

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

www.hmmh.com

- **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

www.hmmh.com

- **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

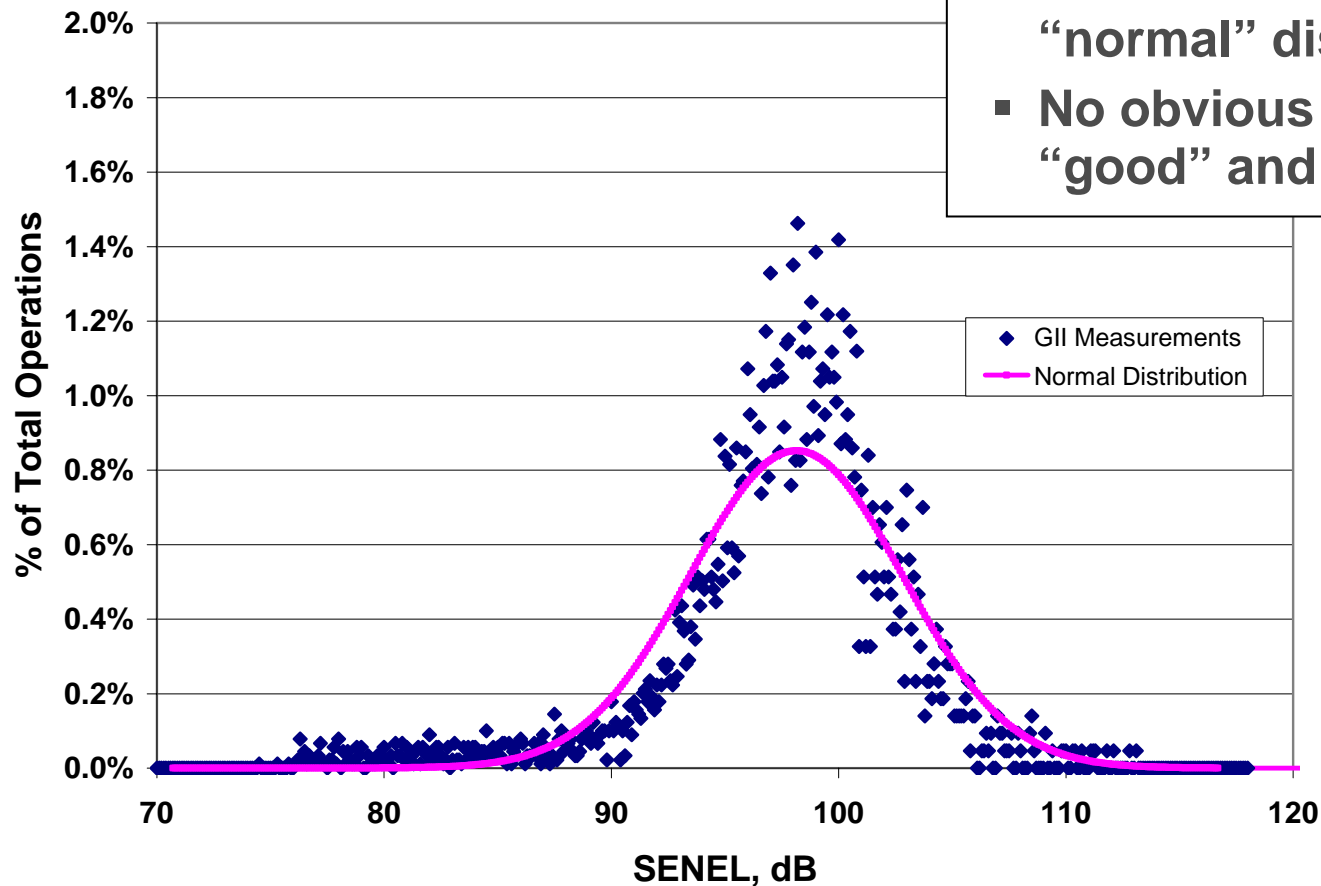
www.hmmh.com

- **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?

