The Airport Noise and Capacity Act of 1990: Has Congress Finally Solved the Aircraft Noise Problem

John J. Jenkins Jr.
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I. INTRODUCTION

IN THE EARLY days of aviation, conflicts between airport proprietors and nearby landowners over aircraft noise were rare. Airports were small and generally located away from noise sensitive areas. The few planes taking off and landing at airports were propeller driven and relatively quiet. This situation changed, however, with the advent of the jet age and the rapid expansion of air travel as a major component of the nation’s transportation system. The number of take-offs and landings steadily increased, and the airplanes grew larger and louder.

Today, airports have grown to enormous proportions and the volume of air traffic continues to grow. This growth of airports and air traffic has brought with it a serious problem: how should society balance the rights of persons owning property near airports to enjoy their land with the community’s need for air travel facilities. This problem has been addressed several times without success in the past twenty to thirty years and only promises to become worse in the future as the number of take-offs and landings at the nation’s airports continues to increase.\(^1\)

\(^1\) In 1987, U.S. domestic air carriers carried 450 million passengers or almost double the number carried in 1978. Task Force Predicts Airport Capacity Crunch, TRAFFIC WORLD, Apr. 4, 1988, at 15 [hereinafter Task Force]. By the year 2000, the number of passengers carried by domestic U.S. air carriers is expected to reach 750 million. Id.
In response to the growing aircraft noise problem, Congress passed the Airport Noise and Capacity Act of 1990. The Airport Noise and Capacity Act is significant because it shifts authority for noise abatement away from local governments and airport proprietors and grants the Federal Aviation Administration (FAA) authority on all noise restrictions on aircraft. Airport operators, airlines, and citizens groups all hope this shift toward a national solution will lead to less litigation and more cooperation between the groups to find a solution to the growing aircraft noise problem. This comment provides a review of some of the major judicial decisions which have shaped noise abatement law, prior legislative attempts to solve the aircraft noise problem, and a discussion of the regulatory scheme established by the Airport Noise and Capacity Act of 1990 and its chances for success.

II. JUDICIAL DECISIONS

A. United States v. Causby

The first major judicial treatment of the subject of aircraft noise was United States v. Causby. In Causby, the United States Supreme Court upheld a cause of action for the taking of property by aircraft noise under the theory of inverse condemnation. Causby involved damage to the plaintiffs' chicken farm caused by the noise and bright lights of frequent, low-level overhead flights by military aircraft taking off and landing at a nearby municipal airport leased by the federal government. The plaintiffs alleged the low-level flights caused damage to both their chicken farming business and their personal health.

The Court held that the noise and lights from the

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4 328 U.S. 256 (1946).
5 Id. at 266-67. In an inverse condemnation suit the plaintiff alleges that his property has been taken for public use without just compensation as required by the Fifth Amendment to the U.S. Constitution. See U.S. CONST. amend. V.
planes did constitute a taking of property by inverse condemnation compensable under the Fifth Amendment. In discussing what constitutes a taking of property, the Court stated that “[f]lights 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.” Causby clearly established the principle that landowners are to be compensated for diminution in value of their land and other damages caused by aircraft noise.

The Causby decision is also significant because it recognizes the conflicting interests of the public in the use of airspace and the right of landowners to the use and enjoyment of their land. In recognizing these conflicting interests, the Court expressly rejected the common law doctrine that the property owner owns and controls his land from the center of the earth to the far reaches of the universe. The Court’s rejection of this common law rule and recognition that the navigable airspace is in the public domain was an important step in the development of airspace law.

B. GRIGGS V. ALLEGHENY COUNTY

Griggs v. Allegheny County was the next significant aircraft

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6 Causby, 328 U.S. at 267.
7 Id. at 266.
8 The measure of damages in an inverse condemnation suit is limited to the loss in value to the plaintiff’s property. Id. at 261.
9 The Court stated:
   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. To recognize such private claims to the airspace would clog these highways, seriously interfere with their control and development in the public interest, and transfer into private ownership that to which only the public has a just claim.
Id.
10 "The landowner owns at least as much of the space above the ground as he can occupy or use in connection with the land." Id. at 264.
11 Id. at 260-61.
noise case heard by the Supreme Court. 12 *Griggs* focused on the determination of liability for damages to property caused by aircraft noise from a newly constructed airport. The owners of a house located near the end of a runway at the Pittsburgh Airport brought suit alleging that their property had been taken as a result of noise and vibration from aircraft passing overhead.

The Court held that the overhead flights in question were so low and frequent as to constitute a compensable taking of property by inverse condemnation. 13 The most important aspect of this case, however, is the Court's assignment of all responsibility for damages suffered by the landowner to the airport operator. 14 The Court held that, although the federal government had approved all plans for the airport and established federal regulations concerning airport construction, the federal government could not be held liable for any portion of the property owner's damages. 15 The Court stated that the federal government did not choose the site for the construction of the airport, the direction and length of runways, nor the amount of land needed for the airport's construction. 16 These decisions were made by the airport operator and, therefore, the Court reasoned, the airport operator should bear the cost of acquiring any additional approach area needed for the operation of the airport. 17 The Court decided that the air carriers using the airport were similarly not liable for damages because they were merely complying with the requirements of the federal government relating to aircraft operation. 18 The Court's

12 369 U.S. 84 (1962).
13 *Id.* at 90. The flights which were continuous, regular, daily flights, often only several minutes apart, and passed near the plaintiffs' residence. During the overflights, the windows of the residence rattled and at times plaster fell from the walls and ceilings. The noise made it impossible for the plaintiffs to converse, to talk on the telephone, or to sleep, even when using ear plugs and sleeping pills.
14 *Id.* at 89-90.
15 *Id.*
16 *Id.* at 89.
17 *Id.*
18 *Id.*
decision imposing all liability for damages resulting from aircraft noise on the airport operator has been consistently upheld in cases following Griggs.19

C. CITY OF BURBANK V. LOCKHEED AIR TERMINAL

Another important issue developed during litigation over aircraft noise is the extent to which state and local governments and airport operators may regulate air traffic and the resulting aircraft noise. The Supreme Court attempted to settle this issue in City of Burbank v. Lockheed Air Terminal, Inc.20 In Burbank, a city regulation restricted the permissible times of flights in and out of the Burbank airport.21 The city ordinance22 made it unlawful for jet aircraft to take off from the airport between the hours of 11:00 p.m. and 7:00 a.m., and made it unlawful for the airport operator to permit planes to take off during those hours.23 The airport owner and operator brought suit seeking an injunction against enforcement of the ordinance.

The Court struck down the ordinance and held that the Noise Control Act of 197224 preempted state and local action in the field of noise control.25 The Court expressly stopped short of addressing the limits applicable when the city or municipality owns the airport and acts as its

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21 Id. at 625-26.
23 Burbank, 411 U.S. at 625-26. The ordinance however, provided an exception for emergency flights approved by the City Police Department. BURBANK, CAL., MUNICIPAL CODE §§ 20-32.1.
25 Burbank, 411 U.S. at 633-37 (holding that although the statute did not provide for express preemption in the statute, preemption can occur either where federal legislation is so pervasive that it leaves no room for state regulation or where federal interests are so dominant that state regulation should be precluded).
proprietor rather than as a governmental entity regulating aircraft noise through the state's traditional police power. The Court did not reach this issue because of a letter from the Secretary of Transportation submitted to Congress during debate over the Noise Control Act of 1972. The Secretary's letter expressed the view that the Act should not affect the rights of states and local agencies to issue regulations in their capacity as operators of an airport. This limitation in the Court's holding has become known as the Proprietor's Exemption.

