

PLANNING FOR AIRPORTS IN URBAN ENVIRONMENTS—
A Survey of the Problem and its Possible Solutions

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I. THE NATURE AND EXTENT OF THE PROBLEM.

A. *Urban Sprawl and the Growth of Air Transportation.*¹

The rapid growth of our national air transportation system has placed

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The views expressed in this article are those of the author and do not necessarily represent those of the Federal Aviation Administration or Department of Transportation.

1. The growth of air transportation over the past twenty years is reflected in the following statistics:

new demands upon urban dwellers. Likewise, the equally rapid growth of our urban and suburban areas, particularly since the end of World War II, has placed new demands on the air transportation system. The result of this dual expansion is that we are now witnessing a head-on collision between two major interests. On one hand, we must promote and maintain in a viable national air transportation system as an integral part of our national transportation network, since its continued viability is vital to all of us. Air transportation can no longer be regarded as a "toy of the jetset."² Rather, it is an integral part of the national defense, national economy, and our everyday lives. Furthermore, we have seen that the Nation's air transportation system is a prime resource in building for the future. The airport, as a vitally needed transportation center, has spawned and will continue to spawn new cities in the same way that the harbors, highways, and railway junctions have in the past. As former FAA Administrator, John H. Shaffer, has stated,

All societal activity involves transportation of one form or another, and all communities have a basic and fundamental need for an adequate and reliable transportation system to further their economic, educational, cultural, and recreational pursuits. Any com-

	1951	1971
Scheduled Air Carrier Fleet	1,121	2,679
General Aviation Aircraft	82,236	131,407
Jet Aircraft (incl. turboprop)	0	2,501
Airports in U. S.	6,237	12,070
Airports in U. S.	6,237	12,070
Airports Serving Scheduled Air Carriers	552	499
(Total, including Hawaii & Alaska)		746

(Source: Federal Aviation Administration, Office of Aviation Economics)

2. This term was used by opponents of the authorization of funds for continued Supersonic Transport (SST) development. Statistics concerning aviation employment and economics include this breakdown:

Aviation Related Employment (thousands)			
	1967	1971	225
	1,037.5		828.6
Travel in Air Carriers (1968-1969 figures)			
	Business	Pleasure	Other
% passengers	33	40	27
% passenger miles	28	45	27
Total Operating Revenue of U.S. Scheduled Air Carriers in Fiscal Year 1971			
	\$9,743,393,000	.9 percent of GNP	

(Source: FAA, Office of Aviation Economics)

munity that lacks such a system, or adequate access to that system, seems doomed to regress into an isolated and remote ghost community.³

Yet, on the other hand, we are faced with other goals which frequently conflict. Urban and suburban areas are expanding, not only due to the "population explosion," but also due to the fact that people are migrating from rural areas into the cities to take advantage of the economic, social, educational, and cultural opportunities that exist there. This migration from rural to urban areas has been so pronounced since the 1960's, that one-third of America's counties have lost population as a result of this shift.⁴ Thus, as our urban and suburban areas have grown, they have "impacted" airports which had existed for many decades on the peripheries of the communities' geographic boundaries; these airports have become surrounded by residential areas, schools, hospitals, business districts, and recreation areas. The impacts on both the community and aviation have been disastrous.

A few years ago it was a popular pastime to visit airports and to watch aircraft operations. Today, as a result of noise, pollution, and ground congestion, airports are considered as bad neighbors and their growth is often opposed.⁵

Our limited supply of land has created a race between competing interests. Airports require a sufficient amount of land to insure the safety of their operations and to insure that these operations will have no adverse impact upon the inhabitants of the community. Furthermore, our technological progress has given us aircraft capable of flying faster, carrying greater payloads, and producing greater noise levels. Thus, airports, in many instances, feel the pressure to expand or risk falling by the wayside in the national aviation system. Yet, at the same time, other interests within the community are pursuing their causes, desiring land uses more consonant with their own goals, and placing demands on local governments that are equally as legitimate as those proffered by the aviation interests. In the midst of these competing interests, we must consider the arena in which these interests will confront each other—the decision making body of the local governmental unit. These local government

3. Statement before the Subcommittee on Aviation of the Senate Commerce Committee, *Hearings on the Adequacy of Air Service to Northern New England*, 92d Cong., 1st Sess., September 9, 1971.

4. 1970 State of the Union Message, 1970 *U.S. Code Cong. and Ad. News* 7.

5. Joint DOT/NASA *Civil Aviation Research and Development Policy Study*, Washington, D. C., March 1971. (Hereinafter referred to as *CARD Study*.)

units, as will be discussed later, in attempting to insure the general health, safety, and welfare of their citizens, have frequently failed in their attempts at effectuating viable land use controls. The financial crises confronting these local units of power have too often resulted in land use decisions that are not the best in relation to broader interests.⁶

The collision has been inevitable, due to lack of adequate advance planning. Its impact has been heard, literally, by those citizens living in those areas in close proximity to airports. They are awakened nightly by the roar of jets. Complaints and suits charging psychological, physiological, and property damage have proliferated. Citizens often drastically alter their daily routines in order to better cope with these adverse affects on their personal environment. Frequently they claim their property values have diminished.

Additionally, airports are frequently forced to curtail their activities, not only to the economic detriment of the aviation industry but to that of the general community; safety considerations may be forced to take a back seat to those of the environment; and the viability of our national transportation system is considerably weakened.

This article will focus on the various attempts that have been used to avoid this serious collision of interests and more amicably relate our progress in aviation technology to social, political, economic and environmental realities. While a number of approaches will be discussed, chief emphasis will be placed on land use planning for airports in the urban environment. The goals of an effective land use policy for and near airports are twofold: first, such a policy must protect the enormous investment of public (Federal, state, and local) funds in the development of our airport system; second, this policy must insure the well-being and protection of persons and property in the airport environment.⁷

B. Safety Factors

Since the enactment of the first Federal legislation aimed at encouraging and regulating the use of aircraft, the promotion of aviation safety has been either implicitly or explicitly one of the foremost goals. The Air Commerce Act of 1926,⁸ was an attempt at promoting air commerce as a viable mode of transportation by means of assuring maximum aviation

6. Robert Knecht, Mayor of Boulder, Colo., *Hearings on S. 632 and S. 992 Before the Senate Committee on Interior and Insular Affairs*, 92nd Cong., 1st Sess. at 164 (1971).

7. John Gerba, Jr., *Land Allocation and Activity Assignment in Urban Areas*, Graduate Program in City Planning, Yale University, 1961.

8. P.L. 69-254, S. 41, 69th Cong., 1st Sess. (1926).

safety. It conferred upon the Secretary of Commerce the duty of: (1) encouraging the development of airports, civil airways, and other navigation facilities; (2) carrying forward research and development work to create improved air navigation facilities; (3) investigating, recording, and making available to the public the "causes of accidents in civil air navigation in the United States;"⁹ (4) exercising regulatory powers over the certification of aircraft and airmen; and (5) promulgating of air traffic rules.¹⁰

With the enactment of the Civil Aeronautics Act of 1938,¹¹ the Administrator of the newly created Civil Aeronautics Authority was specifically "empowered and directed to make plans for such orderly development and location of landing areas, airways, and all other aids and facilities for air navigation, as will best meet the needs of, and serve the interest of safety in, civil aeronautics."¹²

Thus, until the 1958 enactment of the Federal Aviation Act,¹³ the goals of securing aviation safety were strictly unilateral—safety concerns were solely for the benefit of those who were directly using the air transportation system. However, with the enactment of the Federal Aviation Act of 1958, safety considerations took on a new dimension. In place of the former unilateral emphasis, came a new awareness of the impact of aviation activity on those other than the direct users; more specifically, those on the ground who usually receive only the indirect or incidental benefits from this system. Section 307(c) of the 1958 Act, as amended, provides

The Secretary of Transportation is further authorized and directed to prescribe air traffic rules and regulations governing the flight of aircraft, for the navigation, protection, and identification of aircraft, for the *protection of persons and property on the ground*, and for the efficient utilization of the navigable airspace including rules as to safe altitudes of flight and rules for the prevention of collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects."¹⁴ (Emphasis added.)

