This Guide contains background information and resources on the subject of airport noise rules and use restrictions. It is intended for airport managers and staff, elected officials, consultants, neighborhood associations, and community groups interested in this important topic. This information applies to all publicly owned airports regardless of size or type of aircraft activity.

The Guide specifically covers the parties responsible for regulating airports and aircraft; the tools available to airports to address noise, safety and other concerns; the requirements of the Airport Noise and Capacity Act of 1990; and the legal standards and enforcement mechanisms to resolve disputes over noise rules and use restrictions.

Kaplan Kirsch & Rockwell LLP is a law firm specializing in airports and aviation, and Harris Miller Miller & Hanson Inc. is a consulting firm specializing in the control of transportation noise and vibration. The authors have written extensively on the issues addressed herein, including several previous publications on the Airport Noise and Capacity Act of 1990.

This Guide is intended for general information purposes only and does not contain legal or technical advice applicable to any particular airport. Readers are urged to contact their counsel, technical consultants or the professional staffs at Kaplan Kirsch & Rockwell LLP and Harris Miller Miller & Hanson Inc. to address specific inquiries.

June 2004
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Considerable progress has been made in recent decades to address noise and other problems associated with airport and aircraft operations. For example, the Federal Aviation Administration (FAA) and other sources report that noise exposure in surrounding communities generally has decreased.¹ In addition, applicable laws have been in effect for several years, providing at least the possibility of resolving various issues. Advances in technology have improved the operation of individual aircraft and the national air transportation system.

While we might assume that aviation should be enjoying a “golden age,” the truth, as virtually everyone involved is well aware, is dramatically different. Reports from the FAA, General Accounting Office and other sources reveal a significant capacity shortfall that is and will continue to be a considerable strain on the ability of airports and air carriers to transport passengers and cargo without delay.² For all of the advances in aircraft engine design, noise remains a dominant issue for surrounding communities and is a continuing source of opposition to expansion projects that might relieve some of the congestion. In addition to noise, surrounding communities remain very concerned about environmental and other impacts of airport operations and expansion, including a growing concern about air pollution.³ These problems are not limited to any particular size or type of airport but rather are faced by large and small airports alike.

Rather than promote certainty and stability, the previous actions and many years of debate have placed airports and their neighbors with much left to accomplish and relatively few new tools to address pressing issues. Noise in particular has proven to be an exceedingly difficult issue that, judging from the continued level of community outcry, clearly has not been solved.

Other aspects of airport operations remain as contentious as ever. In particular, conflicts continue to arise over actions by airports designed to promote safety and efficiency but that are considered by others to be unduly restrictive, unsupported or deceptively targeted at controlling noise. As but one

¹ Many airports have implemented, and in some cases exhausted, the readily available measures to mitigate and abate noise, and both the FAA and aviation industry groups have opposed more restrictive actions by airports and local governments.
example of the continuing developments in this area, the FAA released in late 2003 a draft policy that severely curbs airports’ ability to restrict aircraft operations based on the weight-bearing capacity of the airfield.4

The available options to address these continuing problems are not particularly appealing. Airports can ignore community opposition or attempt to placate the public with limited actions and be assured of opposition to many, if not every, aspect of airport operations and growth. Alternatively, airports can attempt to restrict operations to address noise and operational issues and face challenges from airport users, aviation industry groups and the FAA. Finding the right balance between these two extremes is a daunting challenge. This Guide is intended to help airports and communities meet that challenge.
This chapter covers the division of responsibility among the FAA, airport proprietors and local governments and the basic standards that apply to noise rules and use restrictions.

Three entities commonly share responsibility for the regulation of airports and aircraft: (1) the FAA, (2) the airport proprietor, and (3) the local government with land use jurisdiction over the airport property. Very often, the airport proprietor is also the local government with land use authority. There are, however, several examples of states, intergovernmental agencies, and major metropolitan cities operating airports on property that lies within the jurisdiction of a separate government body. A more detailed description of these responsibilities is provided below.

Authority Over Airports and Aircraft

Federal Aviation Administration:

- Exclusive authority to control the operation of aircraft both in the air and on the airport taxiways and runways.\(^5\)
- Exclusive authority to certify aircraft and pilots.\(^6\)
- Authority to allocate grant funding under the Airport Improvement Program and to authorize airports to collect and use charges on enplaning passengers (Passenger Facility Charges).\(^7\)
Airport Proprietor:

- Authority to plan and construct all improvements at the airport, including runways, taxiways, hangars, terminals, roadways, and infrastructure.
- Authority to adopt certain restrictions on the operation of aircraft to address noise and other local concerns.
- Authority to regulate the operation of businesses at the airport to ensure that adequate services are provided to the public and to protect public health, safety and welfare.

Local Government:

- Authority to adopt zoning and other land use controls to limit the siting of new airports and the expansion of existing airports.8
- Limited authority to impose land use controls over existing airports and to require conditions and mitigation for expansion.9
- Authority to regulate land use in areas surrounding airports.

Some of these responsibilities are exclusive, and the delegation of authority to one entity may expressly or implicitly preclude any other entity from sharing responsibility. For example, the FAA’s authority over airspace is exclusive, and neither airports nor local governments have any ability to regulate the flight of individual aircraft.10 In addition, local governments (that are not also the airport proprietor) have no authority to directly or indirectly restrict aircraft operations.11

Although some of the dividing lines are clear, the areas of overlap and shared responsibilities have caused the greatest difficulty in recent years. The two principal areas of overlapping authority addressed in this Guide are noise and safety. These subjects are addressed in detail in subsequent chapters. The following is a quick summary of the division of responsibility for these subjects.

**Noise** – As described in Chapter 3, Congress and the FAA have taken several actions in recent decades to address noise, in particular imposing continually more restrictive aircraft noise limits and allocating money for local noise abatement and mitigation efforts. The authority to control noise is not exclusive, and courts have found that, although local governments cannot impose noise rules, airports can do so notwithstanding their effect on aircraft operations. The rationale for this authority offered by many courts is that airports may be found liable for noise-related damages to surrounding 

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properties and can impose noise rules to reduce their liability exposure. Several courts also have explained that airports are familiar with local conditions and therefore are in the best position to impose noise rules that are tailored to meet local needs. Airports generally are limited to adopting only noise rules that are reasonable, nonarbitrary and not unjustly discriminatory.

Typical noise rules imposed by airports include curfews on aircraft operations, caps on the number of aircraft operations, restrictions based on aircraft noise emissions, restrictions on flight training activities, and limits on aircraft engine run-ups.

**Safety** – There is a similar tension between the FAA’s interest in ensuring public access to airports and an airport’s interest in operating its facilities in a safe and efficient manner. Use restrictions based on safety have not received the same level of attention as noise rules, and thus the rationale for safety-based restrictions and the scope of an airport’s authority are not as well defined. Generally, however, an airport’s ability to regulate airport operations for safety reasons is based both on the airport’s status as proprietor and on its governmental powers to regulate health, safety and welfare.

Typical safety-based restrictions imposed by airports include restrictions on certain types of aircraft operations such as: experimental aircraft or ultralight aircraft; restrictions based on airfield pavement strength or design characteristics; design and construction of aircraft parking positions; and regulations on aircraft fuel storage and fueling activities.

**Tip:** The degree of overlap in responsibility for adopting and implementing restrictions varies widely. In some instances, an airport cannot impose a restriction without express FAA approval, such as for restrictions affecting the operation of Stage 3 aircraft (discussed in Chapter 5). In other instances, an airport can impose a restriction without express FAA approval; however, the restriction may remain subject to challenge and review by the FAA or the courts (discussed in Chapter 6). When considering the adoption of new noise rules or use restrictions, it is critically important to determine which entity has authority to approve/disapprove the regulation and the potential for challenge.
This chapter covers aircraft stage certification, noise measurement, federal programs for airport proprietors to evaluate and address noise exposure, and options for addressing aircraft noise.

Federal Noise Source Control and Stage Certification

In 1968, Congress amended the Federal Aviation Act to require the FAA to impose rules to control aircraft noise. This mandate was reaffirmed and strengthened in the Noise Control Act of 1972. In response, the FAA adopted FAR Part 36 (14 C.F.R. Part 36), which imposed noise standards for newly certified aircraft types and designs. In 1973, the FAA amended Part 36 to require that all newly manufactured aircraft meet the new noise standard. In 1976, the FAA required that all aircraft in operation weighing more than 75,000 pounds meet the new noise standard by 1985. This required either replacing aircraft that did not meet the standard or retrofitting aircraft to meet the new noise standard.

In 1977, the FAA amended Part 36 again by adopting a new, quieter noise standard and thereby creating three separate levels or “stages”. Stage 1 includes all aircraft that did not meet the original noise standard announced by the FAA in Part 36 (or that had not been formally tested and certificated). Stage 2 includes all aircraft that met the noise standard originally announced in Part 36 but that did not meet the quieter standard set forth in the 1977 amendments to Part 36. Stage 3 includes all aircraft that met the standard announced in 1977.

Similar to the first round of amendments to Part 36, the FAA later increased the burden to require that all newly manufactured aircraft meet Stage 3 noise levels. In 1990, Congress enacted the Airport Noise and Capacity Act, which prohibited the operation of all Stage 2 aircraft weighing more than 75,000 pounds after December 31, 1999.
In December 2003, the FAA proposed another amendment to Part 36 that would establish a new noise level: **Stage 4.** The FAA has proposed to require that all applications for new aircraft type certifications submitted on and after January 1, 2006, demonstrate compliance with the Stage 4 noise levels. As of the date of publication, the FAA has not yet issued any final rule on Stage 4.

**Figure 3.1 Stage 1-4 Takeoff Noise Comparison**

<table>
<thead>
<tr>
<th>Model: 737-100</th>
<th>Model: 737-200</th>
</tr>
</thead>
<tbody>
<tr>
<td>INM engine: JT8D-9</td>
<td>INM engine: JT8D-9QN</td>
</tr>
<tr>
<td>Part 36: Stage 1</td>
<td>Part 36: Stage 2</td>
</tr>
<tr>
<td>Year of certification: 1967</td>
<td>Year of certification: 1967</td>
</tr>
<tr>
<td>Average T-O weight: 104,000 lbs</td>
<td>Average T-O weight: 115,500 lbs</td>
</tr>
<tr>
<td>Average passengers: 103</td>
<td>Average passengers: 120</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model: 737-200 w/Hushkit</th>
<th>Model: 737-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>INM engine: JT8D-9 w/ LGW Nordam kit</td>
<td>INM engine: CFM56-3C-1</td>
</tr>
<tr>
<td>Part 36: Stage 3</td>
<td>Part 36: Stage 3</td>
</tr>
<tr>
<td>Year of certification: 1992</td>
<td>Year of certification: 1989</td>
</tr>
<tr>
<td>Average T-O weight: 115,500 lbs</td>
<td>Average T-O weight: 138,500 lbs</td>
</tr>
<tr>
<td>Average passengers: 120</td>
<td>Average passengers: 146</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model: 737-700</th>
</tr>
</thead>
<tbody>
<tr>
<td>INM engine: CFM56-7B</td>
</tr>
<tr>
<td>Part 36: Stage 4</td>
</tr>
<tr>
<td>Year of certification: 1997</td>
</tr>
<tr>
<td>Average T-O weight: 115,600 lbs</td>
</tr>
<tr>
<td>Average passengers: 126</td>
</tr>
</tbody>
</table>

**Note on the Role of ICAO** – The United States is a member of the International Civil Aviation Organization, a specialized agency of the United Nations. This organization sets standards and makes recommendations to member nations on a variety of aviation-related topics, including noise and environmental issues. In particular, ICAO has adopted standards very similar to stage certification, known as “chapters” rather than “stages”.

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Noise contours were computed with the Integrated Noise Model (INM) version 6.0b, using standard atmospheric conditions and the stage-length weight that was similar to the Average T-O weight (in most cases it was the maximum).

Sound levels of 75 dBA Lmax may cause speech interference indoors, assuming normal construction techniques (10 dB reduction outdoors-to-indoors).
As a result of these incremental actions by Congress and the FAA over the last thirty-six years:

- All civil aircraft operating in the United States and weighing more than 75,000 pounds are Stage 3; this includes aircraft manufactured to meet Stage 3 noise levels and Stage 1 or Stage 2 aircraft that have been modified (physically or through operational procedures) to meet Stage 3 noise levels. This latter type of aircraft commonly is referred to as a “hush-kitted” aircraft.
- There are an undetermined number of Stage 1 and Stage 2 aircraft weighing less than 75,000 pounds still operating in the United States. Recent estimates place the number of Stage 1 aircraft at approximately 100 and the number of Stage 2 aircraft at approximately 2,000. The remainder of the aircraft weighing less than 75,000 pounds comply with Stage 3 noise levels.
- If the FAA follows through on Stage 4 as proposed, newly certified aircraft types will meet Stage 4 noise levels starting in 2006; however, this will not affect (i) currently certified aircraft types and designs (which will continue to be manufactured after 2004) and (ii) any existing aircraft. Further, in proposing the Stage 4 rule, the FAA stated that by 2006 virtually all aircraft will be able to meet Stage 4 noise levels by using currently available noise reduction technologies.22

Noise Measurement and Noise Compatibility Planning

In addition to federal noise source control, Congress and the FAA have developed a program primarily focused on allocating money to airports and local governments to address noise impacts. In 1979, Congress adopted the Airport Safety and Noise Act (“ASNA”) which, in addition to its financial components, required the FAA to “establish a single system of measuring noise . . . establish a single system for determining the exposure of individuals to noise resulting from airport operations . . . and identify land uses normally compatible with various exposures of individuals to noise.”23

The FAA addressed these requirements in FAR Part 150 (14 C.F.R. Pt. 150) as follows:

As the unit of measurement, the FAA selected the A-weighted sound level, referred to as dB(A) or often simply as dB, which measures sound in the manner most consistent with human hearing (by reducing the contribution of lower and very high frequencies to the total level).24
For purposes of evaluating noise exposure, the FAA selected the **Day-Night Average Sound Level**, also referred to as DNL or $L_{dn}$, which reflects the steady rate of noise over a twenty-four hour period, with 10 decibels added to nighttime noise events to account for people’s increased sensitivity at night.\(^{25}\)

With respect to land use compatibility, the FAA prepared a table in its regulations (14 C.F.R. Part 150, Appendix A), which describes whether a variety of different land use categories are considered to be compatible with aircraft operations for a range of noise levels.\(^{26}\) That table identifies DNL 65 dB as the threshold of compatibility for most residential land uses.

All three items have been the subject of confusion and contention. For example, there have been complaints that $dB(A)$ fails to account for low frequency noise (experienced as vibration or rumble) often associated with jet operations. The primary complaint with DNL is that it does not reflect the sound of individual aircraft operations, which may be dramatically louder than the steady rate of sound captured by DNL. In addition, although some contend that the DNL 65 dB level represents a scientifically and statistically accurate predictor of community annoyance, others assert that it is a poor predictor of how a particular community or an individual responds to aircraft noise.

In addition to establishing these noise measurement tools, FAR Part 150 established a program for airports to develop (1) a “noise exposure map” or NEM that reflects modeled existing and future noise exposure and identifies the areas of incompatible land use, and (2) a “noise compatibility program” or NCP that identifies, examines, and recommends to the FAA alternative means to mitigate and abate noise.\(^{27}\)

The NCP often is a principal component of an airport’s overall noise program because the NCP (i) is intended to be comprehensive, both in its evaluation of noise issues and potential solutions, (ii) presents an opportunity for community involvement and input, and (iii) provides an indication of which noise control measures are eligible for federal funding.

In 2003, Congress amended ASNA to prohibit the FAA, until 2007, from approving an NCP that includes any measure requiring federal grant funding to mitigate noise in areas exposed to noise below DNL 65 dB.\(^{28}\)

Part 150 identifies certain measures that should be considered in preparing the noise compatibility program. These and other measures constitute the core part of the toolkit available to airports and neighboring communities.
The following table identifies the three principal categories of measures and specific examples within each category.

<table>
<thead>
<tr>
<th>Operational Measures</th>
<th>Land Use Measures</th>
<th>Implementation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing a preferential runway system to direct air traffic over less-populated areas</td>
<td>Acquiring noise-impacted property</td>
<td>Posting signs on the airfield and at other locations at the airport to notify pilots about recommended flight procedures and other measures</td>
</tr>
<tr>
<td>Using flight procedures, including noise abatement approach and departure procedures</td>
<td>Acquiring “aviation easements” or other interests in property that permit aircraft to fly over the property in exchange for payments or other consideration</td>
<td>Creating a noise office at the airport and/or assigning responsibility for noise issues to a staff member</td>
</tr>
<tr>
<td>Identifying flight tracks to reduce noise and/or direct air traffic over less-populated areas</td>
<td>Requiring disclosure about the presence of the airport and potential noise impacts in real estate documents</td>
<td>Creating a dedicated telephone line or other means for neighbors to submit comments/complaints about the airport and individual aircraft operations</td>
</tr>
<tr>
<td>Adopting mandatory restrictions based on aircraft noise characteristics</td>
<td>Constructing berms or other noise barriers</td>
<td>Making flight track information available to the public</td>
</tr>
<tr>
<td>Identifying a particular area of the airport that can be used for aircraft engine run-ups and constructing a “ground run-up enclosure” to reduce noise from run-ups</td>
<td>Sound insulation of structures used for noise-sensitive land uses (e.g., residences, schools, nursing homes, etc.)</td>
<td>Developing educational materials about the airport’s noise program for pilots, other airport users and community members</td>
</tr>
<tr>
<td></td>
<td>Requiring the use of sound insulating building materials in new construction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Imposing zoning or other controls on noise-sensitive land uses in impacted areas, including prohibiting such development or requiring special permits and approvals</td>
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Airports usually submit two documents for FAA review: (1) the NEM is reviewed and accepted at the local level (region or district office); and (2) the NCP is reviewed and approved by Washington DC Headquarters staff. With respect to the NEM, the FAA’s review consists largely of determining whether the maps were prepared using the methodology required by
Part 150. For the NCP, ASNA and Part 150 require that the FAA consider whether proposed measures (i) will impose an undue burden on interstate commerce, and (ii) are reasonably consistent with the goal of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses.

The following points should be kept in mind about the legal effect of the NEM and NCP:

- Although airports generally obtain federal funding only for noise control measures that are included in an FAA-approved noise compatibility program, the FAA’s approval of an NCP is not a determination that the measure will receive funding. A separate application for federal funding is required and may be denied based on circumstances, including the availability of funding. In addition, airports may be able to use Passenger Facility Charges for noise compatibility measures regardless of whether the FAA has approved an NCP for that airport.

- The FAA has stated in Part 150 and elsewhere that the identification of noncompatible land uses in NEMs and NCPs does not constitute a determination by the FAA about the acceptability of any particular land use. As a result, the FAA’s decision on an NEM or NCP has no effect on local land use decisions. Local governments are free to control development based on their independent determinations about the acceptability of land uses at varying noise exposure levels.

- ASNA purports to limit an airport’s liability for noise-related damages when the airport had prepared a noise exposure map. This would appear to be an important incentive to airports; however, this protection has never been tested.

- Runway assignments and flight tracks and procedures are within the exclusive control of the FAA. In all but a few rare circumstances, the FAA will not use its approval of a noise compatibility program to impose preferential runway use and flight tracks as mandatory requirements.

Mandatory Noise Rules and Indirect Noise Control

There are various reasons why airports turn to mandatory restrictions; for example, all less- and non-restrictive alternatives have been pursued but failed to solve the identified noise problem, mandatory restrictions offer a more targeted and effective way to solve a specific problem, and the neighboring community favors mandatory restrictions over voluntary measures.
As detailed in the following chapters, mandatory noise rules may require FAA approval pursuant to the Airport Noise and Capacity Act of 1990 and/or may be challenged by airport users on various grounds. As a result of specific challenges at individual airports, airports have in recent years sought creative ways to achieve noise benefits through indirect controls on aircraft operations.

There are many types of mandatory restrictions and indirect approaches that have been tried at one or more airports. The following list is not intended to suggest that all of these measures have been approved; indeed, several such measures have been challenged and some have been found impermissible based on the particular circumstances.

Examples of Mandatory Noise Rules

- Denying use of the airport based on stage certification, a specific noise emission level or aircraft type.
- Restricting operations by time of day, such as a nighttime curfew or a prohibition on operations during weekends and holidays.
- Limiting the total number of aircraft operations, typically by allocating the right to take off and land at the airport (often referred to as “slots”).
- Limiting the total amount of noise that can be generated, typically by creating a noise budget similar to a cap on operations that allocates the right to take off and land at the airport based on noise emissions.
- Allocating air traffic within a multi-airport system, such as by diverting general aviation traffic to relieve congestion at a hub airport.
- Prohibiting certain types of operations such as commercial passenger service.
- Imposing landing fees based on noise, time of day or other noise-related considerations.
- Restricting flight training activities such as touch-and-go and stop-and-go.
- Closing certain areas of the airport at night such as passenger terminals and vehicle parking lots.

There are several advantages to taking an incremental approach to noise.

Tip: There are important advantages to taking an incremental approach to noise, that is, adopting the least restrictive measures available before pursuing mandatory restrictions. As a practical matter, non-restrictive and less-restrictive measures might solve the identified noise problem. Equally important, implementing non- and less-restrictive measures will help establish the justification for a mandatory restriction.
This chapter covers use restrictions on the type of aircraft that can use an airport and restrictions based on the type of aircraft operation.

In addition to controlling noise, there are several additional reasons why airports choose to regulate aircraft operations: ensuring public safety and security, protecting the airport’s investment in infrastructure, enhancing airport efficiency, and eliminating congestion. These goals often overlap, as in the case of restrictions on certain types of aircraft that enhance safety and promote efficiency. Further, use restrictions often have an incidental effect on noise.

The FAA allows airports to impose certain types of safety-based restrictions.

“In the interest of safety, the airport owner may prohibit or limit any given type, kind, or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public. This allows the imposition of reasonable rules or regulations. . . to restrict use of the airport. For example, they may prohibit aircraft not equipped with a reasonable minimum of communications equipment from using the airport. They may restrict or deny use of the airport for student training, for taking off with towed objects, or for some other purpose deemed to be incompatible with safety under the local conditions peculiar to that airport. Agricultural operations may be excluded due to conflict with other types of operations or lack of facilities to safely handle the pesticides used in this specialized operation. . . Also, designated runways, taxiways, and other paved areas may be restricted to aircraft of a specified maximum gross weight or wheel loading.”

Although helpful, this statement does not address many of the types of restrictions that airports have pursued and also does not reflect changes in FAA policy in recent years. Restrictions based on type of aircraft or operation are summarized below. As with the summary of noise rules in Chapter 3, not all restrictions on this list are permissible under current FAA policies.
The appropriateness of a given restriction will vary from airport to airport. Moreover, several of these types of restrictions have been challenged.