The scope of federal preemption and the Proprietor's Exemption established in the Burbank decision has been the subject of several cases with courts frequently in disagreement over the extent of permissible state or local control. Some recent decisions have held that proprietors may not directly regulate the frequency of takeoffs nor establish curfews for aircraft activity because these measures are preempted by federal law. Federal law,
the courts reason, occupies this entire field of regulation, thereby precluding any state or local regulation.\textsuperscript{51}

Other courts, however, have rejected the total federal preemption argument.\textsuperscript{32} In a recent case, \textit{Dallas/Fort Worth International Airport Board v. City of Irving},\textsuperscript{33} the court squarely addressed the issue of federal preemption of municipal authority and rejected the total federal preemption argument. In this case, cities surrounding the Dallas/Fort Worth International Airport attempted to use local zoning ordinances to block the expansion of the airport and the construction of two new runways.\textsuperscript{34} The court granted summary judgment in favor of the cities, permitting the challenge to expansion.\textsuperscript{35}

The court acknowledged the substantial amount of federal regulation of aircraft operations, but distinguished those issues from the physical expansion of the borders of an existing airport.\textsuperscript{36} The court ruled that matters concerning airport expansion were entirely different from matters affecting aircraft operation. The court stated:

Federal preemption would clearly apply were this a case of a more "classic" nature, e.g., adjacent cities attempting to regulate noise, establish a curfew, limit landing weight, or otherwise regulate aircraft at an existing facility. The critical circumstance here, however, is not the day-to-day operation of an existing airport but a planned $3.5 billion expansion, including a territorial expansion.\textsuperscript{37}

The court determined that Congress had the power to regulate issues surrounding airport expansions, but that existing regulation and case law indicated that it had not yet done so.\textsuperscript{38} The current trend regarding preemption

\textsuperscript{51} Id.

\textsuperscript{32} See supra note 29.

\textsuperscript{33} No. 90-4298-I, (162d Dist. Ct., Dallas County, Tex., Oct. 8, 1991), aff'd, 854 S.W.2d 161 (Tex. App.—Dallas), vacated as moot, 868 S.W.2d 750 (Tex. 1993).


\textsuperscript{35} Dallas/Fort Worth Int'l Airport Bd. v. City of Irving, No. 90-4298-I at 9.

\textsuperscript{36} Id. at 6-7.

\textsuperscript{37} Id. at 5.

\textsuperscript{38} Id. at 9.
of state and local regulations appears to be toward acceptance of concurrent regulation, so long as compliance with the local regulations does not make compliance with federal regulations impossible.\textsuperscript{39} The enactment of the Airport Noise and Capacity Act of 1990 may make this preemption argument moot by requiring that all local restrictions comply with the 1990 Act’s standards.\textsuperscript{40}

III. LEGISLATION AND REGULATION OF AIRCRAFT NOISE

The majority of legislation regulating aircraft noise comes from the federal government. Air travel is considered a part of interstate commerce and, as such, is subject to federal regulation under the Supremacy Clause of the Constitution.\textsuperscript{41} Congress has exercised this authority by enacting a broad range of legislation covering many areas of airport operation and aircraft noise.\textsuperscript{42}

A. THE FEDERAL AVIATION ACT OF 1958

In 1958, Congress passed the Federal Aviation Act\textsuperscript{43} granting the FAA the power to determine which aircraft and aircraft engines are permitted to be operated within the United States.\textsuperscript{44} Since the primary purpose of the act was to ensure aircraft safety and the safety of persons on the ground, there was no attempt to use the act to address the aircraft noise problem.\textsuperscript{45} The FAA did not think aircraft noise was a safety factor, and therefore believed it lacked authority under the act to accept or reject aircraft designs and aircraft engines based on noise.

\textsuperscript{39} Ronald D. Rotunda, Sheathing the Sword of Federal Preemption, 5 Const. Commentary 311, 312 (1988).
\textsuperscript{40} See infra notes 81-161 and accompanying text.
\textsuperscript{41} The United States Constitution grants Congress the power “[t]o regulate Commerce . . . among the several States . . .” U.S. Const. art. I, § 8, cl. 3.
\textsuperscript{42} See infra notes 43-80 and accompanying text.
\textsuperscript{44} Id.
considerations.\textsuperscript{46}

Noise considerations did not become an important factor in deliberations regarding any jet aircraft or engine design until new legislation was passed during 1968-69.\textsuperscript{47} Prior to that time, the FAA relied upon voluntary cooperation among aircraft and engine manufacturers, the airlines, and airport operators to solve aircraft noise problems.\textsuperscript{48} The FAA could have broadly interpreted the language of the Federal Aviation Act granting it authority to develop rules for the protection of persons and property on the ground\textsuperscript{49} to include protection from aircraft noise, but at the time officials were more concerned with other factors. Specifically, safety and economic issues were the FAA's primary concerns in the development of planes and engines, not noise.\textsuperscript{50}

B. 1968 Amendment to the 1958 Act

The FAA did not become directly involved in the noise regulation and reduction debate until 1968 when Congress passed an Amendment to the 1958 Federal Aviation Act\textsuperscript{51} specifically granting the FAA the power to include noise considerations as a factor in approving aircraft and aircraft engines.\textsuperscript{52} The amendment further directed the FAA to develop standards for measuring aircraft noise and to provide for the control and abatement of aircraft noise at the source.\textsuperscript{53} The act also gave the FAA the au-

\textsuperscript{46} Id.
\textsuperscript{47} 49 U.S.C. § 1431. See infra notes 51-54 and accompanying text.
\textsuperscript{48} Harper, supra note 45, at 141.
\textsuperscript{49} 49 U.S.C. § 1431(b)(1).
\textsuperscript{50} Harper, supra note 45, at 142. There were early indications that the noise problem was becoming serious, but public officials did not show much interest until the late 1960's.
\textsuperscript{52} Id.
\textsuperscript{53} Pub. L. No. 90-411, 82 Stat. 395 (codified as amended at 49 U.S.C. § 1431 (1976 & Supp. 1994)). The statute provided that the FAA "prescribe and amend such regulations as the FAA may find necessary to provide for the control and abatement of aircraft noise and sonic boom, including the application of such standards and regulations in the issuance, amendment, modification, suspension,
authority to grant exemption from federal rules and regulations regarding control and abatement of aircraft noise when that exemption furthered the public interest.  

C. FEDERAL AVIATION RULE 36

The FAA responded to the directive in the 1968 Amendment one year later by issuing Federal Aviation Rule 36 (FAR 36). FAR 36 established precise procedures for measuring aircraft noise and proscribed noise limits for aircraft based on size and number of engines. The regulations did not have a significant impact on the industry, however, and were a disappointment to anti-noise groups because the regulations did not apply to pre-existing aircraft designs. The regulations applied only to those aircraft designs for which certification was sought after December 1969. The Act was a great disappointment because it failed to require or actively promote the development of new noise reduction technology.

D. NOISE CONTROL ACT OF 1972

Congress' next major attempt to address the aircraft

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or revocation of any certificate authorized by this subchapter." 49 U.S.C. § 1431(b)(1). This statute marked the beginning of the FAA's use of the certification process to control aircraft noise. This practice has continued to the present and aircraft are now classified according to their noise levels.

54 Id. § 1431(c) (current version at 49 U.S.C. § 1431(e)). The statute provided for the grant of an exemption if there is a finding that "the public health and welfare do not require the affirmation of such an order, or that such an order is not consistent with safety in air commerce or air transportation." Id.