This recent statutory mandate, as well as practical realities, suggest that aircraft operations must be performed consonant with safety on two fronts—the safety of the aircraft, passengers, and crew, and the safety of

9. *Id.* section 2.

10. *Id.* section 3.

11. P.L. 75-706, S. 3845, 75th Cong., 3rd Sess. (1938).

12. *Id.* section 307.

13. Act of August 23, 1958, 72 Stat. 731, as amended.

14. 72 Stat. 749, 49 U.S.C. 1348.

those on the ground below the flight paths and in the vicinity of airports. Thus, the selection of an airport site should incorporate considerations related to safety such as topographical and meteorological factors, prevailing winds to facilitate takeoff, climbout and landing procedures, and character of the development in the vicinity of the airport.

Early efforts at planning for airports in urban areas reflected only a superficial awareness of the needs of aviation safety. The airport was viewed as a mere whistle stop that existed solely for the purpose of picking up and discharging passengers, mail, and cargo. The concern for urban development near the airport, therefore, was limited solely to the notion of preventing obstructions to navigation so as to facilitate safe approach and departure paths for aircraft without unduly interfering with the physical well being of persons carrying on their daily activities under the flight paths.

It was not until relatively recently that safety began to take on a new meaning. Complaints by those living near airports and a new public awareness of environmental dangers have afforded us the opportunity to realize that safety is not only necessary to protect us from aircraft crashing into our living rooms, but to protect us from unwanted air pollution, congestion, and noise.

C. Environment

1. Impact

The impact of aviation on the environment is evident in the rising public concern regarding noise, air pollution, water pollution, esthetics, congestion, ecological disturbances, and meteorological changes. The root cause of the problematic relationship between aviation and the environment lies in the fact that there has, in the past, been insufficient concern for, and inappropriate actions in, designing the air transportation system to meet these environmental considerations. Combatting the unpleasant by-products of the aviation system has, only until recently, been given a relatively low priority as compared to increasing the speed, range, and payload and decreasing the operating costs of the new civil aircraft that serve this system. As a result of these misallocated priorities, our technology base is far from adequate in providing solutions to these unwanted by-products. Yet, despite these technological misapplications and inadequacies, these problems and their impact could have been successfully minimized or abated altogether had there not been a grievous lack of long-range planning of the land surrounding both existing and proposed airports.¹⁵

15. *CARD Study*, pp. 5-3, 5-4.

Now that a new awareness has been placed on the "quality of life," urban and transportation planners will hopefully not overlook the enormous impact of the transportation system, not only in economic terms but in social and environmental terms as well, as it is evident that all transportation activity—the highways, railroads, airplanes, cars, and trucks—affects the quality of our lives. In addition to moving people, mail, and cargo, our transportation system affects the air that we breathe, the sounds that we hear, and the sights that we see; it changes the neighborhoods that we live in; and it dislocates families and businesses.¹⁶

While the new orientation of our transportation system planners will be to "make transportation conform to the needs of the people rather than making people conform to the system,"¹⁷ we are faced with a very real problem in attempting to effectuate this new approach. Planners, as well as the social scientists that they rely upon, possess very few criteria for determining just how important environmental and social values are when measured against competing values such as economy, safety, and the preservation of homes and businesses.¹⁸ Thus, in their attempts at second-guessing urban man's needs and desires, these planners and social scientists may indeed end up being wrong.

Yet, we know that of all the unwanted by-products of our aviation system, noise is the most irritating and is the most responsible element in the rising opposition by airport neighbors to aircraft and airport operation.

The severity of this situation is illustrated by a 1967 article in the Los Angeles Times: '36 Million Claims Filed Against City Over Airport Noise.' Among other complaints were these: 'Children have been deprived of the use of their schools for proper educational activities . . .,' ' . . . subjected to loud noise,' ' . . . complained of anxiety, loss of sleep, hearing . . .,' ' . . . suffered permanent hearing damage and emotional disturbance from jets.'¹⁹

Noise is nothing more than unwanted sound—unwanted because there is too much of it or because it is the wrong kind.²⁰ Noise, therefore, is

16. Alan S. Boyd, Sanford G. Ross, and Richard L. Teberg, *New Dimensions in Transportation Law*, 1 Transp. L.J. 1 (1969) at 2.

17. *Id.*, at 2.

18. *Id.*, at 4.

19. *Noise—Sound Without Value*, Committee on Environmental Quality, Federal Council for Science and Technology, September 1968, p.8. (Hereinafter referred to as *CEQ-Noise*.)

20. Statement of Robert W. Fri, Deputy Administrator, Environmental Protection

not only a physical but also a subjective experience. While others may not complain about noise levels, they may unknowingly experience physiological and/or psychological damage.²¹ In other cases, noise that individuals complain about may not actually inflict any physiological damage; the emotional stress resulting from this noise, however, may be due mostly to the individual's subjective response to it.

Thus, for the purpose of examining the problem of airports and the urban environment, it is necessary to take these subjective factors into account. Assuredly, many people living near airports and under the flight paths of aircraft do experience physiological and/or emotional discomfort. At the same time, however, many of those are not necessarily complaining about noise levels generated by airplanes or airports, nor, for that matter, about the air pollution and other negative environmental factors that these facilities and aircraft are generating. Rather they are reflecting their personal wishes not to have aircraft over-flying their homes, which are frequently caused by their subjective fear or dislike of flying.

2. Controlling and Abating Unwanted By-Products

Consistent with the philosophy set forth in Section 307 of the Federal Aviation Act²² of protecting persons on the ground as well as in the air, a viable and effective program to control or abate the unwanted by-products of the aviation system must move ahead on several fronts. In dealing with the noise problem in particular, emphasis must be placed on the interdependence of three factors—the noise at the source, the path of the sound, and the receiver of the sound.

(a) Controlling Noise at the Source.

Pursuant to Section 4(a) of the Department of Transportation Act of 1966, the Secretary of Transportation is authorized and directed to "promote and undertake research and development relating to transportation, including noise abatement, with particular attention to aircraft noise"²³ During the 90th Congress, Public Law 90-411 was enacted to amend Section 611 of the Federal Aviation Act to require aircraft noise

Agency, in *Hearings on H.R. 5275 and H.R. 5338 Before the House Committee on Interstate and Foreign Commerce*, 92nd Cong., 1st Sess. (1971).

21. A good example of "sublimated" noise levels would be a rock and roll band, which with sufficient amplification can produce levels approximating 100 decibels (PNdB) *CEQ-Noise*, at 6.

22. 72 Stat. 749, 49 U.S.C. § 1348.