**Restrictions Based on Type of Aircraft**

**Weight** – Many airports have aircraft operating restrictions based on the weight-bearing capacity of the runways, taxiways, aprons and ramps. The general principle behind these restrictions is that permitting heavier aircraft to use the airport would impose undue stress on the pavement and increase the airport’s maintenance and construction obligations. Such restrictions have been upheld by the courts where supported with adequate engineering data or other evidence. Although the FAA guidance quoted above expresses support for weight-based restrictions, in July 2003, the FAA proposed a new policy that would discourage airports from adopting any new weight-based restrictions and encourage airports to instead improve their facilities to accommodate aircraft operators seeking to use the airport. A copy of this proposed policy is included as an appendix to this Guide.

**Airport Reference Code** – Airports plan for and design their facilities based in part on the Airport Reference Code, which consists of the approach category and design group of the largest aircraft that commonly uses the airport. At least one airport has imposed a restriction on aircraft that are larger than reflected in the Airport Reference Code on grounds, similar to weight-based restrictions, that the airport cannot safely accommodate larger aircraft. The FAA has initiated an enforcement action concerning this restriction to consider whether the design of the airport can legitimately be used as a regulatory limit as well as a planning guide.

**Ultralight and Experimental Aircraft** – Because of the slow speeds at which these aircraft operate, many airports either limit their operations to specified runways or prohibit operations altogether in the interests of safety. FAA guidance generally supports these controls.

**Helicopters** – Because helicopters can travel in all directions, move more slowly than many fixed-wing aircraft, and require landing pads rather than runways, airports sometimes restrict helicopter operations to avoid conflicts with fixed-wing aircraft. In addition, just as airports are permitted to decide the configuration of runways, airports can identify specific helicopter landing sites.
Restrictions Based on Type of Operation

Airport Operating Certificates – Airports are required to have an airport operating certificate approved by the FAA if the airport serves (i) air carrier operations using aircraft designed for at least 31 passenger seats or (ii) scheduled air carrier operations using aircraft designed for more than 9 seats. In 1996, Congress clarified this requirement by stating that airports are not obligated to seek and obtain such an operating certificate. As a consequence, general aviation airports without an operating certificate presently can deny access to the airport to any aircraft designed for at least 31 passenger seats or any aircraft used in scheduled service designed for more than 9 passenger seats. Airports can reject requests from air carriers to seek an airport operating certificate.

Other Restrictions on Scheduled Service – At least one airport has imposed a restriction on all scheduled service, regardless of the size of the aircraft used. Although the restriction was upheld by a state court, the FAA concluded that the restriction violated the airport’s grant assurance obligation to provide public access to the airport on reasonable terms and without unjust discrimination (discussed in Chapter 6). The FAA concluded that the restriction was not necessary for the safe operation of the airport or to serve the civil aviation needs of the public. This airport ultimately secured congressional authorization for the restriction; however, the FAA likely would take the same position in any future restriction on scheduled service.

Cargo Operations – Many airports and neighboring communities are growing increasingly concerned about cargo operations. Unlike passenger service, dedicated cargo operations often occur during nighttime hours, when people are particularly sensitive to noise. In addition, cargo operations often impose additional burdens on the airport and surrounding community because of the sorting and distribution facilities that may be associated with air cargo and the impacts on surrounding roadways from commercial vehicles used for ground transportation. Notwithstanding these reasons for distinguishing cargo from other types of operations, restrictions on cargo operations face the same potential challenges as restrictions on scheduled passenger service. In particular, the FAA may argue that it is unjustly discriminatory to distinguish among aircraft based exclusively on the activity being conducted.

Multi-Airport System – A small number of airports have aircraft operating restrictions designed to distribute air traffic within a multi-airport system. The best-known examples are perimeter rules that prohibit scheduled operations to and from destinations that are more than a certain distance from the airport.
from the airport and thereby distribute short- and long-haul traffic between specific airports in the system. In two separate cases, courts have upheld these restrictions as being within the authority of the airport proprietor. In response, the FAA adopted a policy statement that clarifies and arguably limits the ability of the proprietor of a multi-airport system to adopt a use restriction. The FAA policy statement provides:

“Where the volume of air traffic is approaching or exceeding the maximum practical capacity of an airport, an airport owner may designate a certain airport in a multiple airport system (under the same ownership and serving the same community) for use by a particular class or classes of aircraft. The owner must be in a position to assure that all classes of aeronautical needs can be fully accommodated within the system of airports under the owner’s control and without unreasonable penalties to any class and that the restriction is fully supportable as being beneficial to overall aviation system capacity.”

**Flight Training** — Many airports have imposed restrictions on certain flight training operations, such as limiting touch-and-go, stop-and-go and similar activities. These restrictions often are implemented to address noise as well as safety and efficiency concerns. At least one court has upheld such restrictions, and the FAA policy seems to support restrictions on flight training if necessary in the interests of safety.

**Tip:** The FAA, aviation industry groups and airport users are increasingly challenging use restrictions that they believe to be unsupported, targeted at noise rather than safety, or detrimental to the national air transportation system. This means that airports may face stiff opposition over new use restrictions and possible challenges to use restrictions that have been in effect for many years. With any narrowing in the scope of permissible use restrictions, airports will have to rely upon fewer and fewer tools to address the issues of safety, efficiency and congestion. The most effective tool remaining may be the responsibility to make decisions on whether to improve and expand airport facilities, which should remain at the core of the airport’s authority.
This chapter covers the requirements and standards under the Airport Noise and Capacity Act of 1990 and Part 161 for imposing noise and access restrictions on Stage 2 and Stage 3 aircraft.

Purposes of the Noise Act

In 1990, Congress enacted the Airport Noise and Capacity Act (“Noise Act”). The Noise Act called for the adoption of a national noise policy and was a response, at least in part, to the sense of the Congress that the continuing noise problem was impeding necessary development at the nation’s airports. The Noise Act required the phase-out of Stage 2 aircraft weighing more than 75,000 pounds and regulated the adoption by airports of restrictions on Stage 2 and Stage 3 aircraft. Although it has been in effect for more than fourteen years, many aspects of the Noise Act remain contentious, and parties on all sides of the noise debate continue to argue about Congress’ intent.

Applicability to Noise and Use Restrictions

The Noise Act and its implementing regulations, FAR Part 161, impose onerous requirements on airports that must be satisfied prior to implementing certain types of noise rules. The first question to ask, therefore should be, “Is the proposed action subject to the Noise Act and Part 161?” While this can be a hard question to answer, the following general rules provide some guidance.

The Noise Act and Part 161 apply to:

- Any regulation, lease provision or other mandatory restriction or requirement limiting the operation of Stage 2 or Stage 3 aircraft.45
- Any amendment to a regulation adopted before October 1990 that further restricts the operation of Stage 2 or Stage 3 aircraft.46
The Noise Act and Part 161 do not apply to:

- Aircraft operational procedures overseen by the FAA, such as preferential runway use, noise abatement approach and departure procedures and profiles, and flight tracks.47
- Restrictions on taxiing and aircraft engine run-ups that do not affect the number of Stage 2 or Stage 3 aircraft that can use an airport or the hours of operation.48
- Voluntary restraints on operations.
- Binding agreements entered into voluntarily between the airport and one or more airport users.
- Restrictions on Stage 1 aircraft only.
- Restrictions on aircraft operations based on pavement weight-bearing capacity or similar airport-related constraints that are not designed to reduce noise.49
- Any restriction on Stage 2 aircraft that was proposed before October 1, 1990, and any restriction on Stage 3 aircraft that was in effect before October 1, 1990.50

These are general rules and do not address every possible restriction. The scope of the law is uncertain for two reasons. First, the Noise Act and Part 161 apply to any “noise or access restriction,” which is defined very broadly and includes, for example, “any other limit on Stage 2 or Stage 3 aircraft that has the effect of controlling airport noise.” Any number of actions could have an effect on aircraft noise. Further, the FAA considers the airport’s intent and motivation for imposing a restriction in deciding whether the Noise Act and Part 161 apply. If the FAA believes that an airport is imposing a restriction that is motivated by or intended to control noise, the FAA may conclude that the restriction is subject to the Noise Act and Part 161.

The consequences of making a mistake about whether a particular restriction is subject to the Noise Act and Part 161 can be severe. Airports that adopt noise or access restrictions subject to the Noise Act and Part 161 without following the law and regulations may lose eligibility for AIP grants and authority to impose and use Passenger Facility Charges, unless they rescind the restriction upon notice from the FAA.52
Guides to Airport Noise Rules and Use Restrictions

The requirements and standards under the Noise Act and Part 161 are summarized in the following sections. Federal law and regulation lack the same type of direction for many of the restrictions that are not subject to the Noise Act and Part 161. Although express FAA approval is required for mandatory aircraft operational procedures (e.g., flight tracks), other types of restrictions do not require FAA approval. As explained in Chapter 3, airport proprietors may choose to include certain measures in their noise compatibility programs under FAR Part 150 but are not required to do so.

This does not mean that these other types of restrictions are unregulated. As mentioned in Chapter 2 and explained in detail in Chapter 6, noise rules imposed by airports must be reasonable, nonarbitrary and not unjustly discriminatory to satisfy constitutional and grant assurance standards. To establish that a noise rule is consistent with these standards, airports should prepare a study, with the assistance of competent professionals, that analyzes the scope of the noise problem and the relative costs and benefits of available alternatives, including the proposed mandatory noise rule. In analyzing such restrictions, several courts have looked specifically at whether an airport prepared a study that supports the need for the restriction.

**Note on the Applicability of the Noise Act to Helicopters**

The FAA has taken the position that the Noise Act and Part 161 apply to restrictions on helicopters. There is a fair argument that the FAA’s interpretation is incorrect, but this issue has not yet been tested.

There are two important consequences for airports. First, any airport intending to impose a restriction specifically affecting helicopters – such as a curfew on helicopter operations – may have to comply with Part 161. Since there are no Stage 3 helicopters, an airport would have to comply with the requirements for restricting Stage 2 aircraft described below.

Second, an airport considering a noise or access restriction on fixed wing aircraft should factor helicopters into the analysis. If helicopter noise is not contributing to the noise problem, airports may decide to expressly omit helicopters from the scope of the restriction.
Although the study need not follow the formal requirements of the Noise Act and Part 161, airports would be well advised to analyze the types of issues specified in the Noise Act and Part 161 to ensure compliance with constitutional requirements and grant assurances.

**General Requirements of the Noise Act and Part 161**

Although the requirements and standards under the Noise Act and Part 161 are different for restrictions on Stage 2 aircraft than for Stage 3 aircraft, there are several rules that apply to both. Most important, the airport must prepare a technical study for either Stage 2 or Stage 3 restrictions that analyzes the proposed restriction and its alternatives and provide an opportunity for comment. One important aspect of any Part 161 study is the “airport noise study area.” Part 161 requires that the airport include the noise contours required under Part 150, which currently include the DNL 65, 70 and 75 dB contours. However, an airport is not limited to these contours and may define the airport noise study area to include land located outside of the DNL 65 dB contour. The FAA has taken the position that an airport must identify “reasonable circumstances” for including land outside the DNL 65 dB contour within its study area. The FAA has not provided guidance on the facts that might constitute such reasonable circumstances.

Another important – and controversial – aspect of any Part 161 study is the noise metric that is required to be used to evaluate the level of noise reduction that would be achieved. Part 161 requires that airports use the noise metric and computer modeling methodology provided in Part 150. As explained in Chapter 3, the noise metric required in Part 150 is the Day-Night Average Sound Level or DNL.

In establishing this requirement, the FAA stated that the use of supplemental metrics in addition to DNL is permitted. Such supplemental metrics might include single aircraft events, the amount of time that aircraft-related noise exceeds ambient noise levels, and the level of community annoyance derived through social surveys or complaint data.

**Stage 2 Restrictions**

The Noise Act provides only limited guidance on the requirements and standards for imposing a restriction affecting Stage 2 aircraft. The statute requires that an airport conduct a study that includes: “(1) an analysis of the anticipated or actual costs and benefits of the existing or proposed restriction; (2) a description of alternative restrictions; (3) a description of the
alternative measures considered that do not involve aircraft restrictions; and (4) a comparison of the costs and benefits of the alternative measures to the costs and benefits of the proposed restriction.” The Noise Act requires that the airport publish this study along with the proposed restriction and invite public comment at least 180 days before implementing the restriction.

The FAA has provided some additional guidance in Part 161 on the study and notice requirements. A few of the more significant requirements include the following:

- The airport must publish the notice in a local newspaper; post notice at the airport; and send written notice to airport users, the FAA, local governments and other groups likely to be interested in the proposed restriction.
- The airport must invite public comment and provide at least 45 days for the submission of comments. This 45-day comment period can be included within the 180 days between release of the study and the effective date.
- The FAA will publish notice of the proposed restriction in the Federal Register.
- If the airport makes a substantial change to the proposed restriction or the analysis during the 180-day waiting period, the airport must re-publish notice and start a new 180-day waiting period.

The airport can incorporate the analysis into a Part 150 study so long as the airport satisfies certain notice requirements contained in Part 161. Combining a Part 150 study and Part 161 study may be efficient because it allows the airport to consider a complete package of noise control measures in one study. The FAA also has said that the Part 161 component of a Part 150 study is eligible for federal funding (Part 161 studies generally are not eligible for federal participation). However, airports should be cautious about combining the two studies in light of the risk that it will give the FAA a greater decision-making role in the Stage 2 restriction than otherwise is afforded by law and regulation.

It is difficult to estimate the total amount of time required to complete a Part 161 study. Although an airport must wait 6 months from the time it releases the study before it can implement the rule, the preparation of the study itself may take six to eighteen months. The amount of time required to complete the study depends in large part on the number of alternatives to be considered and the sufficiency of data from previous studies (e.g., forecast data from previous master plans and noise data from previous Part 150 studies).
In addition, changes in the restriction or analysis require restarting the 180-day clock. Figure 5.1 presents a graphic depiction of the process once the study is complete.

**Figure 5.1 Restrictions on Stage 2 Aircraft**

![Diagram of Stage 2 Aircraft Restrictions]

**Figure 5.2 Restrictions on Stage 3 Aircraft**

![Diagram of Stage 3 Aircraft Restrictions]
Although the FAA is not authorized to approve or disapprove Stage 2 restrictions, the FAA exercises considerable oversight in two important ways. First, the FAA has assumed for itself the role of “keeper of the process” and closely scrutinizes Part 161 studies to ensure that every requirement of Part 161 has been satisfied. The FAA has assembled a team that reviews every Part 161 study and submits extensive comments on the technical and procedural aspects of each study.

In one case, involving a Stage 2 restriction at the Naples Municipal Airport, the FAA invoked the enforcement procedures under Part 161 Subpart F because it asserted that the Naples Airport Authority’s Part 161 Study failed to satisfy the regulations. The FAA treats the failure to comply strictly with Part 161 just like ignoring Part 161 altogether: an airport can lose its eligibility for AIP funding and authority to impose and use PFCs. The Airport Authority supplemented the original study, re-published notice, and waited an additional 180 days before implementing the restriction. The FAA ultimately concluded that the Airport Authority complied with Part 161.

The second way in which the FAA exercises oversight is through the grant assurances (discussed in Chapter 6). The FAA takes the position that compliance with the Noise Act does not have any relationship to the grant assurances. As a result, the FAA or another opponent can bring an enforcement action alleging violation of the grant assurances regardless of whether the airport has satisfied the Noise Act and Part 161.

Here again, the Naples case is instructive because the FAA, at the same time that it determined that the Airport Authority had complied with Part 161, initiated an enforcement action on the grounds that the Stage 2 restriction violated the grant assurances. The Airport Authority has argued that the FAA is impermissibly attempting to assume control over restrictions on Stage 2 aircraft that Congress did not authorize. This case currently is being reviewed by the U.S. Court of Appeals and likely will be decided in 2005.

**Stage 3 Restrictions**

There are two ways for an airport to impose a restriction affecting Stage 3 aircraft: obtain the agreement of all airport users affected by the proposed restriction or obtain FAA approval. Both are daunting challenges.

An agreement must be signed by the airport, all aircraft operators affected by the proposed restriction and all “new entrants.” New entrants are
entities intending to provide new air service to the airport within 180 days of the proposed date of implementation of the restriction. The airport must provide notice of the proposed agreement, in part so that new entrants can identify themselves and indicate whether they would agree to the restriction.

This aspect of the Noise Act and Part 161 has never been used for several reasons. First, airport users generally have very little incentive to agree voluntarily to a restriction on use of an airport. Since unanimity is required, any airport user or new entrant that would be affected by the rule essentially can exercise veto power. Although an airport could pursue agreements with individual airport users, any such agreement also would be voluntary and could be rejected by the user. Any effort by the airport to include a restriction in a lease agreement or otherwise make it a condition of use of the airport would be considered a mandatory restriction subject to the Noise Act and Part 161. In addition, the agreement provisions apply only to restrictions on Stage 3 aircraft; airports must comply with the procedures contained in Subpart C for Stage 2 restrictions, regardless of whether all airport users would agree to the restriction.

The second option for restricting Stage 3 aircraft is to submit an application and obtain FAA approval. The FAA will approve a restriction on Stage 3 aircraft only if it makes six specific findings based on the airport’s study:

(A) the restriction is reasonable, nonarbitrary, and nondiscriminatory;

(B) the restriction does not create an unreasonable burden on interstate or foreign commerce;

(C) the restriction is not inconsistent with maintaining the safe and efficient use of the navigable airspace;

(D) the restriction does not conflict with a law or regulation of the United States;

(E) an adequate opportunity has been provided for public comment on the restriction; and

(F) the restriction does not create an unreasonable burden on the national aviation system.

Section 161.305(e)(2) contains specific facts required to satisfy each of these conditions.
These statutory and regulatory conditions for Stage 3 restrictions make it abundantly clear that the FAA will approve a restriction on Stage 3 aircraft only in exceptional circumstances. This is consistent with Congress’ intent in the Noise Act to protect Stage 3 aircraft. Although an airport must prove, at a minimum, that the benefits of a restriction outweigh the costs, the FAA has considerable discretion to disapprove an application on a variety of grounds. FAA policy and practice also make approval difficult, and no Stage 3 restriction has been approved by the FAA pursuant to the Noise Act and Part 161.

The process under Part 161 for implementing Stage 3 restrictions is far more extensive than for Stage 2 restrictions. First, the airport must notify interested and affected parties of the proposed rule and invite public comment. Once the comment period is over, the airport can submit an application to the FAA. The application must include evidence on each statutory condition and any environmental documentation that may be required under the National Environmental Policy Act. FAA Order 1050.1E provides that FAA approval of a Stage 3 restriction is “categorically excluded” from NEPA where the proposed restriction “does not have the potential to significantly increase noise at the airport submitting the restriction proposal or at other airports to which restricted aircraft may divert.”

The FAA has 30 days to determine whether the application is complete. If the application is incomplete, the FAA will notify the airport, which then has an additional 30 days to indicate whether it will re-file. If the airport does not declare its intent to re-file, the FAA will deny the application.

If the FAA determines that the application is complete, it will notify the airport, publish notice in the Federal Register, open a 30-day public comment period, and begin its review. The FAA has 180 days, from the submission date of the complete application, to approve or deny the application. Figure 5.2 presents a graphic depiction of this process.

In its application, the airport must indicate whether it is willing to accept alternative restrictions and identify its priority preference. The FAA can accept the airport’s proposed restriction or any of the alternatives that the airport has indicated it will accept.

Finally, airports can combine Part 161 studies on Stage 3 restrictions with Part 150 studies. Combining studies presents none of the risks described above for Stage 2 restrictions because FAA approval is needed in any event. Airports likely can save time and money by combining studies.
Note on Grandfathering – The Noise Act and Part 161 contain numerous exceptions that exclude certain types of restrictions from the scope of the statute and regulations. Although several such exceptions were designed to address circumstances at specific airports, three exceptions have more general applicability. The Noise Act and Part 161 do not apply to (1) Stage 2 restrictions proposed before October 1, 1990, and Stage 3 restrictions in effect before October 1, 1990; (2) noise and access restrictions that were part of an intergovernmental agreement; and (3) subsequent amendments to noise or access restrictions in effect at the time of the Noise Act’s enactment that reduce the effect of the restriction. The FAA has found several airport restrictions, including modifications to existing restrictions, to be grandfathered.

Considering the onerous nature of the Noise Act and Part 161 requirements, several airports have considered the extent to which they fall within one of these exceptions. For example, the FAA has found in a few cases that airports can increase penalties for and extend the term of restrictions under one or more of the exceptions without complying with the Noise Act and Part 161.
This chapter covers the standards that apply to noise rules and use restrictions under the grant assurances, Surplus Property Act deeds, the U.S. Constitution, and the Noise Act; and the procedures for challenging restrictions under these authorities.

Noise rules and use restrictions are subject to several overlapping standards. The standards most often expressed are that all noise and use restrictions must be “reasonable” and “not unjustly discriminatory.” These standards are not particularly helpful standing alone because “reasonable” is vague and subjective and virtually all regulations discriminate between entities.

Surveying the numerous legal challenges to noise rules and use restrictions in recent decades, courts generally have demanded at least three findings to support a restriction:

- The restriction must be based on an empirically observed problem that exists at the particular airport.\(^92\)
- The restriction must be supported with adequate data, including some form of study prepared by a professional in the relevant field.\(^93\)
- The restriction must be targeted at and have a direct relationship to the identified problem at the particular airport.\(^94\)

The FAA has been more specific and requires that restrictions satisfy additional standards:

- The restriction must be reasonably consistent with reducing noncompatibility of land uses around the airport.
- The restriction must not create an undue burden on interstate or foreign commerce.
- The restriction must not be unjustly discriminatory.
- The restriction must not derogate safety or adversely affect the safe
and efficient use of airspace.

- The restriction must meet both local needs and the needs of the national air transportation system to the extent practicable.
- The restriction must not adversely affect any other powers or responsibilities of the FAA Administrator prescribed by the law or any other program established in accordance with the law.  

Moving past these general standards requires consideration of the individual grounds for justifying a noise rule or use restriction in light of a legal challenge. Although opponents have been very creative in recent decades in crafting their challenges, there are several common approaches to challenging noise rules and use restrictions.

**Grant Assurances** – Airports assume certain obligations in exchange for entitlement and discretionary grant funding through the Airport Improvement Program. The two grant assurances most commonly cited as grounds for challenging noise and use restrictions are (1) “the airport will be available for public use on reasonable conditions and without unjust discrimination” and (2) “a person providing, or intending to provide, aeronautical services to the public will not be given an exclusive right to use the airport.” Although the prohibition on granting exclusive rights traditionally has been used to prohibit monopolies and ensure fair competition, the FAA interprets this assurance as a general prohibition on discriminatory conduct.

Grant assurances generally apply for twenty years from the date of the grant. Airports receiving grant funding annually therefore are subject to the grant assurances on a rolling 20-year basis. Importantly, neither the grant assurances associated with the acquisition of property nor the prohibition on granting exclusive rights expire. Grant assurances apply to the entire airport, regardless of the scope or use of a particular grant. An airport cannot, for example, impose unreasonable restrictions on use of airport hangars on the grounds that AIP funding was not used in constructing the hangars.

