilities. These airports already have fully-trained, highly dedicated management and staff in place. The State can anticipate the most efficient operation since private ownership would defray all costs except those for long-term maintenance of capital improvements, and customary public land maintenance expenses such as snow plowing.. Clearly, the recommendations provided above are prudent policy that give the greatest chance to improve the system at the lowest cost.

The Woodbine Airport would be a good thing for Woodbine, if it was enlarged. The town officials should really try to enlarge it. Larger planes would be able to use it. The planes would also bring tourist into town. They would buy things in stores in town, so the stores can make a larger profit it would provide more jobs for the townspeople....The planes would also bring more people to the shore.... Woodbine people would also be allowed to use the airport. We could use it for business or just pleasure rides. A larger airport would make ... a great starting point in making Woodbine better.

Hance J. Youmans
8th Grade - Woodbine Middle School
Essay: *How Would The Airport Help My Town*
[1998]

ECONOMIC BENEFITS OF GENERAL AVIATION AIRPORTS

Definition and Role of General Aviation

General aviation encompasses a wide range of air transport and offers a variety of services to the public. The term includes all categories of aircraft, including airplanes (Piper Cubs to corporate jets), seaplanes, helicopters, airships (blimps), balloons, gliders and experimental aircraft. Military airplanes and commercial airlines are not considered general aviation. Many businesses and individuals depend on the general aviation system, including large and small corporations, law enforcement agencies, medical services, aerial fire fighters, air charter transportation companies, organ donor flights and agricultural spraying.

The roots of today's corporate reliance on air transportation can be traced back to Charles Lindbergh's historic transatlantic flight. Today, the national general aviation fleet numbers over 187,000.¹⁰ This fleet flies approximately 26 million hours per year—nearly twice the total of the airlines' flight hours.¹¹ This is the equivalent of 5.2 million flights per year between New York and Los Angeles, or 7,123 round-trips per day. Nearly 50 million more passengers fly on general aviation aircraft each year than fly on American Airlines, the nation's largest and most traveled airline.¹²

The General Aviation Manufacturers Association (GAMA) calculates that 70 percent of all general aviation flights are flown on business trips.¹³ Over 5,500 public use airports across the country make general aviation a quick and convenient means to conduct business travel. By contrast, there are only 550 airports that serve scheduled air carriers.¹⁴ Of these airports serving carriers, only about 55 have frequent and convenient airline service. Business travelers using airline service must often rely upon a hub and spoke system of connecting flights to reach their final destination. Business travelers using general aviation have direct flights. This fact helps explain why there are currently 6,335 jet aircraft in the business aircraft fleets¹⁵, approximately equal to the number of jet aircraft of the major airlines and regional air airlines.¹⁶ Thus, companies using general aviation aircraft are able to reach ten times

¹⁰ Exhibit 11C, *1998 NBAA Business Aviation Fact Book 1998*, page 22.

¹¹ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, President's Letter.

¹² Exhibit 11B, *1997 NBAA Business Aviation Fact Book*, page 24.

¹³ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, page 23.

¹⁴ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, page 24.

¹⁵ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, pages 18-20

¹⁶ There are approximately 4,481 jet aircraft in the fleets of the major airlines and 1,806 in the fleets of the regional air carriers.

the number of airports that are served by scheduled airlines and 100 times the locations that have frequent airline service.¹⁷

General aviation is a \$17 billion industry with an economic impact of more than \$51 billion.¹⁸ This figure is more than ten percent higher than the \$43.9 billion in domestic passenger revenues for commercial airlines in the U.S. during 1991.¹⁹ The United States is the world leader in business aviation, having 64 percent of the world's business jets and 56 percent of all turboprops based in this country.²⁰ Yet the owners of these aircraft also purchased \$11 billion worth of airline tickets in 1994.²¹ Speaking at the 50th annual National Business Aircraft Convention in Dallas in September 1997, the Chairman of American Airlines stated that general aviation and the airlines of America are "partners" in providing America with air transportation services. He stated that America needs both forms of air transportation for an adequate and efficient air transportation system.

General aviation and the major airlines have therefore become necessary adjuncts to one another.

Business Aviation

Twenty years ago, business aviation was generally perceived as a corporate status symbol. That is no longer the case today. Aircraft have become an essential tool in business travel. Today, companies both large and small, and individuals that use aircraft as a tool in the operations of business, rely on business aviation. Many of America's largest corporations maintain their own fleet of turbine-powered aircraft and employ their own flight crews, maintenance technicians and other aviation support personnel. Their purpose in doing so is to increase the productivity of their administrators. This was apparent in the rapid (38 percent) growth of corporate flight departments during the corporate "right sizing" movement in the recession in the early 1990s. Corporations were compelled to reduce expenses. To do this, they reduced the numbers of their administrators and added flight departments. With fewer executive staff to do the same amount of work, each one had to do more of it. Their business aircraft enabled them to do so.

Aircraft ownership is not a prerequisite to benefiting from business aviation. Although individuals or companies own the majority of business aircraft, businesses also utilize business aviation through arrangements such as chartering, leasing, time-sharing, interchange agreements, partnerships, fractional ownership and management contracts.

¹⁷ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, President's Letter.

¹⁸ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, President's Letter.

¹⁹ Exhibit 9, *The Economic Impact of Business Aviation on the National Economy*, pages 2-1, 2-2.

²⁰ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, page

²¹ NJGASC 11/28/95, page 5.

Uses of Business Aircraft

Many large companies depend upon business aircraft to transport employees, customers and cargo to a variety of locations, both domestic and international. Often business aircraft are utilized to bring customers to company facilities. The chairman of New Jersey-based Inductotherm illustrated to the Commission the benefits that general aviation aircraft bring to his business. Inductotherm uses its Learjet to bring potential customers to its corporate headquarters in Roncoocas, New Jersey. He indicated that every time the company has done so, a deal has closed.

The Commission also heard testimony about the use of general aviation aircraft to transport component parts to and from New Jersey. Many businesses depend upon receiving and sending shipments via general aviation airports. This follows a long tradition. During the Second World War, New Jersey was known as the “Component State” for its central role as a producer and shipper of component parts for the war effort.²² Today, the timely delivery of these parts has risen to a new level of importance. The operation of assembly lines around the world depend on them. The cost of using general aviation aircraft to make these deliveries is a small fraction of the cost of shutting down the line for want of the part.

Benefits of Business Aviation

According to the National Business Aircraft Association, the benefits of using business aircraft fall into ten categories:²³

- (1) Time Savings: Business aircraft reduce not only flight time, but also total travel time, by providing point-to-point service and by their ability to utilize smaller airports closer to final destinations. In addition, the office environment of a business aircraft allows travel time to become more productive.
- (2) Flexibility: People who travel by business aircraft do not have to alter their schedules to conform to those of commercial carriers. Consequently, they have the freedom to change course en route and leave and arrive according to their own schedules.
- (3) Reliability: Business aircraft are engineered and built to the highest standards, and companies that maintain their own aircraft have complete control of the readiness of their fleets.
- (4) Safety: In recent years, business aircraft have compiled an outstanding safety record that is comparable to, or better than, that of the scheduled commercial airlines.

²² Cunningham, John T., *New Jersey: America's Main Road*, Doubleday & Company (1966).

²³ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, pages 3-4.

(5) Improved Marketing Efficiency: Business aircraft extend the reach of the sales force and can quickly and easily bring customers to the point of sale.

(6) Facilities Control: Business aircraft help management extend its control by facilitating personal visits to remote company sites.

(7) Personnel and Industrial Development: The mobility that business aircraft provide company employees can accelerate training, orientation and teamwork.

(8) Privacy and Comfort: Conversations on business aircraft are confidential, and cabins can be configured to accommodate virtually any special needs of passengers.

(9) Efficiency: Business aviation enables a company to maximize its two most important assets: people and time.

(10) Security: A company that uses business aviation controls all aspects of its air travel, including the visibility of its employees on sensitive missions.

Some of the intangible benefits of business aviation, including enhanced management productivity and better customer relations, may be difficult to quantify but are no less significant to a company than direct financial returns on investments.²⁴

The National Business Aircraft Fleet

In the United States, 7,611 companies operate 11,798 turbine-powered aircraft, of which 6,335 are corporate jets.²⁵

The Commission heard testimony from Mr. John W. Olcott, a New Jersey native and president of the National Business Aircraft Association (NBAA). NBAA is the primary organization representing operators of business aircraft. The NBAA represents 4,700 member companies, which own or operate more than 6,000 general aviation aircraft. NBAA member companies employ more than 16 million people worldwide and generate annual revenues of \$3 trillion, or about half of the U.S. gross national product.

Mr. Olcott presented the Commission with two studies that confirmed the economic importance of

²⁴ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, pages 3-4.

²⁵ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, page 18, 20.

general aviation to the business community. The studies, and their results, are as follows:

Arthur Anderson & Co.

The Arthur Anderson study analyzed the financial characteristics of 766 companies over a five-year period immediately following the purchase of a turbine powered aircraft. On average, the study found that medium sized companies (with gross revenues of at least one billion dollars) experienced a seven-percent greater sales growth in the years following their purchase when compared to companies that did not purchase an aircraft. Additionally, Arthur Anderson looked at earnings per share of companies that purchased airplanes compared to the average of Value Line companies over the same period. Again, they found that on average, companies that purchased aircraft had significantly higher growth earnings per share growth than the non-purchasing companies.

Study of Fortune 500 Companies

The top 50 companies with the highest returns in capital gains or dividends to shareholders over the preceding ten year period, were studied as well. Of those companies, 46, or 92 percent are operators of business aircraft. Over the last four years, nine out of every ten companies on this honor roll have been operators of business aircraft. Additionally, 80 percent of companies that have maximum sales per employee have business aircraft.

The finding of this study was confirmed when the Commission also reviewed one of the indices developed by *Business Week*, which classifies companies with maximum sales per employee as “productivity pacesetters.” Eighty percent of these companies are operators of business aircraft.²⁶

In its *1998 Business Aviation Factbook*, the NBAA cites a study, performed by Aviation Data Service (AvData) of Wichita, Kansas, which showed, among other things, that there were more than twice as many aircraft-operating companies as non-operators among the *Fortune 500*; that operators of business aircraft, as a group, employ more than 16.8 million people; non-operators (of aircraft) employ 3.6 million. The net income of all operators was \$261 billion in 1996; non-operators’ total income in 1996 was just \$40 billion.²⁷

Furthermore, a 1997 survey of chief pilots and business aircraft passengers conducted by Louis Harris & Associates, Inc. shows that of 60 percent of those surveyed use business aircraft to support efficient schedules and over 25 percent use them to reach remote locations not served by any scheduled airline.²⁸

²⁶ NJGASC, 11/28/95, pages 8-10.

²⁷ Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, page 17.

²⁸ Exhibit 11C, *Business Aviation Fact Book, 1998* (National Business Aircraft Association), page 4.

New Jersey enjoyed a greater amount of intercolonial travel than any other part of America. The result was a wider tolerance and a greater interest in affairs beyond the immediate locality. Travelers commented upon the good natured liberality of the native Jerseyman. Gradually the Puritanism of the northern towns broke down and the general cultures of East and West New Jersey became more and more alike. In the colonial period as well as later, New Jersey was literally a melting pot in which fused a culture more typically American than that of New England or the South.

Wheaton J. Lane
From Indian Trail to Iron Horse

GENERAL AVIATION IN NEW JERSEY

Economic Benefits of Business Aircraft to New Jersey

According to the National Business Aircraft Association (NBAA), of the \$48.9 billion economic impact nationally, approximately \$1.7 billion is generated in New Jersey alone. However, the NBAA President testified that the figure of \$1.7 billion “is the tip of the iceberg” and “does not factor in the importance of general aviation to our State. Those numbers do not take into consideration the fact that AT&T has its headquarters in Northern New Jersey, perhaps in part because they have access to the excellent services that their general aviation airplanes can provide out of Morristown.”²⁹

New Jersey general aviation airports provide a home base for business aircraft of many major companies. AlliedSignal, BASF, Schering-Plough, Union Camp, American Home Products and Warner Lambert maintain flight departments at Morristown Airport. Hoffman-LaRoche, Barnes & Noble, Becton-Dickinson, Colgate-Palmolive, Metromedia, Loews Corporation, Philip Morris and Sony Aviation maintain flight departments at Teterboro Airport. Ronson Aviation, Unisys Corporation, Amerada Hess, Dow Jones, Johnson & Johnson, Pfizer Inc. and Merck have flight departments at Trenton-Mercer Airport.

Businesses tend to locate their headquarters or plants near airports. When a business purchases an aircraft, the investment is justified only if it can base the aircraft at an airport with facilities enabling it to use that aircraft year round, regardless of weather. Thus, the threat posed to New Jersey is that a declining aviation support system could lead to businesses deciding to relocate to states that provide a more stable general aviation system and infrastructure. This is a fact that competitor states are exploiting. Several sister states are vigorously developing their airport systems to attract major companies from New Jersey to relocate within their own borders.

Economic Impact of General Aviation Airports in New Jersey

Coinciding with the Commission’s study, the New Jersey Division of Aeronautics commissioned the Airport Technology and Planning Groups, Inc. (AirTech) to study and assess the economic impact of general aviation airports in New Jersey. AirTech determined that the economic impact of general aviation airports to the State is \$1.3 billion.³⁰ According to AirTech’s report, *Economic Impact of New*

²⁹ NJGASC, 11/28/95, page 11.

³⁰ The Airtech estimate of \$1.3 billion dollar total economic impact differs from NBAA’s \$1.7 billion in that it did not include general aviation figures for Newark International or Atlantic City International.

Jersey's General Aviation Airports, "Over 70,500 total jobs in the State of New Jersey are related to the daily operations of the State's general aviation system."³¹

The report also analyzed secondary impacts³² on each of the nine sectors in the statewide economy. General aviation increased construction activity by \$100 million of output and 1,096 jobs; manufacturing was increased by \$103 million of output and 500 jobs; and Finance/Insurance/Real Estate was increased by \$70 million in output and 370 jobs.

The two major air carrier airports in New Jersey, Newark and Atlantic City International, were excluded from this study. 4.7 percent of Newark's operations include general aviation, and the economic impact of Newark and Atlantic City is \$8.6 billion.³³ If the impact of general aviation on Newark and Atlantic City had been included, total economic impact approximates the NBAA estimate of \$1.7 billion set forth above. For consistency, the economic impact attributable to the airline operation at Trenton-Mercer airport was also excluded. In computing the secondary impacts, AirTech used IMPLAN multipliers, which are generally accepted as both conservative and reliable.

In a survey of 5,000 non-aviation businesses throughout the State, 54 percent of the respondents indicated that their company, owns, leases, or charters general aviation aircraft. Over 42 percent of the respondents indicated that they have customers or suppliers who travel by general aviation to visit the surveyed company.³⁴ Likewise, 42 percent of respondents indicated that a general aviation airport was "Essential" or "Important" in their decision on where to locate.³⁵

Operations at New Jersey's General Aviation Facilities

There are more than 4,200 general aviation aircraft based in New Jersey, with over 2.3 million annual general aviation aircraft operations recorded.³⁶ Approximately 766,000 of those operations are transient, involving a travel length exceeding 150 miles.³⁷ With each takeoff and each landing considered an "operation," there are 383,000 transient flights to New Jersey.³⁸ Each transient flight carries an average of 3.6 persons with business as the main purpose; 2.3 persons for personal and pleasure flights; and approximately 5.5 persons per aircraft at the larger corporate airports.³⁹ The

³¹ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 3.

³² See generally Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 11, for a definition of this term.

³³ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 3.

³⁴ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 50.

³⁵ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 51.

³⁶ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 27.

³⁷ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 15.

³⁸ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, pages 15-16.

³⁹ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 15.

average visitor remains in the vicinity of the airport 1.5 days. While a pleasure traveler spends an average of \$85 per day, a business visitor typically spends \$175 per day.⁴⁰ In 1994, the State's general aviation airports accommodated 842,400 visitors, representing 1,263,600 visitor days.⁴¹

As of 1997, 201 of the 11,798 turbine business aircraft (6,335 jets and 5,463 turboprops) in the U.S. were located in New Jersey.⁴² This means New Jersey attracts less than two percent of the nation's fleet of heavy-duty business aircraft. New Jersey's business fleet includes a greater percentage of jets as compared to turboprops.⁴³ The majority of New Jersey's business fleet is located at Teterboro and Morristown Airports. Teterboro is widely regarded as a leading corporate airport, ranking eighth nationwide in the number of general aviation operations, while Morristown Airport ranks eleventh in general aviation operations, and Essex County Airport ranks 16th.⁴⁴

The Impact of General Aviation Airports on Northern New Jersey and the New York Metropolitan Area

The manager of Newark International Airport provided testimony regarding the vital role general aviation facilities and Newark International, John F. Kennedy International and La Guardia Airports play in the bi-state region's economic picture. In addition to the important role of general aviation facilities within the State, the Port Authority recognizes the significant impact general aviation has on air carrier operations at the region's major airports.

The region's major airport facilities accommodated over 1.1 million aircraft operations, 77 million passengers, supported over 222,000 jobs, and generated \$25 billion in direct economic activity in 1996. However, the Port Authority is consistently faced with the problem of demand exceeding capacity. The necessary response is to increase capacity by expanding the physical airfield at these facilities. Unfortunately, the Port Authority reported that any growth at the bi-state region's airports is hampered by both spatial and environmental constraints - real estate is limited and sensitivities to airline aircraft noise mitigate against building either new airports or new runways at existing airports.⁴⁵

As a positive result of the current availability of New Jersey's general aviation airports to serve as relievers for Newark, less than five percent of the operations at Newark involve general aviation. This allows the larger airports to use their resources in the most economical way. However, the Port

⁴⁰ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 16.

⁴¹ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 27.

⁴² Exhibit 11C, *1998 NBAA Business Aviation Fact Book*, page 20.

⁴³ Exhibit 11B, *1997 NBAA Business Aviation Fact Book*, page 18.

⁴⁴ Exhibit 11C, *1997 NBAA Business Aviation Fact Book*, page 26.

⁴⁵ NJGASC, 3/27/96, pages 214-216.

Authority stated that any continued loss of general aviation facilities in the region would result in more operations at Newark, and likely cause staggering delays.

In 1996, Newark International Airport had the worst record of any airport in the nation for delays in scheduled airline service. That year, 28,454 flights arrived late due to congestion at Newark. In fact, with the exception of one year, Newark International Airport has been the worst airport in this category in the nation since 1991, with an average of six to nine percent of its total flights delayed. La Guardia (with 4.5 percent of its flights delayed) is ranked third in the nation for delays and JFK is ranked sixth (with 3.3 percent). The longest delays occur during bad weather when the system can process only 38 aircraft per hour at Newark (compared to the 60 per hour during good weather). The delays at Newark inconvenienced approximately four million passengers in 1996. Delay minutes cost the airlines more than a billion dollars annually.⁴⁶

The Port Authority recognizes that efforts must be focused on maximizing the use and the continued improvement of existing general aviation facilities in the area since general aviation traffic, and the airports that accommodate it, are important contributors to the economy, safety and security of the bi-state region.⁴⁷

Benefits of New Jersey's Airports Compared to Other States

The Airport and Technology Planning Group, Inc. (AirTech), has concluded, as a result of general aviation studies done in 20 different states, that the ratio of economic benefit derived by the New Jersey general aviation system far exceeds that of most other states.⁴⁸ The studies conclude that New Jersey has some of the most economically beneficial general aviation airports in the country. For example, Pennsylvania has 150 airports in their general aviation system with approximately 6,000 jobs related to the industry, compared to the 16,000 jobs generated from only 28 general aviation airports in New Jersey.⁴⁹ This means that every airport New Jersey can maintain or add to its general aviation system contributes at least 571 jobs in the State.

New Jersey has a unique business use for its general aviation airports as compared to other states, according to AirTech. Approximately 43 percent of all New Jersey's business activity is intrastate, from one airport to another, while 57 percent provides service to destinations outside the State. The inference is that general aviation is serving as an alternative mode of transportation in a state that faces a lot of highway congestion.⁵⁰ With aviation, two miles of asphalt allows people to travel from

⁴⁶ "Newark No. 1 As Airport With Most Delays" *The Sunday Star Ledger* 1997.

⁴⁷ NJGASC, 3/27/96, pages 214-216.

⁴⁸ NJGASC, 3/26/96, page 66.

⁴⁹ NJGASC, 3/26/96, pages 76-77.

⁵⁰ NJGASC, 3/26/96, page 64.

Cape May to Teterboro.

Importance of Airports in Corporate Location Decisions

The presence of a suitable general aviation airport is an important consideration for corporate CEOs in their decisions to locate or relocate companies, according to the NBAA. Air transportation has become so important to some companies that they locate their business operations on an airport to create an immediate interface between their operations department and their aviation department. Locating on or near a general aviation airport allows companies to more effectively promote their products and services by providing immediate access to their in-state or out-of-state facilities for potential clients. Many companies participating in this type of sales practice have determined that the flight department more than pays for itself from the increased business that results from this service.⁵¹ Companies such as MetPath and the Federal Reserve Bank, located near Teterboro Airport, and Inductotherm, in Roncoas, which has installed its own runway near its factory, are examples of such companies.

The airport facility itself is another factor involved in corporate relocation decisions. One company, discussed by Mr. Olcott of NBAA, relocated from New York City, with its aircraft at Westchester Airport, to Allentown, Pennsylvania. The congestion at Westchester Airport was one of the reasons cited for relocation. New Jersey was originally considered as a potential home for this company, however, the State does not house an airport suitable for the company's business aircraft. Pennsylvania apparently presented the most suitable airport for its business aircraft. Thus the aircraft, the company and its jobs all moved to Pennsylvania.⁵²

Social Benefits of General Aviation Airports in New Jersey

The Commission has concluded that a community that has a general aviation airport benefits far more from it than does the actual airport owner. New Jersey's airports provide benefits to communities without providing any economic reward to airport owners. In the study of economics, these benefits are recognized as "public benefits" or "public good," for which a charge or fee is nearly impossible to collect. Consider the example of a marching band parading down a public street. People have a right to use the public sidewalk for free. All who do, receive the benefit of the band's entertaining music. Shopkeepers along the street do more business since the band attracts an audience. The people in the audience enjoy uplifted spirits and the families of the shopkeepers enjoy more purchasing power. This purchasing power, in part, is expended again with the shopkeepers. However, the bandleader can neither charge nor collect any income for the great benefit she has provided. A general aviation airport provides public benefits of a very similar nature. It contributes to the quality of life and it improves the local economy for both its host and its neighboring

⁵¹ NJGASC, 11/28/95, page 20.

⁵² NJGASC, 11/28/95, page 12.

communities.

While not generally aware of the benefits general aviation airports bring to the community, the public would certainly notice their absence. The Commission heard extensive testimony indicating that general aviation airports facilitate many community-related activities and services, including educational opportunities, preservation of open space, woodlands, wetlands and help facilitate medical and fire emergency services. Below are some leading examples of how communities benefit from general aviation airports.

Preservation of Open Space

General aviation airfields give municipalities the opportunity to preserve open space, a problem becoming increasingly more pressing with the growth of the State. During the Commission's hearings, not one municipality indicated that it would prefer its airport to be a residential or commercial development. In the more rural municipalities, this benefit may not be appreciated fully since the areas surrounding the airports are typically farmland. However, the densely populated municipalities hosting an airport were unanimous in the desire to avoid another housing development.

The Hopewell Township Mayor testified that new houses in his community would need to have assessments in the \$400,000 to \$500,000 range in order for the Township to break even on the municipal services: sewers, schools, roads, fire and police protection, etc.⁵³ According to the Readington Township Administrator, new homes on average add up to an annual \$20,000 loss to the municipality.⁵⁴ Citing similar examples, the Mayor of Montgomery Township wants to make sure that their airport remains an airport.⁵⁵ In Alexandria Township, the Deputy Mayor provided similar testimony, stating that every new house developed in Alexandria amounts to a loss for the municipality, while noting that their airport provides the welcomed open space for the community and wildlife.⁵⁶

Benefits to New Jersey Travel and Tourism

Tourism and travel related services are New Jersey's second largest industry, creating 623,000 jobs and a total economic impact of \$12.9 billion.⁵⁷ Three privately owned public use New Jersey airports currently serve as the locations for two balloon festivals and an airshow. These serve to enhance the economic development of their surrounding communities. In 1997 there were 8,147,000 trips to New

⁵³ NJGASC, 5/28/96, page 127.

⁵⁴ NJGASC, 3/27/96, page 175.

⁵⁵ NJGASC, 3/27/96, page 68.

⁵⁶ NJGASC, 3/27/96, pages 141-142.

⁵⁷ Exhibit 197, Longwoods Study, "New Jersey 1997 Travel Year, Governor's Conference on Tourism, March, 1998.

Jersey for special events such as these⁵⁸

Benefits of General Aviation in Education and Social Work

The Commission received testimony from Mr. Jerry Iacona, of the New Jersey Aviation Education Council ("Education Council"). As an elementary school teacher for twenty-five years, Mr. Iacona addressed the specific educational benefits he has had the opportunity to witness through the use of New Jersey's general aviation system.

The Education Council uses the study of aviation as a means to energize children's interest in general learning. Using the State's general aviation facilities to promote learning is an integral part of any educational program. It is the Education Council's experience that most children only have the chance to observe airplanes from the ground, but if they are given the opportunity to sit in a cockpit, the knowledge that they have acquired is actually put to use through hands-on experience. By having general aviation facilities throughout New Jersey, aviation as a field of study for children is readily available for schools to provide field trips to these facilities and capture the interest of New Jersey's youth. These field trips allow children to put the paper knowledge to use and learn about the subject as a first hand experience.

The Education Council has incorporated the study of aviation in school programs at all levels. While the attraction of flying through the air is a common interest for many young children, this interest can be introduced at the elementary educational level and developed through the study of aerospace technology in higher levels of education. Programs have already been devised and implemented with this particular idea, such as the program at Chatham High School, SOAR and Adopt-A-School.⁵⁹

The Commission also had the opportunity to receive testimony from Reverend Russell White, founder of Eagle Flight. Similar to the mission of the Education Council, the Eagle Flight program was created to encourage inner-city youths in East Orange and Newark to develop trade, educational and manual skills, as well as to help build character in its students through the use of general aviation. Reverend White (he encourages his children to call him "The Rev") holds aviation out to his children as an incentive to stay in his program. All children in the program are required to abstain from all drugs and alcohol, to finish high school, to spend part of their free time working on the squadron's facilities (including washing the squadron's aircraft) and drilling for march competitions. A recent survey of former Eagle Flight students revealed that 96 percent of Eagle Flight students completed their high school education, with 32 percent fulfilling the necessary requirements for a bachelor's degree in post secondary institutions. All of the students who had completed high school enrolled in

⁵⁸ Exhibit 197, Longwoods Study, "New Jersey 1997 Travel Year, Governor's Conference on Tourism, March, 1998.

⁵⁹ NJGASC, 1/20/96, page 91.

college or received additional training in the military or vocational/technical studies.⁶⁰ Furthermore, “by requiring scholastic proficiency to be active in the squadron, Rev. White’s former cadets have had amazing success in the field of aviation. More than 2,000 students have passed through the program in 23 years. Approximately 19 have gone to the Air Force Academy, 37 have become commercial pilots, 190 attended aviation schools and 259 are working in aviation related positions.”⁶¹

The leaders of the Educational Council and Eagle Flight Squadron Incorporated have experienced the excitement that general aviation has brought to the traditional academic setting. This type of encouragement is essential to assist in the development of a student’s interest in learning and teach him or her how to succeed. The New Jersey’s general aviation facilities assist in this process. The location of the current system of airports in the State allows the entire State to benefit through these programs. If there is an airport in close proximity to schools participating in these programs, the possibility of using aeronautics to educate New Jersey’s youth is limitless. The loss or elimination of any additional airports within the State would certainly jeopardize the educational opportunities and exposure that these airport facilities provide to New Jersey’s children.

Benefits to State Infrastructure

General aviation airports support news, traffic and weather reporting in communities throughout the State. Many communities have developed integrated, computerized mapping of census, demographic and infrastructure data through the use of Geographic Information Systems (GIS), which requires aerial photography through general aviation.⁶²

Benefits to Law Enforcement and Emergency/Rescue Services

Local, State and federal law enforcement agencies use many of New Jersey's general aviation airports for traffic surveillance, drug enforcement and prisoner transport. New Jersey's general aviation airports are also routinely used by the Civil Air Patrol, an aeronautical cadet program for young adults ages 13-21, which is an official auxiliary of the United States Air Force. The cadets participate in search and rescue efforts, communications, damage assessment, dike construction and disaster relief missions for other agencies such as Federal Emergency Management Agency and the Red Cross.⁶³

Benefits to Aerial Fire Suppression

General aviation airports also serve a valuable role in New Jersey’s Aerial Fire Suppression Systems, which is one of the most cost-effective in the nation. To fight fires in northern New Jersey, a standard mission would originate from Andover Airport, proceed to the fire and then refill at the closest participating airport. Typically, local volunteer fire departments supply water to the aircraft using

⁶⁰ NJGASC, 5/28/96, page 33.

⁶¹ *Propwash*, Aviation Hall of Fame Museum of New Jersey, 1998.

⁶² Exhibit 26, *Economic Impact of New Jersey’s General Aviation Airports*, page 47.

⁶³ Exhibit 26, *Economic Impact of New Jersey’s General Aviation Airports*, page 47.

tankers and pumpers. The availability of local fire fighters and equipment determines how quickly a second drop can be made. Further collaborations between municipalities and general aviation airports could result in more sophisticated emergency plans that could be implemented in the event of brush or industrial fires.⁶⁴

Aerial Fire Suppression has played a key role in efforts to control several difficult fires in the State. During the Summer of 1994, two planes operating out of Somerset Airport assisted in the efforts to battle a forest fire by dropping 275 gallons of water every eight minutes.⁶⁵ The planes, Ag-Cat type aircraft, can cruise at 120 mph and cost about \$112.00 per load to operate or approximately \$.41 per gallon of water dropped. Fire Chief Jack Reeves of the Union Hook & Ladder Company in Far Hills praised the effectiveness of aircraft flying out of Somerset Airport, aircraft that helped save condominiums threatened by the brush fire.⁶⁶ The United State Forest Service has also recognized the importance of aerial fire fighting, and bases several aircraft in the sensitive Pine Barrens' region.⁶⁷

Benefits to Emergency Medical Transport

Physicians, hospitals and medical centers throughout the State utilize the general aviation system. Patients and accident victims, medical supplies and equipment, and human organs are routinely transported through New Jersey's general aviation system.⁶⁸ In addition, there are opportunities where general aviation airports and communities are able to work together to develop a more efficient coordination of their combined services with the potential to dramatically improve the response time in medical emergencies. This is possible by co-locating emergency medical units, fire stations and police stations on airport facilities.

Recreational Benefits of General Aviation

The recreational benefits of general aviation are important to the citizens of our State and cannot be underestimated. New Jersey is home to more than 7,000 licensed pilots who engage in an activity that is the stuff of humankind's most ancient dreams and desires. It runs as a common

⁶⁴ NJGASC, 11/28/95, page 35.

⁶⁵ NJGASC, 11/28/95, page 38.

⁶⁶ NJGASC, 11/28/95, page 39.

⁶⁷ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 165.

⁶⁸ Exhibit 26, *Economic Impact of New Jersey's General Aviation Airports*, page 48.

thread through all cultural traditions. Yet even Leonardo di Vinci, who designed airfoils in the Renaissance and understood the principles of flight through the air, could not realize that dream. Today, the ancient dream is a daily reality at our general aviation airports. For our citizens who are pilots, or for those who desire to become pilots, general aviation airports are an indispensable element of their quality of life in New Jersey.

"Thy inhabitants, O State, are respectable-thy senators are wise-thy militia is formidable-and thy daughters are fair; but some of thy ways are bad. Whoever travels the road from Stony-Brook steep, to Rocky Hill, in a wheel carriage does it at the hazard of his life. Thy public ways call loudly for amendment."

"A Traveler "

Letter to the people of New Jersey

New Jersey Journal [October 2, 1793]

PROBLEMS FACING NEW JERSEY'S GENERAL AVIATION SYSTEM

HISTORICAL ATTRITION OF NEW JERSEY AIRPORTS

New Jersey currently has 48 general aviation airports. The State has lost 53 public use airports since 1952. Since 1952, airports in New Jersey have been closing at the rate of one per year. Given the vital role that airports play in the New Jersey economy and transportation infrastructure, the most important questions facing this Commission are why and whether this trend will continue.

New Jersey cannot afford to lose another airport. Once an airport is closed, there is no chance that it will ever reopen. The sight of a former airport is subdivided and developed, making the return of the airport impossible. Because of the high expense and social resistance to building new airports, existing airports are commodities that are virtually irreplaceable. Of the 53 airports to close since the 1950s, all but one were privately owned, public use airports. Despite this loss, 68 percent of New Jersey's surviving public use airports remain privately owned; this is the second highest percentage in the Commission's Sister State Survey.⁶⁹ The health of New Jersey's remaining privately owned, public use airports, therefore, becomes a paramount concern.

REASONS WHY NEW JERSEY'S AIRPORTS HAVE CLOSED

The Commission conducted a survey of former airport owners to determine the reasons for closure. In addition, the Commission conducted a separate survey of all present airport owners -both public and private- to determine what state of facts exist presently, if any, which might with the passage of time cause them to close their airport. In many instances the problems that overwhelmed the former airport owner, and the concerns and problems of the present airport owners, are the same.

In exploring factors causing airport closure, the Commission first explored and then rejected the theory that closures resulted from a lack of demand or need. General aviation, as a whole, and business aviation in particular, have expressed the need for additional facilities and look for improvements to existing facilities. This need for a larger, comprehensive general aviation system is far greater now than it was in the 1950s, when the number of general aviation airports in the State peaked. In addition, testimony provided by airport owners often cited the need for additional hangars and more capacity, rather than any lack of demand for their services.

The Commission has identified several contributing factors to the closure of New Jersey's general aviation airports. These factors, explored in detail below, include:

⁶⁹ NJGASC Sister States Survey, Appendix C.

INSUFFICIENT NET INCOME AND POOR RETURN ON INVESTMENT

The majority of airport owners testified that it is the love of aviation, not financial reward, which keeps them in operation. As evidence, many of the owners cited low rate of return on the capital invested in the airport facility and insufficient net income. Factors causing low net income included: (1) high property taxes; (2) significant costs associated with regulatory compliance; and (3) the inordinate expense and resistance of municipalities when attempting to expand or improve an airport. Inadequate return on investment is further substantiated by the fact that not a single new airport has been established in New Jersey in the last 20 years, while many airports have closed.⁷⁰

The Commission found no evidence of any community in New Jersey giving financial support to its privately owned public use airport, even though the benefits brought to the community by the airport outweigh the actual costs the community incurs from hosting the airport. Nor does the great economic benefit that the airport brings to the community provide a reciprocal economic benefit to the airport owner.⁷¹ Yet, it is the owner's personal business economic gains or losses that determine the long-term viability of an airport in a community. Private airport owners cannot continually endure the expense of providing airports that only benefit the public.

For example, Charles Kupper, of the former Kupper Airport, testified that the only moneys coming out of his airport is the salary to his son, Peter, who is airport manager and operator.⁷² Solberg Airport co-owner, Thor Solberg, testified that "[t]here needs to be a way of compensating the owner of the property for whatever its development right is compared to what its value is as an airport. If that were done, either through transfer of development rights or a purchase of development rights, then you would have good economic incentive for people to remain in the airport business . . . and to make it flourish."⁷³ Charles Searock, vice-president of South Jersey Regional Airport, confirmed that his airport participated and benefited from the transfer development rights program.

Ed Brown, owner of Allaire Airport, stated, "no sizeable airport can be economically viable if it pays taxes on runways and taxiways and its only source of income is directly aviation related. It must participate in the economic benefit it provides to the area in either or both of two ways: (1) recognition of its public benefit by tax relief on public use portions; and (2) the airport must generate income from the industry and development it has attracted."

Increasing Land Values and Residential Development

The majority of airports that have closed in New Jersey since the 1950s became sites for new

⁷⁰ Exhibit 39. Last licensed airport was in December 1982 for Oldman's Airport.

⁷¹ NJGASC, 3/26/96, page 96.

⁷² NJGASC, 3/12/96, page 42.

⁷³ NJGASC, 11/28/95, page 74.

residential or industrial development. None of these airports has reverted to farm use or returned to wetlands or swamps from which they were claimed. Several closures were precipitated by the death of an owner or partner, whose heirs were not interested in continuing an airport business.

The available evidence strongly suggests that privately owned, public use general aviation facilities are closing because the owners receive a relatively low return on the large amount of capital tied up in the real estate. As the most densely populated state in the nation, and considering its proximity to New York City and Philadelphia, New Jersey is home to very valuable real estate. Real estate values have skyrocketed in the past two decades and airport owners have seen a dramatic appreciation of the value of their land. This might have been immaterial were the airport operations generating a return on capital commensurate with the increased capital value of the real estate. However, this is not the case. Airport owners are continually tempted by opportunities to "cash in." Residential and commercial land developers continuously make offers to purchase. They provide the owners with a chance to finally transform their asset base from airport real estate into one that will give a fair return on capital.

It is obvious that airport owners, earning less than five percent on their capital, can earn much greater net income by selling their real estate, paying capital gain taxes and reinvesting the balance in the public money markets. Princeton Airport co-owner Ken Nierenberg stated that, as owners, they are not making a return on their real estate investment equivalent to what they could get at a bank earning eight-percent interest.⁷⁴ The banking scenario is idyllic: more income no labor. Thus, it is not surprising that many airport owners mentioned this alternative as a significant economic threat to continuing an airport's operations.

Burden of Real Estate Taxes

The real estate tax burden was the major reason given for airport closures by former airport owners. It is also a major problem for current airport owners. Property taxes are related to, indeed a function of, the airport owner's high capital investment in land and improvements. While the owners' income from the airport is negligible, the land and improvements on it are quite valuable. The airport's land is appraised for its highest and best use. The airport's improvements—runways, taxiways, ramp areas, terminals, public parking areas, and the like—are also very valuable. Ironically, an airport owner who cannot afford to improve her runways, but who accepts State Grant or Federal AIP funding, may find the taxes assessed on just the improvement absorb her entire net income. The taxes under this treatment are an onerous burden. Vineland-Downstown Airport stated that "[r]eal estate taxes are always a hardship, we are not planning any new improvements because of the taxes."

Somerset Airport pays \$62,400 per year in property taxes.⁷⁵ Allaire Airport pays over \$500,000

⁷⁴ NJGASC, 11/28/95, page 105.

⁷⁵ NJGASC, 1/30/96, page 105.

annually in local real estate taxes.⁷⁶ Twin Pines Airport owner, William Weisner, testified that his property taxes increased from about \$5,000 to \$18,000 in just one year, in 1995.⁷⁷ Therefore, the privately owned airports, which are the most vulnerable, are also the ones upon which the State loads the heaviest tax burden. Charlie Kupper, of Kupper Airport testified, “We need relief with real estate taxes . . . As I said, it costs me between \$5,000 and \$6,000 just to open the door every week. The airport is not going to live. It is going to die. General aviation is going to die for privately owned airports.”⁷⁸

The State has addressed similar tax related issues as they apply to other industries. A case in point is the farm industry. Twin Pines Airport owner, William Weisner, testified that the legislature should initiate “some kind of tax relief like farmers get, or exempt all airports, because we do not make money on runways.”⁷⁹

Farmers, like airport owners, have seen the value of their property increase, too. When operating profits of farms, similar to airports, could not keep pace with these rising property values, New Jersey demonstrated its commitment to its farms, helping to preserve its limited open space through the enactment of the Farmland Preservation Act. This gave farmers lower property taxes in recognition of their contribution to the State.⁸⁰ Many of the airport owners who testified before the Commission strongly expressed that similar action was needed to prevent high property taxes from closing more of the State's general aviation airports. Sussex Airport owner Paul Styger stated, “a farm could have double the acreage, be right next door, and if I am paying \$50,000, they could be paying \$4,000. Now, I have nothing against farmers. . . But we have a public service, too, and a lot of it we do not get paid for. The taxes are a big problem.”⁸¹ Camden County Airport stated that real estate taxes “exert an extreme financial hardship for the airport. An ‘airport assessment’ to relieve us of real estate taxes would definitely improve our . . . [chances of] . . . continued operation as an airport.”

Many other states have addressed such tax-related issues. Four of the sister state survey respondents have a property tax exemption for their privately owned public use airports; another has an effective exemption with the state reimbursing the airport for the property tax; and one respondent assesses airport land based upon its agricultural valuation. Additionally, one state has a bill pending for property tax exemption and a seventh state has a bill pending for agricultural valuation.

⁷⁶ NJGASC, 10/31/95, page 29.

⁷⁷ NJGASC, 3/13/96, page 60.

⁷⁸ NJGASC, March 12, 1996, page 30.

⁷⁹ NJGASC, 3/13/96, page 59.

⁸⁰ NJGASC, 11/28/95, page 71-72.

⁸¹ NJGASC, 3/13/96, pages 79-80.

Tax Treatment of Publicly Owned vs. Privately Owned Airports

Not only does the municipality derive far more benefit from the airport than does the airport owner, but the municipality requires the private airport to pay property tax on what is truly its public transportation infrastructure. The asphalt for the runway, taxiway, clear zones, the terminal, parking ramp, and all the land reserved for present and future clear areas serve a public transportation need similar to the State's roads and railroads, and the land and improvements necessarily associated with them. However, a municipality, by law, is prohibited from imposing a real property tax on a highway that runs through its borders⁸². The Legislature is empowered by the Constitution to grant exemptions from taxation by means of general laws⁸³ and has exercised this authority to exempt from all taxation all railroad property used as main stem or facilities for passenger service.⁸⁴

Furthermore, a municipality cannot assess taxes against a publicly owned airport,⁸⁵ regardless of whether the airport is owned by the municipality itself, a county or another public entity, like the Port Authority. Yet the publicly owned facility provides no greater or better public service than the privately owned airport serving the same public transportation function. Maryann Worth, manager of Red Lion airport, told the Commission, "We are providing on our Airport a public road for the aviation people. That is what a runway is. They come in, they use it. It is non-revenue producing."⁸⁶ This is another irony of the property tax conundrum.

THE FUTILITY OF APPLICATIONS TO THE HOST MUNICIPALITY TO IMPROVE THE AIRPORT

The Commission found that private owners of public use airports are highly trained, dedicated and professional people. Their life-long training is to the standard set by the FAA, which has tested and certified them, and recertifies them in some capacity annually. The standard is always the highest degree of skill and care. It is a violation of Federal and State law to be careless in air transportation. However, the owners who appeared before the Commission evinced a professional dedication above and beyond the legal requirements. The Commission was impressed that these owners do care. Virtually every one of them testified of some concern to improve their airport for greater safety and were frustrated most when their host municipality, or the NJDEP, or some other governmental agency did not share that concern. This frustration today begets suggestions from some owners that it may be time to quit.

⁸² N.J.S.A. 54:4-3.3.

⁸³ N.J. CONST., Art 8, §1, par. 2.

⁸⁴ N.J.S.A. 54:29A-4.

⁸⁵ N.J.S.A. 54:4-3.3.

⁸⁶ NJGASC, 3/12/96, page 78.

The greatest hardship private owners face today is when seeking approval to improve their airport. These improvements are necessary both for safety and economic survival. During the 50 years since most of New Jersey's airports were built, modern general aviation aircraft have become heavier and faster, which is why they now require longer runways. It is a simple fact of physics that an aircraft which weighs 5,000 pounds and travels at 60 mph can be stopped safely on a shorter runway than one which weighs 90,000 pounds and travels at 120 mph. The momentum of the latter is 36 times greater than the former. It is a simple fact of aerodynamics that the modern aircraft needs a longer runway to become airborne safely.

It would be frustrating enough if safety were the only issue. However, the issue is also one of running a viable modern business. In the 1940s an airport owner could operate a reasonable business catering to the needs of small aircraft, the business aircraft of the day. An airport needed only a 2,000 to 3,000 foot runway stressed for 12,500 pounds. But modern business aircraft have become much larger and faster. A viable private airport business today must be able to attract and accommodate the needs of that modern business aircraft, for which 2,000 to 3,000 foot runways are wholly inadequate (see Table page 125). Additionally, the other facilities at the airport must cater to the needs of modern business travelers. This enables the airport business to grow, causing equity to appreciate. It is how wealth is achieved.

However, many municipalities will not allow the private airport owners to change their business. Campaigns are run, and elections are won, based on a policy of "no growth" for the airport. Even privately owned FBOs on publicly owned airports are subject to this. The manager of Essex County Airport testified that airport issues are easily turned into political issues, with local officials exploiting them for political gain. "You have an administration coming and they need a place to hang their hat. There is no greater place than an airport in your town to start a little bit of an uprising, to get the people going on something and, hopefully, to win an election."⁸⁷ He noted that "[m]unicipalities should not have the right to judge aeronautical businesses that go on at an airport, as long as those businesses are operating under federal and State standards."⁸⁸

Municipal officials, for their part, believe they are doing what their constituents desire. Sometimes, a small group of highly vocal residents purporting expertise can convince a majority of the municipal governors that a runway extension, designed to invite business aircraft, will suddenly transform their small country airport into a primary international airport. They inspire irrational fears that scheduled airlines—presumably carrying hundreds of passengers and thousands of pounds of cargo on each flight—will commence service to their town and drown them with incessant, heavy aircraft noise. The Commission recognizes that no one would want that; least of all the airlines. The Commission

⁸⁷ NJGASC, 3/12/96, page 49.

⁸⁸ NJGASC, 3/12/96, page 52.

has also concluded that such a scenario is mythical.

Airport owners are frustrated by such mythology. They feel unfairly treated by municipalities and communities that subscribe to such myths. Airport owners are concerned with operating safe facilities and want their facilities to have all the devices that improve safety. They need to build new hangars designed for modern aircraft. They especially need longer runways, which are the best improvement they can make for both safety and business.

Municipalities are generally inexpert in matters of aviation. It is a highly technical science and there are very few airport experts available to the municipalities to advise them. These aviation experts would be an added expense to already tight municipal budgets. Moreover, the municipalities would only be duplicating what NJDOT has accomplished. Usually municipalities have no long-term policy to guide development of a privately owned airport. As the municipal officials change periodically, they must learn the aviation science anew with each application submitted by the airport. This causes the preparation of business plans by the airport owner to be difficult. Somerset Airport co-owners, Danny Walker and Ellen Parker, testified “When you have a municipality reviewing it [planned improvements at airports], you are having people who are totally not knowledgeable about aviation needs or requirements. They are putting their stamp of approval or non-approval on something that they know nothing about.”⁸⁹ South Jersey Regional Airport stated that it supports any program where “the airport owner . . . can expect to operate his airport as a business and can be reasonably assured that investments on his part will not be wasted by arbitrary political decisions, e.g. granting variances to build facilities in airport safety zones or runway protection zones.” He stressed that airports must be considered as part of the transportation network and that tax dollars must be spent to maintain runways just as they are for highways.

Even if a municipality does not have a legal right to ultimately deny an owner's application, if it chooses to do so, it can unreasonably withhold its approval forcing the airport owner into wasteful and protracted litigation. This makes the costs prohibitive to do business as a modern airport and to make safety improvements.. When a municipality targets an airport in this manner there are any number of ways they can increase its costs or try to hamper its business. It was noted above that one airport owner testified that his property taxes more than tripled in one year.⁹⁰ There are several additional examples.

Somerset Airport and Bedminster Township

The owner of Somerset Airport, testified that, in 1993, he submitted a plan to Bedminster Township to replace 36 outside tie-down spaces and eight old hangar spaces with a hangar that would

⁸⁹ NJGASC, 1/30/96, page 129.

⁹⁰ NJGASC, 3/13/96, page 60.

accommodate 42 aircraft. In spite of the net loss of capacity of two aircraft, local residents sensationalized the plan as an airport expansion and the planning board rejected the proposal. In order to get the plan approved, Somerset Airport had to agree in perpetuity never to develop an additional 11 acres of airport land. At the time of Mr. Walker's testimony, \$178,000 had been expended in application, engineering, and legal fees, not including the value of the land easement.⁹¹ In addition, the Somerset County Planning Board was requiring Somerset Airport to "donate" \$9,800 to the Chambers Brook Watershed Authority, even though Somerset County engineers have made a determination that the run-off from this project will be zero to negligible.⁹² In addition to the plan approval process, Somerset Airport is addressing a 1994 Bedminster Township zoning issue that changed airport zoning from a permitted use to a conditional use, a move that violates the State Airport Safety Zone law.⁹³ Mr. Walker further expressed the need to adapt his facilities to meet the demands of modern aviation.⁹⁴

Allaire Airport and Wall Township

Mr. Ed Brown, owner of Allaire Airport, testified that Wall Township has changed the zoning of his airport several times.⁹⁵ In an effort to protect himself from the municipality, Allaire Airport has spent approximately \$600,000 in legal fees between 1990 and 1995.⁹⁶

Trinca Airport

Mr. Alex Davidson, owner of Trinca Airport, purchased the airport nine years ago and wants to expand its 2,400 foot long runway to 4,300 feet in order to accommodate business traffic and provide access to the International Trade Zone in Mt. Olive, which is 12 minutes away. The airport is located close to Interstate 80. Mr. Davidson has been unable to move forward with the Airport Master Plan. His testimony indicated that a small number of very vocal residents of the municipality have prevented approval of his program.⁹⁷

Twin Pines Airport and Hopewell Township

Mr. William Weisner, owner of Twin Pines Airport, complained that Hopewell Township's interference made it difficult for his airport to survive economically. In 1957, the Township restricted him to having only three aircraft on the field. After a 15-year legal battle, this restriction

⁹¹ NJGASC, 1/30/96, page 128.

⁹² NJGASC, 1/30/96, page 127-128.

⁹³ NJGASC, 1/30/96, page 111.

⁹⁴ NJGASC, 1/30/96, page 112-114.

⁹⁵ NJGASC, 10/31/95, pages 32, 36, 42.

⁹⁶ NJGASC, 10/31/95, page 37.

⁹⁷ NJGASC, 10/31/95, pages 47-60.

was overturned.⁹⁸ Then, in 1982, Twin Pines submitted an application to build hangars for aircraft. This was rejected because the zoning board zoned the airport as residential. Therefore, hangars constituted a nonconforming use.⁹⁹

Princeton Airport and Montgomery Township

Ms. Naomi Nierenberg, an owner of Princeton Airport, believes she was the target of harassment by the Montgomery Township Zoning Board. In 1987, the owners of the airport received a 4 p.m. phone call about a meeting that very evening, at which the Township would consider rezoning 800 acres surrounding the airport. The land had been zoned research/engineering/office since the mid-1960s, but an ordinance would change it to residential. Six weeks later the ordinance passed and became law. As a result, the airport now has 350 additional houses under its traffic pattern with the concomitant noise complaints.¹⁰⁰ Between the zoning issues and the airport's application to build additional hangars, Ms. Nierenberg reported that Montgomery Township, between 1989 and 1993, spent over \$600,000 in legal and professional services to fight the airport.

Solberg Airport and Readington Township

Mr. Thor Solberg, an owner of Solberg-Hunterdon Airport that has been serving Readington Township since 1941 and encompasses 700 acres, reported that the Chairman of the Planning Board has described Solberg Airport as a transient use, one that will in time probably disappear.¹⁰¹ He testified that the Township has tried to restrict the development of the airport by intentionally creating obstacles with little concern for safety.¹⁰² For example, it built a children's recreation area off the departure end of the primary runway within the airport safety zone and is building a regional elementary school off of the end of the crosswind runway just outside of the safety zone.

The Township did finally participate, but two years later when it was time for the airport owners to present some solutions for future options, the Township representatives of both Readington and Branchburg interrupted the presentation and simply stated that, in their view, it was inappropriate to have such a solution, even though they had not heard the full presentation of the solution.¹⁰³

Mr. Solberg related how it was difficult to get the participation of Readington and Branchburg Townships in developing the airport master plan. The plan proposed the extension of the primary runway from 3,700 feet to 5,600 feet. The 5,600-foot length was selected by computing the needs of

⁹⁸ NJGASC, 3/13/96, page 52.

⁹⁹ NJGASC, 3/13/96, pages 53-54.

¹⁰⁰ NJGASC, 11/28/95, pages 85-87.

¹⁰¹ NJGASC, 2/27/96, page 97.

¹⁰² NJGASC, 2/27/96, page 97.

¹⁰³ NJGASC, 2/27/96, pages 99-100.

a Beech King Air and a Cessna Citation, two relatively small corporate aircraft that represent about 50 percent of the membership in the National Business Aircraft Association.¹⁰⁴ The Township did finally participate, but two years later when it was time for Solberg to present some solutions for future options, the Township representatives refused to allow the meeting of the Airport Study Advisory Group to proceed.¹⁰⁵ Mr. Solberg finally attempted to present his plan at an open public hearing on February 8, 1996, according to reports in the *Courier News*, “The crowd at the packed municipal building, which easily exceeded the meeting room’s 367-person capacity, did not treat the airport’s manager, Thor Solberg, kindly after he outlined the airport’s recommendation for expansion. . . The audience at times resembled an angry mob that frequently interrupted Solberg and his master plan consultant, Allan A’Hara.”¹⁰⁶ Mr. Solberg further stated, “. . . one of the few people who had the courage and fortitude to stand and to try to speak positively about the airport was physically threatened when he left the meeting. He had to get the police to help him.”¹⁰⁷

The Branchburg hearing illustrates the need to have decisions on airport improvements made on a higher, more objective and less emotional level.¹⁰⁸ It should be noted that Readington Township has yet to adopt the mandatory land use regulations under the Airport Safety Zoning Act.

INCONSISTENT GOVERNMENT FUNDING

The airport owner survey (See generally Appendix F) revealed that funding of improvements to airports is a paramount concern to the owners and operators of general aviation airports in New Jersey. Seventy-four percent of New Jersey’s airports have participated in the Federal Airport Improvement Program (AIP) or the New Jersey Block Grant Program. Those airports designated by the Federal Aviation Administration as reliever airports are entitled to 90 percent project funding, under AIP Block Grants funding guidelines, with the requirement that the facility continue operating as an aviation facility for a period of not less than ten years if privately owned, and not less than 20 years if publicly owned. The remaining ten-percent is thereafter divided evenly between the State and the project sponsor. Such financing is available only for the purpose of improving public use areas and cannot be used to fund revenue-producing projects. The State Block Grant Program provides airport sponsors 90 percent project funding, with the requirement that the facility continue operating as an aviation facility for a period of ten years, or repay the grant on a pro rata basis. The project sponsor pays the ten- percent balance.

There are privately owned, public use airports whose owners do not want to deed restrict their property

¹⁰⁴ NJGASC, 2/27/96, pages 98-100.

¹⁰⁵ NJGASC, 2/27/96, page 99.

¹⁰⁶ NJGASC, 2/27/96, Appendix 1X, *Courier News*, 2/29/96, page B1.

¹⁰⁷ NJGASC, 2/27/96, page 111.

¹⁰⁸ NJGASC, 2/27/96, Appendix 2X, *Courier News*, 2/10/96, page A7

for 10 or 20 years, either because they are uncertain that they will desire to operate an airport for that length of time, or in the event of their own death, burden their heirs with property restricted to airport use. For this reason, some airport owners have chosen to make improvements out of their own pockets. For example, all of the many extensive improvements at Allaire Airport (including an instrument landing system) have been done at the sole expense of the airport owner with no State or federal funding whatsoever. Allaire Airport owner Ed Brown explained in the questionnaire, “The attendant operational restrictions would be too onerous.” Private owners who maintain their land for airport use have arguably chosen the least attractive use from both economic and legal perspectives. Other available land use options could be more appealing and far more lucrative to the owner, without having to contend with the daily concerns over environmental issues, adversary municipalities, neighborhood concerns, litigation and personal and financial sacrifices.

South Jersey Regional Airport responded that it found the New Jersey Block Grant Program provided “excellent results” in advancing the airport’s “ambitious airport master plan.” The airport recommended that the New Jersey Block Grant Program “be administered on a ‘need’ basis, not on a ‘fair share’ basis.” It also recommended that the State “develop a strong, objective, open ‘need’ program based on each airport’s potential and real contribution to the airport transportation master plan.”

Other airports suggested speeding up the entire grant process and expediting the payment process. Ocean City recommended, in its questionnaire, that the process for obtaining grants of less than \$50,000 be streamlined.

Aero NJ President Naomi Nierenberg (co-owner of Princeton Airport) testified that airports never know how much funding will be awarded from year to year, thus making it very difficult to plan and complete a multi-year project. “Our concern is, we live from year to year and we can’t plan. If we start project ‘A’ today and we get approval and we get some funding on that project - we can’t plan for next year, next year and next year because we don’t know how the funding is going to be.”¹⁰⁹ The co-owner of Princeton Airport, Ken Nierenberg, reiterated this point, “You put a five year CIP, capital improvement program in, but you’re not sure what’s going to happen. Every year you have to find out how much money is available. You don’t know if there is money available in it or not. So it’s a tough way of planning projects at an airport if it’s a multi-year project.”¹¹⁰

In testimony before the Commission, Robert Michaud from McFarland Johnson, Inc., explained how New York State initiated a special federal funding project in 1993 in the form of a \$10 million, four-year program called the Specific Transportation Aviation Program (STAP), which was designed around economic objectives, rather than safety and capacity objectives. The State of New York applied these federal funds for 100 percent funding of revenue producing projects, such as hangars and fuel farms.

¹⁰⁹ NJGASC, 9/26/95, page 69.

¹¹⁰ NJGASC, 11/28/95, page 100.

Thus, New York acknowledged the need for the airports to be financially stable in order to survive.¹¹¹ Flying W Airport Manager Leonard Lagocki, and Sky Manor Airport owner Kent Linn, both recommended that the State grant low-interest loans to airports for revenue producing projects such as hangars, heavy equipment for snow removal and grass cutting.¹¹²

D Y Consultant Dennis Yap, representing Trenton-Robbinsville Airport (but speaking with knowledge of many airports in New Jersey, including Flying W, Oldmans and Woodbine), testified that grants for T-hangars, lawn maintenance, snow removal equipment, and other improvements that are not “public facilities” could “help the financial viability of an airport and actually preserve airports in New Jersey.”¹¹³ Mr. Yap also stated that the sponsor’s share of State grant improvements is a financial hardship for general aviation airports, whether privately - or publicly - owned. Mr. Yap further recommended, on behalf of his clients, that the State make available low-interest loans to airports that face underground storage tank removal or remediation.¹¹⁴

POLITICS AND THE PUBLICLY OWNED AIRPORT

Certainly over time New Jersey is more likely to lose privately owned airports than publicly owned ones. However that does not mean that every publicly owned airport is secure, nor that publicly owned airports are not also threatened by municipal politics.

Atlantic City and Bader Field

When Atlantic City's Bader Field was originally established to accommodate the Second Pan-American Aeronautical Congress in 1919, the *Atlantic City Press* described it as Atlantic City's "Airport." The term "airport" had never been used prior to that. It was not the first municipal air facility, but since then, New Jersey has claimed it had the first "airport" in the world.

In its statement of purposes Bader field was:

- "To establish a model airport which shall serve as a model for other American cities to follow in establishing municipal or public airports," and
- “To set an example which, if followed by approximately 100 cities in the United States in the near future, will supply the aerial transportation which this country needs; will keep American aeronautics in the forefront; will give employment to a large number of American Army and Navy airmen, aeronautical engineers and mechanics who have been demobilized; ... and will

¹¹¹ NJGASC, 11/28/95, page 62, *et seq.*

¹¹² NJGASC, 3/12/96, page 11; and 3/19/96, page 10, *et seq.*

¹¹³ NJGASC, 3/27/96, page 6.

¹¹⁴ NJGASC, 3/27/96, page 16.

assure the United States from being caught unprepared in the event of war."¹¹⁵

It achieved all these purposes and more. Charles Lindbergh, visiting after his historic flight in 1927, stated "... Atlantic City airport has good possibilities, and is an ideal location to the city proper. In fact, it's the best situated in that respect, I think, than any I have yet encountered."¹¹⁶

In 1933, two African-Americans, Dr. Albert Forsythe, a prominent Atlantic City physician, and his co-pilot, Alfred Anderson, selected Bader Field as their launch site for a transcontinental flight to Los Angeles. They were the first African-Americans to achieve this feat at a time when the War Department and most flight schools thought African-Americans could not fly. The two men, who went on to set other flying records, became New Jersey heroes and were even honored with a parade in Newark. Both men achieved great notoriety for their accomplishments and later, Mr. Andersen, while teaching flying at the Tuskegee Institute, was selected as the pilot-in-command for Eleanor Roosevelt's aircraft. This was the causative event which led to the formation of the famed 99th Pursuit Squadron—the Tuskegee Airmen—which posted a distinguished record in World War II. Their historic transcontinental flight from the Atlantic City "Airport" (Bader Field) was sponsored by the Atlantic City Board of Trade and their aircraft was named *The Pride of Atlantic City*.

In response to the Commission's Host Municipality Survey relevant to Bader Field, all Atlantic City's answers repeated just one theme: "close the airport."

City of Linden and the Linden Airport

The testimony of the Mayor of the City of Linden (accompanied by the City Engineer, who also testified) is another illustration how a municipality's plans over what to do with its airport can shift, suddenly and dramatically, with the change of political administration; *i.e.*, the State's transportation infrastructure may depend on what mayor is in office.

[I]n 1983, the former mayor, at least the mayor preceding me, tried to close the Airport. He wanted to do away with the Airport entirely. We had a contract, with the FAA asking us - or demanding that we keep the Airport open until the year 2002. He wanted to bypass that and commercially develop it. There was 188 acres of land there. The FAA strongly objected. They gave him a couple of plans. If he could move it to another site, perhaps they would accept it, but every place he tried to move it the FAA objected, and the citizens of that city objected . . . The former mayor wanted to close it immediately or not do anything until the year 2002, then the loan would be

¹¹⁵ H. V. Pat Reilly, *From The Balloon To The Moon*. page 50.

¹¹⁶ See *Id.* page 51.

repaid, and then he planned to develop the entire Airport. I thought of a compromise. I would like to keep an airport in Linden. It was helpful, and it is still helpful, to some degree, in Linden . . . Helpful to our businesses, helpful to attract people to Linden.¹¹⁷

The Mayor pointed out another problem created by the political uncertainty:

[W]ith the former mayor's idea of closing the Airport, a lot of the pilots and owners of the planes went to other facilities because of the uncertainty of what was going to happen to Linden. So we are down to approximately 70 planes. I think now, once it is public that the contract [with the FAA] has been signed, that the new Airport is going to be built, they will be rushing back, because it is a great location for a general aviation airport.¹¹⁸

CONFLICTING REGULATIONS

The Commission found that another major threat to the existence, improvement and opening of additional general aviation airports is the confusing and conflicting regulatory environment in which their businesses operate.

Federal Regulation

Notably, airport owners, in their testimony, did not cite the regulations of the Federal Aviation Administration ("FAA") as a problem. Under the FAA, aviation has become the most regulated industry in the nation. The FAA promulgates regulation for design, manufacture, financing, operation, maintenance and export of all aircraft. It licenses and regulates pilots, mechanics, flight attendants, air traffic controllers, medical examiners and airport operators.

For the general aviation airport owner, the FAA has precise requirements governing the services they offer, including providing fuel, aircraft rental, maintenance, flight instruction and air charter service. The federal regulations are far from simple, but not a single witness mentioned them as a burden. Where airport owners have difficulty is the plethora of State agencies and local municipalities attempting to regulate and oversee airport operations and facilities.

State Regulation

Over the course of the Commission's hearings, several airport owners expressed their frustration and dismay regarding the conflict between the regulations and the oversight of the New Jersey

¹¹⁷ NJGASC, 2/27/96, pages 38-39.

¹¹⁸ NJGASC, 2/27/96 page 48.

Departments of Transportation ("NJDOT") and the New Jersey Department of Environmental Protection's ("NJDEP"). Thor Solberg, co-owner of Solberg Airport, testified that it is difficult for airport owners and managers to keep apprised of all the different State regulations that could apply to their facilities.¹¹⁹ Airport owners overwhelmingly agreed that the business of maintaining and improving the airports is made exceedingly more difficult by the wide variety of State regulations, especially when the issues involve conflicting regulations, or conflicts between the regulations of NJDEP and the safety of persons in air transportation.

Many owners cited confusing and conflicting regulations as a deterrent when contemplating the improvement of their airfields. Thomas Dixon, representing Morristown Municipal Airport, testified in detail describing complications, delays, mitigation fees and other expenses imposed on the airport by NJDEP when making safety improvements at that facility. Morristown Airport includes 620 acres, with 18 acres containing hangars and other buildings, an unspecified number of acres for runways and taxiways, the remaining balance consisting of open space. Mr. Dixon explained that there is an "apparent conflict between environmental regulations - State environmental regulations - and the Federal Aviation Regulations, primarily Part 77 . . . We would like to see the cost of environmental permits and the mitigation involved with that minimized to reduce any extra or unnecessary expenditure of public funds. We would like to have the ability to address safety concerns efficiently, quickly and permanently. Maybe the way to do this would be to empower the Division of Aeronautics with the authority to declare a project a significant safety concern, and then redirect this project . . . with input and comment from DEP . . . but with overall authority resting with the Division of Aeronautics."¹²⁰ In regard to wetlands restrictions, Mr. Dixon testified, "It is not like we are putting a new highway in and we can divert it a quarter of a mile to the south because there is a wetlands or a sensitive area. We are stuck there."¹²¹

Airport owners implored the Commission for some relief from NJDEP's oversight of general aviation airports. Some had some creative solutions. Essex County Airport Manager, Art Cmiel, explained that in 1974, the Essex County Improvement Authority purchased 275 acres of land for a combination airport and industrial development. A year later, 80 acres were determined to be wetlands. Mr. Cmiel suggested that the State purchase the land that does not fall in a vital section of the airport and its approach zones, designating it as wetlands, through Green Acres funds.¹²²

The most serious form of conflict is that which arises between the NJDEP's environmental regulations and the common law obligation of an airport owner to assure safe operations to, from and on their airport. It literally becomes a conflict between the protection of the environment and the protection

¹¹⁹ NJGASC, 11/28/95, page 72.

¹²⁰ NJGASC, 2/27/96, page 11, *et seq.*

¹²¹ NJGASC, 2/27/96, page 29.

¹²² NJGASC, 3/12/96, page 56.

of human life. Airport owners are continually thrust into this conflict. Routinely, they must address several safety-related issues within and surrounding their airport facility, including removal of obstructions on runway approaches (tree removal), maintaining a clear line of sight for the air traffic control tower, installation of deer deterrent fencing and safety area improvements off the end of runways (tree removal, stump removal and disposal and wetlands work), maintenance or alteration of water courses and improving runways in wetland areas.

Numerous airports have had problems with the seemingly simple need to remove trees that have grown to become an obstacle in the clear zone of the runways. Tree growth makes operations hazardous not only because it could be the cause of a fatal accident, but also because it obstructs the view of the control tower, and the view of pilots looking to see other aircraft before taxiing onto an active runway. Furthermore, it attracts wildlife (especially deer and birds) in and around the area where aircraft are landing or taking off. According to airport owners, the conflict between the NJDOT safety requirements and the restrictions of the NJDEP cause higher project costs and severe delays.¹²³

An example of this occurred at Morristown Airport. The NJDOT determined that certain trees, which had grown up into the flight path of aircraft operating there, were a hazard to aviation and had to be removed by the airport owner. Removal of trees in this area required a permit from the NJDEP. The NJDEP disallowed the permit. It did, however, recognize the hazardous situation and proposed that the owner relocate the runway. After much more effort, NJDEP finally issued a permit, but its permit placed restrictions on the techniques for removal of the trees. The terms of the permit would not allow the contractors to use their equipment on site and required them to hand carry their equipment to the site. Not surprisingly, the cost of the project increased substantially as a result of the extended labor and time necessary for the NJDEP. In some situations, the cost of implementing such a project is not feasible and owners may have to postpone or sacrifice plans to improve airport safety, thereby jeopardizing the safety of air transportation, putting human lives at risk and threatening their own continued operations.¹²⁴

Even after permits are granted without complication, many projects cannot achieve what is needed for the airport to comply with NJDOT safety regulations. For instance, the NJDEP does not allow any trees to be completely cut down, but rather requires that 18 to 24 inches of the tree remain coming up from the ground. As a result of the limitations imposed by the NJDEP, contractors are being hired simply to leave these tree stumps or merely cut off the tops of trees. However to an aircraft hurtling into an overrun, tree stumps can be as dangerous as whole trees and do not comply with NJDOT or FAA clear way requirements. These half-measures result in less than ideal safety conditions and leave these areas difficult for the owners to maintain.¹²⁵ Moreover, such half measures can cause the

¹²³ NJGASC, 2/27/96, page 16.

¹²⁴ NJGASC, 2/27/96, page 14.

¹²⁵ NJGASC, 2/27/96, page 14.

disallowance of anticipated grant money to pay for the project.

When airports were built in New Jersey between 40 and 60 years ago, they were frequently built on less valuable swamp or lowland (*viz.*: Newark International, Teterboro, Morristown, etc.). Virtually every airport in New Jersey contains wetlands. Major expenses can arise in obtaining permits and incurring mitigation costs for "disturbing wetlands." In addition to a protracted and expensive permit process, when wetlands are involved, owners are required by NJDEP to mitigate wetland disturbance by contributing two acres for every one acre of wetlands disturbed. These mitigation costs significantly add to the overall price of the original project. This problem affects every airport safety project, whether it is building a deicing facility and the concomitant water system to comply with storm water pollution prevention regulations, or improving a runway.¹²⁶ Thus wetlands regulations severely restrict what improvements and changes can be made at these airports. Sussex Airport owner Paul Styger explained that he is interested in buying farmland adjacent to his airport, but "the [prior owner] put a ditch down the length of the field. Now, because the ditch, when it rains, holds water, . . . it is wetlands. That, then, destroys the area on both sides of it, which is not wet, but which is within that distance."¹²⁷

Airport owners overwhelmingly testified that the conflicting oversight of the NJDOT and NJDEP has forced general aviation airports to undertake projects that are more expensive and time consuming, which often causes a job to remain unfinished. The NJDEP is mainly concerned with helping to preserve and protect the environment of New Jersey, where the NJDOT is focused on providing the people of New Jersey with a safe means to access the air transportation system. Because these two worthy undertakings so often come into conflict, a revision of this regulatory process should be considered.

Special Problems Arising From Death of an Airport Owner and Estate Taxation

Many New Jersey airports have already been passed to the second generation. With each generation the probability grows stronger that the next generation may want to pursue other interests with the family capital, or may simply not be interested in aviation. The multiple heirs that can be expected to occur with each succeeding generation will cause the income each receives from the airport eventually to become miniscule. Inevitably, the majority of them will vote to close the airport and sell the land.

Even if the next generation wants to continue in the airport business, it may not be able to do so.¹²⁸ An airport's balance sheet seldom shows large cash reserves. Death tax rates increase as the value of the estate increases. The airport land and all its improvements (including asphalt runways, taxiways,

¹²⁶ NJGASC, 2/27/96, page 20.

¹²⁷ NJGASC, 3/13/96, page 79.

¹²⁸ NJGASC, 11/28/95, page 72.

public parking areas and terminals) will be appraised as very valuable assets and the applicable tax rate will be very high. If the combined State and Federal tax rates equal 50 percent, this means the heirs must raise cash equivalent to half the value of the airport to pay the taxes. If there is a mortgage on the land the situation becomes hopeless. Even if there is no mortgage, the airport may not have sufficient income to make installment payment of the taxes under a family business election and, even if it did, there would not be sufficient income remaining to warrant continuation. As a result, many estate beneficiaries have been forced to close the airport, sell the land and pay the taxes.

England! Awake! Awake!
Jerusalem thy sister calls!
Why wilt thou sleep the sleep of death
And close her from thy ancient walls?

William Blake
Jerusalem [1804-1820]
Ch. 4, sec 77, st. 1

AIRPORT PROGRAMS IN SISTER STATES

Many of New Jersey's sister states are recognizing the benefits of a strong general aviation system. As an example, these states' economic development authorities distribute economic information to businesses to encourage corporate relocations. Typically, such material highlights the State's new or refurbished general aviation airport as one means of enticement. The conclusion can be drawn from this action is that investment in the general aviation infrastructure, to provide suitable general aviation airports, is a critical element in attracting high-growth, high-tech, stable businesses.

To better understand how other states support their general aviation system, the Commission conducted a survey of sister states' aviation funding and policies. All 50 states plus Puerto Rico were sent questionnaires. The Commission received an 86 percent response rate, with 43 states and Puerto Rico returning the questionnaire. (See Appendix C for a complete analysis). All questions respecting budgets and funding address the two fiscal years of 1993 and 1994. The actual survey responses are Exhibit 28.¹²⁹

In comparing New Jersey to the 42 states that responded to this survey, the Commission found the following:

- Aviation Department Administrative Budget - New Jersey's spending on the administration of its aviation department, approximately \$1 million, is far lower than the average of \$4.5 - \$5 million. New Jersey ranks 16th-17th out of the 42 respondents.
- Budget for Operation of Airports - The average state spends \$5 million on operating airports. New Jersey spends nothing.
- Capital Improvement Dollars Spent On All General Aviation Public Use Airports - New Jersey's investment in capital improvements at all general aviation airports increased dramatically in 1994, to \$4.6 million compared to the 1993 level of \$0.7 million. New Jersey's respective ranks are 18th and 33rd.
- Total Budget - New Jersey's Aviation Department Budget increased dramatically in 1994 to \$6.6 million compared to the 1993 level of \$1.8 million. New Jersey's respective ranks

¹²⁹ Appendix C contains a copy of the survey form as well as the spreadsheet compilation and analysis of the responses. In the spreadsheet compilation, the New Jersey row is highlighted for ease of viewing. At the bottom of the page, there is an average row, "AVG", which is the average value of the responses. The "RANK" row, is New Jersey's rank within the response pool. Attached to the end of Appendix C is a Definitions Section, explaining each of the columns in Appendix C. The reader may find it helpful to read that section first.

are 18th and 31st.

- Total Budget – Operations - Correcting the budget of the aviation department to exclude the operation of airports, New Jersey's spending remains the same since it does not operate airports. However, since the responses of other states have changed, New Jersey's ranks improve by one position to 17th and 30th.
- Federal Airport Improvement Program Funding - New Jersey's receipt of \$14.2 million and \$9.6 million in Federal AIP Funds places it in the middle of the pack with ranks of 20th and 24th.

The survey was designed to provide certain demographic information which is also set forth in Appendix C. This indicates that New Jersey has the highest population density of any state with 1,035 residents per square mile. The state with the lowest density is Alaska, with one resident per square mile. Puerto Rico and Rhode Island are similar to New Jersey with respective densities of 1,005 and 951. The only other states with densities greater than 500 are Connecticut (675) and Massachusetts (769).

With a population of 7,730,188 and 50 airports, New Jersey has 154,000 residents per airport. Thus, New Jersey is far above the average of 61,000 residents per airport. That means, each of New Jersey's airports serves 2.5 times as many people as the average airport nationwide. The only respondent with more residents per airport is Puerto Rico, with 321,000. Thus, New Jersey ranks second from the bottom in terms of having airports per capita. Also, New Jersey has the fewest average square miles covered per each airport, with one airport for every 149 square miles.

The demands on New Jersey's airports are even greater than the above numbers indicate because of the wealth and amount of travel of its residents. Page four of Appendix C shows that 68 percent of New Jersey's public use airports are privately owned. The only state with a higher percentage is Delaware, with 78 percent (Delaware has a total of nine airports of which seven are privately owned). Only four other states have public use airports of which 50 percent or greater are privately owned.

It is clear that New Jersey's air transportation system is extremely vulnerable if privately owned airports continue to close.

The funding numbers on page one of Appendix C speak for themselves. One noteworthy item, however, is the funding increases in 1994 relative to 1993. From other testimony and evidence that the Commission has reviewed, this has been a very positive move. Airport owners are beginning to believe that the Legislature and Administration has come to realize the importance of general aviation to the State's economy and has begun to reverse its record of long neglect of airports in New Jersey. Since the New Jersey funding for 1995 and 1996 has been more in line with the increased 1994 level, our funding analysis will be based upon the 1994 figures.

From pages four and five of Appendix C, New Jersey's total aviation budget less operation of airports is \$133,000 per airport. Although New Jersey ranks 10th, it is far below the average of \$546,000. Per thousand residents, it is \$862. On this basis, New Jersey ranks 23rd and is far below the average of \$12,000.

It is somewhat meaningless to compare New Jersey to other states for capital improvement funding at privately owned airports. This comparison would not reflect New Jersey's singularly large number of privately owned airports, or New Jersey's high real estate values. Further funding and incentives for these essential and vulnerable airports are indicated. At the very least, New Jersey's funding programs should be brought up to national standards.¹³⁰

At publicly owned airports, the capital improvement funding of \$109,000 per airport earns a rank of 12th, but is considerably below the average of \$464,000.

Looking at the big picture of capital improvements, with publicly and privately owned airports combined, New Jersey ranks 11th with \$93,000 per airport compared to the average of \$395,000. On a per capita basis, New Jersey ranks 22nd with \$606 per thousand residents compared to the average of \$8,447.

The types of projects funded by capital improvement investments, such as runway repavings and extensions, lighting, etc. are of the utmost urgency and importance. It is imperative that the funding level be consistent with the demands placed upon our airports. With only Puerto Rico having on average more residents served by each airport, New Jersey's investments in airports should be near the top of our peer group, and certainly no lower than the average. Just to achieve the per airport average, capital funding needs to be increased four-fold, from approximately \$5 million to \$20 million.

Because capital improvement spending is currently 70 percent of the total budget, the increase in capital investment to \$20 million would require a concomitant almost four-fold increase in the Aviation Division's total budget from six million to approximately \$24 million. Even with a budget of \$24 million, New Jersey would still be well below the states with which it is in competition. On a per airport basis, New Jersey would have to increase its total budget by a factor of six to \$36 million to achieve the survey average. On a per capita basis, the total budget would have to be increased by a factor of 14 to \$84 million to achieve the survey average.

¹³⁰ It is important to add however, that this, alone, will not be enough if New Jersey intends to enter the competition, which other states have already started, to keep the prime employers in New Jersey in the next century. Prior to 1994, New Jersey was nearly last in all categories in this survey. This long neglect will not be overcome by merely bringing airport funding programs up to the national average.

For approved programs, the federal government provides funds to states for the capital improvement of their airports under the Federal Airport Improvement Program (AIP). One measure of how well a state's administration is doing is to determine how much it is securing in AIP funds. Using the raw funding numbers, New Jersey's AIP rank is in the middle of the pack in the low 20's. For 1993 and 1994, New Jersey's average AIP was approximately \$12 million, considerably below the \$21 million survey average. Examining this on a per airport basis (page five of the Appendix C), New Jersey's rank improves to 14 with a dollar amount close to the survey average. On a population basis, New Jersey is closer to the bottom of the pack with a rank of 34; the State's funding level is 16.6 percent of the survey average.

AIP eligibility is determined by many factors, including the number of reliever airports in the State. New Jersey has 14 airports with reliever status and should rank high in amounts received in this category.

The survey was designed to allow a comparison of state aviation policies and programs. Page two of Appendix C covers responses to questions about sources of funding for the states' aviation programs. Some state divisions receive 100 percent of their funding from appropriations from general revenues. Other divisions receive no general funds, relying instead on dedicated revenues from avgas taxes and other fees.

Page three, column two of Appendix C, contains the answers to a particularly important question: "Does your state have any tax abatement/sale of development rights/subsidy or other unique programs designed to assist your privately owned public use airports?" Three of the respondents (Indiana, Massachusetts and Michigan) have a property tax exemption for their privately owned public use airports; one has an effective exemption with the state reimbursing the airport for the property tax (Pennsylvania); and one respondent assesses airport land based upon its agricultural valuation (Minnesota). Additionally, one state (Maryland) has a bill pending for property tax exemption and another state has a bill pending for agricultural valuation (Missouri).

Three other states (Colorado, South Dakota and Wyoming) have programs to return avgas taxes and one (New Hampshire) registration fees to the airport from which those revenues originate. The justification of these programs is that a private business providing public infrastructure should logically receive the tax revenues that it generates.

In total, eight states have annual programs to support privately owned airports either through property tax relief or revenue sharing. Two additional states have bills pending on property tax relief. Thus, ten of the 41 respondents with privately owned public use airports, or almost 25 percent, have or will have consistent annual assistance programs.

New Jersey is far behind her sister states in supporting privately owned, publicly used airports. Expensive real estate and the high capital investment required make owning and maintaining a private airport increasingly difficult. Since 68 percent of New Jersey's airports are privately owned,

the failure of this support leaves the State's air transportation infrastructure very vulnerable.

The worst comparison is that New Jersey does not seem to have any clear plan for the development of its airport system. It is a system substantially inadequate to serve the future needs of the State (the population density of which is forecast to grow inexorably) and, yet, there is no program to develop a system to serve that population. Perhaps it is because there were once so many private individuals who were willing to provide this element of the public transportation system to New Jersey free of charge, that the State is late in developing such a plan. Other states have had such plans in place for decades.

North Carolina, in the 1950s and 1960s, at the direction of the State Division of Aeronautics, put an airport suitable for business aircraft in every county in the state.¹³¹ Today, North Carolina has over 50 percent more turbine aircraft per capita based in its state than New Jersey.¹³² In the 1960s, the Governor of Ohio also launched an ambitious program to provide for a paved, publicly owned airport in every county. The payoff to this investment can be seen in the number of turbine powered business aircraft located in Ohio - 430 compared to New Jersey's 216.¹³³ On a per capita basis, this is 50 percent better than New Jersey.

Other states, including Wisconsin, Minnesota, Michigan, Pennsylvania and Florida, have seen what North Carolina and Ohio have done, and are beginning to invest heavily in general aviation airports. In recent years Florida has spent over \$100,000,000 of state funds (e.g. prior to federal funding) annually on its general aviation airports. Connecticut pays 7.5 percent of the ten percent required to secure the 90 percent Federal AIP funds; the private airport owner pays only 2.5 percent. Eleven states (Idaho, Iowa, Maryland, Massachusetts, Minnesota, Maryland, Montana, Nebraska, Nevada, Oklahoma and Virginia) either provide their airports with funds earmarked specifically for promotion of the airport or provide promotional materials for the airport to use to invite industry into their states.

These states recognize that airports can attract businesses, especially businesses with highly paid employees, and valuable products that warrant expeditious air travel. North Carolina is currently promoting its Global Transpark, a combined airport/industrial and office park. The Global Transpark offers shipping by air cargo, rail and truck - a true intermodal system. Mountain Air Cargo is based there. This location appeals to companies that need to make or receive time-critical shipments, including international shipments.¹³⁴ The North Carolina Economic Development Office is promoting this facility in its letters and brochures, which it sends out to encourage businesses to relocate to

¹³¹ NJGASC, 1/30/96, page 116.