56 Id. § 36.101 (1999).

57 Id. § 36.201 & app. B.


noise issue was the Noise Control Act of 1972.\textsuperscript{61} The 1972 Act authorized the Environmental Protection Agency (EPA) to take a role in the regulation of aircraft noise and instructed the EPA to conduct a study of the adequacy of the FAA noise regulations. The EPA was to recommend further noise control regulations as necessary to protect the public health and welfare.\textsuperscript{62} The FAA, however, retained the right to reject any of the EPA-recommended regulations if the regulations would compromise safety or if they were not technologically or economically feasible.\textsuperscript{63} To the dismay of anti-noise activists, the FAA failed to implement many of the EPA recommendations.\textsuperscript{64}

The 1972 Act also amended provisions of the 1968 Amendment authorizing the FAA to grant exemptions to the noise abatement standards established in FAR 36.\textsuperscript{65} The 1972 Act required the FAA to consult with the EPA prior to the FAA granting exemptions from the noise abatement regulations.\textsuperscript{66} The FAA did, however, retain the authority to grant exemptions without EPA approval if the FAA determined that safety in air commerce or air transportation required action before the EPA could be


\textsuperscript{62} 49 U.S.C. § 1431(c)(1). The act required the FAA to publish the proposed regulations from the EPA within thirty days of submission to the FAA. \textit{Id.} The FAA was then required to hold public hearings within sixty days of such publication to provide interested parties the opportunity for oral and written presentations of their data, views, and arguments. \textit{Id.}

\textsuperscript{63} \textit{Id.} § 1431(c)(1)(A) & (B). The FAA was required to accept or reject the EPA's proposed regulations. If the FAA rejected the proposed EPA regulations, it was then required to publish notice in the Federal Register that no regulations were being prescribed in response to the EPA's proposals, along with a detailed explanation of the reasons for not prescribing the regulations at that time. \textit{Id.}


\textsuperscript{65} See 49 U.S.C. § 1431(b)(1).

\textsuperscript{66} \textit{Id.} The statute states that "[n]o exemption with respect to any standard or regulation under this section may be granted under any provision of this chapter unless the FAA shall have consulted with EPA before such exemption is granted." \textit{Id.}
E. **The Aviation Safety and Noise Abatement Act of 1979**

The Aviation Safety and Noise Abatement Act of 1979 was passed in response to the need for a comprehensive noise abatement program and the financial burdens imposed on U.S. air carriers attempting to meet the FAR 36 noise limitations. To lessen the economic burden on airlines caused by the FAR 36 regulations, the 1979 Act granted air carriers exemptions from the deadlines imposed for compliance with noise level requirements of FAR 36 for all two- and three-engine aircraft. The 1979 Act is also noteworthy because it marked the first time the federal government attempted to reduce the impact of aircraft noise rather than focusing its efforts solely on reducing the noise at the source. To reduce the impact of aircraft noise, the 1979 Act established a system for voluntary noise compatibility planning by airport proprie-

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67 *Id.* In cases where the FAA granted an exemption without EPA approval, the FAA was required to consult with the EPA as soon as practicable after the exemption was granted.


69 U.S. air carriers had been ordered in 1976 to bring their fleets into compliance with the FAR 36 noise limits by January 1, 1985, through the replacement of aircraft and retrofitting of engines. Phased Compliance With Part 36 Noise Limits By Turbojets With Maximum Weights Greater Than 75,000 Pounds, 41 Fed. Reg. 56,046 (1976) (codified at 14 C.F.R. § 36 (1993)).

70 49 U.S.C. app. §§ 2123-2124. The act extended the deadline for two- and three-engine aircraft to January 1, 1983, if the carrier had a plan for the replacement of the aircraft with one that met the new FAA noise standards and if the carrier had entered into a binding contract by January 1, 1983, for the delivery of the replacement aircraft. *Id.* § 2123. The compliance deadline was moved to January 1, 1985 for three-engine aircraft and to January 1, 1986 for two-engine aircraft. *Id.* The act also provided a “Small Community Service Exemption” that extended the time for compliance by two-engine aircraft from January 1, 1983, to January 1, 1985, for aircraft with more than 100 seats, and to January 1, 1988, for aircraft with 100 or fewer seats. *Id.* § 2124.

71 *Id.* §§ 2102-2106. The statute provided for: 1) a uniform system of noise measurement and identification of land uses compatible with noise exposure; 2) preparation of noise exposure maps; 3) funding of noise compatibility planning; and, 4) the establishment of a noise compatibility program. Carr, *supra* note 58, at 2.
Under the plan, the FAA developed a uniform system for measuring aircraft noise levels and determined compatible land uses for areas with various noise levels. Using this information, airport proprietors were to develop a noise exposure map for their airport area pointing out problem noise areas.

After completion of the noise compatibility map, the airport operator qualified for federal grants to develop a noise compatibility program. These noise compatibility programs included such measures as the implementation of a preferential runway system, restrictions on the use of certain airports by certain types of aircraft because of the aircraft's noise level, construction of barriers and acoustical shields, use of alternative flight procedures, and the acquisition of land near the airport to ensure uses compatible with noise levels. Airport proprietors benefited from the program through federal grants to pay for the noise reduction program. In addition, the noise exposure map enabled airport operators to limit their potential liability to property owners by notifying potential purchasers of property near the airport of the potentially high noise levels. Persons purchasing property near an airport

72 49 U.S.C. app. § 2103. Under the act, noise compatibility planning was defined as the development of information necessary to prepare and submit a noise exposure map and related information, or the development of a noise compatibility program to reduce the effects of the noise. Id.

73 Id. § 2102. The act provided for the establishment of a single system for noise measurement "for which there is a highly reliable relationship between projected noise exposure and surveyed reactions of people to noise, to be uniformly applied in measuring the noise at airports and the areas surrounding such airports." Id. § 2102(1). The system of measurement was to consider noise intensity, duration, frequency, and time of occurrence, among other factors. Id. § 2102(2).

74 Id. § 2102(3).

75 Id. § 2103.

76 Id. § 2103(b)(1). Section 2103(b)(1) authorizes the Secretary of Transportation to make the grants for noise compatibility planning. Id. Section 2104 describes the actual noise compatibility program. Id. § 2104.

77 49 U.S.C. app. § 2104(a)(1)-(5). The alternative flight procedures may include a steep climb out on takeoff, a reduction in thrust immediately after takeoff, or requiring aircraft to turn away from noise sensitive areas after takeoff. Harper, supra note 45, at 125. During landing, noise can be reduced by requiring pilots to take the steepest landing slope consistent with safety regulations or by requiring pilots to use low power when at lower altitudes. Id.
which has a noise exposure map are not entitled to recovery for damages resulting from aircraft noise from the airport if they had actual or constructive knowledge of the existence of the noise exposure map. To successfully bring suit, the purchaser must prove that there has been a significant change in either the type or frequency of the aircraft operation at the airport, the airport layout, the flight patterns, or an increase in night operations, and that their damages resulted from the change or increase.

Although each of the major Congressional actions addressing aircraft noise has helped to alleviate the problem to a degree, none has been able to fully solve the problem. As the volume of air traffic grew at a rapidly increasing rate, each of these Congressional programs proved inadequate. The solution to the aircraft noise problem required a more aggressive, comprehensive approach on a national level.

V. THE AIRPORT NOISE AND CAPACITY ACT OF 1990

In response to the failure of earlier legislation to adequately solve the aircraft noise problem and to counteract the proliferation of onerous local noise restrictions imposed at individual airports by local airport operators, Congress passed the Airport Noise and Capacity Act of 1990 (ANCA) in the waning hours of the 1990 Congres-

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78 49 U.S.C. app. § 2107(b). The act provides that, at a minimum, constructive knowledge will be imputed to a purchaser if, prior to the date of the acquisition, notice of the existence of the noise map was published at least three times in a newspaper of general circulation in the county in which the property is located or if the purchaser was given a copy of the noise exposure map at the time of the acquisition. Id.