23. 80 Stat. 933, as amended by 82 Stat. 824, 49 U.S.C. § 1653.

abatement regulation. Under this Act, the Administrator of the Federal Aviation Administration is authorized and directed to consider relevant research, development, testing, and evaluation activities, consult with the appropriate Federal, state and interstate agencies, consider whether any proposed standard, rule, or regulation is consistent with the highest degree of safety in air commerce, and consider whether any proposed standard, rule or regulation is "economically reasonable, technologically practicable, and appropriate for the particular type of aircraft, aircraft engine, appliance or certificate to which it will apply." Pursuant to this legislation, Part 36 of the Federal Aviation Regulations²⁴ was promulgated to prescribe noise standards for type certification of subsonic transport category airplanes and for type certification of subsonic turbojet powered airplanes, regardless of category. Since the effective date of this regulation (December 1, 1969), three transport category turbojet aircraft have been certificated—the Boeing 747, McDonnell Douglas DC-10, and Lockheed L-1011 Tristar — all of which are perceptibly quieter than their predecessors. Of course, these newer aircraft will not completely replace the older noisier fleet for several years, and possibly even decades. Realizing this, the FAA has issued an Advance Notice of Proposed Rulemaking for the purpose of quieting the existing jet aircraft fleet by means of retrofitting the engine nacelles with acoustical material.²⁵

The Federally imposed noise limits specified in Part 36 are important efforts at controlling and abating noise at the source. However, as will be seen later, the Federal Government's activities in this area have not necessarily precluded local action. Local airport operators and proprietors may establish more restrictive source noise limits in response to local needs for both quiet and air commerce. However, each of these Federal and local efforts are inadequate by themselves to combat the problem of noise, regardless of how substantial these actions may be.

(b) Controlling the Path of the Sound.

Efforts on this front have consisted largely of an FAA Order intended to informally adapt the flow of air traffic to the specific needs of individual airports in order to minimize noise exposure.²⁶ This order requires FAA personnel to monitor airport activities to anticipate the appearance of noise problems in the community and to achieve some relief through the following means:

24. 34 *Fed. Reg.* 18355 (November 18, 1969).

25. 35 *Fed. Reg.* 16930 (December 4, 1970).

26. Order 7110.13 (9 January 1968); superseded by Order 7110.22 (19 September 1970).

1. Establishment of arrival and departure flight paths over least congested areas, or the use of fan-out procedures to minimize noise concentration where no areas of least congestion could practically be used.
2. Use of navigational aids, radar vectoring, or off-course climbs to route instrument flight rules aircraft along flight paths compatible with noise abatement routes.
3. Where navigational aids are not compatible with potential noise abatement procedures, relocation or establishment of such facilities to achieve compatibility if possible.
4. Establishment of informal runway use programs that tailor the runway use to the particular noise problem, including education of pilots with respect to the regulation between runway selection and noise exposure.²⁷

On this front, as it will be seen later, the Federal Government has preempted the field. Local authorities may not prescribe air traffic control rules unless they do so in conjunction with the Federal Aviation Administration.

(c) The Receiver of the Sound.

The interdependence of all three approaches to control and abate aircraft noise can best be shown in examining the third approach—that in relation to the receivers of the sound through adequate means of land use planning. Whereas the first two approaches depend solely or largely upon Federal action, this last approach is dependent not only upon the results of such Federal action, but also upon the willingness of local communities to adequately plan their land usages in the vicinity of airports. This third front is, to some extent, the “achilles heel” in the fight to control and abate aircraft noise.

The local urban planner has the primary responsibility of adapting land to airport use. By means of employing the Federally determined noise source levels and the more informal operational limitations relating to the path of the noise, the urban planner can insure that land use controls are responsive to the available technology. Without the necessary information concerning where, and in what amounts, the noise begins and ends,²⁸ we cannot depart from our past errors.

While it was not until the introduction of civilian jet transport aircraft

27. Richard W. Danforth, *Mercury's Children in The Urban Trap: Community Planning and the Federal Regulation of the Jet Noise Source*. 3 *Urban Lawyer* 206 at 212-13 (1971).

28. *Id.*, at 213.

that the airport noise problem became as crucial as it is today, the problems that the airport posed for the community were long ago realized. In 1952, the President's Airport Commission²⁹ concluded:

The general objective of all communities is to create a favorable environment in which to live. This environment does not just happen; there is a genuine need to control the forces which determine environment. Planning is a tool for bringing about an effective control of the forces. It does this by creating a physical framework in which communities may eventually achieve a desired environment. The framework is erected by: (1) allocating areas to industrial, commercial, and residential uses; and (2) establishing physical facilities to serve these areas, i.e., transportation, communications, power, water and sanitation, and recreation grounds. Since airports and airways are an important part of a community's transportation facilities, consideration must be given to the problem of properly incorporating them into the framework.³⁰

Utilization of effective land use controls by local governments is a necessary weapon in the total arsenal that is necessary to attack aircraft noise. The local government units who possess the necessary grant of police powers from the state must not abdicate their responsibility of insuring these controls, given the existing Federal-State relationship. Today, this exercise of responsibility is even more crucial than it was in 1952. Most of our air carrier fleet consists of turbojet or turboprop aircraft; the rapidly growing general aviation fleet is also increasingly relying on jet power. Moreover, the new emphasis on Vertical and Short Take-Off and Landing (V/STOL) aircraft serving the city and suburban centers in the near future compels us to require assurances that adequate steps will be taken to protect the enormous public investment in airport facilities and at the same time to secure the well-being of those who inhabit the adjoining areas.

The Airport and Airway Development Act of 1970 requires the sponsor of an airport development project to demonstrate that:

the project is reasonably consistent with the plans (existing at the time of approval of the project) of planning agencies for the development of the area in which the airport is located. . . ;³¹

29. *The Airport and Its Neighbors*, Report of the President's Airport Commission, May 16, 1952 (hereinafter referred to as the *Doolittle Report*).

30. *Id.*, at 81.

31. Airport and Airway Development Act of 1970, § 16(c), 84 Stat. 226.

and that:

appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft . . .³²

as a prerequisite to receiving Airport Development Aid Program (ADAP) Grants.

This legislation places great responsibility upon local governments to abate and control the unwanted effects of aviation activity. The result is that the attack on problems arising from the relationship of the airport and its environs is a somewhat paradoxical mixture of federal preemption and local responsibility.

How well has this mixture worked? Those individuals who live in noise affected areas would argue that it has failed miserably. However, in order to appreciate the significance of its achievements or failures, and in order to effectuate any possible alternative solutions to the problem, it is necessary to more carefully examine each element of this mixture.

II. ALLOCATING RESPONSIBILITY FOR THE UNWANTED BY-PRODUCTS OF AIR COMMERCE

The foundations of aviation noise law lie in the doctrines of nuisance, trespass, inverse condemnation,³³ and *cujus est solum ejus usque ad coelum*.³⁴ These doctrines were given their first major test in the aviation context in *United States v. Causby*.³⁵ In that case, the claimant owned a dwelling and a chicken farm on a 2.8 acre tract situated near a municipal airport that was leased to the Government. Causby contended that the safe path of glide to one of the runways of the adjacent airport passed directly over his property at 83 feet, his house at 67 feet, his barn at 63 feet, and the highest hill on his property at 18 feet, which destroyed the use of the property as a chicken farm and caused him and his wife loss

32. *Id.* Section 18(4). 84 Stat. 228.

33. Charles M. Haar, "Airport Noise and the Urban Dweller," *Speech presented Practising Law Institute* May 10, 1968, outlines these theories and notes the limitations of each. First, since air commerce is vital to the national well-being, it is very difficult to base a claim on nuisance. Second, trespass is not very well suited for those who are adversely affected by noise but do not live under the flight path. Third, it is difficult to succeed on an inverse condemnation basis, as it is very difficult to define the nature and extent of the taking.