¹³² Exhibit 11, 1997 NBAA Business Aviation Fact Book, page 18.

¹³³ Exhibit 11, 1997 NBAA Business Aviation Fact Book, page 18.

¹³⁴ Exhibit 57, North Carolina Global TransPark brochures.

North Carolina.¹³⁵ A great number of these brochures have been sent to businesses in New Jersey. North Carolina intends to duplicate this Global Transpark in several locations.

¹³⁵ NJGASC, 9/26/95, page 15.

There is an inevitable divergence, attributable to the imperfections of the human mind, between the world as it is and the world as men perceive it.

James William Fulbright
Speech in the Senate [March 27, 1964]

RELATIONSHIP BETWEEN THE COMMUNITY AND AIRPORT

The Commission conducted surveys of all municipalities in New Jersey in which an airport is located and all municipalities in New Jersey that neighbor a municipality where an airport is located. In addition, it conducted a survey of all general aviation airport owners or operators in New Jersey. The Commission found that the leading factors influencing relationships between municipalities and general aviation airports are the perceptions of the municipality by the airport and *vice versa*.

The leading identifiable cause of friction between airports and their host communities seems to be a lack of communication between the two entities. The Commission finds that there exists a great need for education in the community, by way of addressing both the benefits of the airport and some technical information that allays fears that a general aviation airport could serve airline-type aircraft. The airport owners and operators have not been able to convey either of these points. The leading identifiable cause of good relations between airports and their host and neighboring communities appeared to be the existence of an effective means of communication between them.

THE PERSPECTIVE OF HOST MUNICIPALITIES

The Commission made extensive efforts to secure testimony from every municipality in the State that hosts an airport, especially where municipalities have an unusually good or unusually poor relationship with their airport. The Commission invited all municipalities in the State to give testimony, hearing testimony from municipalities that are home to privately owned airports, municipalities that are home to publicly owned airports and municipalities that are an airport's neighboring communities.

The Commission developed and conducted separate surveys of municipalities that host airports, municipalities that neighbor airports and the owners of airports. Specifically, testimony was given regarding the often-difficult issue of making improvements necessary to keep up with the operational requirements of modern business aircraft. These aircraft, of vital importance to corporations located in the State, require longer runways and larger hangars than the business aircraft of the 1950s, as discussed previously.

The Commission's study (see "Summary of Host Community Responses to Questionnaire," Appendix D) revealed several significant factors that contribute to strained airport/host municipality relationships.

EFFECTIVE COMMUNICATION

Effective communication between the airport owner and the community is of paramount concern to the communities who responded to the survey. Approximately 73 percent of communities who responded felt that the airport owners/operators have done little in the way of communicating to the host community the benefits - economic and aesthetic - that an airport can provide. Forty percent of those respondents cited better communications as the key to improved relations. The issue seemed

to overwhelm other concerns, including concern over airport noise.

Approximately half of all responding host communities either reported good or neutral relations with their airports, while 25 percent reported “mixed” relations. Only 25 percent of the respondents reported “bad” or strained relationships. Of those responding to the survey, the predominant “bad” factor cited was a lack of communication, or a sense of having little information about activities at the airport.

Some respondents were unequivocal, neither bad nor good: Lumberton Township, a municipality where two airports are located, stated that it considers the Flying W “a pain in the neck,” where allegedly conflicting air traffic patterns pose “a safety hazard.”¹³⁶ The Township would like to see the airport closed. However, Lumberton Township’s attitude toward its second airport, South Jersey Regional, is somewhat different. While the Township describes its relationship with the airport as “tumultuous,” when asked if the airport is a good neighbor, it acknowledged “I believe that the operators of the airport are making an effort to be a part of the future of Lumberton.”

Similarly, Oldmans Township explained why it felt the airport was a “bad” neighbor: “No communication, concern or interest in the community,” and that the airport could become a better neighbor if it became “interested in the community and make it an asset instead of a problem.” However, when asked if the airport should be encouraged to grow, the Township answered, “Yes; carefully and cautiously.” The Mayor, who returned the questionnaire, wrote: “The Airport has a history for failure to pay its taxes to the municipality. The State has bailed it out twice, \$115,000 – plus in back taxes and interest charges.”

Conversely, the Borough of Woodbine reported good relations with Woodbine Municipal Airport, a publicly owned, public use airport. “Through constant communication with Borough Council, the airport maintains a good rapport with the community. Additionally, the airport sponsors a community spirit day, ‘Festival of Friends,’ involving the whole town.” The Borough wanted to see the airport grow. “The airport has made every effort to operate in a safe and efficient manner, while providing the community with a vital link to air transportation. The airport is planned to be developed in a way that will be compatible with adjacent properties, provide jobs and stimulate the economy of the Borough of Woodbine and other surrounding municipalities.”

Most communities expressed a desire to improve relations with the airports they host, but have no clear idea of how to do so. Asked whether the communities feel the airport has communicated the benefit it offers to the community, almost 75 percent of respondents lamented a failure of such communication.

¹³⁶ Approval of conflicting airport traffic patterns is a matter exclusively within the domain of the FAA.

AIRCRAFT NOISE

Aircraft noise, though certainly a factor in community relations, is low on both the lists of municipal complaints and suggested improvements. Overall, less than half of the responding communities reported receiving airplane overfly noise complaints. Approximately one-third receive helicopter noise complaints and about one-quarter receive noise complaints about night operations of aircraft. Most significantly, when asked what the airport could do to become a better neighbor, only seven percent responded that it should reduce noise.

MUNICIPALITIES AS AIRPORT BUYERS

Alarming, 50 percent of respondents answered that they would not purchase an airport that the owner was about to sell (even assuming federal and State financial assistance). 42 percent were uncertain about this. Only eight percent of respondents indicated that they, themselves, would continue the operation of their airport. Clearly, these figures indicate that half of respondents do not recognize (or do not care about) the benefits general aviation airports bring to their communities. The other half do, but most of them prefer that the private owner continue to carry the responsibility of operating the airport.

In addition to its survey the Commission received testimony from municipal officials which provided, verbatim, some worthwhile insights to the attitudes and concerns of the municipalities.

ECONOMIC BENEFITS

As a result of the testimony this Commission has heard from municipalities, and the responses to the municipal questionnaire, this Commission has concluded that almost every municipality significantly underestimates the economic value of airports. Even the municipalities that view their airports as an economic asset and a key to attracting business underestimate the economic impact of the airport on their community.

On March 26, 1996, the Commission received the economic impact study conducted by the Airport Technology and Planning Group, Inc. in accordance with another legislative mandate. During hearings held after that date, the Commission asked municipalities to estimate the economic impact of their local airport. Of course, allowances must be made for the fact that an airport benefits an entire area, not just the host municipality. Still, these municipalities' estimates were remarkably low.

Alexandria Township views Alexandria Airport as serving a vital transportation role for business executives and is favorably disposed toward an airport expansion. Even so, the Deputy Mayor estimated the economic contribution of Alexandria Airport to the community as merely the six

persons employed at the airport. According to the Economic Impact Study, the economic impact of that airport on its community is \$3.3 million.¹³⁷

If the true economic impact of airports is undervalued in communities that support their airport and want to see it expand, airports are even more undervalued in communities that do not want their airport to grow. In Montgomery Township, the Administrator acknowledged that the Township viewed the economic impact of Princeton Airport as negligible, citing the small number of employees and related operations.¹³⁸ The total economic impact of Princeton Airport on the area of Montgomery Township is estimated at \$8.6 million.¹³⁹

The Mayor of Fairfield Township could only offer a vague assessment of the economic importance of Essex County Airport. The Mayor recognized that Fairfield is made up of about two-thirds of an industrial base. As a result, a good number of small and probably medium-sized corporations in the area utilize the airport for business and operations-related travel.¹⁴⁰ She had no idea that the actual economic impact of Essex County Airport in the area of Fairfield Township is \$64 million.¹⁴¹

The Readington Township Administrator, when asked of Solberg Airport's economic value to the community, responded: "It is a relatively small operation. It is not a large employer. The largest thing that happens here is the balloon festival."¹⁴² His further comments about the balloon festival were that "The only revenue coming in is when off-duty police officers are hired..." and "Our roads are clogged. No one is coming and buying on the way in at local stores."¹⁴³ According to the Longwood Study, the balloon festival alone gives \$100,000 each year to charities and service groups.¹⁴⁴ The whole economic impact of the Solberg Airport on the area of Readington Township is \$10 million.¹⁴⁵

Hillsborough Township and Kupper Airport

The Hillsborough Township Mayor and Hillsborough Township Engineer told the Commission about the Township's consideration of purchasing Kupper Airport, a financially troubled privately owned, public use airport. [N.B. Kupper Airport was subsequently purchased by a private concern and it remains a privately owned, public use facility known as Central Jersey Regional Airport].¹⁴⁶

¹³⁷ Exhibit 26, Economic Impact of New Jersey's General Aviation Airports, page 59.

¹³⁸ NJGASC, 3/27/96, page 81.

¹³⁹ Exhibit 26, Economic Impact of New Jersey's General Aviation Airports, page 124.

¹⁴⁰ NJGASC, 4/30/96, page 55.

¹⁴¹ Exhibit 26, Economic Impact of New Jersey's General Aviation Airports, page 81.

¹⁴² NJGASC, 3/27/96, page 203.

¹⁴³ NJGASC, 3/27/96, page 204.

¹⁴⁴ NJGASC, 3/27/96, page 210.

¹⁴⁵ Exhibit 26, Economic Impact of New Jersey's General Aviation Airports, page 138.

¹⁴⁶ NJGASC, 2/27/96, page 49 *et seq.*; see Exhibit 40.

The Mayor testified:

My perspective on airports comes not only from having Kupper Airport within Hillsborough's boundaries, but from our considerable study of Kupper's operations for potential acquisition by our town . . .

Hillsborough's detailed feasibility study for our potential acquisition of Kupper Airport has provided some unique insight in the problems of New Jersey's smaller airports. Insufficient revenues over the past several decades have taken their toll on these airports. Aging facilities and lacking services have sent these airports into a downward spiral. FAA grant programs have only recently become available to some of these airports, which have been classified as "reliever" airports, but this may well be too little, too late.

What has become glaringly apparent is the fact that small airports throughout New Jersey have a difficult time staying profitable, and yet they provide invaluable and irreplaceable services. What should also be apparent is that the FAA grant program has proven inadequate to sustain general aviation airports.

I cannot say that Hillsborough's perspective is typical of municipalities throughout New Jersey. Hillsborough is more fortunate than most host municipalities in that Kupper Airport is predominately surrounded by vacant and/or industrial zoned lands.¹⁴⁷

We have had an opportunity that few other municipalities have shared, that is, to have participated in an in-depth study of how a general aviation airport functions, or doesn't function, as a business. The State, as a whole, can benefit from this study if this Commission considers as a part of any comprehensive aviation policy that it recommends goals and objectives which address the following:

- 1) Recognizing the inadequacies of current grant funding programs and develop an expanded program of State financial support.
- 2) Recognizing that airports, in and of themselves, need to be treated and must be allowed to function as businesses which have special needs and which provide jobs for New Jersey families. This translates to a new State policy which supports the

¹⁴⁷ It was also noted on the record that Hillsborough Township did "not advocate expansion of Kupper Airport, [but] we certainly recognize the importance of its preservation to all levels of New Jersey's economy." See NJGASC, 02/27/96, pages 50-77 at 52.

development and enhancement of aviation-related improvements such as hangars, tank farms and access roads with adequate grant funding.

3) Recognize that more than just a quick fix is required if public and private general aviation airports are to survive long into the future as indispensable components of New Jersey's aviation infrastructure.

4) Recognize the deteriorated state of many private aviation facilities and the need to make them safer, more capable and better able to compete on a national scale.

5) Recognize the need to provide encouragement and incentives for local government and interested citizens to participate in aviation infrastructure preservation.

The Hillsborough Township Engineer told the Commission that:

Kupper Airport operation today is marginally profitable, but the study has identified numerous opportunities to enhance the revenue potential significantly. Unfortunately, these items include: "T" hanger renovation and construction, fuel farm rehabilitation, and access to roads which would not currently qualify for grant funding.

On the negative side: Kupper infrastructure was essentially completed by 1970, and even at that time much of the facilities were aging and/or relocated. In order for Kupper Airport to evolve into a viable business operation, it is anticipated that \$11,600,000 of improvements will be needed over the next 16 years, with approximately \$4.3 million required in the first three years. Within the current funding program, the private or municipal share of these costs cannot be sustained by the projected revenue increases.

The Township Engineer suggested to the Commission two issues for its consideration:

The first issue is to recommend a new policy which will generally provide private airports a greater range of funding, recognizing not only their importance as New Jersey's aviation infrastructure supporting business, but as businesses themselves, employers with special needs, businesses which need to be better integrated into the local fabric without compromising national standards. This will hopefully prevent other airports from declining to the poor state of Kupper and enable them to better serve New Jersey's economy.

The second issue is to recognize the more unique circumstances of municipally owned airports, and to develop a separate set of criteria which will provide greater economic incentives for host communities. For airports such as Kupper, this may be the only hope of survival. For others, it may be the key element to turn the tide of local hostility towards airports.

Lakewood Township and Lakewood Airport

Mr. George Buckwald, of the Lakewood Industrial Commission, the public entity which owns Lakewood Airport, described how there was a great deal of negative press about the Township's purchase of the airport, in spite of all the studies indicating the economic and business advantages of such an arrangement. Unusually enough, the negative press in Lakewood Township questioned the potential economic impact of an airport, and did not present the more emotionally charged heavy jet and noise speculation that other communities have experienced.¹⁴⁸ This testimony simply echoed a suggestion implicit in much of the testimony heard by the Commission: there is a great need for statewide education on the advantages of a combined airport/industrial park. Had such a program been in effect, the Lakewood community could have averted substantial anguish.

Oldmans Township and Oldmans Airport

The Engineer for Oldmans Township, reported that the Township is trying to encourage the development of the privately owned Oldmans Airport. Though it has been in financial difficulty and its facilities have decayed, the Township believes the airport could be expanded and upgraded to serve as an integral transportation resource for the nearby Pureland Industrial Park. The Township has been coordinating with the New Jersey Division of Aeronautics on funding for such improvements.¹⁴⁹

Hammonton Township and Hammonton Airport

Hammonton Township is likewise attempting to lengthen the runway at its municipally owned airport. According to a Hammonton council member, it is anticipated that the expansion, by allowing larger aircraft to use the field, will attract business and industry to the area.¹⁵⁰

¹⁴⁸ NJGASC, 10/31/95, pages 5-27.

¹⁴⁹ NJGASC, 3/27/96, pages 23-39.

¹⁵⁰ NJGASC, 3/26/96, page 11.

West Milford Township and Greenwood Lake Airport

The Township Manager for West Milford Township reported that the Township is studying the purchase of the Greenwood Lake Airport. Though West Milford Township does not yet have the infrastructure of sewers and water systems necessary to serve an industrial park, the airport is a vital link in their plan to promote tourism. The airport could serve as a gateway for tourists to vacation or come for a day of hiking or fishing in this sparsely populated township.¹⁵¹

Alexandria Township and Sky Manor and Alexandria Airports

The Deputy Mayor of Alexandria Township likewise does not envision the Township's two airports, Sky Manor and Alexandria, as hubs of industry. While the Township is zoned mostly residential, the Township views the airports as serving a transportation need for the corporate executives who live in the community. He stated that just as importantly, they assist in preserving "open space," and mitigating residential development. He noted that the expense of schools and other requisite infrastructure, makes each new house a net loss for the community. As such, the Township would like the open land surrounding the airports to be preserved for future airport expansion.

In addition, the Township testified that Alexandria Airport provides flight instruction and a recreational facility for its balloon festival. The Township has attempted to make these aviation facilities integral parts of the community. During the balloon festival, homes neighboring the airport often host lawn parties to watch the balloons ascend. There have been only minor noise issues with the airports, and the open lines of communication have settled those issues quickly and amicably.¹⁵²

The common thread of the municipalities that are favorably disposed toward their airports seems to be an understanding of the economic value of the facilities. The municipalities perceive the value of the airports in attracting businesses and the symbiotic relationship between airports and industrial parks, or they appreciate the transportation and open space which airports provide.

BAD RELATIONS: TWO CASE STUDIES

Montgomery Township and Princeton Airport

The history of Montgomery Township and Princeton Airport provides a case study of poor relationships between an airport and the community. What began as a cordial relationship between the two entities soon became hostile and included costly litigation. Today, reconciliation has occurred.

¹⁵¹ NJGASC, 5/28/96, pages 142-153.

¹⁵² NJGASC, 3/27/96, pages 132-157.

The Commission was fortunate to have three representatives of Montgomery Township who were familiar with the relationship with Princeton Airport; the Mayor, the Township Attorney and the Township Administrator. All three provided valuable insight into this dispute.

Though the feeling has not always been unanimous among the people of the Township, the Mayor stated that Montgomery has, and does, regard the Princeton Airport as an asset to the community. According to the Mayor, a major concern of the residents of the Township is that the character of the Princeton Airport might change. These concerns involve the fear of an increased number of larger, noisier aircraft.

When the airport was for sale in the mid-1980s, the owners had difficulty finding a buyer. The Township, though it preferred the airport remain under private ownership, reviewed what grants would be available for a public purchase. The Township was pleased when private buyers, the Nierenbergs, were eventually found.¹⁵³

Problems arose, however, when the new owners promoted their services of flight instruction, aircraft fueling, etc. This both increased airport traffic and invited small jets to use the airport. A prior owner had agreed to prohibit jet traffic as a condition on a variance granted years earlier (in 1964) to extend the runway. However, according to FAA regulations, a public use airport that has been improved with federal funds cannot discriminate against any type of aircraft. So the Nierenbergs, acting in 1987, did not attempt to either prohibit or discourage jets.¹⁵⁴ While the current Montgomery Council recognizes that jets cannot be prohibited, many residents continue their opposition to jet traffic on the belief that allowing jets to fly into the airport may ultimately lead to a regular jet presence in the area. Whether it is the issue of noise or simply the presence of jet aircraft at Princeton Airport, the Mayor expressed the belief that the residents may never accept the existence of jets easily.¹⁵⁵

The testimony of the Mayor, together with the Township Attorney and Township Administrator,¹⁵⁶ served to illustrate to the Commission four of the factors that are typical of bad airport-community relations: (1) a general ignorance in a community of the actual economic benefits that are derived from an airport; (2) a general fear in a community of jet aircraft; (3) the use of the municipal safety regulations designed, in part, to discourage aircraft (in this case, helicopters traffic) at the airport; and (4) insensitivity and inflexibility by FBO operators to neighborhood noise concerns. Montgomery Township is host to Princeton Airport.

On the first factor relating to economic benefit, when the Commission asked during testimony,

¹⁵³ NJGASC, 3/27/96, page 91.

¹⁵⁴ NJGASC, 3/27/96, page 88.

¹⁵⁵ NJGASC, 3/27/96, page 72

¹⁵⁶ NJGASC, 3/27/96, page 40 *et seq.*

Q: “Does Princeton Airport make a substantial economic contribution to Montgomery Township or the area of Princeton Airport?”

A: “Just in the property taxes they pay . . . I think their property taxes are less than \$40,000 and probably more than \$30,000.”

Q: “They make no contribution in excess of something in the nature of \$40,000? You do not perceive that the business that is conducted there is making a contribution to the community?”

A: “I don’t think it is affected at all. I think it is more a factor for Princeton Township and Princeton Borough, maybe, which feel it that way, but I do not believe that we at the municipal level feel that way.”¹⁵⁷

The Township Administrator later added: “The [airport] operation isn’t that large in terms of number of employees, and things of that sort that I think you would find it has a really significant economic impact in terms of the business it brings to the town or the people it employs. Businessmen who are flying in and out of there, of course, tend to go right to where they are having their meetings . . . Some of them probably stop—we have a number of restaurants in town—depending on what their destination is, whether it be Princeton to the south, Hillsborough to the north, Franklin to the east. Sure they are probably using some services somewhere. It’s a fair question, but I don’t think we regard it as significant that way. Maybe we should look into it more.”¹⁵⁸

Later in the questioning, the Commission, citing the study prepared by Airport and Technology Planning Group, Inc., informed the Montgomery Township officials that, according to the study, “the total economic impact of Princeton Airport would be \$8,650,000.00 in the Princeton/Montgomery Township area.”¹⁵⁹ The Mayor ultimately conceded, “If the figures are correct, you are certainly correct. We underestimated the economic value.”¹⁶⁰

Discussing the second factor, the fear in the general community of jet aircraft, the Montgomery Town Administrator described some misperceptions: “I don’t think most people have the slightest idea what a reliever airport is. I think most think a reliever airport is where the big jets come when the skies are too crowded over Newark. Of course, that is not what a reliever airport is.”¹⁶¹

The Mayor testified, “I think there is a perceived concern of the residents that—whether it is noise

¹⁵⁷ NJGASC, 3/27/97 page 55-56.

¹⁵⁸ NJGASC, 3/27/97 page 81.

¹⁵⁹ NJGASC, 3/27/97 page 84.

¹⁶⁰ NJGASC, 3/27/97 page 86.

¹⁶¹ NJGASC, 3/27/97 page 62.

or not—if jets are allowed on a regular basis, or actually based there, that would just mean that there would be more and more coming all the time. There is a big fear of jets, a big fear of what is going to happen in the future—whether they will be able to get larger and land on a smaller place. So I am not sure that the residents, per se, are ever going to accept jets easily.”¹⁶²

Under questioning from the Commissioners, the representatives of Montgomery Township acknowledged that modern jets have become far quieter, that only the smaller end of the jet spectrum could use a runway as short as Princeton's 3100 feet, and that the weight of airline type aircraft could not be supported by the runway.¹⁶³ In spite of these facts, the "real fear"¹⁶⁴ of airline transport and jet aircraft of residents remains. Montgomery Township officials suggested that the State could certainly play a role in educating the public in this area.¹⁶⁵

However, in respect to educating the community on the differences between types of jet aircraft and the new noise abatement technology developing for new jet engines, the Township Administrator observed: “. . . a jet is a jet is a jet. That is the way I think it is seen by the public. . . Not all jets are new. Not all jets have these improved engines, and some of them still make noise. Plus, if you allow jets into the Airport . . . According to public perception, you are going to have bigger ones and bigger ones.”¹⁶⁶

Though the fear of jets may be the overriding concern of Montgomery Township residents, it was not directly one of the issues in litigation between the Township and the Airport. This can be explained by the fact that flight operations, including the prohibition of jets or other category of air traffic, is regulated by the FAA and preempted at the State level. This fear, however, certainly can be seen as a major backdrop to the legal proceedings.

From the testimony of the Township Attorney, the first legal volley was a suit by the airport in September 1989, to force Montgomery Township to adopt zoning consistent with the New Jersey's Airport Safety Act. The Township believed that such ordinances were not required to be adopted until May 15, 1990. The Township did in fact meet that deadline.¹⁶⁷ The Airport subsequently sued the Township over ordinances that included prohibitions on jet operations, on helicopter training, and restrictions on helicopter refueling. Additional issues addressed land use considerations such as setbacks and site plan requirements.

¹⁶² NJGASC, 3/27/97 page 72.

¹⁶³ NJGASC, 3/27/96, pages 73-75.

¹⁶⁴ NJGASC, 3/27/96, page 75.

¹⁶⁵ NJGASC, 3/27/96, page 64.

¹⁶⁶ NJGASC, 3/27/97 page 73.

¹⁶⁷ NJGASC, 3/27/96, pages 45-46.

The third factor, a municipal safety regulation designed, in part, to discourage certain aircraft operations at Princeton Airport. In this case, it was a ban on “hot refueling” of helicopters [the practice of refueling a helicopter without shutting down its engines, thus conserving the “cycle” life of an engine]. The Mayor described the intent behind the Township’s ban: “The town was concerned, and the fire company, that they would have a catastrophe. There was also the emotional issue as to what this would bring. *In other words, if it was a stopover - if it was made a regular stopover, we would be getting the type of traffic that we didn’t want.* That was the feeling of the residents. The fire company had its own problem on how to handle it and what would be required to handle some sort of fire or explosion. So it was two issues.”¹⁶⁸

The aviation issues in these proceedings essentially became moot when the NJDOT, in 1993, passed new licensing regulations. Accordingly, the court found that the Township’s regulations were preempted from addressing jet operations, helicopter training and helicopter refueling.¹⁶⁹ The Township Attorney opined that the 1993 State regulations “were enacted, at least in part, as a result of the concerns that had arisen from [problems inherent in] the Princeton Airport-Montgomery Township relationship and, in many ways, were very responsive to those problems. . . .”¹⁷⁰ She added “I think the state’s regulations, if they are given a chance to be fully implemented, will go a long way in helping to prevent these kinds of issues from happening again, or recurring in other municipalities.”¹⁷¹

The fourth factor of bad relations was, in this case, the insensitivity of FBO operators to neighborhood noise concerns. The Mayor testified: “. . . the prior owner of the helicopter school was rather inflexible, I think it is safe to say. The new owner of the helicopter school has been very sensitive to the community, such that he does most of his hovering operations right on the property and he limits, as much as he can, the pattern flying, which is a part of his curriculum. He has to do pattern flying, but he keeps it to a minimum and he takes great care, as much great care as he can, to avoid congested areas. Our complaints have fallen off to next to nothing.”¹⁷²

Montgomery Township discussed the establishment of an Airport Advisory Committee. The committee will have seven members: three appointed by the Township, three by the airport, and the seventh member jointly selected. The Mayor testified as to the Township’s willingness to open a constructive dialog with Princeton Airport, notwithstanding a long history of costly litigation and community complaints. The Mayor explained: “During the last year and one-half, the Airport and the Township officials have been engaged in negotiations in an attempt to resolve our shared

¹⁶⁸ NJGASC, 3/27/97 page 55 [Emphasis added].

¹⁶⁹ NJGASC, 3/27/96, pages 48-49.

¹⁷⁰ NJGASC, 3/27/96, page 52.

¹⁷¹ NJGASC, 3/27/96, page 53.

¹⁷² NJGASC, 3/27/96 page 72.

problems and our differences. The discussions have been notable for their candor and good faith. We are close to reaching agreement which will address issues such as safety, pilot education and discipline, noise mitigation, jet aircraft, helicopter training and flight patterns, physical characteristics of the Airport, and perhaps, most importantly, communications and dispute resolution."¹⁷³

Montgomery Township also addressed the zoning change to the south of the airport under the downwind leg of the traffic pattern. When the airport representative had appeared before this Commission, she complained that the zoning was changed from research/engineering to residential in order to harass the airport with more noise complaints. The Mayor explained that the zoning was changed because the Township did not want the traffic impact of additional office parks on Route 206.¹⁷⁴ Furthermore, as part of the planning board process for the development of those 300-320 new homes, they put out notices disclosing the airport and its potential for noise. This was done in order that the notices will carry through the chain of title so anybody buying in that area will be aware of the airport activities.¹⁷⁵ This action by the Township predated the notification requirements in the Airport Safety Act, and in fact is for an area that is outside of the airport safety zone.¹⁷⁶ The Township reported that these notices have been extremely effective in precluding noise complaints, and that the new housing area "has not been the area from which the township has received noise complaints."¹⁷⁷ The Mayor even suggested that perhaps the State Airport Safety Act should be amended so that there is a circular notification zone around an airport.¹⁷⁸

The Township Attorney commented " . . . where there was a rezoning and there are new residences, that has not been the area from which the township has received noise complaints. Part of that, I think, is, in large part, due to the fact that when those people were buying their homes, the Township, through the planning board process and in conjunction with the DOT, made sure that there were big, bold notices about the Airport, the presence of the Airport, saying that airports do make noise. The residents bought there knowing that, even with the big, bold-face type. That has not been the source of the complaints. . . We set it up so that those notices will carry through the chain of title, so that anybody buying in that area will be aware."¹⁷⁹

The prolonged, tormented history begetting this reconciliation between Montgomery Township and Princeton Airport is an unnecessary, unfortunate and wasteful one. Yet it is one destined to be

¹⁷³ NJGASC, 3/27/96 page 44.

¹⁷⁴ NJGASC, 3/27/96, pages 92-93.

¹⁷⁵ NJGASC, 3/27/96, page 93.

¹⁷⁶ NJGASC, 3/27/96, pages 94-95.

¹⁷⁷ NJGASC, 3/27/96, page 93.

¹⁷⁸ NJGASC, 3/27/96, page 96.

¹⁷⁹ NJGASC, 3/27/96, page 93.

repeated time and again throughout the State. It would not have occurred if the laws clearly setting forth the policy of the State respecting airport development had been in place. More than once, attorneys for townships requested such laws. One commented to the effect that if there were not so much confusion, there would be no problems. He indicated that it was not the potential airport improvements that were tormenting the Township, it was his confusion about the law. If the State's law mandated it, then everyone would learn to accept the airport improvements.

Readington Township and the Solberg Airport

Perhaps the worst relationship this Commission found was between Solberg Airport, a privately owned public use airport and Readington Township, its host municipality.

The testimony of the Readington Township Mayor¹⁸⁰ and of the Readington Township Administrator and Chief Financial Officer,¹⁸¹ each of whom appeared separately, demonstrated an adherence to disinformation fostered by the municipality. The Commission found the testimony in both instances uniquely stunning.

MR. McNAMARA: Has your township done any studies of Morristown Airport or the Mercer County Airport?

TOWNSHIP ADMINISTRATOR: No, sir.

MR. McNAMARA: Or studies of any other airports that have runways that are 5,500 feet in length, that are not Newark Airport?

TOWNSHIP ADMINISTRATOR: No, sir.

MR. McNAMARA: What does your township believe the population of transport aircraft would be at Solberg Airport if there were a 5,500 - foot runway?

TOWNSHIP ADMINISTRATOR: We have no conclusion on that, unless it is in one of those interim reports. That data is not relative.

MR. McNAMARA: By transport aircraft I mean airline type aircraft, 737s and larger.

TOWNSHIP ADMINISTRATOR: I don't know that anyone has any data on that.

MR. McNAMARA: But is that not what the township is afraid of?

¹⁸⁰ NJGASC, 5/28/96, page 170 *et seq.*

¹⁸¹ NJGASC, 3/27/96, page. 158 *et seq.*

TOWNSHIP ADMINISTRATOR: That is correct.

MR. McNAMARA: And the continued use of the Airport by aircraft such as the corporate jets is not a concern to the township? Is that it?

TOWNSHIP ADMINISTRATOR: The aircraft that can presently land and take off on the existing runway, as far as type, is not a concern. It is that there have been a lot of complaints about the low approaches and the noise. That is a concern.

MR. McNAMARA: Does the township realize that if the runway were made longer that the aircraft would not have to make low approaches? . . . What do we have now, 3,735 feet of asphalt? . . . If the runway had 2,000 feet added to it, the aircraft would be able to come in higher and land further down the runway.

TOWNSHIP ADMINISTRATOR: I believe Mr. Solberg has explained that.

MR. McNAMARA: Did that logic fail to convince anybody in Readington?

TOWNSHIP ADMINISTRATOR: Certainly at the meetings he has been at the logic has not yet been grasped by the general populace.

MR. McNAMARA: How about the township committee?

TOWNSHIP ADMINISTRATOR: The only public expression so far will be the [Township] resolution of Monday [opposing any expansion of the Solberg Airport runway].

MR. McNAMARA: I am going to interrupt my own questioning to see if I have any questions from my fellow Commissioners.

Go ahead, Mr. Elliott.

MR. ELLIOTT: ***, two factors that contributed most significantly to the fears that aroused the hysteria at the Branchburg meeting were: One, that the runway, if it were extended to 5600 feet, would attract DC-10s and 747s. There were signs all over the place, "Stop the DC-10s." The second factor was that it would destroy property values. Does the Township Committee feel that if the runway was lengthened to 5600 feet it would attract DC-10s and 747s?

TOWNSHIP ADMINISTRATOR: Mr. Elliott, I think the governing body, as expressed in this resolution, wants to attract no more higher, noisier, and larger airplanes, whether it is a DC-10 or what.

MR. ELLIOTT: Well, what I am aiming at is, whether the Township Committee feels it is a realistic possibility that DC-10s or -- The signs were there and people were terribly aroused by them, and believed that DC-10s were going to be coming in there.

TOWNSHIP ADMINISTRATOR: I don't know that any member of the Township Committee believes or does not believe that DC-10s are possible or not possible to land on an expanded runway.

MR. ELLIOTT: I have another question. Let's say it was possible for a DC-10 to land there.

TOWNSHIP ADMINISTRATOR: Yes, sir?

MR. ELLIOTT: My next question would be: Why would it land there?

TOWNSHIP ADMINISTRATOR: I don't know. I am not an aviation expert.

MR. ELLIOTT: The fear was aroused to such a degree that all the newspapers carried stories about the hysteria. That was one of the leading factors contributing to that hysteria.

Now, a DC-10 or a 747 can take hundreds of people. There would have to be a reason to land there. I can't understand what the residents of the township, or anyone, would think the reason would be for the aircraft to land there. Do they think that hundreds of people would be waiting at Solberg Airport to get on a DC-10?

TOWNSHIP ADMINISTRATOR: I don't know, sir. I don't know.

MR. ELLIOTT: All right. The other question that was raised was that it would destroy property values. We have heard quite a bit of testimony here on property values in the vicinity of airports. Now, does the Township Committee have any facts to support the contention that lengthening the runway would have a very deleterious effect on property values in the area?

TOWNSHIP ADMINISTRATOR: To the best of my knowledge, I do not recall the Township Committee members addressing property values, vis-a-vis an expanded Airport.

MR. ELLIOTT: But we have heard testimony here from real estate experts that an airport had virtually no effect on the value of property. Have you seen any statistics or figures to contradict that?

TOWNSHIP ADMINISTRATOR: To the best of my knowledge, none has been presented. I would be interested in that myself.

MR. ELLIOTT: Then there is nothing to support the two elements that contributed most greatly to the lack of decorum at the Branchburg meeting? There is nothing to support the claims that aroused the residents at that time?

TOWNSHIP ADMINISTRATOR: Mr. Elliott, I must say very clearly, being the one that gets the complaints on the Airport, over the last four years, the fear of an expanded airport has been rather consistent -- at least for the last four years. While the bulletins may have brought more people out, I would suspect that what was expressed as fear at the meeting was held by people long before that -- long before those bulletins.

MR. ELLIOTT: I am very much aware of the fear. There is no question in my mind that it is very real. My concern is whether there is any real and legitimate basis for that fear, or whether a small contingent of people who are preparing these leaflets -- which I do not think have any basis in fact -- is arousing these fears without any legitimate basis. I don't know whether you can address that or not.

TOWNSHIP ADMINISTRATOR: No. I must observe, though, that, you know, in the democratic process, people-- We have a great American tradition of pamphleteering that goes back over 200 years. I don't know who prepared these leaflets or put the signs up. I think if you concluded that you might have a suspect you are probably wrong. I think it is the general populace.

MR. ELLIOTT: The general populace?

TOWNSHIP ADMINISTRATOR: Yes. There are enough people concerned, many people, and there is enough energy there to put the signs up and get the leaflets out.

MR. ELLIOTT: Where they actually believed that DC-10s, would come into Solberg if the runway were stretched to 5,600 feet?

TOWNSHIP ADMINISTRATOR: I cannot make any conclusions for people whose names are not known.

MR. ELLIOTT: Thank you.

MR. McNAMARA: May I interrupt with a question right on this point, Jack?

MR. ELLIOTT: Yes, sure.

MR. McNAMARA Do you believe there would be the same base of people

concerned about corporate jets coming in as DC-10s and airline transport aircraft?

TOWNSHIP ADMINISTRATOR: Well, the answer to that, Mr. Chairman, is that it is perceived that there are at least two corporate Jets housed at the Airport -- stationed at the Airport, whatever.

MR. McNAMARA: And you received complaints about them?

TOWNSHIP ADMINISTRATOR: We received complaints, but the complaints were-- They were more of observation. Every time I have gotten a complaint, I have called the Airport and either Suzanne Nagle or Lorraine Solberg have contacted these people. We rarely get another complaint. They seem satisfied.

MR. McNAMARA: So, actually, there is a difference between the population -- I am speaking in statistical terms that would complain, or actually does complain about the use of the Airport by corporate jets-- That population is totally distinct from the population that has been aroused about the possible use of the Airport by airline transports?

TOWNSHIP ADMINISTRATOR: I would suspect that your conclusion might well be correct.

MR. McNAMARA: Now, you have to be responsive to my question. My question is: There are a few people-- are there not just a few people - who complain about what is going on now with the corporate jets?

TOWNSHIP ADMINISTRATOR: That is correct.

MR. McNAMARA: How many people attended this joint meeting?

TOWNSHIP ADMINISTRATOR: Hundreds.

MR. McNAMARA: Hundreds? The joint meeting was excited by this pamphlet that suggested 747s and DC-10s. Is that correct?

TOWNSHIP ADMINISTRATOR: Most definitely that had an impact, as it did 10 years ago.

MR. McNAMARA: So if the people in Readington were confronted with ... a 5600 foot runway that would accommodate only the type of aircraft that are corporate jets, one could presume that you would have a similar level of complaints that you are having now and you wouldn't have hundreds of people who would be opposed to that. Is that correct?

TOWNSHIP ADMINISTRATOR: I do not believe we are thinking --

MR. McNAMARA: No, answer that question, please. This is a yes or no question. Would you like me to repeat it?

TOWNSHIP ADMINISTRATOR: No, sir. I heard you clearly. I think a lot more information is really needed.

MR. McNAMARA: ***, it was a yes or no question.

TOWNSHIP ADMINISTRATOR: There is more information that is needed before anyone can make that conclusion. See, one of the problems here is that when we have asked the Airport owners for more data as to who is flying in and out at what hours and can we not pinpoint who they are, because you cannot read the wing numbers, the response from the Airport operation has been that they don't know who flies in or flies out.

MR. McNAMARA: Mr. Clark, let me ask this question: Do you believe there would be more people who would complain about a DC-10 than a corporate jet?

TOWNSHIP ADMINISTRATOR: Most definitely, sir.

MR. McNAMARA: You received, as you have already testified, a very limited number of complaints about the current operations of corporate jets at the Airport.

TOWNSHIP ADMINISTRATOR: Relatively speaking, yes.

MR. McNAMARA: And you believe that that number would increase- You know that that number would increase to several hundred if there was a suggestion of DC-10s or 747s coming into Solberg Airport?

TOWNSHIP ADMINISTRATOR: In my opinion, it would be beyond several hundred. It would be in the thousands.

MR. McNAMARA: I would have no doubt about that. Now, all of that being established, let's just posture for the sake of argument, whether it is true or not --I believe it is true -- that a longer runway would cause the noise levels to decrease at the periphery of the Airport of both corporate jets and all other aircraft. If operations at the Airport were going to be limited to just corporate jets and smaller aircraft, why would anyone be opposed to that in excess of those- it should be even less than those who complain now, shouldn't it? There would be less noise. It should be less than those that are made now. Is that correct?

TOWNSHIP ADMINISTRATOR: I believe that those observations have been discussed at the Technical Advisory Committee.

MR. McNAMARA: I did not ask you if they were discussed. I want to know if I am making a mistake. Do you see a mistake in what I have said?

TOWNSHIP ADMINISTRATOR: I am also saying that the conclusion of all that is expressed in this resolution. It is apparent that--

MR. McNAMARA: I am not asking a question about this resolution. I am only asking you if the type of aircraft were continued as is and the noise level was reduced, wouldn't that be something that would be beneficial to the township and the neighbors of the Airport?

TOWNSHIP ADMINISTRATOR: Mr. Chairman, we in Readington do not believe that any expansion of that runway is beneficial to the township.

MR. McNAMARA: I am not asking that. I did not ask that, ***. Let me repeat my question: If the type of aircraft at the Airport were kept as corporate jets and the noise levels were reduced, would that be beneficial to the township and the neighbors of the Airport?

TOWNSHIP ADMINISTRATOR: Actually, that is the argument that Mr. Solberg should be making.

MR. McNAMARA: ***, yes or no?

TOWNSHIP ADMINISTRATOR: I am not qualified to answer that question, sir.

MR. McNAMARA: You don't know whether the reduced noise levels, maintaining the same aircraft as are using the Airport now, same type of aircraft, would be beneficial to the township?

TOWNSHIP ADMINISTRATOR: I am not qualified to answer that question.

MR. McNAMARA: You don't know whether that would be beneficial to the neighbors of the Airport?

TOWNSHIP ADMINISTRATOR: I am not qualified to answer a question with regard to those technical matters.

MR. McNAMARA: That is not a technical matter. That is simply a matter about whether you, as a representative of your township, believe that reduced noise levels

at the Airport would be appreciated by the neighbors of the Airport and the members of your township.

TOWNSHIP ADMINISTRATOR: Reduced noise would definitely be appreciated.

MR. McNAMARA: And if continued use of the Airport by the same type of corporate jets that are using it now would cause any increased objections?

TOWNSHIP ADMINISTRATOR: What has happened now is that the Solbergs have tried to adjust flight patterns to address that. Since they have done that, there have been minimal complaints.

MR. McNAMARA: ***, let me ask you: Do you feel you are being completely responsive with this Commission – with the questioning today?

TOWNSHIP ADMINISTRATOR: Yes, sir.

MR. McNAMARA: Has your mayor or any of your committeemen instructed you not to make certain representations or answers to questions?

TOWNSHIP ADMINISTRATOR: No, that is not -- They did their very best to express their feelings, which I think will be unanimous on Monday with this resolution.

MR. McNAMARA: Do you have anyone in your township who is qualified to answer questions about whether people in your township would appreciate having reduced noise levels?

TOWNSHIP ADMINISTRATOR: Any member of the governing body would be willing to respond to that.

* * *

MR. McNAMARA: We appreciate what you have done. I personally feel that you are not communicating with me, that you are trying to give a politically correct answer. By politically correct, I mean politically correct within the context of the government of Readington Township. That kind of discourse will lead to nothing. We are trying to find out how we can make a relationship between a municipality and

an airport better, and the municipality comes in to us and won't speak to us freely. That cannot help.¹⁸²

Two months later the Commission heard the testimony of the Readington Township Mayor¹⁸³:

DR. TELLING: Well, could you characterize or summarize, if at all possible, what the principle, substantive objections [of the community to a proposed runway expansion at Solberg Airport] are? As you said, you tried to extend, if possible, to ask people to differentiate between that which is emotional and that which is substantive.

MAYOR: Well, we have a - and I must refer to it in nebulous terms, because I don't know the name of it, but it came to me from a legislator - report about this thick (indicating) from the FAA. It talks about the different airports. I don't know if it is all of the airports in New Jersey, because we just looked at Solberg.

DR. TELLING: The Airport Master Plan?

MAYOR: It probably is, or is at least a reference to it. It is about an inch and a half or a little over an inch thick, white cover.

MR. ENGLE: When did that come?

MAYOR: I got it at the last meeting from, as I said, one of our legislators.

MR. ENGLE: That could be the Economic Development -- the Economic Plan -- the Economic Report.

MAYOR: It could very well be, because I immediately loaned it to one of the committee people. I didn't even see the cover, except it is white, and I know it has the spiral binding.

MR. ENGLE: Yes. That is the Economic Viability Study.

MAYOR: And it had a spiral binding to it. Of course, the extension of the runway is the big problem.

¹⁸² NJGASC, 3/27/96, pages 183-194.

¹⁸³ NJGASC, 5/28/96, pages 170-198/

Let me go back in history a little bit. Some 30 years ago, if you will recall, the Port of New York Authority wanted to put in a fourth jetport, and it was right over the Solberg Airport. It extended all the way up to Round Valley, which was just being opened, and all kinds of crazy things. At that point -- and I will tell you honestly, I was one of the leaders in founding the Jetport Association which eventually beat that back and retained our homes and farms for us.

There has been a long-term rumbling, I think, about the airport. Most people have accepted it. They thought it was kind of nice, until they heard that this was going to be, possibly-- The FAA Master Plan would possibly give them the moneys to extend that runway. A runway of over a mile long really gave everybody the shudders.

DR. TELLING: Well, if I could-- I apologize for interrupting. As I understood it, when I just looked at the air chart to see what the longest runway is, they talk about it as 3,750 feet or something?

MAYOR: I didn't think it was that long. I thought they had permission from the Planning Board to extend that to 3,000.

MR. ELLIOTT: It is 3,000 paved, 750 unpaved.

MAYOR: Okay. Yes. Right, thank you.

DR. TELLING: Okay. It is 3,000 paved, an additional 740 unpaved.

MAYOR: That is unpaved, yes.

DR. TELLING: The request was to expand this to--

MR. ENGLE: To 5,600.

MAYOR: To 5,670, yes.

MR. ELLIOTT: They would move the runway.

DR. TELLING: Okay

MAYOR: And according to this economic study, will allow 747s to land. That is what the study says.

MR. ENGLE: That is not the Economic Study, then.

MAYOR: This one says-- You know, I wish I had it with me. I called, as a matter of fact, the Committeeman I gave it to. I think he is in England, because I got no response at all.

DR. TELLING: If I could, and you are willing, Mayor ***, afterwards if you could locate the document, could we have a copy sent?

MAYOR: As a matter of fact, I promised *** I would send her a copy of it.

DR. TELLING: Oh, okay

MAYOR: The cover - just as you do research books - and that page. That page, very specifically, says that 747s can land there, and by the year 2010, they anticipate transportation- I'm not going to be able to go to the Solberg Airport and go to Spain if I want to, but it will be 747s will be allowed to land there.

That is a very disturbing situation in a country airport, surrounded by people not only on the edge of a National Register, historic village, but surrounded by people who have come to our Township from all over the world, literally. They work for all the AT&Ts available. They live in what they-- Everybody lives in his own castle no matter what size it is, and there are some pretty hefty priced houses there.

DR. TELLING: Mayor ***, if I could ask, have you had any discussions with anybody who has either reinforced the accuracy of that perception in your mind, or have you now-- Do you believe that to be true or not true?

MAYOR: What, that study?

DR. TELLING: That 747s could land on a 5,600 - foot runway.

MAYOR: I'm not an aviator, so I really can't say if they can or not.

DR. TELLING: No, no. I'm asking--

MAYOR: I just have to take what I see.

DR. TELLING: I'm asking what your opinion based on what evidence. What is your perception based on the evidence that you have available to you currently?

MAYOR: Well, if the runway is extended to 5,670, I have to accept what I see in a report that is written by an official agency.

* * *

DR. TELLING: To what extent, if you are aware, are the kinds of noise concerns that many of the residents have? Are they highly localized to the airport area or are they more disbursed? To the extent that you have logged complaints, has anybody had the chance to look, are they, essentially, a similar complaint from a small number of people or is it widely disbursed? I'm just trying to get, with the population you have, how much of a problem.

MAYOR: Okay. I will tell you I think it is pretty widely disbursed . . . People have complained probably on about the 360 sides of the airport.

DR. TELLING: So it surrounds the whole area?

MAYOR: Yes. They have complained about being buzzed by the small planes. They have complained about air jockeys, which-I'm sure that everybody is doing loop-d-loops and carrying on like crazy up there. They have complained about that jet I mentioned. They have complained about just noise in general.

Of course, there was a big complaint about-- It was a FedEx, I think, airplane that had to land in an emergency situation there at Solberg.¹⁸⁴ Once the explanation came through they accepted it, but he had to jettison some fuel. The Mayor who preceded me had the worst time in the world trying to get an answer from the FAA about this. That is just plain rudeness. That could have been solved in one fell swoop. Instead, it took months. Gil Maupin came, I mean everybody came to talk about this thing.

What had happened was, the pilot had an emergency situation. They could have said that. They denied it at first. "Oh, no, you didn't have a plane there." I had people saying to me, "Are you kidding? I stood there. The thing was over my head, and the stuff landed all over my cars, and my gardens, and this and that."

So each little incident -- and that could have been a more serious incident than what it was, fortunately. But each little incident magnifies, and people are simply- They are just getting more and more angry, and they're frantic thinking that there could be 5,670 foot runway -- absolutely frantic.

¹⁸⁴ The Commission has concluded that there was never any incident which involved a Fed-Ex jet (or in fact any heavy jet aircraft) landing at the Solberg Airport. However, there was an heavy jet aircraft that, during an emergency situation, attempted to land at Newark Airport, did jettison fuel several thousand feet over Readington and Branchburg Township.

This was a cute little airport, and wasn't it nice to be near it and look at those cute little planes taking off? But nowadays- it used to be you could read the numerals on a plane, and today, you can't read them very well. They shrunk them.

* * *

MAYOR: But if the people can't see them they can't identify- Subsequently, they feel like they have been had, frankly. That the airline people, the air people in general, are up there just having a good old time and they're going to fall into their pools at any moment. They just really are unhappy.

There are people who are saying, "Oh, I have a slick on the water in my pool." Well, I don't know how they can have that, but it is all-- The perception is that the airport is doing it. There are several people who have lived there for maybe 10 years or so, and they say, "Oh, it was such a nice little airport years ago. It was so much fun to sit on my deck and watch those little planes takeoff. Weren't they fun?" But now they're not. There are more there, and you've got that jet. That is all we hear about, that jet, and there is noise. There are noisy airplanes, and they don't want their Sundays to be so disturbed.

DR. TELLING: All right. A last question for myself, if I may at the moment. Are there any, given your experience, specific thoughts or recommendations which you would like to bring to the Commission's attention and consideration in going forward in terms of either improving community/airport relations, or development, or the process of having these issues of expansion or not go forward?

MAYOR: Well, airport relations, of course, like any relations with anybody who has a complaint, can always be improved. There is no question. Many times there have been calls down there, "Oh, somebody just called and a something or another has gone up, and can't you do something about it?" Well, from what Gil Maupin said, anybody can land in any airport he wants in New Jersey and takeoff from one, too.

But it seems, very honestly, that Suzie is very nice and sweet. People tend to feel that Thor Solberg is arrogant. They tend to feel that if they call down there that they don't get satisfaction, at least from Thor. I like Thor. He doesn't bother me, because the airport doesn't bother me that much. But I think that you have to have almost a PR person in place to deal with that whole scene.

BAD REALTIONS: LESSONS LEARNED

The Commission finds that the municipality hosting an airport should provide fair public hearings, investigate and address the material issues relating to disputes between its airports and residents, and

report to the community the facts and findings of an investigation. The municipality should rebut any rumors and misinformation about the airport, especially where such misinformation shocks the public.

In reviewing the testimony from other municipalities that have conflicts with their airports, the insight provided by Montgomery Township into the residents' fears of jets and noise is most useful. In Fairfield Township, which is home to the Essex County Airport, owned and operated by the Essex County Improvement Authority ("ECIA"), the Mayor says the primary concern of residents is noise and increased jet traffic. Similarly, the Mayor of Marlboro Township expressed the desire to keep the Marlboro Airport as a quiet little recreational facility.

These examples reinforce the Commission's impression that popular hostility to airport improvements is a result of lack of understanding and miscommunication. With new technological advances significantly reducing aircraft noise emissions, airports are becoming less conspicuous because of noise. In addition, general aviation airports do not have the potential of becoming major air transport airports simply because they upgrade to accommodate business jets.

Many towns bitterly fought the trolleys at first. In 1893 the Woodbury trolley to Camden was condemned as a road to hell because the line facilitated traffic to the race tracks and gambling dens at Gloucester. The classic case of opposition was Montclair's. That town smothered an application for a trolley franchise in 1890 but permitted a public hearing on the matter two years later. One speaker told the assemblage that he did "not propose to make Montclair a dumping ground for Dutch picnics and sick baby excursions." Caldwell's contention that Montclair's stubborn attitude held up Caldwell's progress forced a capitulation in 1898. It was not unconditional surrender twenty-seven pages of town regulations told trolley operators what would not be tolerated in Montclair.

John T. Cunningham,
New Jersey: America's Main Road, [1966] p. 244

THE PERSPECTIVE OF NEIGHBORING COMMUNITIES

General aviation airports also impact communities that neighbor those communities in which an airport is located. These communities derive the benefits of having the facility in close proximity, but are forced to deal with the negative implications associated with housing a general aviation airport. Sometimes the airport is located closer to the municipal center of these communities than it is to that of its host community. These neighboring communities have little say and no control over matters affecting the airport. For them, this is a problem.

NJGASC SURVEY OF NEW JERSEY MUNICIPALITIES WHICH NEIGHBOR AIRPORTS

This survey was sent by certified mail to the Administrators of 123 municipalities in New Jersey that neighbor municipalities hosting airports and whose shared border is within three miles of the subject airport. Of these, 36 municipalities (29%) returned completed questionnaires. The survey was divided into two parts. Part one was a series of statements, either of fact or of opinion, which the respondent was to rate from “strongly agree” to “strongly disagree” on a one to five scale. This summary will eliminate those respondents who replied with a “three” since this reflected “insufficient knowledge to agree or disagree or to form any opinion” However where most of the Administrators of the neighboring municipalities lacked knowledge on a point in issue, that fact will be noted.

The respondents generally agreed that the airport preserved open space (56% to 21%), preserved wet lands (31% to 17%, but 51% lacked knowledge) and preserved the wildlife habitat (32% to 20%, but 49% lacked knowledge). These township administrators believed the airport was important for air transportation for small businesses in the region (69% to 20%), as well as large businesses in the region (54% to 17%). Those with knowledge believed the airport was mostly used for business (29% to 20%), but 51 percent lacked knowledge about this point. Regardless of business or pleasure, the airport made it easier for people to travel to the region (43% to 26%).

There was little doubt to these Township Administrators that local businesses used the neighboring airports (46% to 12%). They believe the airport has a positive impact on the area's economy (49% to 17%) and provides jobs, both directly and indirectly, to the region (51% to 20%).

Respondents were divided whether the needs and concerns of their municipality were the same as the municipality in which the airport was located (the majority believed they were not 44% to 35%). They were also divided as to receiving notice from the host community of all meetings and hearings regarding the airport and its operations (39% believed they did not receive them, 31% did not know). Neighboring communities' Administrators responded clearly negatively (44% to 15%) when asked if their community's desires or concerns were given the same weight as those of the host community in hearings about the airport conducted by the host community. And when it was suggested that they had an opportunity to share their views on proposed airport improvements or projects they disagreed

(46% to 29%). Further, the overwhelming majority prefers that applications for the development or improvement of an airport should be made to a State agency, like the Department of Transportation, to ensure impartiality (63% to 17%).

Forty-three percent of neighbor township administrators agree that their constituents are concerned about aircraft noise and 37 percent said their constituents were not concerned about it. But the majority of their people rarely complain about the airport (60% do not receive complaints). The majority of respondents replied negatively when asked if they were concerned about air pollution from the host community airport (No-46%, Yes-29%), or traffic caused by the airport (No-52%, Yes-26%) or accidents involving aircraft that come from the airport (No-49%, Yes-39%). An overwhelming number of communities replied in the negative when asked if they prefer that the airport be closed (59% to 18%).

Respondents were equally divided when asked if they want the length of the runways and the size of the other facilities to remain as they are even though it is bad for the airport owner's business (23% to 23%), but were almost unanimously in favor of supporting improvements that would make the airport safer (69% to 3%). Communities were divided about making improvements to encourage more business use, more investment and more higher paying jobs in the area (35% to 29%).

Ninety percent of the communities responding felt that their people would be offended by the constant noise of large aircraft used by airlines on a repetitive schedule (66% to 6%). They were not as adamant about the occasional corporate jet (No-57%, Yes-23%). The municipality is clearly in favor of participating in an Airport Advisory Committee that meets quarterly to discuss issues regarding the airport (80% to 3%) and feel that their views should carry the same weight as those of the host community (80% to 9%).

Communities were divided when asked if a privately owned, public use airport should be entitled to grow and develop its business just like any other privately owned enterprise (36% to 42%), but did feel that all public use airports are a part of the State transportation system and should be regulated by the State (51% to 26%). When asked the number of monthly complaints received by the community, 23 responded one or less, while six responded five or more.

Part two of this survey was a series of statements suggesting various services and activities offered by airports. Respondents were asked (yes or no) which services they would like the airport in the neighboring community to provide. The overall response was quite favorable toward the use of the neighboring airport for community service.

A majority of respondents were in favor (82% to 18%) of the airport providing emergency medical transportation and emergency airborne fire fighting capabilities (87% to 13%). The response was favorable for flight training for an aviation career (70% to 30%) and technical training for a career as aviation mechanic (79% to 21%). Respondents wanted the airport as a base for aircraft for people living in the community (78% to 22%), a base for aircraft for small businesses that would bring

investment into the community (78% to 22%) as well as for larger businesses that might bring higher paying jobs to the region (70% to 30%). They would like business travelers to use their airport facility (77% to 23%) and for the airport to be a base for air taxi/charter operations (68% to 32%).

Respondents were generally negative to the use of their airport as a base for commuter airlines to major cities (33% to 67%). They preferred to use the airport grounds as a recreational facility for air shows or balloon festivals (59% to 41%) and for open space for community activities that do not interfere with airport operations (81% to 19%).

One problem for neighboring communities which was made apparent both in the survey and in testimony given before the Commission is that the airports do not fall within their jurisdiction, thereby limiting the municipality's ability to influence policy regarding the facility. Senator Schuler made this point when he addressed the Commission. The Senator's district hosts Solberg, Alexandria and Sky Manor airports. He told the Commission that "the people who live near airports do not feel that they can get any kind of hearing, any kind of consideration for their concerns when an airport is expanded and, therefore, the safety, or the clear zone, might be expanded to include the property on which their homes are located."¹⁸⁵ Although the Senator could not offer the Commission any evidence where property lost value,¹⁸⁶ he noted that "property owners feel that this is an impediment which translates to a lower [property] value."¹⁸⁷

An individual testified before the Commission on behalf of the League Legislative Committee of the New Jersey State League of Municipalities, the Township of Branchburg, and in her capacity as Mayor of Long Hill Township. Using Branchburg Township as an example, she pointed out that "[w]hat our neighboring communities do within their borders has a substantial impact on our community and upon the services and facilities that are required for that community. It is perhaps coincidental, but many of the local airports which are in . . . this State happen to be located on municipal boundary lines. As a result of that, regulations and land use control in one community will have a dramatic impact on the uses in an adjacent community . . . whether that adjacent community likes it or not."¹⁸⁸

She also expressed municipal and residential concerns over the physical expansion of airport safety zones in relation to the physical expansion of airport runways. "If a property owner has property in a community adjacent to an airport and the airport owner is permitted, through the community that the airport lives in, to expand a runway, that runway's expansion will immediately thrust the safety zone designation out into the adjacent property owner's land. The property owner has very little

¹⁸⁵ NJGASC, 1/30/96, pages 7-8.

¹⁸⁶ NJGASC, 1/30/96, page 16.

¹⁸⁷ NJGASC, 1/30/96, page 23.

¹⁸⁸ NJGASC, 1/30/96, pages 29-30.

ability to regulate that.”¹⁸⁹ “ The expansion of that safety zone will then dramatically impact that particular property owner’s use and enjoyment of his or her property.”¹⁹⁰ “ What you are saying is that the privately owned/public use airport has the ability to dictate my property’s usage as a private property owner. I think anything the Legislature can do to minimize or compensate in some fashion for that impact would be well needed legislation.”¹⁹¹ As an alternative she suggested the abolition of, or dramatic change to, the New Jersey Airport Safety Zoning Act, “because that legislation seems to have gone a long way toward harming relationships between municipalities and the aviation facilities . . .”¹⁹²

Other municipal concerns which she expressed regarded airport expansion related to increased roadway traffic to and from the airport facility;¹⁹³ added stress to municipal infrastructure and services;¹⁹⁴ and airport noise, “probably number one, two and three on the list of objections.”¹⁹⁵ She also noted that municipal decision-making, which appears to ignore an airport, is sometimes affected by other legal requirements. “[I]n the past I was told by proponents of the aviation industry as a municipal representative, ‘You should not have put that high density residential development next to the airport. What were you thinking of?’ Well, frankly, we were sued by Mount Laurel developers. It is not like we had a choice.”¹⁹⁶

The Branchburg Township Administrator testified on concerns about an airport’s impact on the quality of life for residents and their property values.¹⁹⁷ The Administrator expressed the Township’s reservations regarding the airport’s potential to increase to its full capability as provided under the Solberg Master Plan. The plan would call for an expanded runway allowing for 60,000-pound

¹⁸⁹ NJGASC, 1/30/96, page 31.

¹⁹⁰ NJGASC, 1/30/96, page 42.

¹⁹¹ NJGASC, 1/30/96, page 43.

¹⁹² NJGASC, 1/30/96, page 53.

¹⁹³ NJGASC, 1/30/96, page 46.

¹⁹⁴ NJGASC, 1/30/96, pages 46-47.

¹⁹⁵ NJGASC, 1/30/96, pages 45-46.

¹⁹⁶ NJGASC, 1/30/96, pages 49-50.

¹⁹⁷ NJGASC, 1/30/96, pages 66-67.

aircraft to come in to the airport.¹⁹⁸ The residents' primary fear in this case is the noise and traffic associated with commercial airline service.¹⁹⁹ This is yet another example of an administrator's misinformation; a small jet transport aircraft, like the Boeing B-737 or the Airbus A-320, requires a runway with a weight bearing capacity of more than twice that amount.

¹⁹⁸ NJGASC, 1/30/96, pages 67-68.

¹⁹⁹ NJGASC, 1/30/96, pages 70-71.

A mile of highway goes nowhere.
A mile of runway goes everywhere.

President Franklin D. Roosevelt
First International Civil Aviation Convention
Chicago - 1944

THE PERSPECTIVE OF THE BUSINESS COMMUNITY

Certain Chambers of Commerce within the State provided testimony emphasizing the importance of regional airports to companies that choose New Jersey as a place to do business. Regional airports are essential in many phases of many types of businesses, from corporations that need to transport customers and goods to health care facilities that require immediate transport of patients in emergency situations. The findings of this Commission as it relates to the business community highlight the need for strong and immediate support for regional airports.

The representative of the 600-member Somerset County Chamber of Commerce stated: “without trying to be exhaustive about this, some of our residents include: AT&T, the Chubb group of insurance companies, Ethicon, Beneficial Management, National Starch & Chemical, Ortho-McNeil Pharmaceuticals, Hoechst-Celanese, the Forbes and Gannett newspaper families and others too numerous to mention.”²⁰⁰ The airports in Somerset County are Somerset, Princeton and Kupper²⁰¹ [now known as Central Jersey Regional].

The Chamber, in 1995, formed an Airport Task Force “out of concern for the plight of local airports.”²⁰² “The crux of our message to you today is simply this: viable, capable local airports are important to businesses of many types and descriptions.”²⁰³ There are four reasons why this is so:

“First, the defining economic trend in contemporary corporate life is efficiency . . . [A]ir travel efficiency is not defined solely in terms of the availability of major air carrier facilities like Newark Airport. Rather, the time and expense of savings that businesses can and do achieve by the use of local airports is substantial. It is . . . why so many corporations own their own aircraft.”²⁰⁴

“[S]econd . . . is that businesses do, in fact, use our local airports. Their advantages are not merely theoretical, but practical. We know that salesmen use our airports to call on customers. Attorneys travel by air to meet with clients and go to court. Construction firms use aircraft to access construction projects. Major corporations bring customers and people from other offices into our local airports all the time so they arrive at a place that is only minutes from headquarters, rather than an hour. Our airports are used for patient transport for our local hospitals. They are used for cargo delivery . . . We believe that businesses would use better airports more than they use them now, and

²⁰⁰ NJGASC, 1/30/98, page 73

²⁰¹ NJGASC, 1/30/96 page 75.

²⁰² NJGASC, 1/30/96.

²⁰³ NJGASC, 1/30/96.

²⁰⁴ NJGASC, 1/30/96.

that the overall benefit to New Jersey would be substantial.”²⁰⁵

“[T]hird . . . our sampling of information available to us suggests that approximately 25 percent of the aircraft based in our county airports are corporately owned.”

“Fourth . . . is that other states are actively using outstanding airport facilities as enticements to attract business to their areas. It is probably no secret, but I suspect they are actively trying to take at least a portion of our businesses away from us. States such as Ohio, Delaware, Pennsylvania, North Carolina and others have aggressive, publicly funded programs that, to one degree or another, support and encourage the development of new airport facilities and the enhancement of existing facilities.”²⁰⁶

“We do not suggest that the quality of airports alone will decide which regions of the country will prosper in the future, and which will lag behind. We do know that Somerset County has lost a business [Maresco International] to another state precisely because that other state offered an aviation-dependent company facilities that the company saw as superior. We understand that there has been a similar situation, at least in Ocean County.”²⁰⁷ “Our point: In the overall . . . we cannot afford to lose more. So we do contend that our competition in other states is wise enough to see that outstanding airport facilities are an important piece of the transportation infrastructure puzzle.”²⁰⁸

The Somerset Chamber of Commerce expressed this view in testimony: “We believe that airports enhance the overall quality of life in Somerset County . . . According to our figures, there are 560 aircraft that are based at our three county airports, plus Solberg. Those aircraft are owned by hundreds of families, businesses, partnerships, and individuals. I suggest we ask them whether airports enhance the quality of their lives. There are precious few places left for them, and their interests should weigh just as heavily in the quality of life balance as those who have chosen to live near a general aviation airport.”²⁰⁹ On the issue of local control, “Here, we believe, an overriding principle must be kept in mind. The very thing gives airplanes and airports value—and this applies equally to large and small airplanes and large and small airports—is that they are part of a national transportation system . . . In order for the national air transportation system to work, it must be susceptible to uniform treatment . . . The courts have consistently rejected the efforts of individual state and local governments to intrude upon the area of aircraft operation, frequently under the guise

²⁰⁵ NJGASC, 1/30/96 page 78.

²⁰⁶ NJGASC, 1/30/96 page 79.

²⁰⁷ NJGASC, 1/30/96 pages 79-80.

²⁰⁸ NJGASC, 1/30/96 page 80.

²⁰⁹ NJGASC, 1/30/96 page 81.

of local noise ordinances . . . [e]fforts for local control seem to continue, and that, we submit, is not as it should be. We do think that some of the difficulties that airports, airport neighbors, and local government sometime have . . . in getting along, result from a lack of communication and a lack of understanding. Our Chamber of Commerce has, in the past, attempted to bring these groups together to discuss their concerns openly and amicably. We will continue to be available to assist them in that effort . . . ”²¹⁰

The Somerset County Chamber of Commerce addressed the importance of regional airports to their economic viability. “[A]irports are significant businesses in and of themselves. Our Somerset County airports, plus Solberg, provide a direct, full-time livelihood for more than 50 families. We found that they have a substantially greater employment when you count seasonal employees. They have annual gross revenues in the aggregate of more than \$6 million per year. Their employees, and the businesses they spin off, help to support a myriad of other businesses—local food service establishments, fuel dealers, car rental agencies and so forth. In an era where the loss of significant corporate jobs to downsizing has sent New Jersey’s unemployment rate to 7.3 percent, every job is precious, and every job that is within our power to preserve should be preserved.”²¹¹

The Somerset County Chamber of Commerce urged the following goals:

- The preservation of New Jersey’s existing airports through appropriate financial and regulatory support, so that airports are preserved as a critical component of the New Jersey transportation infrastructure in perpetuity.
- The enhancement of New Jersey’s existing aviation facilities to make them safer, more capable, and more attractive to business.
- The recognition that New Jersey’s airports are a part of the national system of transportation, and that the capabilities be marketed actively as a part of New Jersey’s overall business retention and development strategy.
- That airports, local governments and interested citizens be encouraged to discuss amicably and sensibly issues of mutual concern.
- That the quality of life be considered so that all of the citizens of New Jersey can enjoy and

²¹⁰ See Exhibit 43.

²¹¹ NJGASC, 1/30/96 page 83.

point, with pride, to their airport system.²¹²

Hunterdon County Chamber of Commerce concurred by letter.²¹³ Brief excerpts follow:

New Jersey's general aviation airports are an important factor in the overall business and financial strength of the state . . . The three Hunterdon County airports [Solberg, Alexandria and Sky Manor] were directly or indirectly responsible for 440 jobs generating a payroll of more than \$9 million! . . .

While the Hunterdon County Chamber of Commerce cannot endorse the specific plans of any county airport without a comprehensive review of the specific project undertaking, we do offer our support and encouragement for the retention of Hunterdon County general aviation facilities and the continued maintenance of those facilities to make them as safe, comprehensive and attractive as possible to businesses and individual pilots.

We also urge airport owners, municipal government leaders and interested citizens to discuss issues of mutual concern regarding their local airports in a sensible and constructive manner.²¹⁴

²¹² NJGASC, 1/30/96 page 84.

²¹³ See Exhibit 44.

²¹⁴ *Id.*

In England we have come to rely upon a comfortable time lag of fifty years or a century intervening between the perception that something ought to be done and a serious attempt to do it.

H. G. Wells
The Work, Wealth and Happiness of
Mankind [1931], ch 11

THE PERSPECTIVE OF AIRPORT OWNERS

The perspective of the owners of privately owned public use airports is substantially set forth in the foregoing section of this report entitled Problems Facing New Jersey's General Aviation System. The findings set forth in that section represent the combined product of interviews with, surveys of, and testimony taken from present and former private owners of public use airports. This section briefly sets forth a comparison of the different perspectives of the private and public owners of New Jersey's general aviation airports. The findings set forth herein are based upon a compilation of survey questionnaires sent to all 15 publicly owned airports and all 35 privately owned airports in New Jersey (see Appendix F). A total of 38 airports responded, of which ten are publicly owned and 28 are privately owned.

Private Owners

The most common reasons given by private owners for why their airports might close are property taxes, municipal opposition and/or interference, financial considerations, pressure from neighboring residents and, in some instances, the age of the owner who is nearing retirement.

These private owners also suggested that specific programs would encourage them to remain open, including: property tax relief; State support in resolving municipal opposition to airport development; an airport preservation program similar to the Farmland Preservation program; a change to public ownership; an increase in economic benefits; and relief from fees, regulations and land use restrictions.

Sixty-one percent of private owners responded that real estate taxes were a financial hardship. Twenty-four percent stated that increased real estate values might cause them to close, while another 24 percent stated it was not a determinative factor. Sixty-eight percent stated they would remain open for public use if there were an airport program similar to Farmland Preservation. Sixty-eight percent had received State funds from a New Jersey Block Grant or FAA AIP Grant program, while 32 percent did not. Twenty-nine percent stated that they were satisfied with the required State and federal grant assurances (i.e., the commitments airport owners must make to receive grants) while 21 percent stated their dissatisfaction. Thirty-nine percent stated that its five-percent sponsor share was a great financial hardship, while 25 percent stated it was not.

Additionally, 71 percent stated that their facilities were not presently operating at maximum capacity and 54 percent responded that they did not expect to be operating at maximum capacity during the next five years.

Thirty-nine percent of the respondents stated that there exists local, county, city, or municipal opposition or regulations that are detrimental to their continued existence, while 29 percent stated there were not. Twenty-one percent stated that there was a possibility that the airport would close

due to pressure from nearby residential neighborhoods, while 50 percent stated that there was no such pressure.

Finally, 32 percent responded that they expected their long-term ownership to remain private while 25 percent said they expected to change to public ownership.

Publicly Owned Facilities

Ninety percent of the State's publicly owned airports reported there was no possibility of closure due to increased real estate values. Eighty seven percent responded that they received State funds from the State's Block Grant Program or the FAA AIP Grant Program, while ten percent stated they did not.

Ninety percent stated that their facility was not presently operating at maximum capacity, while 70 percent stated that they did not expect to be at maximum operating capacity within the next five years.

Only 30 percent of the publicly owned facilities stated there exists local, county, city, or municipal opposition or regulations that are detrimental to their continued existence, while 70 percent stated there were not.

He who sleeps in continual noise is wakened by silence.

William Dean Howells
Pordenone, IV

THE FEAR OF AIRCRAFT NOISE

Whereas less than half the communities which either host or neighbor New Jersey's general aviation airports reported aircraft noise as a significant problem, almost every community perceives potential airport noise (such as might result from an airport improvement) as a major problem. Historically, the only realistic complaint made about airports in New Jersey State and federal courts is their potential to produce noise (See generally Appendix G). Based on the comprehensive study of aircraft noise by the FAA and EPA which was reviewed by the Commission, as well as testimony from the leading experts in our State and our nation, the facts show that the noise levels resulting from a general aviation airport are no different than other noises produced in a modern society. However, perceptions of the airport noise problem by New Jersey's residents is apposite, and must be addressed through understanding, education, compatible zoning and community outreach.

Highlights of this study and testimony are as follows:

- Testimony indicated that the new generation of aircraft, especially jet aircraft, are significantly quieter than past models because the newer jet engines are high bypass turbofan engines, not the old turbojets;
- If a runway is sufficiently long, a jet aircraft will be high enough by the time it reaches the end of it so that most of the noise will impact on the airport itself;
- Lack of communication about the benefits and necessity of aviation tend to increase sensitivity to airport noise;
- Different individuals have varying sensitivity to both actual noise and anticipated noise and humans tend to adapt to ambient noise levels;
- The cumulative annual noise impact at general aviation airports is less than the community noise levels that are created by other ambient sources, particularly, motor vehicles;
- In the surveys done by the Commission of those municipalities which either host or neighbor airports, noise was not the prime complaint; less than one-half of host municipalities received noise complaints from their constituents;
- Federal aviation regulations set a national standard for aircraft noise, phasing out older, noisier aircraft by the year 2000.

NOISE TERMINOLOGY AND NOISE EVALUATION METHOD

FAR Part 150²¹⁵ is based largely on a description of daily noise exposure known as the Day-Night

²¹⁵ See Appendix G, notes 64-72 and accompanying text. "FAA Part 150 encourages airport owners and operators to prepare Noise Exposure Maps (NEM) which are scaled geographic depictions of a particular airport, the measured noise contours emanating from it, and the land use compatibility of real property surrounding the airport. 'The main objectives

Average Sound Level (L_{dn}). To appreciate L_{dn} it is necessary to understand several other noise metrics. It is also helpful to recognize L_{dn} alone does not provide an adequate basis for quantifying a specific situation.

To assist reviewers in interpreting noise measures, we present below a brief introduction to relevant fundamentals of acoustics and noise terminology, and an overview of currently accepted noise and land use compatibility guidelines.

Decibel, dB All sounds come from a sound source -- a musical instrument, a voice speaking, an airplane passing overhead and the like. It takes energy to produce sound. The sound energy produced by any sound source is transmitted through the air in sound waves -- tiny, quick oscillations of pressure just above and just below atmospheric pressure. These oscillations, or sound pressures impinge on the ear, creating the sound we hear.

Our ears are sensitive to a wide range of sound pressures. The loudest sounds that we hear without pain have about one million times more energy than the quietest sounds we hear. But our ears are incapable of detecting small differences in these pressures. Thus, to better match how we hear this sound energy, we compress the total range of sound pressures to a more meaningful range by introducing the concept of sound pressure level.

Sound pressure level is a measure of the sound pressure of a noise source relative to a standard reference pressure: either 0.0002 microbars, 0.00002 Newtons/square meter, or 20 micropascals -- all ways to express the same basic reference value. This pressure is typical of the quietest sound that a young person with good hearing is able to detect.

Sound pressure levels are measured in decibels (dB). Decibels are logarithmic quantities reflecting the ratio of two pressures, where the numerator is the pressure of the sound source of interest, and the denominator is the reference pressure (the quietest sound we can hear).

This logarithmic conversion of sound pressure (p) to sound pressure level (SPL) means that the quietest sound we can hear has a sound pressure level of about 0 dB, while the loudest sounds we hear without pain have sound pressure levels of about 120 dB. Most sounds in our day-to-day environment have sound pressure levels on the order of 30 to 100 dB.

Because decibels are logarithmic quantities, they do not always behave like regular numbers with which we are more familiar. For example, if two sound sources that each produce 100 dB when operated separately are then operated together, they only produce 103 dB, - not the 200 dB of sound we might expect. Four equal sources operating simultaneously produce another 3 dB of noise, resulting in a total sound pressure level of 106 dB. In fact, for every doubling of the number of sources, the sound pressure level goes up another 3 dB. A tenfold increase in the number of sources makes the sound pressure level go up 10 dB. A hundredfold increase makes the level go up 20 dB,

of the Part 150 program are to reduce existing noncompatible uses around an airport and to prevent the introduction of any additional noncompatible uses.” *Id.* at 15 [Citations omitted].

and it takes a thousand equal sources to increase the level 30 dB.

It is also true that if one source is much louder than another, the two sources operating together will produce the same sound pressure level (and sound to our ears) as if the louder source were operating alone. For example, a 100 dB source plus an 80 dB source produce 100 dB of noise when operating together. The louder source "masks" the quieter one. But if the quieter source gets louder, it will have a slightly increasing effect on the total sound pressure level until, when the two sources are equal, as mentioned above, they produce a level 3 dB above the sound of either one by itself.

A simple table for adding decibels from different sources is shown below. When using it for more than two sources, always start by adding the lowest two sources together first, then the higher sources in increasing order.

When two decibel Values differ by:	Add the following amount to the higher value:
0 or 1 dB	3 dB
2 or 3 dB	2 dB
4 to 8 dB	1 dB
9 dB or more	0 dB

From these basic concepts, note that a hundred 80-decibel sources will produce a combined level of 100 dB; if a single 100-dB source is then added to the group, they will produce a total sound pressure level of 103 dB. Clearly, the loudest source has the greatest effect on total noise.

Conveniently, people also hear in a logarithmic fashion. Two useful rules of thumb to remember when comparing sound pressure levels are: (1) most of us perceive a 10 dB increase in the sound pressure level to be about a doubling of loudness, and (2) changes in sound pressure level of less than about 3 dB are not readily detectable outside of a laboratory environment.

A-Weighted Decibel, dBA Another important characteristic of sound is its frequency, or "pitch". This is the rate of repetition of the sound pressure oscillations as they reach our ear. Formerly expressed in cycles per second, frequency is now expressed in units known as Hertz (Hz).

When analyzing the total noise of any source, acousticians often break the noise into frequency components to determine how much is low-frequency noise, how much is middle-frequency noise and how much is high-frequency noise. This breakdown is important for two reasons:

People react differently to low-, mid- and high-frequency noise levels. This is because our ears are better equipped to hear mid- and high- frequencies but are quite insensitive to lower frequencies. Thus, we find mid- and high frequency noise to be more annoying. High frequency noise is also

more capable of producing hearing loss.

Engineering solutions to a noise problem are different for different frequency ranges. Low-frequency noise is generally harder to control.

The normal frequency range of hearing for most people extends from a low frequency of about 20 Hz to a high frequency of about 10,000 to 15,000 Hz. People respond to sound most readily when the predominant frequency is in the range of normal conversation, typically around 1,000 to 2,000 Hz. Psycho-acousticians have developed several filters which match this sensitivity of our ear and thus, help us to judge the annoyance of various sounds consisting of many different frequencies. The so-called "A" filter does this best for most environmental noise sources. Sound pressure levels measured through this filter are referred to as A-weighted levels (measured in A-weighted decibels, or dBA).

Because of this correlation with our hearing, the A-weighted level has been adopted as the basic measure of environmental noise by the U.S. Environmental Protection Agency (EPA) and by nearly every other agency concerned with community noise throughout the United States. In particular, the Federal Aviation Administration's Part 150 requires the use of A-weighted levels when evaluating the impacts of aircraft noise on people near airports.

The following table presents typical A-weighted sound levels of several common environmental sources.

COMMON OUTDOOR	NOISE	COMMON INDOOR
		ROCK BAND
	-110-	
CONCORDE LANDING - 370ft		
707 TAKEOFF AT 1000ft	-100-	
GAS LAWN MOWER AT 3ft		INSIDE SUBWAY TRAIN
	-90-	
DIESEL TRUCK AT 50ft		FOOD BLENDER AT 3 ft
NOISY URBAN DAYTIME	-80-	GARBAGE DISPOSAL AT 3 ft
747 TAKEOFF AT 1000 ft	-70-	VACUUM CLEANER AT 10 ft
COMMERCIAL AREA		NORMAL SPEECH AT 3ft
	-60-	
		LARGE BUSINESS OFFICE
QUIET URBAN DAYTIME	-50-	DISHWASHER NEXT ROOM
QUIET URBAN NIGHTTIME	-40-	SMALL THEATRE,
QUIET SUBURBAN		LIBRARY
	-30-	
QUIET RURAL NIGHTTIME		BEDROOM AT NIGHT
	-20-	
		RECORDING STUDIO
	-10-	
		THRESHOLD OF HEARING
	-0-	

COMMON ENVIRONMENTAL SOUND LEVELS, in dBA²¹⁶

²¹⁶ Source: Harris, A.S., and Miller, R-1-, Airport Noise Seminars, documentation prepared for the Airports Division, Southern Region, Federal Aviation Administration, November 1977.

In dealing with most sound sources, these A-weighted levels vary with time. For example, they rise as an aircraft approaches, they then fall again and blend into the background as the aircraft recedes into the distance, though even the background varies as birds chirp or the wind blows or a vehicle passes by. This is illustrated by the sound level of an aircraft flyover as it changes over time, e.g.: as it approaches it becomes louder; it is at its maximum as it passes overhead, and then, it diminishes as it passes on.

Because of this variation, it is often convenient to describe a particular noise "event" by its maximum sound level, abbreviated as L_{max} . However, the maximum level describes only one dimension of an event; it provides no information on the cumulative noise exposure generated by a sound source. In fact two events with identical maximums may produce very different total exposures. One may be of very short duration, while the other may continue for an extended period and be judged much more annoying. The next section introduces a measure that accounts for this concept of a noise "dose".

Sound Exposure Level, SEL The measure of the cumulative noise exposure for a single aircraft flyover is the Sound Exposure Level, or SEL. It may be thought of as an accumulation of the sound energy over the duration of an event, where duration is defined as the time when the A-weighted sound level first exceeds a threshold level (normally just above the background or ambient noise) to the time that the sound level drops back down below the threshold. But to account for the variety of durations that occur among different noise events, the dose is normalized, or compressed, to a standard one-second duration. This "revised" dose is the SEL. It has exactly the same sound energy as the longer event, even though it is presumed to have only a one-second duration.

Note that because the SEL is normalized to one second, it will almost always be larger in magnitude than the maximum A-weighted level for the event. In fact, for most aircraft overflights, the SEL is on the order of 7 to 12 dB higher than the L_{max} . Also, the fact that it is a cumulative measure means that not only do louder flyovers have greater Sound Exposure Levels than do quieter ones, but also flyovers that stretch out longer in time have greater SELs than do shorter ones.

With this metric, we now have a basis for comparing noise events that generally matches our impression of the sound -- the higher the SEL, the more annoying it is likely to be. Second, SEL provides a comprehensive way to describe a noise event for use in modeling noise exposure. FAR Part 150 requires that SEL be used in measuring and describing single-event noise exposure.

