



LAX/Community Noise Roundtable

Aviation Noise News Update

July 12, 2017

New Supersonic Commercial Aircraft Moves Closer to Reality



On May 21, 2017, Aerion Corporation and General Electric announced a formal process to define the engine for Aerion's AS2 supersonic aircraft

- Aerion CEO Doug Nichols underscored the significance of identifying an engine supplier by stating, "The engine is the key technical piece...no engine, no airplane," he said. "The challenges for Aerion are no longer technological."
- The AS2 is being designed to operate at subsonic speeds over land and at supersonic speeds over water, which allow the aircraft to operate in accordance with current noise regulations
- Aerion is expecting to formally launch the aircraft in 2018, conduct test flights in 2023 and obtain certification in 2025
- In related news, both versions of the proposed Senate and House FAA Reauthorization bills direct the FAA to study the regulations related to supersonic travel to see if they need to be updated to take advantage of sonic boom research and technological advances



Photo Credit: Aerion

(<http://www.ainonline.com/aviation-news/business-aviation/2017-05-22/aerion-eyes-early-2018-as2-launch-ge-engines?eid=325907546&bid=1761711>)

(<http://www.ainonline.com/aviation-news/business-aviation/2017-07-03/congress-eyes-future-supersonic-travel?eid=325907546&bid=1802546>)

East Hampton Loses Appeal on Aircraft Noise Limits



The United States Supreme Court refused to hear an appeal by the Town of East Hampton, New York of a lower court ruling striking down noise and access restrictions at the town-operated airport

- The Town's noise ordinance prohibited all flights between 11 pm and 7 am and "noisy" aircraft between 8 pm and 9 am from May 1 through September 30
- Despite the fact that the Town had not received federal funding for 16 years, the Second Circuit Court of Appeals ruled the Town still needed to complete a Title 14 Code of Federal Regulations Part 161 Noise and Access Restriction Study (14 CFR Part 161 Study) prior to implementing noise and access restrictions
- The Friends of the East Hampton Airport, a coalition of nine aviation ally groups, that sued the Town was pleased that the lower court's "well reasoned" decision remains in effect
- Town Board of Supervisor Larry Cantwell noted that the Town has now exhausted all of its legal options, so the Town will move "full steam ahead" with a 14 CFR Part 161 Study
- Supervisor Cantwell also indicated that the Town was working with congressional representatives to develop legislation that would allow public airports that do not accept FAA funding to adopt local noise restrictions

House and Senate Bills Differ on ATC Privatization



With the September 30, 2017 FAA funding reauthorization deadline quickly approaching, the House's version of the proposed legislation includes a provision to remove the air traffic control (ATC) function from the FAA, while the Senate's version would leave the current ATC management structure in place

- While it is possible that the House version of the bill, known as the 21st Century Aviation Innovations, Reform, and Reauthorization Act (AIRR) may go to a vote and be approved by the full House, the provisions related to removing the ATC function from the FAA will not move forward without Senate concurrence
- The 2017 House version of the bill includes a larger oversight committee for the new ATC organization and eliminates user fees for general aviation
 - Despite these changes, the Aircraft Owners and Pilots Association opposes the bill
- Recent amendments to the AIRR Act include the addition of the Southern California Metroplex to the list of metropolitan areas where the impact of aircraft noise exposure on health must be studied
- Among other things, the FAA Reauthorization bill provides multi-year funding for aircraft noise compatibility planning, noise mitigation programs (e.g., sound insulation), and aircraft noise research

(Airport Noise Report: Volume 29, Number 23 – July 7, 2017)