34. Translated as "Ownership of land extends to the periphery of the universe."

35. 328 U.S. 256 (1946).

of sleep, nervousness, and fright. The Court of Claims found that the Government had taken an easement over Causby's property and that the value taken was \$2,000, but made no finding as to the precise nature or duration of the easement. The Supreme Court held that a servitude had been placed upon the land for which Causby was entitled to compensation under the Fifth Amendment; that the flights were not within the public domain, as they were not within the airspace that Congress placed *within* that domain, even though they were conducted within the path of glide approved by the Civil Aeronautics Authority; and that the common law doctrine, *cujus est solum . . .*, has no place in the modern world. Mr. Justice Douglas, delivering the opinion of the Court emphasized:

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. We need not determine at this time what those precise limits are. 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 land.³⁶

Since *Causby*, the law has remained largely unchanged in this area.³⁷ However, the result in *Causby* relied heavily upon the fact that the flight path of the Government's aircraft was outside of the public domain, since the Civil Aeronautics Act and the regulations promulgated pursuant thereto defined navigable airspace as not including approach and departure paths.³⁸ If this airspace were included in the definition on navigable airspace, these flights would have been immune.³⁹

The term "navigable airspace" has not only been applied in situations like *Causby* where an aggrieved party asserts his claim for the taking of his property resulting from aircraft operations, but additionally in defining the relationship between Federal and local roles. In *Allegheny Air-*

36. *Id.*, at 266.

37. Aviation noise law relating to suits by injured landowners against airports and aircraft operations has remained virtually unchanged since *Causby*. According to *Batten v. U.S.*, 306 F.2d 580 (1962), *cert. denied*, 371 U.S. 955 (1962), in order for an overflight to constitute a taking, the plaintiff's property must be directly under the flight path. Many state jurisdictions have held likewise while others are more permissive in that they do not require direct overflights. My personal feeling is that his more permissive approach is the wiser one, since an individual property owner may be injured to as great an extent by aircraft noise even when he is not situated directly underneath the flight path.

38. 328 U.S. 256 at 263.

39. *Id.*, at 264.

lines, Inc. v. Village of Cedarhurst,⁴⁰ the plaintiff airline company sued the Village of Cedarhurst to enjoin enforcement of a village ordinance prohibiting flights at less than 1,000 feet over the village. The Court of Appeals affirmed the granting of the injunction, emphasizing that since the Federal regulatory system had preempted the airspace below as well as above 1,000 feet from the ground, the ordinance was invalid, and stressed that the residents of the community had not suffered a taking of property, within the meaning of *Causby*, since the operation of aircraft was not so low and so frequent, but rather took place from 450 upward to 1,500 feet and only under particular weather conditions.

In 1958, with the enactment of the Federal Aviation Act,⁴¹ "navigable airspace" was redefined so as to include:

airspace above the minimum altitudes of flight prescribed by regulations issued under this Act, and shall include airspace needed to insure safety in take-off or landing of aircraft.⁴²

In 1967, in *American Airlines, Inc. v. Town of Hempstead*,⁴³ nine major air carriers sought to enjoin enforcement of a local noise ordinance. While the town contended that the ordinance was grounded in its concern for the local order and public health, the District Court enjoined its enforcement, as it had the effect of denying the lower air to aircraft as well as landing approaches and take-off paths to and from an established airport, and, additionally, contravened the Federally granted public right of freedom of transit through navigable airspace.⁴⁴ The court held on the basis of *Causby* and *Allegheny Airlines v. Cedarhurst*, that landowners would be entitled to just compensation if overflights are such that they amount to a taking of property for public purposes. However, the court added that this constitutional right to compensation should not constrict the federally granted public right of freedom of transit through airspace, and that the right to compensation confers no legislative power on municipalities to control aircraft noise or flight paths, as Federal legislation preempts these areas.

In view of the facts that: (1) individuals reside, work, or engage in recreational activities in or near areas that are adversely affected by

40. 238 F.2d 812 (2nd Cir. 1956)

41. 49 U.S.C. § 1301.

42. *Id.*, § 1301(24).

43. 272 F. Supp. 226 (E.D. N.Y. 1967).

44. *Id.*, at 231, referring to Section 104 of FAAAct (49 U.S.C. 1304):

"There is hereby recognized and declared to exist in behalf of any citizen of the United States a public right of freedom of transit through the navigable airspace of the United States."

airports and their operations; (2) local governmental units are vested with the necessary police power to secure the health, safety, welfare, and morals of its inhabitants; and (3) the courts have held that the Federal Government preempts the areas of aircraft flight and aircraft noise regulation, who should assume responsibility for the losses suffered by those who are confronted with the unwanted by-products of the aviation system? In *Griggs v. Allegheny County*,⁴⁵ the Supreme Court answered this question in holding that Allegheny County, as proprietor and operator of the airport, had taken an air easement over petitioner's property for which it must pay just compensation, as required by the Fourteenth Amendment, for the damages to his property resulting from noise, vibrations and other dangers. As Mr. Justice Douglas stated:

It is argued that though there was a 'taking,' someone other than respondent was the taker—the airlines or the C.A.A. acting as an authorized representative of the United States. We think, however, that respondent, which was the proprietor, owner, and lessor of the airport, was in these circumstances the one who took the air easement in the constitutional sense. Respondent decided, subject to the approval of the C.A.A., where the airport would be built, what runways it would need, their direction and length, and what land and navigation easements would be needed. The Federal Government takes nothing; it is the local authority which decides to build an airport, *vel non*, and where it is to be located.⁴⁶

The responsibility of the local airport proprietor was recognized in the enactment of P.L. 90-411 and in the promulgation of Part 36 of the Federal Aviation Regulations.⁴⁷ As the introduction to Part 36 states:

I. Relation to responsibility of airport proprietors. Compliance with Part 36 is not to be construed as a federal determination that the aircraft is 'acceptable,' from a noise standpoint, in particular airport environments. Responsibility for determining the permissible noise levels for aircraft using an airport remains with the proprietor of that airport. The noise limits specified in Part 36 are the technologically practicable and economically reasonable limits of aircraft noise reduction technology at the time of type certification and are not intended to substitute federally determined noise levels for those more restrictive limits determined to be necessary by indi-

45. 369 U.S. 84 (1962).

46. *Id.*, at 89.

47. See note 24, *supra*.

vidual airport proprietors in response to the locally determined desire for quiet and the locally determined need for the benefits of air commerce. This limitation on the scope of Part 36 is required for consistency with the responsibilities placed upon the airport proprietor by the United States Supreme Court in *Griggs v. Allegheny County*, 369 U.S. 84 (1962). Consistent with this limited scope, this amendment specifies that the Federal Aviation Administration makes no determination, under Part 36, on the acceptability of the prescribed noise level in any specific airport environment.⁴⁸

Thus, under the holding in *Griggs* and pursuant to Part 36, local airport operators and sponsors may use their own discretion in establishing maximum noise levels at their airports by restricting the type of aircraft and the frequency of service that they will receive.⁴⁹

As was explained earlier, the attack on the aircraft noise problem must move forward on three fronts. In efforts at controlling noise at the source we have seen that while Public Law 90-411 and Part 36 of the Federal Aviation Regulations give the Federal Government the exclusive authority to set aircraft noise standards at the source, the local operator may set more rigid standards for his facility. In controlling the path of the sound, we have seen that the air traffic rules promulgated by the Federal Government preempt the field so as to prohibit localities from adopting their own air traffic ordinances.

Progress on the third front, in relation to the receiver of the sound, is chiefly the responsibility of the local governmental unit. It is to this area that we will now turn.

III. ATTEMPTS AT INSURING COMPATIBLE LAND USE

A. Zoning

The remedies furnished by individual court actions such as *Causby* are

48. *Id.*

49. Receiving service as opposed to permitting aircraft to overfly the area, as the latter, on the basis of *Allegheny Airlines v. Cedarhurst*, is beyond the scope of municipal power. However, in *Lockheed Air Terminal, Inc. and Pacific Southwest Air Lines v. The City of Burbank*, 318 F. Supp. 914 (C.D. Calif. 1970), a local curfew ordinance which restricted jet flights at a privately-owned public-use airport was held void, as it invaded a field of regulation that the Federal Government had preempted; conflicted with the obligation of interstate carriers to furnish adequate service as required by their Federal certificates of convenience and necessity; conflicted with the Federally-granted right of freedom of transit through the navigable airspace; and violated the commerce clause which limits the imposition of this type of regulation solely to the Federal Government.

for the most part, inadequate in eliminating the problems arising from the relationship of the airport and its environs. First, these court actions are costly, time-consuming, and frequently unsuccessful. As a result, many aggrieved individuals in the airport environs would rather subject themselves to the physiological and emotional strains resulting from noise, air pollution, and congestion rather than go through the ordeal of extensive litigation.

