Addressing helicopter noise impacts in Las Vegas, Nevada within the confines of the Airport Noise and Capacity Act

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Addressing Helicopter Noise Impacts in Las Vegas, Nevada within the Confines of the Airport Noise and Capacity Act

by

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A professional paper submitted to the faculty of the Department of Public Administration in candidacy for the degree of

Master of Public Administration

University of Nevada, Las Vegas
May 2002

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Abstract

This professional paper will evaluate the impact of the Airport Noise and Capacity Act on Clark County’s ability to reduce aircraft noise associated to helicopter sightseeing tours originating from McCarran International Airport. The paper will first provide the reader a brief introduction to aircraft operations in Las Vegas, and summarize local helicopter noise activities. The paper will then present the legislative requirements and history concerning the curtailment of aircraft operations. The paper will also examine court cases addressing curtailment of aircraft operations at public-use airports. Next, a review of how other federally funded airports have sought solutions to resolve local noise concerns within the framework of ANCA will be discussed. The paper will close by identifying noise mitigation strategies Clark County could pursue while being in conformance with ANCA.
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Chapter 1

Introduction

The problem began on December 17, 1903 when Orville and Wilbur Wright completed the first successful recorded flight of man in Kitty Hawk, North Carolina. Although undocumented, one could presume that a neighboring farmer was a bit irritated with that whining pitch associated with aircraft operations, and one can just imagine how the farmer’s livestock reacted to that historical flight. Over the last century, that industrial invention which gave our society the capability to fly has caused such an uproar in communities across the world (due to unwanted and annoying noise impacts) that almost every legislative authority has had to develop rules and regulations to balance the air transportation system with the desires of local communities. The subject of aircraft noise and its associated impact on residents living underneath the flight corridors has also been an increasing and contentious issue of concern within Las Vegas, Nevada. Las Vegas residents' expressions of displeasure with the current noise situation - specifically associated with helicopter operations providing tours of Hoover Dam, the Grand Canyon, and the world famous “Las Vegas Strip” - has even recently been reported by the local television news stations and newspapers (Packer, 2001; Parker, 2001).

This professional paper will evaluate the impact of the Airport Noise and Capacity Act (ANCA) of 1990 on Clark County’s ability to reduce aircraft noise associated with helicopter sightseeing tours originating from McCarran International Airport. The paper will focus on two research questions. First, what types of control measures can Clark County can legally pursue. To answer this question, the paper will
review other airport proprietor activities and, more importantly, the federal government's responses to those activities. Second, the paper will review and analyze the process requirements needed to fulfill the conditions of federal regulations, specifically those associated with ANCA.

Paper Summary

The following section will describe how the issue of helicopter noise has become such a political concern to many residents living within close proximity to the helicopter flight corridors within Las Vegas, Nevada and identify measures Clark County has already pursued to address the situation. Chapter 2 will present the legislative requirements of ANCA and other related legislative history, including the need to involve Congress. Court cases addressing curtailment of aircraft operations will also be discussed in Chapter 2. Chapter 3 will identify how the assemblage of information on current and future airport curtailments of aircraft operations was completed. Chapter 4 presents the findings and lists airports that have enacted and/or abandoned control measures regulated by ANCA. Chapter 5 provides a conclusion and recommends specific noise control mitigation measures that Clark County could pursue to address helicopter noise impacts while meeting the requirements of ANCA and other federal legislation.

The Political Setting

The Las Vegas Valley has been one of the fastest growing communities in the United States over the last decade. Unlike most urbanized areas, almost 40% of the residents within the Las Vegas area reside in unincorporated Clark County (e.g., not within an annexed city such as Las Vegas, North Las Vegas, or Henderson)
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(Metropolitan Research Association, 2002). Unincorporated Clark County is under the direction of seven elected commissioners who, among many other duties, oversee the County's financial expenditures, approve development proposals for projects located within unincorporated Clark County, and administer most of the public-use airports located within Clark County.

The Clark County Department of Aviation (DOA), under direction of the Board of County Commissioners, manages six public-use airports. These airports are intended to function as a system, providing access and opportunity to all segments of the aviation industry and to all County residents. Three of the airports are located within the Las Vegas Valley (McCarran International Airport; North Las Vegas Airport; and Henderson Executive Airport), and three serve rural areas (Jean Airport, Perkins Field, and Searchlight Airport). Plans are also well underway to construct an additional large passenger facility within the Ivanpah Valley. Many of the County's airport improvement projects are constructed with a combination of local, state, and federal monies; a significant issue addressed in Chapter 2 and Chapter 5. (See Figure 1 for airports locations and jurisdictional boundaries.)

McCarran International is the primary air carrier and passenger airport for southern Nevada and is the 7th busiest airport in North America (Airport Council International, 2002). McCarran handled approximately 1,370 aircraft operations per day during the 2001 calendar year, and about 14% of those operations were helicopter tour flights (FAA, 2001 - 1991). McCarran is expected to reach capacity within the next 10 to 15 years, which necessitates the need to develop the Ivanpah Airport. The planning and
expansion of McCarran and the Ivanpah Airport are heavily dependent on federal revenues (DOA, 2001).

Figure 1. Clark County airports and jurisdictional boundaries.
Airport Dependency

As noted above, Clark County has been one of the fastest growing communities in the United States. Along with this population explosion, the demand for air services has also grown at a tremendous pace. Since 1991, the number of large aircraft operations at McCarran has grown by over fifty percent while all air traffic operations have increased by twenty-five percent (FAA, 2001 – 1991). To meet this increase in demand, over the last decade the DOA has invested over $1 billion dollars of local, state, and federal monies to improve the facilities at McCarran and has plans to invest another $1 billion dollars over the next decade to continue to expand and improve McCarran facilities (DOA, 2001).

Almost 36 million people visited Las Vegas in 2000, and just over forty-five percent of those tourists (or approximately 16.5 million) used McCarran International Airport as their mode of transportation (Metropolitan Research Association, 2002). McCarran handled 32.5 million passengers during the 2000 calendar year, thus the remaining 16 million users of the facility are presumed to be conventioneers, local residents, and/or friends of local residents (Metropolitan Research Association, 2002). Therefore, if McCarran is expected to continue to play a major role in the support of Las Vegas’s main economy, gaming and tourism, and if the community (i.e., non-tourists) continues to make up half of the passengers at McCarran, then it would probably be inappropriate to limit either future expansion needs of the facility or curtail large air carrier services at the airport.
The Helicopter Noise Situation

The County has been addressing the noise situation caused by fixed-wing aircraft since the late 1970's (TRA, 1979). But, the issue of helicopter noise has just recently become an issue of concern. Prior to 1997, the number of noise complaints received by the DOA specifically associated with helicopter operations was less than twenty per year. (Note that the category of “helicopter noise complaints” includes not only tour operations, but also media, metro, and other non-specific helicopter flights. Therefore, some of these complaints are not related to sightseeing tours.) During the 1997 calendar year, this number more than tripled; in 1999 the number increased to almost ninety; in 2000 the number rose to over two hundred; and last year over one hundred and sixty helicopter noise complaint calls were received by the DOA’s Noise Office (DOA, 2001-1991). The sizeable growth in noise complaints specifically associated with helicopter operations has been directly linked to the increased number of helicopter operations providing tours of the Grand Canyon and/or the Las Vegas Strip. Figure 2 depicts non-helicopter versus helicopter noise complaints as reported by the DOA.

Historically, the local FAA Air Traffic Control Tower has not tracked helicopter operations since the overall impact on the total number of airfield operations was insignificant. But, as previously stated, approximately 14% of the 2001 operations (or an estimated 90 flights per day) were tied to helicopter sightseeing tours. Currently, five helicopter companies in Las Vegas provide sightseeing tours of the Grand Canyon and/or the Las Vegas Strip. Four of these companies operate from McCarran International Airport while the remaining operator utilizes a private-use heliport on Las Vegas Boulevard.
The helicopter industry has indicated that over the last few years, tourists in Las Vegas have been willing to spend additional revenue on helicopter sightseeing adventures versus typical modes of transportation (i.e., shuttle vans, buses, personal rental cars) (Rochna, 2001). The tours include visits to the Grand Canyon and/or aerial vistas of the Las Vegas Strip. The increase in customer demand for helicopter tours has caused a dramatic increase in helicopter tour operations.

Currently the FAA provides three generalized routes for the helicopter pilots to fly. Grand Canyon tours departing McCarran are directed to fly eastbound over Tropicana Avenue until clear of the valley. Flights returning from the Grand Canyon are directed to fly westbound over Charleston Boulevard until west of the Las Vegas Strip, then head southbound over Industrial Road. Strip tours, mostly conducted after sunset, are directed to head northbound from McCarran over Koval Lane and complete an oval
flight pattern around the Strip area. All three routes impact residential neighborhoods with flights either directly over older/well established residential neighborhoods (the Strip route) or adjacent to neighborhoods located over 5 miles from the nearest airport (the Tropicana/outbound route and the Charleston/inbound route). The map shown in Appendix A depicts these typical helicopter radar flight tracks (DOA, 2000). This map also depicts where the DOA received aircraft noise complaints, including helicopter complaints, between 1998-2000.

Reduction Efforts to Date

Over the past few years, the DOA has worked with the FAA and the helicopter industry to implement procedures aimed at reducing the helicopter noise impacts over residential areas. These measures include:

1. Allowing eastbound operations to fly as close as possible to the centerline of Tropicana and westbound operations to fly as close as possible to the centerline of Charleston Boulevard;

2. Exploring other routing options which will have a reduced impact on residential areas;

3. Increasing the permitted altitude allowed to be flown by the helicopter tour operators from 300 feet above airfield elevation to 800 feet;

4. Recommending that the minimum altitude for non-emergency helicopter operations equal that for fixed-wing aircraft, or 1,000 feet above ground level (AGL) over urbanized areas and 500 feet AGL over non-urbanized areas and that the minimum altitude be attained as quickly as possible;

5. Recommending that the FAA require the helicopter industry to meet a quieter noise standard equal to that of large fixed-wing aircraft (discussed in further detail in Chapter 2);

6. Recommending that local authorities be authorized to issue citations, penalties, or other enforcement actions to pilots who purposefully violate community-friendly flight corridors; and
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(7) Prepare a “Fly Quietly and Safely” brochure once all routing options have been explored (DOA, 2001A).

