

# Pursuit and Implementation of Formal Noise-Based Use Restrictions at U.S. Airports



Presentation to:  
**Noise Compatibility Committee**  
April 27, 2017

- **Legislative and regulatory background to noise restrictions**
  - Airport Noise and Capacity Act of 1990 (ANCA)
  - 14 CFR Part 161, “Notice and Approval of Airport Noise and Access Restrictions” (1991)
- **Post-ANCA and Part 161 airport initiatives related to new noise restrictions**
- **Summary of prior HMMH research into publicized noise restrictions and fees**

# Airport Noise and Capacity Act of 1990, ANCA

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- **Required FAA to complete phase-out of Stage 2 aircraft over 75,000 pounds by 12/31/99**
  - FAA promulgated Part 91 amendment (1991)
- **Required FAA to establish regulations regarding analysis, notice, and approval of airport noise and access restrictions**
  - FAA implemented through FAR Part 161 (1991)
- **Required FAA to develop an national aviation noise policy**
  - Draft “Aviation Noise Abatement Policy 2000” published July 14, 2000, but never finalized
- **Grandfathered existing airport noise and access restrictions**

# Part 161: Notice and Approval of Airport Noise and Access Restrictions

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- **Establishes federal program for reviewing noise and access restrictions on use of Stage 2 and 3 aircraft**
  - Stage 2 restrictions are moot as of January 1, 2016, when the federal government banned all Stage 2 operations (with very limited case-by-case exceptions)
- **Comprehensive analysis required, e.g.:**
  - Evidence of noise problem
    - Must use DNL
  - Impact analysis
    - Must consider costs to all parties (operators, passengers, shippers, governments, businesses, airports, etc.)
- **Benefit-cost analysis**
  - “Monetized” noise benefits must exceed costs
  - Noise shifted to another airport cannot be counted as a benefit
- **Encourages voluntary agreements**

# Part 161: Notice and Approval of Airport Noise and Access Restrictions

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- **Statutory conditions for approval of an access restriction**
  - Reasonable, nonarbitrary, and nondiscriminatory
  - No undue burden on interstate or foreign commerce
  - Maintain safe and efficient use of navigable airspace
  - No conflict with existing Federal law
  - Adequate opportunity for public comment
  - No undue burden on national aviation system
- **Many potential roadblocks**
  - No guidance for benefit/cost analysis
  - Aviation interests - a key data source, unlikely to assist
  - FAA has made its opposition clear
- **Naples precedent was significant in several ways**
  - FAA grant assurances are “pre-existing law,” which must be addressed in addition to Part 161
  - Airports may use local noise standards if they are formally adopted and rigorously enforced (e.g., 60 DNL at Naples)

# Post-ANCA and Part 161 Airport Initiatives

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- **Part 161 initiatives are studies of last resort - perhaps a dozen airports have pursued**
  - Some abandoned, some disapproved by FAA, some resulted in purely voluntary agreements
  - Since 1991, FAA has approved only two new restrictions
    - Naples Stage 2 ban and Van Nuys Stage 2 phaseout
  - Two most legitimate “failed” efforts were at Burbank (curfew) and LAX (formal nighttime preferential runway use program)
    - Both multi-million dollar efforts (\$7M at BUR, \$3M at LAX) resulted in FAA acceptance of the applications as “complete,” but disapproval of the proposed restrictions based on failure to meet statutory conditions
- **All other formal use restrictions currently in place in the U.S. were “grandfathered” under ANCA and Part 161.**

# Prior HMMH Prior HMMH Research into Grandfathered Use Restrictions

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- **HMMH has conducted extensive surveys for several airports over the past decade to identify models for formal restrictions**
  - Curfews
  - Outright bans
  - Noise-level or time-of-day financial incentives
  - Measured or published single event limits
- **Investigations included confidential interviews with airport operators with existing published restrictions to determine:**
  - How rigorously have they enforced them?
  - How effective have the rules been?
- **Information obtained from airport operators was collected under the condition that their feedback would not be made public on an airport-by-airport basis**

# High-Level Results of Prior HMMH Research into Grandfathered Use Restrictions

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- 60 +/- U.S. airports claim to have adopted formal time-of-day, and/or noise-level-based operating restrictions, which can be based on published or measured noise levels
- 200 +/- U.S. airports claim to have formal noise abatement operating procedures; i.e., noise abatement flight corridors, runway use programs, or departure profiles, etc.
- Deeper investigation determined that self-reported information is often misleading
  - Some airports misuse the term “restriction” to describe purely voluntary procedures
  - Some airports describe rules as they exist “on the books,” rather than as implemented
  - In most cases rules have never been enforced rigorously, enforcement has been suspended, or enforcement is no longer relevant, as in the case of Stage 1 and 2 operating restrictions
- Regardless, HMMH did identify a dozen or so airports with actively enforced restrictions

# Summary of Prior HMMH Research into Grandfathered Use Restrictions

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***Note: HMMH has not contacted these airports or conducted research to determine the current status of these rules.***

## ▪ **Curfews**

- Lindbergh Field (San Diego, CA) enforces a night jet departure curfew with different hours for Stage 3 and non-Stage 3 aircraft
- San Jose (CA) enforces a complex published-level-based curfew on Stage 3 aircraft
- San Jose had a full Stage 2 night curfew that is now moot

## ▪ **Published noise level limits**

- Van Nuys (CA) had a night noise rule based on published noise levels that only applied to Stage 1 or 2 aircraft and is now moot
- Burbank (CA) has published night noise rule that only applies to aircraft that have been “hushkitted” to meet Stage 3
- BWI (MD) has a runway use restriction based on published noise levels
- Reagan (Washington, DC) has a published night noise rule that most aircraft currently meet due to advances in aircraft technology

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- **Six airports rigorously enforce restrictions based on event-by-event measured levels.**
  - John F. Kennedy (NY)
  - John Wayne (Santa Ana, CA)
  - Long Beach (CA)
  - Montgomery Field (San Diego, CA)
  - Santa Monica (CA)
  - Teterboro (NJ)

# Summary of Prior HMMH Research into Grandfathered Noise-Based Fees

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- While many airports advertise that they have formal noise-abatement measures with financial incentives/disincentives for compliance, few airports actually enforce such programs.
- Most financial-based implementation mechanisms are fines for non-compliance.
- Most airports with noise-related fines on the books use them largely as threats and find that approach to be effective; pilots respond positively to a warning and repeat violators are rare.
- We did not find airports that implement significant financial *incentives* to promote compliance with noise abatement *operating* measures; e.g., runway use or flight tracks.
- We identified two airports that rigorously implement noise-related fees that are not strictly fines - Hanscom Field (Bedford, MA) and Palm Beach International (FL).
- All formal noise-based fees are pre-ANCA/Part 161 grandfathered