www.hmmh.com

Measured Jet Departure SENEL Distribution Compared with Normal
Aircraft: GII, Site: V7

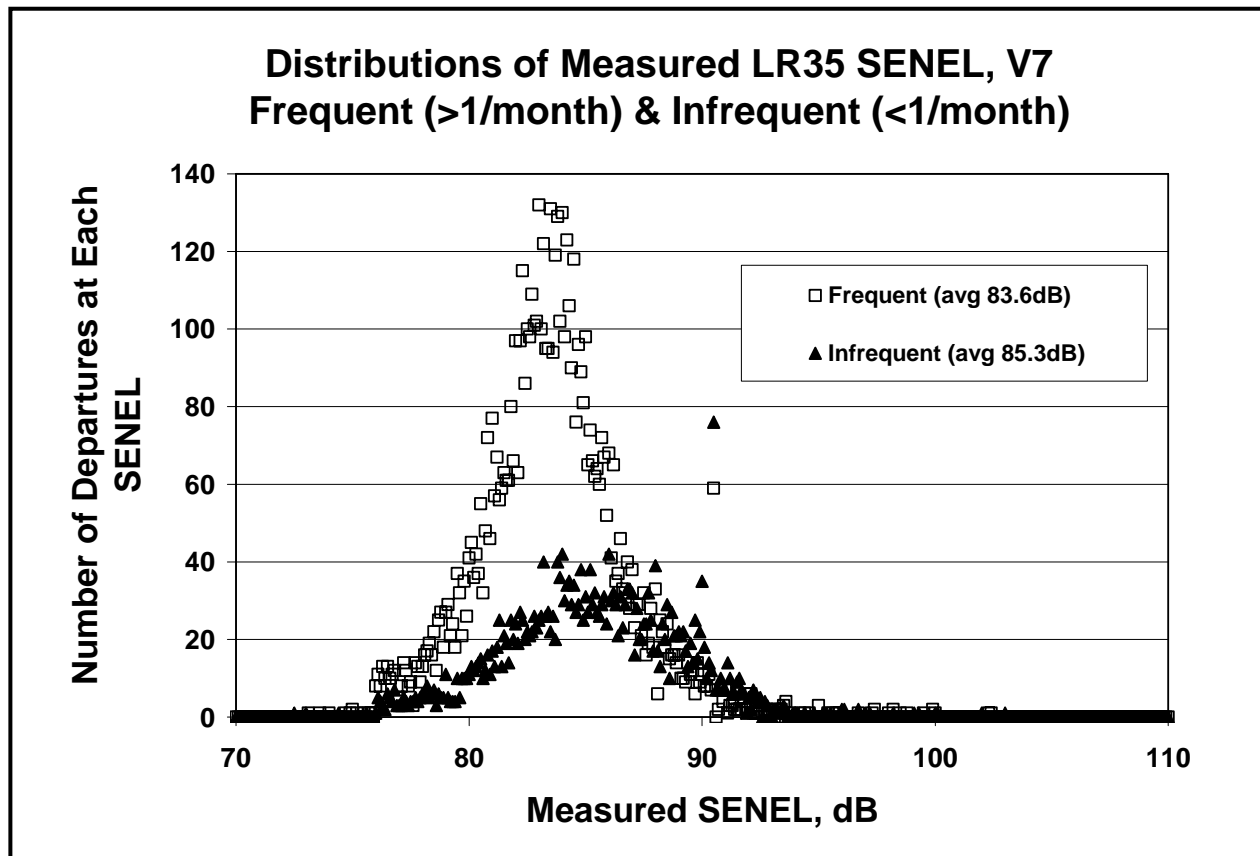


- Measured levels display “normal” distributions
- No obvious break between “good” and “bad” performers

In the absence of a “magic bullet,” what do the data reveal that can assist us?

www.hmmh.com

- 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

www.hmmh.com

- **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

www.hmmh.com

- **“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

www.hmmh.com

- **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

www.hmmh.com

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