Equivalent Sound Level, L_{eq} We tend to think of maximum A-weighted levels and SELs as measures of the noise associated with individual events. The remaining two metrics describe longer-term cumulative noise exposure that often include many events.

The first, the Equivalent Sound Level, abbreviated L_{eq} , is a measure of the energy averaged A-weighted sound level over a particular time of interest - an hour, an eight hour school day, nighttime, or a full day. However, because the length of the period can be different depending on the time frame of interest, the applicable period should always be identified or clearly understood when discussing the metric. Such durations are often identified through a subscript, for example $L_{eq(24)}$.

Simplistically, L_{eq} may be thought of as a constant sound level over the period of interest that

contains as much sound energy as the actual time-varying sound level with its normal peaks and valleys. It is important to recognize, however, that the two signals (the constant one and the time-varying one) would sound very different from each other if compared in real life. Also, it is important to be aware that the "average" sound level as reflected by L_{eq} is not an arithmetic average, but a logarithmic, or "energy-averaged" sound level. Comparable to the addition of decibels, this means that higher values are given greater emphasis than lower values. For example, if the sound level is 50 dBA for 30 minutes, followed by 100 dBA for the next 30 minutes, then the L_{eq} for the entire hour is 97 dBA -- not the 75 dBA that we might expect. Thus, loud events clearly dominate any noise environment described by the metric.

In this document, L_{eq} is normally presented for consecutive one-hour periods to illustrate how the average sound level rises and falls throughout a 24-hour period and how certain hours are significantly affected by a few loud aircraft.

Day-Night Average Sound Level, L_{dn} . In the previous sections, we have been addressing noise measures that account for the moment-to-moment or short-term fluctuations in A-weighted levels as sound sources come and go affecting our overall noise environment. Now, the Day-Night Average Sound Level represents a culmination of the concept of noise dose as it occurs over a 24-hour period.

Earlier, we illustrated the A-weighted sound level due to an aircraft flyover as it changed over time. Assume the level increases as the aircraft approaches, reaching a maximum of 85 dBA, and then decreases as the aircraft passes by. The ambient A-Level around 55 dBA is due to the background sounds that dominate after the aircraft passes. The shaded area reflects the noise dose that a listener receives during the one-minute period of the sample.

The center frame of Figure 4 includes this one-minute interval within a full hour. Now the shaded area represents the noise dose over 1 hour, during which sixteen aircraft pass by the listener.

Similarly, the bottom frame includes the one-hour interval within a full 24 hours. Here the shaded area represents the listener's noise dose over a complete day. Note that several flyovers occur at night when the background noise drops some 10 decibels, to approximately 45 dBA.

An analogy is helpful here to relate the dose in this bottom frame to the Day-Night Average Sound Level. The 24-hour noise dose, shaded in the figure, is analogous to 24 hours of rain falling on a garden. The "rain dose" is the total accumulation of rain over 24 hours, just as the noise dose is the total accumulation of noise. Note that every shower increases that 24 hours' rain dose. Also, strong showers increase the dose more than light ones, and longer showers increase the dose more than shorter ones. The same is true for noise: (1) every aircraft increases that 24 hours' noise dose; (2) loud aircraft increase the dose more than quieter ones; and (3) aircraft flyovers that are longer in duration increase the dose more than shorter ones.

One important exception to this analogy is that the Day-Night Average Sound Level treats nighttime noise differently from daytime noise. In determining L_{dn} , it is assumed that the A-weighted levels occurring at night (defined very specifically as 10:00 p.m. to 7:00 a.m. the next morning) are 10 decibels louder than they really are. This 10-dB penalty is applied to account for our greater sensitivity to nighttime noise, plus the fact that events at night are often more intrusive because

nighttime ambient noise is less. The 10-dB penalty is illustrated in Figure 5, and its effect on the noise dose defined by L_{dn} is always included.

10 dB Nighttime Penalty Because the loudest and longest noise events heavily dominate any noise environment, it is possible to determine L_{dn} very closely by simply accounting for all of the SELs occurring during a 24-hour period and ignoring the much quieter ambient sound levels that occur between the noise events. This principle is used in all airport noise modeling.

Typical L_{dn} values in our environment range from a low of 40 to 45 decibels in an extremely quiet, isolated location, to a high of 80 or 85 decibels very near an extremely busy highway or off the end of a runway at a busy Air Force base. More typical values would be in the range of 50 to 55 decibels for a quiet residential community and 60 to 65 decibels in an urban residential neighborhood. Figure 6 gives some examples of L_{dn} values measured throughout the country.

Why is L_{dn} used to describe noise around airports? The U.S. Environmental Protection Agency identified the measure as the most appropriate means of evaluating airport noise based on the following considerations:²¹⁷

1. The measure should be applicable to the evaluation of pervasive long-term noise in various defined areas and under various conditions over long periods of time.
2. The measure should correlate well with known effects of the noise environment and on individuals and the public.
3. The measure should be simple, practical and accurate. In principal, it should be useful for planning as well as for enforcement or monitoring purposes.
4. The required measurement equipment, with standard characteristics, should be commercially available.
5. The measure should be closely related to existing methods currently in use.
6. The single measure of noise at a given location should be predictable, within an acceptable tolerance, from knowledge of the physical events producing the noise.

The measure should lend itself to small, simple monitors, which can be left unattended in public areas for long periods of time.

²¹⁷ "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U. S. EPA Report No. 550/9-74-004, September 1974.

Most other public agencies dealing with noise exposure have formally adopted L_{dn} . Part 150 requires that L_{dn} be used in describing cumulative noise exposure and in identifying aircraft noise and land use compatibility issues.

	QUALITATIVE DESCRIPTIONS	L_{dn} DAY- NIGHT SOUND LEVEL DECIBELS	OUTDOOR LOCATIONS
		-90-	
		-87.5-	LOS ANGELES- 3rd FLOOR APARTMENT NEXT TO FREEWAY
		-86-	LOS ANGELES - 3/4 MILE FROM TOUCH DOWN AT LAX
		-85-	
	CITY NOISE (DOWNTOWN MAJOR METROPOLIS)	-81-	
		-80-	
		-78.5-	LOS ANGELES- DOWNTOWN WITH SOME CONSTRUCTION
		-78-	HARLEM- 2nd FLOOR APARTMENT
		-75-	
		-74-	
		VERY NOISY	-73-
R E S I D E N T I A L		-70-	
	NOISY URBAN	-68-	BOSTON- ROW HOUSING ON MAJOR AVENUE
		-65-	
	URBAN	-63-	
		-62.5-	WATTS - 8 MILES FROM TOUCH DOWN AT MAJOR AIRPORT
		-62-	NEWPORT - 3.5 MILES FROM TAKEOFF AT SMALL AIRPORT
		-60-	LOS ANGELES- OLD RESIDENTIAL AREA
	SUBURBAN		
		-55-	
	SMALL TOWN & QUIET SUBURBAN	-53-	
		-51-	SMALL TOWN CUL-DE-SAC
		-50-	SAN DIEGO- WOODED RESIDENTIAL
		-48-	
		-45-	
		-44-	CALIFORNIA_ -TOMATO FIELD ON FARM
		-40-	

Examples of Outdoor Day-Night Sound Level (L_{dn}) in dB, measured in various U.S. locations.

L_{dn} can be measured or estimated. Measurements are practical only for obtaining L_{dn} values for relatively limited numbers of points, and, in the absence of a permanently installed monitoring system, only for relatively short time periods. Most airport noise studies utilize computer-generated L_{dn} estimates depicted in terms of equal-exposure noise contours (much as topographic maps have contours of equal elevation). Part 150 requires that the 65, 70 and 75 dB contours be modeled and depicted.

Noise and Land Use Compatibility Guidelines.

L_{dn} estimates have two principal uses in a Part 150 study:

- (1) to provide a basis for comparing existing noise conditions to the effects of noise abatement procedures and/or forecast changes in airport activity; and
- (2) to provide a quantitative basis for identifying potential noise impacts.

Both of these functions require the application of objective criteria for evaluating noise impacts. Government agencies dealing with environmental noise have devoted a great deal of attention to this problem, and have proposed many different sets of noise/land use compatibility guidelines.

In addition to establishing L_{dn} as the official cumulative noise exposure metric for use in airport noise analyses, Part 150 provides the FAA's recommended guidelines for noise/land use compatibility evaluation. These guidelines are shown in Table 1.

These guidelines represent a compilation of the results of extensive scientific research into noise-related activity interference and attitudinal response. However, reviewers of L_{dn} contours should recognize the highly subjective nature of response to noise, and the special circumstances that can either increase or decrease individuals' tolerance.

For example, a high non-aircraft background or "ambient" noise level can reduce the significance of aircraft noise, such as in areas constantly exposed to relatively high levels of traffic noise. Alternatively, residents of areas with unusually low background levels may find relatively low levels of aircraft noise annoying. Expectation and experience may also affect response. People often get used to a level of noise exposure that guidelines indicate may be unacceptable, and changes in exposure may generate response that is far greater than that which the guidelines might suggest.

The cumulative nature of L_{dn} means that the same level of noise exposure can be achieved in an essentially infinite number of ways. For example, a reduction in a small number of relatively noisy operations may be counterbalanced by a much greater increase in relatively quiet flights, with no net change in L_{dn} . Residents of the area may be highly irritated by the increased frequency of operations, despite the seeming maintenance of the noise status quo.

With these cautions in mind, the Part 150 guidelines can be applied to the L_{dn} contours to identify the potential types, degrees and locations of incompatibility. Measurement of the land areas involved can provide a quantitative measure of impact that allows a comparison of the effects of existing or forecast operations.

**EFFECTS OF NOISE ON PEOPLE
IN AN URBAN RESIDENTIAL ENVIRONMENT**

Effects	Hearing Loss	Speech Interference		Annoyance	Average Community Reaction	General Community Attitude Towards Area
		Indoor	Outdoor			
Day-Night Average Sound Level in Decibels	Qualitative Description	% Sentence Intelligibility	Distance in Meters for 95% Sentence Intelligibility	% of Population Highly Annoyed		
75 and above	May Begin to Occur	98%	0.5	37%	Very Severe	Noise is likely to be the most important of all adverse aspects of the community environment.
70	Will Not Occur	99%	0.9	25%	Severe	Noise is one of the most important adverse aspects of the community environment.
65	Will Not Occur	100%	1.5	15%	Significant	Noise is one of the important adverse aspects of the community environment.
60	Will Not Occur	100%	2.0	9%	Moderate	Noise may be considered an adverse aspect of the community environment.
55 and below	Will Not Occur	100%	3.5	4%	None to Slight	Noise considered no more important than various other environmental factors.

Source: Airport Compatibility Guidelines, Texas Aeronautics Commission, January, 1986.

Dr. R. John Hansman, of the Aeronautical Engineering Department of the Massachusetts Institute of Technology (MIT), came before the Commission to present testimony and exhibits respecting the matter of aircraft noise. Dr. Hansman has been awarded a Bachelor's Degree in Physics from Cornell University, a Masters Degree in Physics and a Ph.D. in physics, meteorology, aeronautics and electrical engineering from MIT and is currently on the faculty as a tenured professor at MIT. The standard for tenure at MIT is simply, the candidate must be the most knowledgeable person in the world in his field.²¹⁸ Dr. Hansman was allowed to testify as an expert.

Dr. Hansman testified that the new generation of aircraft, especially jet aircraft, is significantly quieter than the jet aircraft with which we first became familiar.²¹⁹ The Global Positioning System (GPS), the new satellite based navigation system, has the potential to reduce noise even further by making possible steeper approaches and accurate curved ground tracks as aircraft return to land.²²⁰ He stated that if a runway is sufficiently long, a jet aircraft will be high enough by the time it reaches the departure end of it that most of the noise impact will be on the airport itself.²²¹ The federal government has a comprehensive formula regulating the noise an aircraft is permitted to emit in FAR Part 36.²²²

Dr. Hansman explained that the newer jet aircraft are quieter because the newer jet engines are high bypass turbofan engines, not the old turbojets. In order to increase both the thrust and the fuel efficiency of engines, the designers have developed these high bypass engines, which put 5-6 times as much air through a circumferential fan as goes through the core of the jet. The high bypass air mixes with (and muffles) the jet exhaust so that there is much less jet noise, much less of the traditional "sharp rumbling"²²³ associated with older jet aircraft.²²⁴

Dr. Hansman testified that MIT was commissioned by the National Aeronautics and Space Administration (NASA) to study flight procedures to reduce community noise enabled by GPS and other flight guidance technologies. He was in charge of that study. We all know that the common decibel rating for noise, dBA, is a physical measurement of the pressure change of noise adjusted for the physiology of the ear in terms of how well the ear can hear it.²²⁵ However, the dBA scale, as a

²¹⁸ NJGASC, 4/30/96 page 2.

²¹⁹ NJGASC, 4/30/96, pages 32,41.

²²⁰ NJGASC, 4/30/96, pages 23, 25-26.

²²¹ NJGASC, 4/30/96, pages 39-41.

²²² NJGASC, 4/30/96, pages 20-21.

²²³ NJGASC, 4/30/96, page 31.

²²⁴ NJGASC, 4/30/96, pages 32-33.

²²⁵ NJGASC, 4/30/96, pages 9-10.

physical measurement, does not account for the fact that no two people have the same thought process or the same level of sensitivity.²²⁶ In order to determine how a human is impacted, many studies have been conducted to study peoples' response to noise and to create measurement scales, which are weighted accordingly.²²⁷ What has been discovered in these noise sensitivity studies is that humans tend to adapt to the ambient noise level, within reason. "There may be a church near your house that has a bell that goes off every 15 minutes. After a while, you don't hear it."²²⁸ Similarly, noise caused by boats, trains and aircraft can all be canceled out if they are not too loud.

Dr. Hansman stated that prior studies had revealed several findings respecting the psychology of hearing aircraft noise and gave examples:

1. If an aircraft flies over two people with equal hearing ability, one will "hear" the aircraft and the other will not.
2. The same person, who does not "hear" an aircraft fly overhead in the bustle of the day, will hear it in the restfulness of the night.
3. The same person who is not bothered by the sound of aircraft noise in his day to day life, may be bothered by it while visiting a quiet setting.

Dr. Hansman explained that while some individuals are able to cancel out (become oblivious) to aircraft noise, others are hypersensitive to it. Someone who becomes hypersensitive to a particular noise can never cancel it out.²²⁹ He stated that there are certain hypersensitive individuals who will never be able to ignore or "cancel out" noise from an aircraft. This will continue to be true when the aircraft noise is significantly reduced, even after the point when it drops below the level of the ambient noise. The hypersensitive individual's ear can follow it (stay tuned to it) into the background.

Dr. Hansman also testified that airports across the country can name specific individuals who complain on a regular basis. They consider them hypersensitive, as no complaints are filed by persons actually experiencing higher levels of aircraft noise.²³⁰ It is suspected they become hypersensitive for psychological reasons rather than for the actual loudness of the noise. For example, they are already annoyed for another reason. They believe their noise complaints are not being acted upon by a public servant. They harbor a personal dislike for a particular aircraft owner or airport owner.

²²⁶ NJGASC, 4/30/96, page 14.

²²⁷ NJGASC, 4/30/96, pages 14-15.

²²⁸ NJGASC, 4/30/96, page 11.

²²⁹ NJGASC, 4/30/96, page 11.

²³⁰ NJGASC, 4/30/96, page 35.

The Commission also received testimony from Mr. Henry Young, a general aviation consultant since 1974, and head of his own firm, Young Environmental Sciences, since 1984. Mr. Young explained the issue of noise sensitivity by saying that "aircraft, because of their prominence, tend to stand out, both in the sense of visually standing out and in the sense that their noise is delivered in short but intense bursts."²³¹ Even though some people may tend to psychologically focus on aircraft noise, Mr. Young's statistical analysis of the noise monitoring data from Teterboro Airport, the busiest corporate general aviation airport in the world, consistently shows that "the cumulative annual noise impact at these locations from aircraft is less than the community noise levels that are created by other ambient sources, particularly, motor vehicles."²³²

According to Mr. Young, a factor that increases the sensitivity to aircraft noise is the lack of communication and a lack of understanding of the benefits and necessity of aviation.²³³ "It would not be surprising, for example, in a rural community that did not have a trusting and open relationship with airport management to be as much as ten times more sensitive [to noise] than they would be if they felt that whatever they were experiencing was being adequately addressed from a regulatory standpoint and was being minimized so that whatever disruption occurred is the absolute least that they should have to tolerate."²³⁴

In addition to there being different levels of sensitivity to actual or existing noise, Mr. Young testified that there can also be varying sensitivities or perceptions of anticipated noise that would be associated with an airport expansion. As an example, he brought with him a poster from the Internet regarding the Branchburg-Readington public meeting on the Solberg Airport expansion. This poster was described in the previous chapter and warns of airline flights and other exaggerated fears. Mr. Young commented: "The amount of adverse reaction that is being generated to that proposal is entirely out of proportion to the amount of noise that is generated by that facility. . . ."²³⁵ Their expectations are significantly different than the realities that would logically be expected to be created. In other words, the problem would not be significantly enlarged. They simply perceive that any enlargement, no matter how slight, is utterly unwanted. Thus, they have an expectation of a problem which is unlikely to materialize."²³⁶

Mr. Young also reviewed the history of federal noise regulation that began in 1967 with Part 36 of the Federal Aviation Regulations.²³⁷ The regulations began with phasing out the Stage I jet aircraft

²³¹ NJGASC, 5/28/96, page 19.

²³² NJGASC, 5/28/96, page 19.

²³³ NJGASC, 5/28/96, pages 12-13.

²³⁴ NJGASC, 5/28/96, page 14.

²³⁵ NJGASC, 5/28/96, page 10.

²³⁶ NJGASC, 5/28/96, page 23.

²³⁷ NJGASC, 5/28/96, page 4.

(the original and loudest ones), followed by a program to phase out the Stage II aircraft (the ones which emitted less noise), and now, today, it requires that after the year 2000 all aircraft must be Stage III aircraft (the least noisy aircraft).²³⁸ In the Aviation Safety and Capacity Act of 1990, Congress accelerated the phase out of Stage II aircraft by the year 2000. After that, all aircraft will have to meet Stage III requirements and older aircraft will either have to be modified or retired.²³⁹ Since the Act set a uniform national standard for aircraft noise, it prohibited local, facility-specific regulations.²⁴⁰ Federal law and regulations preempt state or municipal aircraft noise regulation.

Mr. Young stated that "most general aviation aircraft, with the exception of older business jet types, will meet or exceed the levels associated with Stage III."²⁴¹ He added, "you will generally find at smaller airports that the level of cumulative noise which occurs does not significantly go off the facility."²⁴²

With the federal preemption of aircraft noise regulations (see generally Appendix G), this Commission obviously cannot make a recommendation for any State or municipal noise guidelines. The Commission does find that the noise issue is subjective and emotional. The federal standard is an indication of the importance of aviation to interstate commerce and the national transportation system. With aircraft being able to leap time zones, much less states and municipalities, it would be a regulatory maze for the aviation industry if it had to track and comply with thousands of different noise regulations across this country. Potentially, it could strangle the entire system. What this profusion of standards and units of measurement would mean to an the aircraft operator was once eloquently expressed by Frank Kolk, then vice president of American Airlines: "Imagine driving your automobile from California with a speed limit of 60 mph into Arizona with a speed limit of 45 knots, into New Mexico with a speed limit of 110 kilometers per hour, and on into Texas with a speed limit of 150 ft. per second. None of the speed limits are comparable, of course."²⁴³

As each year's production is added to the fleet, and as each year's attrition is deleted from the fleet, the percentage of the fleet that meets FAR Part 36, Stage III noise standards has increased. For example, by the end of 1976, there had been 2,500 business jets manufactured worldwide, of which only 20 percent met Stage III standards. By the end of 1986, the fleet has grown to more than 3,700 aircraft, adjusting for attrition. Most of the new jets were stage III compliant, increasing the

²³⁸ NJGASC, 5/28/96, page 9.

²³⁹ NJGASC, 5/28/96, page 32.

²⁴⁰ NJGASC, 5/28/96, page 32.

²⁴¹ NJGASC, 5/28/96, page 10.

²⁴² NJGASC, 5/28/96, page 21.

²⁴³ Report of the Aviation Advisory Commission (January 1973) p 15. This Commission was enabled by the US Congress (Public Law 91-258-1970) with a mandate to "formulate recommendations [to the President and the Congress] concerning future airport requirements and the National Airport System Plan ... surrounding land uses, ground access, airways, [etc.]"

percentage of Stage III aircraft to 55 percent. There were nearly 8,500 business jets operating at the beginning of 1990; of these 66 percent met Stage III. But adjusting for attrition, at least 75 percent of the fleet met Stage III standards at the start of 1997. The "hush kit" programs now in place will increase this to 85 percent in the near future.²⁴⁴ All aircraft must meet stage III standards by the year 2,000.

It is interesting to note that in the surveys done by this Commission of those municipalities, which either host or neighbor airports, noise was not the primary or predominant complaint. When asked whether they were receiving complaints from their constituents about aircraft overflights, only 46.6 percent of the host municipalities responded "yes" and, then, an equal number, 46.6 percent, responded "no". Interestingly, approximately half that number, 26.6 percent of those municipalities which host airports, were receiving complaints about aircraft noise at night.

When host municipalities were asked whether the airport was a good neighbor, 46.6 percent responded "yes." Forty percent responded "no". When asked why the airport was not a good neighbor, the major responses had nothing to do with aircraft noise (but rather said "expand the airport", "communicate", and "cooperate with community", "industrial park"). When asked what the airport could do to become a better neighbor, only 6.6 percent of the respondents said "reduce noise."

Administrators in communities which neighbor airports, had fewer concerns about aircraft noise. When it was suggested that the majority of the people in their community were concerned about aircraft noise from the neighboring township, 57 percent either did not know or disagreed. Forty-three percent agreed in varying degree. When it was asked how many complaints they received monthly about aircraft noise, 59 percent said five or more per month. Twenty-one percent received one or less of such complaints.

When considered in their totality, these facts reveal that noise is not really the major problem created by the general aviation airport. Perhaps it is, that as aircraft have become quieter and we have become accustomed to aircraft noise, it does not bother us as much as we believe it does. Clearly, when an airport proposes to make improvements, which are popularly perceived as inviting business jet aircraft, the negative reaction is logarithmically greater than it is for the noise (sometimes of business jet aircraft) they experience everyday.

²⁴⁴ Report of Grubb Associates of Chicago in Business & Commercial Aviation (September, 1997).

What is the worth in anything
But so much money as 'twill bring.

Samuel Butler
Hudibras, pt. 1
Canto I, L. 465
[1665]

THE MYTH THAT AIRPORT IMPROVEMENTS DECREASE LAND VALUES

It is widely believed and often argued that improvements made to a general aviation airport, especially those which will allow it to accommodate modern business aircraft, will cause a reduction in land values in the airport area. Naturally, residents whose homes are near the airport are concerned about this. This is also an issue of concern to the Commission. The Commission received testimony from Mr. Winthrop Perkins, a real estate appraiser in New Jersey for 12 years who has appraised airports and their environs exclusively for seven years. His area of expertise is in the evaluation of airport real estate, airport businesses and real estate surrounding airports. He has testified as an expert witness in New York, Michigan, North Carolina and New Hampshire, and testified before the Commission in this capacity.

Mr. Perkins testified that the separation of fact from myth about the valuation of land surrounding airports is one of the great challenges to the appraiser. Very few people are expert at it. Very little is published about it. So little, in fact, that the seminal article to determine the impact of airport activity on non-aviation land is drawn entirely from a study of a military airport. This is misleading because the military uses such frightening expressions. For example: in civil aviation there is an area referred to as the "runway protection zone." The military calls it the "accident probability zone."

Mr. Perkins also testified that "in New Jersey when the market is essentially considered to be good in residential housing, there is little or no distinction made between airport-related properties and properties that are [located] far away from an airport, particularly a smaller private general aviation facility... When the market is a soft market, you then begin to see some difference, not ... in the price ..., but in how long it takes to sell ...[the property]."²⁴⁵ In this latter event, the only cost of airport proximity, is the time value of money (e.g., the interest the sale proceeds would have earned had it been received a few months earlier.)

More work of this type has been done, and thus more is known, with respect to larger airports. A regression analysis of the area around Chicago O'Hare was done to determine how value, with regard to the proximity to the end of the runway, was affected. They found, in some cases, "... the value of property in the vicinity of the airport was higher, because the people who worked at the airport wanted to be close to their jobs, thus contradicting what the general assumption was."²⁴⁶

The land around airports oriented to business aviation, such as Teterboro, Morristown, Trenton Mercer, Allaire, South Jersey Regional, etc. tends not to be occupied in a residential fashion. Infrastructure improvements around the airport generate nonresidential zoning, *i.e.*, commercial or

²⁴⁵ NJGASC, 3/26/96, page 115.

²⁴⁶ NJGASC, 3/26/96, page 115.

industrial. If the airport is in control of that land, it becomes a very serious adjunct to its capacity to generate revenue and remain viable. Many airports would have a difficult time breaking even on aviation related revenues alone. Often the most significant asset of the airport is the long-term lease of structures in their airport industrial park that are not aviation related. These leases generate rental income unrelated to aviation activities, which constitute significant income to the airport. If the airport is not in control of this land surrounding the airport, there tends to be an enhancement in its value for whoever is the owner. In some instances, particularly at air carrier airports, significant premiums are paid for the surrounding commercial and industrially zoned land.

Land that has aircraft access to the airport can become disproportionately valuable, as there is very little of this land available. A company that wants a hangar with airport access cannot go anywhere else to acquire it. The owner of this land has a monopoly and will secure monopolistic prices.

In summary, as a general rule (subject to the inevitable exceptions):

- Residential real estate located near a small aircraft general aviation airport without airport access does not become less valuable due to an airport improvement. In a good market there is no effect on it at all. In a poor market, the only effect will be that it takes longer to sell it, but the price it will command will remain unchanged. In some instances, such as sales to aircraft owners, this real estate may command a premium.
- Residential real estate located on a small aircraft general aviation airport will usually command a premium.
- Residential real estate located near a large aircraft general aviation airport or near an air carrier airport, but without airport access, does not become less valuable due to an airport improvement and, in some cases, may become more valuable due to improvements that enhance the acceptance of the airport by the business community.
- Commercial or industrial real estate near, but without aircraft access, to the small or large general aviation airport will command a slight to a substantial premium for their location, and tends to be reliable rental generators in both good and poor times.
- Commercial or industrial real estate near, but without aircraft access, to the air carrier airport will command a premium.
- Commercial or industrial real estate with aircraft access to the large aircraft general aviation airport will usually command a substantial premium.
- Commercial or industrial real estate with aircraft access to the air carrier airport will usually command a substantial premium.

In the construction of a country it is not the practical workers but the idealists and the planners that are difficult to find.

Sun Yat-Sen
Chung-sham Ch'üan-shu, vol. II

THE NEW JERSEY STATE AIRPORT SYSTEM PLAN: THE INTERMODAL STATION

New Jersey's air transportation planning must become goal-oriented. Historically, the State Division of Aeronautics has found itself reacting to the problems presented by a shrinking airport system that lacks substantial long-term planning and legislative guidance. In fact, the New Jersey Development and Redevelopment Plan published in 1992 (which completely overlooked the New Jersey State Airport System Plan) did not mention general aviation.²⁴⁷ The Division has done its best to cope. However, New Jersey has never had an airport system plan that started with a socio-economic goal and worked toward it. Implementation of the federal reliever airport system has been the only goal-driven concept undertaken in New Jersey. Unfortunately, it does not address the real aviation needs of the State.

Several sister states have implemented goal-oriented plans aimed primarily at securing high-end jobs for their citizens. These plans have inured greatly to their benefit and, on occasion, to New Jersey's economic detriment. New Jersey must now play catch-up. In this effort it must begin to plan its airport system, just as it does its highways, bus routes and railways.

The Intermodal Station

Planning is essential. New Jersey is still, as it has ever been, a state which thrives because of the intrastate and interstate transportation facilities it provides. Yet it is late in developing plans for a modern intermodal transportation system which will serve the needs of industry and provide jobs for its citizens. It must now develop a rational, systematic and systemic plan of intermodal stations. Several dozen of these intermodal stations should be located throughout the State at each terminus, each intersection of its major axes of travel and at each point where the generation of economic activity is desired. These plans, when adopted by the Legislature, will be a clarion call to the business world that New Jersey means business.

The Intermodal Airport

By definition, each such intermodal station must include a general aviation airport. As businesses rely more and more on business aviation—and where airport facilities are today a key factor in the decision to locate or relocate businesses—general aviation airports have become essential transportation facilities. Fortunately, the physical plant of the model general aviation airport is completely compatible with the concept of the intermodal station. (See Appendix K for a depiction

²⁴⁷ The New Jersey Development and Redevelopment Plan (SDRP), June 12, 1992, page 58. The SDRP simply states that Policy 9 of its "Coordinated Transportation Planning", regarding aviation facilities, is to "protect and enhance New Jersey's aviation facilities to maintain statewide access to the air system. Land-based access to the State's airports, and the prudent regulation of land uses immediately surrounding airports are of particular concern."

of the model intermodal station).

A model for such a facility would consist of sides approximately two miles long and one mile wide. It would contain approximately 1,400 acres and provide runways to accommodate the modern business fleet on a hot summer day when all aircraft require more runway to take-off. It would be located next to, and provide access and egress to, a limited access multilane highway. It would include a common terminal for rapid mass transit, transient aircraft and for local rail and bus facilities. It would provide parking facilities for more than ten thousand automobiles. It would also include rental lots for the location of commercial enterprises. It would be about the size of the Trenton Mercer Airport (much smaller than Atlantic City or Newark International). Most of the 1,400 acres would be the unimproved open space needed for clear areas, runway protection zones and building set back lines.

In designing the airport portion of the intermodal station, certain principles must be established. First, an airport must be able to accommodate the needs of the modern fleet of business aircraft on a typically hot summer day. It was suggested that money could be saved by seeking to accommodate a smaller portion of the fleet, or the entire fleet on a cool day or the modal class of aircraft in the business fleet. The Commission rejects all such suggestions. When competing to secure jobs for its citizens, New Jersey would manifest no wisdom in making a long-term plan to be mediocre. Rather it must hold itself out to the business world as being the state best able to serve them. Today, businesses want their personnel to depart at any time of day, in any season, with the maximum load their aircraft can carry. New Jersey cannot tell them to wait until the weather changes or to leave passengers behind.

Second, any adverse impact on host or neighboring municipalities must be minimized. Simply put: A-filtered aircraft noise above ambient levels must be substantially contained within the airport zone. Noise contours and zoning must conform to FAR Part 150 noise/land use compatibility guidelines (See Appendix H). The airport portion of the model intermodal station contemplated herein can achieve both.

To design any airport, two steps are essential: (1) identifying the types of aircraft New Jersey businesses will employ (See Appendix I) and then (2) defining the amount of land needed for runway lengths, noise containment and economic viability.

Types of Aircraft

For the purposes of our State planning, there are five different types of civilian aircraft. The first is the **heavy airline transport** aircraft (up to 1,000,000 pounds). These are the aircraft served primarily by Newark International, and Atlantic City International. The next three are all general aviation aircraft. They include the modern **large turbine business aircraft** which weigh up to 100,000 pounds. These jet aircraft can now move entire teams of 10 to 20 executives non-stop to any place in Japan, Hong Kong, Europe or South Africa from any place in New Jersey. The **small turbine**

business aircraft weighs up to 50,000 pounds and includes small jets and turbo props. Typically these do not carry the number of passengers nor go as far as the large turbine business aircraft, but they carry more and go farther and faster than the small aircraft. The **small business aircraft** include all aircraft weighing less than 12,500 pounds. This group comprises the modal class of the business fleet. It must be noted that many small business aircraft include those used for training and those used like private automobiles - alternately for individual business travel and personal travel. In addition to business aircraft, there are **recreational and experimental** aircraft, which typically weigh less than 12,500 pounds.

Determining Land Requirements

The amount of land required for a general aviation airport is a function of three parameters: runway length, noise containment and economic viability.

Runway Lengths The initial parameter in determining the amount of land required for an airport is the length of the runway required for the aircraft it is meant to attract. The following table indicates the runway lengths for the different groups of aircraft and the clear areas (at each end of a runway) required by Part 77 of the Federal Aviation Regulations.²⁴⁸

<u>Type of Aircraft</u>	<u>RUNWAY</u>		<u>CLEAR AREA</u>				<u>TOTAL LENGTH</u>
	<u>Weight Bearing Capacity</u>	<u>Length for 95° day</u>	<u>Precision Approach</u>		<u>Non-Precision Approach</u>		
			<u>On Each End</u>	<u>On Each Side</u>	<u>On Each End</u>	<u>On Each Side</u>	
Airline Aircraft	1,000,000	13,000	3200 x 1750	750	2200 x 1750	500	19,400
Large Turbine Business Aircraft	100,000	7,500	3200 x 1750	750	2200 x 1750	500	13,900
Small Turbine Business Aircraft	50,000	4,700	3200 x 1750	750	2200 x 1750	500	11,100
Small Business Aircraft	12,500	2,000 - 4,700	3200 x 1750	750	2200 x 1750	500	
Recreational and Experimental Aircraft	12,500	2,000 - 3000					

Runway Requirements For Different Types Of Aircraft

²⁴⁸ Title 14 - Code of Federal Regulations, Subchapter F - Airspace, Part 77 - Objects Affecting Navigable Airspace.

The Table above shows the required weight bearing capacities, runway lengths, and resultant clear areas required for the different types of aircraft. The focus today must be on large turbine business aircraft airports which not only can accommodate all the aircraft in a particular corporation's modern aircraft fleet (thus encouraging the corporation to locate there) but also accommodate all other aircraft that would use a shorter runway.

Begrudging airports the proper length for their runways compromises aeronautical and public safety and, as set forth below, effective noise abatement and the airport's economic viability. In fact, runway length directly correlates to safety of operations, effective noise containment and the economic viability of the airport.

Economic Viability. Every airport, even those that are publicly owned, must be economically viable. However, this is essential in the case of the privately owned public use airport. Virtually all airport income derives from its tenants. Operations such as repair stations and flight schools, operated by the airport owner, use airport space and can be deemed to pay a certain rent based on that space.²⁴⁹ Quite simply, the airport operator is a landlord. Therefore, economic viability means there must be enough land available for rent. Not all privately owned airports have sufficient land to generate the rental income required to sustain themselves. Thus, in designing a model airport, a determination of economic viability provides a second parameter in determining how much land is required for an airport. Below is a description of the airport at the model intermodal facility and how the rental income from it might be calculated and how much land is required to generate that income.

Noise Containment

Once a determination is made as to the type of aircraft operations an airport will have, a projected noise contour map can be drawn for the airport and neighboring lands. This is possible through the application of the Integrated Noise Models developed jointly over the past 25 years by the FAA and the federal EPA. The noise contour map enables the planner to plan land use for surrounding land in a manner compatible with the airport. The planning goal is to contain the loudest noises on the airport itself, where nobody lives. For example, zoning from the outside of the runway clear zones to the 75 L_{dn} contour should be manufacturing, horticulture, forestry and mining. Zoning between the 75 L_{dn} and 65 L_{dn} noise contour should be commercial offices and retail and wholesale businesses. Residential use can be zoned beyond the 65 L_{dn} contour. In no

²⁴⁹ An exception to this "rent income" model is the sale of fuel, which is a second and separate business of the airport owner. For the purposes of this discussion, however, fuel sales will not be considered. Rent income will be deemed the only means available to make an airport economically viable.

event should a school, other than an aeronautical or trade school, be located in an area of greater than 65 L_{dn} . The noise contour map, as an essential planning tool, provides a final parameter in determining how much land is required

In this context of designing an airport, it must be noted that noise abatement and containment has been a major focus of the aviation industry for over 25 years. Much has been achieved and today many things inure to aircraft noise compatibility. The high bypass turbofan engine installed on virtually every new business jet is substantially quieter than the original jet engines. Significant noise containment is achieved with longer runways, which allow aircraft to cross the airport boundary at higher altitudes. The introduction of the GPS precision approach will enable aircraft to follow steep, angled, curved flight paths to the airport, designed to avoid noise sensitive areas. Zoning and municipal land use legislation has provided the most effective noise compatibility. Locating the airport in a zone where ambient noise is the same as aircraft noise creates a completely compatible noise situation. Finally, an increase in the number of airports, which accommodate modern aircraft, will divide their operation among many airports and thus reduce the noise at every one of them.

Understanding the basic considerations about runway requirements, economic viability and noise containment in planning the airport portion of the intermodal facility, one can proceed to design New Jersey's model facility.

The Model General Aviation Airport Portion of the Model Intermodal Station

An airport, to attract and retain business, is built on a minimum of approximately 800 acres. It has a precision approach runway of sufficient length to accommodate every aircraft in the business fleet in all weather conditions (including all temperature conditions up to 95 degrees Fahrenheit) and a non-precision approach crosswind runway of approximately 70 percent the length of the main runway. Both runways will have weight-bearing capacities limited to exclude airline-type heavy aircraft and thus to ensure against the noise associated with scheduled airline service.

Appendix K illustrates such an airport. Complying with Federal Aviation Administration regulations and guidelines: 400 feet from the runway centerline an area for aircraft parking will begin and 750 feet from runway centerline buildings 30 feet high can be erected. This area will be zoned for commercial or industrial use. On the other side of these buildings is a car parking area and, beyond that, an open area as required by local building set back lines. Beyond the set back lines is an access roadway. If the buildings were 300 feet deep, the parking area 100 feet deep, and the set back line 100 feet, there would be 1,200 feet from the runway centerline to the road.

There would be approximately 1,300 feet—more than a quarter of a mile—to the first off airport building. Most of the sideline noise for the mix of aircraft anticipated would be retained on the site.

Assuming the fair market cost of unimproved land is \$40,000 per acre, the purchase of 735 acres would cost \$29.4 million. Building the runways, taxiways, ramps, fuel farms, etc. would cost approximately \$7.5 million. A simple terminal for air operations would cost another \$1,000,000.

bringing the initial capital investment to approximately \$37.9 million. Assuming a fair market rental value of \$0.50 per unimproved square foot, with 3.75 million square feet of unimproved commercial land available, the airport has a maximum potential gross income from “air side” rentals of \$1.875 million per year. This represents a return on investment before expenses and income taxes of approximately five-percent. After expenses and taxes this return can be reduced to less than one-percent. Additionally, it would take several years to achieve this level of income, meaning several years of operating with losses. On the other hand, as Appendix A indicates, this airport can be expected to have an economic impact in its community of approximately \$250 million and create over 3,000 jobs. It is apparent that even with the model facility the public benefit is infinitely greater than the private benefit. Thus it is reasonable to expect the public to pay a share of the capital investment proportionate to the division of the benefit.

The Existing General Aviation Airports

No general aviation airports in New Jersey measure up to the model airport. Existing general aviation airports have runways between 2,000 feet and 7,300 feet in length. The length and weight bearing capacity of the runway will determine what type of aircraft can be served by the facility. Even though this type of airport cannot be relied upon to accommodate the entire modern business fleet, it still is a source of substantial economic benefit to the State. This is true even of our airports with runways less than 3,000 feet (the threshold for small turbine business aircraft). As the table below indicates, New Jersey's 22 airports with runways less than 3,000 feet have an average annual economic impact over \$2,212,000 each.

No. of Airports	Runway Length (feet)		Total Impact	Mean Impact Per Airport	Mean Jobs Per Airport
	Greater	Less Than			
23	2000	3000	\$50,884,300	\$2,212,361	27
13	3000	4000	\$87,998,800	\$6,769,138	83
5	4000	5000	\$98,383,600	\$19,676,720	241
2	5000	6000	\$170,337,300	\$85,168,650	1,045
2	6000	7000	\$403,444,600	\$201,722,300	2,476
2	7000	--	\$489,526,900	\$244,763,450	3,004
47			\$1,300,575,50		
Statistical correlation to runway length:				0.941283556	0.941283556

Correlation Of Runway Lengths To Economic Impact And Job Creation

The one immutable discovery of this Commission is that New Jersey cannot afford to lose any of its existing general aviation airports and, in fact, will need in the future to replace certain of those it has lost. Even an airport that does not have the physical plant to accommodate modern business

aircraft is necessary for the service it currently provides. It must be planned, however, that most of these small airports will be improved to have at least one runway of 4,700 feet in length. Where possible, they must be improved to model airport specifications.

The smaller airports currently serve many purposes. They accommodate substantial individual business travel. They are the “classrooms” for children who will elect careers in aviation (an industry which now represents 10% of Gross Domestic Product). They are the “laboratories” from whence new technology will emerge. They are sized appropriately to receive the emerging short- and vertical-take-off-and-landing aircraft when they come on line. They are home to New Jersey’s sport and recreational aeronautical activities, air shows, and other community activities, such as Scouting and Eagle Flight. Many have historic significance and some house museums. As indicated above, they represent a substantial element of the \$1.3 billion worth of economic activity generated by the State's general aviation airports, and serve as well located land banks for inevitable future airport development.

New Jersey Development and Redevelopment Plan

The most egregious shortcoming of the current New Jersey Development and Redevelopment Plan is the omission of the New Jersey State Airport System Plan. Highways, railways, bus routes, car-pooling and airports require rational, coordinated and systemic planning. Not to do so is improvident and wasteful of State assets. The true intermodal station (e.g., one with an airport) is a major step in such a plan. Once a system of such stations are located, plans for all the modes of transportation can be developed -- essentially this becomes a task of connecting the dots. To locate these stations requires only a rationale, e.g., to generate economic activity - jobs - and to quickly transport citizens to those jobs and back.

The planner is remiss who approaches his task without imagination and foresight. It is conceivable in the next century that all new commercial and industrial activity will develop at or near such intermodal stations. Instead of dense commercial development sprawling outward from points on rivers and along highways, isolated islands of economic activity will develop around intermodal stations. Rapid mass transit (at 200 – 250 mph) and air travel (at 550 – 2000 mph) will make short distances insignificant. Speed will be increased by computer operated, small and rapid monorail cars (or personal automobiles which can mount and dismount from monorails at high speed), moving individually, which will stop only at selected destinations or to pick up others going to the selected destination. Open spaces, green belts and residential areas will be protected between these islands of industry. The area between these islands will tend not to become urban sprawl. Development in this most densely populated State will tend to become vertical instead of horizontal. Depressed areas within the State will be revitalized by the rapid travel available between them and the jobs available in one of these islands.

For the time being, this Commission urges that a plan be developed to locate at least one such intermodal station in every county and at every spot where increased economic activity is targeted in the New Jersey Development and Redevelopment Plan. This not only will provide each county

with a nexus of transportation modes from whence economic activity will grow (as it has always done in New Jersey), but also an airport which will invite in those types of businesses that offer the more highly paid jobs. These intermodal stations will be connected intrastate to each other and to residential areas by surface transportation. Each station will be connected to other states, and to all other places in the world, by air transportation.

In addition, the planner should sort through each of New Jersey's existing airports and determine which among them will be able (through land acquisition or otherwise) to achieve the standards of the model airport. Many will qualify to be intermodal stations. These will be essential elements in the New Jersey State Airport System Plan of the next century. The ones which do not, but which can be improved through land acquisition to 4,700 feet, will be important as New Jersey's secondary airport system of the next century. These will continue to serve the modal class of aircraft in the nation's business fleet. The few remaining airports which cannot be improved to meet either standard will continue to serve, as they do today, as essential facilities for individual business travel, education, research, development and recreation. These should be improved as much as is possible. All three will grow to be even more important to New Jersey in the next century as the fleet of general aviation aircraft continues to grow in our State.

This Commission urges the Legislature to recognize that most privately owned public use airports in New Jersey need more land if they are to have the runways required to accommodate modern business aircraft, to be economically viable and to control aircraft noise. Two things are necessary to achieve this. These airports' owners need financial assistance and they need the Department of Transportation to exercise its power of eminent domain. The NJDOT has this power but has been reluctant to use it. Fears of criticism and political pressure have caused our Commissioners of Transportation to avoid airport-related issues. The few who did address these issues over the past 50 years had very short tenures. The Legislature is most capable of dealing with these types of concern and this Commission finds that New Jersey's entire airport infrastructure is desperate for a strong legislative mandate to NJDOT and New Jersey's courts to adopt and expeditiously initiate action in accord with the recommendations set forth in this report.

While it may well be that a unified system of laws preempting all land use power for aeronautics would best serve the interests of the people of New Jersey, such a policy decision should be made by the Legislature and not by the court.

Superior Court Judge Rosenberg
Trial court opinion of *Garden State Farms v. Bay*
136 N.J. Super. 1 at 20 (Law Div. 1975)

THE LAW GOVERNING AIRPORTS AS A LAND USE IN NEW JERSEY

New Jersey recognized early the potential benefits of aviation. In the State *Aviation Act* of 1937, the New Jersey Legislature gave the goal of “aeronautical progress” the same weight as it had given the goal of “public safety.”²⁵⁰ The message to the Commissioner of Transportation implicit in this legislation was to actively develop the State's air transportation infrastructure.

Coincidental with the development of aviation in New Jersey was the development of New Jersey's tradition of Home Rule.

The Home Rule Act of 1917 [N.J.S.A. 40:42—1 *et seq.*] and the Constitution of 1947, have been liberally construed by the courts to favor the exercise of zoning power by municipal authority. However, it must be remembered that the zoning power is nonetheless an inherent power of the State, rather than the municipality, and can be delegated to the municipality only by specific legislation. This principle is not merely an expression of the relationship between the State government and the localities of New Jersey, it is a fundamental tenet of the Federalism that binds the United States together. There are two, and *only* two sovereigns under the United States Constitution—the state governments and the Federal government. The states may delegate authority to the municipality but may never relinquish the sovereign powers which are guaranteed to them by the Tenth Amendment. This principle is a binding force in land use and municipal law.²⁵¹

The New Jersey Constitution of 1947 gives the Legislature the authority to grant to municipalities the right to regulate municipal land use. Such regulation is deemed to be within the police power of the State. It also permits repeal or alteration by the Legislature.²⁵² The Constitution also allows a municipality to establish an airport and to take land for that purpose subject to provisions requiring just compensation to the affected landowner.²⁵³ However, a municipality may not under the guise of a zoning ordinance acquire rights in private property that it may only acquire by purchase or eminent domain.²⁵⁴

Guided by *The Home Rule Act of 1917*,²⁵⁵ and the foregoing Constitutional provisions, New Jersey

²⁵⁰ See generally N.J.S.A. 6:1—1 *et seq.*

²⁵¹ See Fritzell, D.J., & H.S. Pozycki, Jr., *Land Use Law*, 36 NEW JERSEY PRACTICE § 1.1 (St. Paul, Minn., West Publishing Co., 1989).

²⁵² NJ Const., art. 4, § 6, ¶2.

²⁵³ NJ Const., art. 4, § 6, ¶ 3; N.J.S.A. 40:8—1 *et seq.*

²⁵⁴ See *Yara Engineering Corp. v. Newark*, Appendix G, notes 163-168 and accompanying text (Invalidating city ordinance setting height restrictions on properties adjoining Newark Airport).

²⁵⁵ N.J.S.A. 40:42—1 *et seq.*

courts tend to favor a municipality's power to zone.²⁵⁶ When challenged in court, a zoning ordinance enjoys the presumption that it is reasonable and validly adopted. It is said that this presumption is rebuttable on a showing that the ordinance in question is arbitrary, unreasonable or capricious.²⁵⁷ However, it is highly improbable that this presumption would be rebutted when challenged by an airport operator. (See)

Ostensibly, in New Jersey, the Commissioner of Transportation has the ultimate authority in the placement of aeronautical facilities.²⁵⁸ Clearly, he must weigh conscientiously local interests, examine carefully whether a proposed aeronautical facility is compatible with surrounding land uses, and consult local ordinances and authorities when making licensing decision.²⁵⁹ If he decides contrary to the wishes of the municipality, it will appeal the matter alleging the Commissioner is unreasonable or arbitrary. State court cases beginning in the late 1970s²⁶⁰ addressed the meaning of the phrase "supervision over aeronautics" in the State *Aviation Act* to delimit the powers of the Commissioner. Two subsequent acts of the Legislature, the *Airport Safety and Zoning Act of 1983* and the *New Jersey Airport Safety Act of 1983*, having withstood initial challenges to their constitutionality,²⁶¹ appear to have broadened the discretion and powers of the Commissioner. The regulations promulgated under these *Acts* seem to widen the scope of his "superintendency" over land use issues affecting airports and aeronautics. However, the Legislature has not favored the Commissioner with a positive mandate respecting aeronautics and, in the absence of this, supervision over aeronautics" has begotten less than "aeronautical progress."

Much case law has developed both nationally and in New Jersey, which addresses airport development, and airport operations. In addition to aviation having become, literally, the most regulated industry in history, there is a substantial corpus of statutory and case law dedicated to it. Statutes adopted by the U.S. Congress during the past 30 years have addressed primarily two concerns: developing an interstate airport system and reducing aircraft noise. During that time, the statutes of the New Jersey Legislature have addressed primarily the preservation and improvement of the airport system and have proscribed municipal regulation that is "anti-airport" in purpose or effect. However, these acts have left room for the initiation of much litigation by both individuals and municipalities in New Jersey, implicitly raising the issue of whether the State or the municipality

²⁵⁶ Frizell & Pozycki, *supra* note 251 at § 1.1.

²⁵⁷ See *Ridgewood Air Club v. Board of Adjustment of Ridgewood*, Appendix G, notes 153-162 and accompanying text (sustaining Board of Adjustment's refusal to grant a permit for the use of certain lands as a non-commercial airport); see *Yoemans v. Hillsborough Twp., id.*, notes 123-131 and accompanying text (evidence failed to establish that provision in township zoning ordinance prohibiting an airport in a residential and agricultural zone was unreasonable).

²⁵⁸ See *Garden State Farms v. Bay*, Appendix G, notes 397-435 and accompanying text.

²⁵⁹ *Id.*

²⁶⁰ See *id.* See *In re Application of Ronson Corporation*, Appendix G, notes 436-442 and accompanying text.

²⁶¹ See *Patzau v. Dept. of Transportation*, Appendix G, notes 222-251 and accompanying text.

has primary responsibility for airport development. While there is no doubt the State has the primary authority if it so chooses, it has not always been clear that the Legislature wanted the Commissioner of Transportation to exercise that authority. When the Commissioner fails to act so positively as to preempt the field of airport regulation, the authority to do so devolves by virtue of the Municipal Land Use Law to the Municipalities. This devolution can beget not only a delegation of authority but also a change in State policy as most municipalities resist the construction or improvement of an airport.

The U.S. Constitution reserves to the States the right to regulate for themselves matters concerning public health, safety and welfare²⁶² that do not conflict with the laws of the United States²⁶³ or have the purpose, means or effect of regulating interstate commerce.²⁶⁴ The failure of the federal government to adopt a national airport zoning policy has left the responsibility for this to the States. The federal government will give substantial financial aid for appropriate airport development and improvement, but it leaves to each individual state the responsibility to develop zoning policy for its own intrastate air transportation system. As New Jersey and other states have undertaken to develop their air transportation infrastructure, interesting conflicts have arisen.

What follows is a brief synopsis of the New Jersey case law, which seems to have generated a number of themes. These cases and themes are more fully set forth and discussed at length in Appendix G.

Themes Emerging From New Jersey Case Law

Creating a New Airport Prohibited by the Local Zoning Ordinance. In *Yoemans v. Hillsborough Township* (1947),²⁶⁵ Mr. Yoemans, a landowner, wanted to build an airport. He challenged the reasonableness of a Hillsboro Township zoning ordinance prohibiting airports. The Court ruled that one attacking a zoning ordinance as unreasonable is subject to the presumption that it is reasonable and must bear the burden of establishing the contrary. In *Ridgewood Air Club v. Bd. of Adjustment of Ridgewood* (1947),²⁶⁶ the Township received an application to build a non-commercial airport for the members of a private association of pilots. In response thereto, Ridgewood quickly amended its zoning ordinance to prohibit airports. The Court found nothing wrong with that and sustained the new ordinance. The conclusion that can be drawn from these cases is that municipalities do indeed have significant discretion - in fact, virtually absolute authority - to defeat plans for a new airport.

²⁶² See *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926).

²⁶³ See U.S. Const. art. VI, cl. 2 (Supremacy Clause).

²⁶⁴ “Negative” reading of U.S. Const. art. I, s. 8 (“dormant” Commerce Clause)

²⁶⁵ See *supra* note 257.

²⁶⁶ See *id.*

This authority has been applied similarly in cases where an airport owner makes an application for a new improvement to an existing airport. (See *Somerset Air Service, Inc. v. Bedminster Township Planning Board, and Bedminster Township Committee*. SOM-L-120-94.)

Creating a New Airport When the Zoning Ordinance Is Silent. Absent a prohibition in the local zoning ordinance, is a private airstrip or heliport a lawful accessory use to private property? In *Schantz v. Rachlin* (1969),²⁶⁷ a farmer obtained a license and built a private airstrip for his single-engine aircraft. His neighbor argued that this was not a valid “accessory” use. The court stated the test is whether the airstrip use is customarily incidental to the principal use. The court sustained the airstrip holding that it was no less an accessory to the primary use of the farm than a swimming pool or a radio tower. In *State v. P.T.&L. Construction Company* (1978),²⁶⁸ a construction company had constructed a private heliport on the property of its corporate headquarters. In determining whether the heliport was a use “customarily incidental to the permitted use,” the court stated it was not controlling that a majority or even a substantial percentage of a given type of principal use is not accompanied by the particular accessory use. The court observed that this business practice is increasingly coming into vogue and there is a distinct relationship between the accessory use and the business conducted as the main use of the property. In *Oeschle v. Ruhl* (1947),²⁶⁹ the defendant had obtained a license to build an airport from the State Aviation Commission. Neighboring landowners sought to enjoin airport construction and operation on the basis of anticipated nuisance and diminution of market value of their land. The Court ruled that airports are not nuisances per se and that anticipated diminution of market value was not grounds for an injunction against construction of a proposed airport facility. Thus notwithstanding approval by the Division of Aeronautics, a private individual or corporation may not establish a private use landing area for fixed-wing aircraft, or a heliport or heliport on its property if an existing local zoning ordinance expressly prohibits that use. However, in the absence of an express prohibition, the courts will likely consider such use to be an appropriate and lawful accessory use.

Local Zoning for the Benefit of Aircraft in Flight. The City of Newark adopted a zoning ordinance, which restricted the height of structures in the path of aircraft landing at Newark Airport. The effect was to deprive the land of all value. In *Yara Engineering Corp. v. Newark* (1945),²⁷⁰ the New Jersey Supreme Court, noting that this ordinance had no foundation in any statute, ruled this was a “taking” and that Newark owed compensation. It is otherwise if a statute establishes a reasonable State wide policy for clear zones. In *Patzau v. Dept. of Transportation* (1994),²⁷¹ the facial constitutionality of

²⁶⁷ See *id.* at notes 281-300 and accompanying text.

²⁶⁸ See *id.* at notes 301-311 and accompanying text.

²⁶⁹ See Appendix G, notes 132-152 and accompanying text.

²⁷⁰ See *supra* note 254.

²⁷¹ See *supra* note 262.

the *Air Safety and Zoning Act of 1983*, which established "clear zones" prohibiting building in areas off the end of airport runways, was upheld as a legitimate exercise of the zoning power that did not *per se* amount to a "taking."

Aircraft Operations Affecting Individual Landowners. There have been several cases that examine problems caused to landowners by the flight of aircraft over property adjoining an airport. The US Supreme Court in *United States v. Causby* (1946),²⁷² which determined that whereas the landowner is no longer deemed to own his land from the center of the earth to the sky, and the air is a public highway as Congress has declared, vibrations caused by frequent over flights of military aircraft at 83 feet constituted a "taking" under the Fifth Amendment. In *Griggs v. Allegheny County* (1962),²⁷³ landowners located immediately adjacent to the airport successfully alleged that the county airport had taken an easement over their land without just compensation. The US Supreme Court laid liability for airport noise and vibrations solely on the airport proprietor, which it charged with a responsibility to acquire sufficient land when building an airport to avoid creating this type of over flight trespass.

In *Hyde v. Somerset Air Service* (1946),²⁷⁴ Mr. Hyde, a private property owner sought to enjoin flight operations from a privately owned public use airport on the ground that frequent aircraft flights 300 feet over his house constituted a nuisance. The Court agreed and flight paths had to be altered. In *City of Newark v. Eastern Airlines* (1958),²⁷⁵ Newark, Elizabeth, Union, Hillside and Linden sought to restrain flights below 1,200 feet by airlines over densely populated residential portions of their municipalities by claiming trespass. However, the municipalities could not prove how high the aircraft were. The Court ruled that the altitude of aircraft was an essential element in proving trespass and thus, the municipalities were unsuccessful.

Municipal Attempts to Regulate Airport Noise. It might seem reasonable for a municipality to attempt to control noise from the airport by exercising its police power. However, because of federal preemption, unless the municipality is also the airport proprietor, it cannot do so. This issue first arose in New Jersey in *Parachutes, Inc. v. Lakewood* (1973).²⁷⁶ Lakewood, a non-proprietor host municipality adopted an ordinance that limited noise levels to 60 dB in the daytime. This ordinance was designed to close a sport parachute operation at Lakewood airport. The ordinance originally survived a challenge that regulation of aircraft noise was federally preempted. However the ordinance was later declared invalid when the U.S. Supreme Court decided *Burbank v. Lockheed Air*

²⁷² See Appendix G, notes 169-178 and accompanying text.

²⁷³ See *id.* at notes 215-221 and accompanying text.

²⁷⁴ See *id.* at notes 179-193 and accompanying text.

²⁷⁵ See *id.* at notes 194-213 and accompanying text.

²⁷⁶ See *id.* at notes 252-261 and accompanying text.

Terminal (1973).²⁷⁷ In that case, the City of Burbank, in California, adopted an ordinance, which attempted to control noise by setting a curfew on jet operations at an airport that was not owned by the municipality. The Court declared this ordinance invalid on the basis that federal regulation had preempted the field of airport noise. Thereafter, in *Township of Hanover v. Morristown* (1975),²⁷⁸ a court-sanctioned settlement between the two municipalities which had provided both a curfew and noise abatement flight operations was modified to eliminate these provisions because of the ruling in *Burbank*.

Development of the “Island of Immunity” Doctrine. Morristown’s airport is located in Hanover Township and this has generated much litigation between the two municipalities. The following cases follow the development of the “island of immunity” doctrine resulting from some of that litigation. In *Aviation Services v. Bd. of Adj. of Hanover Twp.* (1956),²⁷⁹ the N.J. Supreme Court examined the limits of a host municipality’s ability to zone an airport within its borders but owned by another municipality. It held that Hanover’s zoning ordinance was not applicable to the airport owned by Morristown. In *Shell Oil Co. v. Bd. of Adj. of Hanover Twp.* (1962),²⁸⁰ the Court determined that a gasoline service station permitted by Morristown in its airport zone but prohibited by Hanover’s zoning ordinance was not a use “accessorial and incidental to the primary purpose of airport operation” and ruled in favor of Hanover. In the pre-*Burbank* case of *Township of Hanover v. Town of Morristown* (1969),²⁸¹ the holding of the trial court that survives *Burbank* is the requirement that a non-proprietor host municipality must make reasonable accommodation of existing airport uses. The Appellate Division, in *Brody v. City of Millville* (1972),²⁸² clarified the holding in *Shell Oil* stating that if part of the airport lands are leased for purposes unrelated thereto, the use must comply with the zoning ordinance of the municipality of having jurisdiction. Finally, in *Town of Morristown v. Township of Hanover* (1979),²⁸³ the Appellate Division defined the “island of immunity” an airport might enjoy from zoning regulations of the host municipality and held that within that island all uses which are reasonably accessory or incidental are permitted uses.

These cases create the framework that protects operative and orderly development of airports from countervailing municipal action. They also help to fill in the gap left by our State Legislature in failing to provide express guidelines in airport zoning matters. In particular, *Town of Morristown v. Township of Hanover* (1979)²⁸⁴ illustrates that the island of immunity concept extends not only

²⁷⁷ See *id.* at notes 262-271 and accompanying text.

²⁷⁸ See *id.* at notes 275-280 and accompanying text.

²⁷⁹ See *id.* at notes 312-336 and accompanying text.

²⁸⁰ See *id.* at notes 337-350 and accompanying text.

²⁸¹ See *id.* at notes 351-165 and accompanying text.

²⁸² See *id.* at notes 366-371 and accompanying text.

²⁸³ See *id.* at notes 372-383 and accompanying text.

²⁸⁴ See *id.*

to existing airport uses, but also to reasonable airport expansion for future public needs. However the Court left unanswered the question of what uses are reasonably accessory and incidental. The legislature should prevent a costly and wasteful *Morristown IV* and simply enact a statute, which provides that a terminal, hangars, aircraft maintenance, testing and storage, aircraft and auto parking, fuel sales, car rentals, rooming accommodations, restaurants, air freight and commercial offices are all permitted uses on the island of the airport zone.

Powers of the Commissioner. In *Pennsylvania R.R. Co. v. N.J. State Aviation Commission* (1949),²⁸⁵ the N.J. Supreme Court distinguishes the Commission's *quasi-judicial* administrative function from a "merely ministerial" function and rules that due process requires formal public hearings when ruling on the application of an airport sponsor. In *Garden State Farms v. Bay* (1978),²⁸⁶ while the Commissioner has the ultimate authority on placement of aeronautical facilities, including private use helistops, that authority must make lawful local interests a material factor in his decision-making. (See also *In re Application of Ronson Corporation* (1979),²⁸⁷)

The *Garden State Farms* Court was particularly concerned with what it perceived to be the less than "absolutist" nature of the term "supervision of aeronautics," which characterizes the powers of the Commissioner in the *State Aviation Act*. Although the *Airport Safety and Zoning Act of 1983* and the *New Jersey Airport Safety Act of 1983*, enacted some years after *Garden State Farms*, appear to have given broader powers to the Commissioner, it is argued here that absent clear guidance from the State Legislature, the N.J. Supreme Court will be reluctant to admit that the Commissioner has unfettered "superintending" power especially in the area of defining reasonable accessory and incidental uses within the airport zone.

Federal Statutes

Under the *Federal Aviation Act of 1958*,²⁸⁸ Congress gave the FAA the power to determine which aircraft and engines would be permitted to operate in the U.S.²⁸⁹ Initially, the FAA's interest was in safety rather than noise.

The *1968 Amendment to the Federal Aviation Act of 1958*²⁹⁰ addressed the noise issue. The FAA was required to develop standards for the measurement of noise, to provide for the control of aircraft

²⁸⁵ See *id.* at notes 385-396 and accompanying text.

²⁸⁶ See *supra* note 259.

²⁸⁷ See *supra* note 261.

²⁸⁸ See former 49 U.S.C.A. §§ 1301-1542 (1976 & Supp. 1994); now codified as amended in 49 U.S.C.A. § 40101 *et seq.*

²⁸⁹ See J.J. Jenkins, Jr., "The Airport Noise and Capacity Act of 1990: Has Congress Finally Solved The Aircraft Noise Problem?" (1994) 59 J. Air L. & Com. 1023 at 1029.

noise at its source, and to make noise a factor in assessing whether to permit types of aircraft and aircraft engines to operate in the U.S.²⁹¹ The *1968 Amendment* led to 14 Code of Federal Regulations Part 36 (Part 36), which established procedures and standards of measurement of noise for aircraft and aircraft engines. However, the Rule did not apply to pre-existing aircraft and failed to promote the development of new noise reduction technology.²⁹²

The *Noise Control Act of 1972* (NCA)²⁹³ authorized the Environmental Protection Agency (EPA) to determine the adequacy of the FAA's noise regulations and make recommendations to the FAA. The FAA, however, was free to reject the EPA recommendations if they were not technologically or economically feasible, and the FAA did not implement many of the EPA recommendations.²⁹⁴ The NCA also required the FAA to consult with the EPA prior to issuing any exemptions under FAR 36. If the FAA determined, however, that safety was an overriding concern, it could issue an exemption without consulting the EPA.²⁹⁵

The *Aviation Safety and Noise Abatement Act of 1979* (ASNAA)²⁹⁶ was enacted to provide a comprehensive noise abatement program and to help relieve the financial burdens imposed on domestic airlines to meet the Part 36 requirements.²⁹⁷ As a result, the FAA established the Airport Noise Compatibility Planning Program, under FAR Part 150,²⁹⁸ commonly referred to as the "Part 150" program.²⁹⁹ Part 150 encouraged airport owners to prepare Noise Exposure Maps (NEM),³⁰⁰ which are scaled geographic depictions of a particular airport, the measured noise contours emanating from it, and the land use compatibility of real property surrounding the airport. "The main objectives of the Part 150 program are to reduce existing noncompatible uses around an airport and to prevent the introduction of any additional noncompatible uses."³⁰¹ As an incentive, there was a section which remains in the law today, limiting the recovery of damages for noise for any person who acquires an interest in property after February 18, 1980, in an area surrounding an airport for which a noise exposure map has been submitted, where there is actual or constructive knowledge

²⁹⁰ See former 49 U.S.C.A. § 1431 (1976 & Supp. 1994); now codified as amended in 49 U.S.C.A. § 44715.

²⁹¹ See Jenkins, Appendix G, note 289 at 1031.

²⁹² *Id.* at 1032.

²⁹³ See former 49 U.S.C. § 1431 (1976 & Supp. 1994); now codified as amended in 49 U.S.C.A. § 44715.

²⁹⁴ See Jenkins, *supra* note 289 at 1033.

²⁹⁵ See *id.* at 1033-1034.

²⁹⁶ See former 49 U.S.C. app. §§ 2101-2125 (Supp. 1994).

²⁹⁷ See Jenkins, *supra* note 289 at 1034.

²⁹⁸ See 14 C.F.R. §150.1 *et seq.* (1997).

²⁹⁹ See Comment, "Federal and State Coordination: Aviation Noise Policy and Regulation" (1994) 46 Admin. L. Rev. 413 at 415-416.

³⁰⁰ See 14 C.F.R. § 150.21.

³⁰¹ See Comment, "Federal and State Coordination: Aviation Noise Policy and Regulation" (1994) 46 Admin. L. Rev. 413 at 416.

of the existence of the map, subject to certain exceptions.³⁰² There is, however, a prohibition on using the noise exposure map as evidence in a civil action asking for relief for noise resulting from the operation of an airport.³⁰³ Furthermore, the federal government expressly bears no liability for damages from aviation noise³⁰⁴ because of actions taken under its noise compatibility programs.³⁰⁵

The *Airport and Airway Improvement Act of 1982* (AAIA)³⁰⁶ created a vehicle to raise and distribute funding for airport improvement projects in all the states. Its provisions are similar to the Interstate Highway program. The federal government will contribute 90% of the funding needed for approved airport improvement projects. AAIA made Part 150 the primary vehicle for obtaining federal grants for noise abatement projects.

The *Airport Noise and Capacity Act of 1990* (ANCA),³⁰⁷ which left ASNAA intact,³⁰⁸ consisted of two related programs. The first was to establish a national aviation noise policy by limiting the authority of state and local governments to restrict Stage 2 and 3 aircraft (as defined by FAR 36),³⁰⁹ thus militating against inconsistent local regulation. The second was to phase out Stage 2 aircraft after the year 2000.³¹⁰

ANCA also resulted in the FAA promulgating FAA Part 161,³¹¹ Notice and Approval of Airport Noise and Access Restrictions, which requires an airport operator to provide 180 days prior public notice to the effective date of a Stage 2 restriction, seeking both FAA and public comment. Once the procedural notice and comment requirements are met, the proposed restrictions are still open to traditional legal challenges: they must be reasonable, not arbitrary and nondiscriminatory; they must not create an unreasonable burden on interstate or foreign commerce; they must not be inconsistent with maintaining the safe and efficient use of the navigable airspace; they must not conflict with a law or regulation of the U.S.; and they must not create an unreasonable burden on the national aviation system. If the airport proprietor imposes restrictions that do not comply with the foregoing requirements, the airport may lose its ability to receive federal money under Part 471, Airport Development; it may also not impose passenger facility fees under 49 U.S.C.A. § 40117.³¹² In terms

³⁰² See Appendix G, note 69.

³⁰³ See Appendix G, note 70.

³⁰⁴ See 49 U.S.C.A. § 47504(d).

³⁰⁵ See 49 U.S.C.A. § 47504.

³⁰⁶ See former 49 U.S.C.A. app. §§ 2201-2227 (1988 & Supp. IV 1992).

³⁰⁷ See former 49 U.S.C.A. §§ 2151-2158 (Supp. IV 1992); now codified as amended in 49 U.S.C.A. §§ 47521-47533.

³⁰⁸ See former 49 U.S.C.A. § 2153 (h) (Supp. IV 1992); now codified as amended in 49 U.S.C.A. § 47533.

³⁰⁹ See Jenkins, *supra* note 289 at 1037-1038.

³¹⁰ Presently, any waiver granted under the *Act* cannot extend operation of Stage 2 aircraft beyond December 31, 2003. See 49 U.S.C.A. § 47528(b)(3).

³¹¹ See 14 C.F.R. § 161.1 *et seq.*; see Comment, *supra* note 299 at 418.

³¹² See 49 U.S.C.A. § 47526.

of the airport proprietor's liability, a section of the law provides for the federal government to assume liability for noise damages "only to the extent that a taking has occurred as a direct result of the disapproval" of a proposed noise restriction.³¹³

However, "[i]n spite of ANCA's tighter federal regulation of airport noise restrictions, the FAA noted to Congress that '[t]here is clearly a vital role for increased State action, such as airport zoning laws."³¹⁴

SUMMARY

The thorough review of the law applicable in New Jersey, set forth in Appendix G, enables one to outline a few basic principles that have evolved over the past 50 years.³¹⁵ Unfortunately there are still gaps in this law. When an airport improvement is proposed the respective rights of the airport proprietor and the municipality are still not clear. Almost everyone—the municipalities which host and neighbor airports, the airport proprietors, the New Jersey Courts and the federal government—wants the New Jersey Legislature to designate clearer lines of authority for the State's Commissioner of Transportation with respect to airport zoning or land uses on and around the airport. To do so would remove the present confusion within the State system.

There is a legal distinction to be made between an "airport proprietor," regardless of whether it is an individual, a municipality, or other governmental entity, and the "host" municipality, in which the airport is located. The ability of a non-proprietor host municipality to exercise its police power to regulate activities at the airport is limited.

Under New Jersey law, a non-proprietor municipality, which is host to an existing airport, must make reasonable accommodation for such existing legal uses, while recognizing the importance of protecting and preserving the public interest in air travel. Moreover, each case in which a municipality bars air transportation facilities must be judged on its particular facts to determine if the local action is arbitrary and should be invalidated.

A non-proprietor municipality may not adopt any ordinance or regulation which:

- (a) has the purpose, means or effect of regulating airport noise at its source;
- (b) excludes uses which are manifestly within the ambit of appropriate primary or

³¹³ 49 U.S.C.A. § 47528. The U.S. Court of claims is expressly given exclusive jurisdiction in this matter.

³¹⁴ See Appendix G, note 82.

³¹⁵ For a fully annotated version of this section, see Appendix G, notes 443-479 and accompanying text.

- accessory uses consonant with an airport's operation;
- (c) interferes with the operation of aircraft in flight, including takeoff and landing procedures;
 - (d) classifies airports as non-conforming land uses within the context of the municipality's ordinances or master plans of development;
 - (e) has the purpose, means or effect of discriminating against interstate commerce;
 - (f) is preempted by State statute or regulation; or
 - (g) is preempted by federal law or regulation, such as the operation of aircraft in flight.

A proprietor municipality, or a private owner of a public use airport, may not regulate:

- (a) airport noise in any manner that is arbitrary, unreasonable, discriminatory, or contrary to federal regulation (for example, it may not prohibit operations of Stage III aircraft, not Stage II aircraft without appropriate notice;
- (b) in an area preempted by State statute or regulation; or
- (c) in an area preempted by federal law or regulation.

While municipalities are equal government entities and thus generally enjoy no intergovernmental immunity from one another, the New Jersey Supreme Court has found a legislative intent to immunize acquisition and maintenance of lands and buildings for airport purposes from zoning power. However, there are limits to this immunity. A proprietor municipality of an airport located in whole or in part in another municipality may not engage in a proscribed land use that:

- (a) is not incidental or necessary for the maintenance and operation of the airport;
- (b) is beyond the ambit of reasonable present or future public need; or
- (c) is a wholesale aggrandizement of territory.

A proprietor municipality, which transfers its proprietary control of an airport to another entity, for example, the Port Authority of New York and New Jersey, without reservation, may lose its power to impose any restrictions on the airport.

The proprietor of an airport is liable for damages from airport noise to affected landowners. However, if the airport proprietor meets the requirements of the 14 C.F.R. Part 150 (Airport Noise Compatibility Planning) program, its liability may be limited.

The federal government does not preempt state and local governmental efforts to regulate the location of helistops so long as the local regulation referred to does not directly affect actual aircraft operations. However, the Commissioner of Transportation has the ultimate authority as to placement of aeronautical facilities, subject to consultation with local officials and consideration of local objections.

In New Jersey and many jurisdictions, the inability of the courts to detect clear lines of authority has led to conceptual confusion and inconsistency regarding land use and zoning in regard to airport land. For example, if the placement and design of runways and taxiways is critical to the safety of takeoffs and landings and essential to the efficient management of the surrounding airspace, as the Ninth Circuit has held, municipal attempts to regulate their placement and design are clearly invalid. In 1995, a federal district court in Ohio arrived at an opposite conclusion. However, if flight in the navigable airspace begins when an aircraft starts its engines, then the Ohio court's conclusion is fatally confused and cannot be satisfactorily explained.

New Jersey State courts have subjected the municipal zoning regulation of airports to strict scrutiny. However, this leaves the courts to function on an *ad hoc* basis, which will inevitably lead to inconsistent results, through years of costly litigation. Appendix G covers no fewer than six reported cases concerning Morristown Airport alone. The legal battles continue, especially between privately owned public use airports and host municipalities.

As Superior Court Judge Rosenberg observed, in the trial court opinion of *Garden State Farms*, “[w]hile it may well be that a unified system of laws preempting all land use power for aeronautics would best serve the interests of the people of New Jersey, such a policy decision should be made by the Legislature and not by the court.”

It falls to the State Legislature to rethink and more clearly define the authority of the Commissioner over land use regulation on and around airport land. The recommendation made here is for a clear legislative statement that enhances the Commissioner's authority and expressly preempts this area from any municipal regulation. A strong, central authority would benefit both airports and the surrounding communities that they serve. The legislative goal should be to eliminate, once and for all, the problems caused by the ambiguous phrase “supervision over aeronautics,” used to describe the powers of the Commissioner of Transportation.

Another problem arises where the courts are left to guess at intergovernmental immunities between a State agency and a political subdivision inferior to the State, such as a municipality. When Legislative silence leaves the State courts no choice but to divine legislative intent, the courts are left, in effect, with the power to legislate. This is not a power that the courts necessarily desire, but they must interpret the law to apply it properly. While it may be reasonably asserted that the NJDOT regulations preempt local zoning ordinances *de facto*, that assertion should rely on express preemption language in the positive law, not guesswork.

The New Jersey Legislature has made great strides since *Garden State Farms*, particularly in laws aimed at protecting local residents. For example, the *Airport Safety and Zoning Act of 1983*, including the law requiring notification to prospective buyers whether the property they wish to purchase is located in an airport zone, is particularly praiseworthy. This notification law should be

enhanced to include the ASNAA notice that the noise contour map is on file at the Division of Aeronautics.

Recalling that airport litigation tends to be a highly charged emotional confrontation, the State Legislature ought to diffuse confrontation by providing “bright line” statements of authority over well defined zones of land on and around airports, anticipating reasonable, future airport development needs. It must define basic accessory and incidental uses to be permitted within those zones. It should give the Commissioner exclusive authority to decide applications for improvements within those zones. As well as applications for the establishment of a new aeronautical facility. The Legislature should require "fast track" treatment of litigation involving airport zoning questions and provide equal access to justice for airport owners whose ability to defray litigation expenses cannot be compared to the enormous resources available to the municipalities. In doing this it should follow the Federal model of the Equal Access to Justice Act, and require that the municipality pay for the legal costs and expenses, including reasonable attorneys' fees, if the airport owner prevails in the litigation.

While the legal aspects of airport zoning are important, they are but one facet of a multifaceted problem. If one was to view the open spaces of airport lands as limited natural resources, the importance of their preservation would become apparent, if only for environmental reasons. The safeguarding of any valuable, limited resource will always be a question of political will. The safeguarding of airport land is no exception. The State Legislature, acting decisively, can arrest the protracted and costly legal battles that exist or will otherwise and inevitably occur, protect a valuable land resource, and ensure that the final elements of a robust intermodal State transportation system—the general aviation airports—will develop and thrive in coherent uniformity.

There is nothing permanent except change.

Heracitus

RECOMMENDATIONS OF THE COMMISSION

At the time of the establishment of this Commission, New Jersey had lost on average one general aviation airport each year since 1952. Airport closings in this State constitute a significant trend which has already caused New Jersey to lose more than 50 percent of its general aviation airports. The presence and closure of these facilities have a significant effect on the host communities, and will ultimately affect the economy of the State. As a result of the testimony taken from the wide range of interests during the public hearings held by this Commission, the Commission has determined the following recommended goals for the Administration and the Legislature: (1) not only to save, but to expand the existing airports to adequately serve the needs of their communities and the economy of this State; and (2) develop plans to have at least one airport in every county of this State capable of serving the entire corporate aviation fleet on a 95 degree day. To the extent possible, these airports should be located near major highways and should be designed as intermodal transportation terminals serving mass transit, air transportation and car pooling operations. The goal of utmost urgency is to ensure that the State does not permit the loss of any of its remaining public use airports. These facilities are too valuable for the State to lose, and prohibitively expensive to reestablish. As previously discussed, the airports in peril are the privately owned public use facilities that are sold as a result of the owners not realizing an adequate return on their real estate capital, the owners' desire to liquidate their real estate assets, the second or third generations' decision to end the airport tradition, and/or the owners' frustration and disillusionment with not being able to improve their facilities in accordance with good business practices due to local opposition. As examined above, in spite of the tremendous economic impact of general aviation airports, the owners of these facilities do not usually see much of that on their bottom line: the transportation value of the airport is largely a public good and the private owners cannot make an adequate return simply on fuel sales, aircraft parking and any other services which they may offer. To keep private ownership attractive, the profits—or owners' return on capital—must be increased through a reduction of real estate taxes and the funding of upgrades through grants or low interest loans.

The Commission's objective in preparing this report is to propose a set of recommendations that are both detailed and realistic. The Commission believes that the following recommendations will protect New Jersey's remaining airports and assist them to meet the needs of the State's communities, while contributing to the State's overall economic development.

REVISIONS OF NEW JERSEY'S PROPERTY TAX LAWS

The Commission recommends a review of the State's tax treatment of general aviation facilities to alleviate the inequitable tax burden upon the private owners of public use airports.

Currently, publicly owned airports are exempt from real property taxation. The Commission recommends that this exemption enjoyed by many publicly owned facilities be applied to all general aviation airports' land and improvements, which do not directly generate income for the owner of the airport. The exempted areas would include, without limitation, all runway, taxiway, ramp, aircraft

parking, runway clear zones as provided in the New Jersey Airport Safety Zoning Act, runway clear areas and protection zones required for precision and non-precision instrument approaches as required by the Federal Aviation Regulations and their environs, as well as all land reserved for future airport improvements, all paved driveways and automobile areas available for public use and all other improvements dedicated to aviation uses. The Commission encourages this exemption since a privately owned airport is contributing to the State transportation infrastructure equally to that of any publicly owned airport, railroad or roadway.

The private airport owners are providing a significant public good, one that the public sector would otherwise have to provide at great cost. These taxes essentially penalize private airport owners for, and mitigate against their ability to, continuously providing this public service.

Our sister states have set the precedent for this. Four of those states do not require privately owned public use airports to pay property tax; one state has legislation pending for exemption; one state uses a reduced assessment; and one state has a bill pending for a reduced assessment. The seven states with some form of property tax relief are Indiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri and Pennsylvania. These states have population densities ranging from 74 to 769 people per square mile; New Jersey has 1,035 people per square mile.³¹⁶ Land values and, thus, tax assessments in New Jersey are generally presumed to be greater. New Jersey, with the highest population density and the second highest percentage of privately owned airports, is the state which most needs such a program.

PROGRAMS ENABLING AIRPORT OWNERS TO SELL DEVELOPMENT RIGHTS

The Commission recommends that the State establish a program enabling private airport owners to sell and transfer their development rights either to other private parties or to the State, and in the latter event, the State must stand ready to purchase these development rights when they are offered.

The largest asset for most airports in New Jersey is the real estate which they use. Airports typically require significant acreage in order to accommodate runways, taxiways, perpendicular crosswind runways, buffer areas, ramp and parking areas, hangars and maintenance structures, terminals and office buildings. Since this land is generally worth far more as a residential or industrial development than an airport (evidenced by the fact that many airports have become housing developments and that there have been no new airports established in over 20 years), there needs to be a mechanism to allow airport owners to liquidate their capital investment, in whole or in part, without closing the airport.

³¹⁶ Sister State Survey, Appendix C.

The Commission's recommended solution, to establish a program for the sale of development rights, is well proven as applied in the agricultural sector. The Commission encourages the State to establish a program to purchase the development rights of any privately owned public use airport with a covenant in the deed, to run with the land, stating that the airport would remain an airport in perpetuity. In order to guarantee that not one more airport is lost, this program should have a mandatory mechanism whereby airport land sold for a non-airport purpose would escheat to the State subject to the Constitutional requirements for just compensation. The State could then auction the airport, less its development rights, for the account of the former owner.

In addition, a provision should be included to provide that no municipality shall be permitted to condemn an airport except to continue it as an airport and, in such event, it must commit to improve the airport to the model airport specifications established by the NJDOT in its New Jersey Transportation Plan. This mechanism for reducing the amount of private capital invested in an airport would greatly improve an owner's return on the remaining capital. This simple program would enable airport owners to pursue alternative investments with a substantial amount of their capital without having to close the airport. Since not all of airport owners would be expected to exercise this "put" right either immediately or at once (even development rights will appreciate) the State can undertake the purchase of them gradually. In the end New Jersey achieves the establishment of a stable general aviation airport system at a fraction of the cost.

EXPAND CAPITAL IMPROVEMENT FUNDING

As a result of the testimony and review of the Sister State Survey, the Commission encourages New Jersey to undertake aggressive expansion of capital improvement funding for airports. Specifically, the most important projects are: runway extensions, land acquisition and the installation of lighting and Automated Weather Observation Systems (AWOS).