Since the County does not have the authority to prescribe and enforce many of the above-mentioned measures (reasons to be discussed in further detail in Chapter 2), the recommendations were forwarded to both the FAA and Nevada’s Congressional delegation. Copies of these approved Resolutions are included in Appendix B.

In addition to pursuing the measure listed above, the County also conducted a Helicopter Noise Study in late 2000 in order to fully understand the impact of the helicopter operations on the local community (Brown-Buntin, 2000). The Study included two weeks of noise monitoring and analyzed the impacts based on FAA noise modeling requirements. The results of the Brown-Buntin study found that although there could be a significant noise impact based on an individual peak event or peak hour averages, the annual average noise impact was well below any officially recognized significant noise level. (The definition of “significant noise level” will be discussed in further detail in Chapter 2.) The results of the study and measures pursued by Clark County were shared with the impacted community at three neighborhood meetings in early 2001 (DOA, 2001A). During those meetings the community was encouraged to express their concerns to Nevada’s Congressional delegation since ANCA basically prohibits Clark County and the State of Nevada from implementing procedures that restricts aircraft operations or discriminates against one type of aircraft/operator or another.

A National Concern?

Las Vegas hasn’t been the only community where citizens have expressed concerns to their elected delegates regarding helicopter noise impacts. The issue has become so controversial that in 2000, during Congress’s approval of the Federal Aviation
Administration Authorization Act, the FAA was required to conduct a study that summarized the "effects of nonmilitary helicopter noise on individuals in densely populated areas in the continental United States" and report the findings to Congress by April 2001 (Federal Register, 2000). Development of the helicopter study included public comment regarding general helicopter concerns. Clark County submitted comments to the FAA during the public comment process (Walker, 2000). As of March 2002, the FAA has yet to submit the final report to Congress.
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Chapter 2

Legal and Regulatory Background

Aircraft operations began as an unregulated activity used not only for commercial enterprises, but also for recreational purposes. During the last century, the United States government has enacted numerous regulations aimed at addressing aircraft noise and safety concerns. Many of these regulations, briefly summarized below, conditioned airport development on federal grant assurances. (As stated above, airport facility improvements conducted by the DOA are heavily dependent on federal revenues.) The regulations also clearly defined how local, state, and federal agencies interact with air travel issues and interstate commerce activities. The purpose of the following section is to provide the reader with an overview as to how legislation enacted by Congress has determined what types of noise mitigation measures can be pursued, funded, and implemented at the local and state level.

Historical Regulation of Aircraft and Airports

U.S. regulation of aircraft operations started in May 1926 with the passage of the Air Commerce Act (Dept. of Commerce, 1927). Requested by the aviation industry, this act introduced regulations to the air-users through the establishment of airways, emergency landing fields, certification of aircraft, licensing of pilots, and installation of navigational systems - all aimed at improving the efficiency and safety of flying. At the same time, the Air Commerce Act prohibited the federal government from participating in the establishment, operation, and maintenance of airports and left those duties to a local governing sponsor (i.e., city, county, or state agency). Hence, from the initial establishment of aviation regulations, local/state authorities control and manage airport
development (and its adjacent development) while the federal government controls and manages safety and efficiency (Brayer, 1998). This theme was replicated with the passage the 1938 Civil Aeronautics Act, "where government subdivisions furnished the land and agreed to operate and maintain the improved field" (U.S.C., 2000A); the 1946 Federal Airport Act (U.S.C., 2000A), which gave airports an aid program to facilitate the improvement and construction of public-use airports if protection of airport development including the prevention of development/structures which negatively impacted/limited approach patterns and proper land uses planning occurred (U.S.C., 2000B); and the 1982 Airport and Airway Improvement Act (U.S.C. 2000B), which included grant funding for noise compatibility measures, such as soundproofing and property acquisition/relocation.

The Beginning of Noise Regulations

In 1968, with the continued growth of turbojet (i.e., large and noisy) aircraft, the Federal Aviation Act of 1958 (U.S.C., 2000C) was amended and directed the FAA to prescribe standards and regulations to control aircraft noise and sonic boom for all non-military aircraft, including helicopters (FAA, 1976). The first noise certifications were promulgated on November 11, 1969 (CFR, 2002A). These certification standards, referred to as the Part 36 regulations, classify an aircraft into a noise category (either Stage 1, 2, or 3) based on the aircraft's noise performance. Regulations summarized below state when certain aircraft types, such as Boeing's 707 (one of the oldest and noisiest aircraft, designed in the 1940's and flown in the late 1950's to the present), had to meet each "Stage" of the noise standards. (Note that an aircraft can usually be redesigned and/or retrofitted to meet the quieter noise criteria).
In 1972, during the time when numerous environmental regulations were being pursued (e.g., the Clean Air Act, the National Environmental Policy Act), the Noise Control Act was passed, based on the United States Environmental Protection Agency’s (U.S. EPA) legislative report which claimed tens of million of citizens were exposed to excessive noise levels (U.S.C., 2000D). Under the Noise Control Act, the U.S. EPA assumed responsibility to identify major sources of environmental noise and assist state and local agencies in abatement efforts. The Noise Control Act permitted the U.S. EPA to propose aircraft regulations to the FAA, but implementation remained under FAA’s purview as authorized under the Federal Aviation Act. In 1983, President Reagan’s administration eliminated funding for the U.S. EPA’s noise program and indicated that noise benefits were highly localized and abatement could be carried out at state and local levels.

In 1979 the Aviation Safety and Noise Abatement Act (ASNA) passed and established the Airport Noise Compatibility Planning Program (14 C.F.R. Part 150) (U.S.C., 2000E; C.F.R., 2002B). ASNA and its later amendments was the first principal law supporting federal effort to identify and reduce non-compatible land uses and included:

(1) Specific requirements as to how aircraft noise is measured;

(2) Specific requirements as to how to determine exposure to individuals;

(3) Identified land use compatibility standards;

(4) Tied grant funds to proprietors completing the Part 150 process; and

(5) Provided that: “No person who acquires property after the date of enactment of the ASNA in a noise exposure area submitted to the FAA shall be entitled to recover damages due to aircraft noise if such a person
had the actual or constructive knowledge of the existence of such noise exposure maps unless significant changes have occurred at the airport.

The ‘single system of measuring aircraft noise’ and ‘single system of determining exposure’ were needed to ensure that environmental impacts associated with aircraft noise, including helicopter operations, were being analyzed comparably by each airport across the Country so differing airport agencies could compare “apples to apples” when seeking federal grants.

During the late 1970’s, the FAA published the Aviation Noise Abatement Policy (FAA, 1976). This document clearly identified the roles of local governments versus state function versus the federal government, specifically the FAA. The 1976 Policy, once again, described how local and state authorities control and manage airport development (and it’s adjacent development) while the federal government controls and manages safety and efficiency.

The Airport Noise and Capacity Act

Throughout the 1980’s, many local airport proprietors were reviewing and/or adopting regulations that either limited aircraft operations through noise restrictions or discriminated among varying aircraft types (ANR, 1990). For example, one airport might allow an aircraft to depart after 10:00 p.m. only if the maximum noise level was 100 decibels or less, whereas another airport might prohibit an aircraft to depart after 7:00 p.m. if it weighed more than 100,000 pounds. Since the airline industry was now constantly being restricted as to how or when their companies were allowed to operate at federally-funded airports, the industry sought relief from this increasing development of a “patchwork quilt” of local noise control actions (U.S. General Accounting Office, 2001). Their response to the proliferation of local aircraft noise ordinances was the development,
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The passage of ANCA established criteria that balanced airport proprietors’ goal of reducing noise impacts to their communities with the needs of the national air transportation system (ANR, 1999). The implementation of ANCA gradually phased-out large, noisy aircraft by January 1, 2000, (C.F.R., 2002C) but also removed local or state authority over aircraft restrictions unless approved through the Part 161 process (discussed below) (C.F.R., 2002D). The language of ANCA emphasized the legal responsibilities of the federal government, specifically the FAA, as well as those of state and local governments, and reiterated agency as stated in the 1979 Aviation Noise Abatement Policy (FAA, 1976). Noise restrictions implemented by individual airports prior October 1, 1990, such as those enforced at Minneapolis, Seattle, Denver, Orange County, Long Beach, Palm Beach, Detroit, Westchester County, and Van Nuys airports, were grandfathered and remained enforceable at the local and state level. Voluntary control measures (e.g., encouraged use of quiet technology) are not exempt from the Part 161 process (FAA, 2002). As noted before, helicopter operations are categorized as aircraft operations. Therefore, ANCA also applies to helicopter operations originating from a federally-funded airport.

Part 161 defines the process airport proprietors must follow to implement noise abatement procedures or access restrictions. Part 161 permits measures that are “reasonable [i.e. safe and efficient], nondiscriminatory, and do not impose an undue burden on interstate or foreign commerce” (C.F.R., 2002D), but will not allow measures that limit the total number of hours of aircraft operations or other actions such as unequal
fees between aircraft types without the completion of a rigorous cost/benefit analysis that reviews and eliminates all other alternatives. All noise mitigation measures implemented after October 1, 1990, must be reviewed and approved by the FAA as required by Part 161. If an airport proprietor is found in violation of ANCA, the FAA may prohibit an airport from collecting Airport Improvement Project (AIP) funds and/or Passenger Facility Charges (PFCs). (It should be noted that a majority of airport improvement projects, such as the construction of additional gates, runways, and/or terminals, are highly dependent on these revenue sources.)

Establishment of Noise Standards

In 1980, the FAA determined that aircraft noise impacts above a day-night annual average noise level of 65 decibels (dB), A-weighted (hereafter referred to as the 65 DNL) are considered “significant” through the establishment of the Part 150 noise standards and land use compatibility determinations (C.F.R., 2002B). This determination was based on results of the 1974 Noise Levels Document, completed by the U.S. EPA in conjunction with other federal agencies such as the FAA and U.S. Department of Housing and Urban Development (HUD) (U.S. EPA, 1974). The Noise Levels Document found that prolonged exposure to noise levels greater than 70 dB over a four-year period may cause significant hearing loss as well as other physical and emotional disturbances, and provided information concerning activity interference and annoyance down to the 55 DNL contour. The findings included a recommendation that the day-night average sound level (DNL) be used as the common measure for noise impacts from all sources.