There are two avenues by which a grant assurance claim is asserted. Any party can file an informal complaint with the FAA Airports District Office. There is no particular format required; such claims generally are set forth in letters describing the alleged noncompliance. The FAA generally will request a response from the airport and may conduct some form of investigation. The Airports District Office often will issue its decision in a letter to the airport and the complaining party. This decision is not a final agency decision and cannot be appealed to a court.
Using the informal complaint process can be greatly advantageous for both the airport and the complaining party. The Airports District Office generally is familiar with the airport and possibly the facts surrounding the claim and often can resolve the matter quickly and fairly.

The second avenue is that any party “directly and substantially affected by the alleged noncompliance” can file a formal complaint with the FAA’s Office of Chief Counsel in Washington, D.C. This process is outlined in Federal Aviation Regulations Part 16 (14 C.F.R. Part 16). The FAA considers each complaint to determine whether an investigation is warranted. The FAA also can initiate a Part 16 investigation on its own initiative.

The enforcement process under Part 16 involves three steps:

- The FAA conducts an investigation and issues its findings in a document known as the Director’s Determination.
- If the FAA finds that a violation has occurred and threatens to impose certain penalties, including terminating eligibility for certain types of AIP grants, the airport is entitled to a hearing. A hearing officer is appointed to consider evidence and make a decision, known as the Initial Decision.
- Any party can appeal an adverse decision of the Director or the hearing officer to the FAA Associate Administrator for Airports. An airport can forego the hearing and appeal directly to the Associate Administrator. The Associate Administrator’s decision constitutes the final decision of the FAA, which then can be appealed to federal appellate court.

Figure 6.1 is a flowchart depicting this process. Although the Part 16 process was initially envisioned as an expedited means to resolve grant assurance disputes, the process often takes much longer than suggested by Part 16. Parties can request extensions of deadlines for filing documents, and the FAA can and often does grant itself extensions of many of the deadlines for rendering decisions.

Opponents of a noise or use restriction cannot bring any action in court based on the grant assurances without first completing the Part 16 process.

If the FAA finds a violation of the grant assurances (and this decision is upheld on any appeal), the FAA can (i) withhold payment under existing grant agreements and (ii) terminate eligibility for future grants so long as the violation continues. The FAA has stated that it can terminate eligibility for AIP grant funding at all airports owned by a single entity, even if the
violation occurred at only one airport. To avoid these penalties, the airport may be offered the opportunity to file a corrective action plan that would restore compliance.

**Figure 6.1 Part 16 Process**

**Surplus Property Act Deeds** – Many commercial airports are located on property once owned by the federal government and transferred to a local government for airport use under the Surplus Property Act. Some of these transfers occurred many years ago, including a number of transfers in the years following World War II. Airfields operated by the Department of
Defense have and continue to be converted to commercial airports under this authority.

In exchange for the property, which may be conveyed at less than fair market value, the airport proprietor agrees to operate the airport according to certain standards. These standards include the reasonableness/non-discrimination requirement and the prohibition on granting exclusive rights described above.113

Claims regarding the Surplus Property Act deed restrictions are enforced through the Part 16 process.114 Because of their similarities to the grant assurances, complaining parties often will present allegations of grant assurance and deed restriction violations in a single complaint.

The penalty for violating the deed restrictions may include reversion of the property to the federal government.115 The FAA apparently has never exercised this authority.

**U.S. and State Constitutions** – Opponents of noise and use restrictions have brought a variety of constitutionally based challenges. Claims based on the U.S. Constitution are presented in federal district court, and claims based on the state constitutions generally are presented in state court. Claims based on the U.S. Constitution are described below; many state constitutions have analogous provisions.

The most common federal claim is that a noise or use restriction is preempted by one or more of the federal aviation statutes. This claim is brought under the Supremacy Clause of the U.S. Constitution.116

The general preemption standard is that noise and use restrictions will be upheld so long as they are reasonable, nonarbitrary and not unjustly discriminatory.117 This standard has something of a convoluted history. Federal aviation law grants the FAA exclusive jurisdiction over airspace and expressly preempts regulation by state and local governments over the “price, route or service of an air carrier.”118 Nevertheless, both Congress and courts have recognized a principle, referred to as the “proprietor’s exception,” that preserves the rights of airports to exercise certain proprietary functions, including the adoption of noise rules. Recognizing this dual authority, courts have indicated that noise rules that are unreasonable, arbitrary or unjustly discriminatory intrude into the federal sphere and therefore are preempted.

Although courts consider each case based on the particular facts presented,
the standards summarized at the beginning of this chapter are the kinds of factors that courts typically consider. Courts look to (i) whether the airport can identify a particular local concern or problem, (ii) data prepared by professionals quantifying the problem and its solution, and (iii) whether the restriction is tailored to the identified problem.  

A second claim is that a noise or use restriction imposes an undue burden on interstate commerce. This claim is brought under the Commerce Clause of the U.S. Constitution, which prohibits local governments from imposing restrictions that unduly burden interstate commerce. The standards for this type of challenge are similar to a preemption challenge but focus more specifically on balancing the local concern/problem against the impacts of the restriction on interstate commerce.

Two additional constitutional challenges are presented under the Due Process and Equal Protection Clauses of the U.S. Constitution. These claims typically are analyzed using the same standards as other constitutional challenges; however, Equal Protection challenges focus on the discriminatory nature of a restriction. Generally, restrictions will be upheld so long as they are rationally related to a legitimate government interest and do not discriminate among similarly situated entities. The challenge often is determining whether entities have sufficiently dissimilar attributes to justify disparate treatment.

**Noise Act and Part 161** — Although used very rarely, there exists a separate enforcement process for claims that a noise or access restriction on Stage 2 or Stage 3 aircraft was adopted without complying with the Noise Act and Part 161. This process is described at Part 161 Subpart F (14 C.F.R. § 161.501).

Although this process appears directed at airports that entirely have ignored the Noise Act and Part 161 in adopting a noise and access restriction, the FAA also has used this enforcement process to consider whether an airport that attempted to follow the Noise Act and Part 161 fully complied with all applicable requirements.

The enforcement process begins with an attempt to resolve the dispute informally. The FAA will request that the airport defer implementation of the noise or access restriction until completion of the enforcement process. If the airport agrees, the enforcement process is more generous to the airport and includes a 60-day comment period and consultation with the airport. If the airport refuses to defer implementation, the enforcement process is much faster. Figure 6.2 is a flowchart depicting this enforcement process.
The penalty for noncompliance is (i) termination of eligibility for AIP grant funding and (ii) termination of eligibility to impose and use Passenger Facility Charges.127

**Figure 6.2 Part 161 Subpart F Process**

1. Attempt to resolve dispute informally
   - Yes: End Process
   - No: FAA issues notice and request for airport to defer implementation
     - Yes: Federal Register Notice and 60 day public comment
     - No: Notice of Proposed Termination of AIP and PFC
       - Yes: Federal Register Notice of Corrective Action
       - No: Federal Register Notice of Order to Terminate Eligibility

2. FAA review and consolidation with airport for at least 30 days
   - Yes: Proposed corrective action; 10 days to respond
   - No: Federal Register Notice of Order to Terminate Eligibility
Tip: As explained in this chapter, there are multiple legal standards applicable to noise rules and use restrictions and different enforcement mechanisms and forums for presenting claims based on these standards. The fact that a noise or use restriction has survived scrutiny under one legal standard is no guarantee that it will not be attacked, perhaps successfully, under another theory or before another decision-maker. In the most extreme example, a single noise or use restriction could be attacked under all of the applicable legal standards (and some others) in multiple proceedings. This imposes exceptional burdens on the airport; the risk of potential challenges should be carefully factored into any decision to impose a noise or use restriction.
1 Aviation Noise Abatement Policy 2000, 65 Fed. Reg. 43,802, 43,803 (2000) (“By the year 2000, the FAA estimates that there will be about 500,000 Americans exposed to significant levels of aircraft noise – down substantially from the six to seven million people exposed in 1976.”).


7 FAA Order 5100.38B, Airport Improvement Program (2002); 49 U.S.C. § 40117 (Passenger facility fees).


10 49 U.S.C. § 40103; National Helicopter Corp. of America v. City of New York, 137 F.3d 81, 91-92 (2d Cir. 1998).


12 British Airways Bd. v. Port Authority of New York and New Jersey, 558 F.2d 75, 83 (2d Cir. 1977).

13 Id. (“It is perhaps more important, however, that the inherently local aspect of noise control can be most effectively left to the operator, as the unitary local authority who controls airport access.”).


18 Id. § 36.1(f)(4).

19 Id. § 36.1(f)(6).


26 14 C.F.R. Pt. 150, App. A, Table 1.

27 49 U.S.C. §§ 47503 (noise exposure maps) and 47504 (noise compatibility programs); 14 C.F.R. Pt. 150.


29 14 C.F.R. § 150.21(c).

30 49 U.S.C. § 47504(b); 14 C.F.R. § 150.33(a).

31 14 C.F.R. Pt. 150, App. A, Table 1 (footnote); 65 Fed. Reg. at 43,809.


36 FAA Order 5190.6A § 4-8(c).
38 Final Agency Decision and Order, Centennial Express Airlines v. Arapahoe County Public Airport Authority, 1999 FAA LEXIS 805 (Feb. 18, 1999).
39 Id. at *35-43.
40 49 U.S.C. § 47107(q).
41 Western Air Lines, Inc. v. Port Authority of New York and New Jersey, 817 F.2d 222 (2d Cir. 1987); City of Houston v. FAA, 679 F.2d 1184 (5th Cir. 1982).
42 FAA Order 5190.6A § 4-8(d).
44 FAA Order 5190.6A § 4-8(a)(2).
45 14 C.F.R. § 161.3.
46 Id. § 161.7.
47 Id.
49 FAA Order 5100.38B § 520(b).
50 14 C.F.R. § 161.3.
51 Id. § 161.5.
53 Letter from James Erickson, FAA Director of Environment and Energy to Glenn Rizner, Helicopter Association International Vice President 1 (July 7, 1997) (“The plain statutory language of ANCA, Part 161, and other relevant data support applicability of ANCA and part 161 to helicopters.”).
54 There is no indication in the legislative history of the Noise Act or Part 161 that Congress or the FAA intended to subject helicopters to these requirements. Further, Part 36 contains different noise level thresholds and testing methods for fixed wing aircraft and helicopters. As a result, Stage 2 fixed wing aircraft have very different noise characteristics than Stage 2 helicopters.
56 14 C.F.R. § 161.5.
59 14 C.F.R. § 161.9.
60 56 Fed. Reg. at 48,673.
62 Id.
63 14 C.F.R. § 161.203.
64 Id. § 161.203(c)(7).
65 Id. § 161.203(e).
66 Id. § 161.209.
67 Id. § 161.211.
69 Letter from Woodie Woodward, FAA Acting Associate Administrator for Airports, to Theodore Soliday, Naples Airport Authority (Dec. 27, 2000).
70 Letter from Paul Galis, FAA Deputy Associate Administrator for Airports, to Theodore Soliday, Naples Airport Authority (Oct. 31, 2001).
71 Id.
74 Id. § 161.105.
75 Id. § 161.103.
76 Id. § 161.5.
77 56 Fed. Reg. at 48,674.
78 49 U.S.C. § 47524(c)(2).
79 14 C.F.R. § 161.303.
80 Id. § 161.311.
81 Id. § 161.305.
83 Id. § 161.313(a).
84 Id. § 161.313(c).
85 Id. § 161.313(c)(3).
86 Id. § 161.315.
87 Id. § 161.317(c).
88 Id. § 161.311(d).
89 Id. § 161.317(c).
90 Id. § 161.321.
91 Id. §§ 161.3 and 161.7.
92 National Helicopter, 137 F.3d at 89-91.
93 National Business Aviation Ass’n v. City of Naples Airport Authority, 162 F.Supp.2d 1343, 1353 (M.D. Fla. 2001); National Helicopter, 137 F.3d at 91; City and County of San Francisco v. FAA, 942 F.2d 1391, 1398 (9th Cir. 1991); U.S. v. County of Westchester, 571 F.Supp. 786, 794 (S.D.N.Y. 1983) overruled in part by National Helicopter.
94 American Airlines, Inc. Department of Transportation, 202 F.3d 788, 806 (5th Cir. 2000).
95 FAA Order 5190.6A § 4-8(f).
97 Id. § 47107(a)(4).
98 FAA Order 5190.6A § 2-2(a).
99 Id.
100 14 C.F.R. § 13.1.
102 Id. § 16.29.
103 Id. § 16.101.
104 Id. § 16.31.
105 Id. § 16.109.
106 Id. § 16.241(a).
107 Id. § 16.241(b).
108 Id. § 16.31(c).
109 Id. § 16.247.
110 Id. § 16.11(a).
111 49 U.S.C. §§ 47106(d) and 47111(d).
112 Director’s Determination, Royal Air, Inc. v. City of Shreveport, FAA Docket No. 16-02-06, 55 n. 248 (Jan. 13, 2004).
113 49 U.S.C. §§ 47152(2) and 47152(3).
115 49 U.S.C. § 47152(8).
116 U.S. Const. art. VI, cl. 2.
117 British Airways Bd., 558 F.2d at 84.
118 49 U.S.C. § 41713(b).
119 American Airlines, Inc., 202 F.3d at 806; National Helicopter, 137 F.3d at 89-91; Santa Monica Airport Ass’n, 481 F.Supp. at 943-44.
120 U.S. Const. art. I, § 8, cl. 3; General Motors Corp. v. Tracy, 519 U.S. 278, 287 (1997).
122 Alaska Airlines, Inc. v. City of Long Beach, 951 F.2d 977, 986 (9th Cir. 1992).
123 14 C.F.R. § 161.503.
124 Id.
125 Id. § 161.505(b).
126 Id. § 161.505(c).
Federal Aviation Regulations
Part 150 - Airport Noise Compatibility Planning

Subpart A--General Provisions

Sec. 150.1 Scope and purpose.

This part prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. It prescribes single systems for-- (a) measuring noise at airports and surrounding areas that generally provides a highly reliable relationship between projected noise exposure and surveyed reaction of people to noise; and (b) determining exposure of individuals to noise that results from the operations of an airport. This part also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators, in conjunction with other local, State, and Federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs.

Sec. 150.3 Applicability.

This part applies to the airport noise compatibility planning activities of the operators of "public use airports," including heliports, as that term is used in section 101(1) of the ASNA Act as amended (49 U.S.C. 2101) and as defined in section 503(17) of the Airport and Airway Improvement Act of 1982 (49 U.S.C. 2202).


Sec. 150.5 Limitations of this part.

(b) Approval of a noise compatibility program under this part is neither a commitment by the FAA to financially assist in the implementation of the program, nor a determination that all measures covered by thible for grant-in-aid funding from the FAA.

(c) Approval of a noise compatibility program under this part does not by itself constitute an FAA implementing action. A request for Federal action or approval to implement specific noise compatibility measures may be required, and an FAA decision on the request may require an environmental assessment of the proposed action, pursuant to the National Environmental Policy Act (42 U.S.C. 4321 et seq.) and applicable regulations, directives, and guidelines.

(d) Approval of a noise compatibility program under this part is neither a commitment by the FAA to financially assist in the implementation of the program, nor a determination that all measures covered by thible for grant-in-aid funding from the FAA.

Sec. 150.7 Definitions.

As used in this part, unless the context requires otherwise, the following terms have the following meanings.

"Airport" means any public use airport, including heliports, as defined by the ASNA Act, including: (a) Any airport which is used or to be used for public purposes, under the control of a public agency, the landing area of which is publicly owned; (b) any privately owned reliever airport; and (c) any privately owned airport which is determined by the Secretary to enplane annually 2,500 or more passengers and receive scheduled passenger service of aircraft, which is used or to be used for public purposes.

"Airport noise compatibility program" and "program" mean that program, and all revisions thereto, reflected in documents (and revised documents) developed in accordance with Appendix B of this part, including the measures proposed or taken by the airport operator to reduce existing noncompatible land uses and to prevent the introduction of additional noncompatible land uses within the area.

"Airport Operator" means, the operator of an airport as defined in the ASNA Act.
"ASNA Act" means the Aviation Safety and Noise Abatement Act of 1979, as amended (49 U.S.C. 2101 et seq.).

"Average sound level" means the level, in decibels, of the mean-square, A-weighted sound pressure during a specified period, with reference to the square of the standard reference sound pressure of 20 micropascals.

"Compatible land use" means the use of land that is identified under this part as normally compatible with the outdoor noise environment (or an adequately attenuated noise level reduction for any indoor activities involved) at the location because the yearly day-night average sound level is at or below that identified for that or similar use under Appendix A (Table 1) of this part.

"Day-night average sound level" (DNL) means the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time." The symbol for DNL is L_{dn}.

"Noise exposure map" means a scaled, geographic depiction of an airport, its noise contours, and surrounding area developed in accordance with section A150.101 of Appendix A of this part, including the accompanying documentation setting forth the required descriptions of forecast aircraft operations at that airport during the fifth calendar year beginning after submission of the map, together with the ways, if any, those operations will affect the map (including noise contours and the forecast land uses).

"Noise level reduction" (NLR) means the amount of noise level reduction in decibels achieved through incorporation of noise attenuation (between outdoor and indoor levels) in the design and construction of a structure.

"Noncompatible land use" means the use of land that is identified under this part as normally not compatible with the outdoor noise environment (or an adequately attenuated noise reduction level for the indoor activities involved at the location) because the yearly day-night average sound level is above that identified for that or similar use under Appendix A (Table 1) of this part.

"Regional Airports Division Manager" means the Airports Division Manager having responsibility for the geographic area in which the airport in question is located.

"Restriction affecting flight procedures" means any requirement, limitation, or other action affecting the operation of aircraft, in the air or on the ground.

"Sound exposure level" means the level, in decibels, of the time integral of squared A-weighted sound pressure during a specified period or event, with reference to the square of the standard reference sound pressure of 20 micropascals and a duration of one second.

"Yearly day-night average sound level" (YDNL) means the 365-day average, in decibels, day-night average sound level. The symbol for YDNL is also L_{dn}. [Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150-1, 53 FR 8724, Mar. 16, 1988; 53 FR 9726, Mar. 24, 1988; Amdt. 150-2, 54 FR 39295, Sept. 25, 1989]

Sec. 150.9 Designation of noise systems.

For purposes of this part, the following designations apply:

(a) The noise at an airport and surrounding areas covered by a noise exposure map must be measured in A-weighted sound pressure level (L_{A}) in units of decibels (dBA) in accordance with the specifications and methods prescribed under Appendix A of this part.

(b) The exposure of individuals to noise resulting from the operation of an airport must be established in terms of yearly day-night average sound level (YDNL) calculated in accordance with the specifications and methods prescribed under Appendix A of this part.

(c) Uses of computer models to create noise contours must be in accordance with the criteria prescribed under Appendix A of this part.

Sec. 150.11 Identification of land uses.

For the purposes of this part, uses of land which are normally compatible or noncompatible with various noise exposure levels to individuals around airports must be identified in accordance with the criteria prescribed under Appendix A of this part. Determination of land use must be based on professional planning criteria and procedures utilizing comprehensive, or master, land use planning, zoning, and building and site designing, as appropriate. If more than one current or future land use is permissible, determination of compatibility must be based on that use most adversely affected by noise.

Sec. 150.13 Incorporations by reference.

(a) General. This part prescribes certain standards and procedures which are not set forth in full text in the rule. Those standards and procedures are hereby incorporated by refer-
ence and were approved for incorporation by reference by the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR Part 51.

(b) Changes to incorporated matter. Incorporated matter which is subject to subsequent change is incorporated by reference according to the specific reference and to the identification statement. Adoption of any subsequent change in incorporated matter that affects compliance with standards and procedures of this part will be made under 14 CFR Part 11 and 1 CFR Part 51.

(c) Identification statement. The complete title or description which identifies each published matter incorporated by reference in this part is as follows: International Electrotechnical Commission (IEC) Publication No. 179, entitled "Precision Sound Level Meters," dated 1973.

(d) Availability for purchase. Published material incorporated by reference in this part may be purchased at the price established by the publisher or distributor at the following mailing addresses.

IEC publications:

1. The Bureau Central de la Commission Electrotechnique Internationale, 1, rue de Varembe, Geneva, Switzerland.


(e) Availability for inspection. A copy of each publication incorporated by reference in this part is available for public inspection at the following locations:


2. Department of Transportation, Branch Library, Room 930, Federal Aviation Administration Headquarters Building, 800 Independence Avenue, SW., Washington, D.C. 20591.

3. The respective Regional Offices of the Federal Aviation Administration as follows:


(iii) Southern Regional Office, 3400 Norman Berry Drive, East Point, Georgia (P.O. Box 20636, Atlanta, Georgia) 30320.


(v) Central Regional Office, 601 East 12th Street, Kansas City, Missouri 64106.

(vi) Southwest Regional Office, 4400 Blue Mound Road, (P.O. Box 1689), Fort Worth, Texas 76101.

(vii) Northwest Mountain Regional Office, 17900 Pacific Highway, South, C- 68966, Seattle, Washington 98168.

(viii) Western Pacific Regional Office, 15000 Aviation Boulevard, Hawthorne, California (P.O. Box 92007, Worldway Postal Center, Los Angeles) 90009.

(ix) Alaskan Regional Office, 701 "C" Street, Box 14, Anchorage, Alaska 99513.

(x) European Office, 15, Rue de la Loi (3rd Floor) B1040 Brussels, Belgium.

(4) The Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, D.C.


Editorial note: At 57 FR 31947, July 20, 1992, the Office of the Federal Register's address for inspection of materials incorporated by reference was changed effective July 20, 1992.

Subpart B--Development of Noise Exposure Maps and Noise Compatibility Programs

Sec. 150.21 Noise exposure maps and related descriptions.

(a) Each airport operator may after completion of the consultations and public procedure specified under paragraph (b) of this section submit to the Regional Airports Division Manager five copies of the noise exposure map (or revised map) which identifies each noncompatible land use in each area depicted on the map, as of the date of submission, and five copies of a map each with accompanying documentation setting forth--
(1) The noise exposure based on forecast aircraft operations at the airport for the fifth calendar year beginning after the date of submission (based on reasonable assumptions concerning future type and frequency of aircraft operations, number of nighttime operations, flight patterns, airport layout including any planned airport development, planned land use changes, and demographic changes in the surrounding areas); and

(2) The nature and extent, if any, to which those forecast operations will affect the compatibility and land uses depicted on the map.

(b) Each map, and related documentation submitted under this section must be developed and prepared in accordance with Appendix A of this part, or an FAA approved equivalent, and in consultation with states, and public agencies and planning agencies whose area, or any portion of whose area, of jurisdiction is within the $L_{dn}$ 65 dB contour depicted on the map. FAA regional officials, and other Federal officials having local responsibility for land uses depicted on the map. This consultation must include regular aeronautical users of the airport. The airport operator shall certify that it has afforded interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the draft noise exposure map and descriptions of forecast aircraft operations. Each map and revised map must be accompanied by documentation describing the consultation accomplished under this paragraph and the opportunities afforded the public to review and comment during the development of the map. One copy of all written comments received during consultation shall also be filed with the Regional Airports Division Manager.

