



# LAX Community Noise Roundtable

Aviation Noise News Update  
November 13, 2013

# NAC Refutes Assertion that CATEX 2 is Legally Indefensible



- **The co-chair of the NextGen Advisory Committee (NAC) has refuted the assertion by a former FAA attorney that the method of CATEX 2 is “legally indefensible”**
  - CATEX 2 statute states that what constitutes a measureable reduction in noise on a “per flight basis” is to be made “in the determination of the Administrator”
- **Former FAA Attorney Steven Taber argued that the task group’s assumption that it could use language in a Conference Report on the FAA Reauthorization Act to replace language in the legislation is not legally defensible**
  - The method is currently under FAA review and allows the agency to use its DNL metric to determine if RNAV/RNP procedures can be given a categorical exclusion
  - CATEX 2 is an “important, technically and legally sound way forward in implementing the direction of Congress to facilitate approval of new procedures under NextGen,” said Nancy Young, co-chair of the NAC.
  - Taber has spoken to several parties interested in challenging the NAC Task Group’s method
- **Among many points, Young asserted that the measurement of noise on a “per flight” basis based on single events is nonsensical**
  - “There is no single event noise level that occurs during the course of any flight, but a multitude of noise events that cannot rationally be measured without the use of averaging.”



- **The FAA launched a new initiative for research conducted by the University of Pennsylvania focusing on the impact of aircraft noise on sleep**
  - Chronic sleep disturbance is associated with a multitude of health issues including high blood pressure, diabetes, and depression
  - It is not understood how much aircraft noise impacts sleep in communities around airports, and how those disturbances due to aircraft noise compares with other issues including other noise sources, weight, age, and stress
  - Penn's research is led by Dr. Mathias Basner, Assistant Professor of Sleep and Chronobiology
- **By combining the resulting sleep disturbance models with noise prediction tools, the University hopes to show potential awakening patterns in communities for a wide range of airports and air traffic scenarios**
  - Basner notes that research efforts have lagged in the U.S. on the effects of aircraft noise on sleep
- **The FAA is funding this study along with other environmental studies through the Centers of Excellence led by Washington State University**



- **Comments on a final rule that bans the operation of early stage jets under 75,000 lbs. in the U.S. at the end of 2015 have not persuaded the FAA to amend the rule**
  - The FAA solicited comments on its July 2, 2013 final rule banning stage 1 and 2 aircraft under 75,000 lbs.
  - The Airport Noise and Capacity Act of 1990 set the time frame for stage 1 and 2 aircraft above 75,000 lbs. to be phased out by December 31, 1999

# Elected Officials Voice Support for Helicopter Relief Act

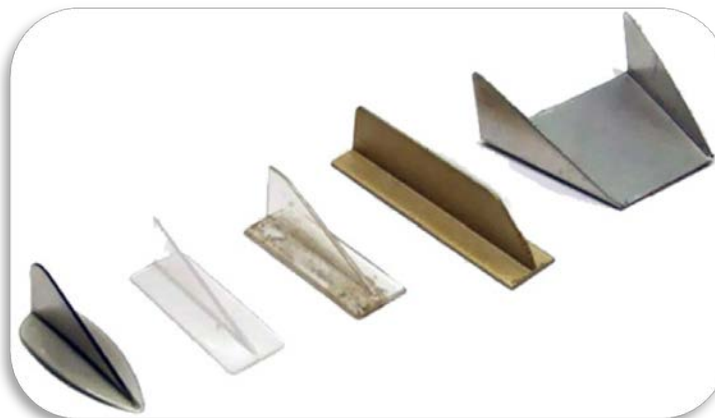


- **Elected Congressional Representatives have requested the FAA provide a schedule for completing the next steps identified in the FAA's Report on the Los Angeles Helicopter Noise Initiative**
  - The initiative launched by the FAA was published in May 2013, and committed the FAA to undertake and support several actions including:
    - Evaluating existing helicopter routes and identify feasible modifications
    - Analyze whether helicopters could safely fly at higher altitudes
    - Develop and promote best practices and conduct outreach to increase pilot awareness
    - Explore a more comprehensive noise complaint system and continue collaborative engagement with communities and helicopter operators
- **The representatives are concerned that they have not yet seen measurable progress in implementing steps specified in the report published almost five months prior**
  - Representatives include: Feinstein, Boxer, Schiff, Waxman, Sherman, Bass, Hahn, Cardenas, and Lowenthal
- **The Mayor of Santa Monica, Pam O'Connor, also voiced her strong support for the L.A. Residential Noise Relief Act of 2013 (H.R.456/S.208)**

