

Van Nuys Airport Noise Programs

Overview

Los Angeles World Airports (LAWA) devotes significant attention, staff, and financial resources to noise programs at Van Nuys Airport (VNY), including outreach, implementation, monitoring, enforcement, review, and program refinement. These numerous efforts are conducted by various LAWA staff, including those in the Noise Management Section of the Environmental & Land Use Planning Division, as well as local staff in the VNY Noise Management Office, assisted by administrative, operations, public affairs, and other staff at VNY. The VNY Noise Management office is currently staffed by one full-time Environmental Specialist and two part-time student volunteers, who oversee all VNY noise abatement procedures and programs. LAWA noise staff works closely with VNY Operations Division, which enforces the mandatory restrictions of the VNY Noise Abatement and Curfew Ordinance and coordinates with the City Attorney's Office as needed. LAWA noise staff also works with community members, elected officials, aviation professionals, the FAA and other various neighborhood groups and advisory councils to address noise concerns.

LAWA noise staff manages the Aircraft Noise & Operations Management System (ANOMS), the state-of-the-art noise and flight track monitoring system deployed at VNY. The ANOMS system integrates a variety of data sources including Federal Aviation Administration (FAA) radar track data, noise event data from noise monitoring terminals in the surrounding community, audio recordings of FAA air traffic control frequencies, and curfew operations and noise complaint logs. ANOMS provides staff with extensive monitoring, query, analysis, reporting, and display capabilities, and plays an integral part in Noise staff's ability to successfully implement various noise programs at VNY. ANOMS also provides the community access to the VNY WebTrak, an internet flight tracking system that allows users to observe aircraft movement and typical flight patterns in the San Fernando Valley, to self-investigate noise concerns, and submit noise complaints.

LAWA operations and noise staff monitor and enforce mandatory noise abatement and curfew regulations while also implementing and monitoring several voluntary noise abatement procedures and notification programs.

Mandatory Noise Abatement Programs at VNY

At the core of the VNY noise abatement program that has achieved the most significant noise reductions are the Noise Abatement and Curfew Regulation (Ordinance No. 155727), the Curfew Extension (Ordinance No. 171889), the Non-Addition Rule (Ordinance No. 173215), and the Noisier Aircraft Phase Out (Ordinance No. 181106). Together, these ordinances target the noisiest aircraft and provide respite from the noisiest aircraft activities (e.g., departures and maintenance run-ups) during the most noise-sensitive hours at VNY.

The Noise Abatement and Curfew Ordinance, adopted in 1981, prohibits departures by aircraft with estimated takeoff noise levels, as set forth in FAA Advisory Circular 36-3A (or any

revisions), of 74 dBA or higher during the curfew period of 11 p.m. to 7 a.m. the following day. The regulation also prohibits repetitive aircraft operations between specified times, prohibits jet engine run-ups (above idle) for maintenance activity between the hours of 7 p.m. and 7 a.m. the following day while restricting them to designated areas, and establishes preferential runways for arrivals and departures.

The Curfew Extension Ordinance, adopted in 1997, provides an additional curfew hour, from 10:00 p.m. to 11:00 p.m., prohibiting departures by aircraft that are not certificated as Stage 3, pursuant to 14 Code of Federal Regulations Part 36. This amendment provides an additional hour of relief to the community from the noisiest subset of the aircraft fleet covered by the original curfew. Exempt from these ordinances are medical emergency flights, military aircraft, and government-operated aircraft for law enforcement or emergency purposes.

The Non-Addition Rule, adopted in 2000, prohibits older Stage 2 aircraft certified at 77 dBA EPNL or greater from being tied down, parked or hangared for more than 30 days in any calendar year. Aircraft in this group already based at VNY for a total of 90 days or more during the previous year were “grandfathered” under the rule and were not subject to the full restrictions until the end of 2010. The Non-Addition Rule ultimately reduced the number of operations by the noisiest of the Stage 2 jets and prevented any more of them from establishing full-time operations at VNY.

The Noisier Aircraft Phase-out, adopted in 2009, established a timeline to permanently phase out the noisiest of the jet fleet from operations at VNY. The phase-out ordinance prohibited operation of aircraft certified at 85 dBA or higher starting in 2009. The maximum levels were dropped to 83 dBA and 80 dBA in 2011 and 2014, respectively. In 2016, all aircraft certified at 77 dBA or higher will be prohibited from operating, in effect sunseting the last of the previous generation’s noisiest jet aircraft at VNY.