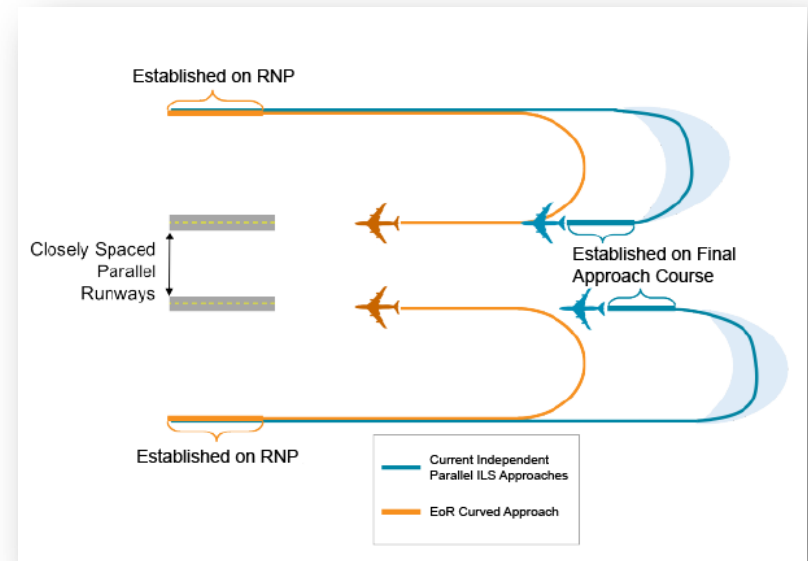
(<http://atwonline.com/air-traffic-management/house-senate-clash-over-atc-spinoff-proposal>)

NextGen Aircraft Equipage at LAX and Nationally



The following two slides present data from the FAA's NextGen PBN Dashboard website showing the equipage of aircraft at LAX and nationally, which indicates their capability to fly NextGen procedures into and out of LAX including Required Navigation Performance (RNP) approaches

- The LAX data represents equipage of LAX aircraft operators through October 2016
 - The Major Part 121 Aircraft (i.e., Major Airlines) at LAX appear to be **at or close to 100% equipped** to fly RNP 0.3-1 approaches
- The national equipage data is current through May 2017
 - Air Transport aircraft (i.e., Part 121 aircraft) are **92% equipped** to fly RNP approaches
- Both data sets indicate a high-level of equipage to fly RNP approaches at LAX

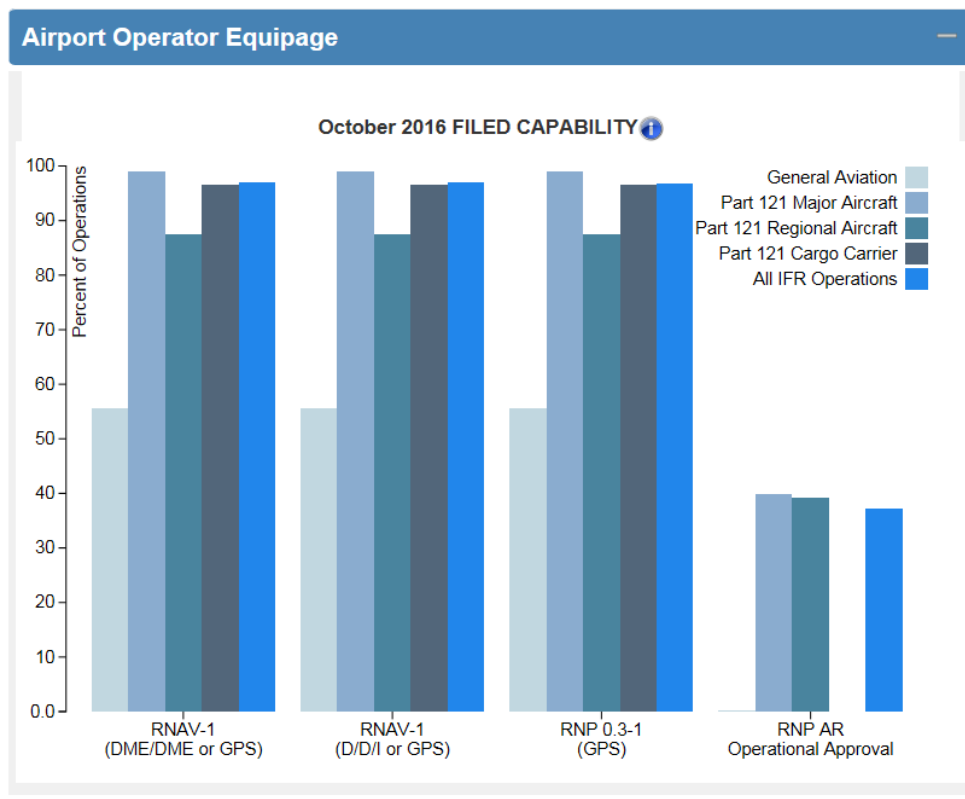


Source: FAA

(<https://www.faa.gov/nextgen/pbn/dashboard/#>)