79 Id. § 2107(a). See generally Harper, supra note 45, at 127-31.

80 The number of passengers on domestic air carriers almost doubled from 1978 to 1987. Task Force, supra note 1, at 15. The number of passengers carried by domestic carriers is expected to grow from 450 million in 1987 to 750 million by the year 2000. Id.

sional session. Hailed by many in the aviation industry as the most significant piece of aviation legislation since the Airline Deregulation Act of 1978, the ANCA was pushed through Congress with the support of the Bush administration and the major United States airlines.

The ANCA’s proponents claim the Act is a significant step in the noise abatement battle which will remove noisier aircraft from the skies, make the environment quieter for residents around airports, and establish a uniform procedure for use by all airport authorities in the implementation of future restrictions on aircraft operations and the establishment of noise limits. Supporters predict the act will result in a reduction in the number of persons exposed to significant aircraft noise from 2.7 million in 1991 to 400,000 by the year 2000, a decrease of eighty-five percent. The Act’s opponents, including many local noise groups, believe the Act will allow air carriers to keep their noisiest planes in the skies, actually increase the noise problem around airports because of an increasing number of aircraft in operation, and prevent state and local authorities from enacting noise and access restrictions of their own.

The ANCA consists of two related programs. Designed

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The airlines favored the passage of the ANCA because of the growing number of aircraft noise and aircraft access restrictions imposed by state and local governments at individual airports across the country. The airlines favored legislation creating a national aviation policy and restricting the ability of state and local governments to impose restrictions on aircraft operations, particularly on newer, quieter aircraft.

84 Id.
85 Christopher P. Fotos, FAA Noise Rules Give Carriers Flexibility in Meeting Deadline for Stage 2 Aircraft, AVIATION Wk. & SPACE TECH., Sept. 30, 1991, at 34; see Skinner, supra note 83. These figures are both down from a high of seven million people exposed to significant aircraft noise in 1975.
to balance the interests of the airlines and persons residing near airports, the ANCA's drafters attempted to create programs to appease each of these groups. The first, intended to quiet air carriers' complaints concerning local restrictions on aircraft noise and access at airports, establishes a national aviation noise policy.87 This national aviation noise policy limits the authority of local and state governments to impose restrictions on Stage II88 aircraft89 and prohibits local or state governments from passing any regulations restricting the operation of Stage III90 aircraft without FAA approval or the agreement of the airlines.91 The second aspect of the ANCA, meant to address the concerns of noise control groups, provides for the phasing-out of all Stage II aircraft operated in or out of U.S. airports by the year 2000.92 The details of these two programs are discussed below.

A. DEVELOPMENT OF A NATIONAL AVIATION POLICY

To bring uniformity to the numerous restrictions imposed by individual airport operators, the ANCA directed the Secretary of Transportation (Secretary) to issue regulations establishing a national aviation noise policy no later than July 1, 1991.93 In developing the national noise policy, the Act directed the Secretary to consider the findings, determinations, and provisions of the ANCA; an

88 Stage II aircraft are aircraft that meet the 1969 noise standards established by FAR 96. See Adoption of Noise Type Certification Standards and Procedures, 14 C.F.R. § 36 (1993).
89 49 U.S.C. app. § 2153(c), 2154. The Act established a review process for airports proposing restrictions on Stage II aircraft and established procedures to be followed before any Stage II restrictions may take effect. Id.
90 Stage III aircraft are those aircraft designs that applied for certification on or after November 5, 1975 and are required to meet the noise levels established in 1977-78 which are lower than those set for Stage II aircraft. See Noise Limits for Subsonic Transport Category Large Airplanes and Turbojet Powered Airplanes, 14 C.F.R. § 36.201 (1993). The most popular Stage II aircraft is the Boeing 727. The 727 is being replaced by the new Boeing 757 which meets the Stage III requirements.
91 49 U.S.C. app. § 2153(b), (d), (e).
92 Id. §§ 2157, 2158.
93 Id. § 2152(a).
economic analysis of the impact on the airline industry of
the phasing-out Stage II\textsuperscript{94} aircraft and their replacement
with quieter Stage III\textsuperscript{95} aircraft;\textsuperscript{96} and existing law.\textsuperscript{97}
Along with the regulations establishing the national aviation noise policy, the Secretary was instructed to submit recommendations concerning: 1) changes in the standards and procedures governing the rights of state and local governments to restrict airport operations in order to limit aircraft noise; 2) the need for changes in the procedures governing lawsuits brought by persons adversely affected by aircraft noise; 3) changes in federal regulation of the airspace in order to better account for environmental effects; 4) the need for changes in the manner in which the federal government provides assistance in noise abatement planning and programs, including the need for mandatory requirements or greater incentives for local restrictions on the use of noise impacted land; and 5) any further recommendations necessary to implement the national aviation noise policy.\textsuperscript{98}

To implement these new standards and procedures, the ANCA created a national program for the review of airport noise and access restrictions on Stage II and Stage III aircraft issued by individual airport proprietors.\textsuperscript{99} The national program of review applies to all Stage II aircraft restrictions proposed after October 1, 1990,\textsuperscript{100} and all

\textsuperscript{94} See supra note 88.
\textsuperscript{95} See supra note 90.
\textsuperscript{96} The Act directed that the national policy be based upon a detailed economic analysis of:
the impact of the phaseout date for Stage 2 aircraft on competition
in the airline industry, including the ability of air carriers to achieve
capacity growth consistent with the projected rate of growth for the
airline industry, the impact of competition within the airline and air-
cargo industries, the impact on nonhub and small community air
service, and the impact on new entry into the airline industry.
\textsuperscript{97} 49 U.S.C. § 2152(b).
\textsuperscript{98} Id. § 2152(a).
\textsuperscript{99} Id. §§ 2152(c)(1)-(6). The regulations prescribed by the Secretary in response to this section of the Act are codified in Notice and Approval of Airport Noise and Access Restrictions, 14 C.F.R. § 161-161.505 (1993).
\textsuperscript{100} 49 U.S.C. app. §§ 2153(a)-(h), 2154.
Stage III aircraft restrictions effective after October 1, 1990. The Act does, however, provide exemptions for certain types of agreements and actions in effect prior to the date of the ANCA’s enactment (Nov. 5, 1990). The ANCA also provides an exemption where, prior to the enactment of the Act, the FAA and an airport operator had formed a working group to examine the potential noise impacts of changes in air traffic control procedures.

In reviewing restrictions on Stage III aircraft, the national aviation noise program provides that no restrictions scheduled to take effect after October 1, 1990 shall be effective unless they are agreed to by the airport proprietor and all aircraft operators or have been submitted to and approved by the Secretary pursuant to an airport or aircraft operator’s request for approval as provided in §2153(a) of the Act. The Secretary is required to ap-

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101 Id. § 2153(a)(2)(B).
102 Id. § 2153(a)(2)(C)(i)-(vi). The Act specifically provided an exemption for:
   1) a local action to enforce a negotiated or executed airport noise or access agreement between the airport operator and the aircraft operator in effect on November 5, 1990;
   2) a local action to enforce a negotiated or executed airport aircraft noise or access restriction the airport operator and the aircraft operators agreed to before November 5, 1990;
   3) an intergovernmental agreement including airport aircraft noise or access restriction in effect on November 5, 1990;
   4) a subsequent amendment to an airport aircraft noise or access agreement or restriction in effect on November 5, 1990 that does not reduce or limit aircraft operations or affect aircraft safety;
   5) (I) a restriction which was adopted by an airport operator on or before October 1, 1990, and which was stayed as of October 1, 1990, by a court order or as a result of litigation, if such restriction or a part thereof is subsequently allowed by a court to take effect; and (II) in any case in which a restriction described in subclause (I) is either partially or totally disallowed by a court, any new restriction imposed by an airport operator to replace such disallowed restriction if such new restriction would not prohibit aircraft operations in effect as of November 5, 1990; and this Act.
   6) a local actions which represents the adoption of the final portion of a program of a staged airport aircraft noise or access restriction where the initial portion of such program was adopted during calendar year 1988 and was in effect on November 5, 1990.

