



# **LAX Community Noise Roundtable**

Aviation Noise News Update

July 10, 2013

# FAA Review of Los Angeles Helicopter Noise Issues



- **After a year of study, the FAA rejected adopting regulations to curb helicopter noise in the Los Angeles area in favor of a collaboration of “actions and flexible” approaches**
  - The agency’s 56-page report issued May 31 came in response to a request made last year by seven members of California’s congressional delegation involving noise and safety issues
- **The FAA declined to consider imposing restrictions**
  - “As a practical matter, restricting helicopter operations at one or even many airports would not prevent helicopters from operating in L.A., and likely would produce no overall noise benefit because ops. would shift to other airports or heliports,” the report said.
  - “The density of land use in the area, as well as the complexity and diversity of airspace users present challenges to identifying optimal helicopter routes that are safe, efficient, and serve noise abatement purposes,” said the FAA.
- **The FAA committed to undertake and support these actions:**
  - “Evaluate existing helicopter routes to identify feasible modifications that could lessen impacts on residential areas and noise sensitive landmarks”
  - “Analyze whether helicopters could safely fly at higher altitudes in certain areas along helicopter routes and at specific identified areas of concern”



- **The FAA committed to undertake and support these actions continued:**
  - “Develop and promote best practices for helicopter hovering and electronic news gathering”
  - “Conduct outreach to helicopter pilots to increase awareness of noise-sensitive areas and events”
  - Explore a more comprehensive noise complaint system, such as a centralized system that provides one repository of helicopter noise complaints in Los Angeles County
  - “Continue the collaborative engagement between community representatives and helicopter operators, with interaction with the FAA”
- **Residents stated at a June 10<sup>th</sup> meeting that the federal report falls short in providing the help they need asserting that the voluntary guidelines proposed will not work and want tighter regulation**
- **Representative Adam Schiff stated that voluntary measures in the past “have provided little relief for residents, and I am skeptical that, without a determined effort to oversee them by the FAA, that they will do so now.”**

# Airbus 350 Makes Debut at Paris Airshow



- **Airbus is marketing its A350 to challenge Boeing 787 and 777 aircraft in fuel efficiency and less greenhouse gas emissions, and reduced noise**

- Powered by the Rolls-Royce Trent XWB engines
- Designed to hold 270 – 350 passengers depending on the model
- 8,000 nautical mile range



- **The wide-body aircraft is made of composite materials, and in June completed its four hour maiden flight to set off a yearlong series of testing**
  - “Did you hear how quiet it was? We are going to set new standards...People around airports won’t even know we are taking off,” said John Leahy Airbus sales chief.
- **Currently, Airbus has 616 orders (United Airlines has 35) for the A350 with the first delivery date being the second half of 2014**
- **Noise Benefit: Quieter aircraft will reduce aircraft noise exposure**

# New Taxiing Technology Promises to Reduce Fuel Burn and Noise



- **Also at the Paris Airshow in June, Honeywell and Safran demonstrated their Electric Green Taxiing System (EGTS) on an Airbus 320**
  - The new technology enables aircraft to push back and taxi between the gate and runway without using the main engines
- **A control unit is fitted to the wheels that draws power from the aircraft's auxiliary power unit (APU) reducing fuel costs, gate congestion, and noise**
- **Estimates of the savings include:**
  - Fuel saving of 3 to 4 percent on an Airbus 320 aircraft
  - Save airlines around \$200,000 a year per aircraft in fuel costs
  - Reduce, if not eliminate the need for aircraft ground maneuvering equipment in and out of gates
  - Great reductions in aircraft taxi noise
- **Currently, the EGTS has over 100 miles of testing, but further tests are needed to assess high speed and maximum takeoff weight taxi**
- **EGTS is supposed to hit the market in 2016**
- **Noise Benefit: Reduced aircraft taxiing noise**