Runway extensions are the most important and effective improvement that can be made to increase safety in airport operations. It is also the most important improvement that can be made to establish the economic viability of privately owned public airports. It is also the most beneficial improvement that can be made to contain airport noise on the airport. The State can achieve all three of these with just one program.

In some cases, to achieve runway extensions, the State will have to exercise its power of eminent domain and apply capital funding to compensate persons whose property is acquired. Similarly, capital funding will be required to purchase the development rights of private airport owners opting to sell them. Finally capital funding will need to be applied to the purchase of land necessary for noise control. Some of this land can have the additional benefit of providing an area where commercial lots can be located which will help establish the economic stability of the privately owned airport and return of capital from the publicly owned one.

AWOS continuously broadcasts, on a discrete radio frequency, the current weather of the airport at which it is located. These systems are FAA certified substitutes for observations taken by licensed human observers. AWOS can operate 24 hours a day, and are a practical method of providing weather information at airports without a control tower or not staffed by weather observers. A local weather observation greatly improves the safety of instrument flight operations, and is in fact required by the FAA for instrument operations by a charter operator. For businesses that travel by charter aircraft, AWOS would enable them to use more airports within New Jersey's general aviation system.

New Jersey's capital spending improved markedly in 1994 compared to 1993. In 1993, New Jersey, out of the 44 respondents, ranked 34 in total capital investment, 38 in per capita capital investment, and 29 in capital investment per airport. In 1994, those ranks improved to 20, 22, and 11 respectively. Since New Jersey has the greatest number of residents per airport,³¹⁷ the State's capital investment should reflect that. New Jersey should strive to have the highest capital investment per airport of any state, and at a bare minimum, it should achieve at least the average level of those other states. In 1994, simply meeting the average would have required more than a four-fold increase. The state average in 1994 was \$395,903; New Jersey was \$93,640.³¹⁸

ESTABLISHMENT OF AIRPORT ZONES

The Commission recommends the creation of an "airport zone" through the amendment of the Municipal Land Use Law. Typical zoning classifications presently include residential, commercial, school and hospital zones. The creation of an airport zone will not only confirm that airports and other intermodal transportation facilities are conforming uses but, more importantly, provide the opportunity for the NJDOT to regulate and approve development within these zones, as recommended below.

The Commission recommends that the NJDOT adopt as New Jersey's model airport the model described for the intermodal facility set forth above. This model incorporates all appropriate standards for safety, for noise containment and for economic viability of the airport. An airport zone would be defined to include, at the minimum, all land within the airport boundary and its clear areas and runway protection zones; and, at the maximum, as the area within the 65 L_{dn} noise contour as determined by the NJDOT for its model airport. Identification of conforming uses within an airport zone by applying the findings of the FAA and EPA based on their extensive research over the past 25 years will in time resolve differences between the State's public interest in preserving its general aviation airport system and its interest in addressing the complaints of the airport's residential neighbors to minimize airport noise impact.

³¹⁷ Sister State Survey, Appendix C.

³¹⁸ Sister State Survey, Appendix C.

An airport zone should include and encourage the presence of businesses serving the interface of transportation modes. Such business activities as storage and maintenance hangars, passenger and air freight terminals, flight schools, aircraft rental, car rental, hotels, restaurants, train stations, mass transit and car pooling parking lots, police, emergency and highway maintenance services will all be deemed primary conforming uses of the airport zone. A second conforming use will include light industry (offices) and other business not directly related to inter-modal transportation. A third level of conforming use within an airport zone will include graveyards, farms, golf courses, open space, green acres and wetlands.

Establishing the airport zone by statute will eliminate the indecision and concomitant economic waste currently suffered by a general aviation facility and its municipality when considering a proposal to improve the airport. Certain activities, including building and improvement of runways, taxiways, ramp areas, fuel storage areas, terminals, maintenance and storage hangars would be known as conforming uses within it. In addition, the ease of processing their applications will encourage the presence of supportive industry within the airport zone which will sustain and enhance the business of the general aviation facility.

ESTABLISH THE NJDOT AS THE EXCLUSIVE AGENCY TO DETERMINE AIRPORT IMPROVEMENT AND ENVIRONMENTAL ISSUES

The Commission recommends that all laws regulating land, land use and environmental protection currently in force be amended to provide that the New Jersey Department of Transportation shall be empowered to administer these regulations respecting any land on an airport or within an "Airport Zone," as described above, and that considerations of safety in air transportation supersede considerations of environmental protection where the NJDOT determines the two are in conflict.

This Commission received an overwhelming amount of testimony from airport owners on the difficulties they experience within the current conflicting regulatory environment in New Jersey. These conflicts apparently give rise to "turf wars" between the agencies involved and an inordinate amount of time passes before the matter is resolved. Considering that human life is at stake, these internecine jealousies are baffling. While having the utmost concern for New Jersey's environment, the Commission is certain that the New Jersey Legislature and the Governor do not want to sacrifice human life for the sake of plant life.

The system needs to be streamlined. One agency must have paramount authority. Reason dictates that agency should be the one with the paramount responsibility - human life. Providing the NJDOT with sole regulatory authority over general aviation facilities and airport zones will eliminate the current confusion and peril inherent in this part of the regulatory process.

The Commission recommends that the New Jersey Aviation Act (N.J.S.A. 6:1-1 *et seq.*) be amended to provide that NJDOT shall have the exclusive authority to hear applications for proposed improvements to a New Jersey airport or for proposed improvements within an airport zone. It shall provide a single forum where all interested parties will have equal standing, including the publicly or privately owned public use airport owner, the airport authority, the host municipality and the neighboring municipality.

The Commission heard, and has summarized above, overwhelming testimony from airport owners, especially private airport owners, of the patent injustices, interminable delays and inexcusable economic waste visited upon them when making application to the host municipality for approval of an ordinary and reasonable airport improvement. In virtually every instance the proposed improvement to the airport would also be considered an improvement to the State's air transportation system. In numerous instances the improvement was never made. The State suffered many losses.

In addition, the Commission reviewed evidence from various reliable witnesses, including a State Senator, a representative of the League of Municipalities and the Commission's survey (See Appendix E) sent to all neighboring municipalities. All indicated that a neighboring municipality has a legitimate interest in the proposal of a neighboring airport improvement but it does not have equal standing with the host municipality which currently determines the application. This is true even though the population center of the neighboring municipality may be closer to the airport than that of the host municipality. The survey respondents overwhelmingly agreed that applications for the development of the airport should be made to the NJDOT, where the host and the neighboring municipalities would be given equal consideration when expressing their views and where the zoning ordinances of each would be given equal weight.

Finally, the Commission was convinced by evidence which indicated that even a well intentioned host municipality is not expert in matters of aviation and does not understand the needs of the State's air transportation system and cannot be expected to make judgements consonant with such understanding. NJDOT has such expertise and understanding.

The Commission recommends this as an improvement to the current procedure of NJDOT review upon appeal after the denial of the application. This current process has proven to be one with which only the host municipality is satisfied. After it makes its decision the matter is usually appealed into the court system by the applicant or the neighboring municipality where years pass before it is resolved. Worse, NJDOT may or may not be a party to the court proceeding and the State's overriding transportation interests may never be considered. Even if they are considered by the court, they are only considered as arguments in an appeal of a municipal action and not as an appeal of an action taken by a State agency. The current procedure has not been effective in the past and involves the waste of much time and economic resources. The recommended procedure will bring all parties before NJDOT in the first instance, and will help to resolve all matters in one proceeding.

PROGRAMS ENCOURAGING POSITIVE MUNICIPAL RELATIONS

While the State recognizes the economic importance of general aviation airports in the State, it must address the continuing difficulties airport owners and host municipalities' face regarding the operations of these facilities. The relationship between New Jersey's airports and their host and neighboring communities touches all aspects of a facility's operations. These conflicts often involve heated emotions, unrelated political agendas, concerns about safety, noise, quality of life and airport expansion, while battling with the airport owners' rights to operate their businesses and the State's need for an aviation infrastructure.

As previously discussed, there are many examples of excellent airport-municipal relations. Many airports are responsive to the concerns of their community and adjust their operations as much as they can to meet those concerns. Many municipalities value their airports as a means to attract business, preserve open space, supply transportation, and provide access for EMS and fire fighting services and encourage the expansion to adequately serve the modern business aircraft.

However, poor relationships between the airport and its host community are a severe threat to the survival of privately owned airports. These conflicting relationships can undermine the economic health of an airport by saddling it with the burden of legal proceedings arising from zoning ordinances designed specifically to restrict the airport's development. More importantly, these situations can prevent the extension of the airport's runway(s), precluding an airport from meeting the requirements of modern corporate aircraft. When the economic health of the airport suffers, the airport does not benefit the community to the extent that it could, and the community is less inclined to see it as an asset.

The Commission has not attempted to determine whether the pure economic issues or the municipal issues are most critical to the future of the State's airports. The Commission recognizes that the State's privately owned general aviation airports are in jeopardy unless both issues are resolved.

The Commission finds that the following elements promote a positive relationship: (1) open lines of communication, either through formal or informal channels; (2) residents and community leaders who understand the benefits of the airport; (3) an airport that is flexible in tailoring its operations to mitigate the concerns of the community; (4) a buffer zone around the airport consisting of open space, industrial land, or very low density housing; and (5) a mutual understanding of what is properly subject to municipal regulation and what is preempted by state and federal jurisdiction.

The Commission recommends the establishment of programs to promote a positive relationship and encourage communication between general aviation facilities and its host and neighboring communities. These programs should include educational initiatives, the establishment of airport committees and the standardization of rules and regulations immediately affecting the airport and municipality.

Educational Initiatives

As a first step in laying the framework for improved municipal relations, this Commission recommends that the Legislature mandate increased educational initiatives by both the Division of Aeronautics and the Department of Commerce. Every school in this State, Chamber of Commerce, elected official and citizen should regularly receive information on the basics of aircraft and airport operations and the economic and social role of aviation in the State. Without this educational background, the elements of fear and mistrust in the citizenry and government bodies make rational progress impossible.

It is important that the safety record of general aviation be properly communicated. Almost 70 years after Charles Lindbergh's flight, the general aviation industry in this State still has to fight the battle analogous to the conflict of automobiles and the horse. Just as cars have evolved from their dirty, noisy, and unreliable origins, modern aircraft are safer, cleaner and quieter than ever. In fact, general aviation aircraft are so safe and accidents so rare that every incident is a newspaper headline, while an automobile crash is hardly news.

The economic education is almost as important as the safety education. Residents of New Jersey need to know the role played by corporate aviation in helping businesses meet the challenge of global competition. Specifically, people living in New Jersey need to know the economic impact of their local general aviation airport; how it serves to attract industry and high technology jobs; how an airport-office park or airport-industrial park is a winning combination; and how it preserves open space and thereby reduces the burden on the school system.

Aircraft noise is also a main municipal concern that needs to be addressed through education. As set forth above aircraft noise has been reduced by almost half over the past 25 years. Programs presently underway will reduce it further. Yet the Commission learned that generally communities are not aware of this. They may not be annoyed by noise at the airport now, but they remember hearing loud aircraft, like the original Lear Jet. It was discovered that in every community where there is opposition to the airport, such fear of potential increased noise levels is one of the prevailing issues. Most of all they are afraid that they will be plagued with the noise of heavy airline type aircraft. They believe that any runway improved to accommodate business jets can also accommodate heavy airliners. General education is essential.

Once the education goals are met, the problems in municipal relations will be greatly improved and a rational framework can be created for addressing specific problems.

Establishment of Airport Committees

The Commission recommends that every public use airport establish an airport-municipality advisory committee. This committee should be "recommended" for both the airport, the host municipality and the neighboring municipality (-ies). Every airport should demonstrate the conscientious attempt to establish an airport-municipality advisory committee as a prerequisite to

receiving state aid. The airport committee should have quarterly meetings and could include in its membership the municipal planning board chair, the township engineer, an elected municipal representative, a representative of the planning board of each affected neighboring municipality, a neighborhood resident, two frequent users of the airport, the airport owner(s) and/or managers, and anyone else the airport deems to be appropriate such as the airport engineer, airport attorney, and chief flight instructor.

It is not necessary and it is not intended that these Committees will be boards which will determine airport policy by majority vote.

It is sufficient that committees simply ensure that the lines of communication are open and that the parties are communicating. The Committee will also serve the purpose of promoting the level of knowledge of aviation, as well as improving the level of awareness of the airport owner and its users on how their activities impact the community. The committees may deal with issues such as noise abatement procedures in the airport traffic pattern, designating a favored no-wind runway, identifying a maintenance run-up area, or considering the use of berms and any other noise abatement strategies. The committees may also offer input on which end of a runway to develop, where to locate new hangars and other airport expansion decisions. In time, it is hoped, these committees will serve to re-establish a measure of trust between the parties.

An excellent example of such a committee is the Teterboro Airport Noise Abatement Advisory Committee (“TANAAC”). Formally established in 1987, TANAAC and its members include elected officials of the towns within five miles of the airport, county officials, State senators and assemblymen, the airport operator, the Port Authority, the FAA and airport users. “The main purpose of the [Teterboro] committee was to establish a meaningful dialogue between the airport community and the residential communities.”³¹⁹ The committee has worked with the FAA to improve instrument approach paths and descent profiles, revise helicopter routes and created a Runway 19 departure procedure that puts noise over the unpopulated meadowlands rather than residential areas.³²⁰ According to the Mayor of Moonachie, Frederick Dressel, “As far as TANAAC is concerned, I believe we are probably a model for municipal cooperation and aircraft operators’ cooperation throughout the country.”³²¹ The Commission agrees. Teterboro is the busiest general aviation airport in the world, with operations affecting six municipalities. Through this Committee the airport and these municipalities have learned not just to peacefully co-exist, but to do so synergistically.

Montgomery Township and Princeton Airport, which are attempting to heal the wounds of their past

³¹⁹ NJGASC, 3/19/96.

³²⁰ NJGASC, 3/19/96.

³²¹ NJGASC, 3/19/96, page 44.

differences, are planning to establish a committee of this type, as well.³²² Mayor Muriel Shore, Fairfield Township, testified, “I believe it is important for you, the Commission, to require establishment of airport advisory committees to exist between airports and their host community and/or [neighboring] communities. Coexistence issues are important and these committees are constructive vehicles for officials and residents to offer input and provide recommendations that are essential. These advisory committees are very valuable.”³²³ As a result of all the evidence provided to the Commission and testimony received during its public hearings, the Commission agrees that these airport advisory committees are essential.

SECURE A RIGHT OF FIRST REFUSAL EXERCISABLE IN THE EVENT AN AIRPORT SEEKS TO CHANGE ITS USE

The Commission recommends that any grant of State aid to a general aviation facility be given on the condition of certain commitments made by an airport owner. State aid should be granted to only those facilities that have: (1) established an airport committee; and (2) provide the State with the right of first refusal to purchase an airport at the same price as that agreed to by a bona-fide third-party purchaser in an arm’s length transaction. The right of first refusal should be given in the form of a deed with a covenant running with the land. The right could be exercised only in the event the airport owner was seeking to sell the airport land in a manner that would change it from an airport use. The State has a public interest in purchasing these facilities to maintain the State’s general aviation system. This process will provide notice and opportunity for the State to do this.

STANDARDIZATION OF RULES AND REGULATIONS

The Commission recommends that NJDOT define in detail the facilities of a model airport for New Jersey in accord with the recommendations set forth herein and that the NJDOT take affirmative action to give notice that it alone may regulate activities at New Jersey airports. This authority will be exercised to the exclusion of all municipalities in the State. NJDOT should determine noise standards for particular land uses within the State and zoning requirements for areas surrounding airports. The standards thus developed should be uniformly applied throughout the State.

Such standardization has proven successful in fostering positive relations between host municipalities and airports. The Commission's recommendation for State preemption is based on the fact that initiatives in this direction have proven successful for such purpose, and that airports are an economic necessity in the State transportation system and need to be regulated as such.

When the Division implemented new licensing rules in 1993, it removed several issues from the

³²² NJGASC, 3/27/96, page 57.

³²³ NJGASC, 4/30/96, page 52.

Montgomery Township-Princeton Airport controversy.³²⁴ Those issues included aircraft refueling methods and the permissibility of a flight school. Montgomery Township had banned the practice of refueling of helicopters while the engine is running, a practice known as "hot refueling." The Township also had prohibited the operation of a flight school at the airport, citing the danger of having a school at the airport.

The State, with its licensing laws, approved hot refueling if done in accordance with approved techniques. The State banned schools in the airport safety area, but made a specific exemption for flight training schools. Although neither the Township nor the airport was completely satisfied in this particular example, the parties were at least able to remove a few items from the debate, reducing the tension.

The other benefit of this recommendation is the creation of uniform standards. Without uniform standards, some airports might be operating without sufficient regard for safety, while others might choke on rules designed to eliminate imaginary fears on the part of municipal officials. Lacking aviation experts in every one of the 48 municipalities hosting airports, it is unlikely that safe, prudent and reasonable standards would be individually adopted in each community.³²⁵

Since uniform regulation by the State has proven successful in other aviation areas, this Commission urges that it be expanded to include all aviation matters relating to airports. The Commission has heard testimony from both municipalities and airports supporting and opposing this proposal. In the words of the attorney for one municipality, "If you tell us what the rule is we will not have to fight about it any longer."³²⁶

AUTHORIZE STATE MAINTENANCE OF AIRPORTS

The Commission recommends that NJDOT oversee the maintenance and repair of runways and taxiways, remove snow and maintain grass areas within the airport facility or provide funding for the counties to provide these services to its airports.

The State currently provides funds to build runways. This investment by the State is at risk when the airport owners are unable to maintain them to the proper safety levels. A typical runway in its fourth year will be in need of normal surface maintenance. If it is neglected at this point, the costs to repair the surface increase disproportionately with each passing year. Recognizing the State's public interest to preserve and maintain its investment in its general aviation facilities, the Commission recommends NJDOT establish a regular program of maintenance.

³²⁴ NJGASC, 5/28/96, page 87.

³²⁵ Exhibit, 26, Economic Impact of New Jersey's General Aviation Airports, page 1.

³²⁶ NJGASC, 5/28/96, page 103.

In addition, as part of its maintenance program, to the extent the NJDOT has snow plows and mowers available or can make equipment or funding available for county operations, the State should undertake to keep the general aviation airport system's runways open in times of heavy snow and to mow sight line areas and clear areas in the high grass season.

ENCOURAGE SITING OF EMERGENCY AND HIGHWAY SERVICES ON GENERAL AVIATION FACILITY

The Commission recommends that municipalities should be encouraged to utilize general aviation airports and the recommended airport zone as location sites for local fire stations, police stations and emergency rescue and similar emergency assistance services within the community. In addition airports are an ideal location for highway maintenance facilities.

As discussed in the text, the location of aviation facilities has played a key role in the ability for emergency personnel to perform their jobs. EMT and firefighters have utilized general aviation airports as a means to more effectively serve the community when responding to emergencies. The State has also utilized these local service providers as a result of the flexibility presented by the State's general aviation system. The Commission strongly recommends continuing and encouraging the relationship between the local aviation facility and the emergency units serving the community and surrounding areas.

REVISE STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The Commission recommends that the NJDOT develop a State Airport System Plan. This plan should address the projected socio-economic needs of the State through the year 2050. The Plan, when completed, should be incorporated into the State Development and Redevelopment Plan and it should be used as the basis for intermodal transportation services. These State plans should incorporate the improvement of current facilities to the standards of the NJDOT model airport and the development of new airports in key locations providing intermodal transportation services.

In order to retain business in this State and to be competitive in attracting new businesses, New Jersey must have an adequate, coordinated, statewide airport transportation system. Businesses need a network of airports, with an airport close to their offices or plants, so that they can quickly and efficiently travel to meet with their customers and vendors, as well as to their plants in other states. Additionally, their customers and vendors need to be able to easily travel to visit them in New Jersey.

Businesses need airports capable of accommodating business aircraft. Business aircraft need runways sufficiently long and wide, lighted for 24-hour operation and hangars to store and protect their aircraft. A business aircraft is an expensive piece of capital equipment. A top-of-the-line business jet costs over \$30 million. Smaller business jets can cost \$2 to \$10 million. A turboprop aircraft costs at least \$1 million. If businesses are to be encouraged to stay in New Jersey they must be able to utilize these business tools efficiently.

This Commission recognizes the difficulty and expense of locating a new airport in the most densely populated state in the nation. Therefore, the Commission recommends, as an interim goal, that the existing airport network be expanded as much as possible consistent with the concept of the model airport. This program may be difficult and expensive, but it is overshadowed by the far greater cost of not doing it.

INCORPORATE GENERAL AVIATION INTO STATE ECONOMIC DEVELOPMENT PROGRAMS

In addition, The Commission recommends that the State incorporate its general aviation airports into any economic development program and marketing materials when promoting New Jersey for corporate relocations. Recognizing the impact that general aviation facilities have on the entire State, New Jersey should follow the lead of other states that have utilized their state's general aviation system to promote their state in an aggressive manner. By promoting its airport facilities in economic development programs, New Jersey can use its general aviation system to attract business and industry into the State, thereby creating jobs to support its growing population.

PROPER MIX OF PUBLICLY AND PRIVATELY OWNED GENERAL AVIATION FACILITIES

While an example of the application for the following recommendations was set forth at the beginning of this *Report*, it bears repeating here that the initial query by which this Commission was to determine what is the proper mix of publicly- and privately- owned airports appeared to be simply how many should be owned in each manner. We find, however, that there are many options available to the Legislature. For example, it is not necessary to convert the entire aviation infrastructure to public ownership. The Commission recognizes an enormous benefit to the State by maintaining a public infrastructure through private capital. The following recommendations should serve to illustrate what some of those option are.

First, it is recommended above that New Jersey will be served best by having at least one publicly owned general aviation airport in each county, and providing for one within ten minutes of each municipality of 35,000 or more inhabitants. Certain of the locations for these airports already exist and presently are public use airports. Others will need to be created anew and these should be planned as facilities to be entirely publicly owned.

Second, it is recommended that the State develop equity rights in privately owned airports within the State by purchasing over time the development rights of all of them. This recommendation is set forth in detail above and need not be repeated here.

Third, whenever, the State gives grants to aid the improvement of airports it should, as it does now, require a commitment of years prior to change of use of the land. The State thus acquires an easement for the public benefit in the airport.

Fourth, the Commission recommends that the State exercise its power of eminent domain to acquire the land necessary to make the existing airport system economically viable and environmentally compatible. When it does so acquire land the State will retain title to the land and provide an easement to the airport owner to use the land for any purpose permitted in the airport zone.

Fifth, it is recommended that whenever it grants aid to any privately owned public use airport, the State secure the right of first refusal to purchase any airport that has received such State aid in the event the owner seeks to change its use to a non-airport use.

There are thus several mechanisms available for the State to participate in the mix of public-private airport ownership without having to invest all the capital required to develop the entire airport system infrastructure.

CONCLUSION

The State's general aviation airport infrastructure, for all of its recognized deficiencies, still represents an indispensable economic tool of the State. While New Jersey currently has the semblance of a general aviation system with 48 public use airports, the State ideally should have additional facilities and, at least, modernize the existing facilities to the extent necessary to service the rapidly growing business fleet of turbine powered aircraft. However, without a statewide policy to permanently preserve (land bank) the State's present general aviation airports, their owners will continue to cash in their real estate holdings at the rate of one airport per year and, within a generation's time, New Jersey will be suffering the loss of another 68 percent of the State's current (already substantially reduced) general aviation airport system.

The Commission has dedicated substantial time, effort and concern to this study. By virtue of its statutory constitution the Commission was predisposed to discord on a number of issues, particularly issues concerning the municipality *versus* the airport; and the large airport *versus* the small airport. Our deliberations were never meetings of persons with similar points of view. However, the Commission is unanimous in its recognition of the dysfunctional nature of the State's air transportation system and the need to reconstruct it and; to that end, the Commission is unanimous in recommending the proposals set forth in this report to the Governor and the Legislature.

But now my task is smoothly done:
I can fly, or I can run.

Milton
Comus, l. 1012

APPENDIX

A

NEW JERSEY - PUBLIC USE AIRPORTS

Airport	Owner	Acres	Host Community	County	ECONOMIC IMPACT	JOBS	Main Runway	Length	Width	(1000 LBS) Weight Capacity	2nd Runway	Length	Width	(1000 LBS) Weight Capacity	3rd Runway	Length	Width	(1000 LBS) Weight Capacity
1 Aeroflex - Andover	public	12	Andover	Sussex	\$3,637,700	47.1	03/31	1,981	50	Asphalt								
2 Alexandria	private	75	Alexandria Township	Hunterdon	\$3,261,800	59.1	08/26	2,550	50	Asphalt	13/31	1,810.00	100	Asphalt/Turf				
3 Allaire	private	850	Wall Township	Monmouth	\$29,846,700	469.4	14/32	7,300	80	Asphalt	03/21	3,707.00	50	Asphalt				
4 Atlantic City International	public	5,000	Egg Harbor Township	Atlantic	NA	NA	13/31	10,000	180	S-75 D-120 DT-350	04/22	6,144.00	150	S-75 D-175 DT-400 DDT-900				
5 Bader Field	private	143	Atlantic City	Atlantic	\$1,946,500	39.9	11/29	2,830	100	S-23 D-50	04/22	2,596.00	100	Asphalt				
6 Blairstown	private	200	Blairstown Township	Warren	\$6,002,400	116.6	07/25	3,100	70	Asphalt								
7 Bucks	private	63	Upper Deerfield Township	Cumberland			18/36	1,900	150	Turf								
8 Camden County	private	75	Vineland Township	Camden	\$1,263,400	34.0	05/23	3,102	46	Asphalt								
9 Cape May County	public	999	Lower Township	Cape May	\$15,025,200	340.4	01/19	4,998	150	S-45 D-75 DT-120	10/28	4,998.00	150	S-45 D-75 DT-120	14/32	4,000	150	S-35 D-55 DT-83
10 Central Jersey Regional	private	119	Hillsborough Township	Somerset	\$8,300,300	155.2	07/25	3,450	50	S-30								
11 Cross Keys	private	280	Monroe Township	Gloucester	\$4,462,200	77.4	09/27	3,500	50	S-13								
12 Eagles Nest Airport	private	80	Eagleswood Township	Ocean			14/32	3,200	50	Gravel								
13 Essex County	public	275	Fairfield Township	Essex	\$64,073,700	1,157.3	04/22	4,553	80	S-30	09/27	3,721.00	75	S-12.5				
14 Flying W	private	170	Lumberton Township	Burlington	\$8,637,600	177.0	01/19	3,499	75	Asphalt	02/20	2,301.00	50	Asphalt				
15 Greenwood Lake	private	65	West Milford Township	Passaic	\$4,088,800	71.7	06/24	4,000	60	Asphalt								
16 Hackettstown Municipal	private	155	Mansfield Township	Warren			05/23	2,200	50	S-5								
17 Hanmorton Municipal	public	107	Hampton Township	Atlantic	\$12,572,500	63.4	03/21	3,602	75	S-12								
18 Kroelinger	private	51	Vineland City	Cumberland			10/28	2,188	190	Turf								
19 Lakewood	public	222	Lakewood Township	Ocean	\$5,238,700	96.5	06/24	3,457	50	S-25								
20 LiCalzi	private	30	Hopewell Township	Cumberland			12/30	2,773	100	Turf								
21 Lincoln Park	private	168	Lincoln Park Borough	Morris	\$6,990,100	94.9	01/19	2,942	40	Asphalt								
22 Lindert	public	188	Linden City	Union	\$10,747,400	220.3	09/27	4,137	100	S-31.5 D-42	14/32	2,494.00	75	S-31.5				
23 Little Ferry	private	1		Union						Hackensack River								
24 Marlboro	private	55	Marlboro Township	Monmouth	\$1,878,400	35.4	09/27	2,156	50	Asphalt								
25 Millville Municipal	public	916	Millville City	Cumberland	\$185,526,900	1,476.2	10/28	6,001	150	S-40 D-65 DT-125	14/32	5,057.00	150	S-40 D-65 DT-125				
26 Morrisown Municipal	public	625	Hanover Township	Morris	\$163,038,600	1,841.2	05/23	5,999	150	S-30 D-80	12/30	3,998.00	150	S-30				
27 Newark International	public	2,167	Newark City	Essex	NA	NA	04/22/2L	9,300	150	D-191 DT-358 DDT-873	04L/22R	8,200.00	150	D-191 DT-358 DDT-873	11/29	6,800	150	S-191 D-358 DT-568 DDT-873
28 Newton	private	60	Andover Township	Sussex			06/24	2,546	45	Asphalt								
29 Ocean City Municipal	public	60	Ocean City	Cape May	\$7,403,800	142.0	06/24	2,977	59	S-12.5								
30 Old Bridge	private	120	Old Bridge Township	Middlesex	\$1,465,000	18.7	06/24	3,594	50	Asphalt								
31 Oldmans	private	48	Oldmans Township	Salem	\$531,700	11.5	07/25	2,419	50	Asphalt								
32 Pemberton	private	14	Pemberton Township	Burlington			04/22	2,568	100	Turf								
33 Piney Hollow	private	30	Monroe Township	Gloucester			04/22	2,760	100	Turf/Sand								
34 Princeton	private	50	Montgomery Township	Somerset	\$8,650,300	171.9	10/28	3,099	60	S-15								
35 R.J. Miller Airport	public	232	Berkeley Township	Ocean	\$7,298,700	119.8	06/24	5,949	60	S-12								
36 Red Lion	private	92	Southampton Township	Burlington	\$876,300	11.6	05/23	2,880	50	Asphalt								
37 Red Wing	private	53	Springfield Township	Burlington			11/29	2,040	80	Turf	06/24	1,830.00	80	Turf				
38 Rudy's	private	163	Vineland City	Cumberland			08/26	2,400	100	Turf								
39 Sky Manor	private	60	Alexandria Township	Hunterdon	\$7,423,200	157.2	07/25	2,439	50	Asphalt	13/31	3,440.00	200	Turf	10/28	2,456	160	Turf
40 Solberg-Hunterdon	private	721	Reading Township	Hunterdon	\$9,967,700	213.5	04/22	3,735	50	Asphalt/Turf	08/26	2,200.00	100	Turf	17/35	1,900	200	Turf
41 Somerset	private	210	Bedminster Township	Somerset	\$10,517,300	206.5	12/30	2,735	65	Asphalt								
42 South Jersey Regional	private	116	Lumberton Township	Burlington	\$16,539,500	243.8	08/26	3,911	50	S-30								
43 Southern Cross	private	18	Monroe Township	Gloucester			09/27	2,400	200	Turf								
44 Sussex Airport	private	96	Wantage Township	Sussex	\$3,318,200	61.1	03/21	3,499	75	Asphalt								
45 Teterboro	public	830	Teterboro Borough	Bergen	\$459,680,200	5,911.1	01/19	7,000	150	S-50 D-100	06/24	6,013.00	150	S-50 D-100				
46 Trenton-Mercer	public	1,345	Ewing Township	Mercer	\$217,917,700	2,019.0	06/24	6,006	150	S-120 D-180 DT-320	16/34	4,800.00	150	S-120 D-180 DT-320				
47 Trenton-Robbinsville	private	139	Washington Township	Mercer	\$4,448,500	62.2	11/29	4,275	80	S-25								
48 Tinica	private	12	Green Township	Sussex	\$759,700	14.1	06/24	1,924	135	Turf								
49 Twine Pines	private	52	Lawrence Township	Mercer			12/30	2,200	100	Turf								
50 Vineland-Downstown	private	45	Franklin Township	Gloucester	\$1,930,300	28.2	02/20	2,251	100	Turf								
51 Woodbine	public	700	Woodbine Borough	Cape May	\$1,581,000	27.0	12/30	3,073	75	S-35 D-50 DT-110	01/19	3,304.00	150	S-45 D-60 DT-120				
OTHER AIRPORTS																		
Total		18,382			\$1,300,574,400	15,961.0												
Total Privately Owned		4,561			\$182,440,000													
Total Publicly Owned		13,821																
* Gross weight is 12,500 lbs unless noted; turf and gravel runway - no weight																		
S= single wheel, D=dual wheel, DT=dual tandem, DDT= dual double tandem																		
SHADED AREAS INDICATE RELIEVER AIRPORTS																		

NEW JERSEY AIRPORTS BY RUNWAY LENGTH

Airport	Owner	Acres	Host Community	County	Main Runway			(1000 LBS)			2nd Runway			(1000 LBS)			3rd Runway			(1000 LBS) Weight Capacity
					Length	Width	Weight Capacity	Length	Width	Weight Capacity	Length	Width	Weight Capacity	Length	Width	Weight Capacity	Length	Width	Weight Capacity	
1 Atlantic City International	public	5,000	Egg Harbor Township	Atlantic	13/31	10,000	180	S-85 D-120 DT-350	04/22	6,144.00	150	S-75 D-175 DT-400 DDT-								
2 Newark International	public	2,167	Newark City	Essex	04R/22L	9,300	150	D-191 DT 358 DDT 873	04L/22R	8,200.00	150	D-191 DT 358 DDT 873	11/29	6,800	150	S-191 D-358 DT-568 DDT-873				
3 Allaire	private	850	Wall Township	Monmouth	14/32	7,300	80	Asphalt	03/21	3,707.00	50	Asphalt								
4 Teterboro	public	830	Teterboro Borough	Bergen	01/19	7,000	150	S-50 D-100	06/24	6,013.00	150	S-50 D-100								
5 Trenton-Mercer	public	1,345	Ewing Township	Mercer	06/24	6,006	150	S-120 D-180 DT-320	16/34	4,800.00	150	S-120 D-180 DT-320								
6 Millville Municipal	public	916	Millville City	Cumberland	10/28	6,001	150	S-40 D-65 DT-125	14/32	5,057.00	150	S-40 D-65 DT-125								
7 Morristown Municipal	public	625	Hanover Township	Morris	05/23	5,999	150	S-30 D-80	12/30	3,998.00	150	S-30								
8 R.J. Miller Airport	public	232	Berkeley Township	Ocean	06/24	5,949	60	S-12												
9 Cape May County	public	999	Lower Township	Cape May	01/19	4,998	150	S-45 D-75 DT-120	10/28	4,998.00	150	S-45 D-75 DT-120	14/32	4,000	150	S-33 D-55 DT-93				
10 Essex County	public	275	Fairfield Township	Essex	04/22	4,553	80	S-30	09/27	3,721.00	75	S-12.5								
11 Trenton-Robbinsville	private	139	Washington Township	Mercer	11/29	4,275	80	S-25												
12 Linden	public	188	Linden City	Union	09/27	4,137	100	S-31.5 D 42	14/32	2,494.00	75	S 31.5								
13 Greenwood Lake	private	150	West Milford Township	Passaic	06/24	4,000	60	Asphalt	02/20	2,301.00	50	Asphalt								
14 South Jersey Regional	private	116	Lumberton Township	Burlington	08/26	3,911	50	S-30												
15 Solberg-Hunterdon	private	721	Readington Township	Hunterdon	04/22	3,735	50	Asphalt/Turf	13/31	3,440.00	200	Turf	10/28	2,456	160	Turf				
16 Hammonilton Municipal	public	107	Hamilton Township	Atlantic	03/21	3,602	75	S-12												
17 Old Bridge	private	120	Old Bridge Township	Middlesex	06/24	3,594	50	Asphalt												
18 Cross Keys	private	280	Monroe Township	Gloucester	09/27	3,500	50	S-13												
19 Flying W	private	170	Lumberton Township	Burlington	01/19	3,499	75	Asphalt												
20 Sussex Airport	private	96	Wantage Township	Sussex	03/21	3,499	75	Asphalt												
21 Lakewood	public	222	Lakewood Township	Ocean	06/24	3,457	50	S-25												
22 Central Jersey Regional	private	119	Hillsborough Township	Somerset	07/25	3,450	50	S-30												
23 Eagles Nest Airport	private	80	Egleswood Township	Ocean	14/32	3,200	50	Gravel												
24 Camden County	private	75	Winslow Township	Camden	05/23	3,102	46	Asphalt												
25 Blairstown	private	200	Blairstown Township	Warren	07/25	3,100	70	Asphalt												
26 Princeton	private	50	Montgomery Township	Somerset	10/28	3,099	60	S-15	01/19	3,304.00	150	S-45 D-60 DT-120								
27 Woodbine	public	700	Woodbine Borough	Cape May	12/30	3,073	75	S-35 D-50 DT-110												
28 Ocean City Municipal	public	60	Ocean City	Cape May	06/24	2,977	59	S-12.5												
29 Lincoln Park	private	168	Lincoln Park Borough	Morris	01/19	2,942	40	Asphalt												
30 Red Lion	private	92	Southampton Township	Burlington	05/23	2,880	50	Asphalt												
31 Bader Field	public	143	Atlantic City	Atlantic	11/29	2,830	100	S-23 D-50	04/22	2,596.00	100	Asphalt								
32 LICalzi	private	30	Hopewell Township	Cumberland	12/30	2,773	100	Turf												
33 Piney Hollow	private	30	Monroe Township	Gloucester	04/22	2,760	100	Turf/Sand												
34 Somerset	private	210	Bedminster Township	Somerset	12/30	2,735	65	Asphalt	08/26	2,200.00	100	Turf	17/35	1,900	200	Turf				
35 Pemberton	private	14	Pemberton Township	Burlington	04/22	2,568	100	Turf												
36 Alexandria	private	75	Alexandria Township	Hunterdon	08/26	2,550	50	Asphalt												
37 Newton	private	90	Andover Township	Sussex	06/24	2,546	45	Asphalt												
38 Sky Manor	private	60	Alexandria Township	Hunterdon	07/25	2,439	50	Asphalt												
39 Oldmans	private	48	Oldmans Township	Salem	07/25	2,419	50	Asphalt												
40 Rudy's	private	163	Vineland City	Cumberland	08/26	2,400	100	Turf												
41 Southern Cross	private	18	Monroe Township	Gloucester	09/27	2,400	200	Turf												
42 Vineland-Downstown	private	45	Franklin Township	Gloucester	02/20	2,251	100	Turf												
43 Hackettstown Municipal	private	65	Mansfield Township	Warren	05/23	2,200	50	S-5												
44 Twine Pines	private	52	Lawrence Township	Mercer	12/30	2,200	100	Turf												
45 Kroelinger	private	51	Vineland City	Cumberland	10/28	2,188	190	Turf												
46 Marlboro	private	55	Marlboro Township	Monmouth	09/27	2,156	50	Asphalt												
47 Red Wing	private	53	Springfield Township	Burlington	11/29	2,040	80	Turf	06/24	1,830.00	80	Turf								
48 Aeroflex - Andover	public	12	Andover	Sussex	03/31	1,981	50	Asphalt												
49 Trinca	private	12	Green Township	Sussex	06/24	1,924	135	Turf												
50 Bucks	private	63	Upper Deerfield Township	Cumberland	18/36	1,900	150	Turf												
51 Little Ferry	private	1						Hackensack River												
Total		18,382																		
Total Publicly Owned		13,821																		
Total Privately Owned		4,561																		

* Gross weight is 12,500 lbs unless noted; turf and gravel runway - no weight
S= single wheel, D=dual wheel, DT= dual tandem, DDT= dual double tandem

NEW JERSEY AIRPORTS BY OWNERSHIP AND RUNWAY LENGTH

Airport	Owner	Acres	Host Community	County	Main			2nd			3rd					
					Runway	Length	Width	Weight Capacity	Runway	Length	Width	Weight Capacity	Runway	Length	Width	Weight Capacity
PUBLIC OWNERSHIP:																
1. Atlantic City International	public	5,000	Egg Harbor Township	Atlantic	13/31	10,000	180	S-85 D-120 DT-350	04/22	6,144	150	D-175 DT-400 DDT-900	11/29	6,800	150	S-191 D-358 DT-568 DDT-873
2. Newark International	public	2,167	Newark City	Essex	04R/22L	9,300	150	D-191 DT-358 DDT-873	04L/22R	8,200	150	D-191 DT-358 DDT-873				
3. Teletoro	public	830	Teletoro Borough	Bergen	01/19	7,000	150	S-50 D-100	06/24	6,013	150	S-50 D-100				
4. Trenton-Mercer	public	1,345	Ewing Township	Mercer	06/24	6,006	150	S-120 D-180 DT-320	16/34	4,800	150	S-120 D-180 DT-320				
5. Millville Municipal	public	916	Millville City	Cumberland	10/28	6,001	150	S-40 D-65 DT-125	14/32	5,057	150	S-40 D-65 DT-125				
6. Morristown Municipal	public	625	Hanover Township	Morris	05/23	5,999	150	S-30 D-80	12/30	3,998	150	S-30				
7. R.J. Miller Airport	public	232	Berkeley Township	Ocean	06/24	5,949	60	D-90								
8. Cape May County	public	999	Lower Township	Cape May	01/19	4,998	150	S-45 D-75 DT-120	10/28	4,998	150	S-45 D-75 DT-120	14/32	4,000	150	S-33 D-55 DT-93
9. Essex County	public	275	Fairfield Township	Essex	04/22	4,553	80	S-30	09/27	3,721	75	S-12.5				
10. Linden	public	188	Linden City	Union	09/27	4,137	100	S-31.5 D-42	14/32	2,494	75	S-31.5				
11. Hammonon Municipal	public	107	Hammonon Township	Atlantic	03/21	3,602	75	S-12								
12. Lakewood	public	222	Lakewood Township	Ocean	06/24	3,457	50	S-25								
13. Woodbine	public	700	Woodbine Borough	Cape May	12/30	3,073	75	S-35 D-50 DT-110	01/19	3,304	150	S-45 D-60 DT-120				
14. Ocean City Municipal	public	60	Ocean City	Cape May	06/24	2,977	59	S-12.5								
15. Bader Field	public	143	Atlantic City	Atlantic	11/29	2,830	100	S-23 D-50	04/22	2,596	100	Asphalt				
16. Aeroflex - Andover	public	12	Andover	Sussex	03/31	1,981	50	Asphalt								
PRIVATE OWNERSHIP:																
17. Allaire	private	850	Wall Township	Monmouth	14/32	7,300	80	Asphalt	09/21	3,707	50	Asphalt				
18. Trenton-Robbinsville	private	139	Washington Township	Mercer	11/29	4,275	80	S-25								
19. Greenwood Lake	private	150	West Milford Township	Passaic	06/24	4,000	60	Asphalt	02/20	2,301	50	Asphalt				
20. South Jersey Regional	private	116	Lumberton Township	Burlington	08/26	3,911	50	S-30								
21. Solberg-Hunterdon	private	721	Readington Township	Hunterdon	04/22	3,735	50	Asphalt/Turf	13/31	3,440	200	Turf	10/28	2,456	160	Turf
22. Old Bridge	private	120	Old Bridge Township	Middlesex	06/24	3,594	50	Asphalt								
23. Cross Keys	private	280	Monroe Township	Gloucester	09/27	3,500	50	S-13								
24. Flying W	private	170	Lumberton Township	Burlington	01/19	3,499	75	Asphalt								
25. Sussex Airport	private	96	Wantage Township	Sussex	03/21	3,499	75	Asphalt								
26. Central Jersey Regional	private	119	Hillsborough Township	Somerset	07/25	3,450	50	S-30								
27. Eagles Nest Airport	private	80	Eagleswood Township	Ocean	14/32	3,200	50	Gravel								
28. Camden County	private	75	Winslow Township	Camden	05/23	3,102	46	Asphalt								
29. Blairstown	private	200	Blairstown Township	Warren	07/25	3,100	70	Asphalt								
30. Princeton	private	50	Montgomery Township	Somerset	10/28	3,099	60	S-15								
31. Lincoln Park	private	168	Lincoln Park Borough	Morris	01/19	2,942	40	Asphalt								
32. Red Lion	private	92	Southampton Township	Burlington	05/23	2,880	50	Asphalt								
33. LICalzi	private	30	Hopewell Township	Cumberland	12/30	2,773	100	Turf								
34. Piney Hollow	private	30	Monroe Township	Gloucester	04/22	2,760	100	Turf/Sand								
35. Somerset	private	210	Bedminster Township	Somerset	12/30	2,735	65	Asphalt	08/26	2,200	100	Turf	17/35	1,900	200	Turf
36. Pemberton	private	14	Pemberton Township	Burlington	04/22	2,588	100	Turf								
37. Alexandria	private	75	Alexandria Township	Hunterdon	08/26	2,550	50	Asphalt	13/31	1,810	100	Asphalt/Turf				
38. Newton	private	90	Andover Township	Sussex	06/24	2,546	45	Asphalt								
39. Sky Manor	private	60	Alexandria Township	Hunterdon	07/25	2,439	50	Asphalt								
40. Oldmans	private	48	Oldmans Township	Salem	07/25	2,419	50	Asphalt								
41. Rudy's	private	163	Vineland City	Cumberland	08/26	2,400	100	Turf								
42. Southern Cross	private	18	Monroe Township	Gloucester	09/27	2,400	200	Turf								
43. Vineland-Downtown	private	45	Franklin Township	Gloucester	02/20	2,251	100	Turf								
44. Hackettstown Municipal	private	65	Mansfield Township	Warren	05/23	2,200	50	S-5								
45. Twine Pines	private	52	Lawrence Township	Mercer	12/30	2,200	100	Turf								
46. Kroelinger	private	51	Vineland City	Cumberland	10/28	2,188	190	Turf								
47. Marlboro	private	55	Marlboro Township	Monmouth	09/27	2,156	50	Asphalt								
48. Red Wing	private	53	Springfield Township	Burlington	11/29	2,040	80	Turf	06/24	1,830	80	Turf				
49. Trinca	private	12	Green Township	Sussex	06/24	1,924	135	Turf								
50. Bucks	private	63	Upper Deerfield Township	Cumberland	18/36	1,900	150	Turf								
51. Little Ferry	private	1						Hackensack River								
Total		18,382														
Total Publicly Owned		13,821														
Total Privately Owned		4,561														

* Gross weight is 12,500 lbs unless noted; turf and gravel runway - no weight
 S= single wheel; D=dual wheel; DT= dual tandem; DDT = dual double tandem

NEW JERSEY AIRPORTS BY ECONOMIC IMPACT

Airport	Owner	Acres	Host Community	County	Economic Impact	Jobs	Main Runway			2nd Runway			3rd Runway		
							Length	Width	(1000 LBS) Weight Capacity	Length	Width	(1000 LBS) Weight Capacity	Length	Width	(1000 LBS) Weight Capacity
1 Newark International	public	2,167	Newark City	Essex	\$6,600,000,000	400,000.0	9,300	150	D-191 DT-358 DDT-873	8,200.00	150	D-191 DT-358 DDT-873	6,800	150	S-191 D-358 DT-568 DDT-873
2 Atlantic City International	public	5,000	Eggo Harbor Township	Atlantic	2,000,000,000	**	10,000	180	S-45 D-120 DT-350	6,144.00	150	S-75 D-175 DT-400 DDT-900			
3 Trenton	public	830	Teterboro Borough	Bergen	\$459,680,200	5,911.1	7,000	150	S-50 D-100	6,013.00	150	S-50 D-100			
4 Trenton-Mercer	public	1,345	Ewing Township	Mercer	\$217,917,700	2,019.1	6,006	150	S-120 D-180 DT-320	4,800.00	150	S-120 D-180 DT-320			
5 Millville Municipal	public	916	Millville City	Cumberland	\$185,526,900	1,476.2	6,001	150	S-40 D-65 DT-125	5,057.00	150	S-40 D-65 DT-125			
6 Morristown Municipal	public	625	Hanover Township	Morris	\$163,038,600	1,841.2	5,999	150	S-30 D-90	3,998.00	150	S-30			
7 Essex County	public	275	Fairfield Township	Essex	\$64,073,700	1,157.3	4,553	80	S-30	3,721.00	75	S-12.5			
8 Alliance	private	850	Wall Township	Monmouth	\$29,846,700	489.4	7,300	80	Asphalt	3,707.00	50	Asphalt			
9 South Jersey Regional	private	116	Lumberton Township	Burlington	\$16,539,500	243.8	3,911	50	S-30						
10 Cape May County	public	999	Lower Township	Cape May	\$15,025,200	340.4	4,988	150	S-45 D-75 DT-120	4,998.00	150	S-45 D-75 DT-120	4,000	150	S-33 D-55 DT-93
11 Hammonon Municipal	public	107	Hammonton Township	Atlantic	\$12,572,500	63.4	3,602	75	S-12						
12 Linden	public	188	Linden City	Union	\$10,747,400	220.3	4,137	100	S-31.5 D-42	2,494.00	75	S-31.5			
13 Somerset	private	210	Bedminster Township	Somerset	\$10,517,300	206.5	2,735	65	Asphalt				1,900	200	Turf
14 Solberg-Hunterdon	private	721	Reading Township	Hunterdon	\$9,967,700	213.5	3,735	50	Asphalt/Turf	2,200.00	100	Turf	2,456	160	Turf
15 Princeton	private	50	Montgomery Township	Somerset	\$8,650,300	171.9	3,099	60	S-15	3,440.00	200	Turf			
16 Flying W	private	170	Lumberton Township	Burlington	\$8,637,600	177.0	3,489	75	Asphalt						
17 Central Jersey Regional	private	119	Hillsborough Township	Somerset	\$8,300,300	155.2	3,450	50	S-30						
18 Sky Manor	private	60	Alexandria Township	Hunterdon	\$7,423,200	157.2	2,439	50	Asphalt						
19 Ocean City Municipal	public	60	Ocean City	Cape May	\$7,403,800	142.0	2,977	59	S-12.5						
20 R.J. Miller Airport	public	232	Berkeley Township	Ocean	\$7,298,700	119.8	5,949	60	S-12						
21 Lincoln Park	private	168	Lincoln Park Borough	Morris	\$6,990,100	94.9	2,942	40	Asphalt						
22 Blairstown	private	200	Blairstown Township	Warren	\$6,002,400	116.6	3,100	70	Asphalt						
23 Lakewood	public	222	Lakewood Township	Ocean	\$5,238,700	96.5	3,457	50	S-25						
24 Cross Keys	public	280	Monroe Township	Gloucester	\$4,462,200	77.4	3,500	50	S-13						
25 Trenton-Robbinsville	private	139	Washington Township	Mercer	\$4,448,500	62.2	4,275	80	S-25						
26 Greenwood Lake	private	150	West Milford Township	Passaic	\$4,088,800	71.7	4,000	60	Asphalt	2,301.00	50	Asphalt			
27 Aeroflex - Andover	public	12	Andover	Sussex	\$3,637,700	47.1	1,981	50	Asphalt						
28 Sussex Airport	private	96	Wantage Township	Sussex	\$3,318,200	61.1	3,499	75	Asphalt						
29 Alexandria	private	75	Alexandria Township	Hunterdon	\$3,261,800	59.1	2,550	50	Asphalt	1,810.00	100	Asphalt/Turf			
30 Bader Field	public	143	Atlantic City	Atlantic	\$1,946,500	39.9	2,830	100	S-23 D-50	2,596.00	100	Asphalt			
31 Vineland-Downstown	private	45	Franklin Township	Gloucester	\$1,930,300	28.2	2,251	100	Turf						
32 Marlboro	private	55	Marlboro Township	Monmouth	\$1,878,400	35.4	2,156	50	Asphalt						
33 Woodbine	public	700	Woodbine Borough	Cape May	\$1,581,000	27.0	3,073	75	S-35 D-50 DT-110	3,304.00	150	S-45 D-60 DT-120			
34 Old Bridge	private	120	Old Bridge Township	Middlesex	\$1,465,000	18.7	3,594	50	Asphalt						
35 Camden County	private	75	Winslow Township	Camden	\$1,263,400	34.0	3,102	46	Asphalt						
36 Red Lion	private	92	Southampton Township	Burlington	\$876,300	11.6	2,880	50	Asphalt						
37 Trinca	private	12	Green Township	Sussex	\$759,700	14.1	1,924	135	Turf						
38 Oldmans	private	48	Oldmans Township	Salem	\$531,700	11.5	2,419	50	Asphalt						
39 Bucks	private	63	Upper Deerfield Township	Cumberland			1,900	150	Turf						
40 Eagles Nest Airport	private	80	Eagleswood Township	Ocean			3,200	50	Gravel						
41 Hackettstown Municipal	private	65	Mansfield Township	Warren			2,200	50	S-5						
42 Kroelinger	private	51	Vineland City	Cumberland			2,188	190	Turf						
43 LiCaizi	private	30	Hopewell Township	Cumberland			2,773	100	Turf						
44 Little Ferry	private	1							Hackensack River						
45 Newton	private	90	Andover Township	Sussex			2,546	45	Asphalt						
46 Pemberton	private	14	Pemberton Township	Burlington			2,568	100	Turf						
47 Piney Hollow	private	30	Monroe Township	Gloucester			2,760	100	Turf/Sand						
48 Red Wing	private	53	Springfield Township	Burlington			2,040	80	Turf	1,830.00	80	Turf			
49 Rudy's	private	163	Vineland City	Cumberland			2,400	100	Turf						
50 Southern Cross	private	18	Monroe Township	Gloucester			2,400	200	Turf						
51 Twine Pines	private	52	Lawrence Township	Mercer			2,200	100	Turf						
OTHER AIRPORTS		18,382			\$3,727,500	59.4									
Total		11,215			\$9,900,575,500	416,051.6									
Total GA Airports		7,167			\$1,300,575,500	16,052									
Total Air Carrier Airports					\$6,600,000,000	400,000									

** The data given for Newark International is the combined impact for both it and Atlantic City International.

APPENDIX B

APPENDIX B - DATA ON NEW JERSEY AIRPORTS

AIRPORTS CLOSED SINCE 1950

(Listed in order of closure)

<u>Airport</u>	<u>City</u>	<u>Closed</u>	<u>Reason for Closure</u>	<u>Runway Surface</u>
Forsgate Airpark	Roxbury	1952	Development	Turf
Old Mercer County	Ewing	1955	Relocation	Turf
Tom's River	Toms River	1952	Economic	Gravel
Hightstown Airport	Hightstown	1953	Economic	Turf
Camden Central	Pennsauken	1954	Economic (Phl)	Paved
Budd Lake	Hackettstown	1955	Unknown	Unknown
Captains Airport	Clinton	1955	Unknown	Unknown
Florence	Florence	1955	Economic	Turf
Key Port	Keyport	1955	Unknown	Turf
Mt. Holly	Mt. Holly	1955	Development	Turf
Mar-Bai-L	Englishtown	1955	Unknown	Unknown
Murchio	Patterson	1955	Unknown	Turf
Westfield	Rahway	1955	Development	Turf
Woodbury	Woodbury	1955	Development	Turf
Barton Farms	Flemington	1956	Economic	Turf
Cavolis	Buena	1956	Owner	Turf
Forked River	Forked River	1956	Economic	Turf
Phillipsburg	Phillipsburg	1956	Unknown	Turf
Burlington	Burlington	1957	Development	Turf
Clementon	Clementon	1957	Development	Turf
Hammonton	Hammonton	1957	Economic	Turf
Ocean County	Mantoloking	1957	Development	Turf
Pemberton Airport	Pemberton	1958	Relocation	Turf
Seabrook Airport	Seabrook	1958	Owner	Turf
Vineland	Vineland	1958	Development	Gravel
Woodstown	Woodstown	1958	Unknown	Turf
Echelon	Ashland (Lawnside)	1959	Development	Turf
Marlton-Medford	Marlton	1959	Development	Turf
Princeton-Nassau	Princeton	1959	Development	Cinders
North Brunswick	New Brunswick	1966	Development	Turf
Totowa-Wayne	Patterson	1969	Development	Paved
Applegarth	Hightstown	1970	Owner	Turf
Hadley Airport	So. Plainfield	1970	Development	Turf/Cinders
Towaco	Towaco	1970	Unknown	Turf
Vineland City	Vineland	1970	Development	Paved
Wallpack	Wallpack	1975	Dam Project	Turf
Moorestown	Moorestown	1971	Development	Turf

(continued ...)

APPENDIX B - DATA ON NEW JERSEY AIRPORTS

AIRPORTS CLOSED SINCE 1950 (continued)

(Listed in order of closure)

<u>Airport</u>	<u>City</u>	<u>Closed</u>	<u>Reason for Closure</u>	<u>Runway Surface</u>
Red Bank	Red Bank	1972	Development	Paved
Asbury Park	Asbury Park	1975	Development	Asphalt
Hall Field	Southampton	1975	Obstruction	Turf
Hanover	Hanover	1980	Development	Paved
Smithville	Smithville	1981	Development	Paved
Somerset Hills	Basking Ridge	1981	Development	Paved
Camden-Burlington	Berlin	1984	Environmental	Paved
Bridgeport	Bridgeport	1986	Environmental	Paved
Flanders Valley	Flanders	1986	Development	Paved
Pitman Airport	Pitman	1986	Development	Turf
Cumulus Ridge	Milford	1987	Development	Turf
Colts Neck	Colts Neck	1989	Development	Turf
Manahawkin	Manahawkin	1992	Development	Paved
Nordheim	Bargaintown	1993	Development	Turf
Jersey City SPB	Jersey City	1994	Owner	Water
Radcliffe	Flatbrookville		Dam Project	Turf

APPENDIX B - DATA ON NEW JERSEY AIRPORTS

DATA ON ORIGIN OF CURRENT NEW JERSEY AIRPORTS

<u>AIRPORT</u>	<u>LICENSED</u>	<u>REMARKS</u>
Aeroflex-Andover	June 1962	
Alexandria Field	July 1946	
Allaire Airport	July 1946	Formerly Monmouth County Airport, opened circa 1938
Bader Field	June 1945	Airport opened circa 1912
Blairstown Airport	July 1946	Formerly Lake Susquehanna Airport
Bucks Airport	April 1947	
Camden County	April 1955	Formerly Albion Airport, opened 1947
Cape May County	November 1950	
Cross Keys	July 1946	No documentation
Eagles Nest	June 1972	No documentation
Essex County	July 1946	Formerly Caldwell-Wright Airport, opened circa 1941
Flying W	September 1961	No documentation
Greenwood Lake	January 1960	
Hackettstown	July 1946	Airport opened circa 1935
Hammonton	June 1967	
Kupper	May 1967	
Kroelinger	July 1946	No documentation
Lakewood	August 1952	
LiCalzi Airpark	April 1949	Formerly Greenwich Airport
Lincoln Park	July 1946	Airport opened circa 1938
Linden	July 1946	Airport opened circa 1942, no docs.
Little Ferry SPB	May 1947	
Marlboro	November 1954	Formerly Preston Airport, no docs.
Millville Municipal	July 1946	Airport opened circa 1943, no docs.
Morristown	July 1946	
Newark International	May 1948	Airport opened circa 1925
Newton	June 1962	Licensed 'Private' 1962, upgraded to public' in 1972 no documentation
Ocean City	May 1953	Formerly Clark Field opened circa 1939
Old Mans	December 1982	
Old Bridge	January 1975	Formerly Madison Township Airport, no documentation.
Pemberton	June 1953	
Piney Hollow	November 1972	No documentation
Princeton	July 1954	
Red Lion	November 1961	Formerly Vincentown Airport
Red Wing	September 1950	Formerly Sharon Farm Airport
RJ Miller	December 1967	Formerly Ocean County Airpark
Rudy's	July 1954	

(CONTINUED)

APPENDIX B - DATA ON NEW JERSEY AIRPORTS

DATA ON ORIGIN OF CURRENT NEW JERSEY AIRPORTS (CONTINUED)

<u>AIRPORT</u>	<u>LICENSED</u>	<u>REMARKS</u>
Sky Manor	May 1951	
Solberg-Hunterdon	February 1941	
Somerset	1947	No documentation
Southern Cross	194,	Formerly Webb Field, no documentation
So. Jersey Regional	October 1957	Formerly Cameron Field and no documentation
Burlington County Airport, Sussex, Teterboro	August 1943, July 1947	Formerly Bendix Airport, opened circa 1919
Trenton-Mercer	1943	Former naval air station, became Mercer County Airport (public) in 1952. No Documentation
Trenton-Robbinsville	July 1946	
Trinca	July 1946,	
Twin Pine	July 1946,	
Vineland-Downstown	July 1946	No documentation
Woodbine	1943	Transfer from Military, no documentation

APPENDIX C

**APPENDIX C - NJGASC SURVEY OF GENERAL AVIATION
AIRPORT POLICIES OF SISTER STATES**

A	B	C	D		E		F		G		H		I		J		K	L	M	N	O	P	Q	R
			AVIATION DEPT ADMINISTRATION	OPERATION OF AIRPTS	PRIVATELY OWNED	PUBLICLY OWNED	CAPITAL IMPROVEMENT OF PUBLIC USE AIRPORTS	PRIVATELY OWNED	PUBLICLY OWNED	OTHER EXPENDITURES	TOTAL BEFORE OPERATIONS	TOTAL BUDGET - OPS	FEDERAL AIP											
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
2	APPENDIX C: NEW JERSEY GENERAL AVIATION STUDY COMMISSION - SURVEY OF AVIATION POLICIES OF OTHER STATES																							
3	AMOUNTS EXPENDED FOR																							
4	STATE	AVIATION DEPT ADMINISTRATION	OPERATION OF AIRPTS	PRIVATELY OWNED	PUBLICLY OWNED	CAPITAL IMPROVEMENT OF PUBLIC USE AIRPORTS	PRIVATELY OWNED	PUBLICLY OWNED	OTHER EXPENDITURES	TOTAL BEFORE OPERATIONS	TOTAL BUDGET - OPS	FEDERAL AIP												
5	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993												
6	AL	\$434,374	\$375,680	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
7	AK	\$701,000	\$505,000	\$52,300,000	\$52,400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
8	AZ	\$803,580	\$714,508	\$599,863	\$599,863	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
9	AR	\$84,000	\$84,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
10	CA	\$2,500,000	\$2,900,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
11	CO	\$300,000	\$280,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
12	CT	\$813,963	\$776,330	\$1,550,172	\$1,548,425	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
13	DE	\$241,000	\$186,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
14	FL	\$475,850	\$452,057	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
15	GA	\$149,140,000	\$166,766,000	\$86,193,815	\$83,767,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
16	HA	\$320,800	\$361,900	\$307,600	\$307,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
17	ID	\$1,482,686	\$1,289,835	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
18	IL	\$350,000	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
19	IN	\$30,000	\$219,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
20	IO	\$22,833	\$219,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
21	KS	\$710,000	\$710,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
22	LA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
23	MA	\$882,612	\$936,699	\$34,414,221	\$30,264,292	\$36,926	\$495,890	\$35,442,633	\$21,675,260	\$8,403,616	\$8,052,602	\$79,280,008												
24	ME	\$581,258	\$723,870	\$0	\$0	\$0	\$264,740	\$1,636,357	\$3,376,146	\$0	\$0	\$2,217,615												
25	MD	\$6,470,000	\$3,500,000	\$2,100,000	\$2,200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
26	MA	\$221,140	\$189,564	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
27	MI	\$607,000	\$321,621	\$65,693	\$69,963	\$167,700	\$0	\$0	\$0	\$0	\$0	\$0												
28	MN	\$308,073	\$321,621	\$148,608	\$303,614	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
29	MS	\$83,434	\$62,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
30	MO	\$536,340	\$536,340	\$33,000	\$33,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
31	MT	\$1,030,000	\$915,000	\$0	\$0	\$2,938,000	\$361,000	\$1,744,000	\$535,000	\$950,000	\$186,000	\$6,662,000												
32	NE	\$500,000	\$600,000	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$0	\$1,500,000												
33	NH	\$1,097,400	\$1,066,240	\$7,067,282	\$7,445,505	\$236,518	\$118,841	\$5,336,134	\$4,679,055	\$0	\$0	\$13,737,334												
34	NC	\$1,500,000	\$1,500,000	\$25,000	\$25,000	\$0	\$0	\$8,400,000	\$7,900,000	\$0	\$0	\$9,900,000												
35	ND	\$455,000	\$400,000	\$0	\$0	\$0	\$0	\$1,500,000	\$1,100,000	\$1,450,000	\$1,350,000	\$1,905,000												
36	NM	\$1,066,699	\$1,769,316	\$0	\$0	\$0	\$0	\$2,128,758	\$1,447,256	\$0	\$0	\$3,195,457												
37	NY	\$3,093,000	\$2,845,000	\$12,513,000	\$10,348,000	\$1,423,250	\$1,125,000	\$4,289,750	\$3,375,000	\$194,000	\$157,000	\$2,149,300												
38	OH	\$4,595,690	\$4,405,689	\$5,721,715	\$5,353,546	\$0	\$0	\$6,089,276	\$6,040,594	\$0	\$0	\$7,853,467												
39	OK	\$2,611,943	\$2,345,579	\$2,284,247	\$2,049,595	\$582,462	\$0	\$1,330,125	\$1,564,777	\$0	\$0	\$4,196,834												
40	OR	\$415,694	\$420,191	\$0	\$0	\$0	\$0	\$1,342,165	\$932,041	\$552,401	\$666,889	\$2,310,160												
41	PA	\$1,789,200	\$1,654,600	\$0	\$0	\$0	\$0	\$6,653,277	\$11,486,205	\$1,162,337	\$1,047,940	\$8,309,848												
42	RI	\$1,318,296	\$1,145,442	\$0	\$0	\$0	\$0	\$12,485,364	\$20,852,400	\$288,561	\$464,958	\$14,072,221												
43	SC	\$256,000	\$256,000	\$450,000	\$450,000	\$0	\$0	\$5,100,000	\$5,200,000	\$0	\$0	\$8,800,000												
44	SD	\$485,786	\$485,786	\$0	\$0	\$0	\$0	\$6,971,760	\$8,565,600	\$5,031,173	\$4,021,741	\$13,160,440												
45	TN	\$843,902	\$843,902	\$91,206	\$91,206	\$0	\$0	\$1,120,487	\$1,120,487	\$64,822	\$64,822	\$2,500,000												
46	TX	\$554,759	\$554,759	\$0	\$0	\$0	\$0	\$1,762,645	\$1,762,645	\$964,549	\$964,549	\$3,281,953												
47	UT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
48	VA	\$485,786	\$485,786	\$0	\$0	\$0	\$0	\$6,971,760	\$8,565,600	\$5,031,173	\$4,021,741	\$13,160,440												
49	WA	\$843,902	\$843,902	\$91,206	\$91,206	\$0	\$0	\$1,120,487	\$1,120,487	\$64,822	\$64,822	\$2,500,000												
50	WV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
51	WY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0												
52	AVG	\$4,686,680	\$5,090,107	\$6,498,903	\$5,721,871	\$116,330	\$55,632	\$8,696,251	\$13,228,234	\$677,164	\$583,956	\$19,710,063												
53	RANK	16	17	19	19	1	3	24	37	10	13	18												
54																								
55																								
56																								
57																								
58																								
59																								
60																								

	A	S	T	U	V	W	X	Y	Z	AA	
		NUMBER OF PUBLIC USE AIRPORTS								FUND RAISING METHODS	
		PUBLICLY OWNED		PRIVATELY OWNED		# AVIATION EMPLOYEES		GENERAL REVENUES	SPECIAL USE TAXES	OTHER	
2	STATE	1994	1993	1994	1994	1994	1993				
3	AL	95	95	5	5	5	5	AVFUEL 100%			
4	AK	290	290	NR TO REGISTER	7	7	7	AVFUEL	FLIGHT PROPERTY, AVFUEL, AC REG, ETC		
5	AZ	50	49	3	3	33	33	AVFUEL	4.5% SALES TAX ON AVFUEL & AV PRODUCTS		
6	AR	93	93	10	10	3	3	AVFUEL	0 AVGAS & JET FUEL		
7	CA	212	215	41	43	35	35	AVFUEL	AVFUEL	LOAN PROGRAM USING GAS TAXES	
8	CO	68	68	11	11	7	7	AVFUEL	59 Transportation Fund	PYTO/PU GET "THEIR" FUEL EXCISE TAX BACK	
9	CT	16	16	16	16	59	59	AVFUEL	2	BONDING	
10	DE	2	2	7	7	2	2	AVFUEL	28 NONE		
11	FL	103	103	26	26	28	28	AVFUEL	\$50M AVFUEL, REST FROM DOT GAS TAX		
12	GA	103	104	6	7	5	5	AVFUEL	100% NONE	NONE	
13	HA	15	15	0	0	1260	1198	AVFUEL	CONCESSION FEES, ARPT & LNDG FEES ETC	INTEREST INCOME	
14	IA	125	125	1	1	13	13	AVFUEL	AVIATION FUEL	PILOT & AIRCRAFT REG	
15	ID	81	81	41	42	100	100	AVFUEL	AVGAS	local funds/arpt owner: \$33mil '94; \$19 mil '93	
16	IL	81	69	43	43	8	8	AVFUEL	NONE		
17	IN	69	69	43	43	8	8	AVFUEL	FUEL TAX & REG FEES GO INTO GEN FUND		
18	IO	113	112	43	43	8	8	AVFUEL	8 GENERAL FUND 100%		
19	KS	21	122	27	28	4	4	AVFUEL	4 AUTO GAS TAX		
20	KY	121	122	27	28	4	4	AVFUEL	11 GENERAL FUND 100%		
21	LA	62	62	5	5	11	11	AVFUEL	AVFUEL		
22	ME							AVFUEL	409 NONE	STATE PROP TAX EXEMPT BILL PENDING	
23	MD	16	16	21	21	428	428	AVFUEL	ARPT REVENUES 99%, AVFUEL 1%		
24	MA	25	25	24	24	10	10	AVFUEL	AVFUEL TAX, AC REGISTRATION		
25	MI	127	126	112	114	60	60	AVFUEL	\$2.03/GAL, AIRCFT REG \$ 0.17/LB GROSS	ARPT, FLIGHT SCHOOL, DUSTER LICENSE FEE	
26	MN	138	138	8	8	49	49	AVFUEL	AVFUEL, AC REGISTRATION		
27	MS	76	76	4	4	4	4	AVFUEL	AVFUEL		
28	MO	113	113	24	24	9	9	AVGAS	60% AVGAS		
29	MT	124	124	5	5	8.5	8.5	AVFUEL	AVFUEL TAX		
30	NE	88	88	7	9	32.5	32.5	AVFUEL	AVFUEL, TRUST INTEREST,	FARM RENT	
31	NH	49	49	8	8	3	3	AVFUEL	3 FUNDING THROUGH COUNTIES		
32	NJ	15	15	9	10	10	10	AVFUEL	100% AVFUEL TAX & AC REG GOES TO GEN FUND		
33	NM	16	14	34	36	17	17	AVFUEL	15 GENERAL REVENUES FOR OPERATION OF DIV	GENERAL FUEL	
34	NV	55	55	10	10	8	8	AVFUEL	8 SOME FROM ROAD FUND		
35	NY	63	63	100	100	25	25	AVFUEL	AVFUEL & AC REGISTRATION		
36	NC	75	74	75	75	27	27	AVFUEL	4% SALES TAX ON AVFUEL, AC SALES, ETC		
37	ND							AVFUEL	41 2 YR LEGISLATED FUNDING		
38	OH	105	105	74	79	42	42	AVFUEL	AIRCRAFT REGISTRATION: \$12 FOR 4 SEATS		
39	OK	127	126	22	24	11	11	AVFUEL	FUEL TAX \$36K, AC REG \$230K		
40	OR							AVFUEL	AVFUEL, ARPT REVENUE & CONCESSIONS		
41	PA	59	59	90	90	104	104	AVFUEL	LNDG FEES, CONCESSION RENTALS		
42	PR	11	11	0	0	495	506	AVFUEL	SEPARATE PORT AUTHORITY CORP		
43	RI	6	6	1	1	113	107	AVFUEL	100% AVFUEL, AC REG		
44	SC	64	64	11	11	38	41	AVFUEL	AVFUEL, AC REG		
45	SD	74	74	1	1	13	13	AVFUEL	AVFUEL, AC REG	\$200,000 ANNUAL INTEREST	
46	TN	76	76	10	10	30	30	AVFUEL	AVFUEL	STATE HWY FUND	
47	TX	289	289	97	97	35	35	AVFUEL	AVFUEL		
48	UT							AVFUEL	AVFUEL, AC REG		
49	VT	12	12	4	4	6	6	AVFUEL	FUEL, SALES, USE TAXES, AC REG, LEASES		
50	VA	55	55	15	15	34	34	AVFUEL	AVFUEL, SALES & USE TAX	2.4% SHARE OF STATE TRANS FUND	
51	WA	109	109	20	20	9	9	AVFUEL	AVFUEL, AC, PILOT & DEALER REGISTRATION		
52	WV							AVFUEL	AVFUEL		
53	WY	38	38	0	0	10	10	AVFUEL	TRANS FUND THROUGH LEGISLATION		
54	WV							AVFUEL	AVFUEL		
55	WV							AVFUEL	AVFUEL		
56	WV							AVFUEL	AVFUEL		
57	WV							AVFUEL	AVFUEL		
58	AVG	82	82	26	26	73	71	AVG	AVG		
59	RANK	36	40	11	11	21	21	RANK	RANK		

	A	AB	AC	AD
2				
3	STATE	AIRPORT CONDO'S, SHARED OWNERSHIP	TAX ABATEMENT/DEVELOPMENT RIGHTS FOR PVT/PU	OTHER PROGRAMS
4	AL	UNKNOWN	NONE	SURPLUS MILITARY FIELD FUNDS
5	AK	UNKNOWN	NONE	GRANT ADVANCE, LOAN PROGRAMS
6	AZ	NONE	15 NONE	SOME TAX EXEMPTIONS TO AVIATION INDUSTRIES
7	AR	0 NONE	0 GRANTS TO MUN PURCH RW ZONE @PVT/PU	MANDATORY LAND USE PLAN, ANN SAFETY NSP
8	CA	PVT/PU GET "THEIR" FUEL EXCISE TAX BACK	1 NONE	FAA AIP 90% FOR MUNI, CT GIVES 7.5%
9	CO	NONE	0 NONE	GRANTS TO PUB OWNED TO IMPROVE OR EXPAND
10	CT	UNKNOWN	0 NONE	NONE
11	DE	NONE	0 NONE	ADMIN BUDGET INCLUDES DEBT SERVICE
12	FL	NONE	NA	STATE COURTESY CARS
13	GA	NONE	2 NONE	
14	HA	NONE	2 NONE	
15	ID	SOME T HANGARS	2 PROP TAX EXEMPTION FOR PUBLIC USE PORTION	
16	IL	NONE	0 NONE	
17	IN	NONE	0 NONE	\$20-30K PER YR ON EDUCATION/PROMOTION
18	IO	UNKNOWN	0 NO	NO
19	KS	UNKNOWN	0 NO	
20	KY	UNKNOWN	0 NO	
21	LA			
22	ME			
23	MD			
24	MA	5 LAND GROWING	3 10/12 Co.'s have prop tax exempted for state 50% grant prgram)*	LECTURES, FLY-INS, PROMOTION
25	MI			AIRPORT DIRECTORY & BROCHURES
26	MN			ARPT DIRECTORY & MI CHART
27	MS	AT LEAST 1	4 AGRIC VALUATION ON RWY, TXWY, ETC	90 WX TERMINALS, NAVVAID FUNDING
28	MO			NONE
29	MT			PROMOTIONAL MATERIALS, ARPT MGR ASSOC
30	NE			PILOT BRIEFING, ARPT MARKING PROGRAMS
31	NH			BOOK TO PROMOTE AIRPORTS
32	NJ			PROMO THROUGH TOURISM & COMMERCE
33	NY	UNKNOWN	0 NONE	ECONOMIC STUDY & PROMOTION PROGRAM
34	NC	UNKNOWN	0 RELIEVERS ELIG FOR MATCHING GRANTS	50% MAINT FUND FOR MUNI ARPTS
35	ND	AT LEAST 1	0 NONE	NONE
36	OH			AIRPORT PROTECTION ACT BASED ON PART 77
37	OK			AEROSPACE EDUCATION
38	OR			
39	PA	0 STATE PAYS LOCAL TAX ON NON-REV AREA		
40	PR	NONE	NA	NMRS PROMOS DPTS TOURISM, COMM., GOVERNOR
41	RI	NONE	0 NONE	NONE
42	SC	NONE	0 % OF AVFUEL TAX RETURNED TO EACH ARPT	GRANT PROGRAMS
43	SD			GRANT PROGRAMS, AWOS
44	TN			NONE
45	TX			
46	UT			
47	VT			
48	VA			
49	WA			
50	WV			
51	WI			
52	WY			
53	AVG			
54	RANK			

* Counties in Maryland must give prop tax exemption before state will give 50% improvement grant to arpt. Bill pending to exempt from state prop tax.