Id.
103 Id. § 2153(a)(2)(D).
104 Id. § 2153(b).
prove or reject requests for approval no later than 180 days after their submission.\textsuperscript{105} For a noise or access restriction on Stage III aircraft to win approval from the Secretary, the Secretary must find that the following conditions are supported by substantial evidence:

1) \textit{the proposed restriction is reasonable, nonarbitrary, and nondiscriminatory; 2) \textit{the proposed restriction does not create an undue burden on interstate or foreign commerce; 3) \textit{the proposed restriction is not inconsistent with maintaining the safe and efficient utilization of the navigable airspace; 4) \textit{the proposed restriction does not conflict with any existing Federal statute or regulation; 5) \textit{there has been an adequate opportunity for public comment with respect to the restriction; 6) \textit{the proposed restriction does not create an undue burden on the national aviation system.}}\textsuperscript{106}

In reviewing restrictions on operations of Stage II aircraft, the Secretary is not permitted to approve restrictions unless the airport operator publishes the proposed noise and access restriction and prepares and makes available for public comment at least 180 days before the effective date of the restriction:

1) an analysis of the anticipated or actual costs and benefits of the existing or proposed noise or access restriction; 2) a description of alternative restrictions; and 3) a description of the alternative measures considered which do not involve aircraft restrictions, and a comparison of the costs and benefits of such alternative measures to the costs and benefits of the proposed noise or access restriction.\textsuperscript{107}

Although compliance with the provisions of the ANCA is not mandatory, the Act provides significant penalties for noncompliance, virtually ensuring compliance by local airport operators. An airport proprietor operating under airport aircraft noise or access restrictions not in con-

\textsuperscript{105} \textit{Id.} § 2153(d)(1).
\textsuperscript{106} \textit{Id.} § 2153(d)(2)(A)-(F).
\textsuperscript{107} \textit{Id.} § 2153(c)(1)-(3).
formity with the national aviation policy prescribed by the ANCA risks losing its eligibility to collect passenger facility fees and to receive grants authorized by the Airport and Airway Improvement Act of 1982. The Act provides that any restriction on Stage III aircraft which becomes effective after October 1, 1990, and has not been approved by the airport operator and aircraft operators or by the Secretary under 49 U.S.C. app. § 2153(a), places the airport operator in noncompliance with the ANCA.

In addition to the provision solely concerning Stage III restrictions, the ANCA includes a general provision applicable to both Stage II and Stage III aircraft stating that any airport operator imposing a noise or access restriction not in compliance with the ANCA may not, under any condition, receive revenue under the Airport and Airway Improvement Act of 1982 or impose or collect a passenger facility charge.

108 A passenger facility fee is a fee charged to persons departing from or connecting through an airport. At an airport such as Dallas/Fort Worth International Airport, which serves as a hub for two airlines (American Airlines and Delta Airline), the fees can amount to as much as $75 million per year. David Nather, D/FW Could Use Tax for Runways, DALLAS MORNING NEWS, Oct. 31, 1990, at 25A. In cities such as New York that are major centers for both international and domestic air travel, the amount of passenger facility charges collected can reach as high as $120 million per year. FAA Officials Take Hard Line Against Further Noise Rules, AIRPORTS, Nov. 5, 1991, at 457.

109 49 U.S.C. app. § 2204. Grants under the Airport and Airway Improvement Act of 1982 are paid out of a trust fund and may be used by airports for both capital expenditures, such as runways, and normal operating needs. Id.

110 The Act provides a nonexclusive list of restrictions on Stage III aircraft covered by the ANCA. The list includes:

1) a restriction as to noise levels generated on either a single event or cumulative basis; 2) a limit, direct or indirect, on the total number of Stage 3 aircraft operations; 3) a noise budget or noise allocation program which would include Stage 3 aircraft; 4) a restriction imposing limits on hours of operation; and 5) any other limit on Stage 3 aircraft.

49 U.S.C. § 2153(b)(1)-(5).

111 Id. § 2153(e).

112 Id. § 2156. The procedure for revocation of eligibility for the passenger facility charge and the Airport and Airway Improvement Act of 1982 is set out in 14 C.F.R. § 161.501-505 (1993). Although a detailed examination of the procedures is beyond the scope of this article, the regulations first require an attempt at informal resolution of the conflict after notice to the airport of the apparent violation. 14 C.F.R. § 161.503. If this fails, the FAA proceeds with formal charges that may
The threat of losing millions of dollars in passenger facility charges and airway improvement funds has thus far influenced almost all airport operators to comply with the provisions of the ANCA. Several airports have been at odds with the FAA over the details or interpretation of the ANCA and have tried to push their powers to the legal limit, but most have declined to violate the Act outright.

Due to the fact the ANCA and its regulations were only recently passed, the full effects of the national aviation policy have not yet been felt. The FAA and local airports are still in the process of interpreting the Act and determining what restrictions local airport operators are permitted to impose consistent with the ANCA. Many of these details will be worked out in the years ahead through negotiation and litigation. It is also unclear at this time who will be the ANCA's ultimate winners and losers. As the Act is currently interpreted by the FAA, the airlines appear to be the party who will benefit most.

The airlines benefit from the Act primarily because of the limitation on airport operators' ability to impose restrictions on aircraft operations. The ANCA was the first noise control legislation addressing, on a national level, the growing problem of inconsistent local noise and access restrictions at individual airports. These inco-

115 Both Los Angeles and New York have attempted to assert noise regulation power that the FAA believed conflicted with the ANCA. In both instances, however, the cities and the FAA were able to work out a compromise. See FAA to Oppose Accelerated Aircraft Noise Phaseout Plan of New York, AVIATION DAILY, Nov. 26, 1991, at 351; FAA Officials Take Hard Line Against Further Noise Rules, supra note 108.

116 The ANCA was passed on November 5, 1990. The regulations implementing the Act were announced September 24, 1991. See Skinner, supra note 83.

118 49 U.S.C. app. §§ 2153(b)-(c), 2154.

116 The 1968 Amendment to the 1958 Federal Aviation Act dealt with noise control only through reduction of noise at the source, namely the airplane. See supra notes 51-54 and accompanying text. The Noise Control Act of 1972 similarly addressed limitations on aircraft noise at the source instead of restrictions on individual airports. See supra notes 61-67 and accompanying text. Although the Aviation Safety and Noise Abatement Act of 1979 did deal with the noise problem through noise compatibility planning and other noise abatement programs, the
sistent regulations caused serious problems for both ma-

The airlines and the Air Line Pilots Association are particularly

concerned with regulations such as inflexible noise cur-

during certain hours of the night. The airline pilots are

concerned with these curfews because they believe that

the "hard-and-fast curfews rob pilots of valuable time to

secure that their aircraft are fully prepared for take-

Opponents of the ANCA's national aviation noise

policy claim that it is a usurpation of powers best left to

the local airport operators. Noise abatement proponents

believe local authorities should have the power to take im-

mediate action on noise, without having to wait for per-

mission from the FAA. Additionally, many oppose the

increase in federal control.

B. PROHIBITION ON OPERATION OF CERTAIN AIRCRAFT

The ANCA also addressed the aircraft noise problem

programs were voluntary and did not attempt to coordinate or standardize local

See supra note 68-80 and accompanying text.