Second, and perhaps of greater importance, is the fact that the case-by-case after-the-fact approach is unduly cumbersome. In order to effectively control or abate the factors that lead to this problematic relationship, a comprehensive prophylactic scheme is needed. This prophylactic scheme must be aimed at the third front in the battle to make airports better neighbors, i.e., the receiver.

Zoning can be an effective and inexpensive device in minimizing the effects of air commerce's annoying by-products upon airport neighbors. While the Federal Government's activities may have precluded local communities from combatting the airport problem by regulating either noise source or path of flight, these local communities are chiefly responsible for insuring compatible land use control in airport areas.

The importance of zoning has been recognized by the aviation community and, as a result, has become an important element in the Airport and Airway Development Act of 1970. This legislation makes compatible land use zoning a prerequisite for Federal grants to local airport sponsors.⁵¹

The validity of an airport zoning ordinance is measured by the same test as other zoning ordinances are, i.e., whether the ordinance regulates the use of property or whether it constitutes a taking of property for which compensation must be paid.⁵² *Waring v. Peterson*,⁵³ decided by the Florida courts in 1962 for the purpose of determining the validity of an airport zoning ordinance, illustrates the considerations that must be given to determine the validity of such ordinances. This case held that a zoning ordinance enacted to provide for the safer use of an airport by means of limiting vertical development of surrounding properties and prohibiting manufacturing establishments that produce smoke so as to interfere with air navigation was a valid exercise of police power; that there was a patent need for such zoning; that limitations of use or diminution of property

50. According to Erwin Seago, *The Airport Noise Problem and Airport Zoning*, 29 Md. L. Rev. 120 (1968), most of these courts actions have not succeeded.

51. See notes 31 and 32, *supra*.

52. *The Validity of Airport Zoning Ordinances*, 1965 Duke L.J.

53. 137 So. 2d 268 (1962).

values alone will not render such ordinance void, even though the effect of such ordinance is harsh and results in a serious depreciation of the value of the property affected by it; and that the zoning ordinance:

should be reasonable and should take into account, among other things, the type of flight operations expected to be conducted at the airport, the nature of the terrain within the airport hazard area, the character of the neighborhood, and the uses to which the property to be zoned is put and adaptable.⁵⁴

However, despite the overall importance of effective airport zoning ordinances, they have not met much success in jurisdictions other than Florida, as most states have declared them repugnant to state or Federal constitutional "taking" provisions.⁵⁵ This can be exemplified in *Indiana Toll Road Commission v. Jankovich*,⁵⁶ in which the Supreme Court of Indiana held that an ordinance prohibiting the construction of buildings exceeding a certain height within a specified distance of the airport without paying compensation unconstitutionally appropriated property rights in the airspace above plaintiff's land, as the landowner owns the airspace above his property at least to the extent that such airspace may reasonably be used by him.

Generally, the jurisdictions that have declared airport zoning ordinances invalid have relied upon four theories. First, they emphasize that these ordinances benefit only a particular group, the users of the airport, rather than the general public.⁵⁷ Second, they emphasize that these ordinances constitute a destruction of private property for a public use, for which compensation must be paid. Third, they rely upon the governmental enterprise theory—the landowner is deprived of property rights by a regulation enhancing the value of some governmental enterprise and a taking of property results for which compensation must be paid. Fourth, these jurisdictions are sensitive to the fact that, in many cases, these ordinances are attempts by the local authorities to circumvent the payment of damages as required by *Causby* and *Griggs*.⁵⁸ Yet, despite the fact that these ordinances have lacked success in the past, it is reasonable to assume that their success will improve in the future as a result of the

54. *Id.* at 271.

55. See note 53 *supra*. Examples of other jurisdictions that have stricken airport zoning ordinances are: Maryland—*Mutual Chemical Co. v. Baltimore*, 1 *Avi.* 804 (1939); Idaho—*Roark v. City of Caldwell*, 394 P.2d 641 (1964).

56. 193 N.E.2d 237 (1963).

57. Query: Doesn't the general community benefit from the increased safety operations and control of the unwanted by-products of such operation?

58. *The Validity of Airport Zoning Ordinances*, 1965 *Duke L.J.* 792 (1965).

zoning requirements of the Airport and Airway Development Act, the severity of the airport noise problem, and the uncomfortable conflict that has arisen between aviation and other interests. However, before we become overwhelmed with optimism, it is necessary to examine the practical limitations of land use zoning.

In the first place, the financial crises that affect local governments, frequently militate against responsible land use decisions.

There is no doubt that the financial crises of local governments has sometimes resulted in land use decisions which are not the best when broader interests are considered. Local officials themselves have recognized these problems but can do nothing to avoid them and still raise the money to maintain adequate levels of municipal services.⁵⁹

For land use planning to succeed, local dependence on the property taxes needs to be reduced. New financing approaches . . . can aid this process by limiting pressures to gain the maximum tax dollar return from every scrap of land available in the city.⁶⁰

While economic dictates may substantially hinder the local unit in devising a suitable zoning scheme to assure the integrity of the airport, its operations, and the surrounding community, these fiscal matters may additionally induce the local governmental unit to depart from or vary the zoning scheme that they have devised. Even though as a condition to receiving a Federal ADAP Grant, the local sponsor must give assurances that "appropriate action, including the adoption of zoning laws, will be taken . . . to restrict the use of land and adjacent to or in the immediate vicinity of the airport . . .",⁶¹ there is no requirement that the local sponsor must adhere to this plan after the development project is completed.

Secondly, zoning for compatible land uses near or surrounding the airport can only be truly effective where the land is presently undeveloped, as zoning is not retroactive in effect. Once the land has been developed with incompatible uses, such uses must be eliminated, either by means of amortization or condemnation. However, in such instances, the action of the local sponsor may amount to a taking of property for which compensation must be paid. Additionally, the costs of removing incompatible uses for the purpose of assuring more compatible development or establishing a clear zone or buffer zone can be astronomically high. Airports tend to attract development in the areas near and surrounding them

59. See note 7, *supra*.

60. *Id.* p. 165.

61. See note 32, *supra*.

and thereby increase land costs in their vicinities. For instance, at Chicago's O'Hare International Airport, the original purchase price of the land in 1947 was \$400-500 per acre. In 1960, during O'Hare's expansion efforts, the surrounding farmland was sold for \$20,000 per acre. Today, the same land is being sold for \$50,000 per acre.⁶²

According to *Business Week*, the new Dallas-Fort Worth Airport is considered to be "the most significant project in the U.S. in the last 20 years in terms of its impact on real estate values."⁶³ Land in the tiny town of Cappell, Texas, located between Dallas and Fort Worth, which was selling for \$1,000 per acre five years ago is now selling for ten times that amount as a result of the growth in homes, offices, hotels and motels, warehouses, stores, and industrial plants that the new airport has generated.⁶⁴

Thirdly, and perhaps the largest problem, is that airports are multi-jurisdictional in nature and effect. In many instances, the local airport sponsor is neither the local unit in which the airport is situated nor the local unit which must tolerate the adverse ills associated with airport operations.⁶⁵ It is indeed difficult to insure coordinated zoning schemes among the several jurisdictions that are effected by the airport and aircraft operations as evidenced by the fact that when the Federal Government was in the process of building Dulles Airport on its 10,000 acre tract, it is unable to induce neighboring Fairfax and Loudon Counties to compatibly zone the areas surrounding the airport.⁶⁶

The nature of governmental units is such that each tends to think in terms of optimizing its own immediate objectives and usually is not much concerned about whether or not such optimization is contrary to the optimization of the objectives of other governmental units.⁶⁷

Lastly, it should be stressed that before an effective zoning scheme can be effectuated, a working technical knowledge of aircraft noise is vitally necessary for the purpose of making noise exposure forecasts and design-

62. Arthur D. Little, Inc., *Airport Land Needs* (1966) at 16.

63. "The Land Boom at a Texas Airport" *Business Week* (#2219) March 11, 1972 p. 116.