	A	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX
	STATE	POPUL	FORM	SO MI	AIRPORTS	% PVT OWNED		BDOGT/ABRT		BDOGT/POPI000		BDOGT-OS/ABRT		BDOGT-OS/POPI000		CAP \$/PVT ABRT		CAP \$/PUB ABRT		TOTAL CAPITAL \$	
						1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993
3	AL	4,040,587	80	50,761	100	5%	5%	\$9,000	\$8,766	\$223	\$216	\$9,000	\$8,746	\$223	\$216	\$0	\$0	\$4,901	\$5,252	\$466,626	\$498,956
4	AK	550,403	1	550,403	290	6%	6%	\$22,942	\$24,031	\$117,465	\$118,039	\$39,149	\$43,341	\$20,662	\$22,816	\$0	\$0	\$36,732	\$41,600	\$10,652,293	\$12,083,855
5	AZ	3,666,228	32	512,425	103	10%	10%	\$154,106	\$248,381	\$2,228	\$3,524	\$142,787	\$266,825	\$2,065	\$3,360	\$0	\$0	\$166,561	\$246,988	\$7,828,026	\$12,102,400
6	CA	23,560,021	45	523,123	103	6%	6%	\$27,184	\$27,184	\$1,191	\$1,191	\$27,184	\$27,184	\$1,191	\$1,191	\$0	\$0	\$28,602	\$28,602	\$2,660,000	\$2,660,000
7	CO	29,780,021	190	156,303	253	16%	17%	\$37,549	\$24,419	\$319	\$319	\$27,549	\$24,419	\$319	\$319	\$0	\$0	\$23,585	\$9,302	\$5,000,000	\$2,000,000
8	CT	3,294,394	32	103,597	79	14%	14%	\$87,578	\$3,544	\$91	\$85	\$3,797	\$3,544	\$91	\$85	\$0	\$0	\$723,426	\$548,311	\$11,574,817	\$8,772,983
9	DC	666,188	345	1,932	9	78%	78%	\$36,492	\$27,967	\$493	\$378	\$36,492	\$27,967	\$493	\$378	\$0	\$0	\$83,713	\$26,350	\$87,425	\$50,700
10	DE	12,937,926	239	54,156	129	20%	20%	\$702,326	\$642,636	\$7,003	\$6,408	\$702,326	\$642,636	\$7,003	\$6,408	\$0	\$0	\$866,019	\$791,262	\$89,200,000	\$81,500,000
11	GA	6,478,216	110	58,946	109	6%	6%	\$24,472	\$21,751	\$412	\$373	\$24,472	\$21,751	\$412	\$373	\$0	\$0	\$21,278	\$18,869	\$2,191,600	\$1,962,335
12	HI	1,006,749	17	82,520	15	1%	0%	\$9,837	\$9,966	\$1,231	\$1,247	\$7,240	\$7,525	\$906	\$942	\$0	\$0	\$3,200	\$2,400	\$6,112,800	\$4,000,000
13	IL	11,430,602	205	55,650	122	34%	34%	\$82,338	\$60,726	\$879	\$853	\$82,338	\$60,726	\$879	\$853	\$0	\$0	\$105,588	\$76,290	\$8,552,591	\$6,179,506
14	IN	5,544,159	154	35,954	112	38%	38%	\$14,103	\$19,613	\$183	\$194	\$2,725	\$2,544	\$163	\$154	\$997	\$0	\$13,562	\$978,699	\$26,599	\$1,114,708
15	IO	2,776,755	50	55,983	156	28%	28%	\$14,103	\$19,613	\$183	\$194	\$2,725	\$2,544	\$163	\$154	\$0	\$0	\$11,805	\$21,455	\$1,334,000	\$2,403,000
16	KS	2,477,574	30	81,768	148	18%	19%	\$2,725	\$2,544	\$183	\$194	\$2,725	\$2,544	\$163	\$154	\$0	\$0	\$24,194	\$40,323	\$1,500,000	\$2,500,000
17	KY	3,685,296	93	39,689	67	7%	7%	\$32,836	\$47,761	\$597	\$688	\$32,836	\$47,761	\$597	\$688	\$0	\$0	\$0	\$0	\$0	\$0
18	LA	4,219,973	95	44,514	31	40%	40%	\$2,910	\$31,594	\$712	\$1,126	\$31,594	\$30,274	\$682	\$816	\$5,000	\$4,500	\$7,200	\$7,200	\$153,000	\$153,000
19	ME	1,227,928	40	31,008	37	57%	57%	\$2,142,703	\$1,609,486	\$16,581	\$12,455	\$1,212,599	\$791,542	\$9,383	\$6,125	\$1,758	\$23,614	\$2,215,165	\$1,354,704	\$35,479,559	\$22,171,150
20	MD	4,781,468	486	9,838	49	48%	49%	\$46,257	\$49,117	\$369	\$726	\$46,257	\$49,117	\$369	\$726	\$0	\$11,031	\$66,454	\$136,126	\$1,636,357	\$3,642,886
21	MA	6,016,425	769	7,825	49	4%	4%	\$6,900	\$3,650	\$948	\$1,127	\$36,900	\$43,650	\$948	\$1,127	\$0	\$0	\$18,496	\$29,397	\$2,449,000	\$3,704,000
22	MI	9,296,297	163	56,956	239	4%	5%	\$4,375,099	\$115,068	\$3,428	\$3,840	\$88,356	\$100,000	\$2,949	\$3,337	\$0	\$0	\$46,377	\$60,145	\$6,400,000	\$8,300,000
23	MN	2,573,216	55	47,215	80	5%	5%	\$18,188	\$10,679	\$565	\$332	\$18,188	\$10,679	\$565	\$332	\$0	\$0	\$13,559	\$6,977	\$1,030,514	\$530,252
24	MO	5,117,073	74	68,963	137	18%	18%	\$10,270	\$8,453	\$275	\$226	\$10,270	\$8,453	\$275	\$226	\$6,988	\$0	\$5,596	\$8,310	\$170,000	\$600,000
25	MT	799,085	2	145,285	129	4%	4%	\$4,037	\$4,037	\$831	\$652	\$4,037	\$4,037	\$831	\$652	\$0	\$0	\$1,371	\$0	\$170,000	\$0
26	NC	1,578,385	21	76,621	95	7%	7%	\$51,932	\$43,140	\$2,554	\$2,651	\$40,367	\$40,010	\$2,430	\$2,459	\$0	\$0	\$16,340	\$21,125	\$1,437,931	\$1,858,989
27	ND	1,201,833	11	110,260	57	14%	14%	\$4,225	\$2,452	\$200	\$116	\$4,225	\$2,452	\$200	\$116	\$0	\$0	\$0	\$0	\$0	\$0
28	NH	1,098,252	123	8,996	24	38%	38%	\$32,910	\$31,594	\$712	\$1,126	\$31,594	\$30,274	\$682	\$816	\$5,000	\$4,500	\$7,200	\$7,200	\$153,000	\$153,000
29	NJ	7,730,188	1,035	7,468	50	68%	72%	\$133,240	\$36,300	\$862	\$235	\$133,240	\$36,300	\$862	\$235	\$86,412	\$10,028	\$109,000	\$28,214	\$4,682,000	\$714,000
30	NM	1,515,089	13	121,206	65	15%	15%	\$23,077	\$23,077	\$990	\$990	\$23,077	\$23,077	\$990	\$990	\$0	\$0	\$18,182	\$18,182	\$1,000,000	\$1,000,000
31	NY	17,990,456	380	47,381	163	61%	61%	\$84,278	\$81,654	\$764	\$740	\$84,278	\$81,654	\$764	\$740	\$2,365	\$1,188	\$84,701	\$74,271	\$5,572,652	\$4,797,896
32	OH	6,628,637	136	48,848	150	50%	50%	\$66,000	\$63,087	\$1,494	\$1,418	\$66,000	\$63,087	\$1,494	\$1,418	\$0	\$0	\$112,000	\$108,757	\$8,400,000	\$7,900,000
33	OK	10,847,115	265	70,978	179	41%	43%	\$10,642	\$9,511	\$176	\$161	\$10,642	\$9,511	\$176	\$161	\$0	\$0	\$14,286	\$10,476	\$1,500,000	\$1,100,000
34	OR	3,145,585	46	68,681	149	15%	15%	\$21,446	\$21,444	\$1,016	\$1,023	\$21,446	\$21,444	\$1,016	\$1,023	\$0	\$0	\$16,762	\$11,486	\$2,128,758	\$1,447,256
35	PA	2,842,321	30	96,350	149	60%	60%	\$144,248	\$119,799	\$1,809	\$1,502	\$60,268	\$50,349	\$756	\$631	\$15,814	\$12,500	\$72,369	\$57,203	\$5,693,000	\$4,500,000
36	RI	1,188,643	265	44,887	149	60%	60%	\$7,077,588	\$6,038,277	\$22,036	\$18,600	\$644,088	\$949,662	\$2,005	\$2,957	\$5,535,571	\$5,535,571	\$549,145	\$6,689,276	\$6,040,594	\$6,040,594
37	SC	3,553,037	1,006	3,515	11	0%	0%	\$1,905,523	\$1,133,754	\$8,305	\$7,909	\$373,135	\$368,962	\$2,603	\$2,574	\$0	\$0	\$5,363,397	\$7,541,331	\$32,120,379	\$46,247,983
38	SD	1,003,464	951	1,085	7	14%	14%	\$5,958	\$5,958	\$1,204	\$1,037	\$48,192	\$48,192	\$1,037	\$1,037	\$0	\$0	\$20,783	\$24,450	\$1,330,125	\$1,564,777
39	TN	3,486,703	115	30,214	75	15%	15%	\$30,802	\$25,586	\$3,519	\$2,757	\$30,802	\$25,586	\$3,519	\$2,757	\$0	\$0	\$18,137	\$12,595	\$1,342,165	\$932,041
40	TX	6,986,004	9	76,484	75	1%	1%	\$96,626	\$141,831	\$1,704	\$2,501	\$96,626	\$141,831	\$1,704	\$2,501	\$0	\$0	\$87,543	\$151,134	\$6,653,277	\$11,489,150
41	UT	4,877,185	119	41,158	86	12%	12%	\$36,457	\$36,457	\$828	\$1,322	\$36,457	\$36,457	\$828	\$1,322	\$0	\$0	\$43,202	\$72,154	\$12,485,364	\$20,952,400
42	VT	1,722,850	21	82,433	386	25%	25%	\$362,500	\$368,750	\$10,306	\$10,484	\$334,375	\$340,625	\$9,507	\$9,684	\$0	\$0	\$426,700	\$433,333	\$5,200,000	\$5,200,000
43	WA	5,674,756	156	39,713	70	21%	21%	\$182,746	\$188,006	\$2,067	\$2,127	\$182,746	\$188,006	\$2,067	\$2,127	\$15,216	\$2,293	\$126,759	\$155,738	\$7,100,000	\$8,600,000
44	WI	4,866,692	73	66,576	129	16%	16%	\$19,380	\$19,380	\$514	\$514	\$18,673	\$18,673	\$495	\$495	\$0	\$0	\$10,280	\$10,280	\$1,120,487	\$1,120,487
45	WV	1,793,477	74	24,302																	
46	WY	4,891,769	90	54,413																	
47	AVG	4,926,043	182	67,437	107	24%	24%	\$81,778	\$1,081,805	\$13,504	\$17,443	\$476,268	\$793,832	\$8,490	\$12,845	\$3,364	\$1,636	\$401,770	\$463,385	\$1,762,645	\$1,762,645
48	RANK	9	1	46	34	2	2	11	24	24	36	9	23	23	36	1	4	11	24	19	34

	A	AV	AZ	BA	BB	BC	BD	BE	BF
2									
3									
4	STATE	TOTAL CAP \$/AIRPT	TOTAL CAP \$/AIRPT	TOTAL CAP \$/POP(000)	POP/AIRPT	SQ MI/AIRPT	AVG AIR/AIRPT	AVG AIR/POP(000)	
5		1994	1993	1994	1993				
6	AL	\$4,656	\$4,990	\$115	\$125	40,406	508	\$216,119	\$10,697
7	AK	\$36,732	\$41,600	\$19,354	\$21,918	1,898	1,898	\$213,789	\$225,286
8	AZ	\$147,699	\$232,738	\$2,136	\$3,302	69,155	2,141	\$692,629	\$20,031
9	AR	\$25,825	\$25,825	\$1,132	\$1,132	22,823	506	\$176,205	\$15,441
10	CA	\$19,763	\$7,752	\$168	\$67	117,629	618	\$69,170	\$1,176
11	CO	\$0	\$0	\$0	\$0	41,701	1,311	\$55,053	\$2,641
12	CT	\$361,713	\$274,156	\$3,521	\$2,668	102,722	152	\$121,057	\$2,357
13	DE	\$9,714	\$5,633	\$131	\$76	74,019	215	\$143,417	\$3,875
14	FL	\$691,473	\$631,783	\$6,894	\$6,299	100,284	420	\$828,296	\$16,517
15	GA	\$20,106	\$17,679	\$338	\$303	59,433	541	\$251,648	\$8,468
16	HA	\$6,112,800	\$19,010,144	\$92,737	\$257,304	73,882	428	\$1,538,531	\$41,648
17	ID	\$3,175	\$2,381	\$397	\$298	7,990	655	\$480	\$120
18	IL	\$70,103	\$50,240	\$748	\$541	93,693	456	\$776,195	\$16,547
19	IN	\$8,738	\$9,953	\$177	\$201	49,601	321	\$293,842	\$11,872
20	IO	\$8,551	\$15,503	\$480	\$865	17,800	359	\$123,591	\$13,887
21	KS	\$0	\$0	\$0	\$0	16,740	552	\$951	\$114
22	KY	\$22,388	\$37,313	\$407	\$678	55,004	592	\$32,090	\$1,167
23	LA								
24	ME								
25	MID	\$958,907	\$599,220	\$7,420	\$4,637	129,229	266	\$163,638	\$2,533
26	MA	\$33,395	\$74,345	\$272	\$605	122,784	160	\$200,677	\$3,269
27	MI	\$9,828	\$15,433	\$253	\$398	38,892	238	\$205,661	\$10,576
28	MN	\$43,836	\$56,849	\$1,463	\$1,897	29,966	545	\$199,658	\$13,325
29	MS	\$12,881	\$6,628	\$400	\$206	32,165	590	\$86,085	\$5,353
30	MO	\$5,839	\$4,380	\$156	\$117	37,351	503	\$83,936	\$4,494
31	MT	\$1,318	\$0	\$213	\$0	6,194	1,126	\$581	\$188
32	NE	\$15,136	\$19,165	\$911	\$1,178	16,615	807	\$130,199	\$15,673
33	NV	\$0	\$0	\$0	\$0	21,085	1,934	\$46,491	\$4,410
34	NH	\$6,375	\$6,120	\$138	\$138	46,219	375	\$416,667	\$18,030
35	NJ	\$93,640	\$14,280	\$606	\$92	154,604	149	\$238,000	\$3,079
36	NM	\$15,385	\$15,385	\$660	\$660	23,309	1,865	\$152,308	\$13,069
37	NY	\$34,188	\$29,435	\$310	\$267	110,371	291	\$368,458	\$6,677
38	NC	\$56,000	\$53,020	\$1,267	\$1,192	44,191	326	\$200,000	\$9,052
39	ND								
40	OH	\$8,380	\$5,978	\$138	\$101	60,598	229	\$206,704	\$6,822
41	OK	\$14,287	\$9,648	\$677	\$460	21,111	461	\$37,103	\$3,515
42	OR								
43	PA	\$38,208	\$30,201	\$479	\$379	79,743	301	\$397,987	\$9,982
44	PR	\$553,571	\$449,145	\$1,724	\$1,710	321,185	320	\$914,124	\$5,892
45	RI	\$4,588,626	\$6,463,998	\$32,009	\$45,092	143,382	151	\$1,527,090	\$21,305
46	SC	\$17,735	\$20,864	\$381	\$449	46,489	403	\$122,419	\$5,267
47	SD	\$17,896	\$12,427	\$1,928	\$1,339	9,280	1,020	\$82,718	\$17,827
48	TN	\$77,364	\$133,595	\$1,364	\$2,356	56,711	479	\$91,225	\$3,217
49	TX	\$32,346	\$54,022	\$735	\$1,228	44,007	679	\$40,132	\$1,824
50	UT			\$0	\$0				
51	VT	\$318,750	\$325,000	\$9,063	\$9,240	35,172	579	\$262,500	\$14,926
52	VA	\$102,857	\$122,857	\$1,164	\$1,390	88,391	567	\$686,969	\$15,544
53	WA	\$8,686	\$8,686	\$230	\$230	37,726	516	\$1,171	\$62
54	WV								
55	WI								
56	WY	\$46,385	\$46,385	\$38,835	\$38,835	1,194	254	\$131,579	\$220,323
57									
58	AVG	\$333,074	\$660,108	\$4,923	\$9,111	61,423	609	\$284,685	\$18,815
59	RANK	10	28	22	38	2	44	14	34

APPENDIX C (LEGEND)NJGASC - SURVEY OF AVIATION POLICIES OF OTHER STATES

Below is an explanation of the columns headings used in Appendix C:

AV DEPT ADMIN BUDGET	Dollar amount spent on the administration of the aviation department
OPERATION OF AIRPORTS	Dollar amount spent on operating airports
CAP \$ PVTO/PU	Capital improvement dollars spent on privately owned, public use airports
CAP \$ PUBO/PU	Capital improvement dollars spent on publicly owned, public use airports
OTHERS	Other miscellaneous expenditures
TOTAL BUDGET	Total budget of the state aviation department
TOTAL BUDGET - OPS	Total budget less amount spent operating airports
FEDERAL AIP	Amount of Federal Airport Improvement Program funds
# OF PUBLIC USE ARPTS	# of public use airports, further broken down into those that are publicly owned and those that are privately owned
# AVIATION EMPLOYEES	# of employees in that state aviation department
GENERAL REVENUES	Whether the state aviation department receives funding out of general revenues or other sources
SPECIAL USE TAXES	Types of aviation specific taxes such as fuel taxes, registration fees, etc.
OTHER	Other sources of revenue
AIRPORT CONDO'S	Whether any airports are owned by a condominium association
TAX ABATEMENT	Any programs for privately owned, public use airports for abatement of property taxes, purchase of development rights, etc. programs such as education, promotion, safety, charts, publications, etc.
OTHER PROGRAMS	Population
POPUL	
POP/MI	Population per square mile
SQ MI	Square miles of the state
% PRIV OWNED	% of public use airports which are privately owned
BDGT/ARPT	Aviation budget divided by the number of airports
BDGT/POP(OOO)	Aviation budget per thousand residents
BUDGET- OPS/ARPT	(Aviation budget less amount spent on operating airports) divided by the number of airports
BUDGET- OPS/POP(OOO)	(Aviation budget less amount spent on operating airports) per thousand residents
CAP \$/PVT ARPT CAP	Capital improvement spending on privately owned airports divided by the # of privately owned airports
\$/PUB ARPT	Capital improvement spending on publicly owned airports divided by the # of publicly owned airports
TOTAL CAPITAL \$	Total capital improvement spending at both publicly and privately owned airports
TOTAL CAP \$/ARPT	Total capital dollars per airport
TOTAL CAP POP(000)	Total capital dollars per thousand residents
POP/ARPT	# of residents per airport
SQ MI/ARPT	# of square miles per airport
AVG AIP/ARPT	Average of 1993 and 1994 Federal AIP Funding per airport
AVG AIP/POP(OOO)	Average of 1993 and 1994 Federal AIP Funding per thousand residents

APPENDIX D

APPENDIX D - NJGASC SURVEY OF NEW JERSEY MUNICIPALITIES WHICH HOST AIRPORTS

SUMMARY OF HOST COMMUNITY RESPONSES

The Commission conducted a study to give voice to the attitudes of various municipalities respecting the airports located within them (host communities). All communities hosting airports in New Jersey were sent questionnaires and invited to respond. Of the 49 general aviation public use airports in New Jersey, 18 of the communities in which they are located (host communities) representing 19 airports responded to the questionnaire sent to them by the Commission. Of these, four did not answer the questions put forth in the questionnaire: the Townships of Andover and Newton, claimed the airports were not within their jurisdiction; the City of Newark stated it was not required to answer the questions; and Lumbertown Township simply stated that it wanted the Flying W Airport closed because its air traffic patterns conflicted and posed a safety hazard. Therefore, the following analysis, except where indicated, represents the responses from the host communities of 15 public use airports in New Jersey. The questionnaire invited both verbatim and multiple choice answers. From the responses given, the following findings have been made.

When asked what **economic contribution** the airport makes to the respondent community, 33% responded that the airport makes no economic contribution, 27% reported little contribution, 20% claimed moderate contribution, and 20% answered that significant economic contributions were made.

On the question of whether the airport made any **aesthetic contributions** to the community, 46% responded no contribution, 7% little contribution, another 7% claimed moderate contribution, and the remaining 40% saw significant aesthetic contributions made to the community.

Regarding the issue of whether **significant revenue contributions** from the airport were realized by the host communities, 67% answered none and 27% indicated a slight revenue contribution. Only 7% claimed tax revenues paid by the airport were significant. None of the respondents selected to characterize the revenue contributions through taxes as moderate.

When questioned as to **other contributions** the airport made, 73% responded none, 20% admitted little, and 7% answered moderate. None of the responding communities thought their airports made any significant other contributions to their community.

The host communities were asked to describe the **relationship of the community to the airport**. Twenty-five percent answered that the relationship was good, 25% acknowledged a bad relationship, 25% saw the relationship as neutral, and 25% described the relationship as mixed. The response of Lumberton Township, mentioned above, has been added to the responses to this question.

When asked what would **improve the relationship**, 7% wanted to close the airport altogether; 7% suggested a change to community ownership; 7% said the airport should pay its municipal taxes; 40% thought better communications would improve relations; 7% indicated a change in ownership or management would be welcome; another 7% responded that the airport should be more self sustaining; and 7% suggested reorienting runways. An additional 20% offered no suggestions at all.

On the question of whether the communities feel the airport has **communicated the benefits** of the airport to the community, 20% answered “has communicated,” 73% responded “has not communicated,” and 7% marked “other.”

Significantly, more than half of the respondents **were not aware** of whether the airports in question had a Master Plan under the Federal Airport Improvement plan. Among the respondents, only 33% stated that they were invited to participate on a **community advisory committee**; 40% indicated they received no such invitation; 7% did not know; and 20% offered no response to the question. Of the communities that were invited to participate on such a committee, 80% participated, and 20% did not.

The host communities were asked if a **majority of people** in their particular municipality (or, if unknown, the municipal government) **would be interested in**:

- (a) maintaining the airport in **existing condition** (33% yes; 33% no; 33% not responding);
- (b) making **safety improvements**, including extending the runway (53.3% yes; 20% no; 27% not responding); and
- (c) **making capital improvements** necessary for the **airport’s business** (40% yes; 27% no; 33% not responding).

Similarly, the host communities were asked if a **majority of people** in their particular municipality (or, if unknown, the municipal government) felt that the **type of aircraft** presently accepted at the airport are:

- (a) **too large** (0% yes; 50% no; 50% not responding);
- (b) **right size** for airport (57% yes; 14.3% no; 28.6% not responding); and
- (c) should be encouraged to **grow** (36% yes; 36% no; 29% not responding; one response not considered).

When questioned about the **number of aircraft based at the airport**, over 50% wanted the number of aircraft to grow. Apart from Atlantic City, only one other respondent community said there were too many aircraft, which was Florham Park Township (Morristown Airport).

- (a) too many (13% yes; 53.3% no; 33% no response);
- (b) correct capacity (20% yes; 40% no; 40% no response);
- (c) be encouraged to grow (53.3% yes; 20% no; 27% no response).

The host communities were also asked if they felt the **airport was a good neighbor**. The result was that 47% reported yes, the airport was a good neighbor; 40% answered no; and 13% offered no response. When asked to explain its response, 53% offered a response. Those communities that felt the airport was a good neighbor noted factors such as the airport encourages business; it is responsive to complaints; it is located in a sparsely populated area. Those who answered the question in the negative noted such factors as location in a residential area; management does not communicate; and an absence of any community participation.

As a follow-up, respondents were asked what they thought the airport could do **to be a better neighbor**: do nothing (7%); expand the airport (13%); reduce noise (7%); complete Master Plan (7%); communicate (13%); improve adjoining property (7%); cooperate with community (13%); industrial park development (13%); stop competing with local business (7%); no response (13%). It is noteworthy that communication and cooperation between the airport and the community is of greater concern than airport noise.

When asked what the community can do **to help the airport become a better neighbor**, respondents suggested: encourage greater use, including aeronautical support activities and non-aeronautical facility expansion and development (13%); communicate noise complaints promptly (7%); more community participation (7%); communicate benefits to citizens (7%); increase knowledge of airport (7%); establish dialog with airport management (7%); improve facility (7%); restrain nearby development (7%); close the airport (7%) other (7%); no response (27%).

Host communities were questioned on **aircraft noise complaints** from constituents. Overall, the majority of communities reported no complaints from aircraft noise. Only 33% of respondents stated they had complaints for both helicopter and airplane activities.

- (a) Helicopters (33% yes; 60% no; 7% no response);
- (b) aircraft overflights (47% yes; 47% no; 7% no response); and
- (c) night operations (27% yes; 60% no; 13% no response).

Host communities were also asked what they thought they could do **to better support the airport**. Significantly, 80% of respondents provided positive comments. The suggestions included: encourage greater use (20%); become more knowledgeable (13%); participate in Master Plan development (7%); encourage school trips (7%); purchase the airport (7%); fix airport access road (7%); improve communications (7%); identify community needs (7%); develop industrial park (7%); no response (20%).

When asked whether they would **participate in the airport advisory committee** if requested, 67% responded favorably, 20% answered no, and 13% offered no response.

The Commission posed the question of whether a community would be willing to **consider the purchase of an airport** and continue its operation, should the private owners of the public use airport decide to discontinue ownership. The question assumed assistance from available State and Federal grants. Twenty percent of respondents answered that they presently own their airport. Of the remaining municipalities, 8% answered yes; 50% no; and 42% did not respond or were uncertain.

The Commission also asked what the airport could do to provide **better service to the community** (e.g., “open a flight school, conduct air taxi or scheduled air service to a particular destination, provide an area for the location of fire fighting equipment, provide an area for water retention basin to refill fire fighting aircraft, organize air shows and antique aircraft displays, or fairs and bazaars in your community”). Eighty percent responded favorably to the suggestions made in the question and offered some of their own; 13% did not respond; and 7% did not want any service at all. Among the responses: currently provides all suggested services (13%); current service is adequate (20%); allow community use of airport, including hunting on airport property (7%); increase commercial and personal use (13%); provide services suggested in question (13%); provide scheduled service (7%); provide air cargo service (7%).

Finally, the host communities were asked whether they have adopted a zoning ordinance in accord with the **New Jersey Airport Safety Zoning Act**. If the response was in the negative, the respondents were asked to explain why. Among the respondents, 53% answered yes; 20% answered no; 13% did not know; and 13% offered no response. Of those communities that answered in the negative, a majority indicated that such an ordinance was, a

Teterboro Airport

January 29, 1996

Philip W. Engle
Manager

The Honorable (name)
Mayor- Town of (town)
(street address)
(town and zip code)

Dear Mayor (name):

By Public Law 1993, Chapter 336, the New Jersey Legislature, created the New Jersey General Aviation Study Commission and charged that Commission to study the status of general aviation airports in the State to determine why so many have closed; to investigate the relationship of the airport and its host community; and to study many other aspects concerning the viability of general aviation airports in the State of New Jersey.

By statute this Commission has been enabled with all the powers provided by Chapter 13, Title 52 of the Revised Statutes, including the power to conduct hearings and subpoena witnesses to appear before it. If you would like to appear to present evidence to this commission please add a statement to that effect to your answers requested herein.

As the leader of a community (county) which host or neighbors a general aviation airport, this Commission needs your assistance. A short questionnaire follows which we request you answer and return in the enclosed envelope on or prior to February 28, 1996. Of course please feel free to add your own comments relative to your community and your airport and/or the aviation system in the State of New Jersey.

1. What economic contribution (jobs, direct benefits, tourism, indirect benefits) does your airport make toward your community?
2. Does the airport make any aesthetic, contributions (open space, green acres, farmlands, woodlands, wetlands, wild life habitat, etc.) to the community?
3. Does the airport make a significance revenue contribution through taxes to your community?

continued

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APPENDIX D (QUESTIONNAIRE)

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4. Does your airport make any other contribution to your community (provide a location for fire fighting equipment, a police station a road servicing depot)?
5. How would you describe the relationship of your community to your airport? (Good, bad or neutral)
6. How can this relationship be improved?
7. Do You feel the airport operator has communicated the benefits of the airport to the community?
8. Does the airport have an approved Master Plan under the Federal Airport Improvement Program?
9. Were you invited to be a of a community advisory committee in the development of the airport master plan?
10. Were you able to participate.
11. Would the majority of the people in you township (or if unknown then your town government) be interested in:
 - (1) The airport maintaining itself in its existing condition?
 - (2) The airport making all possible improvements to maximize safety in operations at the airport including, if necessary, extending the length of any runway?
 - (3) The airport making whatever capital improvements it determines are appropriate for the prudent conduct of its business?
12. Do the majority of the people in your township (or if unknown then in your town government) feel the type of aircraft presently accepted at the airport are:
 1. Too large?
 2. The right size for the airport?
 3. Should be encouraged to grow?
13. Do you feel the number of aircraft based at the airport are:
 1. Too Many?
 2. The correct capacity for the airport?
 3. Should be encouraged to grow?

Continued.....

APPENDIX D (QUESTIONNAIRE)

-3-

14. Do you feel the airport is a "good neighbor"?
 - a. Why?
15. What do you think the airport can do to be a better neighbor and a more valuable asset to the community? I
16. What do you think the community can do to help the airport become a better neighbor?
17. Are you receiving complaints from your constituents about:
 - a.) Helicopters
 - b.) Aircraft overflights
 - c.) Night aircraft operations
18. What do you think the community can do to better support the airport?
19. If requested, would you participate in the airport advisory committee?
20. Should the present owners of the airport decide to discontinue their present ownership, would the Community be willing to consider the purchase (with assistance from State and Federal grants which an available) and to continue to operate the airport? Would your community want the county to purchase the airport?
21. What could your airport do to provide better service to your community (open a flight school, conduct air taxi or scheduled air service to a particular destination, provide an area for the location of police or fire fighting equipment, provide an area for a water mention basin to refill fire fighting aircraft, organize air shows and antiques aircraft displays, or fairs and bazaars for your community)?
22. Has your community adopted a ordinance in accord with the Now Jersey Safety Zoning Act? If not; why not?

Thank you for taking the time to let us have your opinions. The Commission will be seriously considering all input in developing its final report.

Sincerely,

Philip W. Engle
Commissioner

APPENDIX E

NEW JERSEY GENERAL AVIATION STUDY COMMISSION
SURVEY OF
MUNICIPALITIES ADJACENT TO
MUNICIPALITIES WHICH HOST GENERAL AVIATION AIRPORTS

SUMMARY SHEET

PART I: A number of statements regarding airports are listed below. Some of these are statements of fact and others are statements of opinion. Please tell us whether you agree or disagree with them by circling the number that best corresponds with your views. One (“1”) means you strongly agree; two (“2”) means you somewhat agree; three (“3”) means you have insufficient knowledge to agree or disagree or to form any opinion; four (“4”) means you somewhat disagree; and five (“5”) means you strongly disagree. It is important that you answer every question.

1	The airport in the neighboring community preserves open space.	10	9	8	5	2
2	The airport in the neighboring community preserves wet lands.	5	6	18	4	2
3	The airport in the neighboring community preserves wildlife habitat.	8	3	17	4	3
4	The airport in the neighboring community provides air transportation for small businesses in our region.	12	12	7	3	1
5	The airport in the neighboring community provides air transportation for large businesses in our region.	11	8	10	2	4
6	The airport in the neighboring community, either directly or indirectly, provides jobs for people in our region.	9	9	10	4	3
7	The airport in the neighboring community has a positive impact on the area's economy.	7	10	12	2	4
8	People using the airport in the neighboring community mostly do so for business.	6	4	18	5	2
9	The airport in the neighboring community makes it easier for people to travel here for business or pleasure.	8	7	11	4	5
10	The airport in the neighboring community is used by businesses located in my municipality.	6	10	15	1	3
11	The needs and concerns of my municipality respecting the airport are the same as the host municipality.	6	6	7	10	5
12	When the airport in the neighboring community wants to expand or improve, my municipality has the opportunity to share its views on the project's impacts.	4	6	9	9	7
13	My municipality receives notice from the host community of all meetings and hearings regarding their airport and its operations.	5	8	10	5	5
14	When the host community conducts hearings affecting the airport, my municipality's desires and concerns are given the same weight as those of the host community.	1	4	14	7	8
15	A majority of the people in my community rarely complain about the airport in the neighboring community.	12	9	5	4	5

APPENDIX E

16	A majority of the people in my community are concerned about the noise of aircraft that come from the airport in the neighboring community.	11	4	7	7	6
17	A majority of the people in my community are concerned about air pollution caused by the airport in the neighboring community.	6	4	9	8	8
18	A majority of the people in my community are concerned about traffic caused by the airport in the neighboring community	7	2	8	8	10
19	A majority of the people in my community are concerned about accidents involving aircraft that come from the airport in the neighboring community.	8	4	6	10	7
20	A majority of the people in my community would prefer that the airport be closed.	2	4	8	8	12
21	A majority of the people in my community want the length of the runways and the size of the other facilities at the airport to remain as they are even though it is bad for the airport owner's business.	6	2	19	2	6
22	A majority of the people in my community would support improvements at the airport that make it a safer facility.	16	8	10	0	1
23	A majority of the people in my community would like to see the airport improve its facilities to encourage more business use, more investment and more high paying jobs in our area.	7	5	12	5	5
24	A majority of the people in my community would be offended by the constant noise of large aircraft used by the airlines on repetitive schedules.	17	6	10	2	0
25	A majority of the people in my community would be offended by the noise of an occasional corporate jet.	9	11	7	5	3
26	My municipality would participate on an Airport Advisory Committee, composed of my community, the host community, our state senator and assemblyman/woman, a NJ DOT representative and the airport management, that meets quarterly to discuss issues and concerns resulting from airport operations	19	9	6	0	1
27	The views and concerns of my municipality respecting proposed airport improvements should be given the same weight as those of the host municipality.	16	11	4	2	1
28	Applications for the development of the airport should be made to a State agency, like the Department of Transportation, where the host and neighboring communities would be given equal consideration when expressing their views and where the zoning ordinances of each municipality would be given equal weight.	16	6	7	4	2
29	A privately owned, public-use airport should be entitled to grow, develop its business and improve its facilities and equipment, just like any other privately owned enterprise doing business with the public.	7	6	8	9	6
30	All public use airports (even ones privately owned) are part of the State transportation system and their growth and development should be regulated by the State similar to a State highway.	7	11	8	5	4
31	Please circle the average number of complaints your office receives each month respecting the airport in the neighboring community. ("1" means "1 or less"; "5" means "5 or more".	20	2	5	0	7

PLEASE TURN PAGE AND PROCEED TO PART TWO .

APPENDIX E

SUMMARY SHEET

PART 2: General aviation airports provide a number of different services and activities. Please review the list of services below and tell us which services your community would like the airport in the neighboring community to provide. Please enter “**Yes**” or “**No**”.

		YES	NO
1.	Emergency medical transportation for burn victims, accident victims and emergency patients in your community.	27	6
2.	Emergency airborne fire fighting capabilities for your community.	26	4
3.	Flight training for young men and women in your community desiring a career in the military or airlines.	23	10
4.	Technical training for young men and women in your community desiring a career as an aircraft mechanic.	22	6
5.	A base for the aircraft owned by people living in your community.	25	7
6.	A base for aircraft for small businesses that would bring new investment into your community.	25	7
7.	A base for aircraft used by larger businesses that could bring additional high paying jobs into your region.	21	9
8.	A landing facility for business travelers doing business with companies in your community.	24	7
9.	A base for air taxi/charter operations for the people of your community.	21	10
10	A base for commuter airline service to major airports in the New York, Philadelphia, Baltimore, Washington, DC, Allentown, PA, or Boston.	10	20
11	A recreational facility that draws tourists to air shows, balloon festivals and other aviation related entertainment.	19	13
12	Open space that is used by the community for activities that do not interfere with aviation operations.	25	6

NEW JERSEY GENERAL AVIATION STUDY COMMISSION
SURVEY OF
MUNICIPALITIES ADJACENT TO
MUNICIPALITIES WHICH HOST GENERAL AVIATION AIRPORTS

SUMMARY SHEET

PART I: A number of statements regarding airports are listed below. Some of these are statements of fact and others are statements of opinion. Please tell us whether you agree or disagree with them by circling the number that best corresponds with your views. One (“1”) means you strongly agree; two (“2”) means you somewhat agree; three (“3”) means you have insufficient knowledge to agree or disagree or to form any opinion; four (“4”) means you somewhat disagree; and five (“5”) means you strongly disagree. It is important that you answer every question.

1	The airport in the neighboring community preserves open space.	29.4%	26.5%	23.5%	14.7%	5.9%
2	The airport in the neighboring community preserves wet lands.	14.3%	17.1%	51.4%	11.4%	5.7%
3	The airport in the neighboring community preserves wildlife habitat.	22.9%	8.6%	48.6%	11.4%	8.6%
4	The airport in the neighboring community provides air transportation for small businesses in our region.	34.3%	34.3%	20.0%	8.6%	2.9%
5	The airport in the neighboring community provides air transportation for large businesses in our region.	31.4%	22.9%	28.6%	5.7%	11.4%
6	The airport in the neighboring community, either directly or indirectly, provides jobs for people in our region.	25.7%	25.7%	28.6%	11.4%	8.6%
7	The airport in the neighboring community has a positive impact on the area's economy.	20.0%	28.6%	34.3%	5.7%	11.4%
8	People using the airport in the neighboring community mostly do so for business.	17.1%	11.4%	51.4%	14.3%	5.7%
9	The airport in the neighboring community makes it easier for people to travel here for business or pleasure.	22.9%	20.0%	31.4%	11.4%	14.3%
10	The airport in the neighboring community is used by businesses located in my municipality.	17.1%	28.6%	42.9%	2.9%	8.6%
11	The needs and concerns of my municipality respecting the airport are the same as the host municipality.	17.6%	17.6%	20.6%	29.4%	14.7%
12	When the airport in the neighboring community wants to expand or improve, my municipality has the opportunity to share its views on the project's impacts.	11.4%	17.1%	25.7%	25.7%	20.0%
13	My municipality receives notice from the host community of all meetings and hearings regarding their airport and its operations.	15.2%	24.2%	30.3%	15.2%	15.2%
14	When the host community conducts hearings affecting the airport, my municipality's desires and concerns are given the same weight as those of the host community.	2.9%	11.8%	41.2%	20.6%	23.5%
15	A majority of the people in my community rarely complain about the airport in the neighboring community.	34.3%	25.7%	14.3%	11.4%	14.3%

APPENDIX E

16	A majority of the people in my community are concerned about the noise of aircraft that come from the airport in the neighboring community.	31.4%	11.4%	20.0%	20.0%	17.1%
17	A majority of the people in my community are concerned about air pollution caused by the airport in the neighboring community.	17.1%	11.4%	25.7%	22.9%	22.9%
18	A majority of the people in my community are concerned about traffic caused by the airport in the neighboring community	20.0%	5.7%	22.9%	22.9%	28.6%
19	A majority of the people in my community are concerned about accidents involving aircraft that come from the airport in the neighboring community.	22.9%	11.4%	17.1%	28.6%	20.0%
20	A majority of the people in my community would prefer that the airport be closed.	5.9%	11.8%	23.5%	23.5%	35.3%
21	A majority of the people in my community want the length of the runways and the size of the other facilities at the airport to remain as they are even though it is bad for the airport owner's business.	17.1%	5.7%	54.3%	5.7%	17.1%
22	A majority of the people in my community would support improvements at the airport that make it a safer facility.	45.7%	22.9%	28.6%	0.0%	2.9%
23	A majority of the people in my community would like to see the airport improve its facilities to encourage more business use, more investment and more high paying jobs in our area.	20.6%	14.7%	35.3%	14.7%	14.7%
24	A majority of the people in my community would be offended by the constant noise of large aircraft used by the airlines on repetitive schedules.	48.6%	17.1%	28.6%	5.7%	0.0%
25	A majority of the people in my community would be offended by the noise of an occasional corporate jet.	25.7%	31.4%	20.0%	14.3%	8.6%
26	My municipality would participate on an Airport Advisory Committee, composed of my community, the host community, our state senator and assemblyman/woman, a NJ DOT representative and the airport management, that meets quarterly to discuss issues and concerns resulting from airport operations	54.3%	25.7%	17.1%	0.0%	2.9%
27	The views and concerns of my municipality respecting proposed airport improvements should be given the same weight as those of the host municipality.	47.1%	32.4%	11.8%	5.9%	2.9%
28	Applications for the development of the airport should be made to a State agency, like the Department of Transportation, where the host and neighboring communities would be given equal consideration when expressing their views and where the zoning ordinances of each municipality would be given equal weight.	45.7%	17.1%	20.0%	11.4%	5.7%
29	A privately owned, public-use airport should be entitled to grow, develop its business and improve its facilities and equipment, just like any other privately owned enterprise doing business with the public.	19.4%	16.7%	22.2%	25.0%	16.7%
30	All public use airports (even ones privately owned) are part of the State transportation system and their growth and development should be regulated by the State similar to a State highway.	20.0%	31.4%	22.9%	14.3%	11.4%
31	Please circle the average number of complaints your office receives each month respecting the airport in the neighboring community. ("1" means "1 or less"; "5" means "5 or more".	58.8%	5.9%	14.7%	0.0%	20.6%

PLEASE TURN PAGE AND PROCEED TO PART TWO .

SUMMARY SHEET

PART 2: General aviation airports provide a number of different services and activities. Please review the list of services below and tell us which services your community would like the airport in the neighboring community to provide. Please enter "Yes" or "No".

		YES	NO
1	Emergency medical transportation for burn victims, accident victims and emergency patients in your community.	81.8%	18.2%
2	Emergency airborne fire fighting capabilities for your community.	86.7%	13.3%
3	Flight training for young men and women in your community desiring a career in the military or airlines.	69.7%	30.3%
4	Technical training for young men and women in your community desiring a career as an aircraft mechanic.	78.6%	21.4%
5	A base for the aircraft owned by people living in your community.	78.1%	21.9%
6	A base for aircraft for small businesses that would bring new investment into your community.	78.1%	21.9%
7	A base for aircraft used by larger businesses that could bring additional high paying jobs into your region.	70.0%	30.0%
8	A landing facility for business travelers doing business with companies in your community.	77.4%	22.6%
9	A base for air taxi/charter operations for the people of your community.	67.7%	32.3%
1 0	A base for commuter airline service to major airports in the New York, Philadelphia, Baltimore, Washington, DC, Allentown, PA, or Boston.	33.3%	66.7%
1 1	A recreational facility that draws tourists to air shows, balloon festivals and other aviation related entertainment.	59.4%	40.6%
1 2	Open space that is used by the community for activities that do not interfere with aviation operations.	80.6%	19.4%

APPENDIX F

APPENDIX F - NJGASC SURVEY OF NEW JERSEY AIRPORT OWNERS

A total of 50 survey questionnaires were distributed, 15 to publicly owned public use airports and 35 to privately owned public use airports. Little Ferry, a sea plane base, was not included in the survey. A total of 31 airports (62%) responded to the questionnaire, of which 10 are publicly owned and 21 are privately owned. These totals are then supplemented by an additional seven privately owned public use airports that did not return a written survey but instead offered oral testimony before the Commission on the same issues. Their testimony was factored into the tally results below, bringing the total number of respondent privately owned public use airports to 28 and the overall total of respondent airports to 38.

Ten of New Jersey's 15 publicly owned airports responded by questionnaire (67%).

Twenty-eight of New Jersey's 35 privately owned airports responded by questionnaire or testimony (80%)

Tally Results

- 68% of responding privately owned public use airports, and 87% of responding publicly owned public use airports, stated they received State funds from a **New Jersey Block Grant or FAA AIP Grant Program**; 32% of responding privately owned public use airports and 10% of responding publicly owned public use airports stated they had not received any grants.
- 29% of responding privately owned public use airports and 100% of responding publicly owned public use airports stated that they were satisfied with the required state and federal **grant assurances** (e.g., the commitments airport owners must make to receive grants); 21% of responding privately owned public use airports said they were not satisfied. None of the responding publicly owned public use airports expressed dissatisfaction with the grant assurances of either program..
- 68% of the responding privately owned public use airports stated it would be more likely that they would remain open for public use if there were a program for airports similar to the program for farms, i.e., **farmland preservation**.
- 39% of the responding privately owned public use airports stated that its five-percent sponsor share was a **great financial hardship**; 25% of that group stated that it was not.
- 71% of responding privately owned public use airports and 90% of responding public owned public use airports (Ocean City specified “out of season only”) stated that their facility was **not presently operating at maximum capacity**.
- 54% of responding privately owned public use airports and 70% of responding public owned public use airports stated that they did not expect to be operating at maximum capacity **in the next five years**.
- 39% of responding privately owned public use airports and 30% of responding public owned public

use airports stated that there is local, county, city, or **municipal opposition** or regulations that are detrimental to their continued existence; 29% of responding privately owned public use airports and 70% of responding public owned public use airports stated that there was not.

- 21% of responding privately owned public use airports stated that there was a possibility that their airport could close due to **pressure from nearby residential neighborhoods**; 50% of responding privately owned public use airports and 100% of responding public owned public use airports stated that there was no such pressure.
- 24% of responding privately owned public use airports and 10% of responding public owned public use airports stated that they did see the possibility of their airports closing due to the **increase in real estate value**; 24% of responding privately owned public use airports and 90% of responding public owned public use airports state they did not.
- 61% of responding privately owned public use airports responded that **real estate taxes were a financial hardship** and that they would be interested in an “airport assessment.” (Note: Publicly owned public use airports do not pay real estate taxes.).
- 32% of responding privately owned public use airports stated that they expected their **long term ownership** to remain private.
- 25% of responding privately owned public use airports stated responded that they expect to **change to public ownership**.
- Common reasons given that privately owned public use **airports might close**:
 - Property taxes
 - Municipal opposition and/or interference
 - Financial considerations
 - Pressure from residential neighborhoods
 - Retirement/age of owners
- Programs that would encourage privately owned public use airports to **remain open**:
 - Property tax relief
 - State support to develop airport and resolve municipal opposition
 - “Airport Preservation Program” similar to Farmland Preservation
 - Change to public ownership
 - Increase in economic benefits
 - Relief from fees, regulations, and land use restrictions

STATE OF NEW JERSEY
NEW JERSEY GENERAL AVIATION
STUDY COMMISSION



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CHRISTINE TODD WHITMAN
GOVERNOR
Public Use Airports

June 12, 1995

Dear Sirs:

The New Jersey Legislature enacted a bill in 1994 that created the General Aviation Study Commission. The purpose of this commission is to study general aviation in New Jersey and focus on ways to ensure that aviation remains a vital part of our transportation system and economy.

Below is a series of brief questions which are being addressed to all public use airports. The answers will provide additional insight into the role of your airport.

Please complete the questions and send them back as soon as possible to Mrs. Teresa Manna, New Jersey Department of Transportation, 1035 Parkway Avenue, CN 610, Trenton, NJ 08625.

Airport Name: _____

If your based and transient aircraft were no longer able to use your airport, which airports would most likely be used instead?

If your airport has participated in the New Jersey Block Grant Program (or any New Jersey State Grant Program), how has this program worked for you? What suggestions would you like to make to this program?

What would help your facility implement the AIP Program or any New Jersey State Grant Program?

Are you satisfied with the required state and or federal grant assurances?

If your facility is a privately owned public use airport, would it be more likely to remain open for public use if there were a program for airports similar to the farmland preservation program? In this way, airports that agree to deed restrict their land to airport operation would receive a payment of money equal to a substantial percentage of the current real estate market value.

Is it a great financial hardship for your airport to come up with its five percent share of AIP funding?

Yes _____ No _____

If yes, and you are a privately owned reliever airport, would your airport be interested in dedicating a portion of your real estate at its current real estate value in lieu of paying your five percent share? (This program requires that the airport remain an airport in perpetuity.)

The General Accounting Office recently completed a study on reliever airports that showed that the only segment of general aviation aircraft activity that was on the rise was turboprop and turbojet aircraft. To confirm this trend, airports would have to keep records of the number and type of aircraft operations.

Do you keep records of transient and based aircraft operations?

Yes _____ No _____

Do you categorize the aircraft or just count take-offs and landings?

If you do keep records, has there been an increase or decrease in the number of non turboprop and non turbojet aircraft operations?

Increase _____ Decrease _____

If possible, please provide actual data.

Is your facility operating at maximum capacity?

Yes _____ No _____

If no, do you expect it to be at capacity within the next five years?

Yes _____ No _____

Why or why not? _____

Is there any local, county, city, or municipal opposition or regulations that are detrimental to your continued existence?

Is your municipal zoning ordinance (or any proposed ordinance) detrimental to your operation?

Do you foresee the possibility of your airport closing due to the pressure from a nearby residential neighborhood? If so, when?

Do you foresee the possibility of your airport closing due to the increase value of your real estate? If so, when?

If you are a privately owned airport, are your real estate taxes a financial hardship for you? Would it help your situation if there were an "Airport Assessment" (similar to Farmland Assessment) except that there would be no property taxes on improvements made for public use (such as runways, taxiways, ramp areas, tiedown areas, fueling areas, and terminals) nor on unimproved land dedicated to airport use?

If you are a privately owned airport, do your long term succession plans show the airport ownership as private or public?

If you are a privately owned airport, what are the reasons you might consider closing your airport?

If you were considering closing your airport, what would encourage you to remain open?

What could the state do to help you continue operating as an airport?

Any additional comments that you would like to make would be sincerely appreciated.

APPENDIX G

APPENDIX G

THE STATUTES, REGULATIONS AND CASE LAW GOVERNING AIRPORTS AS A LAND USE IN NEW JERSEY

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THE STATUTES, REGULATIONS AND CASE LAW GOVERNING AIRPORTS AS A LAND USE IN NEW JERSEY

THE STRUCTURE AND ORGANIZATION OF THIS LEGAL MEMORANDUM

The first part of this legal memorandum canvasses the federal limits on municipal authority over airport land use. Section I explores the problem of airport land use within the general context of federal aviation policy in order to emphasize that this is a matter of national, and not merely local, importance. Section II addresses the constitutional limits upon municipal zoning with specific reference to the constitutional doctrines that have, in fact, been invoked before the courts in this area. The most significant constitutional limitation on municipal authority, and on state authority as well, derives from the Supremacy Clause. This Section also describes how federal preemption operates in light of the Supremacy Clause. A less successful, though frequently invoked constitutional doctrine derives from the Commerce Clause and in particular from what has come to be known as the “dormant” Commerce Clause. This part also outlines the limited and weak import of this doctrine. Section III provides a brief overview of the main federal statutory and regulatory interventions into airport land use; those relating to airport noise.

The second part of this legal memorandum examines the State of New Jersey’s regulatory framework for airport land use and the case law that culminates in *Morristown III*,¹ which identifies the “island of immunity from zoning regulations for property operated and used for the primary purpose of a municipal airport or for uses which are reasonably accessory or incidental to that primary purpose.”²

Section IV canvasses the New Jersey Legislature’s constitutional and regulatory framework governing aviation and airports, particularly the State *Aviation Act of 1938*,³ which demonstrates the Legislature’s commitment to aeronautical progress and development. Section V discusses the New Jersey Department of Transportation, Division of Aeronautics (NJDOT) regulations, promulgated pursuant to the State *Aviation Act*, with a view to highlighting the features of the state regime that limit a non-proprietor host municipality’s ability to zone aeronautical activities. In particular, this part outlines the general principles governing municipal zoning authority and then itemizes the statutory and regulatory requirements governing airports.

The portion of this legal memorandum begins in Section VI with an examination of all of the relevant state and federal case law affecting New Jersey and bearing upon, *inter alia*, federal and state preemption and the scope of municipal zoning authority over New Jersey airports. The cases are arranged thematically and the part concludes with an summary and analysis of their implications in Section VII, together with some recommendations in Section VIII.

¹ See *infra* notes 372-383 and accompanying text. For clarity in this paper, the titles *Morristown I, II* and *III* are assigned to the following cases: *Township of Hanover v. Town of Morristown*, 108 N.J. Super. 461 (Ch.Div. 1969) [hereinafter *Morristown I*], *Township of Hanover v. Town of Morristown*, 135 N.J. Super. 529 (App.Div. 1975) [hereinafter *Morristown II*], and *The Town of Morristown v. The Township of Hanover*, 168 N.J. Super. 292 (App.Div. 1979) [hereinafter *Morristown III*]. The 1972 petition to intervene in *Morristown I*, *infra* notes 351 & 354, and the subsequent appeal of the same year, are neither numbered herein nor discussed in chief.

² See *infra* note 381 and accompanying text. -- . . .

³ See *infra* note 83.

SECTION I

NATIONAL AVIATION DEVELOPMENT AND TRANSPORTATION POLICY

The airport development policy of the U.S. has been well articulated and is a worthwhile starting point to illustrate the national importance of the issue. Within the context of airport development and noise, as stated in the *Federal Aviation Act*,⁴ the unequivocal “highest aviation priority” is safety.⁵ Thus, with safety in mind, the U.S. has sought to develop aviation facilities that minimize noise impact on neighboring communities. There is a special emphasis on developing reliever airports,⁶ which are vital to the effective and efficient intermodal transportation system enunciated in the national transportation policy, discussed below. New Jersey presently has fourteen designated reliever airports. Moreover, airport development projects must be undertaken in such a way as to protect and enhance the environment. This is a particularly important goal for New Jersey, where a general aviation airport is frequently the last

⁴ See 49 U.S.C.A. § 47101 *et seq.*, *Federal Aviation Administration Authorization Act of 1994* (FAAAA). On July 5, 1994, Congress revised, codified, and enacted without substantive change the portions of Title 49 of the U.S. Code (and its Appendix) that concerned aviation law. As a result, the federal *Aviation Act*, the *Noise Control Act*, and the *Airport and Airway Improvement Act* technically no longer exist as discrete laws, but appear as Subtitle VII of 49 U.S.C.

⁵ 49 U.S.C.A. § 47101(a) provides in relevant parts:

(a) General—It is the policy of the United States—

(1) that the safe operation of the airport and airways system is the highest aviation priority;

(2) that aviation facilities be constructed and operated to minimize current and projected noise impact on nearby communities;

(3) to give special emphasis to developing reliever airports;

(5) to encourage the development of transportation systems that use various modes of transportation in a way that will serve the United States and local communities efficiently and effectively;

(6) that airport development projects under this subpart provide for the protection and enhancement of natural resources and the quality of the environment of the United States;

(7) that airport construction and improvement projects that increase capacity of facilities to accommodate passenger and cargo traffic be undertaken to the maximum feasible extent so that safety and efficiency increase and delays decrease;

(8) to ensure that nonaviation usage of the navigable airspace be accommodated but not allowed to decrease the safety and capacity of the airspace or airport system;

(9) that artificial restrictions on airport capacity—

(A) are not in the public interest;

(B) should be imposed to alleviate air traffic delays only after other reasonably available and less burdensome alternatives have been tried; and

(C) should not discriminate unjustly between categories and classes of aircraft; . . .

⁶ 49 U.S.C.A. § 47102(18) provides: “‘reliever airport’ means an airport the Secretary designates to relieve congestion at a commercial service airport-and to provide more general aviation access to the overall community.”

open space enjoyed by a community. Nevertheless, airport construction and improvement projects that increase the capacity of facilities to accommodate public transportation needs must be undertaken “to the maximum feasible extent so that safety and efficiency increase and delays decrease.”⁷

As might effect zoning, the U.S. policy foresees the importance of increased capacity at the nation’s airports, and perhaps most importantly, emphasizes that artificial restrictions on airport capacity are not in the public interest. If such artificial restrictions are used, they must be used only as a last resort after other, less burdensome alternatives have been tried. While nonaviation use of the navigable airspace must be accommodated, such use must not be allowed to decrease aviation or airport safety or capacity. Additionally, there is an admonition against unjust discrimination between categories and classes of aircraft.

The national transportation policy⁸ states that the future economic direction, health and leadership of the U.S. is directly dependent on an efficient intermodal transportation system,

⁷ 49 U.S.C.A. § 47101(a)(7), *supra* note 5.

⁸ 49 U.S.C.A. § 47101(b) provides in relevant parts:

(b) National transportation policy—

(1) It is a goal of the United States to develop a national intermodal transportation system that transports passengers and property in an efficient manner. The future economic direction of the United States depends on its ability to confront directly the enormous challenges of the global economy, declining productivity growth, energy vulnerability, air pollution, and the need to rebuild the infrastructure of the United States;

(2) United States leadership in world economy, the expanding wealth of the United States, the competitiveness of the industry of the United States, the standard of living, and the quality of life are at stake;

(4) All forms of transportation, including aviation and other transportation systems of the future, will be full partners in the effort to reduce energy consumption and air pollution while promoting economic development;

(5) An intermodal transportation system consists of transportation hubs that connect different forms of appropriate transportation and provides users with the most efficient means of transportation and with access to commercial centers, business locations, population centers, and the vast rural areas of the United States, as well as providing links to other forms of transportation and to intercity connections. . . .

(6) Intermodality and flexibility are paramount issues in the process of developing an integrated system that will obtain the optimum yield of United States resources; . . .

(c) Capacity expansion and noise abatement.—It is in the public interest to recognize the effects of airport capacity expansion projects on aircraft noise. Efforts to increase capacity through any means can have an impact on surrounding communities. Noncompatible land uses around airports must be reduced and efforts to mitigate noise must be given high priority. . . .

allowing the nation to remain competitive in a global economy. “[T]he standard of living, and the quality of life are at stake.”⁹ Aviation is a key factor in intermodality.

In terms of land use zoning, the national transportation policy addresses capacity expansion and noise abatement directly, stating specifically: “It is in the public interest to recognize the effects of airport capacity expansion projects on aircraft noise. Efforts to increase capacity through any means can have an impact on surrounding communities. *Noncompatible land uses around airports must be reduced and efforts to mitigate noise must be given high priority. . . .*”¹⁰

The U.S. Secretary of Transportation, who is charged with intermodal planning, must coordinate development of airport plans by cooperating with State and local officials to assess overall transportation programs and needs. The airport plans and programs are to be developed in

(g) Intermodal Planning.—To carry out the policy of subsection (a)(5) of this section, the Secretary of Transportation shall take each of the following actions:

(1) Coordination in development of airport plans and programs.—Cooperate with State and local officials in developing airport plans and programs that are based on overall transportation needs. The airport plans and programs shall be developed in coordination with other transportation planning and considering comprehensive long-range land-use plans and overall social, economic, environmental, system performance, and energy conservation objectives. The process of developing airport plans and programs shall be continuing, cooperative, and comprehensive to the degree appropriate to the complexity of the transportation problems.

(2) Goals for airport master and system plans.—Encourage airport sponsors and State and local officials to develop airport master plans and airport system plans that—

(A) foster effective coordination between aviation planning and metropolitan planning;

(B) include an evaluation of aviation needs within the context of multimodal planning; and

(C) are integrated with metropolitan plans to ensure that airport development proposals include adequate consideration of land use and ground transportation access.

(3) Representation of airport operators on MPO’s.—Encourage metropolitan planning organizations, particularly in areas with populations greater than 200,000, to establish membership positions for airport operators.

(h) Consultation.—To carry out the policy of subsection (a)(6) of this section, the Secretary of Transportation shall consult with the Secretary of the Interior and the Administrator of the Environmental Protection Agency about any project included in a project grant application involving the location of an airport or runway, or a major runway extension, that may have a significant effect on—

- (1) natural resources, including fish and wildlife;
- (2) natural, scenic, and recreation assets;
- (3) water and air quality; or
- (4) another factor affecting the environment.

⁹ *Id.*

¹⁰ *Id.* [emphasis added].

coordination with other transportation planning, and must take into consideration “comprehensive long-range land-use plans and overall social, economic, environmental, system performance, and energy conservation objectives.”¹¹ The policy sets forth goals for airport master plans and airport system plans, taking into account environmental issues through consultation with the Department of the Interior and the Environmental Protection Agency.

There is no doubt that the state participation impacts directly on the success or failure of national transportation goals. New Jersey has an aeronautical infrastructure that is decaying and shrinking, while paradoxically, airport facility capacity demands are increasing. This capacity increase must logically dictate a demanding new role for the general aviation airport, and the importance of that role will only increase over time. To view the legal issues of airports and the communities which surround them as independent, isolated problems is shortsighted. Municipal land use issues involving general aviation airports can no longer be seen as merely peculiar local interests.

¹¹ *Id.*

SECTION II

FEDERAL ISSUES: SUPREMACY AND COMMERCE CLAUSE

Justice Jackson's now famous pronouncement, in his concurring opinion in *Northwest Airlines, Inc. v. Minnesota*, provides an appropriate touchstone for the following discussion:

Congress has recognized the national responsibility for regulating air commerce. Federal control is intensive and exclusive. Planes do not wander about in the sky like vagrant clouds. They move only by federal permission, subject to federal inspection, in the hands of federally certified personnel and under an intricate system of federal commands. *The moment a ship taxis onto a runway it is caught up in an elaborate and detailed system of controls.* It takes off only by instruction from the control tower, it travels on prescribed beams, it may be diverted from its intended landing, and it obeys signals and orders. Its privileges, rights, and protection, so far as transit is concerned, it owes to the Federal Government alone and not to any state government.¹²

There is no dispute that the emphasized portion (or any portion) of Justice Jackson's statement is correct. However, is the placement and design of a runway critical to the safety of takeoffs and landings and essential to the efficient management of the surrounding airspace, or does it have merely a tangential impact on the use of airspace? Two federal courts faced this issue and reached two different conclusions, as discussed below. Where then is the boundary between the legitimate local regulation of land use on the ground and the necessary uniform federal regulation of the navigable airspace? This is but one example of the aviation-related legal issues that confront state legislators and courts today.

Congress has expressly preempted certain areas of aviation, such as prices, routes and service¹³ of an air carrier. This includes any state or local law that would interfere with the operation of aircraft in flight or with the national sovereignty of airspace.¹⁴ The Supreme Court has also declared that federal law preempts any local efforts by non-proprietor jurisdictions to control aircraft noise at its source.¹⁵ (Proprietor jurisdictions, however, may not run afoul the Commerce Clause by imposing discriminatory restrictions.¹⁶) Nevertheless, communities surrounding an airport are generally free to enact zoning laws to control land development around an airport as a means of noise mitigation. The New Jersey *Air Safety and Zoning Act of 1983*,¹⁷ is an excellent example of this sort of compatible land use zoning issuing from the State Legislature.¹⁸ Generally, communities are also currently free to determine whether or not to

¹² 322 U.S. 292 at 303 (1944) (Jackson, J., concurring) [emphasis added].

¹³ See 49 U.S.C.A. § 41713.

¹⁴ "The United States Government has exclusive sovereignty of airspace of the United States." 49 U.S.C.A. § 40103(a)(1).

¹⁵ See *Burbank*, *infra* notes 262-271 and accompanying text. See also 49 U.S.C.A. § 41713(b)(3).

¹⁶ See *Nat. Helicopter Corp. v. City of New York*, 952 F. Supp. 1011 (S.D.N.Y. 1997) [hereinafter *Nat. Helicopter Corp.*], for an examination of the limits of an airport proprietor's powers.

¹⁷ See *infra* note 83. See also N.J.A.C. 16:62--1.1 *et seq.*

¹⁸ These regulations, under Part 62, expire on January 1, 2000.

establish an airport in the first place. Moreover, New Jersey case law has established that there exists, albeit on a limited scale, “an island of immunity from zoning regulations for property operated and used for the primary purpose of a municipal airport or for uses which are reasonably accessory or incidental to that primary purpose.”¹⁹

But what are the constitutional limitations? When does an airport ordinance violate the Supremacy Clause or the Commerce Clause? Can a neighboring or non-proprietor host community, which does not own or operate the airport, use its police power²⁰ to control or regulate airport growth? If so, to what extent?

In nearly any given litigation concerning non-proprietor control of airport noise, the complainant (usually the FAA, or an airport user such as an airline) mounts a two-pronged attack on the constitutionality of the state or local law, the first based on the Supremacy Clause, and the second—typically as a fallback position—based on Commerce Clause grounds.

A. THE SUPREMACY CLAUSE

First, the complainant claims that the state or local law in question violates the Supremacy Clause. This means that the existing federal law preempts and renders invalid the state or local law.²¹ Article VI, clause 2 of the U.S. Constitution (Supremacy Clause), states in the relevant portion: “This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; . . . shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”

Preemption is a matter of Congressional intent. Such intent may be express or implied.

¹⁹ *Morristown III*, *infra* note 372 at 297.

²⁰ “Police power” is defined as:

An authority conferred by the American constitutional system in the Tenth Amendment, U.S. Const., upon the individual states, and, in turn, delegated to local governments, through which they are enabled to establish a special department of police; adopt such laws and regulations as tend to prevent the commission of fraud and crime, and secure generally the comfort, safety, morals, health, and prosperity of its citizens by preserving the public order, preventing a conflict of rights in the common intercourse of the citizens, and insuring to each an uninterrupted enjoyment of all the privileges conferred upon him or her by the general laws.

The power of the State to place restraints on the personal freedom and property rights of persons for the protection of the public safety, health, and morals or the promotion of the public convenience and general prosperity. The police power is subject to limitations of the federal and State constitutions, and especially to the requirement of due process. Police power is the exercise of the sovereign right of a government to promote order, safety, health, morals and general welfare within constitutional limits and is an essential attribute of government. *Marshall v. Kansas City, Mo.*, 355 S.W.2d 877, 883.

Black’s Law Dictionary, 5th ed. (St. Paul: West Publishing Co., 1979).

²¹ See generally K. Starr, P.E. Higginbotham, S.K. Seymour, W.C. Clark, J. Criswell, & J. Sneed, *The Law of Preemption: A Report of the Appellate Judges Conference* (American Bar Association, 1991).

1. EXPRESS PREEMPTION

Express preemption is precisely that: A federal act must contain language expressly preempting the area which the state act improperly seeks to regulate, thereby creating an actual conflict between state and federal law.²²

2. IMPLIED PREEMPTION

However, when the federal act is silent as to the preemptive intent of Congress, there are two dominant “implied” preemption doctrines which apply, “field” preemption and “conflict” preemption.

(a) “Field” Preemption

To find field preemption, where the federal law is said to “occupy the field”, the court looks for evidence of either (1) “pervasive federal regulation”,²³ where the “scheme of federal regulation” is “so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it”,²⁴ or (2) “peculiarly federal interests”,²⁵ involving areas such as immigration or foreign policy.

(b) “Conflict” or “Obstacle” Preemption

However, where the federal act does not entirely displace state or local regulation, but “compliance with both federal and state regulations is a physical impossibility,”²⁶ “conflict” preemption is found. Put another way, where a state or local act “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress”,²⁷ the state or local act will be invalid and preempted.

3. ADMINISTRATIVE PREEMPTION

There is a third doctrine of federal preemption, called “administrative” preemption, where Congress has created an administrative agency which has promulgated an express

²² See *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824) (State law must yield to the federal enactment); L. Tribe, *American Constitutional Law*, 2d ed. (Mineola, NY: Foundation Press, 1988) at 479, § 6-25 (“Congress has complete authority to define the distribution of federal and state regulatory power over what is conceded to be interstate commerce. Courts assess the validity of state regulation in independent constitutional terms only when Congress has not chosen to act.” *Id.*).

²³ *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218 (1947) (“[T]he scheme of federal regulation may be so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it.” *Id.* at 234.).

²⁴ *Id.* at 230.

²⁵ *Hines v. Davidowitz*, 312 U.S. 52 (1941) [hereinafter *Hines*] (invalidating a state alien registration law where federal statute governed the same subject). This case also stands for “conflict” preemption. See *infra* notes 26-27 and accompanying text.

²⁶ *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132 at 142-143 (1963) (upholding state law regulating the marketing the avocados on the basis of oil content to protect consumers from edible but unsavory fruit).

²⁷ *Hines*, *supra* note 25 (quoting *Jones v. Rath Packing Co.*, 430 U.S. 519 at 525 (1977) (invalidating state regulation requiring labeling of packaged flour in state, which frustrated federal Fair Packaging and Labeling Act.)).

statement that it intends, by federal regulation, to displace state law. Thus, federal regulations, as well federal statutes, may preempt state or local law. Additionally, local ordinances are examined in the same manner as state statutes for purposes of preemption analysis.²⁸

B. THE COMMERCE CLAUSE

The second prong of the complainant's attack is usually relegated to a fallback position: that the state act discriminates against interstate commerce, thus violating the "dormant" Commerce Clause.

The interstate Commerce Clause, found in Article I, Section 8 of the U.S. Constitution, provides in the relevant portion: "The Congress shall have the Power . . . To regulate Commerce . . . among the several States . . ." Read in this positive fashion, Congress is granted sweeping powers to regulate activities affecting interstate commerce. The Supreme Court, in turn, appropriately gives a broad interpretation to the constitutional provision. However, the Commerce Clause has also been construed by the Supreme Court, where Congress is silent, as having negative implications or dormant qualities. That is, the Commerce Clause *impliedly* limits states from exercising power over interstate commerce, even in the absence of Congressional action.²⁹ Local ordinances, as well as state statutes, are subject to Commerce Clause scrutiny.

1. "HEIGHTENED SCRUTINY" TEST

Where a state regulation amounts to "simple protectionism" because it discriminates against interstate commerce either on its face or in effect, it is subject to a heightened level of scrutiny that amounts to a virtually *per se* rule of invalidity.³⁰ This "heightened scrutiny" test also applies to statutes that "adversely affect interstate commerce by subjecting activities to inconsistent regulations."³¹

2. PIKE BALANCING TEST ("AD HOC" BALANCING)

However, the more common and more difficult challenge is to an apparently "even-handed" or facially neutral state or local law purporting to advance some legitimate local public interest.

Pike v. Bruce Church, Inc. enunciated the following test of a facially neutral state law which persists as the modern approach to Commerce Clause issues and involves an *ad hoc* balancing of interests.

Where the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce, are only incidental, it will be upheld unless the

²⁸ See *Hillsborough County v. Automated Medical Lab., Inc.*, 471 U.S. 707 at 713 (1985) ("[T]he regulation of health and safety matters is primarily, and historically, a matter of local concern.").

²⁹ See *CTS Corp. v. Dynamics Corp. of America*, 481 U.S. 69 at 88 (1987) [hereinafter *CTS Corp.*] (state statute not unduly burdensome to interstate commerce where there was no danger of inconsistent state regulation).

³⁰ *City of Philadelphia v. New Jersey*, 437 U.S. 617 at 622-624 (1978) (invalidating state law deemed a burden to interstate commerce by prohibiting importation of out-of-state waste for in state dumping that did not apply to in-state dumping); *Bacchus Imports, Ltd. v. Dias*, 468 U.S. 263 at 268-272 (1984); *Norfolk Southern Corp. v. Oberly*, 822 F.2d 388 at 400 (3rd Cir. 1987).

³¹ *CTS Corp.*, *supra* note 29 at 88.

burden imposed on such commerce is clearly excessive in relation to the putative local benefits. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities.³²

No U.S. Supreme Court opinions thus far have involved airport regulations challenged under the Commerce Clause. However, when an interstate commerce challenge is made against an airport noise regulation, two cases frequently cited are *Concorde II*,³³ and *National Aviation v. City of Hayward*.³⁴ In *Concorde II*, the Second Circuit expressed the test as follows:

The maintenance of a fair and efficient system of air commerce, of course, mandates that each airport operator be circumscribed to the issuance of reasonably, nonarbitrary and nondiscriminatory rules defining the permissible level of noise which can be created by aircraft using the airport * * *.”

We must carefully scrutinize all exercises of local power under this rubric to insure that impermissible parochial considerations do not unconstitutionally burden interstate commerce or inhibit the accomplishment of legitimate national goals.³⁵

Hayward laid out a more complex three-step expression of the test. The court in *Santa Monica Airport Association. v. City of Santa Monica*,³⁶ synthesized both cases and formulated the following three-step approach:

Step 1: Determine whether there is an effect on interstate commerce. If there is no effect, the inquiry is over. There is no need for further inquiry. If a *de minimis* effect is found, I would construe that the same as a finding of no effect.

Step 2: If there is an effect found, the next issue is whether the legislative body “* * * has acted within its province and whether the means of regulation chosen are reasonably adapted to the end sought.” [quoting *South Carolina Highway Dept. v. Barnwell Bros.*, found at 303 U.S. 177, 190, 58 S.Ct. 510, 517, 82 L.Ed.2d 734 (1938).].

Included in this step 2 is an inquiry as to whether the legislative action discriminates against interstate commerce or not.

³² 397 U.S. 137 (1970).

³³ See *British Airways Board v. Port Authority of NY and NJ*, 564 F.2d 1002 (2nd Cir. 1977) [hereinafter *Concorde II*].

³⁴ See 418 F. Supp. 417 (N.D. Cal. 1976).

³⁵ *British Airways Board*, *supra* note 33 at 1041.

³⁶ See 481 F. Supp. 427 (C.D. Cal. 1979), *aff'd* 659 F.2d 100 (9th Cir. 1981).

Step 3 is a balancing of the burden imposed on interstate commerce against the local interests supporting the legislation. In *Pike*, the Supreme Court says (at 397 U.S. 142, 90 S.Ct. 844) that if the regulation is non-discriminatory and for the effectuation of “a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.”³⁷

Pike balancing has come under scholarly and judicial attack.³⁸ For one thing, how much of a burden on interstate commerce is required for it to be considered “excessive”? Among other criticisms:

[I]n balancing courts are doing what seems emphatically to be the province of legislatures: weighing competing societal interests and values. That the judiciary is involving itself in a truly legislative process cuts strongly against the continued validity of balancing in any context. But where the context is airport noise restrictions challenged under the dormant commerce clause, the complexity of the circumstances and proliferation of federal regulations makes balancing an even less appealing process for the Supreme Court and lower federal courts to undertake, especially where Congress and the FAA are capable of performing—and performing well—this daunting task.³⁹

Another criticism of *ad hoc* balancing turns to the “incommensurability” of the subject matter being balanced:

Under the dormant commerce clause, courts are called upon to weigh state health, welfare, and safety interests against federal economic interests. After assigning weights to these competing interests, a court must determine on which side of the balance the interests fall. If the more weighty side is that of the state, then the state legislation will be upheld. If, on the other hand, the balance falls on the federal side, then the legislation will be struck down.

An underlying problem of this balancing process is that the interests being weighed are disparate; they simply defy logical comparison. * * *

Justice Scalia has also highlighted this anomaly, stating that balancing the incommensurable state and federal interests is

³⁷ *Santa Monica Airport Ass’n v. City of Santa Monica*, 481 F. Supp. 927 at 936-937 (C.D. Cal. 1979).

³⁸ See generally C.S. Marchese, “The Dormant Commerce Clause and Airport Noise: A Case for Narrow Judicial Review” (1992) 44 *Baylor L. R.* 645- . . .

³⁹ *Id.* at 696 [citations omitted].

“like judging whether a particular line is longer than a particular rock is heavy.”⁴⁰

In *Alaska Airlines, Inc. v. City of Long Beach*,⁴¹ the Ninth Circuit Court of Appeals addressed airport noise restrictions under the dormant Commerce Clause and abandoned the *Pike* balancing test. In upholding the City of Long Beach’s noise ordinance⁴² on Commerce Clause grounds (the ordinance was ultimately ruled invalid on procedural due process grounds), the *Long Beach* court issued a three-part test, paraphrased by one commentator as follows:

First, a court must ask whether the ordinance or law discriminates against interstate commerce; second, it must question whether the benefits articulated in support of the law are either illusory or insignificant; and third, even if the first two parts are answered in the negative, the court must resolve whether the means are reasonably related to the end sought [and not “irrational, arbitrary or unrelated to those goals”⁴³].⁴⁴

While at least one commentator has questioned the precedential value of *Long Beach*,⁴⁵ the dormant Commerce Clause test applied in *Long Beach* was the authority in the widely-criticized 1995 decision in *City of Cleveland*, discussed below.

To date, no New Jersey court has evaluated a Commerce Clause claim in the airport context under *Pike* and the cases which follow. In any event, such claims will likely be raised in federal court under federal question jurisdiction.

C. TWO ILLUSTRATIVE CASES

There is presently a conflict in the federal circuits over the question of whether airport ground activities are subject to the zoning regulations of non-proprietor municipalities, or insulated therefrom by federal preemption. In the 1992 case *Burbank-Glendale-Pasadena Airport Authority v. City of Los Angeles*,⁴⁶ an airport brought an action against a city to enjoin enforcement of an ordinance requiring prior submission of any plans for development on a parcel of airport land that was to be used exclusively for runways and taxiways. The Ninth Circuit Court of Appeals struck down the city ordinance:

The problem with this Ordinance is that it conditions the construction of taxiways and runways on the prior approval of the City. This the City may not do. *The proper placement of taxiways and runways is critical to the safety of takeoffs and landings and essential to the efficient management of the surrounding airspace.* The regulation of runways and taxiways

⁴⁰ *Id.* at 700 [citations omitted].

⁴¹ See 951 F.2d 977 (9th Cir. 1992) (*per curiam*).

⁴² “The principal elements of the ordinance included a limit of 65 decibels on the Community Noise Level (“CNEL”). In addition, it limited the number of air carrier jet flights and set noise limits for individual aircraft.” *Id.* at 981.

⁴³ *Id.* at 984.

⁴⁴ Marchese, *supra* note 38 at 685-686.

⁴⁵ See *id.* at 686-687.

⁴⁶ See 979 F.2d 1338 (9th Cir. 1992) [hereinafter *Burbank-Glendale-Pasadena*].

is thus a direct interference with the movements and operations of aircraft, and is therefore preempted by federal law.

Simply stated, a non-proprietor municipality may not exercise its police power to prohibit, delay or otherwise condition the construction of runways and taxiways at a non-city-owned airport.⁴⁷

Though this argument clearly appeals to common sense,⁴⁸ the Ninth Circuit failed to provide any further analysis of the law.

Under similar circumstances, in 1995, the City of Cleveland, which owns and operates Cleveland Hopkins International Airport, challenged the zoning ordinances of the City of Brook Park, where most of the airport is located. As in the previous case, Cleveland intended to expand the runways and taxiways within the existing airport boundaries. In *City of Cleveland v. City of Brook Park*, the federal district court reached a different determination: “While it is certainly true that runway placement will have some tangential effect on flight operations, the question of whether and where to construct a runway does not substantially affect the use of airspace.”⁴⁹ This highly controversial statement was left unsupported and unexplained. Rather, the court attempted to distinguish between the direct regulation of aircraft flight operations and the regulation of land use in the FAA’s policy statements (that the district court freely admitted to taking out of context⁵⁰) to the effect that “the FAA has disavowed any authority to supplant local land use ordinances.”⁵¹ This somehow led the district court to decline to follow the Ninth Circuit’s reasoning in *Burbank-Glendale-Pasadena*.⁵²

The absence of rigorous express reasoning in *City of Cleveland* has left that case as a doubtful precedential authority. It should be noted, too, that *City of Cleveland* settled before it reached the Sixth Circuit, where it may not have withstood close scrutiny on appeal. For the moment, however, the question remains open: If there is a boundary to be drawn between the regulation of the navigable airspace and the regulation of airport ground space, where does that boundary lie? The confusion is self-evident.

The battle for this issue, in all likelihood, will be fought and decided on the grounds of the Supremacy Clause.

⁴⁷ *Id.* at 1341 [emphasis added].

⁴⁸ Design and placement of a runways and taxiways are done to maximize safety, which depends on factors such as prevailing wind direction, topography, obstructions to navigation and airspace availability. These factors usually serve to limit a particular runway’s design and placement.

⁴⁹ 893 F. Supp. 742 at 751 (N.D. Ohio 1995).

⁵⁰ See *id.*

⁵¹ *Id.*

⁵² See *id.*

SECTION III

FEDERAL REGULATION OF AIRPORT NOISE

This section will provide an account of the detailed federal regime of airport noise regulation. Consistent with the principles of federal preemption outlined in the previous section, this regime constrains state and municipal noise regulation.

Under the *Federal Aviation Act of 1958*,⁵³ Congress gave the FAA the power to determine which aircraft and engines would be permitted to operate in the U.S.⁵⁴ However, the FAA's interest was in safety rather than noise, and the noise issue would not be addressed until the Congress issued a 1968 Amendment⁵⁵ to the *Federal Aviation Act of 1958*, where the FAA was required to develop standards for the measurement of noise, to provide for the control of aircraft noise at its source, and to make noise a factor in assessing whether to permit types of aircraft and aircraft engines to operate in the U.S.⁵⁶ The *1968 Amendment* led to Federal Aviation Rule 36 (FAR 36), which established procedures and standards of measurement of noise for aircraft and aircraft engines. However, the Rule did not apply to pre-existing aircraft and failed to promote the development of new noise reduction technology.⁵⁷

The *Noise Control Act of 1972* (NCA)⁵⁸ authorized the Environmental Protection Agency (EPA) to determine the adequacy of the FAA's noise regulations and make recommendations to the FAA. The FAA, however, was free to reject the EPA recommendations if they were not technologically or economically feasible, and many of the EPA recommendations were not implemented by the FAA.⁵⁹ The NCA also required the FAA to consult with the EPA prior to issuing any exemptions under FAR 36. If the FAA determined, however, that safety was an overriding concern, it could issue an exemption without consulting the EPA.⁶⁰

While the U.S. Supreme Court in *Burbank v. Lockheed Air Terminal, Inc.*,⁶¹ discussed below, would hold that the combined federal acts so occupied the field as to leave no doubt that the control and regulation of airport noise at its source was federally preempted, it left to the airport proprietor the sole discretion as to what restrictions would be placed on its airport, so long as such restrictions were reasonable, nondiscriminatory and did not burden interstate commerce. The reason for this was that the airport proprietor was liable to neighboring property owners for damage caused to their property by airport noise. The airport proprietor's discretion, however, as well as its ultimate liability, would be limited by two acts which followed.

⁵³ See former 49 U.S.C.A. §§ 1301-1542 (1976 & Supp. 1994); now codified as amended in 49 U.S.C.A. § 40101 *et seq.*

⁵⁴ See J.J. Jenkins, Jr., "The Airport Noise and Capacity Act of 1990: Has Congress Finally Solved The Aircraft Noise Problem?" (1994) 59 J. Air L. & Com. 1023 at 1029.

⁵⁵ See former 49 U.S.C.A. § 1431 (1976 & Supp. 1994); now codified as amended in 49 U.S.C.A. § 44715.

⁵⁶ See Jenkins, *supra* note 54 at 1031.

⁵⁷ *Id.* at 1032.

⁵⁸ See former 49 U.S.C. § 1431 (1976 & Supp. 1994); now codified as amended in 49 U.S.C.A. § 44715.

⁵⁹ See Jenkins, *supra* note 54 at 1033.

⁶⁰ See *id.* at 1033-1034.

⁶¹ See *infra* notes 262-271 and accompanying text.

The *Aviation Safety and Noise Abatement Act of 1979* (ASNA)⁶² was enacted to provide a comprehensive noise abatement program and to help relieve the financial burdens imposed on domestic airlines to meet the Part 36 requirements.⁶³ As a result, the FAA established the Airport Noise Compatibility Planning Program, under FAR Part 150,⁶⁴ commonly referred to as the “Part 150” program.⁶⁵ Part 150 encouraged airport owners to prepare Noise Exposure Maps (NEM),⁶⁶ which are scaled geographic depictions of a particular airport, the measured noise contours emanating from it, and the land use compatibility of real property surrounding the airport. “The main objectives of the Part 150 program are to reduce existing noncompatible uses around an airport and to prevent the introduction of any additional noncompatible uses.”⁶⁷ Part 150 was to become the primary vehicle for obtaining federal grants for noise abatement projects under the *Airport and Airway Improvement Act of 1982* (AAIA).⁶⁸ As an additional incentive, there was a section which remains in the law today, limiting the recovery of damages for noise for any person who acquires an interest in property after February 18, 1980, in an area surrounding an airport for which a noise exposure map has been submitted, where there is actual or constructive knowledge of the existence of the map, subject to certain exceptions.⁶⁹ There is, however, a prohibition on using the noise exposure map as evidence in a civil action asking for relief for noise resulting from the operation of an airport.⁷⁰ Furthermore, the federal government expressly bears no

⁶² See former 49 U.S.C. app. §§ 2101-2125 (Supp. 1994).

⁶³ See Jenkins, *supra* note 54 at 1034.

⁶⁴ See 14 C.F.R. §150.1 *et seq.* (1997).

⁶⁵ See Comment, “Federal and State Coordination: Aviation Noise Policy and Regulation” (1994) 46 Admin. L. Rev. 413 at 415-416.

⁶⁶ See 14 C.F.R. § 150.21.

⁶⁷ Comment, *supra* note 65 at 416.

⁶⁸ See former 49 U.S.C.A. app. §§ 2201-2227 (1988 & Supp. IV 1992).

⁶⁹ 49 U.S.C.A. § 47506 provides:

(a) General limitations.—A person acquiring an interest in property after February 18, 1980, in an area surrounding an airport for which a noise exposure map has been submitted under section 47503 of this title and having actual or constructive knowledge of the existence of the map may recover damages for noise attributable to the airport only if, in addition to any other elements for recovery of damages, the person shows that—

(1) after acquiring the interest, there was a significant—

(A) change in the type or frequency of aircraft operations at the airport;

(B) change in the airport layout;

(C) change in flight patterns; or

(D) increase in nighttime operations; and

(2) the damages resulted from the change or increase.

(b) Constructive knowledge.—Constructive knowledge of the existence of a map under subsection (a) of this section shall be imputed, at a minimum, to a person if—

(1) before the person acquired the interest, notice of the existence of the map was published at least 3 times in a newspaper of general circulation in the county in which the property is located; or

(2) the person is given a copy of the map when acquiring the interest.

⁷⁰ 49 U.S.C.A. § 47507 provides:

No part of a noise exposure map or related information described in section 47503 of this title that is submitted to, or prepared by, the Secretary of Transportation and on part of a list of land uses the Secretary identifies as normally compatible with various exposures of

liability for damages from aviation noise⁷¹ because of actions taken under its noise compatibility programs.⁷²

ASNA was voluntary however, and Congress felt a more comprehensive and aggressive approach was required.⁷³

The *Airport Noise and Capacity Act of 1990* (ANCA),⁷⁴ which left ASNA intact,⁷⁵ consisted of two related programs. The first was to establish a national aviation noise policy by limiting the authority of state and local governments to restrict Stage 2 and 3 aircraft (as defined by FAR 36),⁷⁶ thus avoiding inconsistent local regulation. The second was to phase out Stage 2 aircraft after the year 2000.⁷⁷

ANCA also resulted in the FAA promulgating FAA Part 161,⁷⁸ Notice and Approval of Airport Noise and Access Restrictions, which requires an airport operator to provide 180 days prior public notice to the effective date of a Stage 2 restriction, seeking both FAA and public comment. Once the procedural notice and comment requirements are met, the proposed restrictions are still open to traditional legal challenges: they must be reasonable, nonarbitrary and nondiscriminatory; they must not create an unreasonable burden on interstate or foreign commerce; they must not be inconsistent with maintaining the safe and efficient use of the navigable airspace; they must not conflict with a law or regulation of the U.S.; and they must not create an unreasonable burden on the national aviation system.⁷⁹

If the airport proprietor imposes restrictions which do not comply with the foregoing requirements, the airport may lose its ability to receive federal money under Part 471, Airport Development; it may also not impose passenger facility fees under 49 U.S.C.A. § 40117.⁸⁰

In terms of the airport proprietor's liability, a section of the law provides for the federal government to assume liability for noise damages "only to the extent that a taking has occurred as a direct result of the disapproval" of a proposed noise restriction.⁸¹

However, "[i]n spite of ANCA's tighter federal regulation of airport noise restrictions, the FAA noted to Congress that '[t]here is clearly a vital role for increased State action, such as airport zoning laws.'⁸²

individuals to noise may be admitted into evidence or used for any other purpose in a civil action asking for relief for noise resulting from the operation of an airport.

⁷¹ See 49 U.S.C.A. § 47504(d).

⁷² See 49 U.S.C.A. § 47504.

⁷³ See Jenkins, *supra* note 54 at 1036.

⁷⁴ See former 49 U.S.C.A. §§ 2151-2158 (Supp. IV 1992); now codified as amended in 49 U.S.C.A. §§ 47521-47533.

⁷⁵ See former 49 U.S.C.A. § 2153 (h) (Supp. IV 1992); now codified as amended in 49 U.S.C.A. § 47533. See Comment, *supra* note 65 ("The ASNA Act today remains an important piece of legislation because it purposefully was not superseded by the ANCA." *Id.* at 416 [citation omitted]).