These regulations include fines for violations ranging from \$750 to \$3,500, and a provision that may prevent repeat violators from using the airport for up to three years. VNY Operations and Noise Management staff work together to ensure all operations and activities on the airport are in full compliance with the Ordinances. Together, they monitor, investigate and report all suspected violations to the City Attorney’s Office.

Voluntary Noise Abatement Programs at VNY

In addition to the noise abatement regulations described above, LAWA has long implemented voluntary noise abatement programs at VNY to address other aircraft activity that may affect surrounding communities. At the forefront is the Quiet Jet Departure Program, also referred to as the Fly Friendly Program. LAWA also created the No Early Turn Program to notify operators when jets were observed conducting turns before reaching the Flood Basin; the Friendly Flyer Awards Program to acknowledge those jet operators who did an outstanding job complying with all noise abatement procedures; and the Helicopter Route and Altitude Deviation Program to notify operators when they deviated from preferred, established helicopter routes.

Quiet Jet Departure/Fly Friendly Program

VNY Noise Management established the voluntary Quiet Jet Departure Program in 1994 to reduce jet aircraft noise by having pilots agree to use predetermined, recommended procedures to minimize jet departure noise, such as:

- Use noise abatement techniques as established in manufacturers' operating manuals or the National Business Aviation Association Noise Abatement Program;
- Make every effort within adequate safety margins to abide by the proper noise-reducing techniques;
- Actively participate in the monitoring program by working with airport staff and others to research any residential complaints regarding one of their flights; and
- Work with airport staff and the Van Nuys Airport Association to support and encourage other jet operators to participate in the program.

A noise monitor near the south end of the runways measures departure sound levels, and LAWA noise staff analyzes this data on a daily basis. Aircraft owners and operators are notified in writing when they exceed criterion noise levels. In January 2012, VNY updated the Quiet Jet Departure program to include new not-to-exceed target noise levels for specific aircraft types and to expand the number of aircraft included. The new noise levels are based on 10 years of aircraft noise data and affect the noisiest 5% of jet departures from VNY.

Compliance with this voluntary program has steadily increased from 88.9% in 1998 to 98.6% in 2014. The voluntary Quiet Jet Departure/Fly Friendly Program has been highly successful resulting in an average 2.2 dB reduction in noise since its inception.

VNY No Early Turn Program

The VNY No Early Turn Program educates jet aircraft owners/operators of airport noise abatement procedures to reduce the effect of south bound jet departures on airport neighbors when aircraft initiate turns before the Flood Basin. LAWA noise staff established a notification program for jet early turns in 1996, monitoring jet departures using ANOMS to determine jet early turns (other than those specifically instructed to turn early by FAA air traffic control for safety) and notifying the pilots/operators that these departures are contrary to this program.

LAWA also worked with the FAA to revise the departure IFR procedures (instrument flight rules allowing an aircraft to operate in weather conditions requiring use of instruments, not visual cues) to initiate turns at the 2.2 DME, not at the 1.5 DME as previously published, which delayed the turn until reaching the Flood Basin. The number of jet early turns have decreased noticeably – in 1999 there were 99 jet early turns and in 2014 there were just 5 jet early turns (0.03% of total southbound jet departures).

Friendly Flyer Awards Program

LAWA established the Friendly Flyer Awards Program in 2012 to recognize those jet operators who achieve the highest level of compliance with the VNY voluntary noise abatement programs and also adhere to all noise abatement regulations. LAWA Noise staff use ANOMS to monitor compliance with these programs and to determine the top operators. The award winners are

determined using the following criteria: at least 60 southbound jet departures during the previous calendar year; no violations of the Noise Abatement & Curfew Regulation Ordinance, Non-Addition Rule Ordinance, and the Noisier Aircraft Phase-out Ordinance; as well as achieving 99% or greater compliance with the voluntary No Early Turn and the Quiet Jet Departure (Fly Friendly) Programs. Twenty general aviation operators received the inaugural Friendly Flyer Award in May 2013 for their outstanding compliance during calendar year 2012. In June 2014, 26 operators received the award for calendar year 2013. On June 23, 2015, LAWA will present the Friendly Flyer Award to 34 jet aircraft operators for calendar year 2014 at an awards luncheon in Van Nuys for the first time.

Helicopter Route and Altitude Deviation Program

This program notifies helicopter owners/operators of arrival and departure operations that deviate from established FAA routes. Although the FAA has no minimum altitude restrictions for helicopters, it does have agreements from VNY based operators to follow established routes and recommended altitude minimums. VNY also continues to work with the FAA and helicopter operators to address additional ways to reduce noise.