The FAA adopted the 65 DNL criteria as the significant threshold when analyzing aircraft noise impacts since the Noise Levels Document found that less than 12% of the
population residing in the 60 DNL or less would be significantly annoyed by aircraft noise (C.F.R, 2002B). Likewise, the U.S. HUD established these same land use compatibility standards in 1979 (C.F.R., 2002E). The use of the 65 DNL was reaffirmed as the appropriate environmental noise threshold for aircraft environmental analysis in 1992 by the Federal Interagency Committee on Noise (FICON, 1992). In 1997, the Federal Interagency Committee on Aviation Noise (FICAN), the carry-over committee of FICON, also recommended that the 65 DNL remain as the threshold for evaluating aircraft noise impacts (FICAN, 1997). The DNL metric is utilized to “predict the effects on a population of the average long-term exposure to environmental noise (FAA, 1985).”

The DNL metric applies a 10-decibel penalty for each nighttime operation (defined as 10 p.m. to 7 a.m.) and does not signify peak noise exposure. The outcome of the analysis includes a number of modeled noise contours, segmented into 5-decibel increments. The map shown in Appendix C depicts the DNL impacts for operations occurring at McCarran International Airport. The map shown in Appendix A depicts the DNL impacts for helicopter operations as provided from the 2000 Helicopter Noise Study.

The Part 150 regulations also identify what types of land uses are compatible with airport facilities: that is what uses are suited to be developed in areas exposed to high noise levels caused by aircraft operations. The designations are not federally enforceable since “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 (C.F.R., 2002B).” As one could expect, land uses where human occupancy is long-term (e.g., residential uses, hospitals, schools) are discouraged in higher noise contours.
Airport Noise Related Court Cases

Ever since the utilization of turbojet aircraft, many local communities have sought regulations that either restricted “noisy” aircraft operations or defined how these “noisy” aircraft should operate. As mentioned previously, since 1990 ANCA has prohibited noise or access restrictions from being enforced by airport operators without approval from the FAA through the Part 161 process. A letter from the FAA to the Helicopter Association International clarified that helicopters operating at a public funded airport are protected by ANCA requirements (Erickson, 1997). In addition, grant agreements made between the airport proprietors and the FAA require an airport operator to “make its airport available as an airport for public use on fair and reasonable terms, and without unjust discrimination to all types, kinds, and classes of aeronautical uses” and subject to each operator to “nondiscriminatory and substantially comparable rules, regulations, and conditions (FAA, 1989).”

The first major case concerning airport noise restrictions is from 1968. In American Airlines v. Town of Hempstead (1968), Hempstead adopted a noise ordinance which “prohibited overflights of the village by aircraft that did not meet certain noise standards.” The court held that local authorities are preempted by federal regulation of aircraft for “any purposes.” Similarly, the City of Burbank v. Lockheed Air Terminal case (1973) found that non-airport owners could not adopt noise restrictions since “if we [the court] were to uphold the Burbank ordinance and a significant number of municipalities followed suit, it is obvious that fractionalized control of the timing of takeoffs and landings would severely limit the flexibility of the FAA in controlling air traffic flow. The difficulties of scheduling flights to avoid congestion and the
concomitant decrease in safety would be compounded (City of Burbank v. Lockheed Air Terminal, 1973).” The Burbank ruling strongly supports that the federal government, as intended by Congress through the passage of the Federal aviation act in 1958, should have “full control over aircraft noise, preempting state and local control.”

The court ruling on San Diego Unified Port v. Gianturco (1982) found that “local governments may adopt local noise abatement plans that do not impinge upon aircraft operations” and therefore the proposed curfew for aircraft operations in order to approve the expansion of the airport terminal/facility was illegal. In the National Helicopter Corp. v. City of New York case (1998), the local jurisdiction (City of New York) approved a Use Permit for a heliport, but only permitted daytime operations. Since the facility was privately-funded, the courts determined at ANCA regulations did not apply, and the local authority could curtail the aircraft operations.

The jurisdictional limitations concerning noise can be summarized as follows:

- “The federal government has preempted the areas of airspace use and management, air traffic control, safety and the regulation of aircraft noise at its source;

- The federal government has substantial power to influence airport development through its administration of the Airport Improvement Program (AIPs);

- Other powers and authorities to control airport noise rest with the airport proprietor – including the power to select an airport site, acquire land, assure compatible land use, and control airport design, scheduling and operations – subject to Constitutional prohibitions against creation of an undue burden on interstate and foreign commerce, and unreasonable, arbitrary, and unjust discriminatory rules that advance the local interest (F.R., 2000A).”
Chapter 3

Methodology

The purpose of this Chapter is to explain how I attempted to identify all noise control measures implemented, or attempted to be implemented, at publicly funded airports in the United States since 1991, and more specifically, the process each airport proprietor was required to follow to meet the legal conditions of ANCA and other related federal legislation. The purpose of this review was to identify examples of legally enacted noise control measures that could be pursued by Clark County to address the helicopter noise situation caused by sightseeing tours originating from McCarran International Airport. Since ANCA is just a decade old and the promulgation of the Act was promoted as the “end-all” solution to our nation’s airport noise problem, very few airports have actually pursued the curtailment of aircraft operations over the last decade. The timing of ANCA explains why documental research was limited from 1991 to present.

I reviewed three key publications and one “catch-all” website to identify noise abatement and mitigation measures pursued and enacted by local and state authorities. In addition to reviewing the “catch-all” website, individual airport websites and other miscellaneous sites (i.e., independent airport noise consultants, various government agencies, etc.) were reviewed to access full documentation concerning the process each airport proprietor pursued. If the above-mentioned resources did not contain sufficient data, then individual airports were contacted only to request publicly available documents. The review of the references described below should have identified most of, if not all, attempts by airport proprietors to enact noise control regulations or restrictions.
The three publications included: the Airport Noise Report, the Noise Regulation Report, and Land Use Law & Zoning Digest. The “catch-all” website is Boeing’s noise information section. The Airport Noise Report is produced on a weekly basis and includes updates on regulations concerning aircraft noise at the local, state, federal, and international level; strategies used by airports to impose operation restrictions while meeting the conditions of ANCA; current airport litigation results and impacts; research summaries regarding technical development and health studies; funding allowances pertaining to noise restrictions; federal and congressional activity; and land use planning trends on litigation, regulation, and technological developments related to airport noise issues. My review of the Airport Noise Report should have identified any airports that have pursued or are pursuing noise restrictions (both legal and illegal), and listed specific airport citations, plus lawsuit threats/filings (including supplemental citation information). Issues dating from January 19, 1996 to February 15, 2002 were reviewed. Previous issues have not been located for review, and costs to purchase back issues is approximately $10 to $15 each. As stated above, the timing of ANCA rationalizes why documental research was limited to the last ten years.

The Noise Regulation Report is produced on a monthly basis and summarizes all noise related activities (i.e., airports, highways, rail systems, open spaces and the workplace), not just those specifically associated with aircraft issues. My review of the Noise Regulation Report will ensure that the review of the Airport Noise Report publications was complete. Issues dating from March 18, 1997 to present (January 2002) were reviewed. Previous issues have not been located for review and costs to purchase back issues is also approximately $10 to $15 each.
The American Planning Association’s (APA) Land Use Law & Zoning Digest, written solely by lawyers, is disseminated on a monthly basis. Although a vast majority of the articles pertain to local and state land use litigation issues, a few citations have been made to airport curtailment ordinances. Similar to the need to review the Noise Regulation Report, the Land Use Law & Zoning Digest review should guarantee all appropriate airports and their associated lawsuits are identified. Issues dated January 1991 through January 2002 were reviewed.

Boeing maintains an Airport Noise Regulation Information section on their website that allows any interested party to access one “catch-all” resource that identifies most noise restrictions being imposed by airport proprietors. The database was developed to ensure that their customers, the airlines and pilots alike, could easily retrieve noise control measures enacted at an airport of concern and ensure compliance with the condition (e.g., What is the maximum departure noise level allowed at the Burbank-Pasadena-Glendale Airport, and does my aircraft meet that criteria? Is this measure voluntary or mandatory?). The database is updated on an annual basis by way of a formal request sent to each airport. As of September 10, 2001, 601 worldwide airports are listed on the website, with almost 300 located within the United States.

The above-mentioned research methodology clearly not only identified which airports have pursued legal or illegal noise control measures, but also identified how additional information could be retrieved if archival data was needed.
Chapter 4

Findings

Although a number of airport proprietors have indicated a desire to formally pursue aircraft operation restrictions for their airports, via the Part 161 process, the research conducted here discovered that only two Part 161 Studies has been formally submitted (one to address Stage 1 operations and the other to address Stage 2 operations, both submitted by the same airport – Naples Municipal Airport). A handful of other airports have stated that they are formally pursuing aircraft noise restrictions through Part 161 analysis (or have been informed by the FAA that the restriction must meet ANCA provisions), but have yet to submit the required documentation to the FAA. Likewise, the review found that if an airport proprietor that receives funding from the FAA (i.e., AIP or PFC) instituted an aircraft noise restriction without completing the Part 161 requirements, then both the FAA and, more than likely, the airline industry pursued legal measures to enforce ANCA compliance.

The FAA position on the Part 161 submittal process is quite clear and can be summarized as follows:

After a meeting with the FAA concerning the Part 161 requirements, the Mayor for the City of Burbank, Dave Golonski, stated, “We agree with [the FAA] that the legal process for proposing new noise rules, known as the FAA’s Part 161 process, is neither useless nor futile. But, we acknowledge [the FAA’s] admonition that the bar is a high one. We also offered to work with [the FAA] to explore opportunities for imposing growth limits at the airport outside the Part 161 process. None of this, of course, can happen until the Airport Authority similarly demonstrates a commitment to finding a solution outside the courts (Airport Noise Report, 1998A).”
The following sections summarize how airports are formally pursuing noise restrictions, listed by type of noise restriction/measure. If you recall, as noted in Chapter 2, the Part 161 process must be adhered to for any mandatory noise reduction control measure. This requirement of ANCA is necessary for the FAA to ensure that the measure is reasonable, safe and efficient, does not discriminate one type of aircraft category against another, does not impose an undue burden on interstate or foreign commerce, and provides the users (i.e., pilots and airline industry) of the impacted facility an opportunity to comment on the proposed control measure. Measures which somehow limit the number of aircraft operations (i.e. the establishment of a curfew, a limitation on the maximum number of permitted operations, or mandating a peak aircraft noise event) must complete a rigorous cost/benefit analysis that reviews and eliminates all other alternatives. As also stated previously, mandatory noise mitigation measures implemented before October 1, 1990, are grandfathered. An airport found in violation of ANCA may be prohibited from collecting AIPs and/or PFCs; a key revenue source for airport facility improvements.