64. *Id.*, at 116.

65. An example of this type of situation is Bridgeport Municipal Airport which is owned and operated by the City of Bridgeport, Connecticut and located in the adjacent Town of Stratford. The existence and operations of this facility have led to substantial disagreements between these to local units.

66. Michael M. Burger, *Nobody Loves An Airport*, 43 S. Cal. L. Rev. 631 (1970) at 689.

67. Donald V. Harper, *The Minneapolis-St. Paul Metropolitan Airports Commission*, 55 Minn. L. Rev. 363 (1971).

ing noise contour areas. The application of this technical knowledge to plan airports and their environs for today is not particularly difficult. However, the goal of the planner is that of planning for the future as well. In this respect, he must anticipate the introduction of newer types of aircraft, additional types of service, and the future air transportation needs of the community in order to make relevant noise exposure forecasts and, in turn, devise effective zoning schemes.

B. Other Existing Methods

Methods other than zoning that may be used to prevent hazards to air navigation and to those below the flight paths and to prohibit land uses that are incompatible with the operation of an airport are: (1) the enactment of building codes requiring sound proofing; (2) advance site acquisition; (3) acquisition of aviation easements; and (4) eminent domain.

The enactment of building codes to require sound proofing for residences as a prerequisite to the granting of building and/or occupancy permits could significantly reduce the interior noise levels of those residences that are located in the airport environs. However, this approach possesses serious drawbacks. First, as with the experiences encountered in zoning, reliable noise contours are a necessary prerequisite. It is mandatory that we first determine where the noise begins and ends, and in what amounts. Second, the enactment of such codes requires criteria for permissible interior noise levels; performance standards would then have to be adopted. Third, sound proofing is costly. For areas that are as yet undeveloped, the requirement for sound proofing could substantially increase the price of housing in these noise-affected areas. In areas in which housing is already present, the costs associated with and the time involved in sound proofing these instructions would be unduly burdensome. This, in turn, leads to the problem of determining who should pay for the sound proofing of existing houses—the individual landowner who wishes to protect his investment or the airport sponsor who obtains a direct and immediate benefit from airport operations? In either case, the crucial question must be resolved as to whether the airport location values exceed the insulation costs. Fourth, sound proofing would only diminish interior noise levels. Those who engage in outdoor activities at home would still be confronted with the ear and nerve shattering experience of having aircraft either flying overhead or operating nearby.⁶⁸

68. *Airport Environs: Land Use Controls*, Environmental Planning Paper, U.S. Government, Dept. of Housing and Urban Development (May 1970). (Hereinafter cited as *HUD-Study*.)

Advance site acquisition can be one of the most economical means to insure compatible land use in areas that are as yet undeveloped. However, since urban areas are faced with conflicting development pressures, local authorities might not be desirous of setting aside great portions of land to lie dormant until they are needed for airport development or expansion at some indefinite time in the future. For those areas in which there has been either partial or total development, the acquisition of the necessary sites could be very costly,⁶⁹ as evidenced by the Chicago and Dallas-Fort Worth situations previously cited.

Avigation easements would limit the use of land surrounding the airport to uses that would not interfere with air navigation (e.g., agriculture). However, this method has produced a multiplicity of suits for the purpose of measuring the diminution of value of the land-owner's property through such use restrictions and condemnation of the landowner's future development rights.⁷⁰

Eminent domain, like the avigation easement, is also available for the purpose of securing compatible land use in areas that have already been incompatibly developed. Yet, while most airport sponsors and authorities, as creatures of the state, possess eminent domain powers, they are reluctant to employ them as the costs involved in employing such means are frequently beyond their fiscal resources.⁷¹

As can be seen, each of the existing methods of achieving compatible land use has its own disadvantages which severely limit its effectiveness in reducing the conflict between the airport and its environment. The airport and its operations cover a large geographic area and, as a result, points that are several miles away can be adversely affected by air commerce activities. Because of this, the attempts at insuring compatible land use should be broadly based. Considering the multitudes of airport neighbors and those affected by airport operations, it is easily realized that a piecemeal approach to this problem will not work. It, therefore, appears that within the existing governmental framework and the scope of existing methods, the most economical and effective remedies for the problem are compatible land use zoning for undeveloped and future airport areas and condemnation and repurchase for presently impacted areas.⁷² Yet, as shown earlier, these methods present serious problems. Airport zoning

69. *Id.*

70. See *Zoning—The Airport and the Land Surrounding It in the Jet Age*, 43 Ky. L. J. 273 (1960), and *United States v. 48.10 Acres of Land*, 144 F. Supp. 258 (S.D. N.Y. 1956).

71. *HUD-Study*.

72. *Jet Noise in Airport Areas: A National Solution Required*, 51 Minn. L. Rev. 1087 (1967) at 1110.

ordinances have had questionable success in the courts and condemnation has proven to be very costly.

In view of the problems inherent even in these two preferred methods, it can be seen that the future struggle to ease the conflict between the airport and its surrounding community will have to rely upon more innovative concepts. These new concepts may become manifest in new Federal, state and local relationships, and in the emergence of new governmental institutions to more effectively deal with these problems.

IV. INNOVATIVE CONCEPTS FOR MINIMIZING THE ADVERSE IMPACT OF THE AIRPORT ON ITS ENVIRONS.

A. *Introduction*

The same technology that created the noise problem should be able to solve it. Many of the problems created by noise today, however, cannot wait for the technological solutions of tomorrow.⁷³

It is doubtful that there will ever be such a thing as a quiet airplane, but, by technological and regulatory means, it will be possible to reduce the impact of aircraft noise exposure for the majority of Americans who are now, or potentially will be, exposed to excessive noise.⁷⁴

In surveying the current approaches that are used to make airports better neighbors, it can be seen that "new ideas, new approaches, perhaps even new institutions will be required to deal with the problems"⁷⁵ arising in this area. The severity of these problems—the imminent danger to the physical and mental well-being of myriads of urban dwellers living near airports and to the continued viability of our national air transportation system—require that more effective approaches be used. No longer can we callously let the damage rest where it falls (i.e., on the nearby landowner) and superficially rationalize our actions by arguing, "the airport was there first" or that once the airport exists it simply cannot be bulldozed. On the same token, however, the importance of our air transportation system demands assurances of continued viability and growth and requires airport and aircraft operations, which are so necessary to the public interest, to exist unimpeded by small groups of vocal citizens who

73. Note, *Aircraft Noise Abatement: Local Versus National Control*, 1970 Law and Soc. Order 678 at 678-679.

74. Alan S. Boyd, *Commercial Aviation: Rapid Growth Breeds New Problems*, 13 N.Y. L.F. 451 (1967) at 452.

75. See note 16, *supra* at 16.

may be desirous of either closing or restricting the airport operations. As stated earlier, the existing approaches that have been used to avert this head-on collision between competing interests have met with something less than success. Perhaps the following innovative concepts may achieve a higher ratio of success.

B. Aviation Lease

Charles M. Haar has called attention to the weaknesses and inadequacies inherent in the traditional common law theories that have been used to deal with the anxiety-producing relationship between the airport and the community,⁷⁶ and has emphasized the failures of legislative efforts to insure compatible land usage—"to make compatible the existing conflicting demands for land in urban areas is a task beyond the dreams of the urban alchemist."⁷⁷

Haar believes that decisions that are made regarding the location of airports should reflect all economic, social, and environmental costs. In this resource allocation, the price of "quiet" should also be included.