(c) The Regional Airports Division Manager acknowledges receipt of noise exposure maps and descriptions and indicates whether they are in compliance with the applicable requirements. The Regional Airports Division Manager publishes in the Federal Register a notice of compliance for each such noise exposure map and description, identifying the airport involved. Such notice includes information as to when and where the map and lated documentation are available for public inspection.

(d) If, after submission of a noise exposure map under paragraph (a) of this section, any change in the operation of the airport would create any "substantial, new noncompatible use" in any area depicted on the map beyond that which is forecast for the fifth calendar year after the date of submission, the airport operator shall, in accordance with this section, promptly prepare and submit a revised noise exposure map. A change in the operation of an airport creates a substantial new noncompatible use if that change results in an increase in the yearly day-night average sound level of 1.5 dB or greater in either a land area which was formerly compatible but is thereby made noncompatible under Appendix A (Table 1), or in a land area which was previously determined to be noncompatible under that Table and whose noncompatibility is now significantly increased. Such updating of the map shall include a reassessment of those areas excluded under sec. A150.101(e)(5) of Appendix A because of high ambient noise levels. If the five-year forecast map is based on assumptions involving recommendations in a noise compatibility program which are subsequently disapproved by the FAA, a revised map must be submitted if revised assumptions would create a substantial, new noncompatible use not indicated on the initial five-year map. Revised noise exposure maps are subject to the same requirements and procedures as initial submissions of noise exposure maps under this part.

(e) Each map, or revised map, and description of consultation and opportunity for public comment, submitted to the FAA, must be certified as true and complete under penalty of 18 U.S.C. 1001.

(f) (1) The ASNA Act provides, in section 107 (a) (49 U.S.C. 2107(a)), that: No person who acquires property or an interest therein after the date of enactment of the Act in an area surrounding an airport with respect to which a noise exposure map has been submitted under section 103 of the Act shall be entitled to recover damages with respect to the noise attributable to such airport if such person had actual or constructive knowledge of the existence of such noise exposure map unless, in addition to any other elements for recovery of damages, such person can show that—

(i) A significant change in the type or frequency of aircraft operations at the airport; or

(ii) A significant change in the airport layout; or

(iii) A significant change in the flight patterns; or

(iv) A significant increase in nighttime operations; occurred after the date of the acquisition of such property or interest therein and that the damages for which recovery is sought have resulted from any such change or increase."

(2) The Act further provides in section 107(b), (49 U.S.C. 2107(b)): That for this purpose, "constructive knowledge" shall be imputed, at a minimum, to any person who acquires property or an interest therein in an area surrounding an airport after the date of enactment of the Act if—
(i) Prior to the date of such acquisition, notice of the existence of a noise exposure map for such area was published at least three times in a newspaper of general circulation in the county in which such property is located; or

(ii) A copy of such noise exposure map is furnished to such person at the time of such acquisition.

(g) For this purpose, the term "significant" in paragraph (f) of this section means that change or increase in one or more of the four factors which results in a "substantial new non-compatible use" as defined in Sec. 150.21(d), affecting the property in issue. Responsibility for applying or interpreting this provision with respect to specific properties rests with local government.


Sec. 150.23 Noise compatibility programs.

(a) Any airport operator who has submitted an acceptable noise exposure map under Sec. 150.21 may, after FAA notice of acceptability and other consultation and public procedure specified under paragraphs (b) and (c) of this section, as applicable, submit to the Regional Airports Division Manager five copies of a noise compatibility program.

(b) An airport operator may submit the noise compatibility program at the same time as the noise exposure map. In this case, the Regional Airports Division Manager will not begin the statutory 180-day review period (for the program) until after FAA reviews the noise exposure map and finds that it and its supporting documentation are in compliance with the applicable requirements.

(c) Each noise compatibility program must be developed and prepared in accordance with Appendix B of this part, or an FAA approved equivalent, and in consultation with FAA regional officials, the officials of the state and of any public agencies and planning agencies whose area, or any portion or whose area, of jurisdiction within the Ldn 65 dB noise contours is depicted on the noise exposure map, and other Federal officials having local responsibility for land uses depicted on the map. Consultation with FAA regional officials shall include, to the extent practicable, informal agreement from FAA on proposed new or modified flight procedures. For air carrier airports, consultation must include any air carriers and, to the extent practicable, other aircraft operators using the airport. For other airports, consultation must include, to the extent practicable, aircraft operators using the airport.

(d) Prior to and during the development of a program, and prior to submission of the resulting draft program to the FAA, the airport operator shall afford adequate opportunity for the active and direct participation of the states, public agencies and planning agencies in the areas surrounding the airport, aeronautical users of the airport, and the general public to submit their views, data, and comments on the formulation and adequacy of that program.

(e) Each noise compatibility program submitted to the FAA must consist of at least the following:

(1) A copy of the noise exposure map and its supporting documentation as found in compliance with the applicable requirements by the FAA, per Sec. 150.21(c).

(2) A description and analysis of the alternative measures considered by the airport operator in developing the program, together with a discussion of why each rejected measure was not included in the program.

(3) Program measures proposed to reduce or eliminate present and future noncompatible land uses and a description of the relative contribution of each of the proposed measures to the overall effectiveness of the program.

(4) A description of public participation and the consultation with officials of public agencies and planning agencies in areas surrounding the airport, FAA regional officials and other Federal officials having local responsibility for land uses depicted on the map, any air carriers and other users of the airport.

(5) The actual or anticipated effect of the program on reducing noise exposure to individuals and noncompatible land uses and preventing the introduction of additional noncompatible uses within the area covered by the noise exposure map. The effects must be based on expressed assumptions concerning the type and frequency of aircraft operations, number of nighttime operations, flight patterns, airport layout including planned airport development, planned land use changes, and demographic changes within the Ldn 65 dB noise contours.

(6) A description of how the proposed future actions may change any noise control or compatibility plans or actions previously adopted by the airport proprietor.

(7) A summary of the comments at any public hearing on the program and a copy of all written material submitted to the operator under paragraphs (c) and (d) of this section, together with the operator's response and disposition of those comments and materials to demonstrate the program.
is feasible and reasonably consistent with obtaining the objectives of airport noise compatibility planning under this part.

(8) The period covered by the program, the schedule for implementation of the program, the persons responsible for implementation of each measure in the program, and, for each measure, documentation supporting the feasibility of implementation, including any essential governmental actions, costs, and anticipated sources of funding, that will demonstrate that the program is reasonably consistent with achieving the goals of airport noise compatibility planning under this part.

(9) Provision for revising the program if made necessary by revision of the noise exposure map.

Subpart C--Evaluations and Determinations of Effects of Noise Compatibility Programs

Sec. 150.31 Preliminary review: acknowledgments.

(a) Upon receipt of a noise compatibility program submitted under Sec. 150.23, the Regional Airports Division Manager acknowledges to the airport operator receipt of the program and conducts a preliminary review of the submission.

(b) If, based on the preliminary review, the Regional Airports Division Manager finds that the submission does not conform to the requirements of this part, he disapproves and returns the unacceptable program to the airport operator for reconsideration and development of a program in accordance with this Part.

(c) If, based on the preliminary review, the Regional Airports Division Manager finds that the program conforms to the requirements of this part, the Regional Airports Division Manager publishes in the Federal Register a notice of receipt of the program for comment which indicates the following:

(1) The airport covered by the program, and the date of receipt.

(2) The availability of the program for examination in the offices of the Regional Airports Division Manager and the airport operator.

(3) That comments on the program are invited and, will be considered by the FAA.

(d) The date of signature of the published notice of receipt starts the 180-day approval period for the program.


Sec. 150.33 Evaluation of programs.

(a) The FAA conducts an evaluation of each noise compatibility program and, based on that evaluation, either approves or disapproves the program. The evaluation includes consideration of proposed measures to determine whether they--

(1) May create an undue burden on interstate or foreign commerce (including unjust discrimination);

(2) Are reasonably consistent with obtaining the goal of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses; and

(3) Include the use of new or modified flight procedures to control the operation of aircraft for purposes of noise control, or affect flight procedures in any way.

(b) The evaluation may also include an evaluation of those proposed measures to determine whether they may adversely affect the exercise of the authority and responsibilities of the Administrator under the Federal Aviation Act of 1958, as amended.

(c) To the extent considered necessary, the FAA may--

(1) Confer with the airport operator and other persons known to have information and views material to the evaluation;

(2) Explore the objectives of the program and the measures, and any alternative measures, for achieving the objectives.

(3) Examine the program for developing a range of alternatives that would eliminate the reasons, if any, for disapproving the program.

(4) Convene an informal meeting with the airport operator and other persons involved in developing or implementing the program for the purposes of gathering all facts relevant to the determination of approval or disapproval of the program and of discussing any needs to accommodate or modify the program as submitted.

(d) If requested by the FAA, the airport operator shall furnish all information needed to complete FAA's review

under (c).

(e) An airport operator may, at any time before approval or disapproval of a program, withdraw or revise the program. If the airport operator withdraws or revises the program or indicates to the Regional Airports Division Manager, in writing, the intention to revise the program, the Regional Airports Division Manager terminates the evaluation and notifies the airport operator of that action. That termination cancels the 180-day review period.

The FAA does not evaluate a second program for any airport until any previously submitted program has been withdrawn or a determination on it is issued. A new evaluation is commenced upon receipt of a revised program, and a new 180-day approval period is begun, unless the Regional Airports Division Manager finds that the modification made, in light of the overall revised program, can be integrated into the unmodified portions of the revised program without exceeding the original 180-day approval period or causing undue expense to the government.


Sec. 150.35 Determinations; publications; effectivity.

(a) The FAA issues a determination approving or disapproving each airport noise compatibility program (and revised program). Portions of a program may be individually approved or disapproved. No conditional approvals will be issued. A determination on a program acceptable under this part is issued within 180 days after the program is received under Sec. 150.23 of this part or it may be considered approved, except that this time period may be exceeded for any portion of a program relating to the use of flight procedures for noise control purposes. A determination on portions of a program covered by the exceptions to the 180-day review period for approval will be issued within a reasonable time after receipt of the program.

Determinations relating to the use of any flight procedure for noise control purposes may be issued either in connection with the determination on other portions of the program or separately. Except as provided by this paragraph, no approval of any noise compatibility program, or any portion of a program, may be implied in the absence of the FAA’s express approval.

(b) The Administrator approves programs under this part, if-

(1) It is found that the program measures to be implemented would not create an undue burden on interstate or foreign commerce (including any unjust discrimination) and are reasonably consistent with achieving the goals of reducing existing noncompatible land uses around the airport and of preventing the introduction of additional noncompatible land uses;

(2) The program provides for revision if made necessary by the revision of the noise map; and

(3) Those aspects of programs relating to the use of flight procedures for noise control can be implemented within the period covered by the program and without--

(i) Reducing the level of aviation safety provided;

(ii) Derogating the requisite level of protection for aircraft, their occupants and persons and property on the ground;

(iii) Adversely affecting the efficient use and management of the Navigable Airspace and Air Traffic Control Systems; or

(iv) Adversely affecting any other powers and responsibilities of the Administrator prescribed by law or any other program, standard, or requirement established in accordance with law.

(c) When a determination is issued, the Regional Airports Division Manager notifies the airport operator and publishes a notice of approval or disapproval in the Federal Register identifying the nature and extent of the determination.

(d) Approvals issued under this part for a program or portion thereof become effective as specified therein and may be withdrawn when one of the following occurs:

(1) The program or portion thereof is required to be revised under this part or under its own terms, and is not so revised;

(2) If a revision has been submitted for approval, a determination is issued on the revised program or portion thereof, that is inconsistent with the prior approval.

(3) A term or condition of the program, or portion thereof, or its approval is violated by the responsible government body.

(4) A flight procedure or other FAA action upon which the approved program or portion thereof is dependent is subsequently disapproved, significantly altered, or rescinded by the FAA.
The airport operator requests rescission of the approval.

Impacts on flight procedures, air traffic management, or air commerce occur which could not be foreseen at the time of approval.

A determination may be sooner rescinded or modified for cause with at least 30 days written notice to the airport operator of the FAA’s intention to rescind or modify the determination for the reasons stated in the notice. The airport operator may, during the 30-day period, submit to the Regional Airports Division Manager for consideration any reasons and circumstances why the determination should not be rescinded or modified on the basis stated in the notice of intent. Thereafter, the FAA either rescinds or modifies the determination consistent with the notice or withdraws the notice of intent and terminates the action.

Determinations may contain conditions which must be satisfied prior to implementation of any portion of the program relating to flight procedures affecting airport or aircraft operations.

Noise exposure maps for current and five year forecast conditions that are submitted and approved with noise compatibility programs are considered to be the new FAA accepted noise exposure maps for purposes of Part 150.

Appendix A to Part 150--Noise Exposure Maps

Part A--General

Sec. A150.1 Purpose.

This appendix establishes a uniform methodology for the development and preparation of airport noise exposure maps. That methodology includes a single system of measuring noise at airports for which there is a highly reliable relationship between projected noise exposure and surveyed reactions of people to noise along with a separate single system for determining the exposure of individuals to noise. It also identifies land uses which, for the purpose of this part are considered to be compatible with various exposures of individuals to noise around airports.

This appendix provides for the use of the FAA’s Integrated Noise Model (INM) or an FAA approved equivalent, for developing standardized noise exposure maps and predicting noise impacts. Noise monitoring may be utilized by airport operators for data acquisition and data refinement, but is not required by this part for the development of noise exposure maps or airport noise compatibility programs. Whenever noise monitoring is used, under this part, it should be accomplished in accordance with Sec. A150.5 of this appendix.

Sec. A150.3 Noise descriptors.

(a) Airport Noise Measurement. The A-Weighted Sound Level, measured, filtered and recorded in accordance with Sec. A150 of this appendix, must be employed as the unit for the measurement of single event noise at airports and in the areas surrounding the airports.

(b) Airport Noise Exposure. The yearly day-night average sound level (YDNL) must be employed for the analysis and characterization of multiple aircraft noise events and for determining the cumulative exposure of individuals to noise around airports.

Sec. A150.5 Noise measurement procedures and equipment.

(a) Sound levels must be measured or analyzed with equipment having the "A" frequency weighting, filter characteristics, and the "slow response" characteristics as defined in International Electrotechnical Commission (IEC) Publication No. 179, entitled "Precision Sound Level Meters" as incorporated by reference in Part 150 under Sec. 150.11. For purposes of this part, the tolerances allowed for general purpose, type 2 sound level meters in IEC 179, are acceptable.

(b) Noise measurements and documentation must be in accordance with accepted acoustical measurement methodology, such as those described in American National Standards Institute publication ANSI 51.13, dated 1971 as revised 1979, entitled "ANS--Methods for the Measurement of Sound Pressure Levels"; ARP No. 796, dated 1969, entitled "Measurement of Aircraft Exterior Noise in the Field"; "Handbook of Noise Measurement," Ninth Ed. 1980, by Arnold P.G. Peterson; or "Acoustic Noise Measurement," dated Jan., 1979, by J.R. Hassell and K. Zaveri. For purposes of this part, measurements intended for comparison to a State or local standard or with another transportation noise source (including other aircraft) must be reported in maximum A-weighted sound levels (LAM); for computation or validation of the yearly day-night average level (Ldn), measurements must be reported in sound exposure level (LAE), as defined in Sec. A150.205 of this appendix.
Part B--Noise Exposure Map Development

Sec. A150.101 Noise contours and land usages.

(a) To determine the extent of the noise impact around an airport, airport proprietors developing noise exposure maps in accordance with this part must develop Ldn contours. Continuous contours must be developed for YDNL levels of 65, 70, and 75 (additional contours may be developed and depicted when appropriate). In those areas where YDNL values are 65 YDNL or greater, the airport operator shall identify land uses and determine land use compatibility in accordance with the standards and procedures of this appendix.

(b) Table 1 of this appendix describes compatible land use information for several land uses as a function of YDNL values. The ranges of YDNL values in Table 1 reflect the statistical variability for the responses of large groups of people to noise. Any particular level might not, therefore, accurately assess an individual’s perception of an actual noise environment. Compatible or noncompatible land use is determined by comparing the predicted or measured YDNL values at a site with the values given. Adjustments or modifications of the descriptions of the land-use categories may be desirable after consideration of specific local conditions.

(c) Compatibility designations in Table 1 generally refer to the major use of the site. If other uses with greater sensitivity to noise are permitted by local government at a site, a determination of compatibility must be based on that use which is most adversely affected by noise. When appropriate, noise level reduction through incorporation of sound attenuation into the design and construction of a structure may be necessary to achieve compatibility.

(d) For the purpose of compliance with this part, all land uses are considered to be compatible with noise levels less than L_{dn} 65 dB. Local needs or values may dictate further delineation based on local requirements or determinations.

(e) Except as provided in (f) below, the noise exposure maps must also contain and identify:

1. Runway locations.
2. Flight tracks.
3. Noise contours of L_{dn} 65, 70, and 75 dB resulting from aircraft operations.
4. Outline of the airport boundaries.

(f) Notwithstanding any other provision of this Part, noise exposure maps prepared in connection with studies which were either Federally funded or Federally approved and which commenced before October 1, 1981, are not required to be modified to contain the following items:

1. Flight tracks depicted on the map.
2. Use of ambient noise to determine land use compatibility.
3. The L_{dn} 70 dB noise contour and data related to L_{dn} 70 dB contour. When determinations on land use compatibility using Table 1 differ between L_{dn} 65-70 dB and the L_{dn} 70-75 dB, determinations should either use the more conservative L_{dn} 70-75 dB column or reflect determinations based on local needs and values.
4. Estimates of the number of people residing within the L_{dn} 65, 70, and 75 dB contours.

(5) Noncompatible land uses within the noise contours, including those within the L_{dn} 65 dB contours. (No land use has to be identified as noncompatible if the self-generated noise from that use and/or the ambient noise from other nonaircraft and nonairport uses is equal to or greater than the noise from aircraft and airport sources.)

(6) Location of noise sensitive public buildings (such as schools, hospitals, and health care facilities), and properties on or eligible for inclusion in the National Register of Historic Places.

(7) Locations of any aircraft noise monitoring sites utilized for data acquisition and refinement procedures.

(8) Estimates of the number of people residing within the L_{dn} 65, 70, and 75 dB contours.

(9) Depiction of the required noise contours over a land use map of a sufficient scale and quality to discern streets and other identifiable geographic features.
### TABLE 1—Land Use Compatibility* With Yearly Day-Night Average

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Yearly Day-Night Average Sound Level, DNL, in Decibels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;65</td>
</tr>
<tr>
<td><strong>Residential Use</strong></td>
<td></td>
</tr>
<tr>
<td>Residential other than mobile homes and transient lodgings</td>
<td>Y(1)</td>
</tr>
<tr>
<td>Mobile home park</td>
<td>Y</td>
</tr>
<tr>
<td>Transient lodgings</td>
<td>Y(1)</td>
</tr>
<tr>
<td><strong>Public Use</strong></td>
<td></td>
</tr>
<tr>
<td>Schools</td>
<td>Y</td>
</tr>
<tr>
<td>Hospitals and nursing homes</td>
<td>Y</td>
</tr>
<tr>
<td>Churches, auditoriums, and concert halls</td>
<td>Y</td>
</tr>
<tr>
<td>Governmental services</td>
<td>Y</td>
</tr>
<tr>
<td>Transportation</td>
<td>Y</td>
</tr>
<tr>
<td>Parking</td>
<td>Y(1)</td>
</tr>
<tr>
<td><strong>Commercial Use</strong></td>
<td></td>
</tr>
<tr>
<td>Offices, business and professional</td>
<td>Y</td>
</tr>
<tr>
<td>Wholesale &amp; retail--building materials, hardware and farm equipment</td>
<td>Y</td>
</tr>
<tr>
<td>Retail trade--general</td>
<td>Y</td>
</tr>
<tr>
<td>Utilities</td>
<td>Y</td>
</tr>
<tr>
<td>Communication</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Manufacturing and Production</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturing general</td>
<td>Y</td>
</tr>
<tr>
<td>Photographic and optical</td>
<td>Y</td>
</tr>
<tr>
<td>Agriculture (except livestock) and forestry</td>
<td>Y</td>
</tr>
<tr>
<td>Livestock farming and breeding</td>
<td>Y</td>
</tr>
<tr>
<td>Mining and fishing, resource production and extraction</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Recreational</strong></td>
<td></td>
</tr>
<tr>
<td>Outdoor sports arenas and spectator sports</td>
<td>Y</td>
</tr>
<tr>
<td>Outdoor music shells, amphitheaters</td>
<td>Y</td>
</tr>
<tr>
<td>Nature exhibits and zoos</td>
<td>Y</td>
</tr>
<tr>
<td>Amusements, parks, resorts and camps</td>
<td>Y</td>
</tr>
<tr>
<td>Golf courses, riding stables, and water recreation</td>
<td>Y</td>
</tr>
</tbody>
</table>

Key to Table 1.

Y(Yes): Land use and related structures compatible without restrictions.
N(No): Land use and related structures are not compatible and should be prohibited.
NLR: Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35: Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

Notes for Table 1.
The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and
permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals.

Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often started as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

(2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(5) Land use compatible provided special sound reinforcement systems are installed.

(6) Residential buildings require an NLR of 25.

(7) Residential buildings require an NLR of 30.

(8) Residential buildings not permitted.

Sec. A150.103 Use of computer prediction model.

(a) The airport operator shall acquire the aviation operations data necessary to develop noise exposure contours using an FAA approved methodology or computer program, such as the Integrated Noise Model (INM) for airports or the Heliport Noise Model (HNM) for heliports. In considering approval of a methodology or computer program, key factors include the demonstrated capability to produce the required output and the public availability of the program or methodology to provide interested parties the opportunity to substantiate the results.

(b) Except as provided in paragraph (c) of this section, the following information must be obtained for input to the calculation of noise exposure contours:

(1) A map of the airport and its environs at an adequately detailed scale (not less than 1 inch to 8,000 feet) indicating runway length, alignments, landing thresholds, takeoff start-of-roll points, airport boundary, and flight tracks out to at least 30,000 feet from the end of each runway.

(2) Airport activity levels and operational data which will indicate, on an annual average-daily-basis, the number of aircraft, by type of aircraft, which utilize each flight track, in both the standard daytime (0700-2200 hours local) and nighttime (2200-0700 hours local) periods for both landings and takeoffs.

(3) For landings--glide slopes, glide slope intercept altitudes, and other pertinent information needed to establish approach profiles along with the engine power levels needed to fly that approach profile.

(4) For takeoffs--the flight profile which is the relationship of altitude to distance from start-of-roll along with the engine power levels needed to fly that takeoff profile; these data must reflect the use of noise abatement departure procedures and, if applicable, the takeoff weight of the aircraft or some proxy for weight such as stage length.

(5) Existing topographical or airspace restrictions which preclude the utilization of alternative flight tracks.

(6) The government furnished data depicting aircraft noise characteristics (if not already a part of the computer program's stored data bank).

(7) Airport elevation and average temperature.