Once again, VNY Noise staff use ANOMS to monitor helicopter operator adherence to the procedures and the program uses the notification process as a tool to:

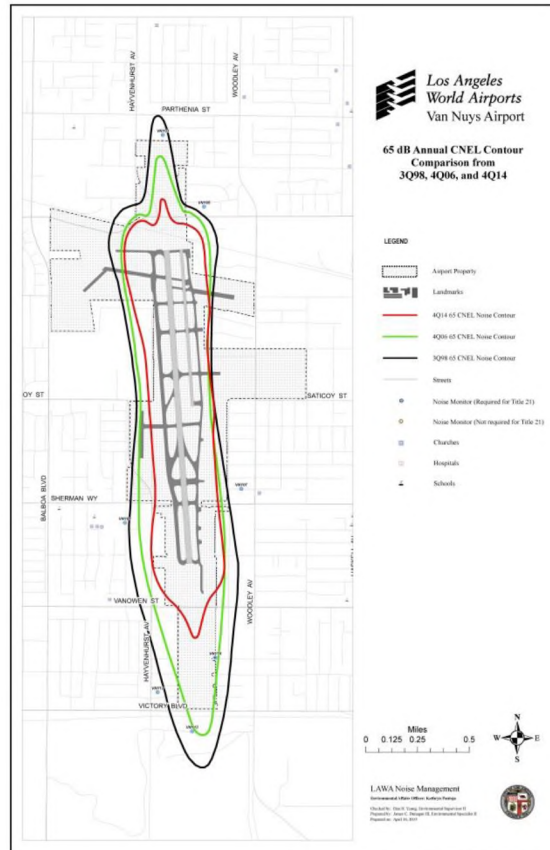
- Request compliance with established routes and altitude minimums,
- Maximize awareness of the airport environment and noise issues, and
- Minimize flight and noise impacts in nearby residential areas, especially during curfew hours.

In 2002, there were 852 deviations when this notification program was implemented. Since that time we have seen notable reductions with 488 deviations in 2012.

Noise Mitigation and Reduction

VNY is the first LAWA airport to achieve full compliance with the California Code of Regulations, Title 21, Noise Standards. This means that there are no longer any incompatible homes within the 65 dB CNEL noise contour, which was achieved primarily through the Residential Soundproofing Program. From 1999, when the program began, through its completion in October 2012, LAWA spent nearly \$10 million soundproofing 779 dwellings – with participation strictly voluntary and at no cost to property owners.

Also during that time period, the noise contours decreased gradually due to a change in fleet mix to newer, quieter jet aircraft and a decrease in total number of aircraft operations. These changes were primarily a result of the Non-Addition Rule (no new Stage 2 aircraft exceeding 77 dBA based at VNY) adopted in 2000 and the recession in 2009. The number of incompatible dwellings dropped from over 1,000 in 1998 to 836 in 2002, then to 54 dwellings in 2006, 3 dwellings in 2009 and finally 0 dwellings in 2012. The figure below shows the change in the 65 dB CNEL noise contour from 1998 through 2014.



Noise Complaint Response Program

Residents concerned about aircraft noise may contact VNY 24 hours a day, seven days a week by using the airport's online form at <http://webtrak.bksv.com/vny> or phone line at (800) 560-0010. Complaints are logged and LAWA noise staff investigates and responds to complaints (up to five per month per person) via letters when requested. This response includes any data found on the specific aircraft operation and information about whether the pilot deviated from any mandatory or voluntary noise abatement program. A monthly summary report of noise complaints is provided to VNY administration, operations, and public and community relations, as well as posted on the airport's web site at www.lawa.org/vny.

Stakeholder Engagement

LAWA noise staff frequently engages with pilots and operators to counsel and educate them about VNY noise programs to enhance compliance with both mandatory and voluntary initiatives. Staff also communicates regularly with individual members of the community to address their noise concerns. More complex noise issues often involve direct consultations with

other stakeholders including FAA staff, local and federal elected officials, community groups and councils, airport staff, and any other parties staff may identify.

In recent months, the Lake Balboa community members brought two such issues to the attention of staff that required a more concerted response from staff. One group of residents in the neighborhood reported their concerns with community overflights caused by propeller-driven aircraft turning before the Flood Basin, and a second group observed activity that they thought was in violation of the VNY Noise Abatement and Curfew Ordinance. LAWA staff is currently working with pilots, flight schools and the VNY Citizens Advisory Council (CAC) to address the propeller early turns, and has provided clarification regarding the VNY Noise Abatement and Curfew Ordinance, while determining the feasibility of expanding the curfew to apply to all departing and arriving aircraft as described below.