Quiet, like the land on which runways are constructed, is a commodity; and if the airlines and air travelers consume it, they should pay for it.⁷⁸

Implicit in this resource allocation is a reliance upon our technological ability to identify, measure, and control the by-products of air commerce. Thus, the resource allocation made in accordance with the technology of the 1950's is not necessarily relevant to the 1970's. As a result, permanent resource allocation, or more specifically, a settlement between the airport operator and the aggrieved landowner may not be the most equitable and fair for either party. Noise contours may change, congestion may be displaced, and airport activity may be altered over the course of several years.

In view of the transient nature of these unwanted by-products, Haar suggests a system of leasing quiet and airspace for short periods of time (e.g., 2-3 years). During this time, the local resident and the airport operator would assess the value of the easement on the landowner's property and on the airspace above it. Upon the expiration of this lease, the airport operator would then have to re-settle the costs, based upon the available technology, the nature of the airport's operations, and the char-

76. See Note 33, *supra*.

77. *Id.* at 15.

78. *Id.* at 20.

acter of the surrounding area at this new date, and then enter into a new lease.

This proposal would have three major impacts. First, it would shift the threshold question as to the payment of damages from a consideration of *whether any damages will be paid* to that of *who will pay for the damages* that are suffered. Secondly, reliance upon the economy of resources would insure a more proper location for the airport. Third, this proposal would encourage the aviation industry to develop quieter engines, employ quieter aircraft, adhere to noise abatement procedures, and study the effects of the location and expansion of runways.

Yet, this proposal also contains serious drawbacks. First, it is not the airlines and air travelers alone who benefit from the existence and operation of the airport. The entire community, directly or indirectly, benefits by the fact that an important link in the national transportation scheme serves it. To place the financial burden solely upon the airlines and air travelers would be an unduly harsh measure and would probably be counter-productive to the general welfare of the entire community. Second it is difficult to determine a fair damage award. What value can we place on quiet? Can a dollar value be determined for the difference between 120 EPnDb and 100 EPnDb? Third, considering the numbers of urban dwellers situated near airports and in excessive noise areas, this individual-oriented approach would be extremely cumbersome.

Surely, the only truly effective solution to the problem at hand is through a broadly-based comprehensive planning scheme. The purpose of this scheme is not to attempt to make the plaintiff whole after he has been injured by the annoyances of aircraft and airport operations, but rather to prevent these annoyances from ever taking their toll on the health, safety, and welfare of those who live in urban areas.

C. *Comprehensive Planning*

In too many places, airports are 'planned,' expanded and operated with no attention paid to the effects which their operations have on their neighbors.⁷⁹

The multi-jurisdictional and metropolitan-wide nature of airport influence requires that planning for both the airport and its impact be metropolitan in scale.⁸⁰ Area-wide transportation system planning requires metropolitan planning agencies to foster and serve as a medium of exchange

79. Jerrold A. Fadem and Michael M. Burger, *A Noisy Airport is a Damned Nuisance!* 3 S.W. L. Rev. 39 (1971) at 62.

80. HUD-Study

between the interests of the airport sponsor and those of the community. While these comprehensive planning schemes are costly, the financial cost involved in planning of this nature is probably much lower than the costs (economic, social, and environmental) that arise from poorly planned airport-community relationships. Additionally, the Federal Government, pursuant to the Airport and Airway Development Act of 1970, is authorized to make planning grants to state, regional, and metropolitan planning agencies for airport system planning and master planning. Section 13 of this Act, authorizes up to \$75 million per fiscal year and directs the Secretary of Transportation to coordinate the administration of this program with the Secretary of Housing and Urban Development to preclude duplication and insure balanced planning.⁸¹

Comprehensive planning must include a study of the existing and expected noise exposure problems, particularly:

- (1) the number and use of properties and the noise sensitivity of the land uses surrounding the airport;
- (2) the number and major structural characteristics of the buildings in the area;
- (3) the number and character of people exposed in the area;
- (4) the market value of the property;
- (5) the existence of special noise sensitive activities (such as schools and hospitals).

It should additionally provide an adequate means of review actions to analyze complaints, formulate complaint profiles, and continually assess the relative usefulness and costs of alternative land use strategies.⁸² Without this comprehensive study of the variables and problems incident to the relationship between the airport and its environs, the traditional means of insuring compatible land use, regardless of how vigorously they may be carried out, will continue to be ineffective.

The Minneapolis-St. Paul Metropolitan Airports Commission (MAC) is an example of the type of governmental unit that is required to administer comprehensive planning.⁸³ Although this Commission was conceived as a means of quelling the traditional competition for scheduled air service between St. Paul and Minneapolis, it now serves the entire seven-county metropolitan area and possesses general jurisdiction over all

81. 84 Stat. 224.

82. *HUD-Study*

83. Donald V. Harper, *The Minneapolis-St. Paul Metropolitan Airports Commission*, 55 Minn. L. Rev. 363 (1971).

aeronautical activity in that area, including the operation of the major air carrier airports and control over privately-owned fields.

Implicit in MAC's functioning is the necessity of insuring maximum coordination between it and Federal, state, and local agencies. In coordinating its activities, MAC represents the aviation interests of the entire metropolitan county area—the cities in which the airports are located as well as those who are only indirectly affected by them, as it is comprised of members from each community in the metropolitan area.

To a considerable extent, comprehensive planning, as it is embodied in such regional or metropolitan-wide bodies as MAC, is a marked improvement over the types of "planning" that we have had in the past. However, these comprehensive planning schemes are not flawless. As in the case of zoning, these planning schemes are not retroactive in effect. While they may plan ideally for the future, they may be virtually ineffective in alleviating the present ills associated with "impacted" airports. Furthermore, while planning agencies may develop a plan that reflects the best in technological, political, social, and environmental wisdom, there is nothing to prevent these agencies from later changing this plan to some less acceptable norm. This problem is especially significant in those instances where imminent financial crises have caused planning agencies to succumb to development pressures that may be contrary to the best interests of the entire region.

Yet, the most significant problem arising in this area is that these metropolitan-wide comprehensive planning bodies may become too parochial in their outlook, placing regional or metropolitan matters far ahead of those of national importance.⁸⁴ Thus, if there is to be any future in comprehensive planning, at least as such planning pertains to airports and air commerce, a close working relationship with the Federal Government will be required.

D. A National Land Use Policy

The necessity for and desirability of a national land use policy arise from the fact that the use of land significantly influences the quality of the environment and that past and present state and local arrangements for planning land use of more than local impact have generally been inadequate.

S. 992, a bill

To establish a national land use policy; to authorize the Secretary

84. Note, *Jetport: Stimulus for Solving New Problems in Environmental Control*, 23 U. Fla. L. Rev. 376 (1971) at 379.

of the Interior to make grants to encourage and assist the States to prepare and implement land use programs for to protection of areas of critical environmental concern and the control and direction of growth and development of more than local significance; and for other purposes.

was introduced in the 92nd Congress.⁸⁵ Specifically, this legislation would have authorized the Secretary of the Interior to make program development grants⁸⁶ to each state to assist it in developing a national land use plan and, upon the Secretary's review of the state plan, to make a program management grant to each state to assist each in managing the plan that they have devised.⁸⁷ Section 104 of this bill provided that the state plan must include methods of inventorying and designating areas impacted by key facilities (such as a major airport);⁸⁸ exercising state control over the use of land within such areas; assuring that local regulations do not restrict or exclude development and land use of regional benefit; controlling proposed large-scale development of more than local impact upon the environment; and periodically revising and updating the state land use program to meet changing conditions. The bill also provided that the Secretary, prior to making a program management grant pursuant to Section 104, must consult with those Federal agencies that conduct or participate in the construction, development, or assistance programs that significantly affect the land use in the state⁸⁹ and that these Federal programs and activities must be consistent with these state land use programs.⁹⁰

The amendment to S. 992 would have additionally amended Section 15 of the Airport and Airway Development Act of 1970⁹¹ to impose economic sanctions on those states that have not been found eligible for a plan management grant pursuant to Section 104 of the National Land Use Policy Act. Under this provision, airport development grants to states that do not qualify under Section 104 would be reduced by specified percentages. The rationale for this provision can be seen in the following excerpt from a letter from the Secretary of Interior to the Chairman of

85. S. 992, 92nd Cong., 1st Sess. (1971), as amended by Amdt. No. 996, 92nd Cong., 2nd Sess. (1972).

86. *Id.*, section 102.