(c) For heliports, the map scale required by paragraph (b)(1) of this section shall not be less than 1 inch to 2,000 feet and shall indicate heliport boundaries, takeoff and landing pads, and typical flight tracks out to at least 4,000 feet horizontally from the landing pad. Where these flight tracks cannot be determined, obstructions or other limitations on flight tracks in and out of the heliport shall be identified within the map areas out to at least 4,000 feet horizontally from the landing pad. For static operation (hover), the helicopter type, the number of daily operations based on an annual average, and the duration in minutes of the hover operation shall be identified. The other information required in paragraph (b) shall be furnished in a form suitable for input to the HNM or other FAA approved methodology or computer program.
Sec. A150.105 Identification of public agencies and planning agencies.

(a) The airport proprietor shall identify each public agency and planning agency whose jurisdiction or responsibility is either wholly or partially within the Ldn 65 dB boundary.

(b) For those agencies identified in (a) that have land use planning and control authority, the supporting documentation shall identify their geographic areas of jurisdiction.

Part C--Mathematical Descriptions

Sec. A150.201 General.

The following mathematical descriptions provide the most precise definition of the yearly day-night average sound level (L_{dn}), the data necessary for its calculation, and the methods for computing it.

Sec. A150.203 Symbols.

The following symbols are used in the computation of L_{dn}:

Measure (in dB)           Symbol
---                   ---
Average Sound Level, During Time T     L_T
Day-Night Average Sound Level (individual day) L_{dni}
Yearly Day-Night Average Sound Level L_{dn}
Sound Exposure Level L_{AE}

Sec. A150.205 Mathematical computations.

(a) Average sound level must be computed in accordance with the following formula:

\[ L_T = 10 \log_{10} \left( \frac{1}{T} \int_0^T 10^{L_A(t)/10} \, dt \right) \]  

(1)

where T is the length of the time period, in seconds, during which the average is taken; L_A(t) is the instantaneous time varying A-weighted sound level during the time period T.

(1) Note: When a noise environment is caused by a number of identifiable noise events, such as aircraft flyovers, average sound level may be conveniently calculated from the sound exposure levels of the individual events occurring within a time period T:

\[ L_T = 10 \log_{10} \left( \frac{1}{T} \sum_{i=1}^{n} 10^{L_{AEi}/10} \right) \]  

(2)

where L_{AEi} is the sound exposure level of the i-th event, in a series of n events in time period T, in seconds.

(2) Note: When T is one hour, L_T is referred to as one-hour average sound level.

(b) Day-night average sound level (individual day) must be computed in accordance with the following formula:

\[ L_{dn} = 10 \log_{10} \left[ \frac{1}{86400} \left( \int_0^{0700} 10^{L_A(t)/10} \, dt + \int_{2200}^{2400} 10^{L_A(t)/10} \, dt \right) \right] \]  

(3)

Time is in seconds, so the limits shown in hours and minutes are actually interpreted in seconds. It is often convenient to compute day-night average sound level from the one-hour average sound levels obtained during successive hours.

(c) Yearly day-night average sound level must be computed in accordance with the following formula:

\[ L_{dn} = 10 \log_{10} \left( \frac{1}{365} \sum_{i=1}^{365} 10^{L_{dni}/10} \right) \]  

(4)

where L_{dni} is the day-night average sound level for the i-th day out of one year.

(d) Sound exposure level must be computed in accordance with the following formula:

\[ L_{AE} = 10 \log_{10} \left( \frac{1}{t_2 - t_1} \int_{t_1}^{t_2} 10^{L_A(t)/10} \, dt \right) \]  

(5)

where t_1 is one second and L_A(t) is the time-varying A-weighted sound level in the time interval t_1 to t_2.

The time interval should be sufficiently large that it encompasses all the significant sound of a designated event.

The requisite integral may be approximated with sufficient accuracy by integrating L_A(t) over the time interval during which L_A(t) lies within 10 decibels of its maximum value, before and after the maximum occurs.

Appendix B to Part 150--Noise Compatibility Programs

Sec. B150.1 Scope and purpose.

(a) This appendix prescribes the content and the methods for developing noise compatibility programs authorized under this part. Each program must set forth the measures which the airport operator (or other person or agency responsible) has taken, or proposes to take, for the reduction of existing noncompatible land uses and the prevention of the introduction of additional noncompatible land uses within the area covered by the noise exposure map submitted by the operator.

(b) The purpose of a noise compatibility program is:

(1) To promote a planning process through which the airport operator can examine and analyze the noise impact created by the operation of an airport, as well as the costs and benefits associated with various alternative noise reduction techniques, and the responsible impacted land use control jurisdictions can examine existing and forecast areas of noncompatibility and consider actions to reduce noncompatible uses.

(2) To bring together through public participation, agency coordination, and overall cooperation, all interested parties with their respective authorities and obligations, thereby facilitating the creation of an agreed upon noise abatement plan especially suited to the individual airport location while at the same time not unduly affecting the national air transportation system.

(3) To develop comprehensive and implementable noise reduction techniques and land use controls which, to the maximum extent feasible, will confine severe aircraft YDNL values of $L_{dn}$ 75 dB or greater to areas included within the airport boundary and will establish and maintain compatible land uses in the areas affected by noise between the $L_{dn}$ 65 and 75 dB contours.

Sec. B150.3 Requirement for noise map.

(a) It is required that a current and complete noise exposure map and its supporting documentation as found in compliance with the applicable requirements by the FAA, per Sec. 150.21(c) be included in each noise compatibility program:

(1) To identify existing and future noncompatible land uses, based on airport operation and off-airport land uses, which have generated the need to develop a program.

(2) To identify changes in noncompatible uses to be derived from proposed program measures.

(b) If the proposed noise compatibility program would yield maps differing from those previously submitted to FAA, the program shall be accompanied by appropriately revised maps. Such revisions must be prepared in accordance with the requirements of Sec. A150.101(e) of Appendix A and will be accepted by FAA in accordance with Sec. 150.35(f).

Sec. B150.5 Program standards.

Based upon the airport noise exposure and noncompatible land uses identified in the map, the airport operator shall evaluate the several alternative noise control actions and develop a noise compatibility program which--

(a) Reduces existing noncompatible uses and prevents or reduces the probability of the establishment of additional noncompatible uses;

(b) Does not impose undue burden on interstate and foreign commerce;

(c) Provides for revision in accordance with Sec. 150.23 of this part.

(d) Is not unjustly discriminatory.

(e) Does not derogate safety or adversely affect the safe and efficient use of airspace.

(f) To the extent practicable, meets both local needs and needs of the national air transportation system, considering tradeoffs between economic benefits derived from the airport and the noise impact.

(g) Can be implemented in a manner consistent with all of the powers and duties of the Administrator of FAA.

Sec. B150.7 Analysis of program alternatives.

(a) Noise control alternatives must be considered and presented according to the following categories:

(1) Noise abatement alternatives for which the airport operator has adequate implementation authority.

(2) Noise abatement alternatives for which the requisite implementation authority is vested in a local agency or political subdivision governing body, or a state agency or political subdivision governing body.
(3) Noise abatement options for which requisite authority is vested in the FAA or other Federal agency.

(b) At a minimum, the operator shall analyze and report on the following alternatives, subject to the constraints that the strategies are appropriate to the specific airport (for example, an evaluation of night curfews is not appropriate if there are no night flights and none are forecast):

(1) Acquisition of land and interests therein, including, but not limited to air rights, easements, and development rights, to ensure the use of property for purposes which are compatible with airport operations.

(2) The construction of barriers and acoustical shielding, including the soundproofing of public buildings.

(3) The implementation of a preferential runway system.

(4) The use of flight procedures (including the modifications of flight tracks) to control the operation of aircraft to reduce exposure of individuals (or specific noise sensitive areas) to noise in the area around the airport.

(5) The implementation of any restriction on the use of airport by any type or class of aircraft based on the noise characteristics of those aircraft.

Such restrictions may include, but are not limited to--

(i) Denial of use of the airport to aircraft types or classes which do not meet Federal noise standards;

(ii) Capacity limitations based on the relative noisiness of different types of aircraft;

(iii) Requirement that aircraft using the airport must use noise abatement takeoff or approach procedures previously approved as safe by the FAA;

(iv) Landing fees based on FAA certificated or estimated noise emission levels or on time of arrival; and

(v) Partial or complete curfews.

(6) Other actions or combinations of actions which would have a beneficial noise control or abatement impact on the public.

(7) Other actions recommended for analysis by the FAA for the specific airport.

(c) For those alternatives selected for implementation, the program must identify the agency or agencies responsible for such implementation, whether those agencies have agreed to the implementation, and the approximate schedule agreed upon.

Sec. B150.9 Equivalent programs.

(a) Notwithstanding any other provision of this part, noise compatibility programs prepared in connection with studies which were either Federally funded or Federally approved and commenced before October 1, 1981, are not required to be modified to contain the following items:

(1) Flight tracks.

(2) A noise contour of Ldn 70 dB resulting from aircraft operations and data related to the Ldn 70 dB contour. When determinations on land use compatibility using Table 1 of Appendix A differ between Ldn 65-70 dB and Ldn 70-75 dB, the determinations should either use the more conservative Ldn 70-75 dB column or reflect determinations based on local needs and values.

(3) The categorization of alternatives pursuant to Sec. B150.7(a), although the persons responsible for implementation of each measure in the program must still be identified in accordance with Sec. 150.23(e)(8).

(4) Use of ambient noise to determine land use compatibility.

(b) Previously prepared noise compatibility program documentation may be supplemented to include these and other program requirements which have not been excepted.

14 CFR Part 150 * Amendment 150-3 * Dec. 8, 1995
Federal Aviation Regulations
Part 161 - Notice and Approval of
Airport noise and Access Restrictions

Subpart A--General Provisions

Sec. 161.1 Purpose.

This part implements the Airport Noise and Capacity Act of 1990 (49 U.S.C. App. 2153, 2154, 2155, and 2156). It prescribes:

(a) Notice requirements and procedures for airport operators implementing Stage 3 aircraft noise and access restrictions pursuant to agreements between airport operators and aircraft operators;

(b) Analysis and notice requirements for airport operators proposing Stage 2 aircraft noise and access restrictions;

(c) Notice, review, and approval requirements for airport operators proposing Stage 3 aircraft noise and access restrictions; and

(d) Procedures for Federal Aviation Administration reevaluation of agreements containing restrictions on Stage 3 aircraft operations and of aircraft noise and access restrictions affecting Stage 3 aircraft operations imposed by airport operators.

Sec. 161.3 Applicability.

(a) This part applies to airports imposing restrictions on Stage 2 aircraft operations proposed after October 1, 1990, and to airports imposing restrictions on Stage 3 aircraft operations that became effective after October 1, 1990.

(b) This part also applies to airports enacting amendments to airport noise and access restrictions in effect on October 1, 1990, but amended after that date, where the amendment reduces or limits aircraft operations or affects aircraft safety.

(c) The notice, review, and approval requirements set forth in this part apply to all airports imposing noise or access restrictions as defined in Sec. 161.5 of this part.

Sec. 161.5 Definitions.

For the purposes of this part, the following definitions apply: Agreement means a document in writing signed by the airport operator; those aircraft operators currently operating at the airport that would be affected by the noise or access restriction; and all affected new entrants planning to provide new air service within 180 days of the effective date of the restriction that have submitted to the airport operator a plan of operations and notice of agreement to the restriction. Aircraft operator, for purposes of this part, means any owner of an aircraft that operates the aircraft, i.e., uses, causes to use, or authorizes the use of the aircraft; or in the case of a leased aircraft, any lessee that operates the aircraft pursuant to a lease. As used in this part, aircraft operator also means any representative of the aircraft owner, or in the case of a leased aircraft, any representative of the lessee empowered to enter into agreements with the airport operator regarding use of the airport by an aircraft.

Airport means any area of land or water, including any heliport, that is used or intended to be used for the landing and takeoff of aircraft, and any appurtenant areas that are used or intended to be used for airport buildings or other airport facilities or rights-of-way, together with all airport buildings and facilities located thereon.

Airport noise study area means that area surrounding the airport within the noise contour selected by the applicant for study and must include the noise contours required to be developed for noise exposure maps specified in 14 CFR part 150.

Airport operator means the airport proprietor.

Aviation user class means the following categories of aircraft operators: air carriers operating under parts 121 or 129 of this chapter; commuters and other carriers operating under parts 127 and 135 of this chapter; general aviation, military, or government operations.

Day-night average sound level (DNL) means the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m. and midnight, local time, as defined in 14 CFR part 150. (The scientific notation for DNL is $L_{dn}$). Noise or access restrictions means restrictions
(including but not limited to provisions of ordinances and leases) affecting access or noise that affect the operations of Stage 2 or Stage 3 aircraft, such as limits on the noise generated on either a single-event or cumulative basis; a limit, direct or indirect, on the total number of Stage 2 or Stage 3 aircraft operations; a noise budget or noise allocation program that includes Stage 2 or Stage 3 aircraft; a restriction imposing limits on hours of operations; a program of airport-use charges that has the direct or indirect effect of controlling airport noise; and any other limit on Stage 2 or Stage 3 aircraft that has the effect of controlling airport noise. This definition does not include peak-period pricing programs where the objective is to align the number of aircraft operations with airport capacity.

Stage 2 aircraft means an aircraft that has been shown to comply with the Stage 2 requirements under 14 CFR part 36.

Stage 3 aircraft means an aircraft that has been shown to comply with the Stage 3 requirements under 14 CFR part 36.

Sec. 161.7 Limitations.

(a) Aircraft operational procedures that must be submitted for adoption by the FAA, such as preferential runway use, noise abatement approach and departure procedures and profiles, and flight tracks, are not subject to this part. Other noise abatement procedures, such as taxiing and engine runups, are not subject to this part unless the procedures imposed limit the total number of Stage 2 or Stage 3 aircraft operations, or limit the hours of Stage 2 or Stage 3 aircraft operations, at the airport.

(b) The notice, review, and approval requirements set forth in this part do not apply to airports with restrictions as specified in 49 U.S.C. App. 2153(a)(2)(C):

(1) A local action to enforce a negotiated or executed airport aircraft 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, where the amendment does not reduce or limit aircraft operations or affect aircraft safety.

(5) A restriction that was adopted by an airport operator or before October 1, 1990, and that 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.

(6) In any case in which a restriction described in paragraph (b)(5) of this section 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 on November 5, 1990.

(7) A local action that 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.

(c) The notice, review, and approval requirements of subpart D of this part with regard to Stage 3 aircraft restrictions do not apply if the FAA has, prior to November 5, 1990, formed a working group (outside of the process established by 14 CFR part 150) with a local airport operator to examine the noise impact of air traffic control procedure changes. In any case in which an agreement relating to noise reductions at such airport is then entered into between the airport proprietor and an air carrier or air carrier constituting a majority of the air carrier users of such airport, the requirements of subparts B and D of this part with respect to restrictions on Stage 3 aircraft operations do apply to local actions to enforce such agreements.

(d) Except to the extent required by the application of the provisions of the Act, nothing in this part eliminates, invalidates, or supersedes the following:

(1) Existing law with respect to airport noise or access restrictions by local authorities;

(2) Any proposed airport noise or access regulation at a general aviation airport where the airport proprietor has formally initiated a regulatory or legislative process on or before October 1, 1990; and

(3) The authority of the Secretary of Transportation to seek and obtain such legal remedies as the Secretary considers appropriate, including injunctive relief.

Sec. 161.9 Designation of noise description methods.
For purposes of this part, the following requirements apply:

(a) The sound level at an airport and surrounding areas, and the exposure of individuals to noise resulting from operations at an airport, must be established in accordance with the specifications and methods prescribed under appendix A of 14 CFR part 150; and

(b) Use of computer models to create noise contours must be in accordance with the criteria prescribed under appendix A of 14 CFR part 150.

Sec. 161.11 Identification of land uses in airport noise study area.

For the purposes of this part, uses of land that are normally compatible or noncompatible with various noise-exposure levels to individuals around airports must be identified in accordance with the criteria prescribed under appendix A of 14 CFR part 150. Determination of land use must be based on professional planning, zoning, and building and site design information and expertise.

Subpart B--Agreements

Sec. 161.101 Scope.

(a) This subpart applies to an airport operator's noise or access restriction on the operation of Stage 3 aircraft that is implemented pursuant to an agreement between an airport operator and all aircraft operators affected by the proposed restriction that are serving or will be serving such airport within 180 days of the date of the proposed restriction.

(b) For purposes of this subpart, an agreement shall be in writing and signed by:

(1) The airport operator;

(2) Those aircraft operators currently operating at the airport who would be affected by the noise or access restriction; and

(3) All new entrants that have submitted the information required under Sec. 161.105(a) of this part.

(c) This subpart does not apply to restrictions exempted in Sec. 161.7 of this part.

(d) This subpart does not limit the right of an airport operator to enter into an agreement with one or more aircraft operators that restricts the operation of Stage 2 or Stage 3 aircraft as long as the restriction is not enforced against aircraft operators that are not party to the agreement. Such an agreement is not covered by this subpart except that an aircraft operator may apply for sanctions pursuant to subpart F of this part for restrictions the airport operator seeks to impose other than those in the agreement.

Sec. 161.103 Notice of the proposed restriction.

(a) An airport operator may not implement a Stage 3 restriction pursuant to an agreement with all affected aircraft operators unless there has been public notice and an opportunity for comment as prescribed in this subpart.

(b) In order to establish a restriction in accordance with this subpart, the airport operator shall, at least 45 days before implementing the restriction, publish a notice of the proposed restriction in an areawide newspaper or newspapers that either singly or together has general circulation throughout the airport vicinity or airport noise study area, if one has been delineated; post a notice in the airport in a prominent location accessible to airport users and the public; and directly notify in writing the following parties:

(1) Aircraft operators providing scheduled passenger or cargo service at the airport; affected operators of aircraft based at the airport; potential new entrants that are known to be interested in serving the airport; and aircraft operators known to be routinely providing non-scheduled service;

(2) The Federal Aviation Administration;

(3) Each Federal, state, and local agency with land use control jurisdiction within the vicinity of the airport, or the airport noise study area, if one has been delineated;

(4) Fixed-base operators and other airport tenants whose operations may be affected by the proposed restriction; and

(5) Community groups and business organizations that are known to be interested in the proposed restriction.

(c) Each direct notice provided in accordance with paragraph (b) of this section shall include:

(1) The name of the airport and associated cities and states;

(2) A clear, concise description of the proposed restriction, including sanctions for noncompliance and a statement that it will be implemented pursuant to a signed agreement;

(3) A brief discussion of the specific need for and goal of the proposed restriction;
(4) Identification of the operators and the types of aircraft expected to be affected;

(5) The proposed effective date of the restriction and any proposed enforcement mechanism;

(6) An invitation to comment on the proposed restriction, with a minimum 45-day comment period;

(7) Information on how to request copies of the restriction portion of the agreement, including any sanctions for non-compliance;

(8) A notice to potential new entrant aircraft operators that are known to be interested in serving the airport of the requirements set forth in Sec. 161.105 of this part; and

(9) Information on how to submit a new entrant application, comments, and the address for submitting applications and comments to the airport operator, including identification of a contact person at the airport.

d) The Federal Aviation Administration will publish an announcement of the proposed restriction in the Federal Register.


Sec. 161.105 Requirements for new entrants.

(a) Within 45 days of the publication of the notice of a proposed restriction by the airport operator under Sec. 161.103(b) of this part, any person intending to provide new air service to the airport within 180 days of the proposed date of implementation of the restriction (as evidenced by submission of a plan of operations to the airport operator) must notify the airport operator if it would be affected by the restriction contained in the proposed agreement, and either that it--

(1) Agrees to the restriction; or

(2) Objects to the restriction.

(b) Failure of any person described in Sec. 161.105(a) of this part to notify the airport operator that it objects to the proposed restriction will constitute waiver of the right to claim that it did not consent to the agreement and render that person ineligible to use lack of signature as ground to apply for sanctions under subpart F of this part for two years following the effective date of the restriction. The signature of such a person need not be obtained by the airport operator in order to comply with Sec. 161.107(a) of this part.

(c) All other new entrants are also ineligible to use lack of signature as ground to apply for sanctions under subpart F of this part for two years.

Sec. 161.107 Implementation of the restriction.

(a) To be eligible to implement a Stage 3 noise or access restriction under this subpart, an airport operator shall have the restriction contained in an agreement as defined in Sec. 161.101(b) of this part.

(b) An airport operator may not implement a restriction pursuant to an agreement until the notice and comment requirements of Sec. 161.103 of this part have been met.

(c) Each airport operator must notify the Federal Aviation Administration of the implementation of a restriction pursuant to an agreement and must include in the notice evidence of compliance with Sec. 161.103 and a copy of the signed agreement.

Sec. 161.109 Notice of termination of restriction pursuant to an agreement.

An airport operator must notify the FAA within 10 days of the date of termination of a restriction pursuant to an agreement under this subpart.

Sec. 161.111 Availability of data and comments on a restriction implemented pursuant to an agreement.

The airport operator shall retain all relevant supporting data and all comments relating to a restriction implemented pursuant to an agreement for as long as the restriction is in effect. The airport operator shall make these materials available for inspection upon request by the FAA. The information shall be made available for inspection by any person during the pendency of any petition for reevaluation found justified by the FAA.

Sec. 161.113 Effect of agreements; limitation on reevaluation.

(a) Except as otherwise provided in this subpart, a restriction implemented by an airport operator pursuant to this subpart shall have the same force and effect as if it had been a restriction implemented in accordance with subpart D of this part.

(b) A restriction implemented by an airport operator pur-
Subpart C--Notice Requirements for Stage 2 Restrictions

Sec. 161.201 Scope.
(a) This subpart applies to:

(1) An airport imposing a noise or access restriction on the operation of Stage 2 aircraft, but not Stage 3 aircraft, proposed after October 1, 1990.

(2) An airport imposing an amendment to a Stage 2 restriction, if the amendment is proposed after October 1, 1990, and reduces or limits Stage 2 aircraft operations (compared to the restriction that it amends) or affects aircraft safety.

(b) This subpart does not apply to an airport imposing a Stage 2 restriction specifically exempted in Sec. 161.7 or a Stage 2 restriction contained in an agreement as long as the restriction is not enforced against aircraft operators that are not parties to the agreement.

Sec. 161.203 Notice of proposed restriction.
(a) An airport operator may not implement a Stage 2 restriction within the scope of Sec. 161.201 unless the airport operator provides an analysis of the proposed restriction, prepared in accordance with Sec. 161.205, and a public notice and opportunity for comment as prescribed in this subpart. The notice and analysis required by this subpart shall be completed at least 180 days prior to the effective date of the restriction.

(b) Except as provided in Sec. 161.211, an airport operator must publish a notice of the proposed restriction in an areawide newspaper or newspapers that either singly or together has general circulation throughout the airport noise study area; post a notice in the airport in a prominent location accessible to airport users and the public; and directly notify in writing the following parties:

(1) Aircraft operators providing scheduled passenger or cargo service at the airport; operators of aircraft based at the airport; potential new entrants that are known to be interested in serving the airport; and aircraft operators known to be routinely providing nonscheduled service that may be affected by the proposed restriction;

(2) The Federal Aviation Administration;

(3) Each Federal, state, and local agency with land-use control jurisdiction within the airport noise study area;

(4) Fixed-base operators and other airport tenants whose operations may be affected by the proposed restriction; and

(5) Community groups and business organizations that are known to be interested in the proposed restriction.