- **Air Traffic Controllers (ATC) have a new tool to reduce aircraft go-arounds due to spacing issues**
  - The FAA has set standards for the minimum distance ATC must maintain between aircraft approaching airports; but sometimes weather and flight volumes can affect that spacing
  - A new tool called Automated Terminal Proximity Alert (ATPA) tells ATC if aircraft are optimally spaced and alerts them if there is an error
  - The software is part of the larger NextGen effort and has been implemented at MSP and has reduced aircraft go-arounds by 23 percent
- **Noise Benefit: Reducing go-arounds would reduce the noise exposure associated with go-arounds**

# P&W Pioneers Quieter Engine, Battle with CFM



- **Pratt and Whitney (P&W) announced June 19 that its Geared Turbofan ultra-high bypass system reached a milestone by demonstrating “unprecedented performance and efficiency”**
- **The new engine from P&W is called the PurePower Geared Turbofan that reduces fuel burn, emissions, and noise**
  - Double-Digit reductions (15%) in fuel burn and environmental emissions
  - 10-12 dB quieter and have noise footprints that are 75% smaller than that of a 737 flying today
  - “Aircraft engines are so quiet now that if you shut them down on landing, you would not hear the difference on the ground; it would all be airframe noise,” Alan Epstein said, VP at P&W.
- **The engine is set to start service with the Bombardier C-Series jet in 2015, then later with the Airbus 320, and Embraer 170-195 models**
- **CFM has developed the LEAP-X engine which is set to enter service on the Boeing 737 and Airbus 320 aircraft in 2016 with the same reduction in noise and better fuel efficiency, however does not have a working model as of yet**
- **Noise Benefit: Quieter aircraft engines will reduce aircraft noise exposure**

# Policy Would End Airports Direct Connect to Radar Flight Track Data



- **The Airport Council International– North America (ACI-NA) says an FAA policy would eliminate direct data connections on September 30, 2013 between air traffic facilities and airport noise abatement offices**
  - Leave airports without reliable aircraft tracking data
  - Data would only be available to airports at a significant cost
- **FAA’s proposed data and information distribution policy, issued May 1, would apply to all real-time air traffic data for use in noise monitoring**
  - The FAA’s concerns are driven by cyber-security issues, which could be used to upload malicious data or code to the FAA air traffic system
  - Both ITT Exelis and PASSUR have secure data for purchase, but airports currently receiving radar data from the FAA for free via B&K would lose access to that data
- **ACI-NA has asked the FAA to delay its transition away from direct connections until such time and adequate replacement capabilities are available**
  - ACI-NA also stated that eliminating the direct connection would also pose a problem in showing the benefits of NextGen in new flight track utilizations and runway use patterns, and overflight locations
- **Noise Implications: Potential loss of live flight tracking systems, flight track data to investigate noise complaints, flight track-to-noise event correlations, analysis of airspace/procedure changes, etc.**





- **The NextGen Advisory Committee (NAC) accepted a recommendation for complying with CATEX2 provision of the FAA Modernization and Reform Act of 2012 (Act)**
  - The CATEX2 seeks to accelerate implementation of RNAV/RNP procedures by allowing for a CATEX if the procedure reduces noise, CO<sub>2</sub>, and fuel burn on a per flight basis
- **In its report, the NAC concluded that DNL could be used to comply with the CATEX2 provision because of language from a Conference Report on the Act**
  - “...require the FAA to provide CATEX RNP/RNAV procedures that would lead to a reduction in aircraft fuel consumption, emissions and noise on an average per flight basis.”
  - “...It is this language that allows for averaging the noise impact on a representative basis over flights undertaking a particular procedure...”
- **The procedure developed for complying with the CATEX2 provision was given the name, “Net Noise Reduction Method,” and consists of three steps:**
  - Determine noise-sensitive “area of concern” with threshold down to DNL 45 dB
  - Determine the change in number of people exposed to noise in DNL bands on an average per flight basis, comparing existing with the proposed procedure
  - Apply a two-part test to determine whether the PBN procedure results in noise reduction deemed to meet the terms of the CATEX2
- **Noise Implications: Increased use of CatEx for RNP/RNAV procedures**