(<https://www.faa.gov/nextgen/delivering/oiaa/investments/levels/>)

Aircraft Equipage at LAX as of October 2016



Source: FAA's PBN Implementation and Usage Dashboard Webpage (Accessed July 6, 2017)

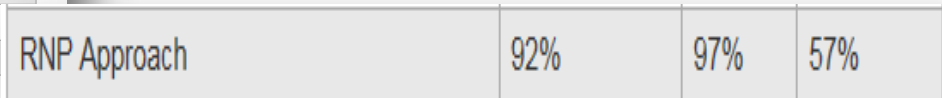
(<https://www.faa.gov/nextgen/pbn/dashboard/#>)

National NextGen Equipage Levels as of May 2017



Current Equipage Levels of Available Enablers

Enabler	Air Transport	Air Taxi	Helicopter
RNP 4	58%***	54%***	AAR**
RNAV 1	99%	97%	57%
RNAV 2	99%	97%	57%
RNP Approach	92%	97%	57%
RNP 1 with RF	62%	8%	<1%
VNAV	88%	49%	3%
LPV Approach	1%	35%	3%
RNP AR Approach	68%	5%	<1%
ADS-B Out (rule compliant)	13%	17%	18%
ADS-B In for CAVS, surface, and airborne	2%	TBD [^]	TBD [^]
ITP, ADS-B In	1%***	TBD [^]	AAR**
FANS 1/A (SATCOM)	32%***	18%***	AAR**
FANS 1/A (VDL Mode 2)	25%	3%	<1%
HUD/ILS	24%	N/A*	N/A*
EFVS	1%	N/A*	N/A*
EFB	89%	N/A*	N/A*



* N/A means flight plan data for specific capability is unavailable.

** AAR indicates additional analysis is required.

*** This indicates oceanic capability and percentage represents equipage for aircraft seen operating over oceanic airspace.

[^] TBD: To Be Determined

Source: FAA's NextGen Equipage Levels Webpage (Accessed July 6, 2017)

(<https://www.faa.gov/nextgen/delivering/oiaa/investments/levels/>)

Traffic Spacing and Sequencing (TSAS) Tool



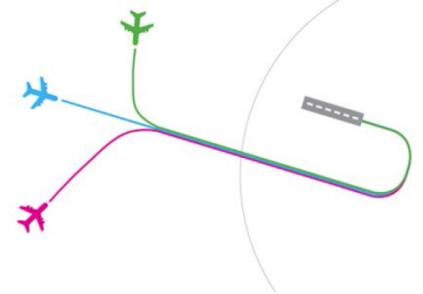
On July 14, 2014, NASA turned its Traffic Spacing and Sequencing (TSAS)¹ Tool over to the FAA for further development, testing, and certification by FAA for operational use with implementation expected to begin in 2019

- “TSS gives controllers the strategic information they need so that downstream merge works out easier,” said John Robinson, chief engineer for the TSAS development at NASA’s Ames Research Center in California
- FAA plans to deploy TSAS at nine major airports including Phoenix, Houston, Atlanta, Seattle, San Francisco, Las Vegas, Charlotte, Denver and Los Angeles between 2018 and 2022²
- TSAS will be an added function to the FAA’s Time Based Flow Management (TBFM) tool, which is already deployed at all 20 TRACONs nationwide

Figure 5. Expected Efficiency Gains With Both TBFM and TSS

WITH TBFM and TSS

- Maximum use and benefit of PBN (use of RNAV and RNP)
- Increased use of OPDs (optimized profile descent) instead of level offs
- Minimal changes required by air traffic controllers
- Facilitates use of RNP with curved final approaches



Source: OIG analysis.

¹Both TSS and TSAS are used as acronyms for the Traffic Spacing and Sequencing Tool.

²The OIG’s report indicates that implementation of TSAS is behind schedule and will not begin until 2019.

(<https://www.nasa.gov/aero/nasa-delivers-traffic-spacing-tools-tss>)

(<http://www.airtrafficmanagement.net/2015/06/nasa-faa-collaboration-spawns-tsas-tool/>)

(<https://www.oig.dot.gov/sites/default/files/FAA%20Deployment%20of%20Controller%20Tools%20for%20PBN%20Final%20Report%5E8-20-15.pdf>)