Limiting the Hours of Operation

One of the simplest solutions to controlling unwanted aircraft noise is to limit when aircraft are permitted to fly from/into the airport. Communities within close proximity to an airport have continuously requested that the nighttime operations be curtailed since noise impacts during nighttime hours (usually defined as being between the hours of 10 p.m. and 7 a.m.) can cause sleep interference. During the review, nine airports were found which showed an interest in resolving community noise impacts by limiting the hours of operation. Of these nine airports (Key West International Airport,
King County International Airport, John Wayne Airport, Pease International Airport, Flying Cloud Airport, Burbank-Glendale-Pasadena Airport, Naples Municipal Airport, San Francisco International Airport, and Kahului Airport), only one airport has completed the Part 161 analysis (the Naples Municipal Airport) and another curfew restriction has been determined to be grandfathered under ANCA (the John Wayne Airport). The remaining seven airports have not officially completed the Part 161 requirements. The following briefly describes each airport Part 161 activity.

Key West International Airport (FL). A local community near the Key West International Airport wished to curfew the airport from Midnight to 6 a.m. for all aircraft operations (Airport Noise Report, 1996A). The noise contours completed during the Part 150 process concluded that only a small portion of the community was located within the 65 DNL (as noted in Chapter 2, this contour would be defined as the official noise impact environs for the airport). The Part 150 program recommended soundproofing the homes located within the 65 DNL (Airport Noise Report, 1996B). Once the soundproofing program is implemented and homes impacted by aircraft overflights within the official airport environs are deemed “compatible” by the local community, then all land uses located within the official noise impact areas (i.e., contours) would be compatible with airport operations. (It should be noted that local communities establish standards that determine land use compatibility with airport operations, not the FAA. The Part 150 program only provides guidelines for local and state communities to determine compatibility.) Should the airport decide to complete a Part 161 cost/benefit analysis in order to implement the Midnight to 6 a.m. curfew, the findings would probably show that the costs to limit aircraft operations would not be warranted since there are no
“incompatible” residential dwelling units significantly impacted by aircraft operations (due to the implementation of the soundproofing program). Therefore, the soundproofing program, which could be mostly funded by the FAA via the Part 150 process, has been pursued as the appropriate noise reduce measure versus limiting aircraft operations. As of March 2002, the curfew restriction is voluntary, and the noise problem for the airport is noted to the airport users as, “Extremely noise sensitive area. Urge no operations between 2300 [11 p.m.] to 0700 [7 a.m.]. Use National Business and Aircraft Association (NBAA) close in noise abatement procedures [during] other times (Key West International Airport, 2002).”

King County International Airport/Boeing Field (WA). In 1997, the Seattle City Council unanimously passed a resolution requesting Boeing Field to pursue a program for night flight restrictions. The request from the city was due to the introduction of a few Stage 2 operations (Airport Noise Report, 1997A). In January 2002, a Part 150 study was completed for the airport that included a recommendation to implement a ban on Stage 2 jets at night (King County Airport, 2001). The study noted that “the implementation of this recommendation would require an additional study to be prepared and approved by the FAA [the Part 161 process], and “preparation [of the Part 161 Study would take] approximately two to three years,” at a cost of “approximately $850,000 plus $500,000 legal fees [based on experience of Naples, Florida].” At this time, the airport is still contemplating if it should pursue the restriction based on current cost estimates needed just to complete the analysis.

John Wayne Airport/Orange County Airport (CA). In 1985, a federal court settlement defined commercial operational and capacity limitations and general aviation
operations at John Wayne Airport (John Wayne Airport, 2002). The settlement imposed (1) a passenger cap of 8.4 million per year, (2) limited the number of daily operations to 73, and (3) imposed a nighttime curfew (Airport Noise Report, 2002A). The settlement agreement expires on December 31, 2005. Newport Beach would like the airport to extend the curfew and passenger cap until 2016 and in return, would permit four new gates to be developed. (The airport expansion plans are located within the City of Newport Beach; the local entity that authorizes land use development.) The FAA has determined that since the original curfew was established and enforced prior to the promulgation of ANCA, the extension does not require a Part 161 analysis. Although the establishment of the curfew has balanced the needs of the airport while providing some noise relief to the Newport Beach community, this option was grandfathered under ANCA.

Pease International Airport (NH). The Pease International Airport, located north of Boston, wanted to prohibit air carrier Stage 2 operations between 11 p.m. to 6 a.m. and allow only a maximum of three Stage 3 operations per night per air carrier (Airport Noise Report, 1996A). The joint-use Air Force Base/public-use airport is located within two different jurisdictions, the cities of Newington and Portsmouth, and is located near residential development. Although the runway can accommodate large air carrier aircraft, the number of nighttime large air carrier operations to date has been minimal. Although the airport has conducted the cost-benefit Part 161 analysis, it has yet to officially submitted the required Part 161 analysis to the FAA (Pease International Airport, 2002). The airport has not been announced why they have been reluctant to submit the Part 161 analysis.
Flying Cloud Airport (MN). The Flying Cloud Airport, located near Minneapolis, has completed the Part 161 cost/benefit analysis that analyzed a prohibition on all Stage 1 and 2 aircraft operations between the hours of 10 p.m. and 6 a.m., and a ban all nighttime maintenance run-ups during the same hours (Airport Noise Report, 2000A). The FAA informed the airport that “the restriction violates grant assurances and could put federal funding to all seven airports [managed by the Metropolitan Airport Commission] in jeopardy (Airport Noise Report, 2001B).” The enforcement of the prohibition has been delayed until after expansion projects are completed at the airport. At this time, the FAA has neither disapproved the collection of passenger facility charges or airport improvement program funding, nor requested refunds of prior grant agreements since the regulations are not being enforced (Airport Noise Report, 2001C). Therefore, until the prohibition is enforced by the airport, it is unknown how the airline industry and/or the FAA will react to the noise mitigation measure. But, it is interesting to note that if the airport managers of Flying Cloud (the Metropolitan Airport Commission) are found in violation of ANCA, then all airports under the management of Metropolitan Airport Commission could have their AIP and PFC funding sources revoked.

Burbank-Glendale-Pasadena Airport (CA). The Burbank-Glendale-Pasadena Airport has been trying to expand the facility since the early 1990’s. In order for the City of Burbank to purchase the land and approve the development of the expanded facility, the airport was conditioned to develop a Noise Impact Area Reduction Plan (Airport Noise Report, 1998B). The City requested that the Plan include the development of a Part 161 analysis that analyzed the “feasibility of a nighttime curfew [for all aircraft], a noise budget rule, and a cap on operations.” The airport agreed to conduct the Part 161
Study only if the City accepted FAA’s ruling on the manner. The City refused to agree to any FAA determination. As of February 12, 2002, the Part 161 Study is being conducted (Burbank-Glendale-Pasadena Airport, 2002). At this time, it is uncertain what the outcome of the study will entail.

Naples Municipal Airport (FL). On May 15, 1996, the City of Naples, Florida, owner and operator of the Naples Municipal Airport, imposed a curfew on all Stage 1 aircraft operations from 10 p.m. to 7 a.m. and established a voluntary curfew for Stage 2 and Stage 3 aircraft during the same hours (Airport Noise Report, 1996C). The airport completed a Part 161 Study for the Stage 1 ban, and the FAA approved the study on March 2, 1999 (Airport Noise Report, 1999B). Soon thereafter, the airport announced it would pursue a mandatory 24-hour ban on all Stage 2 aircraft via the Part 161 regulations (Airport Noise Report, 2000B). The Part 161 was completed in June 2000. After 18 months of review, the FAA informed the airport that the study “complies with the agency’s Part 161 regulations on notice and approval of airport noise and access restrictions,” but the FAA will investigate “whether the restriction violates federal grant assurances (Airport Noise Report, 2001D).” The Naples Municipal Airport has spent over $1.6 million on studies and legal costs concerning the Stage 2 ban. Nevertheless, the FAA continues to threaten that if the ban is enforced, the FAA may withhold $1 million annually in federal money due to grant assurance uncertainties (Husty, 2002).

Personal review of the Part 161 analysis found that although the FAA has indicated the review is complete, I personally believe the analysis does not contain a sufficient cost/benefit analysis. At no point in the document does the airport compare the curfew cost imposed on individual pilots who now have to fly to another airport or purchase
quieter aircraft/technology to "non-curfew" costs such as soundproofing the impacted homes or purchasing home within the impacts airport environs. This, in my understanding the ANCA and the Part 161 requirements, is a major oversight by the FAA.

**San Francisco International Airport (CA).** The San Francisco International Airport submitted a Part 161 study to the FAA that would have prohibited Stage 2 aircraft weighing more than 75,000 lbs. from operating at the airport between the hours of 7 p.m. and 7 a.m. The airport formally withdrew its submittal in December 1998 since an agreement was made between the airlines affected by the proposed rule, and full implementation of ANCA would have established the same noise restriction (Cutler & Stanfield, 1999). Here, it should be noted that the airlines were willing to settle the noise issue outside the Part 161 process since the aircraft impacted by the restriction would also be prohibited to operate after December 31, 1999, due to conditions listed in ANCA (e.g., the phase-out of larger, noisier aircraft required at the federal level).

**Kahului Airport (HI).** In 1991, after a lawsuit filed by homeowners claiming nuisance, trespass, and inverse taking damages caused by aircraft noise from the Kahului Airport, the State of Hawaii was directed by the court to phase out Stage 2 aircraft no later than 1995 (Airport Noise Report, 1996D). But, "although the completed Part 161 cost/benefit analysis concluded that a Stage 2 nighttime restriction would be cost beneficial", the passage of ANCA specifically exempted the State of Hawaii from addressing Stage 2 restrictions. Therefore, in a 1996 ruling, the state court rescinded the 1991 ruling, agreeing with the FAA that Congress’s intent to exempt Hawaii from the requirements of ANCA would "permit Stage 2 operations to continue in Hawaii beyond
the year 2000 because of the unique role aviation plays there.” This finding demonstrates that not only are local authorities restricted from adopting noise restrictions, but the states are also at the mercy of ANCA conditions.