117 Secretary of Transportation Samuel Skinner addressed the issue of restric-

tions on individual airports stating "[b]ecause airports are part of an intercon-

nected national and now international aviation system, these local restrictions can

have ripple effects throughout the country. In some cases, the restrictions make it
difficult, if not impossible, for airlines to schedule their service efficiently." Skin-

ner, supra, note 83. In Burbank, The Supreme Court addressed this issue, stating:

[t]he practice of prohibiting the use of various airports during cer-

tain 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 es-

sential to the maintenance of a sound air transportation system. The

continuing growth and 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.

Burbank, 411 U.S. at 624.

118 Id.

119 Pilots Warn That Time-Based Curfews Pose Safety Hazard, AIRPORTS, Mar. 10,

1992, at 94.

120 McKenna, supra note 86.
through a prohibition on the operation of certain aircraft based on the aircraft's noise classification.\textsuperscript{121} The ANCA provides that after December 31, 1999, no subsonic aircraft weighing over 75,000 pounds may be operated in or out of any U.S. airport unless it complies with the Stage III noise level requirements.\textsuperscript{122} The Act instructed the Secretary to prescribe regulations establishing a schedule for the phase-out of Stage II aircraft in compliance with the December 31, 1999 deadline along with interim compliance dates leading up the year 2000.\textsuperscript{123} To ensure compliance with the deadline, the Act requires each air carrier, beginning in 1992, to submit an annual report to the Secretary on the carrier's progress in complying with the Stage II phase-out requirement, and requires the Secretary to submit an annual report to Congress on the progress of the airline industry as a whole.\textsuperscript{124}

In response to this directive, the FAA has established two different methods under which air carriers may phase-out their Stage II aircraft in compliance with the ANCA: the phase-out option and the phase-in option.\textsuperscript{125} Under

\begin{footnotesize}
\textsuperscript{121} 49 U.S.C. app. §§ 2157-2158.

\textsuperscript{122} Id. § 2157(a). The statute did, however, exempt aircraft which are used exclusively to provide transportation outside the 48 contiguous states. Aircraft not in compliance with the prohibitions of the ANCA were allowed to be imported into noncontiguous states so long as they were not used within the 48 contiguous states. Id. § 2157(d). Air carriers operating out of airports in the State of Hawaii were not subject to the above exemption. With respect to Hawaiian operations, the statute provided that domestic and foreign air carriers could not increase the number of Stage II aircraft weighing more than 75,000 pounds that they operated within the State of Hawaii or between the State of Hawaii and a point outside the 48 contiguous states after Nov. 5, 1990. In other words, they were limited to their pre-Nov. 5, 1990 levels.

\textsuperscript{123} Id. § 2157(c). The Act directed the Secretary to make the recommendations after a detailed economic analysis. The analysis focused on the impact of the phase-out on the airline industry, including the ability of air carriers to achieve capacity growth consistent with the projected rates of growth for the airline industry, the impact of competition within the airline industry, the impact on non-hub and small community service, the impact on new entry into the airline industry, and the impact on persons residing near airports. Id.

\textsuperscript{124} Id. § 2157(g).

\textsuperscript{125} Under the phase-out option, the airlines were required to reduce the number of Stage II aircraft in their fleet by a certain percentage each year. Under the phase-in option, the airlines were required to reach a certain percentage of Stage III aircraft in their fleet, whether through the elimination of Stage II aircraft
\end{footnotesize}
the phase-out method, air carriers are required to stop fly-
ing twenty-five percent of their Stage II aircraft by 1994, fifty percent by 1996, and seventy-five percent by 1998, and to meet the year-2000 goal of 100% elimination of Stage II aircraft. United States air carriers strongly protested this strict deadline for retiring Stage II aircraft, claiming that the financial burden on the airline industry from retiring all Stage II aircraft would be crippling eco-
nomically and that some airlines would be hurt worse than others. As an alternative to the phase-out plan, the FAA proposed a phase-in option. Under this ap-
proach, an airline may comply with the ANCA require-
ments if the airline’s fleet is fifty-five percent Stage III by 1994, sixty-five percent by 1996, and seventy-five percent by 1998, still with 100% elimination of Stage II aircraft by 2000.

To provide an escape for an airline which, due to severe financial or technological problems, is unable to meet the year-2000 deadline, the Act contains a provision for granting waivers from the phase-out deadline. The Act provides that an air carrier may apply for a waiver if, by July 1, 1999, at least eighty-five percent of the aircraft used by the carrier to provide transportation are in com-
pliance with the Stage III aircraft standards. The waiver will apply to the remaining fifteen percent or less of the

or the introduction of more Stage III aircraft. Skinner, supra note 83; see Fotos, supra note 85.

126 Skinner, supra note 83; Linda Burke, Planned Limits on Louder Jets Irk South-

127 Burke, supra note 126. Ken Raff, American Airlines’ Director of Fleet Plan-
ing, stated “[i]n our case, most Stage II is fairly old, and we were phasing it out anyway.” Id. at 33. He went on to add “[w]e’d like to think we planned better.” Id. Ron Ricks, Southwest Airlines’ vice president of governmental affairs, stated that some of Southwest’s Stage II aircraft were delivered as late as 1985 and that under the phase-out plan “[w]e will have to stop flying these planes before their economic life is over, which will make buying new ones more difficult.” Id. at 131.

128 Skinner, supra note 83; Fotos, supra note 85.

129 Secretary of Transportation Samuel Skinner stated in his press conference announcing the details of the Act that in order to obtain waivers, airlines must “meet a very strong standard. They must be facing severe difficulties, whether financial or technological in complying.” Skinner, supra note 83.

aircraft in the carrier's fleet. The Act requires that the application for the waiver be filed by January 1, 1999 and that the application include a plan with firm orders for bringing into compliance all aircraft used by the air carrier to provide air transportation with the Stage III noise levels by December 31, 2003. The Secretary may grant an air carrier a waiver if, after reviewing the effect of the waiver on competition in the air carrier industry and small community service, the Secretary determines that granting the waiver is in the public interest. These waivers are limited in duration, however, and may not permit the operation of Stage II aircraft after December 31, 2003.

One final aspect of the phase-out of Stage II aircraft provided in the ANCA is the "nonaddition rule". This rule prohibits the operation of any aircraft weighing over 75,000 pounds which was imported into the United States after the enactment of the ANCA that is not in compliance with the Stage III aircraft noise requirements. There are two exceptions, however. First, the aircraft may be imported and operated in the United States if the aircraft was purchased by the person importing the aircraft into the United States under a written contract executed prior to the enactment of the ANCA. Second, the Secretary may grant an exemption from the requirements of the non-addition rule to permit the importer to bring the aircraft into the United States to obtain modifications to the aircraft to bring it into conformity with the Stage III requirements. Congress added this provision to the ANCA in an effort to prevent air carriers from adding new Stage II aircraft to their fleets, thereby increasing the noise levels at U.S. airports. Several local airport authorities have enacted similar provisions in an attempt to force

131 Id.
132 Id.
133 Id. § 2157(b)(2).
134 Id. § 2157(b)(3).
135 Id. § 2158(a).
136 Id. § 2158(a)(2).
137 Id. § 2158(b).
air carriers to add only Stage III aircraft operations, rather than using Stage II aircraft, for additional flights in or out of the airport.\textsuperscript{138} The validity of these local provisions is still unclear.