⁷⁶ See Jenkins, *supra* note 54 at 1037-1038.

⁷⁷ Presently, any waiver granted under the *Act* cannot extend operation of Stage 2 aircraft beyond December 31, 2003. See 49 U.S.C.A. § 47528(b)(3).

⁷⁸ See 14 C.F.R. § 161.1 *et seq.*; see Comment, *supra* note 65 at 418.

⁷⁹ See 49 U.S.C.A. § 47524(c)(2). See also Comment, *Id.* at 419.

⁸⁰ See 49 U.S.C.A. § 47526.

⁸¹ 49 U.S.C.A. § 47528. The U.S. Court of claims is expressly given exclusive jurisdiction in this matter.

SECTION IV

“AERONAUTICAL PROGRESS” IN PROVISIONS OF NEW JERSEY LAW

Small public use airports, catering predominantly to business and general aviation, are an integral and necessary part of a vital national transportation system.

New Jersey is a major “aviation” state; one of only seven states to receive Block Grants from the federal government. Beginning with express provisions in its Constitution, New Jersey has fostered and encouraged aviation as an integral part of its move to intermodal transportation and commerce.

The New Jersey Legislature’s placement throughout various provisions of the State *Aviation Act*⁸³ of the phrase “aeronautical progress” alongside the phrase “public safety” harmonizes with the federal *Act*. Thus, civil aviation is not merely an activity to be tolerated, but a public benefit to be encouraged and promoted. In the case of *Aviation Services, Inc. v. Board of Adjustment of Hanover Township*,⁸⁴ Justice Burling quoted Chief Judge Cardozo’s famous *dicta* in *Hesse v. Rath*, presented here in full:

Aviation is to-day an established method of transportation. The future, even the near future will make it still more general. The city that is without the foresight to build the ports for the new traffic may soon be left behind in the race of competition. Chalcedon was called the city of the blind, because its founders rejected the nobler site of Byzantium lying at their feet. The need for vision of the future in the governance of cities has not lessened with the years. The dweller within the gates, even more than the stranger from afar, will pay the price of blindness.⁸⁵

From the State Constitution, to the State *Aviation Act* (and the regulations promulgated pursuant thereto), the State Legislature has enunciated a firm commitment to aeronautical

⁸² Comment, *supra* note 65 at 426 [quoting Federal Aviation Administration, *Report to Congress: Issues Related to Aviation Noise* (Oct. 1992), app. 2 at 1-11].

⁸³ See N.J.S.A. 6:1—20 *et seq.*, *An Act to regulate aeronautics over and within this State*. L.1938, c. 48, p. 126, as amended. [hereinafter “State *Aviation Act*”]. Other portions of Title 6 include N.J.S.A. 6:1—1 to —19 which establishes the State Aviation Commission; N.J.S.A. 6:1—80 —88 is the *Air Safety and Zoning Act of 1983* (originally entitled *Air Safety and Hazardous Zoning Act of 1983*, the title of the *Act* was changed in 1992 “to remove the stigma attached to land in what is currently referred to as an ‘airport hazard area’.” Assembly Transportation Committee Statement, Senate, No. 2174—L.1991, c. 445), which includes provisions for the establishment of “airport safety zones” and “airport clear zones”, etc., in the vicinity of an airport; and for notice to prospective buyers of land located in one of the airport zones. See N.J.S.A. 6:1—85.1 and —85.2. Finally, N.J.S.A. 6:1—89 —97, *An Act providing for the financing of a program to ensure the safety of general aviation airports in New Jersey, enabling publicly owned airports to obtain federal funds for airport development, and revising parts of the statutory law*, L.1983, c. 264, and referred to by its short title, *Airport Safety Act of 1983*, which implements the subject matter mentioned its long title.

⁸⁴ See *infra* note 312 at 281.

⁸⁵ 249 N.Y. 436, 164 N.E. 342 (Ct.App. 1928).

progress and development. Article 4, Section 6, Paragraph 2 of the New Jersey Constitution, entitled “Zoning laws”, provides:

The Legislature may enact general laws under which municipalities, other than counties, may adopt zoning ordinances limiting and restricting to specified districts and regulating therein, buildings and structures, according to their construction, and the nature and extent of their use, and the nature and extent of the uses of land, and the exercise of such authority shall be deemed to be within the police power of the State. Such laws shall be subject to repeal or alteration by the Legislature.

Article 4, Section 6, Paragraph 3, entitled “Acquisition of private property by agencies and political subdivisions of the state; title; easements; abutting property”, provides (with emphasis added):

Any agency or political subdivision of the State or any agency of a political subdivision thereof, which may be empowered to take or otherwise acquire private property for any public highway, parkway, *airport*, place, improvement, or use, may be authorized by law to take or otherwise acquire a fee simple absolute or any lesser interest, and may be authorized by law to take or otherwise acquire a fee simple absolute in, easements upon, or the benefit of restrictions upon, abutting property to preserve and protect the public highway, parkway, *airport*, place, improvement, or use; but such taking shall be with just compensation.

Title 6 of the New Jersey Statutes governs aviation in and over the state. The laws have been carefully revised through the years to ensure there is no conflict or overlap with federal laws and regulations. N.J.S.A. 6:1—1 provides (with emphasis added):

The purpose of this part is to provide, in the interests of public safety *and of aeronautical progress*, for the regulation of aircraft in and over this state, to require that aircraft operating in and over this state shall conform with respect to design, construction, and airworthiness to the standards prescribed by the United States government with respect to the navigation of aircraft for civil purposes, subject to its jurisdiction, and to require the licensing of aircraft and airmen.

N.J.S.A. 6:1—9, which defines the commission’s powers and duties, requires, in part:

The commission shall keep a record of all of its proceedings and official acts, collect and disseminate information relative to the aviation industry in the state and make an annual report to the governor reviewing the operation of the development together with its *recommendations for the improvement and development of aeronautical safety and progress*.

Again, in N.J.S.A. 6:1—20, “Purpose” (with emphasis added):

The purpose of this act is to provide in the interest of public safety *and of aeronautical progress* for the regulation of aeronautics in and over this State; to require that aircraft, airports, airport managements, landing fields, landing strips, and other avigational facilities, airmen, ground personnel and all engaged in aeronautics with or over this State, shall conform to standards of safety and sound practice as prescribed by the laws of this State and any rules or regulations thereunder, and for uniformity in certain regards with the laws, rules and regulations of the United States Government.

N.J.S.A. 6:1—29 provides (with emphasis added):

[T]he Commissioner of Conservation and Economic Development *shall promote progress and education in and shall have supervision over aeronautics* within this State . . . [It] may adopt and promulgate reasonable rules, regulations and orders . . . *to develop and promote aeronautics* within this State. The Commissioner shall have power to promulgate and adopt any reasonable rules and regulations that may be necessary to effectuate the purposes of this act in the interest of public safety *and the development of aeronautics* in this State.

This emphasis on fostering aeronautical progress runs through to more recent legislation, as well, with particular attention paid to privately-owned, public use general aviation airports.⁸⁶ Thus, in N.J.S.A. 6:1—80, the *Air Safety and Zoning Act of 1983*, the Legislature noted the public benefits derived from airports and declared the “creation or establishment of an airport hazard . . . a public nuisance.”

In N.J.S.A. 6:1—90a, which establishes the Airport Safety Fund, the Legislature declared:

(1) New Jersey’s public use, general aviation airports are an integral part of the State’s transportation network and promote mobility and economic activities of common public benefit. These public use, general aviation transportation facilities are deteriorating and must be improved as to safety in order to realize their full public benefit.

* * *

(4) Many privately owned, public use, general aviation airports which are essential to the State’s economic development are in danger of conversion to nonaviation uses, and it is in the public interest to provide State assistance to county and municipal efforts to preserve these airports, through acquisition or other means.

⁸⁶ That is, airports where the proprietor is a private individual or corporation. The distinction should be made between privately owned airports for public use, and privately owned airports for private, exclusive use. For example, Somerset Airport (N52) is a privately owned, public airport. Merck’s private heliport, however, is reserved for ordinary use by Merck’s own aircraft and is not open to the public.

The Legislature's recognition of the importance of aviation and airports, and its promotion of progress and education in aviation, as well as of public safety, are adequately codified in law. N.J.S.A. 6:1—98, *et seq.* establishes the Governor's Air and Space Medal, wherein each May, an individual or organization currently or formerly located in New Jersey, will receive an award "in recognition of the individual's or organization's outstanding achievement in aeronautics or space exploration."

Counties and municipalities are empowered, under N.J.S.A. 40:8—1, to acquire and use land for airports:

The governing body of any county and the governing body of any municipality, or either of them, may acquire by gift, grant, purchase, condemnation or in any other lawful manner real estate or any right or interest therein for other public purposes and being *used for airport purposes and erect thereon and maintain buildings for the airport purposes.*

Upon such acquisition or use, the governing body of any county and the governing body of any municipality, or either of them, may lease the real estate, so acquired, with or without consideration to the state of New Jersey, or any agency thereof, or may lease it to any person for such consideration and for such term of years as may be agreed upon.

SECTION V

THE ROLE OF THE STATE *AVIATION ACT* AND REGULATIONS IN ZONING AND LAND USE

The regulatory regime of the New Jersey Department of Transportation, Division of Aeronautics (NJDOT), is of crucial importance to circumscribing the limits of a non-proprietor host municipality's zoning authority. This section first examines the general contours of the municipal zoning authority and then identifies the specific implications of the NJDOT regulatory regime.

A. ZONING AND LAND USE IN NEW JERSEY

Frizell and Pozycki⁸⁷ provide the best discussion available, as set forth below:

The Home Rule Act of 1917 [N.J.S.A. 40:42—1 *et seq.*] and the Constitution of 1947, have been liberally construed by the courts to favor the exercise of zoning power by municipal authority. However, it must be remembered that the zoning power is nonetheless an inherent power of the State, rather than the municipality, and can be delegated to the municipality only by specific legislation. This principle is not merely an expression of the relationship between the State government and the localities of New Jersey, it is a fundamental tenet of the Federalism that binds the United States together. There are two, and *only* two sovereigns under the United States Constitution—the state governments and the Federal government. The states may delegate authority but may never relinquish the sovereign powers which are guaranteed to them by the Tenth Amendment. This principle is a binding force in land use and municipal law.

While the State Legislature may enact legislation for the general welfare of the State's citizens, its authority is delimited by its citizens' rights under the State Constitution. Thus, the Legislature cannot violate the constitutional rights of a citizen in acquiring, possessing and protecting property, nor take private property for public use without just compensation.

The legitimacy of local land use law is therefore based on the observance of two principles: (1) such controls may only be adopted pursuant to properly delegated authority as expressed in the enabling legislation, i.e. they must be properly adopted; and (2) such controls must fall within the parameters of a valid exercise of the State's police and zoning powers on the one side, and an unjust "taking" on the other, i.e. they must be properly exercised.

⁸⁷ See Fritzell, D.J., & H.S. Pozycki, Jr., *Land Use Law*, 36 New Jersey Practice § 1.1 (St. Paul, Minn., West Publishing Co., 1989).

These principles were reviewed by the New Jersey Supreme Court in *Riggs v. Township of Long Beach*.⁸⁸ The *Riggs* Court held that a valid municipal development regulation must satisfy four objective criteria:

(1) the ordinance must advance one of the purposes of the Municipal Land Use Law;

(2) the ordinance must be “substantially consistent” with the master plan of the municipality, unless the special provisions of the law permitting deviations are satisfied;

(3) the ordinance must comport with constitutional constraint pertaining to due process, equal protection, and the prohibition against confiscation; and

(4) the ordinance must be adopted in accordance with statutory and municipal procedural requirements.⁸⁹

B. INTERGOVERNMENTAL IMMUNITY FROM ZONING

This section briefly explores the limits of intrastate, intergovernmental immunity, as between the State or State agency and a municipality; and as between a municipality that is an airport proprietor and a host municipality.

The N.J. Supreme Court provided a balancing test to determine intergovernmental immunity in *Rutgers v. Piluso*.⁹⁰ The determination depends upon “reasoned adjudication of the critical question of which governmental interest should prevail in the particular relationship or factual situation,”⁹¹ based on “the nature and scope of the instrumentality seeking immunity, the kind of function or land use involved, the extent of the public interest to be served thereby, the effect local land use regulation would have upon the enterprise concerned and the impact upon legitimate local interests,”⁹² but for which “there is no precise formula or set of criteria which will determine every case mechanically or automatically.”⁹³

Two subsequent cases, *Ronson Corp.* and *Garden State Farms*, both discussed below, refined the test in *Piluso* by requiring that the immunity enjoyed by the Commissioner of Transportation in locating private helistops not be exercised either unreasonably or arbitrarily, and that “legitimate local interests” in zoning must be considered “a material concern” in the Commissioner’s decision-making.

Yet it must also follow that for existing aeronautical facilities, the zoning activities of non-proprietor host municipalities which the NJDOT regulations proscribe are not presumed to be “legitimate” by definition. Moreover, the regulations discussed below, particularly those promulgated under the *Air Safety and Zoning Act of 1983*, require non-proprietor host

⁸⁸ See 109 N.J. 601 (1988).

⁸⁹ See Fritzell & Pozycki, *supra* note 87 at § 1.1 [citations omitted] [emphasis in original].

⁹⁰ See 60 N.J. 142 (1972).

⁹¹ *Id.* at 150.

⁹² *Id.* at 153.

⁹³ *Id.*

municipalities to adopt compatible land use zoning near existing aeronautical facilities and to incorporate them into their master plans. At least one court case requires that these municipalities must anticipate reasonable and necessary growth of existing aeronautical facilities.

In terms of express preemption, Fritzell & Pozycki point out that the Municipal Land Use Law exempts only two quasi-public uses from local zoning regulations,⁹⁴ neither of which involve airports. And while “[m]unicipal zoning restrictions are preempted by various other enactments of the State Legislature with respect to the Sports and Exposition Authority, solid waste facilities, and public utilities,”⁹⁵ no such express preemption has been made elsewhere.

In regard to intergovernmental immunity as between municipalities, which are equal government entities, *Shell Oil*, discussed below, demonstrates the Court’s concern that a municipality might proceed, as Fritzell and Pozycki note, “with zoning immunity as a shield and state legislation as a sword, to put land to public use which is inconsistent with the applicable zoning ordinances.”⁹⁶

Prior to *Piluso*, in cases such as *Shell Oil* and *Aviation Services*, discussed below, State “courts had relied upon discerning the State’s legislative intent, without further significant analysis, as a test for determining whether immunity from the host municipality’s zoning ordinance should be invoked.”⁹⁷

However, when the *Piluso* balancing test was applied in *Morristown III*,⁹⁸ discussed below, the Appellate Division declared Morristown Airport an “island of immunity” from municipal zoning, subject to certain limitations based on reasonableness.

“The failure of New Jersey, like other states, to provide more legislative guidance regarding intergovernmental land use conflicts is, according to at least one commentator, ‘surprising’, especially considering the tendency of the courts to ‘legislate’ in this area.”⁹⁹

From this discussion, one can conclude that the zoning authority of a non-proprietor host municipality can have only a limited role in controlling airport land use outside the perimeter of an airport. Whereas all municipalities have constitutional and statutory authority to acquire lands for airport purposes, they cannot extend their authority beyond what has been formally delegated to them by the State Legislature through the Municipal Land Use Law, or in a fashion contrary to the NJDOT regulations.

From the foregoing discussion, one may reasonably conclude that a municipal zoning ordinance concerning airport land use by a non-proprietor municipality of an existing aeronautical facility is, in fact, preempted by the regulations promulgated by the NJDOT, under the State *Aviation Act*.

⁹⁴ Fritzell & Pozycki, *supra* note 87 at 73, § 3.28(3) [citations omitted].

⁹⁵ *Id.* at 74 [citations omitted].

⁹⁶ *Id.* at 75.

⁹⁷ *Id.* at 76.

⁹⁸ See *infra* notes 372-383 and accompanying text.

⁹⁹ *Id.* (quoting D. Mandelker, *Land Use Law* (Charlottesville, Va.: Michie, 1982), § 4.43).

C. THE NJDOT REGULATORY FRAMEWORK

The regulations under the State *Aviation Act* and the *Airport Safety and Zoning Act of 1983* are found in the New Jersey Administrative Code (N.J.A.C.). Part 54¹⁰⁰ regulates the licensing of aeronautical and aerospace facilities; Part 55¹⁰¹ regulates the licensing of aeronautical activities; Part 56¹⁰² regulates Airport Safety Improvement Aid; Part 57¹⁰³ regulates abatement of aircraft noise and hazards; Part 58¹⁰⁴ regulates sport parachuting; Part 59¹⁰⁵ regulates air races, meets, and exhibitions; Part 60¹⁰⁶ regulates the issuance of summons and designation of law enforcement officers, giving powers to Division of Aeronautics employees to function as law enforcement officers in compliance with Title 6; Part 61¹⁰⁷ regulates the reporting and investigation of aircraft accidents; and Part 62¹⁰⁸ regulates air safety and zoning.

Several of these regulations are helpful in detecting the limits of a non-proprietor host municipality's ability to zone aeronautical activities on an airport located within its corporate boundaries, as well as the broad discretionary scope of the powers of the New Jersey Commissioner of Transportation.

N.J.A.C. 16:54—3.2, “General requirements for all public use aeronautical facilities”, provides in the relevant part: “(b) Aeronautical activities may be conducted at public use aeronautical facilities. For the purposes of land use and zoning, aeronautical activity(ies) are normally considered permitted uses at public use aeronautical facilities.”

N.J.A.C. 16:54—1.3 defines the terms “aeronautical activity” and “aeronautical facility”, and consequently establishes activities immune from municipal regulation.¹⁰⁹ It should be noted

¹⁰⁰ See N.J.A.C. 16:54—1.1 *et seq.*

¹⁰¹ See N.J.A.C. 16:55—1.1 *et seq.*

¹⁰² See N.J.A.C. 16:56—1.1 *et seq.*

¹⁰³ See N.J.A.C. 16:57—1.1 *et seq.* Although the title to the section includes a reference to airport noise, nothing in Part 57 applies to that issue. Part 57 addresses only airport obstacles or obstructions.

¹⁰⁴ See N.J.A.C. 16:58—1.1 *et seq.*

¹⁰⁵ See N.J.A.C. 16:59—1.1 *et seq.*

¹⁰⁶ See N.J.A.C. 16:60—1.1 *et seq.*

¹⁰⁷ See N.J.A.C. 16:61—1.1 *et seq.*

¹⁰⁸ See N.J.A.C. 16:62—1.1 *et seq.*

¹⁰⁹

“Aeronautical activity” means any of the following aviation related commercial activities generally provided to the public or any segment thereof, at an aeronautical facility either by the licensee or his tenants or invitees, with or without compensation:

1. Aircraft: sales, charter, rental, lease storage, operation, hangaring, tiedown, and parking; and parachuting operations;

2. Instruction: aircraft flight and ground instruction of all types, license examinations and proficiency checks, crew member training, parachute jumping training,

3. Maintenance: all types of maintenance, repair, inspection, testing, modification, overhaul, corrosion control or painting of aircraft, engines, systems, avionics, parachutes, or ancillary air or ground support equipment; and

that the list of activities, which is specific and exhaustive, is nevertheless broad in scope and addresses all purposes likely to be pursued at an airport.

N.J.A.C. 16:54—5.2 both provides a specific limitation on aircraft at public use airports by reproducing FAA rules on air traffic pattern altitudes, and creates a remedy for communities that believe they are adversely impacted by aircraft noise.¹¹⁰ This makes clear that municipalities are not to pursue what one might call “self-help” by establishing non-conforming zoning to discourage airport growth. Rather, the State has taken upon itself, through the Director of the Division of Aeronautics, the task of addressing noise abatement “in the interest of good community relations.”¹¹¹

N.J.A.C. 16:54—8.1 provides that the “[i]ssuance of a license does not relieve licensees of their responsibility to comply with any other applicable Federal, state, or local laws, rules or regulations.” It should be noted that a municipal ordinance that conflicts with federal or State regulation is not an “applicable” local law.

The most significant positive requirements and limitations placed upon municipalities come from N.J.A.C. 16:62—1.1 *et seq.*, which establishes the minimum standards that must be implemented by municipalities pursuant to the *Airport Safety and Zoning Act of 1983*. In particular, these standards pertain to: (1) airport and aeronautical hazards; and (2) land use adjacent to airports. Aeronautical hazards are indeed to be addressed through municipal zoning, but municipalities are tightly constrained by the purposes of the regulation in establishing this zoning. Land use adjacent to airports is subject to the requirement that municipalities develop a

4. Servicing: aircraft fueling using fixed, hydrant, mobile, or portable equipment; aircraft engine or systems servicing including hydraulics, pneumatics, oxygen, lavatory, aircraft catering, electronics, aircraft cleaning.

“Aeronautical facility” means any airport, seaplane base, heliport, helistop, drop zone, blimp mooring mast, balloonport, or vertiport.

1. The facility includes all property, paving, appliances, structures, seaplane docks, runways, taxiways, seaways, sealanes, aprons, hangers, or safety equipment associated with the aeronautical activities conducted on the premises and property.

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(c) The Director may require noise abatement procedures to be prepared for a public use aeronautical facility, in accordance with N.J.A.C. 16:54—5.1(e), in the interest of good community relations. Communities which believe they are adversely impacted by aircraft noise from adjacent public use aeronautical facilities may request the Director to take such action. When such notice is received from the appropriate governing body of an impacted municipality, the Director will require the licensee to prepare noise abatement procedures. . . .

(e) Traffic pattern altitudes for fixed wing aircraft operations at public use airports shall not be less than 1,000 feet AGL (above ground level), except where required for operational considerations and/or as directed by the FAA for airspace, safety, or operational reasons.

¹¹¹ This crucial phrase is, quite unfortunately, of dubious legal value. Perhaps fixing a standard such as “in the interest of legitimate local concerns” would be a far more helpful a guide. See *Garden State Farms v. Bay*, *infra* notes 397-435 and accompanying text.

master plan. The master plan must include provisions for “airport safety zones”, “clear zones”, and “runway end subzones”.¹¹² Municipalities affected by these provisions must have

¹¹² N.J.A.C. 16:62—1.2 provides in relevant part:

(a) Under the Air Safety and Zoning Act of 1983, as amended, this part establishes minimum standards for the control of airport and aeronautical hazards, and standards for land use adjacent to airports, which the municipalities of this State shall implement. These standards are minimum State standards, and municipalities may adopt more rigorous standards for control of the areas and condition under the provisions of the Municipal Land Use Law.¹¹² The Commissioner may adopt under N.J.A.C. 16:62—7 a special or amended standard for an airport when it is determined that local conditions require it.

(b) No person shall build, rebuild, create or cause to be built, rebuilt or created any object or structure, or plant, or cause to be planted or permit to grow any tree or vegetation, which will interfere with, diminish, change or obstruct the airspace or landing and take-off of aircraft at airports or other aeronautical facilities.

(c) Nothing in this part shall be construed as limiting the power of the Commissioner regarding the design, placement, or operation of airports or other aeronautical facilities.

(d) Municipalities of this State are required to implement and maintain land use ordinances in accordance with the provisions of this part. These ordinances are subject to review by the Commissioner.

(e) No ordinance adopted under this part shall require the removal or lowering of, or other change or alteration of any structure or tree not conforming to the rules when this part was adopted, or otherwise interfere with the continuance of any nonconforming use.

* * *

(h) The mechanisms provided for control of aeronautical hazards within the “Air Safety and Zoning Act” rely substantially upon local zoning regulations. The powers to enact traditional zoning ordinances upon navigable waters are constrained; and the operational characteristics and jurisdiction of water facilities may differ substantially from many land facilities; the provisions of this part do not apply to seaplane or water facilities unless otherwise provided for by the Commissioner in N.J.A.C. 16:62—7.1. Any interested person may petition the Commissioner for review of Air Safety and Zoning issues under the operation of any Public Use Seaplane Facility.

* * *

(k) The review of applications under this part is limited to the purposes of this part as they relate to the public health, safety and welfare.

N.J.A.C. 16:62—2.1 provides “municipal requirements”.

(a) Each municipality which contains within its boundaries any part of a delineated airport safety zone, as defined by N.J.A.C. 16:62—3.1, shall enact an ordinance or ordinances incorporating standards promulgated under this part. These standards shall also become a part

of the masterplan of development for each affected municipality which has a masterplan.

(b) Each municipality affected under this part shall transmit to the Division at time of adoption, amendment, or when requested, a valid copy of the ordinance(s) and a local development masterplan . . .

(c) The Director will review ordinances and masterplans enacted by municipalities to implement the standards of this part.

(d) No variance, or other relief from the standards promulgated by or under this part may be granted by a municipality to itself or any person except upon the condition that the variance or relief is contingent upon the issuance of a permit allowing the variance or relief by the Commissioner.

(e) Municipalities which contain within their boundaries airports regulated by the provisions of this part, may not hereafter classify those airports as non-conforming land uses within the context of their ordinances or master plans of development. Those municipalities which may currently classify an airport as non-conforming land use within the context of their ordinances or master plans of development, shall amend those ordinances or plans to eliminate that non-conforming status.

N.J.A.C. 16:62—5.1 lists the land use ordinance standards.

(a) Within the safety zones . . . each municipality shall implement under N.J.A.C. 16:62—2.1, ordinances which implement the following standards for land use around airports. Prohibited land uses are specifically prohibited without the written approval of the Commissioner. Prohibited land uses may be allowed by the Commissioner on airport property when they are determined necessary by the Commissioner for air commerce purposes or for the operation of the airport and its vendors directly serving air commerce needs. An example of this is a flight school.

1. Permitted land uses:

- i. Residential-single family dwelling units which are situated on a lot at least three acres in size and not located in a CLEAR ZONE. Residential zoning is permitted in the CLEAR ZONE as long as all dwellings are physically located outside of the CLEAR ZONE;
- ii. Airpark (minimum lot size of at least three acres which are not located in a CLEAR ZONE);
- iii. Open space;
- iv. Agricultural;
- v. Transportation;
- vi. Airport;
- vii. Commercial (not located in a CLEAR ZONE);
- viii. Industrial (not located in a CLEAR ZONE);

2. Specifically prohibited land uses:

- i. Residential (dwelling units) not situated on a lot of at least three acres in size;

implemented the standards by April 15, 1985, or in the case of clear zones, May 15, 1989.¹¹³ Additionally, no municipal body may grant variances or subdivisions in an Airport Safety Zone where the purpose would be contrary to the standards found in the regulations of the *Air Safety and Zoning Act of 1983*.¹¹⁴

Finally, the State *Aviation Act* grants to the Commissioner of Transportation broad discretion to supervise aeronautics and, in particular, to supervise the “establishment, location, maintenance, operation, size, design, repair, management and use of airports, landing fields, landing strips, heliports and helistops, sport parachuting centers, air markings and other avigational facilities”¹¹⁵

This discretion is exercised, most importantly, where the Commissioner, after public hearing, grants licenses for airport operation.¹¹⁶ Such applications for license must be made not only for a new airport facility, but also for alterations to an existing airport facility. The Commissioner’s licensing discretion has a prominent role in resolving disputes as between municipalities concerning conflicting uses arising out of expansion within the airport’s perimeter.

The Commissioner’s discretion is supplemented by his ability to enlist the courts to aid in

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- ii. Planned unit developments and multifamily dwellings;
 - iii. Hospitals;
 - iv. Schools;
 - v. Above ground bulk tank storage of compressed flammable or compressed toxic gases and liquids;
 - vi. Within the RUNWAY END SUBZONES only, the above ground bulk tank storage or flammable or toxic gases and liquids;
 - vii. Uses that may attract massing birds, including land fills;
 - viii. Above grade major utility transmission lines and/or mains.

(b) Subject to review by the Director, a municipality may implement land uses substantially similar to those listed as permitted land uses in (a) Ii-vi above as long as they are in accord with the intents of this part as determined by the Commissioner. A municipality may not, however, implement a land use ordinance or plan which may have the effect of allowing or promoting the establishment of specifically prohibited land uses as determined by the Commissioner. A municipality further may not implement ordinances which would have the effect of preventing routine improvement of an aeronautical facility or airport within the area zoned under this part.

(c) Municipalities shall, when developing land use ordinances to conform with the provisions of this part, adopt general land use provisions within the ordinance to minimize unwarranted concentrations of persons within Airport Safety Zones, especially along the extended runway centerlines within RUNWAY END SUBZONES.

¹¹³ See N.J.A.C. 16:62—10.1(a).

¹¹⁴ See N.J.A.C. 16:62—10.1(b).

¹¹⁵ N.J.S.A. 6:1—29.

¹¹⁶ See N.J.A.C. 16:54—2.1 *et seq.*

enforcement of these regulations and compel licensees and third parties to conform with the regulations.¹¹⁷ In particular, these enforcement powers could and should be used to allow the Commissioner to step in where recalcitrant host municipalities impede reasonable airport development.

Finally, two provisions in Title 6 give the Commissioner certain powers to acquire property or interests thereon. The *Air Safety and Zoning Act of 1983* grants the Commissioner the power to acquire interest in property or in a nonconforming structure;¹¹⁸ and the *New Jersey Airport Safety Act of 1983* gives the Commissioner the power to:

acquire airports or lands or rights therein, including aviation easements for clear zones or clear areas . . . when it is deemed necessary for the safe operation of the airport and the general public safety or necessary for the continued operations of an airport which is deemed to be necessary for a safe and efficient air transportation system in the State. . . He may also sell any airport or airport land so acquired to a county or municipality or other public bodies on the condition that they operate the facility as an airport and that they may not sell the land without the commissioner's approval.¹¹⁹

Both *Acts* have withstood one facial constitutional challenge,¹²⁰ and there are no other reported cases. Noteworthy too is the fact that both *Acts*, as well as the regulations, were enacted more than five years after the decision in *Garden State Farms v. Bay*,¹²¹ discussed in the next section, and may help to resolve the State Supreme Court's ambivalence over the phrase "supervision over aeronautics" in terms of the Commissioner's powers.

¹¹⁷ See N.J.S.A. 6:1—87. N.J.A.C. 16:62—11.1 provides:

- (a) Violation of any provision of this part may be grounds for fine, modification, suspension or revocation of any license issued under Title 6 of the New Jersey Statutes Annotated.
- (b) The Commissioner may institute, in any court of competent jurisdiction, an action in the name of the State to prevent, restrain, correct, or abate any violation of any provision of this part by way of injunction or otherwise, relief from the court.

¹¹⁸ N.J.S.A. 6:1—88 provides:

In any case in which it is desired to remove, lower, or otherwise terminate a nonconforming use; or in which the necessary protection from an airport hazard cannot, because of constitutional limitations, be provided by zoning regulations; or if it appears advisable that the necessary protection from an airport hazard be provided by acquisition of property rights rather than by zoning regulations, the commissioner may acquire by purchase, grant, condemnation, or otherwise in a manner provided by law, such air right, easement, or other estate or interest in the property or nonconforming structure or use in question as may be necessary to effectuate the purposes of this act, including acquisition of a fee simple estate.

¹¹⁹ N.J.S.A. 6:1—95.

¹²⁰ See *Patzau*, *infra* notes 222-251 and accompanying text.

¹²¹ See *infra* notes 397-435 and accompanying text.

SECTION VI

NEW JERSEY CASE LAW

The following is a review of the relevant New Jersey and federal case law¹²² addressing the scope of municipal zoning authority on and around airport lands. The broad categories these cases fall under are: A. problems establishing airports; B. “takings” and other liability problems arising from aircraft overflight; C. direct attempts by non-proprietor municipalities to regulate airport noise; D. “lawful accessory use”; E. development of the “island of immunity” doctrine; and F. powers of the Commissioner.

A. PROBLEMS ESTABLISHING AIRPORTS

The following cases each illustrate the difficulty of a challenge to local municipal authority in establishing an airport. In *Yoemans v. Hillsborough Township*, a landowner, who wanted to build an airport, unsuccessfully challenged the reasonableness of a municipal zoning ordinance prohibiting airports. In *Oeschle v. Ruhl*, the defendant had obtained, from the State Aviation Commission, a license to build an airport and neighboring landowners sought unsuccessfully to enjoin airport construction and operation on the basis of anticipated nuisance. Finally, in *Ridgwood Air Club v. Bd. of Adjustment of Ridgewood*, a private association of pilots, desiring to build non-commercial flying facilities for its members, unsuccessfully challenged a municipal ordinance apparently amended to prohibit airports specifically in response to the Air Club’s application.

The conclusion that can be drawn from these cases is that municipalities do indeed have significant discretion to exclude airports when new airports are being planned, although courts will not lightly interfere with a State license to operate an airport. This is in contrast to the emphasis placed in this section upon the need to constrain municipal interference with the development of existing airports. The burden of development of airport infrastructure will be on the expansion of existing airports, at least in the foreseeable future.

Yoemans v. Hillsborough Township
135 N.J.L. 599 (S. Ct. 1947)
Zoning Ordinances Presumed Reasonable

In *Yoemans v. Hillsborough Township*,¹²³ the N.J. Supreme Court examined a Hillsborough Township zoning ordinance which expressly prohibited airports in designated residential and agricultural zones.¹²⁴ A landowner was selling her land to purchasers who wanted

¹²² Federal courts referenced herein which have binding authority in New Jersey are the United States District Court for the District of New Jersey, the United States Court of Appeals for the Third Circuit, and the United States Supreme Court.

¹²³ 135 N.J.L. 599 (S. Ct. 1947) [hereinafter *Yoemans*].

¹²⁴ The chronology of this case is interesting:

In 1940 the Planning Board of the Township of Hillsborough was organized and meetings were held in an effort to prepare a zoning ordinance. The minutes of the meeting of the Planning Board of December 7, 1945 expressed the hope that the draft of the zoning ordinance would be ready in the spring of 1946. The contract between Yoemans and the present tenants was entered into on March 26th and

to build an airport. The executory contract of sale was contingent upon the purchasers obtaining “federal, state or local consent or permission”¹²⁵ to use the lands as an airport. If not, the purchasers could cancel the contract upon 30 days’ notice to the seller. The purchasers filed applications with the Township Committee to build an airport and two buildings on the property in question. The Township Committee denied the applications and eight days later the Township adopted a zoning ordinance which placed the property in question in a residential and agricultural zone, where airports were expressly prohibited.¹²⁶

The plaintiffs, the parties to the Contract of Sale, alleged that: (1) the prohibition was unreasonable and therefore invalid; and (2) the ordinance was unconstitutional in that it deprived the plaintiffs of their property without just compensation or due process, and prevented them from making proper and legal use of it, in violation of state and federal constitutional protections.¹²⁷

The issue before the Court was the reasonableness of the prohibition. The opinion merely recited the state constitutional and statutory underpinnings of municipal zoning authority, without any further comment or analysis. More particularly, the Court set forth Article 4, Section 6, Paragraph 5 of the State Constitution of 1844, as amended,¹²⁸ which granted zoning authority to the municipalities; and *R.S. 40:55—30*¹²⁹ and *R.S. 40:55—32*,¹³⁰ the enabling acts. The

the following day Messrs. Dates and Beatty made application to the township committee for the construction of an airport on the Yoemans property. On April 10th Dates made a further application for permission to construct another building on the said premises. On May 14, 1946 the Township Committee denied the two building applications above mentioned, and eight days thereafter, on May 22, 1946, the zoning ordinance was finally adopted. The ordinance divides the township into three zones—(1) residential and agricultural; (2) business and (3) industrial. In the residential and agricultural zone, it expressly prohibits airports.

Id. at 600.

¹²⁵ *Id.*

¹²⁶ *See id.*

¹²⁷ More specifically, a “violation of the first and sixteenth paragraphs of Article I of the Constitution of the State of New Jersey and the Fourteenth Amendment of the Federal Constitution.” *Id.* at 601.

¹²⁸

The Legislature may enact general laws under which municipalities, other than counties, may adopt zoning ordinances limiting and restricting to specified districts and regulating therein, buildings and structures, according to their construction, and the nature and extent of their use, and the exercise of such authority shall be deemed to be within the police power of the State. Such laws shall be subject to repeal or alteration by the Legislature.

Const. 1844, art. 4, § 6, para. 5, added by amendment, effective Oct. 18, 1927. This provision was recodified without change in Article 4, § 6, ¶ 2 of the Constitution of 1947.

¹²⁹

Any municipality may by ordinance, limit and restrict to specified districts and may regulate therein, buildings and structures according to their construction, and the nature and extent of their use, and the exercise of such authority, subject to the provisions of this article, shall be deemed to be within the police power of the state. Such ordinance shall be adopted by the governing body of such municipality, as hereinafter provided, except in cities having a board of public works, and in such cities shall be adopted by said board.

opinion thus relied simply on municipal zoning law, without reference to the State *Aviation Act*.

Yoemans held that “[o]ne attacking a zoning ordinance as unreasonable is met by the presumption that the ordinance is reasonable and must bear the burden of establishing the contrary.”¹³¹ Here, the plaintiffs failed to meet that burden.

Oechsle v. Ruhl

140 N.J. Eq. 355 (1947)

Airports Not Nuisances *Per Se*; State Aviation Commission Has Sole Authority of Determining Propriety of Locating Airport or Airfield; Airport License No Bar to Injunction for Nuisance; Prior Injunction Not Favored Policy; Anticipated Diminution of Market Value Not a Basis for Injunctive Relief

In *Oechsle v. Ruhl*,¹³² the defendant had obtained a license from the State Aviation Commission to construct and operate an airport. The complainants, residential landowners in the vicinity of the proposed airport, claimed anticipated nuisance¹³³ and sought an injunction against

The authority conferred by this article shall include the right to regulate and restrict the height, number of stories, and sizes of buildings, and other structures, the percentage of lot that may be occupied, the sizes of yards, courts, and other open spaces, the density of population, and the location and use and extent of use of buildings and structures for trade, industry, residence, or other purposes.

Id. at 601. R.S. 40:55—30 to 40:55—45 was repealed by L.1975, c. 291, § 80, eff. Aug. 1, 1976. It was replaced by the Municipal Land Use Law, N.J.S.A. 40:55D—1, *et seq.*, particularly in N.J.S.A. 40:55D—62; 40:55D—65; & 40:55D—67.

¹³⁰

Such regulations shall be in accordance with a comprehensive plan and designed for one or more of the following purposes: to lessen congestion in the streets; secure safety from fire, panic and other dangers; promote health, morals or the general welfare; provide adequate light and air; prevent the overcrowding of land or buildings; avoid undue concentration of population. Such regulations shall be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses, and with a view of conserving the value of property and encouraging the most appropriate use of land throughout such municipality.

¹³¹ *Id.* at 602 (quoting *Brandon v. Montclair*, 124 N.J.L. 135 at 149). The Court ultimately dismisses the plaintiff’s action noting that the record below was “devoid of evidence that the prohibition of an airport in a residential and agricultural zone is unreasonable.”

¹³² 140 N.J. Eq. 355 (1947) [hereinafter *Oeschle*].

¹³³

Complainants . . . allege . . . that ‘the normal operation of an airfield or airport on defendant’s premises will deprive them of the full use and enjoyment of their premises, and that they will suffer grave and continuous annoyance and discomfort from airplanes taking off and landing, from loud noises made by said airplanes while warming up to take off, in taking off and in landing, from excessive dust particles being raised by said planes in taking off and in landing, said dust particles being carried into their respective homes and interfering with the health and comfort of themselves and their families, and from danger and reasonable apprehension of danger to themselves and their families and properties by reason of planes making imperfect landings

the defendant from continuing construction and subsequent operation.¹³⁴ “The question which defendant has posed is whether the license or permit granted by the State Aviation Commission is an absolute bar to the relief here sought and whether this court is attempting a usurpation of the power and authority of the legislatively created board or commission.”¹³⁵

The defendant urged that: (1) the complainants had an adequate remedy at law under the *State Aviation Act, R.S. 6:1—1 et seq.*, and therefore were precluded from applying to the Court of Chancery for relief; and (2) the license the defendant obtained from the State Aviation Commission of New Jersey could not be attacked in this proceeding.¹³⁶

In reviewing whether the complainants had an adequate remedy at law under the *Act*, the court examined specific provisions under the *Act*.¹³⁷

or cracking up while in the course of taking off or landing’ and that
‘their properties will greatly depreciate in value.’

Id. at 356.

¹³⁴ See *id.*

¹³⁵ *Id.* at 360.

¹³⁶ See *id.* at 356-357.

¹³⁷

R.S. 6:1—24, 25, N.J.S.A., make provision for the appointment, qualification and term of the Aviation Commission and a director thereof. *R.S. 6:1—29, N.J.S.A.*, provides, inter alia, that the Commission ‘* * * shall have supervision over aeronautics within this State, including, but not by way of limitation * * * the establishment, locations, maintenance, operation, size, design, repair, management and use of airports, landing fields, landing strips * * *. The commission shall have power to promulgate and adopt any reasonable rules and regulations that may be necessary to effectuate the purposes of this act in the interest of public safety and the development of aeronautics in this State.’

R.S. 6:1—31, N.J.S.A., provides as follows:

‘It shall be the duty of the commission to hold public hearings on matters affecting aeronautics; to conduct investigations, inquiries and hearings concerning matters covered by the provisions of this part.’

R.S. 6:1—32, N.J.S.A., provides as follows:

‘The commission may, in order to protect the public safety and the safety of those participating in aeronautical activities adopt reasonable rules, regulations and orders requiring the installation in and carriage by, aircraft, and the installation in airports, landing fields and landing strips, of safety devices and other avigation facilities consistent with the development of the art; and require obstructions which may be hazardous to avigation to be suitably marked by lights, signs or otherwise as the commission may provide. The commission shall have the right and is hereby empowered to proceed by appropriate legal or equitable action to cause any obstruction to flight in and about any airport or landing field to be abated and such obstructions are hereby declared to be hazards to human life and property, and the commission may cause the same to be removed by such orders and decrees as the court may issue in any legal or equitable proceedings instituted by the commission for that purpose.’

It was the intent of the legislature in “investing [the State Aviation Commission with powers of] supervision and regulation over airports . . . to ‘protect the public health and safety and the safety of those participating in aeronautical activities.’”¹³⁸ The complainants, therefore, would only have a legal remedy under the *Act* if the gravamen of their complaint was predicated on public health and safety, and not nuisance or violation of their property rights. In other words, if the “inquiry . . . is whether the conduct of defendant in the operation of his business is such as would materially interfere with the ordinary comfort, physically, of human existence and whether it is an invasion of their property rights,”¹³⁹ the State Aviation Commission would not have the legislative authority to consider such a complaint. Conversely, the State Aviation Commission would have no authority to revoke the license already issued to the defendant based on the reasons set forth in the same complaint.¹⁴⁰ Since the complaint did not contain any allegation concerning “health and safety,” the complaint was beyond the ambit of the Commission and the

R.S. 6:1—43, N.J.S.A., provides as follows:

‘It shall be unlawful, except as hereinafter provided, to use, operate or cause to be used or operated any airport, landing field, landing strip, or other aviation facility, air school or flying club, unless it, and, in the case of airports, its management, shall be licensed as provided in this part; and except in case of emergency no aircraft shall land upon, or take off from, any airport, landing field or landing strip, not so licensed; provided, however, that neither the provisions of this part, nor the rules, regulations or orders issued pursuant thereto, shall apply to any airport, landing field, landing strip, or other aviation facility, or air school owned and operated by the government of the United States.’ L.1938, c. 48, p. 136, § 24.

R.S. 6:1—44, N.J.S.A., provides as follows:

‘The commission shall provide for the licensing of airports, airport managements, landing fields, landing strips, other aviation facilities, air schools or flying clubs by rules, regulations and orders adequate to protect the public health and safety and the safety of those participating in aeronautical activities.’

R.S. 6:1—45, N.J.S.A., provides as follows:

‘Any license issued pursuant to the provisions of this part may be modified, suspended or revoked when in the interest of public safety or the safety of those participating in aeronautical activities, the commission shall deem such action advisable, after violation of any provision of this part or any rule, regulation or order promulgated thereunder.’

R.S. 6:1—53, N.J.S.A., provides as follows:

‘Any order made by the commission may be reviewed upon certiorari by the Supreme Court.’

Id. at 357-358.

¹³⁸ *Id.* at 358.

¹³⁹ *Id.* at 359.

¹⁴⁰ See *id.*

complainants therefore had no adequate remedy at law under the statute.¹⁴¹

The second question was “whether the license or permit granted by the State Aviation Commission is an absolute bar to . . . relief . . . and whether this court is attempting a usurpation of the power and authority of the legislatively created board or commission.”¹⁴²

While the defendant had the legal authority to build and operate an airport, the license “does not authorize the maintenance of a private nuisance, even though the same be construed a legislative grant of authority to conduct business. An act of the legislature cannot confer any right upon an individual to deprive persons of ordinary enjoyment of their property without just compensation.”¹⁴³ Moreover, the legal analysis of nuisances,¹⁴⁴ whether existing or prospective (anticipated), is the same.¹⁴⁵

There is a distinction, however, between an injunction against the construction of a structure or facility intended to be put to a legal use because a threatened or prospective private nuisance may arise from such use, and an injunction against the use itself because it may become or constitute a private nuisance as a result of the manner of the conduct of the particular trade, occupation or business intended to be there operated. In order to sustain an action for an injunction against construction the pleadings must demonstrate that the business intended to be carried on in the structure cannot be carried on without becoming a nuisance.¹⁴⁶

Thus, where a complainant seeks an injunction to prevent a lawful business from operating—as well as the construction of buildings and works for that lawful business—equity will require proofs beyond any reasonable doubt that such lawful business will interfere with a complainant’s property rights.¹⁴⁷ The defendants would thus be permitted to continue to build and operate the airport at their peril. If necessary, an injunction could be issued at a later time should the complainants be able to demonstrate actual interference with their property rights. Prior injunction can be anathema to progress: “If the business was restrained in the first instance, we could never learn from the great teacher experience, whether the business would, in fact, be a nuisance or not.”¹⁴⁸

¹⁴¹ The court also notes that under this circumstance, the provision in *R.S. 6:1—53*, *supra* note 137, for review of the Commission’s action by *certiorari* is a nullity. “Such a provision is of no avail to these complainants under the circumstances here alleged, since the State Aviation Commission had no authority to consider them in the first instance.” *Id.* at 395.

¹⁴² *Id.* at 360.

¹⁴³ *Id.*

¹⁴⁴ “Nuisance is that activity which arises from unreasonable, unwarranted or unlawful use by a person of his own property, working obstruction or injury to right of another, or to the public, and producing such material annoyance, inconvenience and discomfort that the law will presume resulting damages.” Black’s Law Dictionary, *supra* note 20. “The maxim, *sic utere tuo ut alienum non laedas* [use your own property in such a manner as not to injure that of another], expresses the well established doctrine of the law.” *Ross v. Butler*, 19 N.J. Eq. 294 (1868).

¹⁴⁵ See *Oeschle*, *supra* note 132 at 362.

¹⁴⁶ *Id.* at 363.

¹⁴⁷ See *id.* at 363-364.

¹⁴⁸ *Id.* at 364 (quoting *Duncan v. Hayes and Greenwood*, 22 N.J. Eq. 25).

In essence, the complainants in this case were arguing that the construction of an airport would constitute a nuisance *per se*.¹⁴⁹ But the court disagreed:

The thousands of airports and airfields in their varied and diverse locations are proof that they are not nuisances *per se*. The argument advanced by complainants is comparable to that advanced while steam railroads were in their infancy. The legislative grant of authority to the State Aviation Commission to issue licenses as above stated is a recognition of the construction, operation and conduct of an airport as a legal business. This Court should not enjoin a prospective construction where the injury apprehended from the operation of a proposed legal business is of a conflicting character to justify conflicting opinions as to whether it will ever result. If the business can be conducted without becoming a nuisance the construction should not be enjoined.¹⁵⁰

The court would not enjoin the construction of the airport because: (1) an airport is not a nuisance *per se*; and (2) the State Aviation Commission had been granted by the Legislature the sole authority of “determining the propriety of locating an airport or airfield” which the “court should not interfere with by way of restraint”.¹⁵¹ The court also noted that the allegation of mere disturbance of the market value of complainants’ property, in and of itself, cannot form the basis for injunctive relief.¹⁵²

Ridgewood Air Club v. Board of Adjustment of Ridgewood
136 N.J.L. 222 (S.Ct. 1947)

Private Airport; Zoning Ordinance Presumed Reasonable; Yoemans Amplified

In *Ridgewood Air Club v. Board of Adjustment of Ridgewood*,¹⁵³ the opinion begins with the statement, “This is a zoning case.”¹⁵⁴ The Ridgewood Air Club, a non-profit association consisting of individuals “who are desirous of advancing their interest in aviation and to provide economical and convenient flying facilities for its members”,¹⁵⁵ wanted to build a private-use airport and applied to the Board of Adjustment of the Village of Ridgewood for a permit to use certain lands in the municipality as a non-commercial airport.¹⁵⁶

The zoning ordinance at the time of the application placed the property in question in a single dwelling zone, where non-commercial aviation fields were permitted, but only subject to the approval and regulation of the Board of Adjustment.¹⁵⁷

¹⁴⁹ See *id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.* at 365.

¹⁵² See *id.* at 366.

¹⁵³ 136 N.J.L. 222 (S. Ct. 1947) [hereinafter *Ridgewood Air Club*].

¹⁵⁴ *Id.* at 222.

¹⁵⁵ *Id.* at 223.

¹⁵⁶ The Court notes that the record below “is highly confused and incomplete.” *Id.*

¹⁵⁷ The ordinance in force at the time of the plaintiff’s application is set forth below and repealed by Board of Adjustment the day after the plaintiffs application was rejected:

The Zoning Ordinance adopted April 14, 1931 and known as Ordinance No. 764 placed the property in question in a single dwelling zone, and for purposes material to this decision provides as follows:

On April 22, 1946, the matter came before the Board of Adjustment for hearing. A member of the Ridgewood Air Club was the sole witness on behalf of the club. The Court characterized his testimony as uncertain and speculative.¹⁵⁸ He was unable to produce even an original map of the proposed Ridgewood Air Park for inspection by the Board of Adjustment. The plaintiff's application was fatally deficient in respect of any credible evidence upon which the Board could give approval for the project.

On April 23, 1946, the ordinance in question was repealed. The repealing ordinance made no provision for the establishment of an airfield of the type in question. The Court chose to decide this case on the merits, even though it made clear that it could dispose of the matter by dismissing the writ on the ground that the repealing ordinance, which was in effect at the time of the disposition of the cause by the appellate court, was the appropriate choice of law.¹⁵⁹

Instead, the Court chose to amplify its decision in *Yoemans v. Hillsborough Township*.¹⁶⁰ First, that "one attacking a zoning ordinance as unreasonable is met by the presumption that the ordinance is reasonable and must bear the burden of establishing the contrary."¹⁶¹ Ridgewood Air Club did not sustain this burden of proof.

Second, that the decision in *Yoemans* "impliedly" negated any contention in the *Ridgewood Air Club* case: "(1) that the regulation of aviation fields is not within the scope of the zoning Act, and (2) that it is beyond the scope of the zoning ordinance to regulate the use of lands."¹⁶²

B. "TAKINGS" AND OTHER LIABILITY PROBLEMS ARISING FROM AIRCRAFT OVERFLIGHT

The following cases examine problems caused to landowners by the flight of aircraft over property adjoining an airport, as well as municipal attempts to restrict property use and abate hazards to aircraft in flight. In *Yara Engineering Corp. v. Newark*, the City of Newark was challenged for using its zoning power over land use at its airport's runway ends to avoid eminent domain. In *United States v. Causby*, low flying government aircraft substantially destroyed the value of property used as a chicken farm, which constituted a "taking" under the Fifth Amendment. In *Hyde v. Somerset Air Service*, a private property owner sought to enjoin flight operations from a privately-owned public use airport on the ground that frequent aircraft overflights constituted a nuisance. In *City of Newark v. Eastern Airlines*, several municipalities and individuals located near Newark Airport sought unsuccessfully to restrain flights by airlines

'Section 5. Single Dwelling Zone Uses. Within any Single Dwelling Zone no building shall be used in whole or in part for any industrial, manufacturing, trade or commercial purposes, or for any other than the following specified purposes:

* * *

'(8) Aviation field not conducted primarily for gain and without shops, eating places or other commercial activities, and subject to the approval of the Board of Adjustment and such regulation as that Board may prescribe'.

Id. at 223-224.

¹⁵⁸ See *id.* at 224.

¹⁵⁹ See *id.* at 225.

¹⁶⁰ See *Yoemans*, *supra* notes 123-131 and accompanying text.

¹⁶¹ *Ridgewood Air Club*, *supra* note 153 at 225.

¹⁶² *Id.* at 226.

over densely populated residential portions of their municipalities by claiming trespass. In *Griggs v. Allegheny County*, landowners, in a fact situation similar to *Causby*, successfully alleged that a county airport had taken an easement over their land without just compensation. The *Griggs* Court laid liability for airport noise solely on the airport proprietor. Finally, in *Patzau v. Dept. of Transportation*, the facial constitutionality of the *Air Safety and Zoning Act of 1983* was upheld as a legitimate exercise of the zoning power that did not *per se* amount to a taking.

The protection of property rights developed in this famous line of cases is now fully incorporated into federal and State aviation policy. On the one hand, these cases set out the exclusive rights of property owners and a liability regime for airports. On the other hand, these cases recognize that rights of ownership in the airspace above the land are limited and are no longer infinitely extensible to the heavens. The zone of municipal property rights leaves off where the zone of federal and state preemption takes over—*viz.* as concerns regulation affecting the operation of aircraft in flight through the navigable airspace. Municipalities thus cannot rely on property rights to control operations around airports. As airport proprietors, municipalities cannot substitute zoning for the constitutionally mandated exercise of eminent domain.

Yara Engineering Corp. v. Newark
132 N.J.L. 370 (S. Ct. 1945)

Exercise of eminent domain cannot be avoided by zoning

In *Yara Engineering Corp. v. Newark*,¹⁶³ the State Supreme Court considered a Newark City ordinance¹⁶⁴ designed “to regulate and restrict the height of structures and objects of natural growth and otherwise regulate the use of property in the vicinity of Newark Municipal Airport by creating airport approaches and turning zones and establishing the boundaries thereof.”¹⁶⁵ The effect was to deprive the property within the airport approach and turning zones of all value.

The Court held that there was nothing in the enabling statute, *R.S. 40:55—32*,¹⁶⁶ allowing

¹⁶³ 132 N.J.L. 370 (S. Ct. 1945) [hereinafter *Yara Engineering Corp.*].

¹⁶⁴ The Court described the ordinance in question:

The airport approach zones and airport turning zones provided for in the ordinance extend for a considerable distance, two miles from the landing field, which is called Inner Boundary. No structure or tree may be erected or maintained within these zones in excess of certain heights ranging from 10 feet to 370 feet, the lower heights being in the zones nearest the Inner Boundary. Another provision of the Ordinance prohibits any use of land within a two mile radius of the landing area which would in any manner create electrical interference with radio communication between the airport and aircraft, or make it difficult for flyers to distinguish between airport lights and others, or make any glare in the eyes of flyers using the airport, or impair visibility in the vicinity of the airport, or otherwise endanger the landing, taking off, or maneuvering of aircraft. This area was classified as 'second industrial' under the general zoning ordinance of the City, prior to the adoption of this ordinance.

Id. at 371-372.

¹⁶⁵ *Id.*

¹⁶⁶ The purposes and essential considerations are set forth in *R.S. 40:55—32*, N.J.S.A., as follows:

Such regulations shall be in accordance with a comprehensive plan and designed for one or more of the following purposes: to lessen congestion in the streets; secure safety from fire, panic and other

municipalities to zone land solely for use as an airport as does the Newark ordinance.¹⁶⁷

Thus, while the City of Newark could acquire property for airport purposes under *R.S.* 40:8—1, and acquire it by condemnation if necessary under *R.S.* 40:8—5, its ordinance interfered with the rights of property ownership, a result not intended in the Zoning Law. “The city may not under the guise of an ordinance acquire rights in private property which it may only acquire by purchase or by the exercise of its power of eminent domain.”¹⁶⁸

United States v. Causby
328 U.S. 256 (1946)
Low Flight of Military Aircraft Over Private Property Constitutes a Fifth Amendment “Taking”

In *United States v. Causby*,¹⁶⁹ decided in 1946, the U.S. Supreme Court considered the “chicken farm” case. The owners of a chicken farm, located near a municipal airport that had been leased by the U.S. government, claimed that the frequent, low overflight¹⁷⁰ of U.S. military aircraft, on approach and departure from the airport, destroyed the use of the property as a commercial chicken farm, and thus constituted an unlawful taking of property within the meaning of the Fifth Amendment, for which the owners were entitled to just compensation. Writing for the Court, Justice Douglas, in his *dicta*, wrote:

It is ancient doctrine that at common law ownership of the land extended to the periphery of the universe—*Cujus est solum est usque ad coelum* . . . But that doctrine has no place in the modern world. The air is a public highway, as Congress has declared. Were that not true, every transcontinental flight would subject the operator to countless trespass suits. Common sense revolts at the idea.¹⁷¹

Nevertheless, the Court concluded in a supposed case that, “If by reason of the frequency and altitude of the flights, respondents could not use this land for any purpose, their loss would be complete. It would be as complete as if the United States had entered upon the surface of the land and taken exclusive possession of it.”¹⁷² Finding that an easement of flight was taken,¹⁷³ the Court distinguished the facts in *Causby* from a case where property owners of land adjoining a

dangers; promote health, morals or the general welfare; provide adequate light and air; prevent the over-crowding of land or buildings, avoid undue concentration of population. Such regulations shall be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses, and with a view of conserving the value of property and encouraging the most appropriate use of land throughout such municipality.

¹⁶⁷ See *id.* at 372-373.

¹⁶⁸ *Id.* at 373.

¹⁶⁹ 328 U.S. 256 (1946) [hereinafter *Causby*].

¹⁷⁰ In this case, 83 feet above the ground.

¹⁷¹ *Causby*, *supra* note 169 at 260-261 [citation omitted].

¹⁷² *Id.* at 261.

¹⁷³ “That easement, if permanent and not merely temporary, normally would be the equivalent of a fee interest. It would be a definite exercise of complete dominion and control over the surface of the land.” *Id.* at 262.

railroad line were denied incidental damages due to “[t]he noise, vibrations, smoke and the like, incidental to the operation of the trains” and arising from a legalized nuisance.¹⁷⁴

The Court dismissed the fact that the Civil Aeronautics Authority had approved the glidepath of the aircraft since it was below “[t]he navigable airspace which Congress has placed in the public domain [which] is [the] ‘airspace above the minimum safe altitudes of flight prescribed by the Civil Aeronautics Authority.’”¹⁷⁵ Oddly, the definition of “minimum safe altitudes” did not provide for the takeoff and landing regimes.¹⁷⁶ Following the decision in *Causby*, Congress would redefine the term to encompass these phases of flight in the federal *Aviation Act of 1958*. The Court noted that,

While the owner does not in any physical manner occupy that stratum of airspace or make use of it in the conventional sense, he does use it in somewhat the same sense that space left between buildings for the purpose of light and air is used. The superadjacent airspace at this low altitude is so close to the land that continuous invasions of it affect the use of the surface of the land itself.¹⁷⁷

The Court concluded:

The airplane is part of the modern environment of life, and the inconveniences which it causes are normally not compensable under the Fifth Amendment. The airspace, apart from the immediate reaches above the land, is part of the public domain . . . Flights over private land are not a taking, unless they are so low and so frequent as to be a direct and immediate interference with the enjoyment and use of the land.¹⁷⁸

Hyde v. Somerset Air Service, Inc.

1 N.J. Super. 346 (Ch. 1946)

Airports Not Nuisances *Per Se*, But May Become a Nuisance; Factors Involved

In *Hyde v. Somerset Air Service, Inc.*,¹⁷⁹ a residential landowner sought to enjoin flight operations over his property to and from Somerset Airport. The Superior Court, Chancery Division, found that, “without malevolence on the part of the defendants”, there were repeated plane flights either directly over or in relatively close proximity to the plaintiff’s residence at altitudes as low as 300 feet, and that the noises were “startling and harassing” and the proximity of the planes “menacing and alarming”, “thereby unreasonably impairing in a substantial degree the peaceful use and occupation of complainant’s dwelling,” justifying injunctive relief.¹⁸⁰ In this

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* at 263 [citation omitted].

¹⁷⁶ Justice Black’s dissenting opinion, *Id.* at 273: “It is unlikely that Congress intended that the Authority prescribe safe altitudes for planes making cross-country flights, while at the same time it left the more hazardous landing and take-off operations unregulated.”

¹⁷⁷ *Id.* at 265.

¹⁷⁸ *Id.* at 266. See generally W.B. Harvey, “Landowners’ Rights in the Air Age: The Airport Dilemma” (1958) 56 Mich. L. Rev. 1313; J.D. Hill, “Liability for Aircraft Noise—The Aftermath of *Causby* and *Griggs*” (1964) 19 Univ. Miami L. Rev. 1 at 13-20.

¹⁷⁹ 1 N.J. Super. 346 (Ch. 1946) [hereinafter *Hyde*].

¹⁸⁰ *Id.* at 352.

case, enforcement of specific flight patterns which “materially abate[d]” the “annoyances” settled the matter.¹⁸¹

The court held to the rule in *Oechsle*,¹⁸² discussed above, that airports are not nuisances *per se*;¹⁸³ “noise which is created by the pursuit of a lawful enterprise has no inevitable immunity from judicial suppression. It may have the characteristics which constitute an actionable nuisance,”¹⁸⁴ such as “[t]he character, volume, frequency, duration, time, and locality of the noises” and whether, in fact, it “unreasonably interferes with the ordinary comfort of human existence in the neighborhood.”¹⁸⁵

The court reiterated the balance between the right to navigate within the public airspace, and the exclusive rights of the landowner, who “owns at least as much of the superadjacent space above the ground as he can occupy and utilize in connection with his land”,¹⁸⁶ defined as “the immediate reaches of the enveloping atmosphere.”¹⁸⁷ Noting the requirements of N.J.S.A. 6:2—6,¹⁸⁸ the court observed that “[p]rivate convenience must often in our modern environments yield to public convenience, but private comfort, health, and safety are still precious in the eyes of the law.”¹⁸⁹ Under N.J.S.A. 6:1—29, the State Aviation Commission was created with the dual mandate to encourage the development of aeronautics in this State and to guard “the public safety”.¹⁹⁰

The court raised the enduring question of whether the aggrieved property owner should proceed on a theory of trespass, or nuisance, or both. Noting the split of authority in various jurisdictions,¹⁹¹ the court found:

It is sufficient to say that the flight of aircraft across the land of another cannot be said to be trespass without taking into consideration the question of altitude. It has been said that in cases of this nature the law of private nuisance is a law of degree, hence projecting in each case the factual question whether there is an appreciable and substantial injury causing material discomfort and annoyance.¹⁹²

Hereafter, New Jersey courts generally preferred to decide questions of liability on the basis

¹⁸¹ *Id.* at 353.

¹⁸² See *Oeschle*, *supra* note 132.

¹⁸³ *Hyde supra* note 179 at 351.

¹⁸⁴ *Id.* at 349.

¹⁸⁵ *Id.*

¹⁸⁶ *Id.* at 350.

¹⁸⁷ *Id.* (quoting *Causby*, *supra* note 169 at 266).

¹⁸⁸

Flight in aircraft over the lands and waters of this state is lawful, unless at such a low altitude as to interfere with the then existing use to which the land or water, or the space over the land or water, is put by the owner, or unless so conducted as to be imminently dangerous to persons or property lawfully on the land or the water beneath. * * *

¹⁸⁹ *Id.* [citations omitted].

¹⁹⁰ *Id.* at 351.

¹⁹¹ As example, the court cited a Massachusetts case where low flight had been recognized as a technical trespass.

¹⁹² *Id.* at 351-352.

of nuisance, rather than trespass.¹⁹³

City of Newark v. Eastern Airlines
159 F. Supp. 750 (D.N.J. 1958)
“Primary Jurisdiction” of CAB and Limits of Judicial Review;
Proof of Altitude Required to Sustain Action in Trespass

In *City of Newark v. Eastern Airlines*,¹⁹⁴ the Cities of Newark, Elizabeth and Linden, and the Townships of Hillside and Union, and six individuals, sought to enjoin:

first, ‘the airborne operations of (the named) airlines¹⁹⁵ to and from Newark Airport to the extent that the same constitutes a public and/or a private nuisance,’ and second, to enjoin ‘the continued airborne operations of said airlines to and from Newark Airport to the extent that the said constitutes a trespass on the property of the plaintiffs.’¹⁹⁶

Specifically, the plaintiffs wanted the district court to restrain the defendant airlines “from operating any of their airplanes over the congested residential sections of Newark, Elizabeth, Hillside and Union at an altitude of less than Twelve Hundred Feet from the Ground.”¹⁹⁷ The defendants urged that the matter be dismissed since the exclusive jurisdiction to grant the relief sought was in the Civil Aeronautics Board (CAB).¹⁹⁸

The *Civil Aeronautics Act* recognized the right of any citizen of the U.S. of freedom of transit through the nation’s navigable airspace.¹⁹⁹ The term navigable airspace meant “airspace above the minimum safe altitudes of flight prescribed by the Civil Aeronautics Authority”,²⁰⁰ more precisely expressed in the regulations it prescribed. The CAB had promulgated regulations

¹⁹³ See *Morristown I*, *infra* note 351 at 483:

The acceptance of nuisance as the sole theory of relief is more satisfactory for determining liability. Degree of actual interference, rather than a formalistic factor of the relationship of the flight path to a particular zone or column of air space, should be the criterion for relief. The court would then determine whether there was an ‘unreasonable’ degree of interference. Inherent in this determination would be consideration of all relevant interests, including broad national and commercial interests in the particular aviation activities involved.

(citing *Hyde*, *supra* note 179).

¹⁹⁴ 159 F. Supp. 750 (D.N.J. 1958) [hereinafter *City of Newark*].

¹⁹⁵ “There remain as defendants only seven of the twelve air carriers which operate from the Newark Airport, to wit, Eastern Airlines, Inc., American Airlines, Inc., Allegheny Airlines, Inc., National Airlines, Trans World Airlines, Inc., and United Airlines, Inc.” *Id.* at 752.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.* at 753.

¹⁹⁸ See *id.* Under 49 U.S.C.A. § 421 (rep.): “The Board was empowered to supervise and control by rule, regulation and order the entire field of interstate air commerce It was also made the final arbiter of the public interest.” *City of Newark*, *supra* note 194 at 755.

¹⁹⁹ See 49 U.S.C.A. § 403 (rep.). Compare with 49 U.S.C.A. § 40103(a)(2): “A citizen of the United States has a public right of transit through the navigable airspace.”

²⁰⁰ 49 U.S.C.A. § 180 (rep.). Compare with 49 U.S.C.A. § 40102(a)(30), “‘navigable airspace’ means airspace above the minimum altitudes of flight prescribed by regulations under this subpart and subpart III of this part [49 U.S.C.A. §§ 40101 *et seq.* 44101 *et seq.*] including airspace needed to ensure safety in takeoff and landing of aircraft.”

for minimum safe altitudes of flight where “except when necessary for take-off or landing, no person shall operate an aircraft . . . (b) [o]ver the congested areas of cities, towns or settlements, . . . [below] an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet from the aircraft.”²⁰¹

The rule “seems to recognize impliedly”²⁰² that during landing and takeoff, the minimum altitude of 1,000 feet could not be maintained. Thus, the court held that the term “‘navigable airspace’ . . . includes not only the space above the minimum altitude of 1,000 feet prescribed by the regulation but also that space below the fixed altitude and apart from the immediate reaches above the land.”²⁰³

Quoting from the case of *Allegheny Airlines v. Village of Cedarhurst*,²⁰⁴ where a Village ordinance made it a violation to overfly the Village below 1,000 feet, the Second Circuit held that the minimum safe altitude altitudes prescribed in 14 C.F.R., above,

contained no suggestion that ‘navigable air space’ is restricted to air space not less than 1,000 feet above the ground. On the contrary the Congressional purpose is clear to empower the Board to make rules as to safe altitudes of flight at any elevation, since its rules were to have, among other objects, prevention of collisions between aircraft, and between aircraft and land or water vehicles. Obviously the greatest danger of such collisions is when an aircraft takes off or lands. Appellants’ argument that the Board has itself established the minimum safe altitude of flight over a congested area, such as Cedarhurst, at 1,000 feet, completely disregards the express exception of take-off and landing stated in the regulation. The federal regulatory system,

²⁰¹ *City of Newark*, *supra* note 194 at 755 (quoting 14 C.F.R. § 60.17).

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ See 132 F. Supp. 871 (E.D.N.Y. 1955); *aff’d* 238 F.2d 812 (2d Cir. 1956). In *Cedarhurst*, the municipal ordinance made flight below 1,000 feet above the ground a violation of the ordinance. It was intended to discourage flights on approach to Idlewild Airport (now JFK Airport). The *Cedarhurst* case was one of several cases where municipal ordinances were employed to limit low air traffic. The last case was *American Airlines v. Hempstead*, 272 F. Supp. 226 (E.D.N.Y. 1967) [hereinafter *American Airlines*], which held that local zoning ordinances delimiting permissible noise levels for aircraft overflight to protect the public health and safety interfered with interstate air commerce and were invalid; *aff’d* 398 F.2d 369 (2d Cir. 1968), *cert. denied*, 393 U.S. 1017 (1969).

The aircraft and its noise are indivisible; the noise of the aircraft extends outward from it with the same inseparability as its wings and tail assembly; to exclude the aircraft noise from the Town is to exclude the aircraft; to set a ground level decibel limit for the aircraft is directly to exclude it from the lower air that it cannot use without exceeding the decibel limit.

American Airlines, *Id.* at 230.

A major practical concern at the time was the potential for the creation of patchwork airspace regulation below 1,000 feet making compliance nearly impossible. In the era after *Burbank v. Lockheed Air Terminal*, (see *infra* notes 262-271 and accompanying text) this general concern still exists in the context of proprietor imposed airport use restrictions. See E.T. Ellett, “The National Air Transportation System: Design by City Hall?” (1987) 53 J. Air L. & Com. 1 at 27; L.L. Blackman & R.P. Freeman, “The Environmental Consequences of Municipal Airports: A Subject of Federal Mandate?” (1987) 53 J. Air L. & Com. 375 at 376.

if valid, has preempted the field below as well as above 1,000 feet from the ground.²⁰⁵

Therefore, if the district court in *City of Newark* undertook to modify the federal regulations setting minimum safe altitudes, it would violate the uniformity contemplated by the *Civil Aeronautics Act*. “The entire development of the air transportation system would be hampered by a myriad of judicially prescribed regulations of only local application.”²⁰⁶ Under the doctrine of “primary jurisdiction” the authority of the CAB to regulate such matters was exclusive, the courts being left only limited functions of review.²⁰⁷

As mentioned above, the plaintiffs also brought claims for damages and injunctive relief on the theory of trespass.²⁰⁸ The district court held that while the principles in *Causby*²⁰⁹ and *Hyde*²¹⁰ do not foreclose the right of the aggrieved landowner to maintain an action in trespass, the formalistic nature of the evidentiary burden on the plaintiff is great:

There must be evidence not only that the aircraft passed over his lands from time to time but also that there was an unlawful invasion of the immediate reaches of his land; in other words, there must be evidence that the aircraft flights were at such altitudes as to interfere substantially with the landowner's possession and use of the airspace above the surface.²¹¹

The district court dismissed all claims by all parties for damages and injunctive relief on the trespass theory. As if to underscore the evidentiary problems first enunciated in New Jersey in *Hyde*,²¹² the court explained:

We do not mean to suggest that the plaintiff must prove with mathematical exactitude the altitudes at which aircraft ordinarily passed over his property; this might very well be an impossible task. There must be some evidence, however, which will enable

²⁰⁵ *City of Newark*, *supra* note 194 at 756-757.

²⁰⁶ *Id.* at 758.

²⁰⁷ *Id.*

It is now firmly established, that in cases raising issues of fact not within the conventional experience of judges or cases requiring the exercise of administrative discretion, agencies created by Congress for regulating the subject matter should not be passed over. This is so even though the facts after they have been appraised by specialized competence serve as a premise for legal consequences to be judicially defined. Uniformity and consistency in the regulation of business entrusted to a particular agency are secured, and the limited functions of review by the judiciary are more rationally exercised, by preliminary resort for ascertaining and interpreting the circumstances underlying legal issues to agencies that are better equipped than courts by specialization, by insight gained through experience, and by more flexible procedure.

Id. [citations omitted].

²⁰⁸ See *id.* at 759.

²⁰⁹ See *Causby*, *supra* notes 169-178 and accompanying text.

²¹⁰ See *Hyde*, *supra* notes 179-193 and accompanying text.

²¹¹ *Id.* at 760.

²¹² See *Hyde*, *supra* notes 179-193 and accompanying text.

the Court to make a determination that the aircraft flights were at altitudes below the navigable airspace, which is in the public domain, and within the superadjacent airspace immediately above the land. The ultimate determination must be predicated upon a consideration of aircraft altitudes, and therefore some evidence as to altitudes, for example, well-grounded approximations, is necessary. A determination that there has been a continuing trespass may not rest on mere speculation and conjecture.²¹³

Griggs v. Allegheny County
369 U.S. 84 (1962)
Airport Proprietor Liability for Airport Noise

A federal case usually associated with *Causby*²¹⁴ is *Griggs v. Allegheny County*,²¹⁵ where the question was whether Allegheny County had taken an air easement over petitioner's property for which it had to pay just compensation as required by the Fourteenth Amendment.

As mentioned in the discussion of *Causby*, above, Congress had redefined the term "navigable airspace" to "include airspace needed to insure safety in take-off and landing of the aircraft."²¹⁶ Reaffirming the decision in the *Causby* case that "the use of land presupposes the use of some of the airspace above it," the *Griggs* Court—Justice Douglas once again writing the Opinion—turned to the issue of who is the "taker" of the easement, in the constitutional sense: the respondent Allegheny County, which decided where and how the airport would be built, "what land and navigation easements would be needed, then subsequently promoted, owned and leased the airport; the airlines, whose aircraft actually caused the invasion of adjoining landowner's airspace; or the [Civil Aeronautics Authority] whose Administrator approved the plan."²¹⁷

The *Griggs* Court placed liability squarely on the shoulders of the owner-proprietor, Allegheny County. "We see no difference between its responsibility for the air easements necessary for operation of the airport and its responsibility for the land on which the runways were built."²¹⁸ "Respondent in designing [the airport] had to acquire some private property. Our conclusion is that by constitutional standards, it did not acquire enough."²¹⁹

²¹³ *Id.* at 762.

²¹⁴ See *Causby*, *supra* notes 169-178 and accompanying text.

²¹⁵ 369 U.S. 84 (1962) [hereinafter *Griggs*].

²¹⁶ *Id.* at 88.

²¹⁷ *Id.* at 89.

²¹⁸ *Id.*

²¹⁹ See F.V. Harper, F. James, Jr. & O.S. Gray, *The Law of Torts*, 2d ed. (Boston: Little, Brown, 1986, 1996), §§ 1:24–1:25. The authors note that *Causby* and *Griggs* left several questions unanswered. For example, once the 1958 Act was changed to include the landing and takeoff regimes in the term "navigable air space", could such flights still amount to a taking? While *Griggs* affirmed *Causby* and the landowner's interest in nearby airspace, does the theory of *Causby* proceed on the theory of trespass or nuisance?

The opinion in *Causby* may well be construed as reasoning from the fact of trespass to that of taking, and it has been held that there can be no taking without a trespass [footnote omitted]. This would mean that owners of land not under the direct path of take-offs and landings could not establish a taking even though the proximity of the flights

Consequently, the *Griggs* case²²⁰ has generally come to be regarded as the genesis of the “proprietor exception” to the rule of federal preemption of aircraft noise control.²²¹

Patzau v. Dept. of Transportation
271 N.J. Super. 294 (App.Div. 1994); cert. den. 138 N.J. 268 (1994)
Air Safety and Zoning Act of 1983 Not Facially Unconstitutional

*Patzau v. Dept. of Transportation*²²² presented a challenge to the constitutionality of the *Air Safety and Zoning Act of 1983*,²²³ and the *New Jersey Airport Safety Act of 1983*.²²⁴ Individual landowners filed suit against the NJDOT, the New Jersey municipalities of Branchburg, Bedminster, Readington and Alexandria, and the operators of several airports in or adjacent to these municipalities, seeking a declaratory judgment on the two acts and the regulations to implement them.²²⁵ A complex series of motions by the NJDOT resulted in the Supreme Court directing that “the Law Division shall consider the facial challenge to the constitutionality of *N.J.S.A. 6:1—89, et seq.*, prior to discovery regarding and consideration of any other issues raised in litigation.”²²⁶

The plaintiffs moved for summary judgment on the question. Ultimately, the trial court found no constitutional infirmities with the *Acts per se* and dismissed the matter with prejudice, on ripeness grounds, insofar as the *Acts* had not yet been applied to plaintiffs. The plaintiffs appealed the dismissal.

After an examination of the *Acts* and regulations,²²⁷ the court referenced the landmark decision in *Village of Euclid v. Ambler Realty*²²⁸ and reasserted the legitimate exercise of the zoning power. “Although most zoning power in New Jersey is exercised by local governments to

substantially impaired the value of the land because of noise, vibration,
and lights of the planes.

Id.

²²⁰ See generally Hill, *supra* note 178.

²²¹ Blackman & Freeman, *supra* note 204 at note 18; *United States v. State of New York*, 552 F. Supp. 255 (“[T]he rationale for the proprietor exemption to imposing curfews is to enable a proprietor to protect himself from liability for excess aircraft noise.” *Id.* at 264).

²²² 271 N.J. Super. 294 (App.Div. 1994), *cert. denied*, 138 N.J. 268 (1994) [hereinafter *Patzau*].

²²³ See N.J.S.A. 6:1—80—88.

²²⁴ See N.J.S.A. 6:1—89—97.

²²⁵ See N.J.A.C. 16:62—1.1 *et seq.*

²²⁶ *Patzau*, *supra* note 222 at 299.

²²⁷ *Id.* at 299-302.

²²⁸ 272 U.S. 365 (1926):

Until recent years, urban life was comparatively simple; but with the great increase and concentration of population, problems have developed, and constantly are developing, which require, and will continue to require, additional restrictions in respect of the use and occupation of private lands in urban communities. Regulations, the wisdom, necessity and validity of which, as applied to existing conditions, are so apparent that they are now uniformly sustained, a century ago, or even half a century ago, probably would have been rejected as arbitrary and oppressive. Such regulations are sustained, under the complex conditions of our day, for reasons analogous to those which justify traffic regulations, which, before the advent of automobiles and rapid transit street railways, would have been condemned as fatally arbitrary and unreasonable.

which it has been delegated by statute pursuant to Article IV, § 6, ¶ 2 of the New Jersey Constitution, zoning is an exercise of the police power and the legislature may also delegate it to state agencies.”²²⁹ The *Acts* have a rational relationship to a justifiable legislative purpose, namely,

to prevent ‘the creation or establishment of airport hazards’ that ‘endanger[] the lives and property of the users of the airport and of occupants of land in the vicinity thereof, and also, if the hazard is of the obstruction type, . . . tend to destroy or impair the utility of the airport and the public benefit therein.’ Controlling the use of property in the immediate vicinity of airports in order to prevent the creation of new obstructions to aircraft certainly is not arbitrary or unreasonable on its face.²³⁰

The plaintiffs relied on *Yara Engineering Corp.*,²³¹ discussed above, to support a contrary contention, but the court distinguished that case on the basis that *Yara Engineering Corp.* was not an examination of the facial invalidity of the ordinance; rather, “the court found that its effect was to deprive the property within the [airport approach and turning] zones of all value.”²³² Therefore, the case was of no guidance to the question of facial validity.

While the *Patzau* court conceded that property zoned into complete inutility without compensation would be unconstitutional, “the State may constitutionally impose very substantial zoning and other restrictions on the use of property in order to advance legitimate public interests without being obligated to provide compensation.”²³³

“There is nothing in the provisions of the Air Safety and Hazardous Zoning Act which makes its enactment tantamount to a taking,”²³⁴ as there is a distinction between the mere enactment of a statute versus its particular impact on a specific piece of property.²³⁵ The test is whether a statute regulating the uses that can be made of property effects a taking if it denies an owner economically viable use of his land.²³⁶

Examination of the statute reveals no such result: (1) the *Act*, at N.J.S.A. 6:1—84 requires the Commissioner to “specify permitted and prohibited land uses . . . within airport safety zones.” However, under the statute, and specifically under N.J.S.A. 6:1—85, the Commissioner may not “require the removal, lowering or other change or alteration of any structure or tree not conforming to the standard when adopted or amended, or otherwise interfere with the continuance of a nonconforming use except” by condemnation;²³⁷ (2) the eight acre clear zones at each end of an airport runway are the only areas where no new trees or structures will be permitted; and (3) N.J.S.A. 6:1—88 assures by its express terms that “to remove, lower, or otherwise terminate a nonconforming use,” or to provide other “necessary protection from an

²²⁹ *Patzau*, *supra* note 222 at 303.

²³⁰ *Id.* at 304, quoting N.J.S.A. 6:1—80 (Legislative findings and declarations).

²³¹ See *Yara Engineering Corp.*, *supra* notes 163-178 and accompanying text.

²³² *Patzau*, *supra* note 222 at 304.

²³³ *Id.* at 305 [citations omitted].

²³⁴ *Id.*

²³⁵ See *id.* (quoting from *Keystone Bituminous Coal Ass’n. v. DeBenedictis*, 480 U.S. 470 at 494 (1987) (requiring mining companies to protect surface areas against subsidence)).

²³⁶ See *id.* (quoting *Hodel v. Virginia Surface Mining & Reclamation Ass’n, Inc.*, 452 US 264 at 295-296 (1981) which quotes *Agins v. Tiburon*, 447 U.S. 225 at 260 (1980)).

²³⁷ *Id.* at 306.

airport hazard”, which cannot constitutionally be provided by zoning regulations, the Commissioner of Transportation may acquire property by purchase or condemnation.²³⁸ The *Air Safety and Hazardous Zoning Act of 1983* therefore withstands the challenge to its facial constitutionality.