In summary, airports wanting to limit when aircraft can operate from their facility must fulfill the Part 161 requirements. To date, only one airport, Naples, has successfully completed this requirement, but may be at fault with the FAA on grant assurance issues. A key obligation the Naples Airport Authority committed to the FAA with the acceptance of grant assurances includes that the airport:

- “make its airport available as an airport for public use on fair and reasonable terms, and without unjust discrimination, to all types, kinds and classes or aeronautical uses;” and

- subject each user using the airport to “such nondiscriminatory and substantially comparable rules, regulations, conditions... with respect to facilities directly and substantially related to providing air transportation as are applicable to all such carriers which make similar use of such airport and which utilize similar facilities, subject to reasonable classifications such as tenants or nontenants and signatory carriers and nonsignatory carriers” (FAA, 1989).

By adopting the Stage 1 and 2 aircraft operating restrictions, the airport may be “discriminating” against noisier and older aircraft.

**Mandating a Specific Departure Procedure**

Another option of reducing how a community is impacted by aircraft overflights is to limit or control exactly where the aircraft overflights occur. One option pursued in Minnesota was a program that tried to enforce how high aircraft must be over a certain point of the community when departing from a runway. This type of noise reduction measure has also been pursued by Clark County in order to address helicopter impacts. As noted in Chapter 1, the County has continuously worked with the helicopter industry
and the FAA to require eastbound operations to fly directly over the centerline of
Tropicana, require westbound operations to fly directly over the centerline of Charleston
Boulevard, and require these operations to fly no lower than 800 feet above ground level.

Minneapolis-St. Paul International Airport (MN). The Minneapolis-St. Paul
International Airport wished to mandate that all air carriers departing from their facility
follow the FAA’s Advisory Circular on Noise Abatement Departure Procedures
(NADP’s) (Airport Noise Report, 1998C). This departure flight profile would ensure that
aircraft would gain as much altitude as possible when departing, thus increasing the
distance between the aircraft and the neighborhoods located below the flight pattern. The
FAA informed the airport that they can “ask” the airlines to follow the procedures, but
cannot “dictate” which procedure to utilize. The FAA has absolute control over aircraft
overflights and departure procedures (U.S.C. 2000C). Likewise, since the performance
of each aircraft can vary significantly due to pilot training, age of the aircraft, weather
conditions, and overall weight of the aircraft, it is not feasible to require every aircraft to
follow a specific “line in the sky.” A simple analogy to this statement would be requiring
a 1970’s Volkswagen bus to climb a steep gradient hill at the same exact speed and
setting as a new 2002 Volvo. The performance characteristics of each vehicle would
more than likely make this requirement an impossibility.

Clark County has appealed to the FAA and Nevada’s congressional delegation (as
noted previously in Chapter 1) requesting local governments to be allowed to “police”
compliance with agreed-upon routes. At this time, Clark County does not have the
authority to ticket or in any other manner reprimand a pilot for not flying the established
helicopter procedures – a measure aimed at minimizing residential overflights – since the FAA has exclusive regulatory authority over aircraft overflights (U.S.C., 2000C).

Increasing Landing Fees

Another option of encouraging certain types of aircraft to operate at another airport facility is to charge different landing fees for each aircraft type or varying landing fees over a 24-hour period. This type of measure would discourage aircraft operators from operating unwanted aircraft at the facility, or discouraging nighttime operations, unless additional compensation was collected for that particular flight. This ideology could be applied based on peak noise levels for each aircraft type or establishing unique landing fees for certain aircraft categories. For example, if a community wanted to discourage helicopter operations at their facility, the pursuit of this type of control measure could be an airport charging a helicopter operator a $100 landing fee while only charging a small general aviation aircraft $10.

Long Island MacArthur Airport (NY). In September 2001, the Town of Islip, New York, owner and operator of the Long Island MacArthur Airport, adopted a $50,000 noise surcharge on all flights operating between 11 p.m. and 6:30 a.m. (Airport Noise Report, 2001E). The FAA informed the Town of Islip that the enforcement action was in violation of their grant agreements and requires a Part 161 analysis since the measure “discriminated” against nighttime operations (Airport Noise Report, 2001F). Islip’s attorney has agreed to “permanently not enforce” the noise surcharge and backed down on the curfew due to the FAA’s threat to find the Town in violation of the Part 161 regulations (Airport Noise Report, 2002B). Therefore, at this time, varying landing fees
by time or type of operation also falls within the restrictions of ANCA and the associated Part 161 regulations, unless grandfathered prior to the adoption of ANCA.

**Limit by Weight of Aircraft**

Similar to controlling airport operations by aircraft noise levels, a measure which limits airport operations based on the weight of an aircraft could restrict large aircraft operations from utilizing a facility. As one could presume, the larger the aircraft, then usually the larger the noise impact. (Although this is no longer the case for some regional business jets. As difficult as it may seem, some regional business jets (e.g. the Learjet 25), usually weighing less than 15,000 lbs., can emit a higher departure noise profile than some of the largest publicly-used passenger aircraft such as Boeing’s 747, which can weigh over 250,000 lbs.)

**Teterboro Airport (NJ).** Since 1967, the Teterboro Airport, primarily a general aviation (small aircraft) airport near New Jersey and only 12 miles from Manhattan, has prohibited aircraft weighing more than 100,000 lbs. from operating at the airport unless prior authorization has been approved by the airport manager (Teterboro Airport, 2002). The Boeing Corporation requested the FAA to review if the noise restriction violates current grant agreements between the airport and the FAA, even though the weight limitation has been enforced since 1967 (Airport Noise Report, 2001K). The FAA’s response concluded that the control measure imposed prior to the promulgation ANCA, was grandfathered, and therefore does not violate grant assurances utilized to improve the facility since the airlines have been aware of the restriction for over 30 years (Sforza, 2002). Also, New Jersey congressional delegates have requested the airport to expand its current curfew from 12 a.m. to 6 a.m. prohibition on all Stage 2 aircraft weighting more
than 75,000 lbs. to all aircraft, and to only allow Stage 3 aircraft to operate from the facility. The response from the airport to these interested parties indicated that both measures, since they are expansions of the pre-ANCA noise reduction efforts, must be implemented via the Part 161 process (Airport Noise Report, 1999C). At this time, the airport authority is not pursuing the Part 161 requirements needed to implement these two measures.

As summarized in this case study, if the airfield can accommodate a large air carrier aircraft, the facility cannot restrict use of the airport based on weight criteria unless the measure was implemented and enforced prior to promulgation of ANCA. (It should be noted that some runways are constructed to accommodate certain weight limitations, such as those at the North Las Vegas Airport; where the runway design is around 30,000 lbs.)

Other Creative Measures

A few airports have tried other airport limitation measures that have been deemed by the federal government to illegally curtail aircraft operations.

Centennial Airport (CO). The Centennial Airport located south of Denver, Colorado, has argued that scheduled passenger service has been prohibited from occurring at the facility since 1975 (Airport Noise Report, 2001G). (Note that “scheduled passenger service” refers to an airline operation that transports passengers for fare, on a consistent and continuous basis. For example, a Southwest flight that transports three-dozen passengers from Centennial Airport to the San Diego Airport every-other Thursday at 8:20 a.m. would be considered “scheduled passenger service.”) Since the airport has been unable to provide documentation supporting the enforcement
of this ban, and has refused to allow a small airline operator from providing scheduled passengers services from occurring at the airport, the FAA has barred the airport from receiving grant funding; estimated to be approximately $1.8 million annually (Airport Noise Report, 2001H). The FAA grant funding is needed to finance numerous airport facility projects, including the construction of a cross-wind runway. The airport will be presenting the issue to the U.S. Supreme Court later this year since the U.S. Court of Appeals for the Tenth Circuit upheld the FAA’s position in 1998 (Airport Noise Report, 2001I).

Westchester County Airport (NY). The Westchester County Airport, located in New York, has had a voluntary curfew from midnight to 6:30 a.m. on aircraft operations since 1983. Around July 1999, the airport renewed lease agreements with airport users which, (1) enacted penalties for nighttime operations that must be paid or the leases would be revoked, and (2) closed the parking garage from 12:30 a.m. to 5:50 a.m. The FAA and the Air Transport Association (ATA) have viewed these actions as “[coercing] airlines and business jets to adhere to...[the] voluntary Midnight to 6:30 a.m. curfew (Airport Noise Report, 2001A).” The ATA has also argued that “…closure of the parking garage also penalizes members of the public who need to travel early in the day for personal and business reasons and whose desire for this service has led to the introduction of scheduled flights prior to 6:30 a.m. Simply put, airlines would not offer these flights if there were not sufficient passenger demand. Subjecting these passengers to inconvenience and worse is a particularly egregious method of enforcing what is supposed to be a voluntary curfew (Airport Noise Report, 2001A).” The FAA has stated that the measures violate grant assurances and ANCA (specifically the Part 161
Addressing Helicopter Noise Impacts

regulations), and is currently withholding PFC funding until the Part 161 process is fulfilled (Airport Noise Report, 2001).

Summary

As described above, airports have pursued numerous measures aimed at reducing or restricting aircraft operations. These programs have included the pursuit to identify times when aircraft operations are permitted, limiting aircraft operations by noise certification standards and/or by weight criteria, charging different landing fees by aircraft categories or by the time of the day, mandating how aircraft should be flown, and even reducing the operating times of the airport facility itself. As illustrated in the above-mentioned case studies, all these measures, and any measure enacted after the promulgation of ANCA, which curtails aircraft operations or discriminates against certain airport users, must fulfill the requirements of Part 161, including FAA review and approval. Should the airport proprietor be found to violate these conditions, then the FAA may not only withhold AIP and PFC revenues, but request that previous grant funding be returned. Also, the airport proprietor would also be at the risk of legal ramifications from numerous airline and pilot associations concerning ANCA and grant assurance violations specific to “discrimination” and “a burden on interstate commerce.” Since the Part 161 regulations are still fairly new, airports filing Part 161 studies will continuously be tested to ensure that conditions of fulfillment are complete. To date, there has yet to be a clear distinction made by the FAA and/or the courts in determining Part 161 issues.
Conclusions and Recommendations

As noted throughout Chapter 4, an airport proprietor that desires to reduce community noise impacts caused by aircraft operations through the curtailing or limitation of aircraft operations must meet the conditions enacted by Congress through the promulgation of ANCA and specifically the Part 161 program requirements. Those airports that have followed the Part 161 requirements have found the process to be costly, time consuming, unclear, litigious, controversial, and, to date, with limited implementation success based upon FAA statements concerning ANCA and grant assurance violations. It is also noteworthy to point out that one of the key elements contained within the language of ANCA directed the airport proprietor to review all other noise reduction and mitigation measures before aircraft curtailment was pursued.