The mandatory phase-out of Stage II aircraft by the year-2000 has become one of the most controversial aspects of the ANCA. Intended to appease noise control groups lobbying for elimination of the noisier Stage II aircraft, the phase-out has drawn sharp criticism from both sides of the aircraft noise dispute.\textsuperscript{139} Opponents of the Act claim the Stage II phase-out will actually be detrimental to noise abatement efforts for two reasons. First, they believe the phase-out of Stage II aircraft has not progressed quickly enough. Noise control advocates believe the phase-in option for eliminating Stage II aircraft will actually make the aircraft noise problem worse in the early years of the phase-out by putting more aircraft in the air.\textsuperscript{140} Noise groups want the Stage II aircraft out of the air as soon as possible and believe the flexibility given to air carriers by the phase-in option will keep Stage II aircraft in the air too long.\textsuperscript{141} These groups would like the FAA to require the airlines to eliminate Stage II aircraft

\begin{footnotesize}
\begin{enumerate}
\item Both New York and San Francisco have attempted to add these new non-addition rules for their airports. These local provisions require individual air carriers to at the minimum maintain the same percentage of Stage III operations at the airport. The ANCA's regulations concerning non-addition of Stage II aircraft apply to individual air carriers, fleets as a whole, not to flights in or out of a particular city. As a result, the FAA claims the local nonaddition rules are a violation of the ANCA. \textit{San Francisco Enacts Noise Rule Changes Despite FAA Warning}, \textit{Aviation Daily}, June 5, 1991, at 445; \textit{FAA to Oppose Accelerated Aircraft Noise Phaseout Plan of New York}, \textit{Aviation Daily}, Nov. 26, 1991, at 351.
\item \textit{Airports Concerned with FAA Proposal on Stage 2 Restrictions}, \textit{Airports}, Mar. 5, 1991, at 98 (hereinafter \textit{Airports Concerned}); \textit{FAA Has Noise Reduction Proposal to Please Everybody-and Nobody}, supra note 86.
\item Noise control advocates believe that the majority of air carriers will adopt the phase-in approach instead of the phase-out. They assert that as the air carriers add new Stage III aircraft to their fleets to meet the fleet mix percentages established by the ANCA, they will keep the noisier Stage II aircraft flying and thereby create more aircraft flying, more flights in and out of airports, and therefore more noise. \textit{See Skinner, supra note 83}; McKenna, supra note 86.
\item Noise control groups assert that the phase-in option is not designed to quickly eliminate Stage II aircraft, but rather is meant to keep the Stage II planes flying as long as possible up to the year 2000 deadline. McKenna, \textit{supra} note 86.
\end{enumerate}
\end{footnotesize}
from their fleets by phasing them out, not by phasing Stage III aircraft in, and would also like to allow local airports to retain the power to limit or eliminate Stage II aircraft operations on their own, in advance of the phase-out mandated by the ANCA.\footnote{142}{FAA Officials Take Hard Line Against Further Noise Rules, supra note 108.}

Noise control advocates and local airport proprietors are also unhappy with the ANCA because they believe the FAA will eventually make the strict procedures imposed on local airport operators implementing Stage III restrictions\footnote{143}{For restrictions on Stage III aircraft, the Act requires either agreement between the airport operator and air carriers or approval by the FAA. 49 U.S.C. app. § 2153(b).} applicable to Stage II aircraft restrictions as well.\footnote{144}{Airports Concerned, supra note 139. The ANCA currently allows individual airport proprietors to implement restrictions on Stage II aircraft after a 180-day notice period and the filing of a report detailing an analysis of the costs and benefits of the restriction. 49 U.S.C. app. §§ 2153(c), 2154.} Under the current provisions of the ANCA, airport operators believe they will be able to impose limited restrictions on Stage II aircraft. If the strict procedures applied to Stage III aircraft are applied to Stage II aircraft, airport proprietors fear they will be completely stripped of their power to impose noise restrictions on Stage II aircraft. Many airport proprietors and local noise control groups believe the power to impose restrictions on Stage III aircraft is illusory because of the required FAA approval.\footnote{145}{FAA approval of restrictions on Stage III aircraft is expected to be rare. Airport operators and noise control groups believe applying a similar standard to Stage II restrictions would have similar results. Christopher P. Fotos, Proposed Stage 2 Aircraft Ban Leaves Carriers and Airports in Dark Over U.S. Noise Policy, AVIATION Wk. and SPACE TECH., Mar. 11, 1991, at 35.} Requiring FAA approval of Stage II restrictions would further reduce the power of airport operators.

Although they have accepted the ANCA’s Stage II phase-out provisions, air carriers are also not completely happy with the provisions. Initially, the regulations implementing the Stage II phase-out called for a phase-out of all Stage II aircraft, requiring a twenty-five percent reduction of a carrier’s Stage II aircraft by 1992, fifty per-
cent by 1996, seventy-five percent by 1998, and finally 100% by the year 2000.\textsuperscript{46} Air carriers oppose this plan because they believe it will financially cripple the industry, and instead favor a flexible approach allowing them to keep Stage II aircraft in operation longer.\textsuperscript{47} In response to the air carriers’ objections, the FAA developed the alternative phase-in option. This plan allows the carriers to keep Stage II aircraft in operation so long as they add sufficient Stage III aircraft to meet set fleet mix percentages.\textsuperscript{48} Air carriers have lessened their opposition to the Stage II phase-out after the introduction of the more flexible phase-in option, but it is unclear whether they will continue to support the phase-out as the compliance dates grow near and the airlines begin to feel the ANCA’s financial impact.\textsuperscript{49}

The area of the ANCA which is the biggest improvement over earlier Congressional acts is the strict deadline for the phase-out of Stage II aircraft.\textsuperscript{50} Although previous acts imposed deadlines for the phase-out of Stage II aircraft, the liberal exemption and waiver provisions of these acts prevented the acts from having any significant

\footnotesize{\textsuperscript{46} Burke, supra note 126.}

\footnotesize{\textsuperscript{47} One of the plans put forth, which was eventually rejected, called for the phase-out to proceed according to the initial regulations, but would have allowed airlines exceeding the percentage of Stage II aircraft required to be phased out to sell the right to operate Stage II aircraft to other air carriers not meeting the deadline. Weaker air carriers opposed this transfer plan because of the potential for serious anti-competitive effects. Many Airlines Support Flexible Schedule for Reducing Stage 2 Aircraft in Fleet, AVIATION DAILY, Apr. 17, 1991; Burke, supra note 126.}

\footnotesize{\textsuperscript{48} Under the fleet mix plan, the air carrier had to have a certain percentage Stage III aircraft. The percentages were set at 55% by 1994, 65% by 1996, 75% by 1998, and 100% by the year 2000. Skinner, supra note 83.}

\footnotesize{\textsuperscript{49} The FAA estimates that the cost of the Stage II phase-out will be $6 billion. The Air Transport Association believes the total phase-out costs in 1990 dollars will reach $90 billion. Many Airlines Support Flexible Schedule for Reducing Stage 2 Aircraft in Fleet, supra note 147. Many airlines have already taken significant steps to reach the year 2000 deadline. Reports filed by U.S. air carriers for 1991 indicate that only three major carriers had not yet reached the fleet mix required for the 1994 deadline. Two of the carriers, American Airlines and America West, had already met the 1996 requirements. Most Majors Meet FAA’s First Interim Noise Requirement, AVIATION DAILY, July 29, 1992, at 171.}

\footnotesize{\textsuperscript{50} 49 U.S.C. app. § 2157(b)(3).}
effect on the makeup of the commercial air fleet. The drafters of the ANCA hoped to avoid the failure of these earlier acts by including a final, definite limit on the length of any extension or waiver of the phase-out requirements of the act. Maintaining this 2003 deadline for all waivers is crucial to any serious program to eliminate Stage II aircraft and reduce aircraft noise. Congress will have to hold firm to this deadline and resist pressure to extend the Stage II phase-out deadline if the ANCA is to be successful in removing Stage II aircraft from the skies.

