Van Nuys Airport Part 161 Study

Presentation to Citizens Advisory Council
April 5, 2011

Revised “Fly Friendly” Target Noise Level Program

Results, Recommendations, Documentation, Presentation, and Implementation
Fly Friendly Target Noise Level Background

- LAWA initiated in 1994
  - Aircraft-specific departure SENEL targets for monitor V7 (now VNY13)
  - Approximately 14,000 feet from Runway 16R brake release
- Operators receive letter from airport manager for exceedances
- Purely voluntary program
Establishment of Original Fly Friendly Targets - 1994

- Targets were set by averaging the arithmetic mean of:
  - Measured SENEL departure levels for the given aircraft type
  - Integrated Noise Model SENEL estimate

- The original monitoring system was relatively new
  - Limited measurement data were available
  - Fewer than 10 measurements for some aircraft types

- INM estimates were available for only nine aircraft types
  - LAWA staff “mapped” actual aircraft to one of these types

- Ongoing implementation
  - LAWA staff monitor on a continuing basis
  - Send letters to operators exceeding targets
  - Prepare monthly report on exceedences by operator
Overview of Part 161 Analysis

- **Part 161 scope called for assessing mandatory program**
- **Detailed analysis showed:**
  - Voluntary program has been highly successful
  - Measurable benefits; about 2.2 dB average improvement
  - No obvious “bad performers” to target in a formal manner
  - A formal program would ultimately affect even “best performers”
- **In addition, FAA considers this type of rule “unsafe”**
  - Highly unlikely to approve formal restriction
- **HMMH recommended**
  - Develop updated targets for as many jet types as possible
  - Set targets to affect each type equally – encourage “best effort”
  - Targets affecting noisiest 5% of departures would approximate benefit of full adherence to existing targets
  - Continue as voluntary effort with enhanced promotion
Looking for “Magic Bullet” Targets: Are there obvious bad performers to restrict?

- Measured levels display “normal” distributions
- No obvious break between “good” and “bad” performers
In the absence of a “magic bullet,” what do the data reveal that can assist us?

- Frequent operators tend to perform better
  - May be learning curve, gentle pressure from letters, or greater interest among local operators in being a “good neighbor”
Setting Updated Targets

- Targets affecting noisiest 5% of departures would approximate benefit of full adherence to existing targets
  - Continue existing upper and lower limits of 110 and 90 dB
- HMMH has developed final 5% exceedance targets
  - 50 +/- types with sufficient measurement data
  - Interim targets suggested for aircraft currently operating at VNY with insufficient measurement sample sizes
    - FA7X, CRJ2, CRJ7, and LJ40
- Recommended method to set targets for new types
  - Determine initial target when 100 measurements are available
  - Update when the sample size reaches 1,000 departures
  - Provided spreadsheet to compute targets from measurements
Enhancing Program Effectiveness

- “Good Performer” awards program
  - Proven effective at other airports; e.g., APF, FXE, HPN, TRK
- Potential program elements
  - Catchy name; e.g., “Spirit of Noise Abatement Awards” (HPN)
  - Defined evaluation period; e.g., annual
  - Complementary criteria linked to other noise program objectives
    - e.g., no violations of any existing formal noise rules
  - Awards ceremony and reception
  - Public recognition; e.g., press releases, website listing, BOAC acknowledgement
  - Physical awards; e.g., trophies or plaques for display
  - Physical rewards; e.g., gift certificates, t-shirts, hats, etc.
  - Specific evaluation criteria …
Award Program Exceedance Criteria

- **Recommended eligibility criteria**
  - Operator must conduct at least 30 Runway 16R departures in all jet aircraft types in the year
  - Operator must exceed applicable targets no more than three percent of the time
  - Historical data suggests criteria will yield 20 +/- annual winners

- **All operators would continue to receive letters from LAWA notifying them of individual exceedances**
  - To provide continuing educational feedback

- **Reassess targets, criteria, and other elements**
  - When annual exceedances for all operators and types falls to three percent of jet departures on Runway 16R
  - Consider making the program more stringent or other revisions
Discussion

- Questions?
- Ideas?
- Let’s start with a name
  - Here are three suggestions
    - LAWA?????