Future Helicopter Noise Reduction Measures for Clark County

Since 1997, Clark County has pursued a number of “non-limiting” helicopter noise reduction measures. These measures, detailed in Chapter 1, have included working with the FAA and the helicopter industry on revising established flight patterns to fly directly over heavily traveled roadway systems, testing other flight corridors where limited residential development would be impacted, increasing the permitted flight altitude to over 800 feet above ground level (or almost three times higher than that required under federal regulations), requesting that local authorities be permitted to issue citations for non-complaint flight operations, requesting assistance from congressional delegates by establishing a quieter noise standard for all helicopters, providing the County’s helicopter experiences with the FAA Headquarters as part of the development
of the Congressionally mandated helicopter study that should summarize the effects of helicopter impacts on residences in urbanized areas of the United States, and the continued staff support of educating concerned citizens and other interested parties regarding all these helicopter activities and legal restrictions (DOA, 2001A).

**Additional Resolutions to Congressional Delegation.** The County could pursue a few additional measures before seeking the feasibility of completing the Part 161 process to restrict helicopter operations. First, the County could request other local and state agencies to support federal legislation changes that would permit local or state control of helicopter operations. The cities of Henderson, Las Vegas, and North Las Vegas; the State of Nevada’s Environmental Protection Agency; the Las Vegas Chamber of Commerce; the Nevada Taxpayers Association; the Nevada Resort Association; and the Las Vegas Convention and Visitors Authority could adopted resolutions or other supporting documentation similar to the County’s actions (Resolutions provided in Appendix B). These actions would demonstrate a unified support from the entire Las Vegas community to address this issue presented at the local level.

**Off-airport Heliport Facility.** The County and other interested parties could develop an off-airport facility dedicated to serving helicopter sightseeing tour activities. The facility could be located away from the urbanized areas of the Las Vegas Valley, on the east side of town, which would not only reduce the flight time for Grand Canyon tours, but eliminate overflights of residential areas. The development of such a facility would probably require the completion of an environmental assessment study. This document, which requires approval by the FAA, could identify the hours of operation for
the facility, and limit how often helicopter traffic should travel between the proposed facility and other airports within the valley.

**Airspace Assessment.** The County, FAA, and helicopter industry have reviewed numerous flight procedures that identified helicopter flight corridors over different areas of the Las Vegas Valley or at varying altitudes. To date, no solution beyond those already list in Chapter 1 have been permanently implemented due to other airspace constrains (i.e., fixed-wing aircraft transitioning into McCarran International Airport, the North Las Vegas Airport, the Henderson Executive Airport, or Nellis Air Force Base). Although the FAA has indicated other routing procedures presented to date are inefficient, unsafe, or would create too much workload for the air traffic controller, a detailed assessment of these airspace constraints have yet to be completed. The County and other interested parties could fund an outside consulting firm who specializes in airspace traffic patterns to review existing conditions and recommend other flight corridors that could be utilized by the helicopter industry.

**Helicopter Advisory Committee.** In December 2001, the Clark County Board of Commissioners created an Advisory Committee on Helicopter Noise (Clark County, 2001). The committee is made up of seven citizens, two helicopter representatives, and one member who represents the Board of County Commissioners. This committee can explore other noise reduction measures that have been overlooked by previous activities conducted by Clark County, the FAA, and the industry. This committee also provides a forum for the County to explain ANCA and other limitations regarding activities to reduce helicopter noise impacts within the Las Vegas area.
Pilot Education. Although the FAA and the Clark County has continuously met with the helicopter operators (mostly represented by the general managers or the chief pilots) regarding the current noise situation, neither agency has provided each individual helicopter pilot information concerning the issue. The County could prepare a fly quietly brochure which depicts (1) the preferred flight corridors, (2) the allotted altitudes, (3) noise sensitive neighborhoods, (4) helicopter fly quietly techniques, (5) and a list of other voluntary measures, such as increasing separation between each flight, encouraging the limitation of nighttime operations, etc. The development of such a brochure has been beneficial to address noise issues near the North Las Vegas Airport and Henderson Executive Airport. Appendix D includes the flight quietly brochure completed for the Henderson Executive Airport.

Voluntary Measures from Helicopter Industry. As mentioned in the previous noise reduction strategy, there are a number of voluntary noise reduction measures the helicopter industry could implement on their own. These measures include (1) restricting flights between 6 p.m. and 8 a.m., (2) increasing the distance between each helicopter operation to minimize peak volume impacts along the corridors, (3) pursue other routing options that avoid residential neighborhoods but may be more costly to implement, (4) purchase helicopters developed with the quietest technology available, (5) continue to request that the FAA provide their industry a higher altitude assignment, (6) issue monetary penalties to their pilots who purposefully fly outside the agreed-upon traffic corridors, and (7) request that all noise complaint calls received by the Department of Aviation be forwarded to their organization so actual helicopter pilots can meet with concerned citizens.
Pursuing Part 161 Restrictions for Helicopter Operations

If a Part 161 analysis is sought, then the County should understand what the ramification could be to curfew all aircraft operations at McCarran International Airport since ANCA and the Part 161 process prohibits the County from singling out helicopter operations. A helicopter’s peak noise event is well below many other fixed-wing aircraft. Therefore, it would not be feasible for the County to pursue a noise reduction measure based on a peak noise value emitted by the helicopter industry. The policy-makers and residents of the Las Vegas Valley would need to determine if the community is willing to eliminate over 20% of all the passenger service into McCarran Airport, which would have a direct impact on tourism, just to reduce nighttime helicopter noise impacts.

Likewise, the Brown-Buntin Helicopter Noise Study found that, based on federal noise assessment regulations, the noise impacts caused by helicopter operations along the Tropicana and Charleston corridors are well below an acknowledged significant noise threshold. Similarly, all land uses have been deemed “compatible” by Clark County if located outside the 65 DNL (Clark County, 1986). Therefore, per federal and County noise compatibility standards, there are no residential dwelling units significantly impacted by helicopter operations, and a cost/benefit probably could not be warranted to any potential helicopter operational restriction.

As also mentioned throughout this professional paper, if the County pursued helicopter restrictions without complying with the provisions of ANCA, the FAA could not only request refunds of previous AIPs and PFCs provided to Clark County for major expansion projects at not only McCarran, but all six airports managed by Clark County,
but the FAA would probably also be reluctant to help fund the construction of the Ivanpah International Airport; a cost estimated to be at least one billion dollars. If these federal revenue sources are removed, then the Department of Aviation would need to fund these programs from the County’s general fund, a limited revenue source currently insufficient to meet current demands from the school district, parks and recreation, and other needed social services.

**Future Professional Paper Expansion**

This professional paper was completed during a period when only two Part 161 studies have been completed and officially submitted to the FAA. It would be beneficial for a future professional paper to expand the analysis completed within this paper and analyze the future success or failures of Part 161 studies completed and review by not only the FAA, but the court system. A future analysis of the helicopter situation in Las Vegas could also analyze the success of the just recently formed Advisory Committee on Helicopter Noise. Although a majority of the participants on the committee are well aware of ANCA provisions, it will be interesting to see what programs the committee recommends to the Board of County Commissioners to resolve helicopter noise impacts over densely populated areas of the Las Vegas Valley.
Glossary

A-weighted – A specific unit of measure of sound level pressure, in decibels, which filters out very low and very high-frequency sounds, similar to the functionality of the human ear.

AIP – Airport Improvement Program. A funding process implemented through the 1982 Airport and Airway Improvement Act which provides airports discretionary grants funded by user taxes on airline tickets, aircraft fuel, freight waybills and international departures, and provides an exemption from Federal tax on interest income for holders of airport bonds (a "tax expenditure" funded by the general taxpayer). The Federal tax exemption shaves almost two full percentage points off interest costs for airport borrowers of all sizes. Although airports are locally owned and operated, Federal grant and tax exemption policies assist significantly in airport capital development.

Aircraft - A device that is used or intended to be used for flight in the air.

Aircraft Operation – (See operation.)

Airport – Any public use airport, including heliports, to be used for public purposes for the operation of aircraft.

Airport Environs – (See Noise Contours.)

Airport Noise and Capacity Act – Passed in 1990, established criteria that balanced airport proprietors’ goal of reducing noise impacts to their communities with the needs of the national air transportation system. The implementation of ANCA gradually phased-out large, noisy aircraft by January 1, 2000, but also removed local or state authority over aircraft restrictions unless approved through the Part 161 process.
Compatible Land Use – Defined by the local land use planning authority. Part 150 provides suggested land uses that are harmonious with airport operations. Usually based on the DNL. Compatible land uses typically include commercial, industrial, manufacturing, and recreational uses.

Decibels – A unit of measure describing sound level pressure.

Department of Aviation – A division of Clark County which manages six public-use airports.

DNL – The day-night annual average sound level. A 24-hour noise level average, depicted in decibels, which accounts for a typical or average day of airport traffic conditions. A nighttime penalty of 10 decibels is added for each operation that occurs between the hours of 10 p.m. and 7 a.m.

Fixed-wing Aircraft – An aircraft that, for its horizontal motion, depends principally on vertical speed where the engine/propeller pulls the aircraft forward and lift is accomplished due to air flowing over the wings.

Helicopter – A rotorcraft that, for its horizontal motion, depends principally on its engine-driven rotors. Also meets the general definition of an aircraft.

Heliport – An area used or intended to be used for the landing and takeoff of helicopters.

Incompatible Land Use – Defined by the local land use planning authority. Part 150 provides suggested land uses that are harmonious with airport operations. Usually based on the DNL. Incompatible land uses typically include educational facilities, residential units, transient lodging, hospitals, and other long-term/overnight stay facilities.
Noise Contour – Also referred to as the noise exposure map or the airport environs. A graphical depiction of an airport and its noise impacts on the surrounding area, usually depicted in 5-decibel increments (60 DNL, 65 DNL, 70 DNL, 75 DNL, and 80 DNL), developed in accordance with Part 150 regulations.

Non-compatible – (See incompatible land use.)

Operation – An aircraft landing, departing, or performing other flight operations within the airspace.

Part 36 – Also known as Noise Standards for Aircraft Type and Airworthiness Certification, codified under Title 14 of the Code of Federal Regulations. Identifies noise standards for each individual aircraft type. (Also see Stage 1, Stage 2, and Stage 3 definitions for additional information.)