(c) Each notice provided in accordance with paragraph (b) of this section shall include:

(1) The name of the airport and associated cities and states;

(2) A clear, concise description of the proposed restriction, including a statement that it will be a mandatory Stage 2 restriction, and where the complete text of the restriction, and any sanctions for noncompliance, are available for public inspection;

(3) A brief discussion of the specific need for, and goal of, the restriction;

(4) Identification of the operators and the types of aircraft expected to be affected;

(5) The proposed effective date of the restriction, the proposed method of implementation (e.g., city ordinance, airport rule, lease), and any proposed enforcement mechanism;

(6) An analysis of the proposed restriction, as required by Sec. 161.205 of this subpart, or an announcement of where the analysis is available for public inspection;

(7) An invitation to comment on the proposed restriction and analysis, with a minimum 45-day comment period;

(8) Information on how to request copies of the complete text of the proposed restriction, including any sanctions for noncompliance, and the analysis (if not included with the notice); and

(9) The address for submitting comments to the airport operator, including identification of a contact person at the airport.

(d) At the time of notice, the airport operator shall provide the FAA with a full text of the proposed restriction, including any sanctions for noncompliance.

(e) The Federal Aviation Administration will publish an announcement of the proposed Stage 2 restriction in the Federal Register.
Sec. 161.205 Required analysis of proposed restriction and alternatives.

(a) Each airport operator proposing a noise or access restriction on Stage 2 aircraft operations shall prepare the following and make it available for public comment:

(1) An analysis of the anticipated or actual costs and benefits of the proposed noise or access restriction;

(2) A description of alternative restrictions; and

(3) A description of the alternative measures considered that do not involve aircraft restrictions, and a comparison of the costs and benefits of such alternative measures to costs and benefits of the proposed noise or access restriction.

(b) In preparing the analyses required by this section, the airport operator shall use the noise measurement systems and identify the airport noise study area as specified in Secs. 161.9 and 161.11, respectively; shall use currently accepted economic methodology; and shall provide separate detail on the costs and benefits of the proposed restriction with respect to the operations of Stage 2 aircraft weighing less than 75,000 pounds if the restriction applies to this class. The airport operator shall specify the methods used to analyze the costs and benefits of the proposed restriction and the alternatives.

(c) The kinds of information set forth in Sec. 161.305 are useful elements of an adequate analysis of a noise or access restriction on Stage 2 aircraft operations.

Sec. 161.207 Comment by interested parties.

Each airport operator shall establish a public docket or similar method for receiving and considering comments, and shall make comments available for inspection by interested parties upon request. Comments must be retained as long as the restriction is in effect.

Sec. 161.209 Requirements for proposal changes.

(a) Each airport operator shall promptly advise interested parties of any changes to a proposed restriction, including changes that affect noncompatible land uses, and make available any changes to the proposed restriction and its analysis. Interested parties include those that received direct notice under Sec. 161.203(b), or those that were required to be consulted in accordance with the procedures in Sec. 161.211 of this part, and those that have commented on the proposed restriction.

(b) If there are substantial changes to the proposed restriction or the analysis during the 180-day notice period, the airport operator shall initiate new notice following the procedures in Sec. 161.203 or, alternatively, the procedures in Sec. 161.211. A substantial change includes, but is not limited to, a proposal that would increase the burden on any aviation user class.

(c) In addition to the information in Sec. 161.203(c), new notice must indicate that the airport operator is revising a previous notice, provide the reason for making the revision, and provide a new effective date (if any) for the restriction. The effective date of the restriction must be at least 180 days after the date the new notice and revised analysis are made available for public comment.

Sec. 161.211 Optional use of 14 CFR part 150 procedures.

(a) An airport operator may use the procedures in part 150 of this chapter, instead of the procedures described in Secs. 161.203(b) and 161.209(b), as a means of providing an adequate public notice and comment opportunity on a proposed Stage 2 restriction.

(b) If the airport operator elects to use 14 CFR part 150 procedures to comply with this subpart, the operator shall:

(1) Ensure that all parties identified for direct notice under Sec. 161.203(b) are notified that the airport's 14 CFR part 150 program will include a proposed Stage 2 restriction under part 161, and that these parties are offered the opportunity to participate as consulted parties during the development of the 14 CFR part 150 program;

(2) Provide the FAA with a full text of the proposed restriction, including any sanctions for noncompliance, at the time of the notice;

(3) Include the information in Sec. 161.203(c)(2) through (c)(5) and 161.205 in the analysis of the proposed restriction for the part 14 CFR part 150 program;

(4) Wait 180 days following the availability of the above analysis for review by the consulted parties and compliance with the above notice requirements before implementing the Stage 2 restriction; and

(5) Include in its 14 CFR part 150 submission to the FAA evidence of compliance with paragraphs (b)(1) and (b)(4) of this section, and the analysis in paragraph (b)(3) of this section, together with a clear identification that the 14 CFR part 150 program includes a proposed Stage 2 restriction.
under part 161.

(c) The FAA determination on the 14 CFR part 150 submission does not constitute approval or disapproval of the proposed Stage 2 restriction under part 161.

(d) An amendment of a restriction may also be processed under 14 CFR part 150 procedures in accordance with this section.

Sec. 161.213 Notification of a decision not to implement a restriction.

If a proposed restriction has been through the procedures prescribed in this subpart and the restriction is not subsequently implemented, the airport operator shall so advise the interested parties. Interested parties are described in Sec. 161.209(a).

Subpart D--Notice, Review, and Approval Requirements for Stage 3 Restrictions

Sec. 161.301 Scope.

(a) This subpart applies to:

(1) An airport imposing a noise or access restriction on the operation of Stage 3 aircraft that first became effective after October 1, 1990.

(2) An airport imposing an amendment to a Stage 3 restriction, if the amendment becomes effective after October 1, 1990, and reduces or limits Stage 3 aircraft operations (compared to the restriction that it amends) or affects aircraft safety.

(b) This subpart does not apply to an airport imposing a Stage 3 restriction specifically exempted in Sec. 161.7, or an agreement complying with subpart B of this part.

(c) A Stage 3 restriction within the scope of this subpart may not become effective unless it has been submitted to and approved by the FAA. The FAA will review only those Stage 3 restrictions that are proposed by, or on behalf of, an entity empowered to implement the restriction.

Sec. 161.303 Notice of proposed restrictions.

(a) Each airport operator or aircraft operator (hereinafter referred to as applicant) proposing a Stage 3 restriction shall provide public notice and an opportunity for public comment, as prescribed in this subpart, before submitting the restriction to the FAA for review and approval.

(b) Except as provided in Sec. 161.321, an applicant shall publish a notice of the proposed restriction in an areawide newspaper or newspapers that either singly or together has general circulation throughout the airport noise study area; post a notice in the airport in a prominent location accessible to airport users and the public; and directly notify in writing the following parties:

(1) Aircraft operators providing scheduled passenger or cargo service at the airport; operators of aircraft based at the airport; potential new entrants that are known to be interested in serving the airport; and aircraft operators known to be routinely providing nonscheduled service that may be affected by the proposed restriction;

(2) The Federal Aviation Administration;

(3) Each Federal, state, and local agency with land-use control jurisdiction within the airport noise study area;

(4) Fixed-base operators and other airport tenants whose operations may be affected by the proposed restriction; and

(5) Community groups and business organizations that are known to be interested in the proposed restriction.

(c) Each notice provided in accordance with paragraph (b) of this section shall include:

(1) The name of the airport and associated cities and states;

(2) A clear, concise description of the proposed restriction (and any alternatives, in order of preference), including a statement that it will be a mandatory Stage 3 restriction; and where the complete text of the restriction, and any sanctions for noncompliance, are available for public inspection;

(3) A brief discussion of the specific need for, and goal of, the restriction;

(4) Identification of the operators and types of aircraft expected to be affected;

(5) The proposed effective date of the restriction, the proposed method of implementation (e.g., city ordinance, airport rule, lease, or other document), and any proposed enforcement mechanism;

(6) An analysis of the proposed restriction, in accordance with Sec. 161.305 of this part, or an announcement regarding where the analysis is available for public inspection;
(7) An invitation to comment on the proposed restriction and the analysis, with a minimum 45-day comment period;

(8) Information on how to request a copy of the complete text of the restriction, including any sanctions for noncompliance, and the analysis (if not included with the notice); and

(9) The address for submitting comments to the airport operator or aircraft operator proposing the restriction, including identification of a contact person.

(d) Applicants may propose alternative restrictions, including partial implementation of any proposal, and indicate an order of preference. If alternative restriction proposals are submitted, the requirements listed in paragraphs (c)(2) through (c)(6) of this section should address the alternative proposals where appropriate.

Sec. 161.305 Required analysis and conditions for approval of proposed restrictions.

Each applicant proposing a noise or access restriction on Stage 3 operations shall prepare and make available for public comment an analysis that supports, by substantial evidence, that the six statutory conditions for approval have been met for each restriction and any alternatives submitted.

The statutory conditions are set forth in 49 U.S.C. App. 2153(d)(2) and paragraph (e) of this section. Any proposed restriction (including alternatives) on Stage 3 aircraft operations that also affects the operation of Stage 2 aircraft must include analysis of the proposals in a manner that permits the proposal to be understood in its entirety. (Nothing in this section is intended to add a requirement for the issuance of restrictions on Stage 2 aircraft to those of subpart C of this part.) The applicant shall provide:

(a) The complete text of the proposed restriction and any submitted alternatives, including the proposed wording in a city ordinance, airport rule, lease, or other document, and any sanctions for noncompliance;

(b) Maps denoting the airport geographic boundary, and the geographic boundaries and names of each jurisdiction that controls land use within the airport noise study area;

(c) An adequate environmental assessment of the proposed restriction or adequate information supporting a categorical exclusion in accordance with FAA orders and procedures regarding compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321);

(d) A summary of the evidence in the submission supporting the six statutory conditions for approval; and

(e) An analysis of the restriction, demonstrating by substantial evidence that the statutory conditions are met. The analysis must:

(1) Be sufficiently detailed to allow the FAA to evaluate the merits of the proposed restriction; and

(2) Contain the following essential elements needed to provide substantial evidence supporting each condition for approval:

(i) Condition 1: The restriction is reasonable, nonarbitrary, and nondiscriminatory. (A) Essential information needed to demonstrate this condition includes the following:

(A) Evidence that a current or projected noise or access problem exists, and that the proposed action(s) could relieve the problem, including:

(i) A detailed description of the problem precipitating the proposed restriction with relevant background information on factors contributing to the proposal and any court-ordered action or estimated liability concerns; a description of any noise agreements or noise or access restrictions currently in effect at the airport; and measures taken to achieve land-use compatibility, such as controls or restrictions on land use in the vicinity of the airport and measures carried out in response to 14 CFR part 150; and actions taken to comply with grant assurances requiring that:

(A) Airport development projects be reasonably consistent with plans of public agencies that are authorized to plan for the development of the area around the airport; and

(B) The sponsor give fair consideration to the interests of communities in or near where the project may be located; take appropriate action, including the adoption of zoning laws, to the extent reasonable, to restrict the use of land near the airport to activities and purposes compatible with normal airport operations; and not cause or permit any change in land use, within its jurisdiction, that will reduce the compatibility (with respect to the airport) of any noise compatibility program measures upon which federal funds have been expended.

(ii) An analysis of the estimated noise impact of aircraft operations with and without the proposed restriction for the year the restriction is expected to be implemented, for a forecast timeframe after implementation, and for any other years critical to understanding the noise impact of the pro-
posed restriction. The analysis of noise impact with and without the proposed restriction including:

(A) Maps of the airport noise study area overlaid with noise contours as specified in Secs. 161.9 and 161.11 of this part;

(B) The number of people and the noncompatible land uses within the airport noise study area with and without the proposed restriction for each year the noise restriction is analyzed;

(C) Technical data supporting the noise impact analysis, including the classes of aircraft, fleet mix, runway use percentage, and day/night breakout of operations; and

(D) Data on current and projected airport activity that would exist in the absence of the proposed restriction.

(2) Evidence that other available remedies are infeasible or would be less cost-effective, including descriptions of any alternative aircraft restrictions that have been considered and rejected, and the reasons for the rejection; and of any land use or other nonaircraft controls or restrictions that have been considered and rejected, including those proposed under 14 CFR part 150 and not implemented, and the reasons for the rejection or failure to implement.

(3) Evidence that the noise or access standards are the same for all aviation user classes or that the differences are justified, such as:

(i) A description of the relationship of the effect of the proposed restriction on airport users (by aviation user class); and

(ii) The noise attributable to these users in the absence of the proposed restriction.

(B) At the applicant's discretion, information may also be submitted as follows:

(1) Evidence not submitted under paragraph (e)(2)(ii)(A) of this section (Condition 2) that there is a reasonable chance that expected benefits will equal or exceed expected cost; for example, comparative economic analyses of the costs and benefits of the proposed restriction and aircraft and nonaircraft alternative measures. For detailed elements of analysis, see paragraph (e)(2)(ii)(A) of this section.

(2) Evidence not submitted under paragraph (e)(2)(ii)(A) of this section that the level of any noise-based fees that may be imposed reflects the cost of mitigating noise impacts produced by the aircraft, or that the fees are reasonably related to the intended level of noise impact mitigation.

(ii) Condition 2: The restriction does not create an undue burden on interstate or foreign commerce. (A) Essential information needed to demonstrate this statutory condition includes:

(1) Evidence, based on a cost-benefit analysis, that the estimated potential benefits of the restriction have a reasonable chance to exceed the estimated potential cost of the adverse effects on interstate and foreign commerce. In preparing the economic analysis required by this section, the applicant shall use currently accepted economic methodology, specify the methods used and assumptions underlying the analysis, and consider:

(i) The effect of the proposed restriction on operations of aircraft by aviation user class (and for air carriers, the number of operations of aircraft by carrier), and on the volume of passengers and cargo for the year the restriction is expected to be implemented and for the forecast timeframe.

(ii) The estimated costs of the proposed restriction and alternative nonaircraft restrictions including the following, as appropriate:

(A) Any additional cost of continuing aircraft operations under the restriction, including reasonably available information concerning any net capital costs of acquiring or retrofitting aircraft (net of salvage value and operating efficiencies) by aviation user class; and any incremental recurring costs;

(B) Costs associated with altered or discontinued aircraft operations, such as reasonably available information concerning loss to carriers of operating profits; decreases in passenger and shipper consumer surplus by aviation user class; loss in profits associated with other airport services or other entities; and/or any significant economic effect on parties other than aviation users.

(C) Costs associated with implementing nonaircraft restrictions or nonaircraft components of restrictions, such as reasonably available information concerning estimates of capital costs for real property, including redevelopment, soundproofing, noise easements, and purchase of property interests; and estimates of associated incremental recurring costs; or an explanation of the legal or other impediments to implementing such restrictions.

(D) Estimated benefits of the proposed restriction and alternative restrictions that consider, as appropriate, anticipated increase in real estate values and future construction cost
(such as sound insulation) savings; anticipated increase in airport revenues; quantification of the noise benefits, such as number of people removed from noise contours and improved work force and/or educational productivity, if any; valuation of positive safety effects, if any; and/or other qualitative benefits, including improvements in quality of life.

(B) At the applicant’s discretion, information may also be submitted as follows:

(1) Evidence that the affected carriers have a reasonable chance to continue service at the airport or at other points in the national airport system.

(2) Evidence that other air carriers are able to provide adequate service to the airport and other points in the system without diminishing competition.

(3) Evidence that comparable services or facilities are available at another airport controlled by the airport operator in the market area, including services available at other airports.

(4) Evidence that alternative transportation service can be attained through other means of transportation.

(5) Information on the absence of adverse evidence or adverse comments with respect to undue burden in the notice process required in Sec. 161.303, or alternatively in Sec. 161.321, of this part as evidence that there is no undue burden.

(iii) Condition 3: The proposed restriction maintains safe and efficient use of the navigable airspace. Essential information needed to demonstrate this statutory condition includes evidence that the proposed restriction maintains safe and efficient use of the navigable airspace based upon:

(A) Identification of airspace and obstacles to navigation in the vicinity of the airport; and

(B) An analysis of the effects of the proposed restriction with respect to use of airspace in the vicinity of the airport, substantiating that the restriction maintains or enhances safe and efficient use of the navigable airspace. The analysis shall include a description of the methods and data used.

(iv) Condition 4: The proposed restriction does not conflict with any existing Federal statute or regulation, including those governing:

(A) Exclusive rights;

(B) Control of aircraft operations; and

(C) Existing Federal grant agreements.

(v) Condition 5: The applicant has provided adequate opportunity for public comment on the proposed restriction. Essential information needed to demonstrate this condition includes evidence that there has been adequate opportunity for public comment on the restriction as specified in Sec. 161.303 or Sec. 161.321 of this part.

(vi) Condition 6: The proposed restriction does not create an undue burden on the national aviation system. Essential information needed to demonstrate this condition includes evidence that the proposed restriction does not create an undue burden on the national aviation system such as:

(A) An analysis demonstrating that the proposed restriction does not have a substantial adverse effect on existing or planned airport system capacity, on observed or forecast airport system congestion and aircraft delay, and on airspace system capacity or workload;

(B) An analysis demonstrating that nonaircraft alternative measures to achieve the same goals as the proposed subject restrictions are inappropriate;

(C) The absence of comments with respect to imposition of an undue burden on the national aviation system in response to the notice required in Sec. 161.303 or Sec. 161.321.

Sec. 161.307 Comment by interested parties.

(a) Each applicant proposing a restriction shall establish a public docket or similar method for receiving and considering comments, and shall make comments available for inspection by interested parties upon request. Comments must be retained as long as the restriction is in effect.

(b) Each applicant shall submit to the FAA a summary of any comments received. Upon request by the FAA, the applicant shall submit copies of the comments.

Sec. 161.309 Requirements for proposal changes.

(a) Each applicant shall promptly advise interested parties of any changes to a proposed restriction or alternative restriction that are not encompassed in the proposals sub-
mitted, including changes that affect noncompatible land uses or that take place before the effective date of the restriction, and make available these changes to the proposed restriction and its analysis.

For the purpose of this paragraph, interested parties include those who received direct notice under Sec. 161.303(b) of this part, or those who were required to be consulted in accordance with the procedures in Sec. 161.321 of this part, and those who commented on the proposed restriction.

(b) If there are substantial changes to a proposed restriction or the analysis made available prior to the effective date of the restriction, the applicant proposing the restriction shall initiate new notice in accordance with the procedures in Sec. 161.303 or, alternatively, the procedures in Sec. 161.321. These requirements apply to substantial changes that are not encompassed in submitted alternative restriction proposals and their analyses. A substantial change to a restriction includes, but is not limited to, any proposal that would increase the burden on any aviation user class.

(c) In addition to the information in Sec. 161.303(c), a new notice must indicate that the applicant is revising a previous notice, provide the reason for making the revision, and provide a new effective date (if any) for the restriction.

(d) If substantial changes requiring a new notice are made during the FAA’s 180-day review of the proposed restriction, the applicant submitting the proposed restriction shall notify the FAA in writing that it is withdrawing its proposal from the review process until it has completed additional analysis, public review, and documentation of the public review. Resubmission to the FAA will restart the 180-day review.

Sec. 161.311 Application procedure for approval of proposed restriction.

Each applicant proposing a Stage 3 restriction shall submit to the FAA the following information for each restriction and alternative restriction submitted, with a request that the FAA review and approve the proposed Stage 3 noise or access restriction:

(a) A summary of evidence of the fulfillment of conditions for approval, as specified in Sec. 161.305;

(b) An analysis as specified in Sec. 161.305, as appropriate to the proposed restriction;

(c) A statement that the entity submitting the proposal is the party empowered to implement the restriction, or is submitting the proposal on behalf of such party; and

(d) A statement as to whether the airport requests, in the event of disapproval of the proposed restriction or any alternatives, that the FAA approve any portion of the restriction or any alternative that meets the statutory requirements for approval. An applicant requesting partial approval of any proposal should indicate its priorities as to portions of the proposal to be approved.

Sec. 161.313 Review of application.

(a) Determination of completeness. The FAA, within 30 days of receipt of an application, will determine whether the application is complete in accordance with Sec. 161.311. Determinations of completeness will be made on all proposed restrictions and alternatives. This completeness determination is not an approval or disapproval of the proposed restriction.

(b) Process for complete application. When the FAA determines that a complete application has been submitted, the following procedures apply:

(1) The FAA notifies the applicant that it intends to act on the proposed restriction and publishes notice of the proposed restriction in the Federal Register in accordance with Sec. 161.315. The 180-day period for approving or disapproving the proposed restriction will start on the date of original FAA receipt of the application.

(2) Following review of the application, public comments, and any other information obtained under Sec. 161.317(b), the FAA will issue a decision approving or disapproving the proposed restriction. This decision is a final decision of the Administrator for purpose of judicial review.

(c) Process for incomplete application. If the FAA determines that an application is not complete with respect to any submitted restriction or alternative restriction, the following procedures apply:

(1) The FAA shall notify the applicant in writing, returning the application and setting forth the type of information and analysis needed to complete the application in accordance with Sec. 161.311.

(2) Within 30 days after the receipt of this notice, the applicant shall advise the FAA in writing whether or not it intends to resubmit and supplement its application.

(3) If the applicant does not respond in 30 days, or advises the FAA that it does not intend to resubmit and/or supple-
ment the application, the application will be denied. This
closes the matter without prejudice to later application and
does not constitute disapproval of the proposed restriction.

(4) If the applicant chooses to resubmit and supplement the
application, the following procedures apply:

(i) Upon receipt of the resubmitted application, the FAA
determines whether the application, as supplemented, is
complete as set forth in paragraph (a) of this section.

(ii) If the application is complete, the procedures set forth in
Sec. 161.315 shall be followed. The 180-day review period
starts on the date of receipt of the last supplement to the
application.

(iii) If the application is still not complete with respect to
the proposed restriction or at least one submitted alterna-
tive, the FAA so advises the applicant as set forth in para-
graph (c)(1) of this section and provides the applicant with
an additional opportunity to supplement the application as
set forth in paragraph (c)(2) of this section.

(iv) If the environmental documentation (either an environ-
mental assessment or information supporting a categorical
exclusion) is incomplete, the FAA will so notify the appli-
cant in writing, returning the application and setting forth
the types of information and analysis needed to complete
the documentation. The FAA will continue to return an
application until adequate environmental documentation is
provided. When the application is determined to be com-
plete, including the environmental documentation, the 180-
day period for approval or disapproval will begin upon
receipt of the last supplement to the application.

(v) Following review of the application and its supplements,
public comments, and any other information obtained under
Sec. 161.317(b), the FAA will issue a decision approving or
disapproving the application. This decision is a final deci-
sion of the Administrator for the purpose of judicial review.