Early Turn Issues

For more than 30 years, LAWA has published an informal VNY noise abatement policy for aircraft departing to the south from runways 16R and 16L to fly straight out over the Flood Basin before starting any turns. As noted earlier, LAWA established a No Early Turn Notification Program in 1996 to reduce Jet early turns as these were of greatest concern to the neighboring communities and staff could identify the operators using the ANOMS noise monitoring system. The current concern pertains to propeller aircraft departing primarily the short runway (16L) and turning before reaching the Flood Basin (south of Victory Blvd.). LAWA staff has determined that most of the early turns occur during circuit training when pilots are executing touch-and-go operations.

Circuit training is a regular, on-going flight activity at VNY and is commonly conducted by student pilots learning to fly propeller-driven aircraft (props) under the guidance of flight instructors. A circuit, also known as a touch-and-go operation, involves landing on a runway and taking off again without coming to a full stop. Under normal circumstances, pilots engaged in this activity will either depart from VNY runway 16L/R or, if the aircraft is already in flight, will line up for arrival on 16L/R before turning east or west to repeat the pattern work. As noted, some residents of the Lake Balboa community, southeast of VNY, raised concerns over the apparent increase in community overflights by props performing touch-and-go operations throughout 2014 by submitting complaints via WebTrak and/or the community complaint phone line. Following Noise Management policy for individual complaints (5 investigations per household per month), staff investigated each event related to this matter in ANOMS and provided written response with findings that included the relevant VNY or FAA policy, circumstantial in-flight conditions, and communications between the FAA Air Traffic Control (ATC) and pilots that may have caused the overflights. Additionally, LAWA noise staff contacted community members directly to discuss the observed early turns and the complexity of the circumstances related to each overflight. When this issue was discussed at the VNY CAC meeting in September 2014, LAWA staff agreed to further pursue the issue by initiating contact with stakeholders including, but not limited to, pilots, flight schools, the FAA, the VNY CAC, and concerned citizens. To date, staff has accomplished and/or will embark on the following initiatives to address community concerns on this issue:

- Attend numerous VNY CAC meetings and consult with the residents to gain a full understanding of their concerns.
- Correspond and attend meetings with local FAA officials including district managers and ATC personnel to establish the framework for FAA, Airport, and community involvement to address the issue.
- Conduct direct outreach with local pilots, student pilots, flight instructors and schools at VNY and other local airports. Outreach efforts include one-on-one briefings on best-practice procedures of the “No Early Turn” policy at VNY for circuit training, as well as the posting of “No Early Turn” flyers at various on and off-airport locations to bring awareness of the noise abatement procedure at VNY.
- Participate and provide full support to the VNY CAC Early Turn Ad-Hoc Committee.
- Present a draft resolution of the VNY No Early Turn policy to the LAWA Board of Airport Commissioners (BOAC) .
- Work with the FAA on possible actions to enhance compliance, such as an announcement on the VNY ATIS (Automatic Terminal Information Service) broadcast that noise abatement procedures are in effect.
- Expand publication of the policy in pilot guidebooks and informational pamphlets
- Update the VNY Pilot Information Guide based on suggestions from the VNY CAC Ad-Hoc Committee who developed a flight pattern graphic for pilots to use when training at VNY.
- Conduct ongoing, periodic outreach to maintain and improve awareness of VNY noise abatement policies with stakeholders.
- Determine progress of outreach efforts via ANOMS data analysis, public surveys, or other means.
- Pursue any other recommendations deemed viable to improve outreach efforts to pilots.

Feasibility of Expanding Curfew to all Departing and Arriving Aircraft

As described previously, LAWA has a curfew prohibiting departures of louder aircraft at VNY specifically defined to remove these noisiest aircraft from operations during more noise sensitive periods. The Los Angeles City Council Trade Commerce and Tourism Committee request to address the feasibility of applying this curfew to all aircraft has essentially been previously considered and evaluated during the Title 14 U.S. Code of Federal Regulations Part 150 Noise Compatibility Program (NCP) study and the follow-on Part 161 Study.