Congress' ability to hold firm on the phase-out deadline will likely rest on two factors. First, for the Stage II phase-out to succeed, the financial health of the airline industry must improve such that they are able to bear the financial burden of phasing-out Stage II planes and replace them with Stage III aircraft or retrofitted Stage II aircraft. At the present time, the U.S. airline industry is in financial shambles. Losses for the major U.S. airlines in the past three years have totaled nearly $8 billion. In 1992, the losses for the three largest U.S. airlines alone approached $2.5 billion. Air carriers must regain their financial

151 The first major attempt to mandate a phase-out of older Stage II aircraft was the 1976 order by the Secretary of Transportation that all air carriers comply with the FAR 36 standards by January 1, 1985. See supra note 69. Due to the financial burden this imposed on U.S. air carriers, the Aviation Noise and Safety Act of 1979 granted air carriers exemptions from the 1985 deadline for both two and three engine aircraft. These deadlines were extended until 1988, and then beyond. The fact that the ANCA addresses phasing out the same type of aircraft clearly illustrates the failure of these earlier phasout deadlines.

152 49 U.S.C. app. § 2157(b)(3). The act provides: "A waiver granted under this subsection may not permit the operation of Stage II aircraft in the United States after December 31, 2003."

153 Retrofitting the aircraft requires either the installation of a hush kit to make the jets' existing engines meet the Stage III requirements or the re-engining the aircraft with engines that meet the Stage III noise requirements.


155 The three largest airlines—American, United, and Delta—lost a combined $2.46 billion. AMR Corp., parent of American Airlines, lost $935 million. UAL Corp., United Airlines' parent, lost $956.8 million. Delta reported a $546.8 million 1992 loss. The other smaller U.S. airlines also reported losses: U.S. Air Group, parent of U.S. Air., lost $1.23 billion; Continental Airlines Holdings, par-
strength if they are to bear the financial burdens of eliminating their Phase II aircraft.\textsuperscript{156}

Second, the success in the Stage II aircraft phase-out will depend in large part on advances in the production of hush kits and other retrofitting technology altering Stage II aircraft engines to meet the Stage III noise requirements.\textsuperscript{157} A subsidiary of Federal Express Corp., Federal Express Aviation Services, Inc. (FEASI), has recently won certification for hush kits for Boeing 727 aircraft.\textsuperscript{158} FEASI has produced two separate kits: a regular kit and a heavyweight version for aircraft up to 199,500 pounds.\textsuperscript{159} These kits allow air carriers to modify their Stage II aircraft to meet the Stage III specifications without going to the expense of purchasing a new airplane or fitting new engines on existing Stage II aircraft.\textsuperscript{160} If FEASI and other companies can mass produce the hush kits in sufficient numbers to allow air carriers to use them to meet the phase-out deadlines, the kits will sharply reduce the

\textsuperscript{156} In a move which does not speak well for the future of the U.S. airline industry, KLM Royal Dutch Airways, which invested $400 million in Northwest Airlines in 1989, recently reduced the book value of their Northwest investment to zero and took the amount of their investment as a loss in their 1992 earnings statement. This move reflects the fact that KLM does not expect Northwest to pull out of a recent financial slump and repay the investment. David Phelps, \textit{NWA '92 Losses Exceed $1 Billion; KLM Values Its Investment at Zero}, \textit{Star Tribune}, Feb. 5, 1993, at A1.


\textsuperscript{159} Id.

\textsuperscript{160} The hush kits provided by FEASI begin at $1.65 million per aircraft and the heavyweight kits cost $2.45 million per aircraft. The hush kits can be installed in 800 to 1,200 man-hours for the standard kit, and 3,000 to 4,000 for the heavyweight kit, at a cost of about $40 per hour. Purchasing a new aircraft costs between $40-$50 million per jet, and re-engining an aircraft costs approximately $9 million per jet. Yawn, \textit{supra} note 157.
burden on the airlines' finances. It remains to be seen whether the manufacturing capabilities for retrofitting technology will be able to keep up with demand and become a significant factor in reducing the financial burden of noise abatement.

VI. CONCLUSION

"In the year 2000 we'll still be sitting here talking about noise unless something radical is done." These words by the executive director of the Minneapolis-St. Paul Metropolitan Airports Commission at a public meeting on aircraft noise illustrate the depth of the problem society faces today with aircraft noise and the fact that the problem will only get worse if significant steps are not taken to correct it. In examining the aircraft noise problem, it is important to realize that no one group can solve the problem on its own. Local government, airport operators, land developers, potential property owners, aircraft and engine manufacturers, airlines and the federal government all have a part to play in developing a solution to this increasing problem. As the only party with the jurisdiction and authority to take the action needed to solve the noise problem, the federal government must take the lead on this issue and continue to develop a comprehensive noise abatement program. The Airport Noise and Capacity Act of 1990 is a significant step in the right direction in solving the aircraft noise problem, but like other Congressional acts, the ANCA likely will not completely solve the problem.

Additional measures should be taken to assure that the aircraft noise problem is brought under control now and does not grow worse in the future. First, and most importantly, work should begin now on the next generation of

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161 Federal Express initially began the hush kit project to meet their own in house needs. Federal Express is one of the largest operators of Boeing 727's in the world. Id.
162 Harper, supra note 45, at 166.
163 Id. at 158.
aircraft with noise levels below those of the Stage III aircraft currently being placed into operation. In response to federal legislation, Stage II aircraft, and later Stage III aircraft were developed to meet tightening federal regulations on maximum noise levels. Now, before the problem becomes more severe, the FAA should establish Stage IV noise limits and encourage aircraft manufacturers to begin developing Stage IV technology. To retire or retrofit a fleet of planes in an economically practicable manner takes many years if not an entire decade. The aircraft industry should avoid a financial crunch in the future by beginning a push for better technology today. This will allow airlines to plan their fleet modernizations in a manner which will not result in the retirement of aircraft before it is economically practicable. If necessary, Congress should enact legislation to encourage the development of aircraft with lower noise levels, either by mandate or through incentives.

A second area in which the federal government can be of assistance in reducing noise is in helping air carriers obtain financing to meet the year 2000 deadline. Airlines frequently receive exemptions from meeting the phase-out schedules because of the financial hardship of retiring older planes before planned and the high costs of purchasing new planes or retrofit kits. Rather than granting exemptions and allowing these noisy planes to remain in the air, the government should assist air carriers in meeting the deadline by arranging financing with banks, guaranteeing bank loans, granting federal loans, or simply through a system of federal grants. These grants can be financed through fuel or passenger user taxes. The FAA should create a fund similar to the Airway Trust Fund, which helps airports finance noise compatibility programs, to help with the cost of the Stage II phase-out.

Finally, the FAA needs to establish a long term, comprehensive plan to deal with the aircraft noise problem well into the next century. The ANCA provided for the phasing-out of Stage II aircraft over a ten year period.
What U.S. airlines and airport operators need is a long term plan looking twenty to thirty years into the future. The plan need not contain specifics, but should state future goals for the industry and provide a framework for airlines and airports to make their long range plans. The FAA should state changes anticipated in the future and make recommendations regarding areas which need further innovation, such as quieter engines. A long-term plan would let aviation manufacturers know what types of planes to produce, tell airlines what types of planes to buy and which ones to phase-out, and enable airport planners to make adequate plans for airport expansion and the use of land surrounding the airport. Instead of reacting to a crisis with legislation, as was the case with the ANCA, the FAA should focus on legislating around the next set of problems before reaching a crisis point.
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