Turning to constitutionality of the *Air Safety and Hazardous Zoning Act of 1983* as applied, the Appellate Division dismissed the allegation for the plaintiffs’ complete failure “to allege the material facts with the specificity that would be required in order for us to consider an attack on the constitutionality of the [Act] as applied.”²³⁹ The court, in *dicta*, suggested that even if the plaintiffs had marshalled such evidence²⁴⁰ in the first place, the failure to exhaust the available administrative remedies would not give them standing to claim a “taking.”²⁴¹

The Appellate Division then considered the constitutionality of the *New Jersey Airport Safety Act of 1983*, where the statute: creates a fund for the maintenance and upkeep of public-use airports in New Jersey by imposing a two cent per gallon tax on fuel distributed to general aviation airports; creates an airport safety fund; authorizes the Commissioner of Transportation to provide assistance to general aviation airports for specified purposes; and specifies the qualifications for eligibility to receive assistance from the airport safety fund. It also authorizes the Commissioner to

acquire airports or lands or rights therein, including aviation easements necessary for clear zones or clear areas, by gift, devise or purchase, when it is deemed to be necessary for the safe operation of the airport and the general public safety or necessary for the continued operations of an airport which is deemed to be necessary for a safe and efficient air transportation system in the State.²⁴²

However, the plaintiffs argued that the statute permits condemnation and authorizes donations for the benefit of private interests, both of which are forbidden by the State Constitution.²⁴³ The court quoted *Roe v. Kervick*²⁴⁴ to explain the origin and purpose of the donation clause of the Constitution:

²³⁸ *Id.*

²³⁹ *Id.* at 308.

²⁴⁰ “[P]lot plans which show where each of plaintiffs’ properties is located in relation to the airport hazard,” runway, runway end and clear zones “plotted in accordance with the Commissioner’s regulations”; photographs, testimony or affidavits as to what the present uses of their respective properties are; and “affidavits of competent experts,” all going to demonstrate how the Act and the regulations promulgated thereunder would affect their properties. *Id.*

²⁴¹ *Id.* at 308. Specifically, the Department of Transportation argued that none of the plaintiffs could suffer a taking until they first applied to the Commissioner of Transportation for a permit and then had their application denied.

²⁴² *Id.* at 309 (quoting N.J.S.A. 6:1—95).

²⁴³ The relevant State Constitutional provisions are:

“No donation of land or appropriation of money shall be made by the State or any county or municipal corporation to or for the use of any society, association or corporation whatever.”

[N.J. Const., art. 8, § 3, ¶ 3.]

“Private property shall not be taken for public use without just compensation. Individuals or private corporations shall not be authorized to take private property for public use without just compensation first made to the owners.”

[N.J. Const., art. 1, ¶ 20.]

²⁴⁴ See 42 N.J. 191 (1964).

Historically, the forces which motivated the constitutional prohibitions recited above, in this and most states of the Union, are clear. During the nineteenth century states and their political subdivisions frequently undertook to encourage the development of railroads by furnishing financial aid. Such assistance was in the form of direct loans or gifts of public money or property, or by bond issues, or subscription to stock of the companies. Many abuses followed in the wake of such practices to the serious detriment of the taxpayer....

....
The strictures of Article VIII, which were adopted in 1875, were simply the retreat to a fundamental doctrine of government, *i.e.*, that public money should be raised and used only for public purposes. The article brought the doctrine into the organic law and thus established as basic policy a prohibition against lending the credit of the State directly or indirectly, or loaning, giving or donating its money or property or that of its subdivisions to or for the use of an individual, association or corporation for private purposes.²⁴⁵

The test to determine whether the expenditure of public funds is a prohibited donation is: (1) whether the legislative provision of financial aid is for a public purpose; and (2) whether the means are consonant with that purpose. The Court, in that case, held that loans of public funds to private entities to finance private for-profit redevelopment projects in order to alleviate unemployment is constitutional.²⁴⁶ The court also cited another case, *Davidson Bros. v. D. Katz & Sons*,²⁴⁷ where the State Supreme Court applied the test in *Roe v. Kervick*, and “although the record was not sufficiently clear to decide the issue, what was in effect the donation of public funds to a private supermarket to attract it to an inner city area might be able to pass muster.”²⁴⁸

The Appellate Division criticized the language in N.J.S.A. 6:1—93, which “confers broad authority on the Commissioner of Transportation to provide assistance to publicly and privately owned, unrestricted, public use airports. The language conferring that authority is so general that, if it were understood literally, it might be read to permit unconstitutional donations, and we decline to interpret it to authorize such an action.”²⁴⁹

Finally, the court held that “[t]he eminent domain clause of our Constitution contemplates that the Legislature may authorize both public and private entities to acquire property by condemnation, provided the acquisition is for a public purpose.”²⁵⁰ The court found

²⁴⁵ *Id.* at 206-207.

²⁴⁶ See *Patzau*, *supra* note 222 at 310. “On the other hand, the Court has held that the lease of public property to a veterans’ association for one dollar a year was a constitutionally prohibited gift. *Borough of Rockaway v. Rockden American Legion Post No. 175*, 39 N.J. 504, 506 . . . (1963).” *Id.*

²⁴⁷ See 121 N.J. 196 (1990).

²⁴⁸ *Patzau*, *supra* note 222 at 310.

²⁴⁹ *Id.* (citing *Riggs v. Township of Long Beach*, *supra* note 101 at 610-611; *In re Board of Educ. of Boonton*, 99 N.J. 523 at 539 (1985), *cert. denied*, 475 U.S. 1072 (1986)).

²⁵⁰ See *id.* (citing *New Jersey Housing & Mortgage Fin. Agency v. Moses*, 215 N.J. Super. 318 at 326 (App.Div. 1987), *cert. denied*, 107 N.J. 638 (1987) (“condemnation of land for a privately owned shopping center did not violate eminent domain clause where condemnation would serve public purpose of providing supplies and services for residents of publicly financed housing projects in the area.” *Id.* at 310-311.)).

that the plaintiffs did not allege any specific facts demonstrating the exercise of eminent domain under the *New Jersey Airport Safety Act of 1983* that was for non-public purposes.²⁵¹

C. DIRECT ATTEMPTS BY NON-PROPRIETOR MUNICIPALITIES TO REGULATE AIRPORT NOISE

The following cases examine instances where non-proprietor host municipalities sought unsuccessfully to regulate airport noise directly by exercising their police power. In *Parachutes, Inc. v. Lakewood*, a municipal ordinance limiting noise levels in a way that would preclude a sport parachute operation survived a challenge that such an ordinance was federally preempted, only to be overturned by a second case, *Burbank v. Lockheed Air Terminal*, where the U.S. Supreme Court declared invalid a municipal ordinance setting a curfew on jet operations on the basis of federal occupation of the field preemption. Finally, in *Township of Hanover v. Morristown (Morristown II)*, a court sanctioned settlement between two municipalities was disturbed by the ruling in *Burbank*.

These cases demonstrate that municipal zoning can be controlled through a precise and vigorous application of federal preemption.

***Parachutes, Inc. v. Township of Lakewood* 121 N.J. Super. 48 (App.Div. 1972), cert. den. 62 N.J. 331 (1973) Pre-Burbank Municipal Noise Control Ordinance**

Parachutes, Inc. v. Township of Lakewood,²⁵² a New Jersey case that would later fall to the Supreme Court decision in *City of Burbank v. Lockheed Air Terminal, Inc.*,²⁵³ is discussed immediately below. Lakewood passed a general noise control ordinance forbidding sound over 50 dB during night hours and 60 dB during the day. However, enforcement of the ordinance appears to have been aimed at the plaintiff's sport parachute operation.

The plaintiff, which owned and operated a sport parachuting center and flying school at Lakewood Airport, claimed that the ordinance would force it out of the sport parachuting business.²⁵⁴ The plaintiff's parachute operation was described as follows:

[P]laintiff's plane bearing parachutists takes off from the field and then circles over a fixed zone. At the appropriate time the engine is stopped and a parachutist jumps. The engine is then started again, the plane continues to circle, the engine is stopped again and another parachutist jumps. This is continued until all parachutists aboard have jumped—usually eight or nine. Then the plane descends and another plane goes aloft and duplicates the operation. On weekends, when the weather is good, this often continues from morning until dark. It is the noise of the repeated starting of the engines in flight that runs afoul of the ordinance—take off, landing and ordinary sustained flight is not affected by the ordinance.

²⁵¹ See *id.* at 311.

²⁵² 121 N.J. Super. 48 (App.Div. 1972), cert. denied, 62 N.J. 331 (1973) [hereinafter *Parachutes, Inc.*].

²⁵³ See *Burbank*, *infra* notes 262-271 and accompanying text.

²⁵⁴ See *Parachutes, Inc.*, *supra* note 252 at 48.

The ordinance forbids sound over 50 decibels during the night hours and 60 decibels during the day. Plaintiff claims that it cannot continue its stop-and-start operations in the air within those limits (at least, with its present equipment) and therefore the ordinance will force it out of business.²⁵⁵

The plaintiff alleged that the application of the ordinance was discriminatory and an abuse of the municipality's police power so far as the scope and degree of regulation exceeded the need for it.²⁵⁶ Probably relying on the Ninth Circuit ruling in *Burbank*,²⁵⁷ the plaintiff also argued that the federal government had preempted the entire field of regulation of flights of all kinds, and of all uses of aircraft in navigable airspace, whatever the purpose of the flight.²⁵⁸

In affirming the trial court's judgment against the plaintiff, the Appellate Division wrote, "We are not convinced that there is such preemption" under conflict, preemption, or interstate commerce theories. The Appellate Division cited *Morristown I*²⁵⁹ as its sole authority.

²⁵⁵ *Id.* at 49-50.

²⁵⁶ See *id.* at 50.

²⁵⁷ See *Lockheed Air Terminal v. City of Burbank*, 457 F.2d 667 (9th Cir. 1972) (affirmed on the basis of the Supremacy Clause with respect to both federal preemption and conflict); *aff'd* 411 U.S. 624 (1973) (affirming the Court of Appeals on preemption grounds only). See also *Burbank*, *infra* notes 262-271 and accompanying text.

²⁵⁸ See *Parachutes, Inc.*, *supra* note 252 at 50.

²⁵⁹ See *Morristown I*, *infra* note 351 at 477-480. In this pre-*Burbank* case, discussed above as to other issues, defendants relied on *Allegheny Airlines v. Village of Cedarhurst*, 132 F. Supp. 871 (E.D.N.Y. 1955), *aff'd* 238 F.2d 812 (2d Cir. 1956); *City of Newark v. Eastern Airlines, Inc.*, 159 F. Supp. 750 (D.C.N.J. 1958); *American Airlines v. Town of Hempstead*, 272 F. Supp. 226 (E.D.N.Y. 1967), *aff'd* 398 F.2d 369 (2d Cir. 1968), *cert. denied* 393 U.S. 1017 (1969), to assert complete preemption and supremacy to the exclusion of any power of the state. The trial court correctly distinguished these cases as involving areas over which the FAA had exclusive domain, namely, altitudes, flight patterns, takeoffs and landings. However, wrote the court, "where there is no conflict, and certainly where there is state action consistent with the avowed second purpose of the F.A.A., suppression of noise, a state court may act."

In terms of interstate commerce, the trial court held "The burden on interstate commerce is patently excessive only if the pattern of local regulation presents so acute a conflict that aircraft cannot possibly comply with all standards and continue interstate flight. *Bibb v. Navajo Freight Lines, Inc.*, 359 U.S. 520, 79 S. Ct. 962, 3 L. Ed. 2d 1003 (1959)." The court relied on *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440 (1960), where the Supreme Court sustained the application of a municipal smoke control ordinance to a vessel operating in interstate commerce powered by federally inspected and licensed boilers.

The court stated that local power to regulate such matters is pre-empted only when an 'act of Congress, fairly interpreted is in actual conflict with the law of the state' (at 443). Noting that the purpose of the Federal licensing system was to insure safety, while that of the ordinance was to protect the health and welfare of the community against excessive smoke, the court found no actual conflict.

Id. at 476.

The *Morristown I* court thus applied this reasoning to the case and found no conflict. "If it is possible for aircraft to be made sufficiently quiet to meet the local noise standards without jeopardizing the network of Federal Air Safety Regulations, a municipal noise level ordinance would probably create no conflict within the meaning of *Huron*." *Id.* at 479. Moreover, "*Huron* also rejected an argument that pre-emption flowed from the fact that the ship was federally licensed, the fact that planes are licensed and operating with a zone defined by Congress as 'navigable airspace' should not immunize them from regulations evincing a valid local interest in maintaining community peace or protecting property rights." *Id.*

However, it included a “but see” reference to the *Burbank* case in the Ninth Circuit.²⁶⁰

Finally, the court dismissed the plaintiff’s allegation of discriminatory enforcement, writing without reference to any authority: “The ordinance does proscribe other noises—it is not essential that it reach all sudden, transient noises, such as those of passing trucks, the sources of which are too difficult to identify, measure or punish.”²⁶¹

City of Burbank v. Lockheed Air Terminal, Inc.
411 U.S. 624 (1973)
Federal Preemption of Aircraft Noise

In 1973, the U.S. Supreme Court, in *City of Burbank v. Lockheed Air Terminal, Inc.*,²⁶² struck down a municipal ordinance that imposed a curfew on the arrival and departure of jet aircraft at the Hollywood-Burbank Airport between 11 p.m. and 7 a.m.²⁶³ It declared “[The Noise Control Act of 1972] reaffirms and reinforces the conclusion that FAA, now in conjunction with EPA, has full control over aircraft noise, pre-empting state and local control.”

Justice Douglas, who had authored the Court’s opinions in *Causby*²⁶⁴ and *Griggs*,²⁶⁵ wrote for the 5-4 majority in *Burbank*. The Court held: “It is the pervasive nature of the scheme of federal regulation of aircraft noise that leads us to conclude that there is pre-emption.” However, in the much debated “footnote 14”²⁶⁶ of the opinion, the Court created an exception,

²⁶⁰ See *Blue Sky Entertainment v. Town of Gardiner*, 711 F. Supp. 678 at 691, note 15 (N.D.N.Y. 1989) (Portions of local zoning ordinance aimed at curbing parachuting operations preempted by federal law).

²⁶¹ *Parachutes, Inc.*, *supra* note 252 at 51.

²⁶² 411 U.S. 624 (1973) [hereinafter *Burbank*].

²⁶³ See *id.* at 625-626.

²⁶⁴ See *Causby*, *supra* notes 169-178 and accompanying text.

²⁶⁵ See *Griggs*, *supra* notes 214-221 and accompanying text.

²⁶⁶ “Footnote 14”:

The letter from the Secretary of Transportation also expressed the view that ‘the proposed legislation will not affect the rights of a State or local public agency, as the proprietor of an airport, from issuing regulations or establishing requirements as to the permissible level of noise which can be created by aircraft using the airport. Airport owners acting as proprietors can presently deny the use of their airports to aircraft on the basis of noise considerations so long as such an exclusion is nondiscriminatory.’ (Emphasis added.) This portion as well was quoted with approval in the Senate Report. *Id.*

Appellants and the Solicitor General submit that this indicates that a municipality with jurisdiction over an airport has the power to impose a curfew on the airport, notwithstanding federal responsibility in the area. But, we are not concerned here with an ordinance imposed by the City of Burbank as ‘proprietor’ of the airport, but with the exercise of police power. While the Hollywood-Burbank Airport may be the only major airport which is privately owned, many airports are owned by one municipality yet physically located in another. For example, the principal airport serving Cincinnati is located in Kentucky. Thus, authority that a municipality may have as a landlord is not necessarily congruent with its police power. We do not consider here what limits, if any, apply to a municipality as a proprietor.

Burbank, *supra* note 262 at 635-636.

permitting airport proprietors the limited, but exclusive authority to regulate noise at their airports, so long as such regulation would be nondiscriminatory in nature.²⁶⁷ This exception was subsequently codified and can now be found in 49 U.S.C.A. § 41713(b)(3).²⁶⁸ This exception served to harmonize *Burbank* with the airport proprietor's liability (and aggrieved landowner's remedy) under *Griggs*.

However, far from settling the question of field preemption once and for all, as the case purported to do, it complicated the issue, bifurcating cases between what happens in the air and what happens on the ground.²⁶⁹ *Burbank* remains the subject of judicial and academic²⁷⁰ debate.

²⁶⁷ *National Helicopter Corp. v. City of New York*, 952 F. Supp. 1011 at 1023-1024 (S.D.N.Y. 1997):

After *Burbank*, Congress codified this view with a provision in the FAA providing that municipalities retain their 'proprietary powers and rights.' See 49 U.S.C. § 41713. Though neither Congress nor the Supreme Court has delineated the precise nature of the 'powers and rights' reserved to proprietors, '[t]he rationale for this exception is clear. Because airport proprietors bear monetary liability for excessive aircraft noise under *Griggs v. Allegheny County*, 369 U.S. 84, 82 S. Ct. 531, 7 L.Ed.2d 585 (1962), fairness dictates that they must also have power to insulate themselves from that liability.' San Diego Unified Port District, 651 F.2d at 1316-17.

²⁶⁸ 49 U.S.C.A. § 41713(b)(3): "This subsection does not limit a State, political subdivision of a State, or political authority of at least 2 States that owns and operates an airport served by an air carrier holding a certificate issued by the Secretary of Transportation from carrying out its proprietary powers and rights."

²⁶⁹ P.B. Stein, "The Price of Success: Mitigation and Litigation in Airport Growth" (1991) 57 J. Air. L. & Com. 513 at 521-524:

The United States Supreme Court addressed the issue of federal preemption in the context of airport noise regulation in *City of Burbank v. Lockheed Air Terminal, Inc.* At issue was a Burbank city ordinance placing curfews on jet flights from the Hollywood-Burbank Airport between the hours of 11 p.m. and 7 a.m. The court noted that the FAA occasionally enforced curfews, but that such measures were generally opposed by the FAA unless the agency itself managed the curfews in its role as supervisor of navigable airspace. The court also acknowledged the lack of any express preemption in the 1972 Noise Control Act. This lack of express preemption was not considered decisive, however, for preemption can also occur if federal legislation is so pervasive that Congress leaves no room for state regulation, or if federal interests are so dominant that state regulation should be precluded.

Relying on these two justifications for implied federal preemption, the majority in *Burbank* held for the FAA. The Court declared that "fractionalized" control of the timing of flights by a variety of municipalities would severely limit the FAA's ability to control air traffic, and that the powers given by Congress to federal agencies should not be diffused by allowing states or municipalities to participate in the planning. But rather than definitively ending the preemption debate, parts of the Burbank decision added fuel to the controversy. * * *

In footnote fourteen of the Burbank decision, the Court discussed a letter that the Secretary of Transportation submitted to Congress during the debate on the 1972 Noise Control Act. The letter expressed the Secretary's view that the proposed Act would not affect the right of

state or local public agencies to issue regulations governing aircraft noise provided this was carried out in the agency's role as proprietor of an airport. Airport owners acting as proprietors could even deny access to their facilities on the basis of aircraft noise as long as this was not implemented in a discriminatory manner. The Supreme Court, therefore, emphasized that its holding in Burbank was limited to the instance of a city acting within its police power authority, and that it was not considering what limits, if any, might apply to a municipal owner of an airport acting as the facility's proprietor.

The extent of this proprietor exemption has been the subject of several court cases, often with conflicting results. Some recent cases hold that proprietors still may not directly regulate frequency of take-offs, nor establish curfews, as such operational decisions are preempted by federal occupation of the field.

Yet other courts reject total federal preemption. The municipal operator of a California airport was allowed to establish a curfew on particularly loud aircraft in *National Aviation v. City of Hayward*. In another California case, the court made a distinction between two noise standards. Although the Single Event Noise Exposure Level (SENEL) was preempted because it measured in-flight aircraft noise, a more general Community Noise Equivalent Level (CNEL) was permissible because it did not interfere in an area regulated by the FAA. In other states, county zoning restrictions limiting the use of a public airfield have been upheld, as have proprietor-established restrictions forbidding the use of noisier stage I aircraft. [citations omitted].

Blackman & Freeman, *supra* note 204 at 380-381:

The exception to preemption which allows airport proprietors to adopt noise control regulations derives, at least in part, from earlier Supreme Court cases determining that the airport, rather than the operators of noisy aircraft, should be responsible for paying compensation in the event aircraft noise becomes substantial enough to constitute a taking of property under the fifth and fourteenth amendments. Refusing to address a subject not directly raised in this case, however, the Burbank Court did not consider 'what limits, if any, apply to a municipality as a proprietor.'

The Burbank decision thus left open a number of important questions concerning proprietor power, including: (1) whether the municipal airport owner may exercise the police powers denied to governments which are not proprietors or is limited to the use of the rights which derive solely from its status as the owner of the property on which the airport is located; and (2) whether the fact that the proprietor may regulate noise only because of its status as the owner of the airport affects the presumption of validity to which its ordinances are otherwise entitled and thus the level of judicial deference to be accorded its noise regulations. The answers to these questions will ultimately determine whether, absent further action in Congress, federal or local decisionmakers will hold the controlling authority to dictate the extent to which interstate commerce may be burdened in the interests of local environmental quality. (Footnotes omitted).

J.S. Hamilton, "Allocation of Airspace as a Scarce National Resource" (1994) 22 Transp. L. J. 251 at 283,

Virtually any case dealing with local regulation of airports since 1973 proves this point. Since its publication, dozens of reported federal cases have been turned on its application.²⁷¹ A complete discussion of *Burbank* and its progeny is well beyond the scope of this case review. Rather, the following case illustrates the application of *Burbank* by the New Jersey courts.

note 176:

Footnote 14 to *Burbank*, has been problematic. At the time that decision was announced, the airport was the only privately-owned airport in the United States serving scheduled passenger-carrying airlines. This fact, along with the Court's insertion of footnote 14, appeared to yield a result which applied only to that one airport. Indeed, the decision did not apply to that airport for long as the owner (Lockheed) soon sold the airport to a public entity: the Burbank-Glendale-Pasadena Airport Authority. This left no airports serving regularly scheduled passenger carrying airlines fitting within the footnote 14 exception. Some, including this author, thought that it would have been more appropriate for the Supreme Court to have dismissed certiorari as improvidently granted, once the court found it necessary to insert footnote 14, under these facts. The decision has, however, proved to delimit the boundaries of federal, state and local authority.

²⁷⁰ Though hardly exhaustive, the following list contains some of the more prominent articles on the subject: Note, "Aircraft Noise Abatement: Is There Room for Local Regulation?" (1975) 60 Cornell L. Rev. 269; Note, "Shifting Aircraft Noise Liability to the Federal Government" (1975) 61 Va. L. Rev. 1299; Note, "A Framework for Preemption Analysis" (1978) 88 Yale L.J. 363; Note, "Airport Noise: How State and Local Governments Can Protect Airports from Urban Encroachment" (1986) Ariz. St. L.J. 309 (1986); Marchese, *supra* note 38 at 645; Blackman & Freeman, *supra* note 204; Ellett, *supra* note 204; Stein, *supra* note 282; W. Pennington, "Airport Restrictions: A Dilemma of Federal Preemption and Proprietary Control" (1991) 56 J. Air L. & Com. 805; T.J. Cole, "Zoning Control of Airport Expansion by Host Cities and the Battle Over Dallas/Fort Worth International Airport" (1993) 59 J. Air L. & Com. 193; Note, "Federal and State Coordination: Aviation Noise Policy and Regulation" (1994) 46 Admin. L. Rev. 413; S.H. Magee, "Protecting Land Around Airports: Avoiding Regulatory Taking Claims by Comprehensive Planning and Zoning" (1996) 62 J. Air L. & Com. 243; A.T. Field & F.K. Davis, "Can the Legal Eagles Use the Ageless Preemption Doctrine to Keep American Aviators Soaring Above the Clouds and Into the Twenty-First Century?" (1996) 62 J. Air L. & Com. 315.

²⁷¹ Justice Rhenquist's dissent in *Burbank* should be studied in full, as it will later emerge in dicta to bolster a federal court of appeals' reasoning in reversing, on the issue of preemption, *Gustafson v. City of Lake Angelus*, 76 F.3d 778 at 786, note 6, & 787 (6th Cir. 1996) (reversing the district court in *Gustafson* on preemption.). Of specific interest are the two following passages: "[W]hile Congress clearly intended to pre-empt the States from regulating aircraft in flight, the author of the bill, Senator Monroney, specifically stated that FAA would not have control 'over the ground space' of airports." [citation omitted]. *Burbank*, *supra* note 262 at 644 (Rhenquist, J., dissenting).

* * *

A local governing body that owns and operates an airport is certainly not, by the Court's opinion, prohibited from permanently closing down its facilities. A local governing body could likewise use its traditional police power to prevent the establishment of a new airport or the expansion of an existing one within its territorial jurisdiction by declining to grant the necessary zoning for such a facility. Even though the local government's decision in each case were motivated entirely because of the noise associated with airports, I do not read the Court's opinion as indicating that such action would be prohibited by the Supremacy Clause merely because the Federal Government has undertaken responsibility for some aspects of aircraft noise control.

Id. at 653 (Rhenquist, J., dissenting).

Township of Hanover v. Morristown
(Morristown II)
135 N.J. Super. 529 (App.Div. 1975)
Burbank Applied to Morristown Airport

In *Morristown I*²⁷² (discussed below in another context), the Superior Court, Chancery Division, fashioned an “experimental” remedy to permit all of the improvements contemplated under the General Airport and Layout Plans, in return for, among other things: (1) certain noise control restrictions, including a preferential runway requirement; and (2) a limitation on the hours jet aircraft could takeoff and land. The court retained jurisdiction to permit the parties to apply for modification or relief from any of the provisions of this experimental remedy, should circumstances change.²⁷³

Approximately two and a half years after entry of the final judgment, Morristown applied to have those two provisions²⁷⁴ vacated in the final judgment on the basis of *Burbank*. The Chancery Division agreed and Hanover appealed.

In *Morristown II*,²⁷⁵ the Appellate Division affirmed the judgment of the Chancery Division. Quoting extensively from *Burbank*,²⁷⁶ the court held that the control and regulation of

²⁷² See *Morristown I*, *infra* note 351.

²⁷³ See *id.* at 491.

²⁷⁴ From the final form of judgment, the two provisions in question were:

C. Having determined from the evidence that the wind rose patterns at the Morristown Airport indicate that the prevailing winds favor the utilization of Runway 5—23 approximately ninety percent of the time, it is directed that after the completion of the extension of said runway, that the preferential runway at Morristown shall be 5—23. This runway shall be utilized as the preferential one by all jet aircraft landing and taking off at Morristown, except as follows:

(1) When the cross wind component on 5—23 is found to be in excess of twenty (20) knots;

(2) When an emergency landing or take-off situation exists;

(3) When the use of Runway 12—30 shall be requested and or directed by the Airport Tower personnel in the interests of flight safety. Furthermore, such preferential runway program when initiated shall be under the direction and guidance of F.A.A. control tower personnel and enforced by the management of Morristown Airport.

* * * *

I. Oral argument having been heard from counsel and a proffer of proof having been made by counsel for defendants on the subject of restricting jet aircraft at Morristown Airport during certain hours and good cause being shown therefore, the Court directs that jet aircraft will be prohibited from take-offs or landings each day between the hours of 9:00 P.M. until 7:00 A.M. and on Sundays, except during the hours of 1:00 P.M. until 3:00 P.M., unless an emergency exists, or the interests of flight safety require the utilization of the airport under the guidance and direction of the F.A.A. tower personnel.

Morristown II, *infra* note 275 at 531.

²⁷⁵ 135 N.J. Super. 529 (App.Div. 1975) [hereinafter *Morristown II*].

²⁷⁶ The Court of Appeals quoted *Burbank* at length:

Our prior cases on pre-emption are not precise guidelines in the present controversy, for each case turns on the peculiarities and special features of the federal regulatory scheme in question. Cf. *Hines v. Davidowitz*,

312 U.S. 52, 61 S. Ct. 399, 85 L.Ed. 581; *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440, 80 S. Ct. 813, 4 L.Ed.2d 852 (78 ALR2d 1294). Control of noise is of course deep seated in the police power of the States. Yet the pervasive control vested in EPA and in FAA under the 1972 Act seems to us to leave no room for local curfews or other local controls. What the ultimate remedy may be for aircraft noise which plagues many communities and tens of thousands of people is not known. The procedures under the 1972 Act are under way. In addition, the Administrator has imposed a variety of regulations relating to takeoff and landing procedures and runway preferences.

The Federal Aviation Act requires a delicate balance between safety and efficiency, 49 U.S.C. s 1348(a) (49 U.S.C.S. § 1348(a)), and the protection of persons on the ground. 49 U.S.C. § 1348(c) (49 U.S.C.S. § 1348(c)). Any regulations adopted by the Administrator to control noise pollution must be consistent with the 'highest degree of safety.' 49 U.S.C. § 1431(d)(3) (49 U.S.C.S. § 1431(d)(3)). The interdependence of these factors requires a uniform and exclusive system of federal regulation if the congressional objectives underlying the Federal Aviation Act are to be fulfilled.

If we were to uphold the Burbank ordinance and a significant number of municipalities followed suit, it is obvious that fractionalized control of the timing of takeoffs and landings would severely limit the flexibility of the FAA in controlling air traffic flow. The difficulties of scheduling flights to avoid congestion and the concomitant decrease in safety would be compounded. In 1960 the FAA rejected a proposed restriction on jet operations at the Los Angeles airport between 10 p.m. and 7 a.m. because such restrictions could 'create critically serious problems to all air transportation patterns.' 25 Fed.Reg. 1764—1765.

The complete FAA statement said:

'The proposed restriction on the use of the airport by jet aircraft between the hours of 10 p.m. and 7 a.m. under certain surface wind conditions has also been reevaluated and this provision has been omitted from the rule. The practice of prohibiting the use of various airports during certain specific hours could create critically serious problems to all air transportation patterns. The network of airports throughout the United States and the constant availability of these airports are essential to the maintenance of a sound air transportation system. The continuing growth of public acceptance of aviation as a major force in passenger transportation and the increasingly significant role of commercial aviation in the nation's economy are accomplishments which cannot be inhibited if the best interest of the public is to be served. It was concluded therefore that the extent of relief from the noise problem which this provision might have achieved would not have compensated the degree of restriction it would have imposed on domestic and foreign Air Commerce.'

This decision, announced in 1960, remains peculiarly within the competence of the FAA, supplemented now by the input of the EPA. We are not at liberty to diffuse the powers given by Congress to FAA and EPA by letting the States or municipalities in on the planning. If

aircraft noise had been preempted by the federal government and that the Chancery Division had infringed on the federal power when it imposed two provisions in question in its 1970 judgment.²⁷⁷

The court also found no merit to the plaintiffs' claim that vacating those restrictions left them without a remedy "for the alleged wrong resulting from the intolerable noise produced by the increased use of the airport without due process."²⁷⁸

Although the Federal Government has preempted the field of aircraft noise, neither plaintiff municipalities nor the individual plaintiffs are without remedies. Both can take appropriate action before the Environmental Protection Agency and the Administrator of the Federal Aeronautical Act, and the individual plaintiffs, as landowners, may in a proper case have actions at law against the Morristown Airport Commission as the operator of the airport, on the theory of inverse condemnation [under *Griggs v. Allegheny County* and *Village of Bensenville v. City of Chicago*²⁷⁹].²⁸⁰

D. "LAWFUL ACCESSORY USE"

Is a private airstrip or heliport a lawful accessory use to property, not unlike a swimming pool? In *Schantz v. Rachlin*, an individual who obtained a license and built a private airstrip for his single-engine aircraft on his farmland survived a challenge to enjoin that "accessory" use. In *State v. P.T.&L. Construction Company*, a construction company which "constructed" a private heliport on the property of its corporate headquarters survived a similar challenge and provided a two-pronged test for whether a use is "customarily incident to a permitted use."

The concept of a lawful accessory use has become an important constraint on municipal zoning powers inasmuch as it helps to circumscribe the contours of the "island of immunity" from zoning granted to airports, discussed in the next section.

Schantz v. Rachlin

**101 N.J. Super. 334 (Ch.Div. 1968); *aff'd* 104 N.J. Super. 154 (App.Div. 1969)
Private Landing Strip; Lawful Accessory Use; "Customary and Incidental"**

In *Schantz v. Rachlin*,²⁸¹ the defendant brought a motion for summary judgment against the plaintiffs, who sought to restrain the defendant from using a landing strip on his lands and to compel him to demolish it.²⁸²

that change is to be made, Congress alone must do it. (*Id.*, 411 U.S. at 638-640, 93 S.Ct. at 1862, 36 L.Ed.2d 556-557.)

Id. at 533-534.

²⁷⁷ See *id.* at 535.

²⁷⁸ *Id.*

²⁷⁹ See 16 Ill. App. 3d 733, 306 N.E.2d 562 (1973) (Suit by municipalities to enjoin the city of Chicago from expanding its airport facilities at O'Hare Airport in such a manner as to intensify the existing noise and air pollution caused by and arising out of its operation of airport. Held that the federal government has preempted the regulation of aircraft noise and air pollution, and thus, municipalities could not maintain the suit.).

²⁸⁰ See *Morristown II*, *supra* note 275 at 535-536.

²⁸¹ 101 N.J. Super. 334 (Ch.Div. 1968), *aff'd* 104 N.J. Super. 154 (App.Div. 1969) [hereinafter *Schantz*].

²⁸² See *id.*

The “main thrust” of the plaintiffs’ complaint was that the landing strip violated the zoning ordinance of Holmdel Township.²⁸³

The defendant, an FAA-licensed private pilot, built a 2,200 foot turf runway on his 135 acre farm (Hop Brook Farm) in Holmdel Township. The runway ran roughly east-west and was located 700 and 750 feet from the north and south property lines. It did not change the appearance of the property as a farm and was not lighted since it was intended solely for daytime use pursuant to visual flight rules. No buildings were constructed in connection with the strip and there was no evidence of any intention on the part of the defendant to do anything more than land and takeoff from his property.²⁸⁴ Additionally, the plaintiff’s property was approximately 700 feet from the runway.²⁸⁵

The defendant’s landing strip was licensed by the Division of Aeronautics, NJDOT, with these limitations: “This is for personal use with the following Aircraft only: Beechcraft C-33A N-5649S”²⁸⁶.

Additionally, an affidavit had been filed in the trial court by Francis R. Gerard, Director, Division of Aeronautics, stating, *inter alia*:

In addition, I recently made my own inspection of the landing strip in question on Hop Brook Farm pursuant to the request of officials of Holmdel Township. Neither I nor my inspectors found any reason for concern nor any hazard or unsafe conditions as to people and property in the vicinity of the landing strip. I feel that the landing strip should not cause any annoyance to anyone, and of the 80 such private landing strips in this state, it is one of the safest of them.²⁸⁷

Section 4.1.1 of the zoning ordinance²⁸⁸ listed the uses allowed by right in the R-40A district. The court noted that Holmdel did not intend to limit the district strictly to residential

²⁸³ See *id.* at 338. The court found it unnecessary to decide the issue of plaintiff’s standing, “[i]n view of the disposition to be made upon this motion.” *Id.*

²⁸⁴ See *id.* at 336-337.

²⁸⁵ See *id.* at 336. It is not clearly stated in the opinion whether or not the plaintiffs’ property was at one end of the extended center line of the runway; although it is doubtful that if such a condition had existed, it would not have been alleged in the most vigorous terms permitted by the Rules of Court.

²⁸⁶ *Id.* at 337.

The Beechcraft referred to in the license is a propeller-driven single engine, single-wing aircraft. According to the manufacturer’s specifications, when the aircraft is fully loaded the take-off ground run is 880 feet, with a required total take-off run of 1,225 feet in order to clear a 50-foot obstacle. The landing ground run is 625 feet with a required total landing ground run of 1,150 feet needed to land over a 50-foot obstacle.

Id. at 338.

²⁸⁷ *Id.* “In connection with the issuance of the license by the Division of Aeronautics, the defendant was required to demonstrate his flying proficiency and the capabilities of the aircraft to a State Inspector.” *Id.*

²⁸⁸

Article III of the zoning ordinance provides in part as follows:

3.1 Except as hereinafter provided:

3.1.1 No land shall hereafter be used or occupied and no building or part thereof shall hereafter be used, occupied, erected, moved or altered

uses.²⁸⁹ Additionally, “[a]lthough the ordinance in Section 4 refers only to accessory buildings, it must be implied that accessory uses are permitted.”²⁹⁰

The issue thus became whether “the maintenance of the landing strip on the defendant’s property was for his personal use accessory to its use as a residence and farm and therefore not prohibited under the Holmdel ordinance.”²⁹¹

An accessory use is defined as a use “customary and incidental to the principal use of a building.”²⁹² The court referred to the Appellate Division’s opinion in *City of Newark v. Daly*,²⁹³ which discusses the phrase “customary and incidental”:

unless in conformity with the regulations hereinafter specified for the district in which it is located.’

The zoning ordinance provides for the following uses by right in the R—40A zone:

‘Following are the uses allowed * * * for residence districts.

4.1 Residence R—40A (1600), Residence and Agricultural District

4.1.1 Uses allowed by right

a. One-family detached private dwelling with accessory buildings.

b. A one-family detached private dwelling containing the professional office of its resident owner or lessee with accessory buildings.

3. Churches, public and private schools, libraries, nursing homes, hospitals and accessory buildings, firehouses, historical museums and private golf courses. No private golf course shall be permitted unless the property constituting said course shall consist of at least 150 acres of land.

d. Farms in general, including truck farms, dairies, nurseries and fruit farms. Accessory buildings: incident to farms, such as tenant houses, greenhouses, buildings for housing seasonal workers for the farmer’s own use, barns, packing, grading and storage buildings and buildings for the keeping of poultry and livestock, garage, or garages for the keeping of equipment and trucks used in farm operations. This section shall be construed to include the business of selling farm equipment, farm implements, farm machinery, fertilizers, and seeds of all kinds, at wholesale or retail, or both but only when said business is conducted by the owner or owners of the farm.

e. Buildings, structures and premises for use and occupancy by the Township for any municipal purposes.’

In Article IX ‘accessory’ is defined as follows:

‘The term applied to a building or use which is clearly incidental or subordinate to the principal building or use and located on the same lot with such principal building or use. Any accessory building attached to a principal building is deemed to be a part of such principal building in applying the Bulk Regulations to such accessory building.’

Id. at 338-339.

²⁸⁹ See *id.*

²⁹⁰ *Id.*

²⁹¹ *Id.* at 340.

²⁹² *Id.* (quoting *Zahn v. Newark Board of Adjustment*, 45 N.J. Super. 516 (App.Div. 1957)).

²⁹³ See 85 N.J. Super. 555 (App.Div. 1964), *aff’d* 46 N.J. 48 (1965) (the operation of a single coin-operated milk vending machine in the basement of a high-rise apartment house did not violate a zoning ordinance which limited the use of the property in the district to multiple dwellings and hotels). See *Schantz, supra* note 281 at 340.

The use of the word ‘customarily,’ when applied to ‘incidental,’ may be helpful to establish affirmatively the existence of a use as ‘accessory.’ But the fact that a use is not ‘customarily’ indulged in is not conclusive. Thus, private garages are customarily used in connection with residences and are deemed to be an accessory use in a residential zone. But private swimming pools also are an accessory use in a residential zone, even though very few residents in many residential areas customarily have them.²⁹⁴

The court held that “[t]he installation of a landing strip on the defendant’s property is no less an accessory to its primary use than the installation of a 60-foot tower support for a radio antenna that was held to be an accessory use in *Wright v. Vogt*, 7 N. J. 1 (1951).”²⁹⁵

Furthermore, the court observed that there is no reference in the zoning ordinance to landing strips, noting that Holmdel could have adopted regulations concerning the use of landing strips, but had not done so.²⁹⁶ “This court cannot legislate and supply what is not in the ordinance.”²⁹⁷

The proofs before the Court show that there are at least 80 landing strips presently licensed in New Jersey. The use of privately piloted aircraft for recreation and transportation is steadily expanding. It is perhaps true that more use is made of private aircraft as a customary and accepted means of private transportation in the southern and western parts of the country, but there is a sufficient use of such aircraft in our area so that it can be said that the installation of a landing strip for personal use is accessory to the use of property as a residence. It does not change the primary use of the premises from residential.²⁹⁸

The remaining issues in the plaintiffs’ complaint²⁹⁹ had been raised in *Oeschle v. Ruhl*,³⁰⁰ and the court disposed of them by applying that case.

²⁹⁴ *Schantz, id.* at 340-341.

²⁹⁵ *Id.* at 341.

²⁹⁶ *See id.* at 342.

²⁹⁷ *Id.*

²⁹⁸ *Id.*

²⁹⁹

[T]hat the use of the landing strip (1) will be dangerous to the public health and safety; (2) will create a hazard and nuisance ‘in and about the general land area of . . . two [Holmdel Township] elementary schools . . . and of the entire residential zone in which the aforesaid airstrip and airport of the defendant is located;’ and (3) will constitute an unlawful invasion of plaintiffs’ property rights resulting in a decrease in the value of the property.

Id. at 343.

³⁰⁰ *See Oeschle, supra* notes 132-152 and accompanying text.

State v. P. T. & L. Construction Company, Inc.
77 N.J. 20 (1978)
Private Helistop is “Customarily Incident” to Main Property Use

In *State v. P. T. & L. Construction Company, Inc.*,³⁰¹ the defendant construction company was convicted in Paramus Municipal Court of violating a municipal ordinance by placing a private helistop³⁰² on its headquarter’s property. The case was given direct certification by the State Supreme Court at the same time *Garden State Farms, Inc. v. Bay*³⁰³ was certified, since it was thought issues of state or federal preemption would be involved.³⁰⁴ However, those issues were not considered in this case.

Rather, the Court turned back to the question of whether, absent an express prohibition in a zoning ordinance on a particular use, such use is customarily incident to a permitted use. The two-pronged test is: (1) whether the use is incidental to the main use (“does the use ‘ * * * bear a close resemblance and obvious relation to the main use to which the premises are put?’”),³⁰⁵ and (2) whether “a use which is found to be incident to the permitted use is also a customary use”.³⁰⁶

The defendant, P. T. & L., argued that it required convenient, private air transport for its executives to inspect sites in nearby states, and that there were “several heliports within Paramus as well as at least eight other New Jersey construction companies operating heliports to facilitate transportation between their headquarters and ongoing projects.”³⁰⁷ Paramus countered that because of the heavily residential nature of the municipality, the intent of the drafters of the ordinance to prohibit heliports could be inferred. The Court found, however, that since helistops and heliports existed in Paramus as accessory uses prior to the adoption of the ordinance, no such inference could be made.

Of interest is Paramus’s argument that the defendants and other individuals could use the nearby Teterboro Airport, thereby precluding any assertion that such a proposed use was “necessary”. However, “[a]lthough courts, in discussing accessory uses, have referred to ‘necessity,’ cases in this jurisdiction have classified uses as accessory uses even though they were not strictly necessary to the fulfillment of the permitted use.”³⁰⁸

The Court distinguished “cases involving the use of aviation facilities other than helistops and heliports, such as airstrips for fixed-wing airplanes.”³⁰⁹ In support of this proposition, the court cited two out-of-state cases, holding that an airstrip is not customarily incident to a single family residence, followed by a “but see” reference to the New Jersey case of *Schantz v. Rachlin*.³¹⁰ This curious reference is not explained by the Court, but neither is it overruled.

As explicated in *Newark v. Daly* * * * it is not essential to the concept of “customarily incident” that a majority or even a

³⁰¹ 77 N.J. 20 (1978) [hereinafter *P.T.&L.*].

³⁰² The “helistop” in this case was simply a dirt area, 100 feet from the company’s parking lot, covered with gravel to prevent dust from being kicked up by the helicopter’s rotors. See *id.* at 31 & 32.

³⁰³ See *infra* notes 311-434 and accompanying text.

³⁰⁴ See *P.T.&L.*, *supra* note 301 at 22, note 1.

³⁰⁵ *Id.* at 26-27.

³⁰⁶ *Id.* at 27 (citing *Newark v. Daly*, 85 N.J. Super. 555 (App.Div. 1964), *aff’d* 46 N.J. 48 (1965)).

³⁰⁷ *Id.* at 27-28.

³⁰⁸ *Id.* at 27.

³⁰⁹ *Id.* at 28.

³¹⁰ See *Schantz*, *supra* notes 281-300 and accompanying text.

substantial percentage of a given type of principal use should in fact be accompanied by the mooted accessory use. Thus, * * * it is not controlling that most construction firms do not use helipads as incident to the main use of their headquarters' property. The record indicates that this business practice is increasingly coming into vogue and that there is a distinct functional relationship between such use and the business which P. T. & L. conducts as the main use of its property. We think these facts and circumstances suffice to bring the use within the accessory coverage of the ordinance and so hold. *Cf. Boulblis v. Garden State Farms, Inc.*, 122 N. J. Super. 208, 215-217 (Law Div. 1972) (heliport as accessory use to a large dairy plant). If the conditions and situation of a particular municipality lead its governing body to believe that tighter restrictions than those before us in this case are reasonably necessary or desirable, it is free so to provide in its ordinance.”³¹¹

E. DEVELOPMENT OF THE “ISLAND OF IMMUNITY” DOCTRINE

The following cases follow the development of the “island of immunity” doctrine previously mentioned. In *Aviation Services v. Bd. of Adj. of Hanover Twp.*, the N.J. Supreme Court examined the limits of a host municipality’s ability to zone an airport owned by another municipality. In *Shell Oil Co. v. Bd. of Adj. of Hanover Twp.*, the Court determined that a gasoline service station located on a main road to an airport was not a use “accessorial and incidental to the primary purpose of airport operation.” In the pre-*Burbank* case of *Township of Hanover v. Town of Morristown (Morristown I)*, the holding of the trial court that survives *Burbank* is the requirement that a non-proprietor host municipality must make reasonable accommodation of existing airport uses. The Appellate Division, in *Brody v. City of Millville*, clarified the holding in *Shell Oil*. Finally, in *Town of Morristown v. Township of Hanover (Morristown III)*, the Appellate Division defined the “island of immunity” an airport might enjoy from zoning regulations.

These cases create the framework that protects operative and orderly development of airports from countervailing municipal action. These cases also help to fill the gap left by the State Legislature in failing to provide express guidelines in airport zoning matters. In particular, *Morristown III* illustrates that the island of immunity concept extends not only to existing airport uses, but also to reasonable airport expansion for future public needs.

***Aviation Services, Inc. v. Board of Adjustment of Hanover Township* 20 N.J. 275 (1956)**

State Legislative Intent to Immunize Airport from Local Zoning; Warning Against “Wholesale Aggrandizement of Territory”

In *Aviation Services v. Board of Adjustment of Hanover Township*,³¹² the question decided by the N.J. Supreme Court was: If Municipality A is the owner-proprietor of a public use airport, and such airport is located in whole or in part in Municipality B, can Municipality B exercise its police power and make its zoning law applicable to that airport?

³¹¹ *P.T.&L.*, *supra* note 301 at 29-30.

³¹² 20 N.J. 275 (1956) [hereinafter *Aviation Services*].

Morristown Municipal Airport was developed on a 235-acre tract of land in Hanover Township, which Morristown acquired from Hanover Township over a ten-year period, from 1931 to 1941. Commencing in 1941, in accordance with agreements between Morristown and the U.S., the land was developed for airport purposes, with the construction of runways, hangars and other buildings. After World War II, Morristown assumed control of the airport.³¹³

In 1946, Hanover Township enacted a zoning ordinance which incorporated the airport lands into a Residence B zone, which impliedly excluded airports. The airport thus became a pre-existing, non-conforming use.³¹⁴

Morristown leased airport facilities to private persons and corporations. In May 1953, one such lessee, Aviation Services, Inc., applied to the building inspector of Hanover Township for a permit to reconstruct and enlarge the building it had leased. The application was denied. An appeal was taken to the Board of Adjustment of Hanover Township, and when the appeal was denied, Aviation Services, Inc., filed an action in lieu of prerogative writ against the building inspector and the Hanover Township Board of Adjustment.³¹⁵

Morristown intervened as a party plaintiff and alleged that the ordinance as applied to the property in question was invalid and void either because: (1) the lands were owned by a municipal corporation³¹⁶ and were therefore immune from regulation by a governmental agency or authority not in a superior position in the governmental hierarchy;³¹⁷ or (2) by virtue of the unsuitability of the lands for residential purposes the ordinance imposed “restrictions and prohibitions which are arbitrary, unreasonable and capricious.”³¹⁸

The trial court, relying on the holding in *Bloomfield v. New Jersey Highway Authority*,³¹⁹ held that Morristown Municipal Airport was not subject to the zoning ordinance of Hanover Township. After the defendant appealed to the Appellate Division, the N.J. Supreme Court certified the issue prior to the Appellate Division’s review on the basis “of the general public importance of the question.”³²⁰

The Court provided the legislative background:

In 1929 the Legislature authorized municipal governing bodies to “acquire, establish, construct, own, control, lease, equip, improve, maintain, operate and regulate” airports Within the municipal limits, R.S. 40:8—2 (L.1929, c. 325), N.J.S.A. This enactment was amended by L.1947, c. 85 to permit operation of airports “within or without” the municipal boundaries. The original legislation enabled municipalities to acquire property by

³¹³ See *id.* at 278.

³¹⁴ See *id.*

³¹⁵ See *id.* at 278-279.

³¹⁶ See *id.* at 279.

³¹⁷ See *id.* at 282.

³¹⁸ *Id.* at 279.

³¹⁹ See 18 N.J. 237 (1955) (Holding that the State Legislature has the power to immunize its public authorities from provisions of local zoning and building restrictions.) “[W]e held that in the absence of legislative provision to the contrary the Highway Authority, in carrying out the purpose for which it was created, was not subject to the municipal zoning ordinance of Bloomfield.” *Aviation Services*, *supra* note 312 at 279.

³²⁰ *Aviation Services*, *Id.*

condemnation if necessary, R.S. 40:8—4 and 5, N.J.S.A., characterizing property acquisition for airport facilities as “a public purpose” and “a matter of public necessity.”³²¹

Morristown argued that the airport operation constituted “an essential governmental function in serving the public need and by virtue of its nature” was immune from the zoning power of Hanover Township. Hanover Township contended that the use was “proprietary, ‘a business pure and simple,’ entitled to no greater sanctity than a private corporation.”³²²

It is unnecessary to dwell upon the public attributes of a municipal airport operation. The purposes thus served have long been recognized as responsive to the common weal . . . Over 27 years ago, Mr. Justice Cardozo stated with prophetic wisdom:

‘We think the purpose to be served is both public and municipal. A city acts for city purposes when it builds a dock or a bridge or a street or a subway . . . Its purpose is not different when it builds an airport . . . Aviation is to-day an established method of transportation. The future, even the near future will make it still more general. The city that is without the foresight to build the ports for the new traffic may soon be left behind in the race of competition.’³²³

However, the *Aviation Services* Court reasoned that denomination of a municipal airport undertaking as a “governmental” or a “proprietary” function was not the germane issue. Rather, “[e]nlightenment must come from the legislative design in vesting municipalities with the authority to establish and maintain airport facilities.”³²⁴ Thus, from *Town of Bloomfield*, and a subsequent case, a general principle emerged: “[W]here the immunity from local zoning regulation is claimed by any agency or authority which occupies a superior position in the governmental hierarchy, the presumption is that such immunity was intended in the absence of express statutory language to the contrary.”³²⁵ Morristown, not holding a “superior position” to Hanover Township, could not therefore invoke such immunity.

The Court then examined other statutory enactments “whereby municipalities are delegated powers of condemnation which may be exercised beyond the corporate limits in aid of their public functions.”³²⁶ Turning to the *Home Rule Act*,³²⁷ there are instances where municipalities exercising their rights of condemnation must also seek the consent of the affected municipality.³²⁸ In certain instances, as in the laying of conduits for an electrical power plant,³²⁹

³²¹ *Id.* at 279-280.

³²² *Id.* at 280. “The issue thus joined represents a conflict between the interests of a municipality in establishing and maintaining an airport outside its jurisdiction and the integrity of the zoning scheme embracing the territory sought to be utilized.” *Id.*

³²³ *Id.* (quoting *Hesse v. Rath*, 249 N.Y. 436, 163 N.E. 342 (Ct. App. 1928)) [other citations omitted].

³²⁴ *Id.* at 281-282.

³²⁵ *Id.* at 282.

³²⁶ *Id.*

³²⁷ See R.S. 40:42—1 *et seq.*

³²⁸ “R.S. 40:62—7 authorizes a municipality to acquire by condemnation all necessary lands for the purpose of maintaining an abattoir, but it may not be established within any other municipality except by the consent of the latter’s governing body and board of health.” *Aviation Services*, *supra* note 312 at 282.

³²⁹ See R.S. 40:62—12.

if consent is withheld, an aggrieved municipality has recourse to the Superior Court, which may “direct the terms” upon which the conduits may be laid.³³⁰

There is no language in the airport legislation, *R.S. 40:8—1 et seq.*, directing preliminary inter-municipal negotiation and consent. *R.S. 40:8—2*, as am. *L. 1947, c. 85*, speaks in broad terms:

The governing body of any municipality may acquire, establish, construct, own, control, lease, equip, improve, maintain, operate and regulate airports or landing fields for the use of airplanes and other aircraft within or without the limits of such municipality and may use for such purpose or purposes any property, owned or controlled by such municipality, suitable therefor.

The Court continued:

R.S. 40:8—4 and 5 authorize acquisition of property by condemnation to fulfill the broad purposes designated in the section above quoted. We cannot ascribe a vain and impotent meaning to the statute. If the purposes sought to be achieved are to be thwarted by zoning plans which arbitrarily exclude airport uses from an entire municipal domain the progress envisioned by the Legislature and stimulated by this statute may go unrecognized. Rules of statutory construction command a contrary result.³³¹

Thus there are two factors which, when taken together, reflect the legislative intent to immunize acquisition and maintenance of lands and buildings from zoning power: (1) there is no statutory language limiting a municipal airport’s undertaking either within or outside a municipality’s boundaries; and (2) a municipality has the power of eminent domain to establish a municipal airport. Hanover Township’s zoning ordinance was held inapplicable to the Morristown Municipal Airport.

The Court distinguished *Aviation Services* from the decisions reached in *Yoemans*³³² and *Ridgewood Air Club*,³³³ discussed above, insofar as “the operation was proposed by private rather than public interests.”³³⁴ However, the Court warned:

Our holding in this case is not to be considered as giving judicial recognition or impetus to a program of wholesale aggrandizement of territory. The authority bestowed upon municipalities to establish and maintain public airport facilities must be reasonably exercised in response to the public need, both present and that fairly to be anticipated. While this court would not condone arbitrary action in the establishment or

³³⁰ *Aviation Services*, *supra* note 312 at 282-283.

³³¹ *Id.* at 283 [citations omitted].

³³² See *Yoemans*, *supra* notes 123-131 and accompanying text.

³³³ See *Ridgewood Air Club*, *supra* notes 153-162 and accompanying text.

³³⁴ *Aviation Services*, *supra* note 312 at 285.

operation of airport facilities within the domain of another governing power, it is incumbent upon us to lend a liberal construction to the airport legislation, *R.S. 40:8—1 et seq.*, to insure the benefits which were intended to flow to municipalities having the foresight to maintain these facilities. Art. IV, Sec. VII, par. 11, Constitution of 1947.³³⁵

The Court concluded:

Air transportation is no longer in a stage of adolescence. It serves all segments of our economy and society in general. The State Constitution has recognized the importance of providing facilities to accommodate the public interest in air travel. 1947 Constitution, Art. IV, Sec. VI, par. 3. The legislative response may not be viewed in a different light.³³⁶

Shell Oil Co. v. Board of Adjustment of Hanover Township
38 N.J. 403 (1962)
Airport Zoning Immunity; Use for Airport Purposes;
Accessory or Incidental Uses

In *Shell Oil Co. v. Board of Adjustment of Hanover Township*,³³⁷ the N.J. Supreme Court revisited the issue of zoning immunity first raised in *Aviation Services*.³³⁸ In 1956, Hanover Township adopted a revised zoning ordinance classifying the lands north and south along Columbia Road, including frontage of the Morristown Municipal Airport, as an Office Building and Research Laboratory district (Office Zone).³³⁹

In December 1958, Morristown leased part of this Office Zone frontage on the northerly line of Columbia Road to Shell Oil Company (Shell) for the purpose of erecting an automobile service station. Shell's application to the Hanover Building Inspector for a building permit was denied. Shell thereafter sought a variance from the Hanover Board of Adjustment. The Board denied the application on two grounds: (1) the zoning ordinance specifically prohibited Shell's proposed use in the Office Zone; and (2) Shell had demonstrated neither hardship nor special reasons.³⁴⁰

Shell filed an action in lieu of prerogative writ to reverse the decisions of the Hanover officials. Morristown intervened and joined Hanover as a defendant, seeking to have the zoning ordinance declared invalid and unenforceable as to Morristown because of the immunity granted by *R.S. 40:8—1*³⁴¹ and because the creation of the Office Zone was an arbitrary, capricious and

³³⁵ *Id.* at 285-286.

³³⁶ *Id.*

³³⁷ 38 N.J. 403 (1962) [hereinafter *Shell Oil*].

³³⁸ See *Aviation Services*, *supra* notes 312-336 and accompanying text.

³³⁹ *Shell Oil*, *supra* note 337 at 405.

³⁴⁰ See *id.* at 405-406.

³⁴¹

The governing body of any county and the governing body of any municipality, or either or them, may acquire by gift, grant, purchase, condemnation or in any other lawful manner real estate or any right or interest therein for airport purposes and so use lands therefore acquired

unreasonable exercise of the zoning power. Hanover filed an answer and the matter went to trial.³⁴²

The trial court found and entered judgment for the defendant, Hanover Board of Adjustment. The plaintiffs appealed to the Appellate Division, where arguments were directed solely at the alleged immunity of Morristown and the unlawful exercise of zoning power. The Appellate Division decided in favor of Morristown on the immunity issue with the following language: “We find the use here proposed by plaintiffs to be a proper accessory to an airport, appropriate for the present and reasonably prospective needs of the airport * * *.”³⁴³ The Appellate Division, though noting the issue, did not consider the reasonableness of the zoning ordinance. Instead, the arguments before the Supreme Court, as well as before the Appellate Division, were restricted to the relief sought by Morristown.³⁴⁴

In its pleadings before the Appellate Division and the Supreme Court, Morristown relied heavily on the construction of *R.S. 40:8—1, et seq.*, in *Aviation Services*,³⁴⁵ where the statute in question was deemed to bestow immunity on Morristown from the zoning power of Hanover.

The Supreme Court held that “the test to be applied to a land use in order to ascertain whether it qualifies for an immunity from local zoning regulations is whether it is reasonably accessorial or incidental to the primary purpose sought to be advanced by the creation of the separate authority.”³⁴⁶ More particularly, “[a]n examination of the statute forces the conclusion that it intended an exemption only as to such uses as are in fact accessorial and incidental to the primary purposes of airport operation.”³⁴⁷

In considering the facts from the trial record in light of this test, the Court examined the testimony from the trial court. For example, the manager of the airport testified that the Shell service station was a project viewed favorably for its revenue producing characteristics. Revenues derived from the lease would be used “not so much to continue to develop, as to continue to safely operate the airport.”³⁴⁸ Other testimony was developed to show that airport customers were not without other convenient facilities. There were four service stations on Columbia Road 2.1 miles east of the airport and two more service stations two miles west of the airport. Additionally, the proposed service station buildings were to face Columbia Road, demonstrating that “the business’s major attention is addressed to the highway traffic or general public rather than those who use the airport facilities.”³⁴⁹

The conclusion is unavoidable that the establishment of a gasoline service station at this location was not stimulated because it was necessary for the primary purpose of the airport

for other public purposes and being used for airport purposes and erect thereon and maintain buildings for the airport purposes. * * *

Id. at 406-407.

³⁴² See *id.* at 406.

³⁴³ *Id.* at 406-407 (quoting 71 N.J. Super. 532). Certification was granted by the Supreme Court at 37 N.J. 134.

³⁴⁴ See *id.*

³⁴⁵ See *Aviation Services*, *supra* notes 312-336 and accompanying text.

³⁴⁶ *Id.* at 409.

³⁴⁷ *Id.* at 410.

³⁴⁸ *Id.* at 411 (quoting testimony from the trial court record).

³⁴⁹ *Id.* at 412.

nor even incidentally necessary for that purpose, but rather was prompted as a revenue-producing measure.

The most favorable view of plaintiffs' proposed use is that it may be convenient for some airport customers but is not incidental to or necessary for the maintenance and operation of the airport. We find that the operation of a gasoline station at this location does not bear such a relation to airport purposes as would bring it within the aegis of statutory immunity. The land is subject to the zoning power of Hanover except insofar as it is used for airport purposes or a purpose accessory or incidental thereto. The use here proposed not being within that exemption, the zoning ordinance controls.³⁵⁰

Township of Hanover v. Town of Morristown
(Morristown I)
108 N.J. Super. 461 (Ch.Div. 1969)
“Reasonable Accommodation” of Existing Airport Uses

Morristown I,³⁵¹ discussed above in another context, is a case about airport noise and “[t]he search . . . for the zone of unacceptable annoyance and a determination of what, if anything can be done in attenuation.”³⁵² While many of the court’s holdings, especially the key noise issue, would be overruled by *Burbank*,³⁵³ discussed above, much of the holding pertaining to the requirement that Hanover’s zoning ordinances must reasonably accommodate existing airport uses is important and is still “good” law.

The statement of facts in the published opinion was abstracted by the publisher of New Jersey Superior Court Reports because of its length; the abstracted facts cover nearly ten pages in the official reporter.

The original complaint in the case was filed on July 24, 1969. The trial began on October 14, 1969 and lasted for 12 full trial days plus one additional day for site inspection. Thirty-eight witnesses, lay and expert, testified. Experts in acoustical engineering, architectural engineers, airport planning experts and attorneys either presently or formerly with the FAA were called upon. More than 60 exhibits (documents, sketches, surveys, plans, etc.), most of which were of a technical nature prepared by experts, were received into evidence. The Director of Aeronautics

³⁵⁰ *Id.*

³⁵¹ See 108 N.J. Super. 461 (Ch.Div. 1969); *sub nom Township of Hanover v. Town of Morristown*, 118 N.J. Super. 136 (Ch.Div. 1972) (same case, petition to intervene denied); *aff’d Township of Hanover v. Town of Morristown*, 121 N.J. Super. 536 (App.Div. 1972).

³⁵² *Id.* at 469.

³⁵³ See *Burbank*, *supra* notes 262-271 and accompanying text. Briefly, the *Burbank* Court would hold that while the FAA occupies the field of aviation and therefore preempts state and local control, the proprietor of the airport has exclusive authority over the regulation of airport noise, provided such regulation is not exercised in a discriminatory fashion. Thus, a municipality which neither owns nor operates a public use airport, located within its corporate boundaries, is federally preempted from exercising its police power and adopting any ordinance which purports to control airport noise. The court would not, however, decide on the limits of a proprietor municipality using its own police power to enforce its own airport noise regulations.

and an FAA representative also testified.³⁵⁴

In the late 1960s, Morristown Airport was engaged in an expansion project which was necessary if it was to meet its projected capacity demands by 1980. The \$2,700,000 project was approved by the federal government, which funded half the expansion and improvements. Hanover adopted a Master Plan in 1963, which acknowledged that additional improvements and plans for expansion at Morristown Airport were anticipated. It was the only party municipality to include the airport in its zoning and planning.

All of the plaintiffs proceeded on a theory of nuisance.³⁵⁵ The full force of the plaintiffs' attack was directed against the proposed lengthening by 2,000 feet of runway 5-23 at its northerly end, and the increasing of the weight-bearing capacity of both of the runways from 56,000 to 80,000 pounds.³⁵⁶ The plaintiffs asserted that the increase in airport capacity and weight of the aircraft (with a concomitant increase in noise) that the lengthening would allow the airport to accommodate would result in irreparable, harmful, and adverse effects upon life in the surrounding communities.³⁵⁷

The issue of interest to the *précis*, however, was that Hanover asserted that the proposed runway lengthening would violate its zoning ordinance by extending the north end of the runway into a non-airport zone, and that "the attempted encroachment upon such zoning was unreasonable and represents a total aggrandizement of the territory" of Hanover Township.³⁵⁸

In response to the zoning issue, Morristown maintained that the zoning of Hanover was arbitrary and unreasonable in terminating the airport zone 100 feet from the north end of runway 5-23. It also alleged that the zoning and planning of other municipalities completely ignored the existence and future growth of the airport.³⁵⁹

In *Aviation Services Inc.*,³⁶⁰ discussed above, (holding that Morristown Municipal Airport was not subject to the zoning ordinance of Hanover Township) the Supreme Court admonished that the case was "not to be considered as giving judicial recognition or impetus to a program of wholesale aggrandizement of territory. *The authority bestowed upon municipalities to establish and maintain public airport facilities must be reasonably exercised in response to the public need, both present and that fairly to be anticipated.*"³⁶¹

Recalling this admonition, the court noted by the emphasized portion that there were still some areas in aviation cases where the courts had the power to act without "crossing into the forbidden area of the federal preserve."³⁶² The court thus analyzed the instant case:

Examining . . . Hanover's complaint that the proposed expansion of runway 5—23 will violate that municipality's zoning

³⁵⁴ See *Township of Hanover v. Town of Morristown*, 118 N.J. Super. 136 at 137 & 147 (Ch.Div. 1972) (post-*Morristown I* motion to intervene).

³⁵⁵ See *Morristown I*, *supra* note 351 at 474.

³⁵⁶ See *id.*

³⁵⁷ See *id.*

³⁵⁸ *Id.* at 473.

³⁵⁹ See *id.* at 474.

³⁶⁰ See *Aviation Services*, *supra* notes 312-336 and accompanying text.

³⁶¹ *Morristown I*, *supra* note 351 at 480 (quoting *Aviation Services*, *supra* note 312 at 285) [emphasis added by the court].

³⁶² *Id.*

ordinance, the ruling in *Aviation Services, supra*, is binding upon this court and precludes Hanover from barring completely the normal growth of the Airport. The zoning ordinance which cuts airport property from any airport use more than 100 feet from the northerly end of the runway was an attempt to foreclose in a swamp area of limited use any further development. The land upon which the extension of the runway is planned has been owned by the Airport and the proofs do not show this to be a “wholesale aggrandizement of territory”. Additionally, it comes with bad grace for the municipality on the one hand to lure industry by promoting the existence and proximity of the Airport and on the other to prevent the natural growth and safety plans which must be undertaken to serve the attracted industry.³⁶³

The court held that the restriction in the zoning ordinance failed to exhibit the “reasonable accommodation for existing legal uses in line with *N. J. S. 40:8—1 et seq.*, and the statement in our State Constitution [N.J.Const., Art. IV, sec. 6, par. 3] recognizing the importance of protecting and preserving the public interest in air travel.”³⁶⁴ Moreover, such accommodation would not irreparably impair the integrity of Hanover’s comprehensive zoning plan where it was within the bounds of legitimate purpose.³⁶⁵

Brody v. City of Millville
114 N.J. Super. 94 (Law Div. 1971), *aff’d* 120 N.J. Super. 1 (App.Div. 1972)
Explains “Shell Oil”

In *Brody v. City of Millville*,³⁶⁶ the holding in *Shell Oil*³⁶⁷ was revisited and clarified when the plaintiff challenged the authority of the City of Millville to borrow money for the purpose of erecting buildings on the airport property for lease to Airwork, a private lessee engaged in the business of repairing aircraft. Pointing to the language of N.J.S.A. 40:8—1,³⁶⁸ the plaintiff asserted that the renting of existing buildings and building new structures for rental to Airwork constituted an *ultra vires* engagement by the city in private business.

³⁶³ *Id.*

³⁶⁴ *Id.* at 481.

³⁶⁵ See *id.*

³⁶⁶ 114 N.J. Super. 94 (Law Div. 1971), *aff’d* 120 N.J. Super. 1 (App.Div. 1972) [hereinafter *Brody*].

³⁶⁷ See *Shell Oil, supra* notes 337-350 and accompanying text.

³⁶⁸ The statute reads:

The governing body of any county and the governing body of any municipality, or either of them, may acquire by gift, grant, purchase, condemnation or in any other lawful manner real estate or any right or interest therein for airport purposes and so use lands theretofore acquired for other public purposes and being used for airport purposes and *erect thereon and maintain buildings for the airport purposes*

Upon such acquisition or use, the governing body of any county and the governing body of any municipality, or either of them, may lease the real estate, so acquired, with or without consideration to the state of New Jersey, or any agency thereof, or may lease it to any person for such consideration and for such term of years as may be agreed upon.

Brody, supra note 366 at 98 [emphasis added by the court].

The court disagreed: “Although the language of N.J.S.A. 40:8—1 authorizes the erection of buildings for airport purposes, it does not delimit the construction of buildings for other purposes.”³⁶⁹ For an example the court turned to N.J.S.A. 40:60—42, which “authorizes municipalities to lease to any person any land or building not presently needed for public use. Its language is broad enough to authorize leases of less than the entire airport property for either airport or other purposes.”³⁷⁰

The plaintiff’s reliance, *inter alia*, on the *Shell Oil* case was misplaced and the court made an important clarification:

Thus, the holding [in *Shell Oil*] is not that the airport land could not be rented for a purpose foreign to airport purposes; but only that if part of the airport lands were leased for purposes unrelated thereto, the use must comply with the zoning requirements of the municipality having jurisdiction. Actually, this case supports the views of defendants because it recognizes that a portion of municipal airport property may be rented for a use unrelated to airport purposes and also because of its recognition of the right of a municipality to foster the development of a part of the airport lands for commercial purposes.³⁷¹

The Town of Morristown v. The Township of Hanover
(Morristown III)
168 N.J. Super. 292 (App.Div. 1979)
Aviation Services and Shell Oil Established Island of Zoning Immunity for Uses
Reasonably Accessory or Incidental to Airport Purpose

In *The Town of Morristown v. The Township of Hanover*,³⁷² the Appellate Division considered a case that presented “another round in the never-ending struggle between the Town of Morristown and the Township of Hanover relating to the use of the Morristown Municipal Airport,”³⁷³ this time an action brought by Morristown to set aside as invalid and enjoin the enforcement of Ordinance 8-78³⁷⁴ adopted by Hanover on May 11, 1978.³⁷⁵

³⁶⁹ *Id.*

³⁷⁰ *Id.* at 99.

³⁷¹ *Id.* at 100.

³⁷² 168 N.J. Super. 292 (App.Div. 1979) [*Morristown III*].

³⁷³ *Id.* at 294.

³⁷⁴

ORDINANCE NO. 8-78

AN ORDINANCE TO AMEND THE “LAND USE ORDINANCE OF THE TOWNSHIP OF HANOVER, COUNTY OF MORRIS AND STATE OF NEW JERSEY

BE IT ORDAINED, by the Township Committee of the Township of Hanover, County of Morris and State of New Jersey, as follows:

Section 1. Article 9, entitled “ZONING REGULATIONS,” Section 919 “A AIRPORT DISTRICT” of the above entitle ordinance is hereby deleted and the following substituted in its place and stead:

919. A AIRPORT DISTRICT

PRIMARY INTENDED USE. This zone district is designed for the operation of an airport for-general aviation, other than commercial air carriers, as regulated by the Federal Aviation Agency and the

Morristown moved for summary judgment on the basis of *Aviation Services*,³⁷⁶ contending that it was immune from the restrictive provisions of Hanover's amendatory zoning ordinance so long as the uses it sought were "accessorial or incidental" to the primary purpose of airport operation.³⁷⁷ Hanover, also relying on *Aviation Services*, argued that the ordinance was entitled to a presumptive validity and that Morristown had the burden of proving its allegations factually.³⁷⁸ The trial judge denied the motion, Morristown appealed and the Appellate Division reversed the decision.³⁷⁹

The Appellate Division found that *Aviation Services* and *Shell Oil*³⁸⁰ established "an island of immunity from zoning regulations for property operated and used for the primary purpose of a municipal airport or for uses which are reasonably accessory or incidental to that primary purpose."³⁸¹ The caveat contained in *Aviation Services* against programs of wholesale aggrandizement of territory "does not authorize a municipality burdened with the airport of another government entity to exclude uses in advance of legislation which are manifestly within the ambit of appropriate primary or accessory uses consonant with an airport operation."³⁸² To do so is an abuse of its legislative function.

The proper recourse for the aggrieved municipality would be in the courts, where it would have the burden of proving unreasonableness on a factual basis. The test would be

applicable agencies of the State of New Jersey and accessory uses customarily incident thereto. Permitted uses, including primary and accessory uses, shall be limited to a landing strip, control tower, hangars, offices for airport personnel, equipment for the supply of fuel to aircraft, and facilities for the repair, maintenance and testing of aircraft permanently based at the airport. For the purpose of this ordinance, the term permanently based aircraft shall mean aircraft registered with the Commissioner of Transportation of the State of New Jersey pursuant to N.J.A.C. 16:56—1.1 for which the application for registration filed with the Division of Aeronautics, Department of Transportation, shall disclose that the aircraft is based at the airport located within this zone district and said aircraft shall have been based at the airport for 90 consecutive calendar days.

PROHIBITED USE. All uses are prohibited other than those which have been specifically permitted in Section 919 A of this ordinance. Nothing contained herein shall be construed to permit banks, service stations, hotels, motels, office buildings, restaurants, terminal facilities for commercial air carriers, and the repair, maintenance and testing of aircraft, other than on an emergency basis, of airplanes which are not permanently based, as defined in (A) above, within this zone district.

REQUIRED CONDITIONS. All height, yard and area requirements of this zone shall be regulated by the requirements of the Federal Aviation Agency.

SECTION 2. This ordinance shall take effect as provided by law.

Id. at 295-296.

³⁷⁵ See *id.* at 295.

³⁷⁶ See *Aviation Services*, *supra* notes 312-336 and accompanying text.

³⁷⁷ *Morristown III*, *supra* note 372 at 296.

³⁷⁸ See *id.* at 297.

³⁷⁹ See *id.* at 296.

³⁸⁰ See *supra* notes 337-350 and accompanying text.

³⁸¹ *Morristown III*, *supra* note 372 at 297.

³⁸² *Id.* at 298.

whether the use or proposed use: (1) is not incidental or necessary for the maintenance and operation of the airport; or (2) is beyond the ambit of reasonable present or future public need; or (3) is a “wholesale aggrandizement of territory.”³⁸³

The court noted that the prohibition in paragraph B of the ordinance prohibiting banks, service stations, hotels, etc., though not invalid *per se*, in line with the holding in *Shell Oil*, is nevertheless invalid because of the reference in the same sentence to paragraph A.

F. POWERS OF THE COMMISSIONER

In *Pennsylvania R.R. Co. v. N.J. State Aviation Commission*, the N.J. Supreme Court distinguishes the Commission’s *quasi*-judicial administrative function from a “merely ministerial” function and the due process requirement for formal public hearings. In *Garden State Farms v. Bay*, while the Commissioner has the ultimate authority on placement of aeronautical facilities, including private use helistops, that authority must make lawful local interests a material factor in his decision-making. Finally, *In re Application of Ronson Corp.* presents a case where the rule in *Garden State Farms* is applied to another private use helistop.

At first, these cases appear to oppose the “island of immunity” doctrine discussed in the foregoing section. The obligation on the Commissioner to take into account the lawful or legitimate local interests affects to some measure the primacy of airport development. However, a close examination of the few cases reveals that the courts are preoccupied with the formal requirements of public hearings which the Commissioner can easily fulfill simply by allowing municipalities the opportunity to state their objections and by responding to them.

The *Garden State Farms* Court was particularly concerned with what it perceived to be the less than “absolutist” nature of the term “supervision of aeronautics”, which characterizes the powers of the Commissioner in the *State Aviation Act*. Although the *Airport Safety and Zoning Act of 1983* and the *New Jersey Airport Safety Act of 1983*, enacted some years after *Garden State Farms*, have clearly given broader powers to the Commissioner as discussed above,³⁸⁴ it is argued here that absent clear guidance from the State Legislature, the N.J. Supreme Court will be reluctant to admit that the Commissioner has unfettered “superintending” power.

Pennsylvania R. R. Co. v. N. J. State Aviation Commission **2 N.J. 64 (1949)**

“Quasi Judicial” and “Ministerial” Administrative Functions Distinguished; Due Process Requirement of Public Hearings for State Aviation Commission.

In *Pennsylvania R. R. Co. v. N. J. State Aviation Commission*,³⁸⁵ the N.J. Supreme Court re-examined this case, particularly the manner in which the State Aviation Commission conducted its hearings.³⁸⁶ The Commission had granted a license to Aeromotive Corporation of New Jersey to operate an airport in North Brunswick Township, Middlesex County, subject to the restriction that “no take-off will be permitted to the east from the East-West Runway.”³⁸⁷

³⁸³ *Id.*

³⁸⁴ See *supra* notes 120-121 and accompanying text.

³⁸⁵ 2 N.J. 64 (1949) [hereinafter *Penna. R.R. Co.*].

³⁸⁶ See *id.* at 67.

³⁸⁷ *Id.* The opinion is unclear as to where the railroad was situated with respect to the runway in question. However, one might presume that the railroad was situated to the east of the East-West runway.

The appellant railroad company had objected to the issuance of the license. The site of the airport was 638 feet from the railroad company's main line connecting New York and Philadelphia, "one of the heaviest travelled railroads in the world."³⁸⁸ The catenary system providing the electricity to power the railroad consisted of poles paralleling the tracks varying in height from 70 to 80 feet. There were 343 trains passing the airport site daily, of which 248 were passenger trains carrying more than 150,000 passengers per day, or 56,000,000 annually.³⁸⁹ Based on these proofs, the railroad company contended that use of the airport would "menace the safety of the travelling and shipping public."³⁹⁰

The Commission, "after careful consideration of objections presented and evidence admitted before it" at hearings, "voted unanimously to dismiss said objections on the grounds that they were without merit consistent with Federal Civil Aeronautics Administration standards for safe operation of aircraft."³⁹¹ The finding of the former Supreme Court was that it could not be said that "there was not reasonable support in the evidence for the result reached by the commission."³⁹²

Since the statutory functions that the Commission exercises have the attributes of a judicial inquiry, it is therefore *quasi*-judicial and thus subject to the requirements of due process.³⁹³ In distinguishing *quasi*-judicial from merely "ministerial" functionings of an administrative agency,

[T]he determinative is the quality of the act rather than the character of the agency exercising its authority. Where the administrative tribunal is under a duty to consider the evidence and apply the law to the facts as found, thus requiring the exercise of a discretion or judgment judicial in nature on evidentiary facts, the function is *quasi* judicial and not merely ministerial.³⁹⁴

The Court in this case questioned the manner in which the Commission's hearing was conducted. The hearing was "quite informal", such that the witnesses were not sworn. The Commission's findings and decision to dismiss the appellant's objections, as above-mentioned, did not state the standard by which the evidence had been considered. That is, if the

³⁸⁸ *Id.* at 71.

³⁸⁹ *See id.*

³⁹⁰ *Id.*

³⁹¹ *Id.* at 67.

³⁹² *Id.*

³⁹³ *See id.* at 70.

³⁹⁴ *Id.* [citation omitted]. *R.S.* 6:1—31 and 6:1—51 both charge the Commission with the "duty" of holding public hearings on matters affecting aeronautics," and empower it "to conduct investigations, inquiries and hearings concerning matters covered by the provisions" of the act. Evidentiary and record requirements of such hearings are set forth in *R.S.* 6:1—52, and include requirements that "all testimony be taken stenographically; and that "Every order of the commission shall contain findings in sufficient detail to enable a court to determine the controverted questions presented by the proceeding, and whether the proper weight was given to the evidence." The chairman and vice-chairman of the Commission can administer oaths and affirmations, issue subpoenas to compel attendance at the hearings and the testimony of witnesses, as well as the production of papers, books and documents. The Commission could also hold a recalcitrant witness in contempt. The current version of the statute at N.J.S.A. 6:1—51 permits the commissioner or his authorized representative to invoke, *ex parte*, the aid of the Superior Court to order compliance with the Commission's subpoena.

Commission's primary standard, under the statute, was "the public health and safety" and the "safety" of participants in aeronautical activities,³⁹⁵ that standard was not enunciated in the Commission's findings. The Court therefore had no way of knowing "whether the evidence was appraised in the light of this norm."³⁹⁶ The matter was remanded to the Commission for rehearing.

Garden State Farms, Inc. v. Mayor Louis Bay, II
77 N.J. 439 (1978)

Private Helistop Not Federally Preempted; Commissioner of Transportation Has Ultimate Authority in Placement of Aeronautical Facilities; Commissioner Must "Pay Due Attention" to Lawful Local Interests

In *Garden State Farms, Inc. v. Bay*,³⁹⁷ "the question for decision is whether a local zoning ordinance which prohibits the use of land within a municipality as a helistop is invalid because the federal or state governments have preempted the power of local governments to regulate the establishment and location of helistops."³⁹⁸

Garden State Farms operated over eighty-five retail stores selling milk and related food products throughout New Jersey, New York and Pennsylvania. It wanted to construct a private use heliport at its main facility in Wyckoff, New Jersey. The portion of its Wyckoff property where the helistop was to be built was actually located in the Borough of Hawthorne. On October 6, 1971, the Board of Commissioners of the Borough of Hawthorne adopted a resolution granting the company permission to construct a helistop.

The history of this case is long, beginning with *Boublis v. Garden State Farms, Inc.*,³⁹⁹ where neighborhood residents sought a restraining order enjoining Garden State Farms from constructing the helistop on the grounds that such a use would violate the Borough zoning ordinance and therefore would require a variance. The Law Division denied the requested relief and held that no variance was required because the intended helistop was an accessory use and permitted under Hawthorne's local ordinance.⁴⁰⁰ Thereafter, the Borough of Hawthorne adopted Ordinance No. 1123,⁴⁰¹ which amended the existing zoning ordinance to prohibit the principal or

³⁹⁵ R.S. 6:1—44.

³⁹⁶ *Penna. R.R. Co.*, *supra* note 385 at 71.

³⁹⁷ 77 N.J. 439 (1978) [hereinafter *Garden State Farms*].

³⁹⁸ *Id.* at 442-443.

³⁹⁹ See 122 N.J. Super. 208 (Law Div. 1972). In footnote 1, the Court stated:

Hawthorne's zoning ordinance permits a subordinate use or building whose purpose is " * * * incidental to that of the main or principal use or building and located on the same lot." 122 N.J. Super. at 215, 299 A. at 767. We have recently held that a zoning ordinance providing for accessory uses to the principal uses of property would authorize a heliport. *P. T. & L. Constr. Co. v. Borough of Paramus*, 77 N.J. 20, 389 A.2d 448 (1978).

In that case, which was argued together with *Garden State Farms*, the Court never reached the issue of preemption and decided the matter on other state law grounds, subject to its final determination in *Garden State Farms*.

⁴⁰⁰ See *id.* at 215; *Garden State Farms*, *supra* note 397 at 443-444.