LAWA conducted the VNY Part 150 NCP Study, which contained 35 proposed measures, seven of which were identified by LAWA as requiring a FAR Part 161 Study and FAA approval to implement, and in 2003 submitted it to the FAA. In 2005 LAWA initiated the VNY Part 161 Study by hiring a consultant to begin gathering data and analyzing information to evaluate each proposed restriction and the likelihood of FAA approval based on the Part 161 benefit-cost analysis. In addition, ANCA requires that any proposed restrictions on Stage 3 aircraft have to comply with the following six statutory conditions:

1. The Proposed Restriction(s) are reasonable, nonarbitrary, and nondiscriminatory.

2. The Proposed Restriction(s) would not create an undue burden on interstate or foreign commerce.
3. The Proposed Restriction(s) would maintain safe and efficient use of navigable airspace.
4. The Proposed Restriction(s) would not conflict with any existing federal statute or regulation.
5. An adequate opportunity has been provided for public comment on the Proposed Restriction(s).
6. The Proposed Restriction(s) does/do not create an undue burden on the national aviation system.

Also in 2005, the Los Angeles City Council approved the VNY Master Plan, which included language requiring two additional items to be included in the VNY Part 161 Study. Therefore, the study had to evaluate a total of nine proposed noise restrictions as shown below:

1. Rental Rates Incentives/Disincentives
2. Landing Fees Incentives/Disincentives
3. Mandatory Fly Friendly Program with Fines
4. 77 dBA Maximum Daytime Noise Limit
5. Cap Number of Based Stage 3 Jets
6. Expand VNY Curfew to all Non-emergency Operations
7. Cap or Phase Out of Helicopter Fleet
8. Extend Existing VNY Curfew to 9 a.m. on Weekends and Holidays
9. Phase Out Stage 1 and 2 Aircraft

In 2009 the FAA issued a Record of Approval, and out of the 35 proposed noise control measures, the FAA approved 15 and disapproved 20 measures. Seven of these disapproved measures were rejected as violating the Airport Noise and Capacity Act of 1990 (ANCA) if implemented without a Part 161 analysis.

Included in these were measures to expand the VNY curfew to all non-emergency operations and to extend the curfew to 9 a.m. on weekends and holidays. Upon evaluation of these two measures by consultants with expertise on Part 161 measures, LAWA determined that the proposed restrictions may not comply with all of ANCA's six statutory conditions. The proposed restrictions show a negative benefit-cost ratio, and would result in shifting noise to other airports. LAWA cannot claim noise reduction resulting from shifting noise as a benefit. To the extent that the proposed curfew affects Stage 3 aircraft, it would require FAA approval to implement. With regard to the six statutory conditions, they would most likely be unable to prove that they would maintain safe and efficient use of navigable airspace, nor prove that the restriction does not create an undue burden on the national aviation system. In addition, in November 2009 the FAA disapproved the Burbank Airport Part 161 study, which also attempted to impose a mandatory curfew at that airport.

Staff estimated that the cost of submitting the application would be approximately \$200,000. This cost estimate does not include CEQA, City approval costs (BOAC/City Council), or legal defense costs if that should prove necessary. Because FAA approval of this application was unlikely, staff recommended that the application be discontinued and not submitted to the FAA.

The feasibility of obtaining FAA approval to expand the curfew to apply to all aircraft departures and arrivals, which is more restrictive than the changes proposed in the Part 150 NCP, is extremely low. Nevertheless, the existing curfew was created to target the noisiest jet aircraft and it has been very successful in reducing and minimizing nighttime noise.

Summary

For over 35 years, LAWA has worked to address VNY aircraft noise issues and concerns with the neighboring communities, establishing both mandatory noise regulations (pre 1990 ANCA) and voluntary noise abatement programs. These efforts have resulted in the reduction of the 65 dB CNEL noise contour and, with the noise mitigation of homes through the Soundproofing Program, VNY was the first LAWA airport to comply with CCR Title 21, Airport Noise Standards.

LAWA noise staff has always focused on communicating with the operators, pilots, and the neighbors in surrounding communities. LAWA has outlined a plan to expand and improve our outreach efforts to educate pilots when departing southbound not to initiate turns before reaching the Flood Basin. LAWA staff will continue enforcing the noise abatement and curfew ordinances, continue implementing voluntary measures to minimize aircraft noise, and look for viable ways to address new noise issues and concerns.

VNY, a major economic engine in the San Fernando Valley, serves a vital role in providing critical general aviation and emergency services, and continues to work to balance the needs of aviation interests with those of local neighborhoods to reduce aircraft noise for area residents and to provide meaningful response to the community on noise-related issues.