# Lufthansa to Modify A320 Family Aircraft to Reduce Noise



- **Lufthansa Airlines will modify 157 of its Airbus 320 series aircraft with vortex generators that reduces approach noise**
  - The Airbus aircraft create two undesirable tones on the underside of the wing by the pressure equalization vents for the fuel tanks similar to blowing air over the mouth of a bottle
  - Vortex generators are small vanes placed on aircraft wings that create a vortex disturbing the natural airflow around the wing, therefore preventing the noise
- **Measurements show that the vortex generators reduce the total noise generated by approaching aircraft by up to two (2) decibels**
  - The research was carried out by Lufthansa and the German Aerospace Center
  - The vortex generators can be fitted to Airbus 319, 320, and 321 aircraft that are already in service as well as new aircraft



Examples of Vortex Generators



- **Researchers at the German Aerospace Center investigated the sources of noise inside the engine**
  - Researchers employed contactless laser metrology and microphones to do the research
  - “This is the first time the technology is being used to examine noise sources inside jet engines,” says Andreas Schroder.
  - Testing was conducted on a specially equipped Airbus 320 using V2500 series engines
- **The lasers are enabling the team to pinpoint regions of turbulent flow that cause noise around the intake and exhaust areas**
  - Schroder says, “The surrounding microphones...provide the scientists with information about the noise levels to match the flow phenomena being visualized using laser light.”
  - The measurements could give better understanding of where the noise in the engine is produced, and quieter engines will be able to be developed in the future

# Huerta: Aviation Industry and Government Must Come Together



- **FAA Administrator, Michael Huerta says, “The aviation industry and government must come together and answer the question of what kind of aviation system is wanted and how can it be financed.”**
  - Huerta was speaking on the government shutdown where many segments with different interests are pushing their own agendas
  - Sequester and the 16-day shutdown show that a comprehensive view of priorities and stable funding are needed
- **Huerta noted that the aviation trust fund only pays about two-thirds of the FAA’s budget and the agency is consistently asked to do more with less**
  - Huerta said that the continuing resolution from the shutdown provides the FAA with an annual rate of \$100 million more than last year’s budget, and is an acknowledgment that cuts the agency is facing have serious consequences on workforce and sustainability
- **The FAA must still cut hundreds of millions of dollars this year under sequester and yet is facing a \$5 billion backlog in deferred maintenance of facilities and equipment**
  - Huerta confirmed that work on NextGen during the shutdown was stopped or reduced creating more backlog



# Spending Deal Protects Air-Traffic Controllers



- **Ending the government shutdown avoided flight delays for lack of air traffic control (ATC) staff**
  - Last April, Congressional spending cuts prompted the agency to furlough controllers for a week causing thousands of flight delays
  - To remedy that situation, Congress agreed to shift \$253 million of Airport Improvement Program (AIP) money to cover operating expenses such as controllers
  - ATC staff had been exempted from the more recent shutdown
- **Congress has since approved funding of \$9.2 billion to the FAA to keep the agency fully staffed for a few more months preventing ATC and Safety Inspector furloughs**
- **Airports opposed raiding the AIP money, money that funds noise related projects, and welcomed the full staffing of controllers**
  - Doug Church, a National Air Traffic Controllers Assoc. (NATCA) spokesman said, “Now that the shutdown is finally over, establishing a stable funding mechanism is an essential next step for lawmakers.”



- **The NextGen Advisory Committee (NAC) ranked implementation of the Performance-Based Navigation (PBN) procedures at the top of its list**
  - The FAA, in light of budget pressures, asked the NAC to review current agency plans and activities that have an effect on the implementation of NextGen
  - On September 19, 2013, the NAC approved a report titled “NextGen Prioritization” that ranked the six NextGen projects as Tier 1 or highest priority
- **The focus is on increasing airport capacity and reducing fuel burn and emissions through the use of PBN procedures for approaches and departures**
- **Other Tier 1 projects include:**
  - Multiple Runway Operations
  - Surface Operations
  - Time Based Flow Management
  - Separation Management