Part 150 – Also known as the Airport Noise Compatibility Planning program, codified under Title 14 of the Code of Federal Regulations. Identifies noise control measures, either proposed or enacted, taken by an airport proprietor to reduce noncompatible land uses and to prevent the introduction of additional noncompatible land uses within the airport environs. A federally approved process, which if voluntarily completed, permits federal funding assistance for the noted noise reduction programs.

Part 161 - Also known as the Notice and Approval of Airport Noise and Access Restrictions program, codified under Title 14 of the Code of Federal Regulations. Identified the process an airport proprietor must complete in order to implement noise abatement procedures or access restrictions. A cost/benefit analysis must be completed for measures that Part 161 permits measures that limit or restrict aircraft operations. All
noise mitigation measures implemented after October 1, 1990, must be reviewed and
approved by the FAA.

PFC – Passenger Facility Charge. Implemented in 1990 by the Aviation Safety
and Capacity Expansion Act, the PFC program represents a significant source of capital
improvement revenue for commercial service. The program permits an airport proprietor
to charge each passenger a “facility charge” in the of $1, $2, $3, $4 and $4.50. The
funding is used to pay all or part of an FAA approved airport facility project, or pay bond
associated debt service and financing costs.

Soundproof – To reconstruct or insulate a unit to meet a quieter indoor noise
standard.

Stage 1 – Regulated under 14 C.F.R., Part 36. Means a means a takeoff, sideline
or approach noise level greater than a Stage 2 limit (defined in 1969), prescribed in Part
36. A Stage 1 airplane does not comply with Stage 2 or Stage 3 noise standards. A Stage
1 aircraft could not be produced after 1973, and Stage 2 aircraft weighing more than
75,000 lbs. were not allowed to operate after 1987. A Stage 1 aircraft included the B-707
and the DC-8.

Stage 2 - Regulated under 14 C.F.R., Part 36. Means a means a takeoff, sideline
or approach noise level greater than a Stage 3 limit (defined in 1976), prescribed in Part
36. A Stage 2 airplane does not comply with Stage 3 noise standards. A Stage 2 aircraft
could not be produced after 1988, and Stage 2 aircraft weighing more than 75,000 lbs.
were not allowed to operate after 1999 per ANCA. A Stage 2 aircraft included the B-
727, early versions of the B-737, the DC-8 and the DC-9.
Stage 3 - Regulated under 14 C.F.R., Part 36. Means a means a takeoff, sideline or approach noise level which meets the Stage 3 limits (defined in 1976), prescribed in Part 36. All aircraft weighing more than 75,000 lbs. must be Stage 3 certified if operating within the contiguous United States per ANCA. A Stage 3 aircraft includes the newer versions of the B-737, the B-757, the DC-10, the MD-80, and the Airbus series (A-300s).
References


Addressing Helicopter Noise Impacts


Brayer, M. (1998, April 22). *Oral Testament from the Federal Aviation Administration to the Clark County Board of Commissioners*.


Department of Aviation, Clark County (2001, March). *Vision 2020*. Presentation presented at the meeting of the Clark County Board of Commissioners, Las Vegas, NV.

Department of Aviation, Clark County (2001A, March). *Charleston Corridor: Neighborhood Meetings on Helicopter Noise Issues*. Meeting conducted at the helicopter noise meeting of Commissioner Williams and the Clark County Department of Aviation, Las Vegas, NV.

Department of Aviation, Clark County (2000). *Clark County Department of Aviation Flight Tracks for McCarran Airport and Helicopter Tour Operations*. Las Vegas, NV.


Addressing Helicopter Noise Impacts


National Helicopter Corp. v. City of New York, 137 F.3d 81 (2nd Cir. 1998).

Packer, A. (2001, May 4-6). Overhead Nuisance. Las Vegas Sun, pp. 1A, 7A.


Appendix A

Radar Flight Tracks for Helicopter Tour Operations and Arriving/Departing Fixed-wing Aircraft for McCarran International Airport.
Appendix B

Resolution to the FAA and

Resolution to Congress
Addressing Helicopter Noise Impacts

Issue: Nonmilitary Helicopter Operations

Petitioner: Randall H. Walker, Director of Aviation

Recommendation:

That the Board of County Commissioners approve, adopt, and authorize the Chairman to sign a Resolution recommending that the Federal Aviation Administration develop additional control measures that will reduce noise impacts associated with nonmilitary helicopter operations in densely populated areas.

FISCAL IMPACT:

None.

BACKGROUND:

Goal A: Create partnerships with common interest groups and the people within our community.

The Clark County Department of Aviation (DOA), owner and operator of three airports within the Las Vegas Valley, currently addresses noise complaints associated with various types of aircraft operations ranging from large air carriers to helicopters. The number of noise complaints associated specifically with helicopter operations has been steadily increasing over the past few years. Although DOA staff continues to educate the public concerning helicopter routing and flight characteristics, and consistently works with the Federal Aviation Administration (FAA) and helicopter operators on integrating air traffic issues with community concerns, Clark County does not have the authority to resolve a majority of the issues expressed by Valley residents.

The FAA Authorization Act of 2000 requires the FAA to conduct a study of the effects of nonmilitary helicopter noise on individuals in densely populated areas, and to report associated noise reduction recommendations to Congress. Part of the study includes soliciting commentary from operators of airports which have significant helicopter traffic and associated noise issues.

Since Clark County does not have the authority to amend helicopter flight procedures or restrict the number of helicopter operations without being at risk of violating federal grant assurances, the Resolution contains a number of recommendations the FAA could implement that may help resolve many local helicopter noise issues.

Respectfully submitted,

RANDALL H. WALKER
Director of Aviation

Cleared for Agenda
RESOLUTION
OF THE BOARD OF COUNTY COMMISSIONERS
RECOMMENDING ADDITIONAL CONTROL MEASURES
TO THE FEDERAL AVIATION ADMINISTRATION
CONCERNING NONMILITARY HELICOPTER OPERATIONS
(FAA, RULES DOCKET NO. 30086)

WHEREAS, Clark County owns and operates six (6) public-use airports within unincorporated Clark County, three (3) of which are located within urbanized areas of the Las Vegas Valley (McCarran International Airport, North Las Vegas Airport, and Henderson Executive Airport); and

WHEREAS, helicopter operations have increased significantly at the urban airports, specifically helicopter operations which originate at McCarran International Airport and provide tours of the Grand Canyon, Hoover Dam, and/or the Las Vegas “Strip”; and

WHEREAS, the number of noise complaints made by Valley residents impacted by helicopter overflights, specifically those associated with sightseeing tours, have been steadily increasing; and

WHEREAS, Clark County has no authority to either require helicopter operators to fly at higher altitudes or to amend flight procedures; and

WHEREAS, Clark County has no authority to issue citations to helicopter pilots who do not fly agreed-upon “community friendly” routes; and

WHEREAS, Clark County can neither limit the number of helicopter operations occurring at its public-use airports nor restrict noisy helicopters from operating at said facilities without being at risk of violating grant assurances; and

WHEREAS, Clark County wishes to continue to balance the needs of the air transportation system with the desires of Clark County residents to not be subject to significant helicopter noise, and the implementation of the recommendations listed below could provide relief to residents impacted by helicopter operations, while still providing the opportunity for helicopter operations to grow;

NOW, THEREFORE, BE IT RESOLVED, that the Clark County Board of County Commissioners recommends to the Federal Aviation Administration, as it pertains to Docket No. 30086:

(1) That the minimum altitude for non-emergency or non-law enforcement helicopter operations (i.e., electronic news gathering, sightseeing tours, and corporate executive or other private flights) equal that established for fixed-wing aircraft; or 1,000 feet above ground level over congested areas and 500 feet above ground level over non-congested areas.
(2) That the minimum altitude for non-emergency or non-law enforcement helicopter operations be attained by helicopter operators prior to any lateral movement.

(3) That a Stage 3 noise level standard be established for helicopters under 14 CFR Part 36—Noise Levels for U.S. Certificated and Foreign Aircraft.

(4) That a time-table be established that requires all civilian helicopters operating within the United States meet the Stage 3 noise level requirements for helicopters, similar to the nationally-required phase-out of civilian Stage 2 aircraft weighing more than 75,000 pounds.

(5) That local airport authorities be authorized to issue citations, penalties, or other enforcement actions to pilots who purposefully violate community friendly helicopter flight corridors.

PASSED, ADOPTED, AND APPROVED this 18th day of July, 2000.

CLARK COUNTY, NEVADA

ATTEST:

By: ____________________________________________
BRUCE L. WOODBURY, CHAIR
Board of County Commissioners

On this ___ day of ____________, 20 ___
_________, before me, _________________
a Notary Public in and for said state,
personally appeared ____________________
personally known to me to be the person
who executed the above instrument, and
acknowledged that _______ executed the
same for purposes herein stated.

_____________________________
Notary Public

By: ____________________________________________
SHIRLEY PARRAGUIRRE
County Clerk

Approved as to form:

By: ________________________________
E. LEE THOMSON
Chief Deputy District Attorney
## Issue:
H.R. 729, Helicopter Noise Control and Safety Act, or other similar federal legislation

<table>
<thead>
<tr>
<th>Petitioner:</th>
<th>Commissioners Myrna Williams, Dario Herrera, and Yvonne Atkinson Gates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-up:</td>
<td>Clerk Ref.#</td>
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**Recommendation:**

That the Board of County Commissioners approve, adopt, and authorize the Chairman to sign a resolution urging Congress to approve House Resolution (H.R.) 729, otherwise known as the Helicopter Noise Control and Safety Act, or other similar federal legislation, which provides for development and implementation of certain plans to reduce risks to the public health and welfare caused by helicopter operations.

**FISCAL IMPACT:**

None.

**BACKGROUND:**

**Goal A:** Create partnerships with common interest groups and the people within our community.

The number of noise complaints made by Las Vegas Valley residents impacted by helicopter overflights, specifically those associated with sightseeing tours, has been steadily increasing. The Airport Noise and Capacity Act of 1990 basically eliminates Clark County's ability to place restrictions on helicopter operators originating from publicly-funded airport facilities. All such regulations are under the purview of the Federal Aviation Administration (FAA).

The 106th Congress introduced H.R. 729, titled Helicopter Noise Control and Safety Act. If passed, this act would have authorized the Administrator of the FAA to develop and implement helicopter operation plans, if it is determined that helicopter operations pose a risk to the public health and welfare in a county or municipality with a population of more than 500,000. Such plans could: (1) place curfews on the number and time of helicopter operations; (2) restrict the daily number of flights, including different restrictions for weekday and weekend flights; and (3) restrict the type of helicopter used.