⁴⁰¹ See *Garden State Farms*, *id.* at 444; the Supreme Court refers to the ordinance as "Ordinance No. 1123"; the Superior Court, Law Division, at 136 N.J. Super. 1 at 7 (Law Div. 1975) referred to the ordinance as "No. 1223". For purposes of this discussion, the Supreme Court's reference of "Ordinance No. 1123" will be used herein.

accessory use of any land, buildings or rooftops for heliports or helistops.⁴⁰²

Garden State Farms instituted an action in lieu of prerogative writ to have Ordinance No. 1123 declared invalid, contending that: (1) local governments were preempted, on both the state and federal levels, from regulating aviation; (2) the ordinance violated N.J.S.A. 40:55D-62, in that it was not reasonably related to the public health, safety and welfare of the residents of Hawthorne; and (3) it was not enacted pursuant to a “comprehensive plan”.⁴⁰³ Hawthorne presented testimonial evidence at the trial that: (1) the landing and taking off of helicopters would have an adverse impact upon the “serenity” of the community; (2) the general quality of life would be adversely affected by low-level air traffic with its concomitant increase in noise, air pollution and automobile traffic; and (3) it anticipated distraction and anxiety to its residents resulting from the foregoing.⁴⁰⁴

The trial court held that Ordinance 1123 was valid and dismissed Garden State Farms’ complaint. As to the issue of federal preemption, the trial court decided that while the *Federal Aviation Act of 1958* (former 49 U.S.C.A. § 1301 *et seq.*) preempted state and local authority in the area of the operation and avigation of aircraft, the *Act* required cooperation by the federal regulatory authorities with state and local aeronautical agencies (under former 49 U.S.C.A. §§ 1324(b) and 1343(i)), and thus contemplated the retention by state and local governments of the power to regulate ground activities not directly involving aircraft operation.⁴⁰⁵

As to the issue of state preemption, the trial court held that although the *State Aviation Act of 1938* (N.J.S.A. 6:1-20 *et seq.*) embraced a comprehensive state regulation to promote safety and aeronautical progress, it did not necessarily preclude municipalities from determining whether or not aeronautical facilities should be constructed within their boundaries, noting the express grant of authority to municipalities to acquire and use land for airports.⁴⁰⁶

The Ordinance in question reads:

AN ORDINANCE TO FURTHER AMEND THE ZONING ORDINANCE OF THE BOROUGH OF HAWTHORNE, REVISION OF 1970, HERETOFORE ADOPTED AS ORDINANCE 1175 OF THE BOROUGH OF HAWTHORNE.

The Board of Commissioners of the Borough of Hawthorne, in the County of Passaic and the State of New Jersey, do hereby ORDAIN as follows:

SECTION 1. That the Zoning Ordinance of the Borough of Hawthorne, Revision of 1970, heretofore adopted as Ordinance No. 1175 of the Borough of Hawthorne shall be and hereby is amended by the addition to Section 5 thereof, Paragraph 11, as follows:

In all districts the use of any land or property or any buildings or roof tops or structures, or the construction, development or alteration of any structure, roof or building, for the purpose of accommodating the taking off or the landing of airplanes, helicopters or any and all other types of airborne vehicles is specifically prohibited whether a principal use or accessory use.

SECTION 2. Any and all parts or provisions of Ordinance 1175, and any amendments or supplements thereto

⁴⁰² See *id.* at 444.

⁴⁰³ *Id.*

⁴⁰⁴ See *id.*

⁴⁰⁵ See *id.* at 445.

⁴⁰⁶ See *id.*

The trial court also determined that the justification of the zoning ordinance on the grounds of public health, safety and welfare was supported on the record.⁴⁰⁷ Finally, the trial court found that the zoning ordinance in question satisfied the “comprehensive plan” requirement of the enabling statute.⁴⁰⁸

Garden State Farms filed a notice of appeal to the Appellate Division, which reversed the judgment of the trial court.⁴⁰⁹ The appellate panel found no substance to Garden State Farms’ federal preemption argument.⁴¹⁰ Furthermore, the *State Aviation Act of 1938* did not preclude municipal zoning power to limit or prohibit the use of land for aeronautical facilities, so long as such an exercise of local zoning authority did not conflict with the powers granted by other legislation to the State or one of its agencies. The appellate panel also held that the *State Aviation Act* gave the Commissioner of Transportation the power to supervise the location and regulation of helistops and heliports, and that a municipal zoning ordinance could not operate as a bar to the Commissioner’s grant of a license for that use.⁴¹¹ The Appellate Division did not consider the question of Garden State Farms’ “comprehensive plan” attack, the issue for which the Supreme Court granted certification.⁴¹²

The Supreme Court agreed that state and local governmental efforts to regulate the location of helistops are not preempted by the federal government.⁴¹³

Federal preemption will be found where the subject activity intrinsically requires uniformity of regulation, *Cooley v. Bd. of Wardens of the Port of Phila.*, 53 U.S. (12 How.) 299, 319 * * * (1851), or where Congress has either expressly or impliedly assumed regulatory control of the entire field of activity. *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 * * * (1947).

The case at hand does not present a situation where preemption may be predicated upon a felt need for a monolithic system of regulation. While in some important aspects uniform regulation may be required, such as in the control and supervision of air space, *Cf. Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 626-628, * * * (1973), that obvious need does not reach down to the level of the location of small, relatively isolated, privately owned helistops or heliports. *Cf. Cooley v. Bd. of Wardens of the Port of Phila.*, *supra*, 53 U.S. (12 How.) at 320 * * *⁴¹⁴

The Court noted that while state and local authority over the operation and avigation of aircraft is supplanted by the *Federal Aviation Act of 1958* (former 49 U.S.C.A. § 1301 *et seq.*), “significant local power over ground operations remains viable.”⁴¹⁵ This, of course, so long as

⁴⁰⁷ See *id.*

⁴⁰⁸ *Id.*

⁴⁰⁹ See *Garden State Farms, Inc. v. Mayor Louis Bay II*, 146 N.J. Super. 438 (App.Div. 1977); *Garden State Farms*, *supra* note 397 at 445.

⁴¹⁰ See *id.*

⁴¹¹ See *id.* at 446.

⁴¹² See 74 N.J. 280 (1977); *Garden State Farms*, *id.*

⁴¹³ See *Garden State Farms*, *id.*

⁴¹⁴ *Id.* at 446-447.

⁴¹⁵ *Id.* at 447.

the ground activities referred to do not directly involve actual aircraft operations. “[I]f federal preemption were found in the present case, state and local governments, which are the only bodies that currently license privately operated helistops and heliports, would be shorn of this regulatory responsibility. Congress could not have intended to create a governmental vacuum with respect to privately operated helistops.”⁴¹⁶ In a footnote,⁴¹⁷ the Court explained that the FAA recognized that “local bodies have ‘prerogatives with respect to approving the physical sites of airports or related matters’ and ‘* * * authority in matters involving land use, zoning, and airport site selection.’”⁴¹⁸

The Court’s analysis of state preemption paralleled its federal preemption analysis, except that “because our State Constitution enjoins a liberal construction of legislation in favor of local authority, Art. IV, § 7, ¶ 11, legislative intent to supersede local powers must be clearly present.”⁴¹⁹

However, while the Appellate Division ruled that there was no preemption of a municipality’s power to adopt zoning ordinances limiting or prohibiting the use of property as an aeronautical facility, it also affirmed that the Commissioner of Transportation had the “ultimate power and responsibility of determining where aeronautical facilities may be located * * * .”⁴²⁰ Once an appropriate showing had been made and a license was granted, “a local zoning ordinance could not * * * operate as a bar to the grant of a license or to that use.”⁴²¹

The real issue is the extent to which a local zoning ordinance is a relevant factor which must be considered by the Commissioner in the exercise of his paramount authority under the Aviation Act. Although it is accepted here that the Aviation Act of 1938 is preemptive, we do not share completely the Appellate Division’s conception of the Commissioner’s statutory discretion,

⁴¹⁶ *Id.* at 449.

⁴¹⁷ *Id.* at 448, note 2:

Indeed, the F.A.A. itself has consistently recognized the role of state and local governments in regulating airports in general and heliports in particular. For example, although a variety of federal regulations indirectly affect heliport design and construction and aspects of commercial helicopter operators, E. g., 14 C.F.R. s 139.101 *Et seq.* (standards for heliports which serve helicopters holding certificates of public convenience); *Id.* at §§ 121, 133, 135 (standards for commercial helicopter operations), no federal agency licenses privately used heliports. The F.A.A. in its directives concerning safe construction of heliports acknowledges that many state aeronautics commissions license heliports and specifically advises that local zoning ordinances be considered in heliport construction. F.A.A., Heliport Design Guide (8/22/77), Advisory Circular 150/5390-1B, p. 16 P 22. With respect to the construction of heliports, the F.A.A. has also recognized that local bodies have “prerogatives with respect to approving the physical sites of airports or related matters” and “* * * authority in matters involving land use, zoning, and airport site selection.” 31 Fed.Reg. 1269 (1966); see also 14 C.F.R. 157 (1977).

⁴¹⁸ *Id.*

⁴¹⁹ *Id.* at 450, citing *Kennedy v. City of Newark*, 29 N.J. 178 at 187 (1959); *Summer v. Teaneck*, 53 N.J. 548 at 554-555 (1969).

⁴²⁰ *Id.* at 450-451 (quoting *Garden State Farms v. Mayor Louis Bay II*, 146 N.J. Super. 438 at 442-443).

⁴²¹ *Id.*

which suggests that in its exercise the Commissioner is free to disregard a conflicting local zoning ordinance.⁴²²

Highlighting portions of N.J.S.A. 6:1—29,⁴²³ the Court found that “[t]he express statutory purpose of the Act is to provide for the regulation of aeronautics ‘* * * in the interest of public safety and the development of aeronautics in this State.’”⁴²⁴

Noting that the phraseology is not “absolutist”, by using such phrases as “supervision over aeronautics”, the Court concluded:

It would thus seem that there were contemplated the participation and contribution of other entities in locating heliports and helistops subject to state supervision or superintendence, a notion reinforced by reference to the qualifying statutory phrase “[unless] otherwise specifically provided by law * * *” which prefaces the grant of the Commissioner’s statutory powers.⁴²⁵

Looking to legislation prior to the *State Aviation Act of 1938*, the Court found that the Legislature had empowered local planning boards to plan for aviation fields under N.J.S.A. 40:55—5, L.1930, c. 235, § 5, and carried through intact to former N.J.S.A. 40:55—28(b)(4)^{426, 427} with regard to a “circulation plan element showing the *location* and types of facilities for *all* modes of transportation * * *.”⁴²⁸

⁴²² *Id.* at 451.

⁴²³ N.J.S.A. 6:1-29 [emphasis supplied by the Court]:

Except as otherwise specifically provided by law, the Commissioner * * * shall promote progress and education in and *shall have supervision over aeronautics within this State, including, but not by way of limitation, the avigation, flight and operation of aircraft, the establishment, location, maintenance, operation, size, design, repair, management and use Of airports, landing fields, landing strips, heliports and helistops, sport parachuting centers, air markings and other avigational facilities, and the establishment, operation, management and equipment of fixed base operators. The Commissioner may adopt and promulgate reasonable rules, regulations and orders regulating air traffic and establishing minimum standards for aircraft, pilots, fixed base operators, airports, landing fields, landing strips, heliports and helistops, sport parachuting centers, air markings and all avigational facilities within the State and establishing minimum altitudes of flight commensurate with the needs of public safety, the safety of persons operating or using aircraft and the safety of persons and property on the ground, and to develop and promote aeronautics within this State.*

⁴²⁴ *Garden State Farms, supra* note 397 at 451.

⁴²⁵ *Id.*, quoting N.J.S.A. 6:1—29.

⁴²⁶ N.J.S.A. 40:55D—28(b)(4) today reads:

A circulation plan element showing the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality, taking into account the functional highway classification system of the Federal Highway Administration and the types, locations, conditions and availability of existing and proposed transportation facilities, including air, water, road and rail;”.

“Thus, the consistent legislative concern for the infusion of local thinking into the decision as to where to locate aeronautical facilities, not only predated the Aviation Act of 1938, but has been a continuing theme throughout its statutory tenure.”⁴²⁹

The Court held therefore that the “dominant legislative intent” in the State *Aviation Act* is for the Commissioner to “supervise” and “regulate” aeronautics in general and the establishment, location, size and design of heliports and helistops in particular.⁴³⁰

We can thus agree with the Appellate Division's observation that while municipalities, consistent with the broad statutory purposes of zoning, N.J.S.A. 40:55D—2, may pass ordinances fixing particular land areas for airports or heliports, or even ban them altogether, they must not exercise their zoning authority so as to collide with expressed policy goals of the State legislation, N.J.S.A. 6:1—20, or the final decision of the Commissioner.⁴³¹

However, the Court disagreed with the Appellate Division's determination that the Commissioner, in exercising his authority, is “* * * free from municipal control except to the extent that the Commissioner, by regulation, deems it appropriate to give controlling weight to local zoning provisions.”⁴³²

To the contrary, we perceive that it is entirely appropriate for the Commissioner to pay due attention to the lawful zoning expressions of local governments and not act “* * * in an unreasonable fashion so as to arbitrarily override all important legitimate local interests.” *Rutgers v. Piluso*, 60 N.J. 142, 153, 286 A.2d 697, 703 (1972). In a similar context, where the actions of state-level officials were held to be otherwise impervious to local zoning ordinances, we have stated that they “* * * ought to consult with the local authorities and sympathetically listen and give every consideration to local objections, problems and suggestions in order to minimize the conflict as much as possible.” *Ibid.* at 154, 286 A.2d at 703.

Especially probative of the vital interests of local government is the municipal zoning ordinance itself. Indeed, the Commissioner by regulation already recognizes the importance of such interests by giving controlling weight to local ordinances in the case of applications for public use airports and private landing strips.

N.J.S.A. 40:55D—28(b)(2) was amended after 1983 to require the planning board to make “a land use plan element * * * (c) showing the existing and proposed location of any airports and the boundaries of any airport safety zones delineated pursuant to the ‘Air Safety Zoning Act of 1983’ P.L.1983, c. 260 (C. 6:1—80 *et seq.*); * * *.”

⁴²⁷ See *Garden State Farms*, *supra* note 397 at 452.

⁴²⁸ *Id.*

⁴²⁹ *Id.* at 452-453.

⁴³⁰ *Id.*

⁴³¹ *Id.* at 454 [citations omitted].

⁴³² *Id.* at 454-455.

N.J.A.C. 16:54-1 *et seq.*; N.J.A.C. 16:54-2 *et seq.* See also *Aviation Services v. Bd. of Adj. of Hanover Twp.*, 20 N.J. 275, 285, 119 A.2d 761 (1955); *Town of Bloomfield v. New Jersey Highway Auth.*, 18 N.J. 237, 248, 113 A.2d 658 (1955). Clearly he should, at the very least, acknowledge the relevance of the local zoning ordinance with respect to applications for private heliports and helistops. To this we would add as a material consideration that the Commissioner ought to take into account whether an applicant for a private heliport has availed itself of any right to a variance under the local zoning law and whether an application for a variance should be pursued as a helpful procedure for fleshing out the impact of the proposed facility upon neighboring land uses.⁴³³

Thus, the policy can be described as giving deference to municipal zoning ordinances that express local land use decisions, but are “tempered by the supervision of the Commissioner.”⁴³⁴ The Court held that the failure by the Commissioner to weigh conscientiously local interests, to examine the compatibility of surrounding land uses, and to consult with local authorities when making a licensing decision would constitute an abuse of discretion.⁴³⁵

The Court remanded the matter for rehearing on the license application in accordance with its opinion.

In re Application of Ronson Corporation
164 N. J. Super. 68 (App.Div. 1978), cert. denied, 79 N. J. 492 (1979)
Private Helistop; Application of Garden State Farms

In *In re Application of Ronson Corporation*,⁴³⁶ the Township of Bridgewater appealed an order of the Acting Commissioner of Transportation issuing a license for a private use helistop to Ronson Corporation on its property in Bridgewater Township.⁴³⁷ Though a public hearing had been held on Ronson’s application, the findings of the hearing officer did not meet the requirements under *Garden State Farms*,⁴³⁸ where specific findings concerning local interests and zoning must be made. Ronson argued that the facts of the case were more analogous to *P. T. & L*⁴³⁹ than to *Garden State Farms*. The court disagreed, since there had been no administrative or judicial holding, applying the *P. T. & L.* two-pronged test, that the proposed helistop use was “customarily incidental to the principal permitted use” of Ronson’s land. Moreover, the facts on record were insufficient for the Appellate Division to make any such finding.⁴⁴⁰

Under *Garden State Farms*, if an examination of the local zoning ordinance revealed that the property was not a permitted accessory use in the zone, a “material consideration” for the Commissioner would be whether the applicant had availed itself of any right to a variance under the local zoning law, as well as “whether an application for a variance should be pursued as a

⁴³³ *Id.* at 455.

⁴³⁴ *Id.* at 456.

⁴³⁵ See *id.*

⁴³⁶ 164 N.J. Super. 68 (App.Div. 1978), cert. denied, 79 N.J. 492 (1979) [hereinafter *Ronson Corp.*].

⁴³⁷ See *id.* at 69.

⁴³⁸ See *Garden State Farms*, *supra* notes 397-435 and accompanying text.

⁴³⁹ See *P.T.&L.*, *supra* notes 301-311 and accompanying text.

⁴⁴⁰ See *Ronson Corp.*, *supra* note 436 at 72.

helpful procedure for fleshing out the impact of the proposed facility upon neighboring land uses.”⁴⁴¹ *Garden State Farms* held that the failure to make such a finding would constitute an abuse of the Commissioner’s discretion.

Thus, the Appellate Division reversed the adjudication and order of the Commissioner, and remanded it for further proceedings consistent with *Garden State Farms*.⁴⁴²

⁴⁴¹ *Ronson Corp.*, *id.* at 72-73 (quoting *Garden-State Farms*, *supra* note 397 at 455-456).

⁴⁴² See *id.* at 73.

SECTION VII

SUMMARY AND ANALYSIS

This final section shall attempt to draw all of the foregoing information together into more precise statements of the existing law. Brief reference will be made to additional federal case law, some of which has not heretofore been discussed, to illustrate the general confusion that exists in the various courts. Finally, there will be a brief discussion of recommendations for the New Jersey Legislature, whose goal should be to designate clearer lines of authority and avoid confusion within the State system.

1. There is a legal distinction to be made between an “airport proprietor”, regardless of whether it is an individual, a municipality, or other governmental entity, and a “host” municipality, in which the airport is located in whole or in part. The ability of a host municipality to exercise its police power to regulate what goes on at an airport is limited, as shall be discussed below. When reference is made herein to a “municipal proprietor”, it should be taken to mean an airport owned and operated by the State, a county, a municipality, or a governmental or intergovernmental agency (such as the Port Authority).

2. In the State *Aviation Act* the New Jersey Legislature has given the goal of “aeronautical progress” the same weight as it has given the goal of “public safety”.⁴⁴³

3. The U.S. Constitution reserves to the States the right to regulate for themselves matters concerning public health, safety and welfare⁴⁴⁴ that do not conflict with the laws of the United States⁴⁴⁵ or have the purpose, means or effect of regulating interstate commerce.⁴⁴⁶

4. The New Jersey Constitution of 1947 gives the Legislature the authority to grant to municipalities the right to regulate municipal land use. Such regulation is deemed to be within the police power of the State. The Article also contains a clause that permits repeal or alteration by the Legislature.⁴⁴⁷ A municipality may also establish an airport, and take land for that purpose subject to Constitutional provisions requiring just compensation to the affected landowner.⁴⁴⁸ However, a municipality may not under the guise of a zoning ordinance acquire rights in private property that it may only acquire by purchase or eminent domain.⁴⁴⁹

5. *The Home Rule Act of 1917*,⁴⁵⁰ when read in light of the foregoing Constitutional provisions, has been broadly construed by the N.J. courts to favor a municipality’s power to zone.⁴⁵¹ Thus, a zoning ordinance enjoys the presumption that it is reasonable. However, this presumption is rebuttable on a showing that the ordinance in question is arbitrary, unreasonable

⁴⁴³ See generally N.J.S.A. 6:1—1 *et seq.*

⁴⁴⁴ See *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926).

⁴⁴⁵ See U.S. Const. art. VI, cl. 2 (Supremacy Clause).

⁴⁴⁶ “Negative” reading of U.S. Const. art. I, s. 8 (“dormant” Commerce Clause)

⁴⁴⁷ NJ Const., art. 4, § 6, ¶2.

⁴⁴⁸ NJ Const., art. 4, § 6, ¶ 3; N.J.S.A. 40:8—1 *et seq.*

⁴⁴⁹ See *Yara Engineering Corp.*, *supra* notes 163-168 and accompanying text. 132 N.J.L. 370 (S. Ct. 1945) (Invalidating city ordinance setting height restrictions on properties adjoining Newark Airport).

⁴⁵⁰ N.J.S.A. 40:42—1 *et seq.*

⁴⁵¹ Frizell & Pozycki, *supra* note 87 at § 1.1.

or capricious.⁴⁵² More importantly, this local zoning power is only a delegation of police power by the State to the municipality, not an abdication by the State of its sovereign powers under the U.S. Constitution.⁴⁵³

6. In New Jersey, the Commissioner of Transportation has the ultimate authority in the placement of aeronautical facilities.⁴⁵⁴ However, he must weigh conscientiously local interests, examine carefully whether a proposed aeronautical facility is compatible with surrounding land uses, and consult local ordinances and authorities when making licensing decision.⁴⁵⁵ While State court cases from the late 1970s⁴⁵⁶ appear to have fretted over the meaning of the phrase “supervision over aeronautics” in the State *Aviation Act* to delimit the powers of the Commissioner, two subsequent acts,⁴⁵⁷ the *Airport Safety and Zoning Act of 1983* and the *New Jersey Airport Safety Act of 1983*, having withstood initial challenges to their constitutionality,⁴⁵⁸ have broadened the discretion and powers of the Commissioner. The regulations promulgated under these *Acts* widen the scope of his “superintendency” over land use issues affecting airports and aeronautics, and may be closer to “absolute” authority than previously contemplated under *Garden State Farms*. This is not to say, however, that the requirement to weigh local interests conscientiously during the Commissioner’s decision-making is of any less procedural importance or that his failure to do so would not be an abuse of his discretion.

7. Under New Jersey law, a non-proprietor municipality which is host to an existing airport must make reasonable accommodation for such existing legal uses, while recognizing the importance of protecting and preserving the public interest in air travel.⁴⁵⁹ Moreover, each case in which a municipality bars air facilities must be judged on its particular facts to determine if the local action is arbitrary and should be invalidated.⁴⁶⁰

8. A non-proprietor municipality MAY NOT exercise its police power to engage in any regulation which:

(a) has the purpose, means or effect of regulating airport noise at its source;⁴⁶¹

(b) excludes uses which are manifestly within the ambit of appropriate primary or accessory uses consonant with an airport’s operation;⁴⁶²

⁴⁵² See *Ridgewood Air Club*, *supra* notes 153-162 and accompanying text (sustaining Board of Adjustment’s refusal to grant a permit for the use of certain lands as a non-commercial airport); see *Yoemans*, *supra* notes 123-131 and accompanying text (evidence failed to establish that provision in township zoning ordinance prohibiting an airport in a residential and agricultural zone was unreasonable).

⁴⁵³ Frizell & Pozycki, *supra* note 87 at § 1.1.

⁴⁵⁴ See *Garden State Farms*, *supra* notes 397-435 and accompanying text.

⁴⁵⁵ *Id.*

⁴⁵⁶ See *id.* See *Ronson Corp.*, *supra* notes 436-442.

⁴⁵⁷ See *supra* note 83.

⁴⁵⁸ See *Patzau*, *supra* notes 222-251 and accompanying text.

⁴⁵⁹ See *Aviation Services*, *supra* notes 312-336 and accompanying text (holding that even though Morristown’s airport was located within the boundaries of Hanover, Hanover’s zoning ordinance was inapplicable to such airport). See *Morristown I*, *supra* notes 351-365 and accompanying text.

⁴⁶⁰ *Id.* (“If the purposes sought to be achieved are to be thwarted by zoning plans which arbitrarily exclude airport uses from an entire municipal domain the progress envisioned by the Legislature and stimulated by [the *State Aviation Act*] may go unrecognized.”).

⁴⁶¹ See *Burbank*, *supra* notes 262-271 and accompanying text (city ordinance prohibiting jet aircraft from departing airport between the hours of 11 p.m. and 7 a.m. was invalid because Congress by its enactment of *Federal Aviation Act* and *Noise Control Act* has preempted state and local controls over aircraft noise). See also subsequent federal acts *ASNA* and *ANCA*, *supra* notes 53-82 and accompanying text

(c) interferes with the operation of aircraft in flight, including takeoff and landing procedures;⁴⁶³

(d) classifies airports as non-conforming land uses within the context of the municipality's ordinances or master plans of development;⁴⁶⁴

(e) has the purpose, means or effect of discriminating against interstate commerce;

(f) is preempted by State statute or regulation; or

(g) is preempted by federal law or regulation, such as the operation of aircraft in flight.

9. A proprietor municipality, or a private owner of a public use airport, MAY NOT regulate:

(a) airport noise in any manner that is arbitrary, unreasonable, discriminatory, or contrary to federal regulation;⁴⁶⁵

(b) in an area preempted by State statute or regulation; or

(c) in an area preempted by federal law or regulation.

10. A proprietor municipality which transfers its proprietary control of an airport to another entity, without reservation, may lose its power to impose any restrictions on the airport.⁴⁶⁶

11. While *municipalities* are equal government entities and thus generally enjoy no intergovernmental immunity from one another, the New Jersey Supreme Court has found a legislative intent to immunize acquisition and maintenance of lands and buildings from zoning power.⁴⁶⁷ However, there are limits to this immunity.⁴⁶⁸ A proprietor municipality of an airport located in whole or in part in another municipality MAY NOT engage in a land use that:

(a) is not incidental or necessary for the maintenance and operation of the airport;

⁴⁶² See *Morristown III*, *supra* notes 372-383 and accompanying text (such as runways, taxiways, hangers, etc.; though it may exclude banks, service stations, hotels, etc.).

⁴⁶³ See *City of Newark*, *supra* notes 194-213 and accompanying text; *Allegheny Airlines v. Cedarhurst* *supra* notes 204-205 and accompanying text (ordinance prohibiting overflight at less than 1,000 feet above ground level preempted by federal regulation). See also *American Airlines v. Hempstead*, *supra* note 204 (local zoning ordinances delimiting permissible noise levels for aircraft overflight to protect public health and safety interfered with interstate air commerce and were invalid).

⁴⁶⁴ See *Air Safety and Zoning Act of 1983*, as amended; N.J.S.A. 6:1—80 to —88; N.J.A.C. 16:61—2.1(e).

⁴⁶⁵ See *British Airways Bd. v. Port Authority of New York*, 558 F.2d 75 (2d Cir. 1977) (“*Concorde I*”) (regulations to ban Concorde jet found to be unreasonable and unduly burdensome on interstate commerce); and *Concorde II*, *supra* note 33 and accompanying text. (same case).

⁴⁶⁶ See generally *Nat. Helicopter Corp.*, *supra* note 16 at 1024-1026; *San Diego Unified Port District v. Gianturco*, 651 F.2d 1306 (9th Cir. 1981) (State held not proprietor of airport where local port district and residents of its constituent cities would pay cost of taking any air easements under State Act); *Piolo v. City of Clearwater*, 711 F.2d 1006 (11th Cir. 1983) (State failed to reserve for itself, in contract with leaseholder, the right to exercise certain of its proprietary functions).

⁴⁶⁷ See *Aviation Services*, *supra* notes 312-336 and accompanying text.

⁴⁶⁸ See *Shell Oil*, *supra* notes 337-350 and accompanying text; *Morristown III*, *supra* notes 372-383 and accompanying text.

- (b) is beyond the ambit of reasonable present or future public need; or
- (c) is a wholesale aggrandizement of territory.

12. The proprietor of an airport is liable for damages from airport noise to affected landowners.⁴⁶⁹ This is commonly referred to as *Griggs* liability.⁴⁷⁰ However, if the airport proprietor meets the requirements of the FAA Part 150 program, its liability may be limited.

13. New Jersey courts have favored the law of nuisance⁴⁷¹ over trespass in assessing liability for damages, which is the majority rule.⁴⁷²

14. Airports are not nuisances *per se*⁴⁷³ although operations at an airport may become a nuisance.⁴⁷⁴

15. Notwithstanding approval by the Division of Aeronautics, a private individual or corporation MAY NOT establish a private use landing area for fixed-wing aircraft, or a heliport or helistop on its property if an existing local zoning ordinance expressly prohibits that use. In the absence of an express prohibition, however, the courts will likely consider such use to be an appropriate and lawful accessory use.⁴⁷⁵

16. State and local governmental efforts to regulate the location of helistops are not preempted by the federal government so long as the local regulation referred to does not directly affect actual aircraft operations.⁴⁷⁶ However, the Commissioner of Transportation has the ultimate authority as to placement of aeronautical facilities,⁴⁷⁷ subject to consultation with local officials and consideration of local objections.⁴⁷⁸

17. In many jurisdictions, the inability of the courts to detect clear lines of authority has lead to conceptual confusion and inconsistency regarding land use and zoning in regard to airport land. For example, if the placement and design of runways and taxiways is critical to the safety of takeoffs and landings and essential to the efficient management of the surrounding airspace, as the Ninth Circuit has held, municipal attempts to regulate their placement and design are clearly

⁴⁶⁹ See *Griggs*, *supra* notes 214-221 and accompanying text (flight of aircraft 30-300 feet above petitioner's property on take off; 53-153 feet on landing); *Causby*, *supra* notes 169-178 and accompanying text (flight of military aircraft 83 feet above petitioner's property).

⁴⁷⁰ Compare *City of Newark*, *supra* note 194 at 160-162.

⁴⁷¹ "Nuisance is that activity which arises from unreasonable, unwarranted or unlawful use by a person of his own property, working obstruction or injury to right of another, or to the public, and producing such material annoyance, inconvenience and discomfort that the law will presume resulting damages." Black's Law Dictionary, (Sixth ed. 1990). "The maxim, *sic utere tuo ut alienum non laedas* [use your own property in such a manner as not to injure that of another], expresses the well established doctrine of the law." *Ross v. Butler*, 140 N.J. Eq. 294 (1868)).

⁴⁷² See *Hyde*, *supra* notes 179-193 and accompanying text; *Oeschle* *supra* notes 132-152 and accompanying text; *City of Newark*, *supra* notes 194-213 and accompanying text.

⁴⁷³ See *Oeschle*, *supra* notes 132-152 and accompanying text; *Hyde*, *supra* notes 179-193 and accompanying text.

⁴⁷⁴ See *Hyde*, *id.*

⁴⁷⁵ See *P.T.&L.*, *supra* notes 301-311 and accompanying text.

⁴⁷⁶ See *Garden State Farms*, *supra* notes 397-435 and accompanying text.

⁴⁷⁷ *Id.* at 454.

⁴⁷⁸ *Id.* at 455.

invalid.⁴⁷⁹ In 1995, a federal district court in Ohio arrived at an opposite conclusion. However, if flight in the navigable airspace begins when an aircraft takes the runway, then the Ohio court's conclusion is fatally confused and cannot be satisfactorily explained.

⁴⁷⁹ See *Burbank-Glendale-Pasadena*, *supra* note 46 and accompanying text.

SECTION VIII

CONCLUSION

New Jersey State courts have subjected and should continue to subject the municipal zoning regulation of airports to strict scrutiny. However, this leaves the courts to function on an *ad hoc* basis, which will inevitably lead to inconsistent results, through years of costly litigation. This section covers no fewer than six reported cases concerning Morristown Airport alone.

Although there have been no published cases since 1979 (not including the 1994 *Patzau* decision), the legal battles have continued, especially between privately-owned public use airports and host municipalities.

As Superior Court Judge Rosenberg observed, in the trial court opinion of *Garden State Farms*,⁴⁸⁰ “[w]hile it may well be that a unified system of laws preempting all land use power for aeronautics would best serve the interests of the people of New Jersey, such a policy decision should be made by the Legislature and not by the court.”⁴⁸¹

It falls to the State Legislature to rethink and more clearly define the authority of the Commissioner over land use regulation on and around airport land. The argument made here is for a clear legislative statement that enhances the Commissioner’s authority and expressly preempts this area from any municipal regulation. A strong, central authority would benefit both airports and the surrounding communities that they serve. This is especially true where two recent acts, the *Airport Safety and Zoning Act of 1983* and the *New Jersey Airport Safety Act of 1983*, have served to enhance the Commissioner’s discretion and power. The legislative goal should be to eliminate, once and for all, the problems caused by the ambiguous phrase “supervision over aeronautics”, used to describe the powers of the Commissioner of Transportation.

Another problem arises where the courts are left to guess at intergovernmental immunities between a State agency and a political subdivision inferior to the State, such as a municipality. As discussed in Section V, above, where legislative silence leaves the State courts no choice but to divine legislative intent, the courts are left, in effect, with the power to legislate. This is not a power the that courts necessarily desire, but they must interpret the law to apply it properly. While it is a conclusion of this legal memorandum that the NJDOT regulations preempt local zoning ordinances *de facto*, that conclusion should rely on express preemption language in the positive law, not guesswork. Of course, this begs the question of whether enforcement of the various existing legislative provisions is the problem at hand. However, that discussion is beyond the scope of this legal memorandum.

The New Jersey Legislature has made great strides since *Garden State Farms*, particularly in laws aimed at protecting local residents. For example, the *Airport Safety and Zoning Act of 1983*, including the law requiring notification to prospective buyers whether the property they wish to purchase is located in an airport zone, is particularly praiseworthy. As a practical consideration, the establishment of clearly defined airport zones aid in the determination

⁴⁸⁰ See 136 N.J. Super. 1 (Law Div. 1975).

⁴⁸¹ *Id.* at 20.

of just how many of New Jersey's residents are adversely affected by airports, especially when a necessary airport expansion is planned.

Recalling the observation made at the beginning of this legal memorandum that airport litigation tends to be a highly charged emotional confrontation, the State Legislature ought to diffuse confrontation by providing "bright line" statements of authority over well defined zones of land on and around airports, anticipating reasonable, future airport development needs.

This discussion should not obscure the fact that many host communities in New Jersey are friendly to general aviation airports, enjoying good community-airport relations and welcoming the benefits derived from the airports.

While the legal aspects of airport zoning discussed in this legal memorandum are important, they are but one facet of a multifaceted problem. If one was to view the open spaces of airport lands as limited natural resources, the importance of their preservation would become apparent, and not only for the environmental reasons previously mentioned. In New Jersey, airport land, once lost, will be lost forever. As long as the State continues to attract new residents at an unprecedented rate, the strong demand for residential development will continue. The lands that airports occupy are usually seen as ideal in the eyes of real-estate developers. The temptation to convert airport land for other uses for quick, short-term economic gain is powerful. However, the economic and social gains derived over the long-term that come part and parcel with the development of a fully integrated intermodal transportation system, as has been discussed above, benefit everyone. The safeguarding of any valuable, limited resource will always be a question of political will. The safeguarding of airport land is no exception.

The State Legislature, acting decisively, can arrest the protracted and costly legal battles that exist or will otherwise and inevitably occur, protect a valuable land resource, and ensure that the final elements of a robust intermodal State transportation system—the general aviation airports—will develop and thrive in coherent uniformity.

APPENDIX H

APPENDIX H

FAR PART 150 NOISE - LAND USE COMPATIBILITY GUIDELINES¹

(see notes on following page) Annual Day-Night Average Sound Level, L_{dn}, in decibels
Below 65 65-70 70-75 75-80 80-85 Above 85

Residential Use

Residential other than mobile						
homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home park	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N

Public Use

Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N

Commercial Use

Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail -- building materials, hardware and farm equip.	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade - general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N

Manufacturing and Production

Manufacturing general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y

Recreational

Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos -	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, stables and water recreation	Y	Y	25	30	N	N

(Note: Numbers in parentheses refer to footnotes on the following page.)

¹ (Source: FAR Part 150, Appendix A, Table 1.)

APPENDIX H

NOTES TO FAR PART 150 NOISE - LAND USE COMPATIBILITY GUIDELINES

The designations contained in this table do not constitute a Federal determination that any use of Land covered by the program is acceptable or unacceptable under federal, State or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the Local authorities FAA determinations under Part 150 area not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to Locally determined needs and values in achieving noise compatible land uses.

Key to Table 1

- SLUCM = a Standard land Use Coding Manual
- Y(YES)= Land Use and related structures compatible without restrictions
- N(NO) = Land Use and related structures are not compatible and should be prohibited
- NLR = Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure
- 25, 30, or 35 = Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

Notes for Table 1

- (1) Where the community determines that residential or school uses must be allowed measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least a 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB thus, the reduction requirements are often stated at 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- (2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public received, office areas, noise sensitive areas or where normal noise level is low.
- (3) Measures to achieve NLR 30 dB must be incorporated into the design and construction of portions of these buildings where the public received, office areas, noise sensitive areas or where normal noise level is low.
- (4) Measures to achieve NLR 35 dB must be incorporated into the design and construction for portions of these buildings where the public received, office areas, noise sensitive areas or where the normal level is low.
- (5) Land use compatible provided special sound reinforcement systems are installed
- (6) Residential buildings require an NLR of 25
- (7) Residential buildings require an NLR of 30
- (8) Residential buildings not permitted.

It should be noted that the Part 150 guidelines indicate that all uses normally are compatible with aircraft noise at exposure levels below 65 Ldn. This cut off is supported in a formal way by standards adopted by the U.S. Department of Housing and Urban Development (HUD). the HUD standards address the issue of whether sites are eligible for Federal funding support of housing construction

These standards, set forth in Part 51 of the Code of Federal Regulations (24 CFR Part 51), define areas with L_{dn} , exposure not exceeding 65 dB as acceptable for funding (with acceptability shifted to 70 dB in certain special circumstances). Areas exposed to noise levels between Ldn 65 and 75 are "normally unacceptable," and require special abatement measures and review. Those at 75 and above are "unacceptable" except under very limited special circumstances.

APPENDIX H

**EFFECTS OF NOISE ON PEOPLE
IN AN URBAN RESIDENTIAL ENVIRONMENT**

Effects	Hearing Loss	Speech Interference		Annoyance	Average Community Reaction	General Community Attitude Towards Area
		Indoor	Outdoor			
Day-Night Average Sound Level in Decibels	Qualitative Description	% Sentence Intelligibility	Distance in Meters for 95% Sentence Intelligibility	% of Population Highly Annoyed		
75 and above	May Begin to Occur	98%	0.5	37%	Very Severe	Noise is likely to be the most important of all adverse aspects of the community environment.
70	Will Not Occur	99%	0.9	25%	Severe	Noise is one of the most important adverse aspects of the community environment.
65	Will Not Occur	100%	1.5	15%	Significant	Noise is one of the important adverse aspects of the community environment.
60	Will Not Occur	100%	2.0	9%	Moderate	Noise may be considered an adverse aspect of the community environment.
55 and below	Will Not Occur	100%	3.5	4%	None to Slight	Noise considered no more important than various other environmental factors.

Source: Airport Compatibility Guidelines, Texas Aeronautics Commission, January, 1986.

APPENDIX H

TYPICAL DBA VALUES FOR AIRCRAFT WEIGHING LESS THAN 20,000 POUNDS

APPROACH CATEGORY A AND B SMALL AIRPLANES IN AIRPLANE DESIGN GROUP I

<u>Aircraft</u>	<u>Appch Speed Knots</u>	<u>Wing span Feet</u>	<u>Max.T/O Wt.Lbs.</u>	<u>T/O DBA</u>	<u>APP DBA</u>
AJI Hustler	98	34.3	9,500	----	----
Beech Baron 58	96	37.8	5,400	67.0	73.0
Beech Baron 58P	101	37.8	6,200	66.0	77.0
Beech Baron 58TC	101	37.8	6,200	67.0	77.0
Beech Baron B55	90	37.8	5,100	73.0	73.0
Beech Baron E55	88	37.8	5,300	67.0	74.0
Beech Bonanza A36	72	33.5	3,600	71.0	64.0
Beech Bonanza B36TC	75	37.8	3,850	71.0	64.0
Beech Bonanza F33A	70	33.5	3,400	70.0	64.0
Beech Bonanza V35B	70	33.5	3,400	69.0	64.0
Beech C99 Airliner	107	45.9	11,300	71.1	77.1
Beech Duchess 76	76	38.0	3,900	62.0	71.0
Beech Duke B60	98	39.3	6,775	63.0	80.0
Beech King Air B100	111	45.9	11,800	62.0	77.3
Beech King Air F90	108	45.9	10,950	62.0	77.3
Beech Sierra C24R	70	32.8	2,750	63.0	62.0
Beech Skipper 77	63	30.0	1,675	56.0	60.0
Beech Sundowner C23	68	32.8	2,450	59.0	62.0
Breguet FAL-10	104	42.9	18,740	66.1	86.2
Cessna Citation 1	108	47.1	11,850	67.3	77.7
Cessna-150	55	33.3	1,670	56.0	59.0
Cessna-177	64	35.5	2,500	65.0	62.0
Cessna-402	95	44.1	6,850	68.0	74.0
Cessna-404	92	46.3	8,450	61.0	74.0
Cessna-414	94	44.1	6,785	67.0	73.0
Cessna-421	96	41.1	7,500	61.0	74.0
DEH DHC-2	50	48.0	5,100	----	---

APPENDIX H

<u>Aircraft</u>	<u>Appch Speed Knots</u>	<u>Wing span Feet</u>	<u>Max. T/O Wt. Lbs.</u>	<u>T/O DBA</u>	<u>APP DBA</u>
Embraer-121	92	47.4	12,500	----	---
Embraer-326	102	35.6	11,500	----	----
Embraer-820	74	40.7	7,000	----	---
Foxjet 600	97	31.6	4,449	---	---
Hamilton Westwind	96	46.0	12,495	61.5	77.1
Lapan XT-400	75	47.9	5,555	----	---
Learfan 2100	86	39.9	7,200	----	---
Learjet 28/29	120	42.2	15,000	87.0	101.7
Mitsubishi Diamond MU-300	100	43.3	13,890	71.9	77.2
Mitsubishi Marquise /MU-2N	88	39.1	11,575	----	---
Mitsubishi MU-2	119	39.1	10,800	----	---
Mitsubishi Solitaire MU-2P	87	39.1	10,470	----	---
Partenavia 68B Victor	73	39.4	4,321	----	---
Piaggio P-166 Portofino	82	48.2	9,480	----	---
Piaggio PD-808	117	43.3	18,300	----	---
Piper Aerostar 60-602P	94	36.7	6,000	66.0	73.0
Piper Cheyenne 40OLS	110	42.7	10,500	57.0	78.5
Piper Navajo PA-31	100	40.7	6,500	70.0	74.0
Rockwell 690	97	46.5	10,250	----	---
Rockwell Sabre 40	120	44.4	18,650	83.4	92.0
SN-600 Corvette	118	42.2	14,550	63.8	79.1
Swearingen Merlin 3B	105	46.3	12,500	----	---
Swearingen Metro	112	46.3	12,500	----	---
Volpar Turbo 18	100	46.0	10,286	----	---

APPENDIX

I

MODERN BUSINESS AIRCRAFT

MANUFACTURER	MAKE	MODEL	COST	SEATING		NOISE (dBA) AT		WEIGHT		MINIMUM RUNWAY		RANGE NAUTICAL MILES	AVERAGE SPEED KNOTS	
				EXECUTIVE	MAXIMUM	TAKE-OFF	LANDING	MAX-RAMP	MAX-LANDING	TO @ 60° F	TO @ 95° F			V REF
BOMBARDIER	LEARJET-31A	LR-31A	\$5,775,000	7	10	81.0	92.6	16,750	15,300	3,280	4,170	112	1,266	411
	LEARJET-45	LR-45	\$7,925,000	8	9	NA	NA	20,450	19,200	4,580	4,720	NA	1,710	406
	LEARJET 60	LR-60	\$10,775,000	6	10	70.8	87.7	23,750	19,500	5,450	6,210	130	2,330	406
	CORPORATE JETLINER	CL-601RJ	\$20,600,000	18	30	78.6	92.1	51,250	47,000	5,785	7,455	121	2,513	414
	CHALLENGER 604	CL-604	\$20,750,000	9	19	80.9	90.3	48,300	38,000	5,840	6,630	117	4,024	418
	SPECIAL ED.	CL-601SE	\$23,500,000	15	19	78.6	92.1	53,250	47,000	6,295	7,455	125	3,112	415
CESSNA	GLOBAL EXPRESS	BD-700	\$37,500,000	15	19	80.7	91.3	93,750	78,600	5,550	5,840	125	6,625	453
	CITATIONJET	CE-525	\$3,287,000	6	7	73.4	92.1	10,500	3,080	3,080	4,530	99	1,099	331
	BRAVO	CE-550	\$4,550,000	7	11	73.2	90.7	14,500	13,500	3,460	4,655	98	1,526	368
	ULTRA	CE-560	\$6,063,000	7	11	82.9	85.7	16,500	15,200	3,180	3,710	96	1,557	384
	EXCEL	CE-560-XL	\$7,200,000	8	11	NA	NA	19,400	17,900	3,460	4,274	NA	1,744	383
	CITATION VII	CE-650	\$10,641,000	8	13	77.1	90.8	22,650	20,000	4,690	5,500	120	1,798	418
DASSAULT	CITATION X	CE-750	\$15,384,000	8	12	72.3	90.2	36,000	31,800	5,710	6,780	112	2,896	462
	FALCON 50 EX	DA-50	\$16,575,000	9	19	83.8	95.2	39,900	35,715	4,890	5,825	105	3,339	427
	FALCON 2000	DA-2000	\$18,920,000	8	19	79.4	93.1	36,000	33,000	5,440	5,930	107	3,178	422
	FALCON 900B	DA-900B	\$25,400,000	12	19	79.8	91.7	45,700	42,000	4,950	6,006	106	3,958	422
	FALCON 900EX	DA-900EX	\$28,510,000	13	19	79.8	92.3	48,500	42,000	5,290	5,875	107	4,629	430
	GULFSTREAM	GULFSTREAM	\$28,000,000	14	19	77.5	92.0	75,000	66,000	5,450	6,490	125	4,115	448
ISRAJET	GULFSTREAM	G-V	\$35,000,000	15	19	88.3	90.9	90,900	75,300	5,990	6,160	137	6,500	450
	ASTRA SPX	IA-1125A	\$10,869,000	6	9	79.1	91.9	24,800	20,700	5,395	6,065	116	2,949	423
	ASTRA GALAXY		\$16,900,000	8	19	NA	NA	33,600	27,500	6,040	6,860	NA	3,620	NA
	BEECHJET	BE-400A	\$5,775,662	7	9	89.0	91.7	16,300	15,700	4,169	5,255	105	1,321	392
	HAWKER	800XP	\$10,545,000	8	15	79.3	93.3	28,120	23,350	5,380	7,500	113	2,539	394
	MAXIMUM VALUES		\$18,106,290	10	15	89	95	93,750	78,600	6,295	7,500	114	2,972	413
MULTI-ENGINE TURBO PROPS	EXECUTIVE *	1900 D	\$4,775,000	12	19	76.9	91.9	17,060	16,600	3,737	4,671	107	1,429	226
	KING AIR	350	\$4,697,875	9	15	72.1	91.9	15,100	15,000	3,500	4,500	100	1,703	237
	KING AIR B-200	B200C	\$3,870,709	7	15	79.2	92.0	12,590	12,500	3,400	3,750	112	1,454	241
	KING AIR	B 200 SE	\$3,196,834	7	15	79.2	92.0	12,590	12,500	3,411	3,750	112	1,750	239
	KING AIR	C 90 B	\$2,674,456	5	12	74.3	91.6	10,160	9,600	3,650	4,125	104	1,089	196
	KING AIR	C 90 SE	\$1,986,775	5	12	74.3	91.6	10,160	9,600	4,042	4,930	117	1,222	195
REIMS CESSNA	CARAVAN II *	RA406	\$2,510,832	8	14	69.9	91.6	9,925	9,360	4,363	5,100	117	1,201	180
FAIRCHILD	MERLIN 23 *	SA-227-DC	\$4,050,000	9	19	75.3	91.6	16,600	15,675	5,460	6,825	102	1,816	241
MAXIMUM VALUES		\$3,470,310	8	15	75.2	91.6	17,060	16,600	5,460	6,825	109	1,458	219	
AVERAGE VALUES														

* 95°F ACCELERATE STOP DISTANCES ARE ESTIMATED AT STANDARD KOCH CHART VALUE OF 125% OF ISA VALUE.

MODERN BUSINESS AIRCRAFT

MANUFACTURER	MAKE	MODEL	COST	SEATING		NOISE (dBA) AT		WEIGHT		MINIMUM RUNWAY		RANGE NAUTICAL MILES	AVERAGE SPEED KNOTS	
				EXECUTIVE	MAXIMUM	TAKE-OFF	LANDING	MAX-RAMP	LANDING	TO @ 60° F	TO @ 95°F			V REF
MULTI-ENGINE PISTON AIRCRAFT														
AERO SPATIALE	TANGARA	TB 360	\$450,000	3	4	72.0		3,815	3,800	NA	NA	81	11,050	164
PIPER	SENECA V (TURBO)	PA-34-220T	\$532,900	4	5	71.4		4,773	4,513	2,063	2,579	85	863	176
RATHEON	BARON	58	\$790,630	5	6	77.6		5,524	5,400	3,000	3,750	109	1,541	193
MAXIMUM VALUES														
AVERAGE VALUES														
SINGLE ENGINE TURBO PROPS														
CESSNA	CARAVAN I	CE-208	\$1,243,300	9	10	81.6		8,035	7,800	2,200	2,485	79	885	178
	GRAND CARAVAN	CE-208B	\$1,330,370	9	10	82.7		8,785	8,500	2,500	2,795	79	834	179
PILATUS	PCX-11 *	PC-12	\$2,539,233	7	10	76.0		9,955	9,920	2,300	2,875	85	1,815	204
TBM S.A.	TBM 700 *	TBM 700	\$2,610,000	5	7	76.2		6,614	6,250	2,136	2,670	77	1,467	285
MAXIMUM VALUES														
AVERAGE VALUES														
SINGLE ENGINE PISTON AIRCRAFT														
CESSNA I	SKYLANE	CE-182S	\$199,500	3	4	79.7		3,110	2,900	1,505	1,740	70	931	133
MOONEY	MSE ALLEGRO *	M-20J	\$345,450	3	4	80.6		2,906	2,900	2,500	3,125	69	940	158
	OVATION *	M-20R	\$350,450	3	4	72.6		3,374	3,200	2,250	2,813	77	1,140	173
	ENCORE (TURBO) *	MO-20K	\$415,450	3	4	74.0		3,136	3,100	2,000	2,500	75	975	160
	TLS (TURBO) *	MP-20M	\$415,450	3	4	74.0		3,374	3,368	2,100	2,625	78	875	168
COMMANDER	114B (TURBO) *	CDR-114B	\$343,150	3	4	78.5		3,260	3,140	1,985	2,481	73	719	167
AERO SPATIALE	TRINIDAD *	TB-20	\$345,061	3	4	74.0		3,097	3,086	2,083	2,604	77	935	150
	TRINIDAD TC (TURBO) *	TB-21	\$442,313	3	4	76.0		3,086	3,086	1,922	2,403	77	917	153
PIPER	SARATOGA *	PA-32R-30	\$359,800	5	6	77.6		3,615	3,600	1,759	2,199	78	868	162
	MALIBU (PRESSURIZED) *	PA-46-350P	\$768,700	4	5	74.5		4,318	4,100	1,335	1,669	75	1,164	215
RATHEON	BONANZA *	A36	\$425,899	5	6	76.7		3,663	3,650	1,913	2,391	77	838	160
	BONANZA (TURBO) *	B36-2C	\$470,899	5	6	79.2		3,866	3,850	2,130	2,663	72	1,134	173
LAKE	RENEGADE (TURBO) *	LA-250	\$484,200	5	6	76.7		3,151	3,050	1,320	1,650	69	891	127
	RENEGADE (TURBO) *	LA-270T	\$528,400	5	6	70.7		3,151	3,050	1,280	1,600	69	891	141
EXTRA	EA 400 (PRESSURIZED) *	EA 400	\$755,814	5	6	NA		4,409	4,200	NA	NA	78	918	225
MAXIMUM VALUES														
AVERAGE VALUES														
* 95°F ACCELERATE STOP OR TAKE TO 50 FEET DISTANCES ARE ESTIMATED AT STANDARD KOCH CHART VALUE OF 125% OF ISA VALUE.														

MODERN BUSINESS AIRCRAFT

MANUFACTURER	MAKE	MODEL	COST	SEATING		NOISE (dBA) AT		WEIGHT		MINIMUM RUNWAY		RANGE NAUTICAL MILES	AVERAGE SPEED KNOTS
				EXECUTIVE	MAXIMUM	TAKE-OFF	LANDING	MAX - RAMP	MAX - LANDING	TO @ 60° F	TO @ 95° F		
MULTI ENGINE TURBO PROPS OVER 20,000 POUNDS													
BRITISH AERO	JET STREAM 41 *	BA-4101	\$7,995,000	12	30	76.8		24,110	23,300	2,965	3,706	103	272
SAAB	340 B *	SAAB-340B	\$9,000,000	19	35	78.5		29,300	28,500	3,830	4,788	115	265
	2000 *	SAAB-2000	\$14,500,000	36	50	78.4		50,700	48,500	3,900	4,875	124	353
DE HAVILAND	CORP. DASH - 8 -300 *	DHC - 8 - 10	\$9,975,000	12	40	95.0		36,500	33,900	3,150	3,938	NA	261
	CORP. DASH - 8 -300 *	DHC-8-300	\$13,250,000	40	50	95.0		43,200	42,000	3,500	4,375	NA	275
FAIRCHILD-DORNIE	DORNIER 328 - 110 *	DO-328-110	\$10,000,000	19	33	76.9		31,019	29,167	3,570	4,463	108	303
MAXIMUM VALUES													
				23	40	85.1	0.0	37,933	36,267	3,545	4,431	113	288
AVERAGE VALUES													
* 95°F ACCELERATE STOP DISTANCES ARE ESTIMATED AT STANDARD KOCH CHART VALUE OF 125% OF ISA VALUE.													

APPENDIX

J

APPENDIX J

LIST OF EXHIBITS PRESENTED TO THE COMMISSION

1	New Jersey Airports Development Opportunities Directory
2	Delaware Valley Regional Planning Commission - Aircraft Counting Program
3	Testimony Before the NJGASC
4	Lakewood Industrial Commission Brochure
5	National Business Aircraft Association 1994 State Aviation Tax Report
6	National Business Aircraft Association 1992 State Aviation Tax Survey
7	Face to Face
8	Arthur Anderson Business Aviation Performance Study
9	Economic Impact of Business Aviation on the National Economy
10	1995 National Business Aircraft Association Operator Profile & Benchmarking Survey
11A	1995 National Business Aircraft Association Business Aviation Fact Books
11B	1997 National Business Aircraft Association Business Aviation Fact Books
11C	1998 National Business Aircraft Association Business Aviation Fact Books
12	National Business Aircraft Association Airports Handbook
13	No Plain No Gain National Business Aircraft Association Videotape
14	Water Resources for Enhanced Aerial Fire Suppression
15	Testimony Before the NJGASC
16	Financing Opportunities for Privately Owned Airports(NY)
17	NY Airport Improvement Program 1989 Annual Report
18	Economic Impact of Aviation in NY State
19	NY State Airport Directory, 1989
20	NY State Commercial Service Airport Statistics
21	New Jersey Aviation/Aerospace Education Resources
22	Issues in Mitigation of Community Noise Impact
23	Hopewell Township Airport Ordinance
24	Economic Impact of New Jersey's GA Airports(brochure)
25	Reliever Airports Workshop Summary 1995 - Trans. Research Bd.

26	(Technical Report) "Economic Impact Of New Jersey's General Aviation Airports New Jersey Division Of Aeronautics Safety-Planning-Education May 1996
27	Airports Then & Now - AOPA
28	Binder of State Survey Responses
29	Maryland Assistance to Private Airports MD Aviation Admin
30	MD Code 8-302: County Prop Tax Exemption
31	MD House Bill 1304, State Prop Tax Exemption
32	Regulations Relating to PA Aviation - Page 39, prop tax exempt
33	MA Chap 59, Sec 5, Par 38 prop tax exempt
34	Extracts From Michigan Laws Pertaining To Exemption From Property Taxes For Private Owned, Public Use Airport MI Aero Code Sec 86, Tax Act Sec 7,
35	(Excerpt) From A Log Book Concerning Taxation And Exemptions
36	(Booklet) About A Program Overview Of Eagle Flight Squadron Inc. "Look Up And Be Looked Up To..."
37	(Tax Report) State Aviation Tax Report 1996-1997
38	(Chart) Showing The Repair Cost Vs. Pavement Age (Original Of Fax) To: John Kilbourne)
39	(Letter) From Giles B. Maupin To Jack McNamara October 23, 1996 Concerning Airports Of The Great State Of New Jersey
40	(Testimony) Before The New Jersey General Aviation Study Commission Presented By Mayor Kenneth C. Scherer February 27, 1996
41	Testimony Before The New Jersey General Aviation Study Commission Presented By Frank S. Scarantino February 27, 1996
42	Summary Of Host Community Responses To Questionnaire
43	Testimony Before The New Jersey Aviation Study Commission Presented By The Somerset County Chamber Of Commerce January 30, 1996
44	(Policy Statement) Hunterdon County Chamber Of Commerce Support For County's General Aviation Community July 1, 1996; (Letter) From Franklyn C. Steinberg III To Jack McNamara July 15, 1996
45	(Letter) To Chairman Duncan From Gary R. Ness Concerning AIP Funding By Airport Category August 9, 1995
46	(Outline) New Jersey Tax Issues Presented To General Aviation Study Commission October 31, 1995 Memorandum To The General Aviation Study Commission From McCarter & English October 31, 1995 Re: Tax Issues
47	(Resolution) April 1, 1996 By Readington Township In The County Of Hunterdon
48	(Magazine Article From Forbes Magazine) "A Sixties Industry In A Nineties Economy" By Howard Banks May 9, 1994
49	(Map) Lakewood, New Jersey
50	(Facsimile) Flyer "Fight The Expansion Of Solberg Airport" By Abe Abuchowski December 7, 1995
51	(Letter) From Abe Abuchowski February 5, 1996 Concerning Meeting Between Jack Penn, Jack McNamara Jack Elliot And Abe Abuchowski
52	(Study Draft #1) New Jersey General Aviation Study Commission - Survey Of Aviation Policies Of Sister States 1993-1994
53	(Reference) "When You Can't Get There From Here: Our Fourth Airport Crisis" By Austin J. Tobin February 5, 1969; Letter To Mr. DeGraaff August 26, 1995 From Anthony P. Lopez

54	(Letter) From Richard H. Badger (Assemblyman) Concerning Letters From Mr. Joseph Dupont Of Gillette About Advantages Of Having Fire-Stations At Public Airports September 19, 1995
55	(Newspaper Article From The New York Times) "As Small Airports Struggle, Local Governments Start Investing" February 18, 1996 By David W. Chen
56	(Data Book) General Aviation Statistic Data Book 1996
57	Information Folder on the North Carolina Global TransPark (airport)
58	Weather Reports from the Office of Aeronautics
59	(News Article) The Sunday Star Ledger "Newark No. 1 As Airport With Most Delays" By: Al Frank Spring 1997
60	(Booklet) "Citation Jet Flight Planning Guide Units 525-175 & On" June 1997
61	(Booklet) "Citation Bravo Flight Planning Guide Units 550-800 & On" August 1997
62	(Booklet) "Citation Ultra Flight Planning Guide Units 560-401 And On" February 1997
63	(Booklet) "Citation Excel Flight Planning Guide Preliminary Data" July 1997
64	(Booklet) "Cessna/Citation VII Flight Planning Guide Units 650-7001 & On" May 1995
65	(Booklet) "Cessna/Citation V Flight Planning Guide Units 750-001 & On" July 1997
66	(Booklet) "Flight Safety And Warning Supplements" 1992
67	(News Article) The Sunday Star Ledger "Still Flying Solo" By: Al Frank November 9, 1997
68	(Magazine Article) Business And Commercial Aviation "50 Years Of Success For NBAA And The Industry It Represents" September 1997
69	(Magazine Article) "When Only The Best Will Do" Business And Commercial Aviation September 1997
70	Aircraft Operating/Flight Manuals For Canadair CL-604
71	Aircraft Operating/Flight Manuals For Canadair PSP601A-1-1
72	Aircraft Operating/Flight Manuals For Canadair CSP A-012
73	Aircraft Operating/Flight Manuals For Canadair PSP601-6
74	Aircraft Operating/Flight Manuals For Canadair PSP600-1
75	Aircraft Operating/Flight Manuals For Cessna Skyhawk 172R
76	Aircraft Operating/Flight Manuals For Cessna 182S Skylane
77	Aircraft Operating/Flight Manuals For Cessna 208B Caravan 1
78	Aircraft Operating/Flight Manuals For Cessna 208 Caravan 1
79	Aircraft Operating/Flight Manuals For Raytheon Hawker 800 XP
80	Aircraft Operating/Flight Manuals For Raytheon/ Beechcraft King Air C90B
81	Aircraft Operating/Flight Manuals For Raytheon/ Beechcraft Super Air 350

82	Aircraft Operating/Flight Manuals For Raytheon/ Beechcraft Beechjet 400A
83	Aircraft Operating/Flight Manuals For Cessna Citation I/SPS01
84	Aircraft Operating/Flight Manuals For Cessna Skyhawk 172P
85	Aircraft Operating/Flight Manuals For Cessna Cutlass RG 172RG
86	Aircraft Operating/Flight Manuals For Cessna Pressurized Centurion P210IV
87	Aircraft Operating/Flight Manuals For Cessna 421 Golden Eagle 421C
88	Aircraft Operating/Flight Manuals For Cessna Conquest I/Corsair425
89	Aircraft Operating/Flight Manuals For Cessna Conquest I 425
90	Aircraft Operating/Flight Manuals For Cessna Conquest 441
91	Aircraft Operating/Flight Manuals For Beechcraft Super King Air 200
92	Aircraft Operating/Flight Manuals For Beechcraft Super King Air B200
93	Aircraft Operating/Flight Manuals For Beechcraft King Air E90
94	Aircraft Operating/Flight Manuals For Beechcraft King Air F90
95	Aircraft Operating/Flight Manuals For Beechcraft King Air F-90-1
96	Aircraft Operating/Flight Manuals For Piper Aztec - PA-23-250
97	New Jersey State Development and Redevelopment Plan: Reexamination and Preliminary Report [June 25, 1997]
98	NJDOT Draft Annual Report to the Governor on Implementation of the State Development and Redevelopment Plan [April 30, 1998]
99	NJDOT Transportation New Jersey - Blueprint Actions
100	(Pamphlet) These Are Special Airfields A Guide To Wilderness Flying
101	(Newsletter) Rudder Flutter Official Publication Of The Idaho Transportation Department- Division Of Aeronautics Spring 1995
102	Idaho Transportation Department Idaho Airport Facilities Directory 1990
103	Idaho Aeronautical Chart
104	State Aviation System Plan Update Air Service In North Dakota November 1987
105	North Dakota Aeronautics Commission Biennial Report July 1,1991-June 30,1993
106	(North Dakota) Aviation Facts
107	1993 North Dakota Aeronautical Chart
107a	North Dakota Aviation System Plan Executive Report
108	North Dakota Air Cargo Feasibility

109	Rock Hill, South Carolina A Place Of Uncommon Vision 1995
110	Economic Impact Of Civil Aviation In South Carolina 1990
111	Economic Impact Of Airports In South Carolina 1990
112	(Brochure) Columbia Metropolitan Airport
113	Ohio Aeronautical Chart 1994-1995
114	Ohio 1995-1996 Airport Directory
115	(Chart) "Florida Aeronautical Chart" 1993-1994
116	(Report) "Guidelines For Plan Development" Aviation Office Florida Department Of Transportation April 1995
117	(Report) "Standard Specifications For Construction Of General Aviation Airports" For Airports Serving Aircraft With A Gross Weight Of 60,000 Lbs. Or Less Aviation Office Florida Department Of Transportation January 1995
118	(Booklet) "Florida Airport Directory Florida Department Of Transportation Aviation Office 1994
119	(Booklet) "Florida Guide To Airport Administration" Florida Department Of Transportation Aviation Office 1994
120	(Magazine) "The Florida Aviation System Plan" State Wide Summary 1992 - 2010
121	(News Letter) "Florida Flyer" January-February 1995
122	(Report) State Aviation Role And Programs Overview April 1994
123	(Review) Section 5- Aviation Fuel Tax 1994
124	(Fact Sheet) Economic Development Transportation Fund
125	(Fact Sheet) State Aviation Grants Program
126	(Newsletter) Aviation TechNote Information On Aviation Systems For Airport Managers July 1994
127	(Pamphlet) Florida Aviation Facts 1995
128	(Pamphlet) Florida Aviation Awards Program
129	(Pamphlet) Florida Department Of Transportation Aviation Office 1995
130	(Map) Florida Official Transportation Map 1994
131	(Booklet) "Florida's Aviation System Airlifting Our Economy" 1992
132	(Pamphlet) Florida Department Of Transportation Aviation Office Year Review 1994
133	(Brochure) "Choosing A Flight School" A Checklist For Finding Quality Training
134	(Map) Florida Public Transportation Services & Facilities
135	1993 Aviation Information Directory (Nevada)
136	(News Letter) "Nevada Skyways" Spring 1995

137	(Map) State Of Nevada Airports And Landing Strips 1995-1996
138	New Mexico Land Of Enchantment Aeronautical Chart 1992-1993
139	(Arizona) Aeronautics Division Progress Report 1993-1994
140	Arizona's Five Year Transportation Facilities Construction Program
141	Aeronautical Chart Of Arkansas 1994-1995 Edition
142	History On The Founding Of The Department Of The Aeronautics In Arkansas
143	Survey Results From The "Nevada Pilot/Aircraft Owner Survey" June 12, 1995 From Thomas J. Fronapfel, P.E. Assistant Director-Planning
144	(Brochure) "Conservation Is A Community Investment"
145	(Brochure) "Farm Animals Don't Go To School" Farmland Assessment And Open Space In New Jersey
146	'Public Investment' A Special Edition Of The PAS Memo Published Quarterly And Devoted To Public Investment And Finance March 1993
147	(Magazine Article) "Going Intermodal" By John E. Infanger, Editorial Director November/December 1994
148	(Newsletter) "Florida Flyer" May -June 1995
149	(Newsletter) "Florida Flyer" November-December 1995
150	(Newspaper) Sunday Star Ledger September 8, 1996 "Flying Blind" By Ted Sherman
151	(Fax) To: Jack McNamara From: Bruce Mawson Concerning Privately Owned Airport Property Tax Relief Pennsylvania Laws June 10, 1996
152	(Letter) To: H. Clark Bell From: Clarence D. Rappleyea Attached To Legislation Exempting Certain Privately Owned Airports From Real Property Taxes February 22, 1989
153	(Newspaper Article) From The Sunday Star Ledger May 5, 1996 Concerning Fighter Pilot Brothers Who Are Going To Be Astronauts
154	(Fax) June 1, 1994 About Saving That Would Result In General Aviation Aircraft Moving Out Of The Newark Air Traffic Area Airspace
155	(Letter) To: JJ McNamara From: H. Clark Bell, Esq. Concerning Airport Exemption Bill With Memorandum, Introduced By Rappleyea February 24, 1988
156	(Draft) February 26, 1996 Written By JJM Concerning General Aviation
157	(Newsletter) "Nevada Skyways" Spring, 1996
158	Ohio Department Of Transportation Ohio Airport Matching Grant Program Criteria Fiscal Year 1996
159	Ohio Department Of Transportation The Ohio Airport Marketing And Development Grant Program Criteria Fiscal Year 1996
160	Ohio Department Of Transportation Ohio Airport Capital Improvement Grant Program Criteria Fiscal Year 1996
161	Ohio Department Of Transportation Ohio Airport Maintenance Grant Program Criteria Fiscal Year 1996
162	Aviation Component Of The Access Ohio Phase II Transportation Plan Airport System Economic Impact Analysis June 5, 1995
163	Final Report- Clarification Of The Impacts, Influence, And Developmental Potentials Of The Aerospace And Aviation Activities In Ohio December 1994
164	Aviation Component Of The Access Ohio Phase II Transportation Plan Air Cargo Airport Analysis June 2, 1995

165	Ohio Aviation News Spring 1995 Volume 7 #2
166	Phase I And II Nevada State Airport System Plan, September 1995
167	1993-1994 Annual Report Of The South Carolina Aeronautics Commission
168	1992-1993 Annual Report Of The South Carolina Aeronautics Commission
169	Study Of The Economic Benefit Of An Airport- Columbia Airport And San Carlos, Ca Airport March 22, 1989
170	(Report) Virginia Department Of Aviation A 21 st Century Public Relations, Education And Promotion Program March 1995
171	(Video) "Virginia Aviation Cleared For Takeoff" July 9, 1996
172	The Ohio Airport Story 1964-1975
173	(Brochure) DeLand, Florida USA
174	"VCBDC Ambassadors Journal" A Chronicle Of Economic Development Initiatives In Volusia County February 1996
175	(Brochure) "The Perfect Business Climate" Volusia County, Florida
176	"Airports Then & Now" A Guide To Optioning Community Support For Your Local Airport; The Economic Impact Of New Jersey General Aviation's Airports
177	Ordinance Allowing For The Voluntary Enrollment In A Transfer Of Development Rights Program September 1995
178	(Brochure) "Magic Of Alexandria Balloon Festival" August 4,5,6, 1995
179	(Copy Of Letter) To: Ms. Linda Grinthal From: Philip Brito Written October 6, 1997 Faxed October 23, 1997
180	(Audio Tape) New Jersey In The Age Of Flight
181	(Fact Sheet) Farmland Pays Its Way: A Review Of Costs Of Community Services Studies
182	(Report) U.S. Environmental Protection Agency "A Proposed National Strategy For Noise Abatement And Control" October 1997 Draft
183	(Report) (Advanced Copy) "The Long Range Needs Of Aviation Report Of The Aviation Advisory Commission" January 1, 1993
184	(Report) "The Long Range Needs Of Aviation Technical Annex To The Report Of The Aviation Advisory Commission" January 1973 Volume 2
185	(Book) "The Fire Within" By Henry M. Rowan With John Calhoun Smith 1995
186	(Book) "Log Book A Pilot's Life" By Crocker Snow 1997
187	(Book) "Flight Of Passage A True Story" By Rinker Buck 1997
188	(Book) "Taking Flight" By National Research Council (National Academy Of Science)
189	(Book) "New Jersey: America's Main Road" By John T. Cunningham 1996
190	(Book) "NBAA's Tribute To Business Aviation" By Robert A. Scarles With Robert B. Parke 1997
191	(News Article) "Airport Noise Sounds Like Trouble For Students" The Washington Post By: Sandra G. Goodman
192	(News Article) "JFK Airport On The Rise" The Sunday Star Ledger November 16, 1997 By: Al Frank

193	(Magazine Article) Aircraft Maintenance Technology "Don't Dump That Down The Hanger Drain!" April 1997 By: Fred Workley
194	(Airport Directory) 1995-1996 New Jersey Airport Directory
195	(Book) "From the Balloon to the Moon" New Jerseys Amazing Aviation history by: Pat Reilly Published 1992
196	(Directory) New Jersey Airports Development Opportunities Directory
197	Longwoods - New Jersey 1997 Travel Year, 1998 Governor's Conference on Tourism
198	(Letter) To: Mr.: Joseph D Kelly From: Frank C. Steinberg III Re: Bader Airport
199	General Aviation And Community Development. NASA Langley Research Center and Old Dominion University (1975)
200	FAA Advisory Circular 150/5000-5C Designated U.S. International Airports (12-4-96). (AAS-3)
201	FAA Advisory Circular 150/5020-1 Noise Control and Compatibility Planning for Airports (8-5-83). (AEE-110)
202	FAA Advisory Circular 150/5020-2 Noise Assessment Guidelines for New Heliports. (12-9-83).
203	FAA Advisory Circular 150/5050-1A Airport Capacity Criteria Used in Preparing the National Airport Plan
204	FAA Advisory Circular 150/5050-2 Compatible Land Use Planning in the Vicinity of Airports
205	FAA Advisory Circular 150/5050-3B Planning the State Aviation System (1-6-89). (APP-400)
206	FAA Advisory Circular 150/5050-4 Citizen Participation in Airport Planning (9-26-75). (APP-600)
207	FAA Advisory Circular 150/5050-6 Airport - Land Use Compatibility Planning
208	FAA Advisory Circular 150/5050-7 Establishment of Airport Action Groups (6-23-87). (AAS-300)
209	FAA Advisory Circular 150/5060-1A Airport Capacity Criteria Used in Preparing the National Airport Plan, July 8, 1968.
210	FAA Advisory Circular 150/5060-2 Airport Site Selection
211	FAA Advisory Circular 150/5060-5 Airport Capacity and Delay (9-23-83). (AAS-100) (Includes changes 1 and 2).
212	FAA Advisory Circular 150/5070-3 Planning the Airport Industrial Park (9-30-65). (APP-400)
213	FAA Advisory Circular 150/5070-5 Planning the Metropolitan Airport System (5-22-70). (APP-400)
214	FAA Advisory Circular 150/5070-6A Airport Master Plans (6-85). (APP-400)
215	FAA Advisory Circular 150/5090-1 Regional Air Carrier Airport Planning
216	FAA Advisory Circular 150/5100-3A Federal Aid Airport Program - Procedures Guide for Sponsors
217	FAA Advisory Circular 150/5100-5 Land Acquisition in the Federal Aid Airport Program
218	FAA Advisory Circular 150/5100-7A Requirement For Public Hearings in the Airport Development Aid Program. (2-25-
219	FAA Advisory Circular 150/5100-11 Land Acquisition & Relocation Assistance Under the Airport Development Aid
220	FAA Advisory Circular 150/5100-12 Electronic Navigational Aids Approved for Funding Under the Airport

221	FAA Advisory Circular 150/5100-13 Development of State Standards for General Aviation Airports (3-1-77). (AAS-200). Includes Change 5 dated 2/14/97.
222	FAA Advisory Circular 150/5100-16A Airport Improvement Program Grant Assurance Number One - General Federal Requirements (10-4-88). (APP-510)
223	FAA Advisory Circular 150/5100-17 Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects (3/29/96). (APP-600) Change 1 - 12/20/96. Change 2 - 5/1/97
224	FAA Advisory Circular 150/5150-2B Federal Surplus Personal Property for Public Airport Purposes (10-1-84). (APP-510)
225	FAA Advisory Circular 150/5190-1A Minimum Standards for Commercial Aeronautical Activities on Public Airports (12-16-85). (AAS-310)
226	FAA Advisory Circular 150/5190-2A Exclusive Rights at Airports (4-4-72). (Consolidated reprint incorporates change 1). (AAS-300)
227	FAA Advisory Circular 150/5190-4A A Model Zoning Ordinance to Limit Height of Objects Around Airports (12-14-87). (AAS-100) (Editorially updated)
228	FAA Advisory Circular 150/5200-1 Bird Hazards to Aviation.
229	FAA Advisory Circular 150/5200-5 Consideration for the Improvement of Airport Safety. (2-2-67).
230	FAA Advisory Circular 150/5200-6A Security of Aircraft at Airports. (6-28-68).
231	FAA Advisory Circular 150/5200-11, Airport Terminals and the Physically Handicapped
232	FAA Advisory Circular 150/5200-13 Removal of Disabled Aircraft. (Aug. 70)
233	FAA Advisory Circular 150/5200-18B Airport Safety Self-Inspection (5-2-88). (AAS-310)
234	FAA Advisory Circular 150/5200-23 Airport Snow and Ice Control (11-1-76)
235	FAA Advisory Circular 150/5210-5B Painting, Marking, and Lighting of Vehicles Used on an Airport (7-11-86). (AAS-120)
236	FAA Advisory Circular 150/5210-11 Response to Aircraft Emergencies.
237	FAA Advisory Circular 150/5210-15 Airport Rescue and Firefighting Station Building Design (7-30-87). (AAS-100)
238	FAA Advisory Circular 150/5220-13B Runway Surface Condition Sensor Specification Guide (3-27-91). (AAS-100)
239	FAA Advisory Circular 150/5220-16B Automated Weather Observing Systems (AWOS) for Non-Federal Applications (11/13/95). (AND-430)
240	FAA Advisory Circular 150/5220-18 Buildings For Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials (10-15-92). (AAS-100)
241	FAA Advisory Circular 150/5230-4 Aircraft Fuel Storage, Handling, and Dispensing on Airports (8-27-82). (AAS-300)
242	FAA Advisory Circular 150/5240-7 A Fuel/Energy Conservation Guide for Airport Operators. (2-19-74).
243	FAA Advisory Circular 150/5300-1 "VFR Airports" (3-15-63).
244	FAA Advisory Circular 150/5300-8 Planning and Design Criteria for Metropolitan STOL Ports. (11-70).
245	FAA Advisory Circular 150/5300-9A Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects (5-1-85). (AAS-200)

246	FAA Advisory Circular 150/5300-10 Federal Aviation Administration Funded Study - Analysis of General Aviation Airports Developed With and Without Federal Financial Assistance. (7-21-75)
247	FAA Advisory Circular 150/5300-13 Airport Design (9-29-89). (AAS-110) (Includes Changes 1 thru 5). Contains the FAA's standards and recommendations for airport design.
248	FAA Advisory Circular 150/5300-13 Change 4 (11-10-94) Establishes approach visibility minimums as an airport design parameter; updates the Object Free Area (OFA) and the Obstacle Free Zone (OFZ) criteria, and provides guidance for electronic data transfer
249	FAA Advisory Circular 150/5300-14 Design of Aircraft Deicing Facilities (8-23-93). (AAS-100)
250	FAA Advisory Circular 150/5300-15 Use of Value Engineering for Engineering and Design of Airport Grant Projects (9-9-93). (AAS-200)
251	FAA Advisory Circular 150/5310-1 Preparation of Airport Layout Plans.
252	FAA Advisory Circular 150/5320-4 Aircraft Fuel Storage, Handling, and Dispensing
253	FAA Advisory Circular 150/5320-5B Airport Drainage (7-1-70). (AAS-200)
254	FAA Advisory Circular 150/5320-14 Airport Landscaping for Noise Control Purposes (1-31-78). (APP-400)
255	FAA Advisory Circular 150/5320-15 Management of Airport Industrial Waste (2-11-91). (AAS-100)
Yy 256	FAA Advisory Circular 150/5325-4A Runway Length Requirements for Airport Design (1-29-90). (Consolidated reprint includes Change 1 dated 3-11-91). (AAS-110)
257	FAA Advisory Circular 150/5325-8 Compass Calibration Pad.
258	FAA Advisory Circular 150/5330-2A Runway/Taxiway Widths and Clearances.
259	FAA Advisory Circular 150/5335-5 Standardized Method of Reporting Airport Pavement Strength - PCN (6-15-83). (AAS-200) (Includes Change 1)
260	FAA Advisory Circular 150/5340-1G Standards for Airport Markings (9-27-93). (AAS-300)
261	FAA Advisory Circular 150/5340-3 - Configuration Details of In-Runway Lighting: Touchdown Zone, Runway Centerline, and Taxiway Turnoff Lighting Systems.
262	FAA Advisory Circular 150/5340-8 Airport 51 foot Tubular Beacon Tower.
263	FAA Advisory Circular 150/5340-14B Economy Approach Lighting Aids (6-19-70). (Consolidated reprint includes Changes 1 and 2). (AAS-200)
264	FAA Advisory Circular 150/5340-18C Standards for Airport Sign Systems (7-31-91). (AAS-4) (Includes Change 1)
265	FAA Advisory Circular 150266/5340-19 Taxiway Centerline Lighting System (11-14-68). (AAS-200)
267	FAA Advisory Circular 150268/5340-20 Installation Details and Maintenance Standards for Reflective Markers for Airport269 Runway and Taxiway Centerlines. (2-17-69)
270	FAA Advisory Circular 150/5340-21 Airport Miscellaneous Lighting Visual Aids (3-25-71). (AAS-200)
266	FAA Advisory Circular 150/5340-26 Maintenance of Airport Visual Aid Facilities (8-26-82).
267	FAA Advisory Circular 150/5340-27A Air-to-Ground Radio Control of Airport Lighting Systems (3-4-86). (AAS-200)
268	FAA Advisory Circular 150/5345-28D Precision Approach Path Indicator (PAPI) Systems (5-23-85). (AAS-250) (Includes Change 1)

269	FAA Advisory Circular 150/5345-52 Generic Visual Glideslope Indicators (CVGI) (6-21-88). (AAS-200)
270	FAA Advisory Circular 150/5360-2 Airport Cargo Facilities. (April 1964).
271	FAA Advisory Circular 150/5360-9 Planning and Design of Airport Terminal Facilities at Non-Hub Locations (4-4-80). (AAS-100)
272	FAA Advisory Circular 150/5360-11 Energy Conservation for Airport Buildings (5-31-84). (AAS-200)
273	FAA Advisory Circular 150/5360-13 Planning and Design Guidelines for Airport Terminal Facilities (4-22-88). (AAS-100) (Includes Change 1)
274	FAA Advisory Circular 150/5370-10 A Standard Specifications for Construction of Airports; §2.75.
275	FAA Advisory Circular 150/5370-11 Use of Nondestructive Testing Devices in the Evaluation of Airport Pavements (6-4-76). (AAS-200) (Consolidated reprint includes change 1)
276	FAA Advisory Circular 150/5370-12 Quality Control of Construction for Airport Grant Projects (9-6-85). (AAS-200)
277	FAA Advisory Circular 150/5380-5B Debris Hazards at Civil Airports (7-5-96). (AAS-100)
278	FAA Advisory Circular 150/5390-2A Heliport Design (1-20-94). (AAS-100)
279	FAA Advisory Circular 150/5390-3 Vertiport Design (5-31-91). (AAS-100)
280	FAA Advisory Circular 150/5395-1 Seaplane Bases (6-29-94). (AAS-100) 150/5900-1B The Planning Grant Program for Airports. (1-31-79)
281	FAA Advisory Circular 210-4A United States Civil Notice to Airmen (NOTAM) System Handbook. (4-1-78)
282	FAA Advisory Circular 210-5B Military Flying Activities (8-8-90). (ATM-400)
283	"How Would The Airport Help My Town" Hance J Youman, 8 th Grade, Woodbine Middle School
284	Airport Layout Plan - Teterboro Airport (October, 1990)
285	Airport Layout Plan - Morristown Municipal Airport (September, 1996)
286	Airport Layout Plan - Trenton-Mercer Airport (October, 1995)
287	Airport Layout Plan - Millville Municipal Airport (August, 1995)

APPENDIX K