(5) The FAA will deny the application and return it to the
applicant if:

(i) None of the proposals submitted are found to be com-
plete;

(ii) The application has been returned twice to the applicant
for reasons other than completion of the environmental doc-
umentation; and

(iii) The applicant declines to complete the application. This
closes the matter without prejudice to later application, and
does not constitute disapproval of the proposed restriction.
Sec. 161.315 Receipt of complete application.

(a) When a complete application has been received, the
FAA will notify the applicant by letter that the FAA intends
to act on the application.

(b) The FAA will publish notice of the proposed restriction
in the Federal Register, inviting interested parties to file
comments on the application within 30 days after publica-
tion of the Federal Register notice.

Sec. 161.317 Approval or disapproval of proposed
restriction.

(a) Upon determination that an application is complete with
respect to at least one of the proposals submitted by the
applicant, the FAA will act upon the complete proposals in
the application. The FAA will not act on any proposal for
which the applicant has declined to submit additional neces-
sary information.

(b) The FAA will review the applicant's proposals in the
preference order specified by the applicant. The FAA may
request additional information from aircraft operators, or
any other party, and may convene an informal meeting to
gather facts relevant to its determination.

(c) The FAA will evaluate the proposal and issue an order
approving or disapproving the proposed restriction and any
submitted alternatives, in whole or in part, in the order of
preference indicated by the applicant. Once the FAA
approves a proposed restriction, the FAA will not consider
any proposals of lower applicant-stated preference.
Approval or disapproval will be given by the FAA within
180 days after receipt of the application or last supplement
thereto under Sec. 161.313. The FAA will publish its deci-
sion in the Federal Register and notify the applicant in writ-
ing.

(d) The applicant's failure to provide substantial evidence
supporting the statutory conditions for approval of a partic-
ular proposal is grounds for disapproval of that proposed
restriction.

(e) The FAA will approve or disapprove only the Stage 3
aspects of a restriction if the restriction applies to both
Stage 2 and Stage 3 aircraft operations.

(f) An order approving a restriction may be subject to
requirements that the applicant:

(1) Comply with factual representations and commitments
in support of the restriction; and

(2) Ensure that any environmental mitigation actions or commitments by any party that are set forth in the environmental documentation provided in support of the restriction are implemented.

Sec. 161.319 Withdrawal or revision of restriction.

(a) The applicant may withdraw or revise a proposed restriction at any time prior to FAA approval or disapproval, and must do so if substantial changes are made as described in Sec. 161.309. The applicant shall notify the FAA in writing of a decision to withdraw the proposed restriction for any reason. The FAA will publish a notice in the Federal Register that it has terminated its review without prejudice to resubmission. A resubmission will be considered a new application.

(b) A subsequent amendment to a Stage 3 restriction that was in effect after October 1, 1990, or an amendment to a Stage 3 restriction previously approved by the FAA, is subject to the procedures in this subpart if the amendment will further reduce or limit aircraft operations or affect aircraft safety. The applicant may, at its option, revise or amend a restriction previously disapproved by the FAA and resubmit it for approval. Amendments are subject to the same requirements and procedures as initial submissions.

Sec. 161.321 Optional use of 14 CFR part 150 procedures.

(a) An airport operator may use the procedures in part 150 of this chapter, instead of the procedures described in Secs. 161.303(b) and 161.309(b) of this part, as a means of providing an adequate public notice and opportunity to comment on proposed Stage 3 restrictions, including submitted alternatives.

(b) If the airport operator elects to use 14 CFR part 150 procedures to comply with this subpart, the operator shall:

(1) Ensure that all parties identified for direct notice under Sec. 161.303(b) are notified that the airport's 14 CFR part 150 program submission will include a proposed Stage 3 restriction under part 161, and that these parties are offered the opportunity to participate as consulted parties during the development of the 14 CFR part 150 program;

(2) Include the information required in Sec. 161.303(c) (2) through (5) and Sec. 161.305 in the analysis of the proposed restriction in the 14 CFR part 150 program submission; and

(3) Include in its 14 CFR part 150 submission to the FAA evidence of compliance with the notice requirements in paragraph (b)(1) of this section and include the information required for a part 161 application in Sec. 161.311, together with a clear identification that the 14 CFR part 150 submission includes a proposed Stage 3 restriction for FAA review and approval under Secs. 161.313, 161.315, and 161.317.

(c) The FAA will evaluate the proposed part 161 restriction on Stage 3 aircraft operations included in the 14 CFR part 150 submission in accordance with the procedures and standards of this part, and will review the total 14 CFR part 150 submission in accordance with the procedures and standards of 14 CFR part 150.

(d) An amendment of a restriction, as specified in Sec. 161.319(b) of this part, may also be processed under 14 CFR part 150 procedures.

Sec. 161.323 Notification of a decision not to implement a restriction.

If a Stage 3 restriction has been approved by the FAA and the restriction is not subsequently implemented, the applicant shall so advise the interested parties specified in Sec. 161.309(a) of this part.

Sec. 161.325 Availability of data and comments on an implemented restriction.

The applicant shall retain all relevant supporting data and all comments relating to an approved restriction for as long as the restriction is in effect and shall make these materials available for inspection upon request by the FAA. This information shall be made available for inspection by any person during the pendency of any petition for reevaluation found justified by the FAA.

Subpart E--Reevaluation of Stage 3 Restrictions

Sec. 161.401 Scope.

This subpart applies to an airport imposing a noise or access restriction on the operation of Stage 3 aircraft that first became effective after October 1, 1990, and had either been agreed to in compliance with the procedures in Subpart B of this part or approved by the FAA in accordance with the procedures in subpart D of this part. This subpart does not apply to Stage 2 restrictions imposed by airports. This subpart does not apply to Stage 3 restrictions specifically exempted in Sec. 161.7.
Sec. 161.403 Criteria for reevaluation.

(a) A request for reevaluation must be submitted by an aircraft operator.

(b) An aircraft operator must demonstrate to the satisfaction of the FAA that there has been a change in the noise environment of the affected airport and that a review and reevaluation pursuant to the criteria in Sec. 161.305 is therefore justified.

(1) A change in the noise environment sufficient to justify reevaluation is either a DNL change of 1.5 dB or greater (from the restriction's anticipated target noise level result) over noncompatible land uses, or a change of 17 percent or greater in the noncompatible land uses, within an airport noise study area. For approved restrictions, calculation of change shall be based on the divergence of actual noise impact of the restriction from the estimated noise impact of the restriction predicted in the analysis required in Sec. 161.305(e)(2)(i)(A)(1)(ii). The change in the noise environment or in the noncompatible land uses may be either an increase or decrease in noise or in noncompatible land uses. An aircraft operator may submit to the FAA reasons why a change that does not fall within either of these parameters justifies reevaluation, and the FAA will consider such arguments on a case-by-case basis.

(2) A change in the noise environment justifies reevaluation if the change is likely to result in the restriction not meeting one or more of the conditions for approval set forth in Sec. 161.305 of this part for approval. The aircraft operator must demonstrate that such a result is likely to occur.

(c) A reevaluation may not occur less than 2 years after the date of the FAA approval. The FAA will normally apply the same 2-year requirement to agreements under subpart B of this part that affect Stage 3 aircraft operations. An aircraft operator may submit to the FAA reasons why an agreement under subpart B of this part should be reevaluated in less than 2 years, and the FAA will consider such arguments on a case-by-case basis.

(d) An aircraft operator must demonstrate that it has made a good faith attempt to resolve locally any dispute over a restriction with the affected parties, including the airport operator, before requesting reevaluation by the FAA. Such demonstration and certification shall document all attempts of local dispute resolution.


Sec. 161.405 Request for reevaluation.

(a) A request for reevaluation submitted to the FAA by an aircraft operator must include the following information:

(1) The name of the airport and associated cities and states;

(2) A clear, concise description of the restriction and any sanctions for noncompliance, whether the restriction was approved by the FAA or agreed to by the airport operator and aircraft operators, the date of the approval or agreement, and a copy of the restriction as incorporated in a local ordinance, airport rule, lease, or other document;

(3) The quantified change in the noise environment using methodology specified in this part;

(4) Evidence of the relationship between this change and the likelihood that the restriction does not meet one or more of the conditions in Sec. 161.305;

(5) The aircraft operator's status under the restriction (e.g., currently affected operator, potential new entrant) and an explanation of the aircraft operator's specific objection; and

(6) A description and evidence of the aircraft operator's attempt to resolve the dispute locally with the affected parties, including the airport operator.

(b) The FAA will evaluate the aircraft operator's submission and determine whether or not a reevaluation is justified. The FAA may request additional information from the airport operator or any other party and may convene an informal meeting to gather facts relevant to its determination.

(c) The FAA will notify the aircraft operator in writing, with a copy to the affected airport operator, of its determination.

(1) If the FAA determines that a reevaluation is not justified, it will indicate the reasons for this decision.

(2) If the FAA determines that a reevaluation is justified, the aircraft operator will be notified to complete its analysis and to begin the public notice procedure, as set forth in this subpart.

Sec. 161.407 Notice of reevaluation.

(a) After receiving an FAA determination that a reevaluation is justified, an aircraft operator desiring continuation of the reevaluation process shall publish a notice of request for reevaluation in an areawide newspaper or newspapers that
either singly or together has general circulation throughout
the airport noise study area (or the airport vicinity for
agreements where an airport noise study area has not been
delineated); post a notice in the airport in a prominent loca-
tion accessible to airport users and the public; and directly
notify in writing the following parties:

(1) The airport operator, other aircraft operators providing
scheduled passenger or cargo service at the airport, opera-
tors of aircraft based at the airport, potential new entrants
that are known to be interested in serving the airport, and
aircraft operators known to be routinely providing non-
scheduled service;

(2) The Federal Aviation Administration;

(3) Each Federal, State, and local agency with land-use con-
trol jurisdiction within the airport noise study area (or the
airport vicinity for agreements where an airport noise study
area has not been delineated);

(4) Fixed-base operators and other airport tenants whose
operations may be affected by the agreement or the restric-
tion;

(5) Community groups and business organizations that are
known to be interested in the restriction; and

(6) Any other party that commented on the original restric-
tion.

(b) Each notice provided in accordance with paragraph (a)
of this section shall include:

(1) The name of the airport and associated cities and states;

(2) A clear, concise description of the restriction, including
whether the restriction was approved by the FAA or agreed
to by the airport operator and aircraft operators, and the
date of the approval or agreement;

(3) The name of the aircraft operator requesting a reevaluation,
and a statement that a reevaluation has been requested
and that the FAA has determined that a reevaluation is justi-
ﬁed;

(4) A brief discussion of the reasons why a reevaluation is
justified;

(5) An analysis prepared in accordance with Sec. 161.409
of this part supporting the aircraft operator’s reevaluation
request, or an announcement of where the analysis is avail-
able for public inspection;

(6) An invitation to comment on the analysis supporting the
proposed reevaluation, with a minimum 45-day comment
period;

(7) Information on how to request a copy of the analysis (if
not in the notice); and

(8) The address for submitting comments to the aircraft
operator, including identification of a contact person.

Sec. 161.409 Required analysis by reevaluation petitioner.

(a) An aircraft operator that has petitioned the FAA to
reevaluate a restriction shall assume the burden of analysis
for the reevaluation.

(b) The aircraft operator’s analysis shall be made available
for public review under the procedures in Sec. 161.407 and
shall include the following:

(1) A copy of the restriction or the language of the agree-
ment as incorporated in a local ordinance, airport rule,
lease, or other document;

(2) The aircraft operator’s status under the restriction (e.g.,
currently affected operator, potential new entrant) and an
explanation of the aircraft operator’s speciﬁc objection to
the restriction;

(3) The quantiﬁed change in the noise environment using
methodology speciﬁed in this part;

(4) Evidence of the relationship between this change and
the likelihood that the restriction does not meet one or more
of the conditions in Sec. 161.305; and

(5) Sufﬁcient data and analysis selected from Sec. 161.305,
as applicable to the restriction at issue, to support the con-
tention made in paragraph (b)(4) of this section. This is to
include either an adequate environmental assessment of the
impacts of discontinuing all or part of a restriction in accor-
dance with the aircraft operator’s petition, or adequate infor-
mation supporting a categorical exclusion under FAA orders
implementing the National Environmental Policy Act of

(c) The amount of analysis may vary with the complexity of
the restriction, the number and nature of the conditions in
Sec. 161.305 that are alleged to be unsupported, and the
amount of previous analysis developed in support of the
restriction. The aircraft operator may incorporate analysis
previously developed in support of the restriction, including
previous environmental documentation to the extent appli-
cable. The applicant is responsible for providing substantial evidence, as described in Sec. 161.305, that one or more of the conditions are not supported.

Sec. 161.411 Comment by interested parties.

(a) Each aircraft operator requesting a reevaluation shall establish a docket or similar method for receiving and considering comments and shall make comments available for inspection to interested parties specified in paragraph (b) of this section upon request. Comments must be retained for two years.

(b) Each aircraft operator shall promptly notify interested parties if it makes a substantial change in its analysis that affects either the costs or benefits analyzed, or the criteria in Sec. 161.305, differently from the analysis made available for comment in accordance with Sec. 161.407. Interested parties include those who received direct notice under paragraph (a) of Sec. 161.407 and those who have commented on the reevaluation. If an aircraft operator revises its analysis, it shall make the revised analysis available to an interested party upon request and shall extend the comment period at least 45 days from the date the revised analysis is made available.

Sec. 161.413 Reevaluation procedure.

(a) Each aircraft operator requesting a reevaluation shall submit to the FAA:

(1) The analysis described in Sec. 161.409;

(2) Evidence that the public review process was carried out in accordance with Secs. 161.407 and 161.411, including the aircraft operator’s summary of the comments received; and

(3) A request that the FAA complete a reevaluation of the restriction and issue findings.

(b) Following confirmation by the FAA that the aircraft operator’s documentation is complete according to the requirements of this subpart, the FAA will publish a notice of reevaluation in the Federal Register and provide for a 45-day comment period during which interested parties may submit comments to the FAA. The FAA will specifically solicit comments from the affected airport operator and affected local governments. A submission that is not complete will be returned to the aircraft operator with a letter indicating the deficiency, and no notice will be published. No further action will be taken by the FAA until a complete submission is received.

(c) The FAA will review all submitted documentation and comments pursuant to the conditions of Sec. 161.305. To the extent necessary, the FAA may request additional information from the aircraft operator, airport operator, and others known to have information material to the reevaluation, and may convene an informal meeting to gather facts relevant to a reevaluation finding.

Sec. 161.415 Reevaluation action.

(a) Upon completing the reevaluation, the FAA will issue appropriate orders regarding whether or not there is substantial evidence that the restriction meets the criteria in Sec. 161.305 of this part.

(b) If the FAA’s reevaluation confirms that the restriction meets the criteria, the restriction may remain as previously agreed to or approved. If the FAA’s reevaluation concludes that the restriction does not meet the criteria, the FAA will withdraw a previous approval of the restriction issued under subpart D of this part to the extent necessary to bring the restriction into compliance with this part or, with respect to a restriction agreed to under subpart B of this part, the FAA will specify which criteria are not met.

(c) The FAA will publish a notice of its reevaluation findings in the Federal Register and notify in writing the aircraft operator that petitioned the FAA for reevaluation and the affected airport operator.

Sec. 161.417 Notification of status of restrictions and agreements not meeting conditions-of-approval criteria.

If the FAA has withdrawn all or part of a previous approval made under subpart D of this part, the relevant portion of the Stage 3 restriction must be rescinded. The operator of the affected airport shall notify the FAA of the operator’s action with regard to a restriction affecting Stage 3 aircraft operations that has been found not to meet the criteria of Sec. 161.305. Restrictions in agreements determined by the FAA not to meet conditions for approval may not be enforced with respect to Stage 3 aircraft operations.

Subpart F--Failure to Comply With This Part

Sec. 161.501 Scope.

(a) This subpart describes the procedures to terminate eligibility for airport grant funds and authority to impose or collect passenger facility charges for an airport operator’s failure to comply with the Airport Noise and Capacity Act of 1990 (49 U.S.C. App. 2151 et seq.) or this part. These procedures may be used with or in addition to any judicial pro-
proceedings initiated by the FAA to protect the national aviation system and related Federal interests.

(b) Under no conditions shall any airport operator receive revenues under the provisions of the Airport and Airway Improvement Act of 1982 or impose or collect a passenger facility charge under section 1113(e) of the Federal Aviation Act of 1958 if the FAA determines that the airport is imposing any noise or access restriction not in compliance with the Airport Noise and Capacity Act of 1990 or this part. Recission of, or a commitment in writing signed by an authorized official of the airport operator to rescind or permanently not enforce, a noncomplying restriction will be treated by the FAA as action restoring compliance with the Airport Noise and Capacity Act of 1990 or this part with respect to that restriction.

Sec. 161.503 Informal resolution; notice of apparent violation.

Prior to the initiation of formal action to terminate eligibility for airport grant funds or authority to impose or collect passenger facility charges under this subpart, the FAA shall undertake informal resolution with the airport operator to assure compliance with the Airport Noise and Capacity Act of 1990 or this part upon receipt of a complaint or other evidence that an airport operator has taken action to impose a noise or access restriction that appears to be in violation. This shall not preclude a FAA application for expedited judicial action for other than termination of airport grants and passenger facility charges to protect the national aviation system and violated federal interests. If informal resolution is not successful, the FAA will notify the airport operator in writing of the apparent violation. The airport operator shall respond to the notice in writing not later than 20 days after receipt of the notice, and also state whether the airport operator will agree to defer implementation or enforcement of its noise or access restriction until completion of the process under this subpart to determine compliance.

Sec. 161.505 Notice of proposed termination of airport grant funds and passenger facility charges.

(a) The FAA begins proceedings under this section to terminate an airport operator’s eligibility for airport grant funds and authority to impose or collect passenger facility charges only if the FAA determines that informal resolution is not successful.

(b) The following procedures shall apply if an airport operator agrees in writing, within 20 days of receipt of the FAA’s notice of apparent violation under Sec. 161.503, to defer implementation or enforcement of a noise or access restriction until completion of the process under this subpart to determine compliance.

(1) The FAA will issue a notice of proposed termination to the airport operator and publish notice of the proposed action in the Federal Register. This notice will state the scope of the proposed termination, the basis for the proposed action, and the date for filing written comments or objections by all interested parties. This notice will also identify any corrective action the airport operator can take to avoid further proceedings. The due date for comments and corrective action by the airport operator shall be specified in the notice of proposed termination and shall not be less than 60 days after publication of the notice.

(2) The FAA will review the comments, statements, and data supplied by the airport operator, and any other available information, to determine if the airport operator has provided satisfactory evidence of compliance or has taken satisfactory corrective action. The FAA will consult with the airport operator to attempt resolution and may request additional information from other parties to determine compliance. The review and consultation process shall take not less than 30 days. If the FAA finds satisfactory evidence of compliance, the FAA will notify the airport operator in writing and publish notice of compliance in the Federal Register.

(3) If the FAA determines that the airport operator has taken action to impose a noise or access restriction in violation of the Airport Noise and Capacity Act of 1990 or this part, the FAA will notify the airport operator in writing of such determination. Where appropriate, the FAA may prescribe corrective action, including corrective action the airport operator may still need to take. Within 10 days of receipt of the FAA’s determination, the airport operator shall--

(i) Advise the FAA in writing that it will complete any corrective action prescribed by the FAA within 30 days; or

(ii) Provide the FAA with a list of the domestic air carriers and foreign air carriers operating at the airport and all other issuing carriers, as defined in Sec. 158.3 of this chapter, that have remitted passenger facility charge revenue to the airport in the preceding 12 months.

(4) If the FAA finds that the airport operator has taken satisfactory corrective action, the FAA will notify the airport operator in writing and publish notice of compliance in the Federal Register. If the FAA has determined that the airport operator has imposed a noise or access restriction in violation of the Airport Noise and Capacity Act of 1990 or this
part and satisfactory corrective action has not been taken, the FAA will issue an order that--

(i) Terminates eligibility for new airport grant agreements and discontinues payments of airport grant funds, including payments of costs incurred prior to the notice; and

(ii) Terminates authority to impose or collect a passenger facility charge or, if the airport operator has not received approval to impose a passenger facility charge, advises the airport operator that future applications for such approval will be denied in accordance with Sec. 158.29(a)(1)(v) of this chapter.

(5) The FAA will publish notice of the order in the Federal Register and notify air carriers of the FAA's order and actions to be taken to terminate or modify collection of passenger facility charges in accordance with Sec. 158.85(f) of this chapter.

(c) The following procedures shall apply if an airport operator does not agree in writing, within 20 days of receipt of the FAA’s notice of apparent violation under Sec. 161.503, to defer implementation or enforcement of its noise or access restriction until completion of the process under this subpart to determine compliance.

(1) The FAA will issue a notice of proposed termination to the airport operator and publish notice of the proposed action in the Federal Register. This notice will state the scope of the proposed termination, the basis for the proposed action, and the date for filing written comments or objections by all interested parties. This notice will also identify any corrective action the airport operator can take to avoid further proceedings. The due date for comments and corrective action by the airport operator shall be specified in the notice of proposed termination and shall not be less than 30 days after publication of the notice.

(2) The FAA will review the comments, statements, and data supplied by the airport operator, and any other available information, to determine if the airport operator has provided satisfactory evidence of compliance or has taken satisfactory corrective action. If the FAA finds satisfactory evidence of compliance, the FAA will notify the airport operator in writing and publish notice of compliance in the Federal Register.

(3) If the FAA determines that the airport operator has taken action to impose a noise or access restriction in violation of the Airport Noise and Capacity Act of 1990 or this part, the procedures in paragraphs (b)(3) through (b)(5) of this section will be followed.

Federal Aviation Administration
Weight-Based Restrictions at
Airports: Proposed Policy

[Docket No. FAA–2003–15495]

Agency: Federal Aviation Administration (FAA),
Department of Transportation (DOT).
Action: Notice of proposed policy; request for comments.

Summary:
This notice requests comments on a proposed statement of
policy on the use of weight-based airport access restrictions
as a means of protecting airfield pavement. In grant agree-
ments between an airport operator and the FAA for Federal
airport development grants, the airport operator makes cer-
tain assurances to the FAA. These assurances include an
obligation to provide access to the airport on reasonable,
not unjustly discriminatory terms to aeronautical users of
the airport. Some airport operators have implemented
restrictions on use of the airport by aircraft above a certain
weight, to protect pavement not designed for aircraft of that
weight. These actions have raised the question of when
such an action is a reasonable restriction on use of the air-
port. In the interest of applying a uniform national policy to
such actions, the FAA is publishing for comment a draft
policy on weight-based access restrictions at federally obli-
gated airports.

Dates:
Comments must be received by August 15, 2003.
Comments that are received after that date will be consid-
ered only to the extent possible.