H.R. 729 is pending until the FAA completes a study, as required by the Federal Aviation Administration Authorization Act of 2000, which addresses the effects of non-military helicopter noise on individuals in densely populated areas in the U.S. and develops recommendations for the reduction of the effects. The Study is required to be submitted to Congress in Spring 2001.

In July 2000, the Board of County Commissioners approved, adopted, and authorized the Chairman to sign a resolution recommending that the FAA develop additional control measures that will reduce noise impacts associated with nonmilitary helicopter operations in densely populated areas.

The attached resolution urges Congress to pass H.R. 729, Helicopter Noise Control and Safety Act, or other similar federal legislation.

**APPROVED/ADOPTED/AUTHORIZED AS RECOMMENDED AS AMENDED TO SUPPORT THE CONCEPT OF H.R. 729 & URGES PASSAGE OF SIMILAR LEGISLATION**

Respectfully submitted,

ALE W. ASKEW
County Manager

/JLS:cd
RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS RECOMMENDING CONGRESSIONAL SUPPORT OF ADDITIONAL CONTROL MEASURES CONCERNING NONMILITARY HELICOPTER OPERATIONS (H.R. 729, the FAA Authorization Act of 2000, or other similar federal legislation)

WHEREAS, Clark County owns and operates six (6) public-use airports within unincorporated Clark County, three (3) of which are located within urbanized areas of the Las Vegas Valley (McCarran International Airport, North Las Vegas Airport, and Henderson Executive Airport); and

WHEREAS, helicopter operations have increased significantly at the urban airports, specifically helicopter operations which originate at McCarran International Airport and provide aerial sightseeing tours of the Grand Canyon, Hoover Dam, and/or the Las Vegas “Strip”; and

WHEREAS, the number of noise complaints made by Las Vegas Valley residents impacted by helicopter overflights, specifically those associated with sightseeing tours, has been steadily increasing; and

WHEREAS, over the past five (5) years, Clark County has worked with the Federal Aviation Administration (FAA) and the helicopter tour operators on balancing helicopter air traffic needs with community concerns; and

WHEREAS, Clark County has no authority to either require helicopter operators to fly at higher altitudes or to amend flight procedures, as the regulation of such activities, per the Federal Aviation Act of 1958, is under the purview of the FAA; and

WHEREAS, Clark County has no authority to issue citations to helicopter pilots who do not fly agreed-upon “community friendly” routes, as the regulation of such activities is under the purview of the FAA; and

WHEREAS, airport aid program grant assurances agreed by all FAA funding recipients indicate that Clark County must make its airports available as public-use facilities on fair and reasonable terms and without unjust discrimination, to all types, kinds, and classes of aeronautical uses, and subject each air carrier, including helicopter operators, to nondiscriminatory and substantially comparable rules, regulations, and conditions; and

WHEREAS, the 1990 Airport Noise and Capacity Act prohibits Clark County from limiting the number of helicopter operations occurring at its public-use airports or restricting noisy helicopters from operating at said facilities without meeting Title 14 of the Code of Federal Regulations (14 C.F.R.), Part 161—“Notice and Approval of Airport Noise and Access Restrictions” requirements; and
WHEREAS, 14 C.F.R. Part 161 requires that if an access or noise restriction is proposed at a public-use airport, then (1) a cost-benefit analysis of the proposed restriction must be prepared, (2) a description of alternative measures considered which would not entail aircraft restrictions must be completed, (3) the issue of whether land uses impacted by the proposed restriction are compatible with guidelines provided in Appendix A of 14 C.F.R. Part 150 must be discussed, and (4) the restriction must be reviewed and/or approved by the FAA; and

WHEREAS, Appendix A of 14 C.F.R. Part 150 states that all land uses with an exposure below the 65 decibel day-night annual average (DNL) noise contour are compatible with aircraft operations; and

WHEREAS, the December 13, 2000 Helicopter Noise Study commissioned by Clark County found that the noise impacts of helicopter operations along the Charleston and Tropicana corridors are well below the 65 DNL threshold; and

WHEREAS, a cost-benefit analysis to restrict helicopter operations along said corridors, based on federal regulations, would not warrant any operational restrictions; and

WHEREAS, the Helicopter Noise Study also identified areas that could be significantly impacted by peak sound levels; and

WHEREAS, the FAA has not approved airport noise or access restrictions based upon noise impacts below the 65 DNL noise contour or single event assessments; and

WHEREAS, Clark County has held three (3) informational neighborhood meetings regarding helicopter noise issues, with over 150 residents participating in the meetings; and

WHEREAS, the residents of Clark County are frustrated that local and state authorities cannot regulate non-emergency helicopter activities based at public-funded facilities; and

WHEREAS, Clark County wishes to continue to balance the needs of the air transportation system with the desires of Clark County residents to not be subject to significant helicopter noise; and

WHEREAS, H.R. 729, titled Helicopter Noise Control and Safety Act, introduced in the 106th Congress, would have authorized the Administrator of the FAA to develop and implement plans, if it is determined that helicopter operations pose a risk to the public health and welfare in a county or municipality with a population of more than 500,000, which could (1) place curfews on the number and time of helicopter operations, (2) restrict the daily number of flights, including different restrictions for weekday and weekend flights, and (3) restrict the type of helicopter used; and

WHEREAS, H.R. 729 is pending until the FAA completes a study, as required by the Federal Aviation Administration Authorization Act of 2000, which addresses the effects of non-military helicopter noise on individuals in densely populated areas in the U.S. and develops recommendations for the reduction of the effects of non-military helicopter noise; and
WHEREAS, in July 2000, Clark County submitted comments regarding the FAA’s study and recommended a number of measures that could address helicopter noise issues;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Commissioners of Clark County, Nevada, recommends that Nevada’s Congressional Delegation:

(1) Support national legislation that would authorize local jurisdictions, in consultation with the FAA, to regulate, limit, or curfew the number of helicopter operations used for sightseeing tours, and/or approve sightseeing flight corridors, and/or increase the minimum altitude requirements for non-emergency or non-law enforcement helicopter operations without fulfilling the 14 C.F.R. Part 161 requirements.

(2) Support national legislation that would require the FAA to review environmental impacts due to helicopter operations utilizing a 45 DNL threshold and/or single event noise metrics.

(3) Support national legislation that would authorize local jurisdictions to issue citations, penalties, or other enforcement actions to pilots who purposefully violate established and adopted “community friendly” helicopter flight corridors.

(4) Support national legislation that establishes a Stage 3 noise level standard for helicopters (under 14 CFR Part 36---Noise Levels for U.S. Certificated and Foreign Aircraft), and defines a time-table which requires all civilian helicopters operating within the United States meet the Stage 3 noise level requirements for helicopters.

(5) Support national legislation requiring the FAA to review “C-weighted” helicopter noise impacts, and to review socio-psychoacoustics noise impacts of helicopters within one (1) year of enactment of such legislation.
PASSED, APPROVED, AND ADOPTED this 17th day of April, 2001.

CLARK COUNTY, NEVADA
BOARD OF COMMISSIONERS

By: DARIO HERRERA, Chairman

ATTEST:

By: SHIRLEY B. PARRAGUIRRE, County Clerk

On this 17th day of April, 2001, before me, CAMILLE LEAVITT, a Notary Public in and for said state, personally appeared DARIO HERRERA personally known to me to be the person who executed the above instrument, and acknowledged that he executed the same for purposes herein stated.

CAMILLE LEAVITT
Notary Public

Approved as to form:

By: E. LEE THOMSON
Chief Deputy District Attorney
Appendix C

1997 Airport Environments for McCarran International Airport
Appendix D

Flight Quietly Brochure for the Henderson Executive Airport
Fly Safely & Quietly at Henderson Executive Airport

NOISE ABATEMENT PROCEDURES
The Clark County Department of Aviation has been working with both the City of Henderson and adjacent developers to reduce noise impacts over all sensitive residential areas. The following measures will ensure that airport operations at Henderson Executive can continue to prosper while our community continues to grow. Compliance with the recommendations outlined below will assist in our efforts to be good neighbors.

The measures are not intended to alleviate the responsibilities of the pilot for safe aircraft operation or compliance with Federal Aviation Regulations and Henderson Air Traffic Control Tower (Tower) directives.

GENERAL
- Avoid overflight of nearby residential areas whenever practical except in an emergency or as otherwise directed by the tower.
- All traffic patterns shall remain west of HEA and clear of the Class B.
- Runway 36 is the designated calm wind runway.
- Please refrain from doing engine run-ups for maintenance purposes between the hours of 11:00 p.m. and 7:00 a.m. If required, use Runway 36 runup area.
- Low Intensity Runway Lights operational dusk until dawn. Taxiways lit by perpendicular lighting only.

DEPARTURES - ALL RUNWAYS
- Nighttime departures shall use Runway 36 unless operationally necessary.
- Intersection departures when the tower is closed are prohibited.
- Climb at best rate until reaching 500 feet AGL (weather permitting) before making any turns. Be sure to remain clear of Class B.
- For aircraft with variable pitch propellers, reduce power and prop RPM to climb power setting (preferably 2500 rpm and/or 25 inches for non-turbo charged aircraft) as soon as possible.

DEPARTURES - RUNWAY 36 - SILENT 36 DEPARTURE
- Eastbound - Proceed for one-half mile north before executing turn (see photo on back). Remain south of Lake Mead Drive and north of the Seven Hills Visitors Center.

DEPARTURES - RUNWAY 18 - QUIET 18 DEPARTURE
- Eastbound - After departure, turn right and proceed north until abeam the approach end of Runway 18, turn right northeasterly (see photo on back). Remain south of Lake Mead Drive and north of the Seven Hills Visitors Center.

ARRIVAL - ALL RUNWAYS
- Utilize high profile, low throttle approaches whenever possible.
- Avoid large propeller RPM increases below pattern altitude.

TRAINING PATTERN
- Stay at or above pattern altitude 3,300 feet MSL (800 feet AGL).
- If practical, use reduced power setting on downwind leg.
All traffic to remain clear of residential areas.
Footnotes

1 It should be noted that federal regulations (Title 14 of the Code of Federal Regulations, Part 135) only requires a minimum altitude of 300 above ground level for on-demand/tour operations, and that there is no set minimum altitude for non-tour operations.

2 Title 14 of the Code of Federal Regulations, Part 150 describes how aircraft noise should be monitored and modeled for environmental analysis such as community noise impacts.