87. *Id.*, section 104.

88. *Id.*, section 102(b) provides "key facilities" are public facilities which tend to induce development and urbanization of more than local impact and include . . . (1) any major airport that it is used or designed to be used for instrument landings. . . .

89. *Id.*, section 105.

90. *Id.*, section 106.

91. P.L. 91-258, 84 Stat. 227.

the Senate Committee on Interior and Insular Affairs, on February 8, 1972:

The legislation submitted last year provided in part that to qualify for Federal funding a State land use program must include a method for exercising control over areas impacted by key facilities. Key facilities were defined as public facilities which tend to induce development and organization of more than local impact including major airports, highways and recreation facilities. Decisions as to the actual siting of such key facilities can, of course, dictate the uses to which the surrounding lands subsequently are put. Thus, we believe it desirable clearly to require that the States' land use programs include methods for exercising control over key facility site location, as well as major improvements and access features of such facilities.

Under our proposal of last year, the principal incentive for States to develop land use programs was the Federal matching grants for program development and program management. We now are persuaded that economic sanctions as well as grants should be provided to assure State action. Recognizing the significant effect which key facilities can have on broad land use patterns, the sanctions which we propose would reduce the amount of financial assistance under these Federal programs with the most far-reaching effect upon land use—airport and highway construction and recreation facilities. The proposed reductions would apply to any State which has not developed an adequate land use program by 30 June, 1975. Any funds withheld from States which have not implemented adequate land use programs would be diverted to States complying with the National Land Use Policy Act, since complying States would be better able to make sound decisions with respect to activities with major land use impacts.⁹²

Naturally, it would be difficult to speculate as to the success or failure of this legislation, since it was neither enacted nor implemented. However, it is possible to make some general observations concerning this bill's possible impact.

As has been emphasized throughout this article, state and local governments and agencies have encountered considerable difficulty in comprehensively and compatibly controlling land use in urban areas. The Federal grants that were provided for in this legislation may have assisted the states in hiring the needed manpower and in permitting them to engage

92. 118 *Cong. Rec. S.* 3313 (March 6, 1972)

in land use studies and resource allocations. The Federal grants would have also, to some extent, relieved the state and local governments of many of the economic pressures that have in the past been counter-productive to wise land use policies.

However, several problems would have remained even if S.992 were enacted. First, what if the state chooses neither to avail itself of these grants nor to formulate a land use policy? The obvious result would have been that those who are living in such states would have continued to be the victims of the past ineffectual attempts at improving the relationship between the airport and the urban environment. The use of the sanction provided for in the amendment to S. 992, the reduction in ADAP Grants, might additionally have been counter-productive. Surely, the reduction in Federal funds for airport development in the unresponsive state could have hindered that state's airport development projects. However, at the same time, this reduction in Federal grants could have effectively impeded the achievement of the goals set forth in the Airport and Airway Development Act of 1970,⁹³ to the detriment of the national aviation system and, in turn, the national transportation system.

Second, this proposal maintained the duality of responsibility between the states and the Federal Government. Thus, while the Federal Government regulates and promotes civil aviation to foster its development and safety and to provide for the safe and efficient use of the airspace, the states would have retained direct responsibility over the formulation of a land use policy. Even upon the enactment and implementation of S. 992, the states might have continued to be the weak link in the promotion and growth of the air transportation system, as they may fail to adopt a land use policy or coordinate their policies with those of the Federal Government. Furthermore, this split in authority and responsibility might have prevented either level of government from taking any decisive action. A case in point is that of the Everglades Jetport.

The airport was a local improvement project;⁹⁴ yet its effects were far reaching. Because of its location in the Everglades, the jetport threatened to alter the south Florida eco system. . . . Both the

93. Section 2 (84 Stat. 219) Declaration of Policy provides in part:

The Congress hereby finds and declares—

That the Nation's airport and airway system is inadequate to meet the current and projected growth in aviation.

That substantial expansion and improvement of the airport and airway system is required to meet the demands of interstate commerce, the postal service, and the national defense

94. The project was funded by a local bond issue rather than by the Federal purse.

state and the Federal governments, therefore, opposed the plan. Nevertheless, the nature of the project made it almost impossible for either government to take decisive action.⁹⁵

E. Conclusion: The Need for Federal Ownership and Control?

The clash between airports and their surrounding communities has emphasized the need to develop better ways of managing the problems that confront us. This presentation would not be complete without referring to the possibility of Federal ownership and control of airports. Action of this nature could have the distinct advantage of placing the responsibility for aviation promotion, development, and safety completely within one governmental entity. Centralized authority of this nature would be consistent with the current goals of the Federal Government of promoting air commerce and safety and might provide for better land use controls surrounding airport areas since the Federal Government would have a greater interest in protecting its investment in and power to build airports.

This idea was considered to some extent by the President's Airport Commission in 1952.

There is reason to believe . . . that the Federal Government, as a corollary to its authority to regulate interstate commerce, and under its postal and national defense powers, has the power to regulate and to zone any airport engaged in such activities.⁹⁶

Surely, in light of our past failures, Federal ownership and control of our airport system might be the best means of insuring

the development of national transportation policies and programs conducive to the provision of fast, safe, efficient, and convenient transportation at the lowest cost consistent (with the general welfare, economic growth and stability of the Nation) and with other national objectives, including the efficient utilization and conservation of the Nation's resources.⁹⁷

Mr. Justice Black, dissenting in *Griggs*, emphasized that the United States should be held liable rather than the defendant, Allegheny County, for the "taking" of airspace over the plaintiff's property.

Congress has over the years adopted a comprehensive plan for na-

95. See note 85, *supra*.

96. *Doolittle Report*, at 72-73.

97. Department of Transportation Act, Section 2, 80 Stat. 931, 49 U.S.C. 1651 (1966).

tional and international air commerce, regulating to a minute detail virtually every aspect of air transit—from construction and planning of ground facilities to safety and methods of flight operations.⁹⁸

While it could be feasibly argued that Federal ownership and control of airports and airport operations would be incidental to the Federal Government's comprehensive plan for national and international air commerce, it is likely that local agencies, authorities, and citizens will vehemently oppose this particular means of controlling and abating the unwanted by-products of our national aviation system. These local bodies and local citizens would naturally be wary of any Federal encroachment into matters that they feel are legitimately of local concern as they are of national importance.

It, therefore, appears that the existing and the more innovative attempts at minimizing the conflict between aviation and other urban interests possess both inherent advantages and drawbacks. Considering the fact that we have just wakened to realize the severity of the problem, it is difficult to sit back and choose any one of the available methods and rely upon it to instantly soothe the problematic relationship. Considering this sudden awareness, our "technological" base for implementing a feasible and acceptable solution on the third front has not substantially advanced since the Wright Brothers epic twelve-second flight of December 17, 1903.

98. 369 U.S. 84 (1962) at 91.