Addresses:
The proposed policy is available for public review in the
Dockets Office, U.S. Department of Transportation, Room
Plaza 401, 400 Seventh Street, SW., Washington, DC
20590–0001. The documents have been filed under FAA
Docket Number FAA– 2003–15495. The Dockets Office is
open between 9:00 a.m. and 5:00 p.m., Monday through
Friday, except Federal holidays. The Dockets Office is on
the plaza level of the Nassif Building at the Department of
Transportation at the above address. Also, you, may review
Comments on the proposed policy must be delivered on
mailed, in duplicate, to: the Docket Management System,
U.S. Department of Transportation, Room Plaza 401, 400
Seventh Street, SW., Washington, DC 20590–0001. You
must identify the docket number “FAA Docket No FAA–
2003–15495” at the beginning of your comments.
Commenters wishing to FAA to acknowledge receipt of
their comments must include a preaddressed, stamped post-
card on which the following statement is made:
“Comments to FAA Docket No. FAA– 2003–15495.” The
postcard will be date stamped and mailed to the commenter.
You may also submit comments through the Internet to

For Further Information Contact:
James White, Deputy Director, Office of Airport Safety and
Standards, AAS–2, Federal Aviation Administration, 800
Independence Ave. SW., Washington, DC 20591, telephone
(202) 267–3053.

Supplementary Information:
Airport operators that accept federal airport development
grants under the Airport Improvement Program (AIP), 49
U.S.C. 47101 et seq., enter into a standard grant agreement
with the FAA. That agreement contains certain assurances,
including assurance no. 22, based on the requirement in 49
U.S.C. 47107(a)(1). Grant assurance no. 22 reads, in part:
a. [The sponsor] will make the airport available as an air-
port for public use on reasonable terms and without unjust
discrimination to all types, kinds and classes of aeronautical
activities, including commercial aeronautical activities
offering services to the public at the airport.

At the same time, the FAA expects that airport sponsors
will protect airfield pavement from damage or early deterior-
ation. Many airport projects funded with the AIP grants
involve pavement. As a result, both the FAA and airport
sponsors have a significant investment in airfield pavement,
and an interest in assuring that pavement remains in accept-
able condition for its design life, normally at least 20 years.
The policy of assuring reasonable access to the airport and
the interest in protecting the investment in airfield pave-
ment are both extremely important, but is clear that they
can potentially work against each other in a particular case.

In February 2002, the Airports Division in an FAA regional
office issued a preliminary determination on the ability of a
particular airport operator to limit use of the airport accord-
ing to aircraft weight. In that case the weight limit effec-
tively prohibited operation by aircraft heavier than the aircraft considered in the design of the airport’s pavement. The FAA found, in summary, that the airport operator could limit use above the design weight of the pavement, but that some operations above that weight could and should be permitted, because they would have no measurable effect on the pavement. The FAA has received several questions relating to the policy underlying that determination.

In view of the importance of the policies at stake, we believe it is appropriate to issue more specific guidance on the specific issue of weight-based access restrictions.

The policy proposed in this notice provides more detailed guidance on how the FAA will interpret Grant Assurance No. 22, in cases in which an airport sponsor limits operation by aircraft above a certain weight in order to preserve the integrity of airport pavement. The FAA requests comment on the following statement of policy, and may modify the policy in accordance with comments received on this notice. For any cases presented before a final policy is issued, the FAA will apply the policy as proposed in this notice.

For the above reasons, the FAA proposes to adopt the following policy:

**Operating Limitations to Protect Airport Pavements From the Effects of Operations in Excess of Design Weight-Bearing Capacity**

1. When designing new airport pavement or rehabilitating existing pavement, airport operators design the pavement to accommodate the loads and frequencies of the aircraft expected to use the airport over the period of expected pavement life. A load-bearing capacity is then assigned to the pavement based upon the most demanding aircraft. Once that pavement is constructed, airport operators have a responsibility to protect the local and Federal investment in the pavement. At the same time, airport operators are encouraged to upgrade airport pavements for forecast increases in aircraft size or operations, or if the number of operations and size of aircraft increase over time beyond what was forecast.

2. Airport pavements are designed to accommodate a finite number of aircraft operations, based on planning forecasts and experience. In most cases it should not be necessary or appropriate to impose aircraft operating restrictions to protect pavement from occasional operations of aircraft which exceed the published pavement strength. Even in the exceptional case in which the mix of aircraft types using the pavement becomes heavier over time, a limitation on maximum weight of aircraft may not be warranted. It is the nature of airport pavement to begin a gradual deterioration process as soon as it is opened to traffic. A pavement designed for a specified number of operations by an aircraft type of a particular weight will not be immediately affected by some number of operations by heavier aircraft, up to a point. In general, each 10% increase in weight of the most demanding aircraft will decrease the number of design operations by 20–25%. The original load-bearing capacity of pavement may be increased by surface overlays or other pavement rehabilitation techniques. Therefore, some number of operations by aircraft exceeding the design load-bearing capacity of airport pavement by some degree will ordinarily not have a sufficient impact to shorten its useful life. (The Airport/Facility Directory introductory language notes that “[m]any airport pavements are capable of supporting limited operations with gross weights of 25–50% in excess of the published figures.”).

3. However, where the airport operator reasonably believes that actual damage or excessive wear has resulted or would result from operation of aircraft of a particular weight (and particular gear configurations), then the airport operator can limit those operations to the extent necessary to prevent that damage or excessive wear.

4. The design load-bearing capacity of pavement is a guide to the probability of adverse effects on pavement life. Design load-bearing capacity is demonstrated by planning and engineering documents created at the time the pavement was designed, constructed, rehabilitated or improved. Testing to determine actual load-bearing capacity may be appropriate or necessary where design information is unavailable or does not appear to represent actual current condition of the pavement.

5. Any action by the airport operator to limit operations above the design load-bearing capacity must be reasonable and unjustly discriminatory, and would require evidence of the effect of operations at certain weights on the pavement. Such limitations, if determined to be necessary, could include:

- Requiring particular taxi routes and parking areas for aircraft above a certain weight, to avoid weaker areas;
- Requiring prior permission for operation by aircraft above the design load-bearing capacity of the pavement (see examples in Exhibit 1);
- Permitting operations of such aircraft only up to a certain weight;
- Prohibiting all operations by aircraft exceeding a weight at which even a small number of operations would significantly reduce pavement life.
Assigning heavy aircraft a particular runway (through agreement with Air Traffic Control) if operationally feasible.

Operating procedures, such as requiring use of designated taxiways and ramp parking areas, are preferable to an outright ban or limit on the number of operations. A limit on the number of operations and/or weight of operations must be based on an analysis of pavement life using known pavement design capacity, actual load-bearing capacity, and actual condition. That analysis can be performed with the AAS-100 Pavement Design Software, based on Advisory Circular (AC) 150/5320-6D, available on the FAA Airports web site. An analysis is also required to assess the load-carrying capacity of existing bridges, culverts, in-pavement light fixtures, and other structures affected by the proposed traffic. Such structures are generally not capable of supporting a single load application above design limits, and may preclude any operations by heavier aircraft unless other taxi routes can be specified. Guidance for those evaluations is stated in AC 150/5320-6D.

6. The airport operator may avoid any issue of reasonable, nondiscriminatory access to the airport by accommodating current operations and bringing pavement up to the standard for the current use of the airport as the condition of the pavement requires.

7. This policy applies only to pavement weight-bearing capacity and pavement condition, and does not apply to geometric airport design standards.

8. This policy applies only to the purpose of protecting an airport operator’s investment in pavement, and is not a substitute for noise restrictions. If there is no showing of need to protect pavement life, or the limit on airport use appears motivated by interest in mitigating noise without going through processes that exist for such restrictions, an attempt to limit aircraft by weight will be considered unreasonable. The FAA notes that there are a few existing noise rules that include weight categories, generally adopted before ANCA and the AAIA were enacted. Issues arising under those rules will be addressed on a case-by-case basis.

Examples

Airport operators may experience demand for use of the airport by aircraft that weigh more than the design load-bearing capacity of the airport pavement. In some cases that demand can adversely affect pavement condition. Ideally the airport operator should accommodate demand by upgrading facilities. If that option is not practical, the airport operator can permit reasonable access by these aircraft, while avoiding adverse effects on existing pavement, by regulating the number and maximum weight of operations on a prior-permission-required basis. The number and maximum weight of operations permitted would vary according to the specific circumstances at each airport, including:

- Pavement load-bearing capacity.
- The mix of aircraft operating at the airport. The heavier the aircraft, the fewer operations it takes to have an effect on pavement life.
- Seasonal effects on pavement strength, for example wet or dry subgrade conditions or very low or high pavement temperatures.

The following scenarios are not recommendations but simply examples of limitations that might be appropriate in particular circumstances. Local conditions may require more complex solutions. An engineering analysis will be required in each case.

Scenario 1

The airport pavement is designed to 60,000 lb. dual-wheel load. Pavement design and soil support conditions are known. Operations up to 60,000 lb. are unrestricted, and the issue is how many flights should be permitted above that weight.

The airport receives frequent operations by several aircraft types at 70,000 lb., and occasional operations at 105,000 lb., but very few operations by other aircraft types in between those weights.

Reference to AC 150/5320-6D shows that on an annual basis up to xxxx operations at 70,000 lb. and xx operations at 105,000 lb. together would have no measurable effect on the life of the pavement, but more operations at either weight would begin to shorten pavement life.

The operator could require prior permission for operations above 60,000 lb. Permission would be granted on a first-come first-served basis, for xx (xxxx/52) operations per week up to 70,000 lb. and for x (xx/52) operations per week up to 110,000 lb.

Scenario 2

The airport pavement is designed to 100,000 lb., with dual-wheel gear configuration. Pavement design and soil support conditions are known.

Most operations at the airport are well under 100,000 lb., but the airport receives regular operations by various types of aircraft at weights from 100,000 lb. up to 135,000 lb. Operations up to 100,000 lb. are unrestricted, and the issue is how many flights should be permitted above that weight.
Reference to AC 150/5320–6D shows that on an annual basis various assortments of operations above 100,000 lb. can operate without measurable effect on the life of the pavement. However, there is no single “right” combination, because more operations at one weight will reduce the number that can be permitted at another weight. Also, each flight at the heavier end of the scale, e.g., 135,000 lb., has a disproportionately adverse effect equal to several flights at the lower end of the scale, e.g., just above 100,000 lb.

There may be many ways to allocate limited operating rights for the various types of aircraft that would use the airport over time, while controlling the maximum cumulative stress on the airport’s pavement. One way would be to allocate operating permission by “points” rather than by number of operations. While the numbers actually used would need to be validated using AC 150/5320–6D, something like the following could be used:
Each operation 100,001 lb. to 110,000 lb.; 1 point.
Each operation 110,001 lb. to 120,000 lb.; 2 points.
Each operation 120,001 lb. to 130,000 lb.; 4 points.
Each operation 130,001 lb. to 140,000 lb.; 6 points.

If AC 150/5320–6D indicated that no combination of operations equal to an annual usage of 1200 points would have an adverse effect on pavement life, then the airport operator could allocate 23 points a week with no adverse effects.

The operator would require prior permission for operations above 100,000 lb. Permission would be granted on a first-come first-served basis, until the weekly allocation of points was assigned.

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David L. Bennett,
Director, Airport Safety and Standards.
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Useful Internet Sites

Guide Authors
Kaplan Kirsch & Rockwell LLP www.kaplankirsch.com
Harris Miller Miller & Hanson Inc. www.hmmh.com
Kaplan Kirsch & Rockwell LLP’s Airport Website www.airportattorneys.com

Government Sites
Federal Aviation Administration www.faa.gov
Volpe National Transportation Systems Center www.volpe.dot.gov
Federal Interagency Committee on Aviation Noise www.fican.org
International Civil Aviation Organization www.icao.int
Senate Subcommittee on Aviation commerce.senate.gov/subcommittees/aviation.cfm
House Aviation Subcommittee www.house.gov/transportation

Laws and Regulations
Federal Register www.gpoaccess.gov/fr/index.html
Airport Noise Regulations (Boeing site) www.boeing.com/commercial/noise/index.html

Airport and Community Organizations
American Association of Airport Executives www.airportnet.org
Airports Council International – North America www.aci-na.org
National Organization to Insure a Sound-Controlled Environment www.aviation-noise.org

Aviation News
Aviation Now www.aviationnow.com/avnow
Landings www.landings.com
Noise Regulation Report www.noisereport.com
Airport Noise Report www.airportnoisereport.com

Other Sites
Passur (aircraft flight monitoring) www.passur.com
Update to the
Guide to Airport Noise Rules
and Use Restrictions

Stage 2 Restrictions After
Naples Airport Authority v. FAA

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Stage 2 Restrictions After City of Naples Airport Authority v. Federal Aviation Administration

On June 3, 2005, the U.S. Court of Appeals in Washington D.C. ruled that a Stage 2 restriction at the Naples Municipal Airport is reasonable and the FAA erred in terminating the City of Naples Airport Authority’s eligibility for AIP grants. The court’s written opinion provides important guidance on Stage 2 restrictions and may have broader implications as well.

History of Naples Stage 2 Ban – In November 2000, the Airport Authority banned Stage 2 jet aircraft after complying with the Noise Act and Part 161. The Airport Authority and its consultants measured the benefits of the Stage 2 restriction in part by considering its effects on residents exposed to noise in excess of DNL 60 dB, the threshold of significant noise exposure established by the City of Naples and Collier County. The Airport Authority found that the restriction, while affecting only one or two flights per day, would reduce noise levels below DNL 60 dB for almost all of the residents in the surrounding neighborhoods.

History of the Case – In October 2001, the FAA initiated an enforcement action under its Part 16 rules alleging that the Stage 2 restriction violated the grant assurance that “the airport will be available for public use on reasonable conditions and without unjust discrimination.” The FAA also alleged that the restriction was preempted by federal law. In March 2003, the FAA found the Stage 2 restriction was unreasonable, unjustly discriminatory and preempted and suspended the Airport Authority’s eligibility for AIP grants. Much of the FAA’s decision was based on the fact that the Naples restriction primarily benefited residents exposed to noise in excess of DNL 60 dB, which is more inclusive than the FAA’s own threshold of significant noise exposure, DNL 65 dB. The Authority appealed the preliminary decision within the FAA, and the FAA Associate Administrator issued the agency’s final decision in August 2003 finding that the Stage 2 restriction was unreasonable.

The Airport Authority appealed the FAA’s decision to the U.S. Court of Appeals, which overturned the FAA decision and restored the Airport Authority’s eligibility for AIP grant funds.

Summary of Court’s Decision – The court made two key decisions. First, the Airport Authority had argued that the Noise Act contains the exclusive requirements for Stage 2 restrictions and that, as a result, the

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reasonableness standard under the grant assurances does not apply. The court rejected this argument and, while recognizing that the Noise Act is ambiguous on this issue, deferred to the FAA’s interpretation that the grant assurances apply to Stage 2 restrictions and constitute additional requirements above and beyond those in Noise Act and Part 161. The court found that, although the grant assurances apply, the Stage 2 restriction was reasonable under the grant assurances and rejected the FAA’s decision to the contrary. In particular, the court found that it was permissible for the Airport Authority to consider the benefits of the restriction to individuals exposed to noise above DNL 60 dB. The court concluded, “The Airport Authority and the City of Naples introduced ample evidence – much of which went unrebutted – demonstrating that the Stage 2 ban was justified.”

While it is too early to know how other airports, the FAA and courts will react to this decision, there are some certain and potential consequences.

**The standards for Stage 2 restrictions and Stage 3 restrictions are very similar.** The Noise Act and Part 161 identify six criteria that must be satisfied to obtain FAA approval for Stage 3 restrictions. The FAA’s Airport Compliance Handbook prescribes six, very similar criteria for evaluating noise rules under the grant assurances. The court’s decision that the grant assurances apply to Stage 2 restrictions means that Stage 2 restrictions and Stage 3 restrictions must satisfy essentially the same standards.

**Future Part 161 studies on Stage 2 restrictions may need to address the grant assurance standards.** Since the Noise Act and Part 161 do not address the grant assurances, airport proprietors conducting future Part 161 studies will have to determine when and how to prove compliance with the grant assurances. It may be most expedient to seek FAA concurrence on the grant assurances as part of the FAA’s review of a Part 161 study, rather than risk subsequent enforcement action.

**Stage 2 restrictions may be subject to multiple attacks.** The Stage 2 restriction was challenged in five separate cases: (1) an enforcement action by the FAA under Part 161 Subpart F challenging the Airport Authority’s compliance with Part 161; (2) two federal suits challenging the Stage 2 restriction’s constitutionality; (3) a state suit challenging whether the Stage 2 restriction violated an airport tenant’s hangar lease; and (4) the Part 16 enforcement action by the FAA.
Future restrictions might be subject to similar attacks; the court’s decision will not eliminate any of these avenues.

**Noise rules can be based on benefits to residents below DNL 65 dB.** The court clarified that the FAA’s land use compatibility guidelines do not bind local governments and that the Airport Authority properly relied on the threshold established by the local governments with land use jurisdiction. This does not mean that the DNL 65 dB guideline is no longer relevant. As established by previous cases, the FAA may continue to rely on DNL 65 dB when making determinations on funding for noise compatibility programs under Part 150 and the significance of environmental impacts under NEPA.

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1 409 F.3d 431 (D.C. Cir. 2005).
2 The authors of the Noise Guide participated in the preparation of the Naples Part 161 Study.
3 These legal standards and the Part 16 process are described in the Noise Guide at Chapter 6.
5 City of Naples Airport Authority v. FAA, 409 F.3d at 434-35 (“Because the Noise Act does not clearly reveal whether the FAA may withhold grants when an airport operator imposes an unreasonable Stage 2 noise restriction, we shall defer to the FAA’s determination that it retains that power under the [AAIA]”).
6 Id. at 436.
7 49 U.S.C. § 47524(c)(2); 14 C.F.R. § 161.305(c)(2).
8 Compare 49 U.S.C. § 47524(c)(2) with FAA Order 5190.6A § 4-8(f).
9 National Business Aviation Ass’n v. City of Naples Airport Authority, 162 F.Supp.2d 1343 (M.D. Fla. 2001).
10 Continental Aviation Services, Inc. v. City of Naples Airport Authority, 873 So.2d 567 (Fla. App. 2 Dist. 2004).

The court’s opinion is available at www.airportattorneys.com.
Update to the Guide to Airport Noise Rules and Use Restrictions

Property Acquisition for Noise Compatibility: New FAA Guidance Reinforces Need for Adequate Planning

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Brief History

A common approach for promoting land use compatibility around airports is for an airport sponsor to acquire property that is developed with an incompatible use. Indeed, airport sponsors must consider property acquisition as an option when developing noise compatibility programs under FAR Part 150. Property acquisition is eligible for federal participation through the Airport Improvement Program; airports received $1.8 billion in AIP grants for noise land acquisition between 1982 and 2003.

Airport sponsors acquiring property for noise compatibility purposes are obligated under federal law and the grant assurances to “dispose of the land at fair market value at the earliest practicable time after the land no longer is needed for a noise compatibility purpose.” Airport sponsors further are responsible for reimbursing the Airport and Airway Trust Fund for the federal share of disposal proceeds or reinvesting the federal share in another FAA-approved airport noise compatibility project. These requirements are reflected in Grant Assurance 31.

In September 2005, the Department of Transportation Office of Inspector General released a report in which it found violations at each of the eleven airports that it audited. According to the OIG, the airport sponsors had retained property no longer needed for a noise compatibility purpose and/or failed to adequately account for the federal share of disposal proceeds.

In 2006, the FAA began including a special condition in all noise land grants requiring that the airport sponsor prepare a Noise Land Inventory Map and Reuse Plan.

In February 2008, the FAA released Program Guidance Letter 08-02, Management of Acquired Noise Land: Inventory – Reuse – Disposal. The guidance prescribes requirements for the disposal of property acquired for noise compatibility. The immediate benefit of the PGL is to guide airport sponsors in addressing previously acquired noise land; however, the long-term benefit will be to enable sponsors to make better decisions about whether and under what circumstances to acquire property to promote land use compatibility.

The FAA guidance is available at www.airportattorneys.com
Summary of Guidance

The guidance applies to all airport sponsors that acquire property for noise compatibility purposes with federal participation. The triggers are property acquisition (1) in accordance with an approved NCP; and (2) as a required mitigation measure pursuant to FAA project approval under NEPA (i.e., Finding of No Significant Impact or Record of Decision).

Airport sponsors must prepare and maintain noise land inventories and reuse plans. The noise land inventory must reflect all of the noise land parcels that were acquired with AIP grant funds, and the reuse plan identifies the proposed use of all noise land. Both the inventory and reuse plans are subject to FAA acceptance and must be kept up to date. The eleven audited airport sponsors must submit their reuse plans by August 2008; all other airport sponsors with grant-funded noise lands must submit their reuse plans by October 2009.

The guidance prescribes criteria for determining when land no longer is needed for a noise compatibility purpose. In short, noise land no longer is needed whenever the land can be redeveloped for a compatible use. Unlike previous guidance on this subject, the PGL does not account for many airport- and property-specific factors that may hinder redevelopment. As a result, whether property can be redeveloped for a compatible use primarily is a function of whether redevelopment is permitted under local zoning and land use regulation.

Airport sponsors must dispose noise lands expeditiously. Short-term delay is permissible to assemble sufficient noise lands to make them marketable or in response to a dramatic downturn in the local economy. However, airport sponsors generally are not permitted to wait for the most favorable market conditions before proceeding with disposal.

Airport sponsors have a variety of choices for disposing noise land. The guidance recognizes the following forms of disposal: conversion to AIP-eligible airport development land, exchange for airport development land, sale, long-term lease (25-year term or greater), and conversion to AIP-ineligible airport-owned land.

The financial consequences vary based on the form of disposal. Airport sponsors are not required to return the federal share
of disposal proceeds when converting or exchanging noise lands for airport development land. In contrast, if an airport sponsor sells noise land, leases noise land pursuant to a long-term lease, or converts noise land to AIP-ineligible airport-owned land, the sponsor is financially obligated to the FAA.

**The airport sponsor’s repayment obligation may be significant.** The sponsor’s repayment obligation is the product of the federal government’s percentage share of the initial grant to acquire the property (e.g., 80%) multiplied by the current appraised fair market value, less eligible disposal expenses.

**The federal share of disposal proceeds can be returned to the Trust Fund or used for another noise compatibility project.** The FAA prefers that disposal proceeds be used for other AIP-eligible noise compatibility projects, either at the airport or another airport, rather than returned to the Trust Fund. Airport sponsors can hold funds in a dedicated escrow account or have FAA hold the funds. In addition, sponsors can transfer the proceeds for use in an AIP-eligible noise project at another airport.

**Environmental review under NEPA typically is not required.** The guidance indicates that environmental review is not required in conjunction with FAA review and acceptance of noise land inventories and reuse plans or for property disposal. However, environmental review may be required to convert noise lands to AIP-eligible airport development land when, for example, the Airport Layout Plan must be amended.

**Tip:** Airport sponsors should recognize that property acquisition for noise compatibility carries with it significant responsibilities. Sponsors should think carefully about disposal when contemplating property acquisition in an NCP, rather than waiting until after property is acquired. This should include a thorough examination of local land use plans and zoning codes; consideration of the airport master plan and other planning documents; consultation with government officials and the real estate and development communities; a rough calculation of the financial obligation attendant to disposal; and development of a means to recycle the federal share of disposal proceeds for additional property acquisition or other noise compatibility projects.