OAKLAND COMMUNITY FORUM

Noise News

April 2018

Christian Valdes

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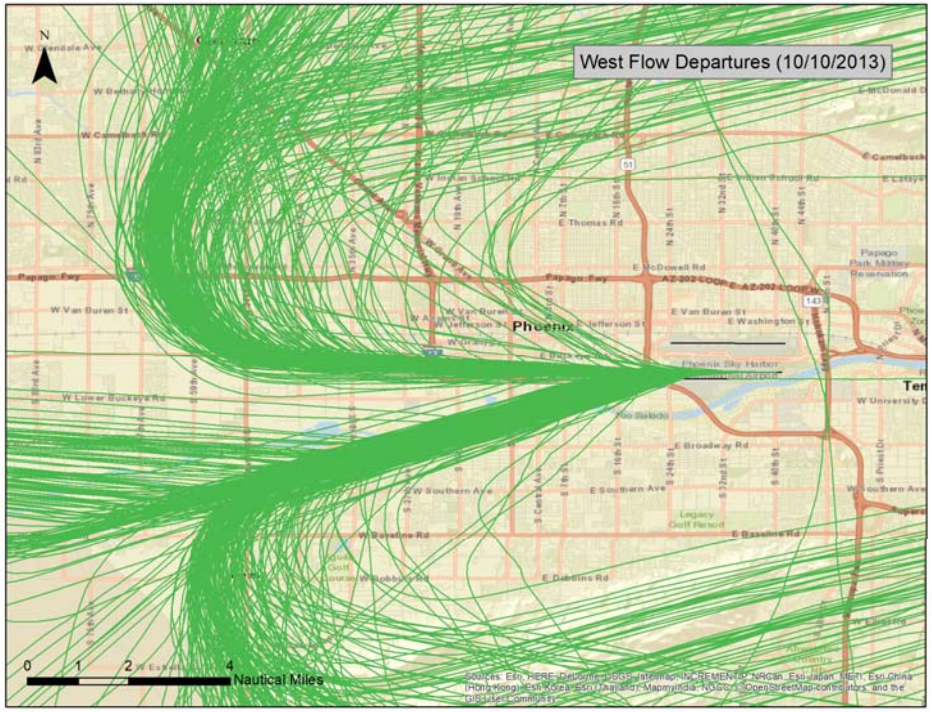
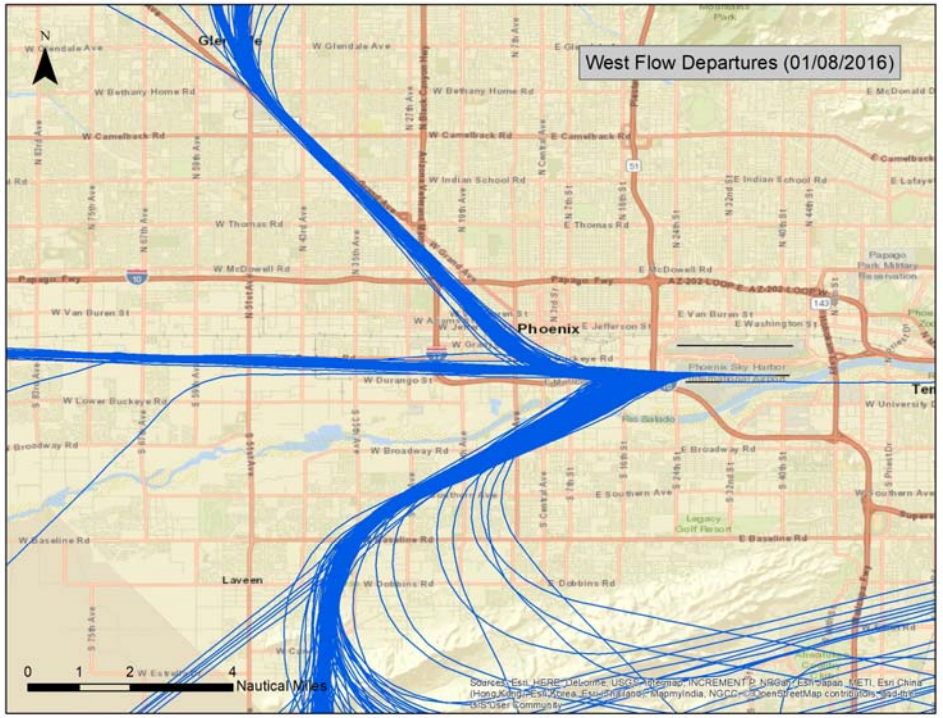
Aviation Planning at the Leading Edge

PHX Update

Most Phoenix Sky Harbor flight paths return to old routes Thursday

Jessica Boehm, The Republic | azcentral.com Published 5:40 p.m. MT March 28, 2018 | **Updated 8:42 p.m. MT March 28, 2018**





Aviation Planning at the Leading Edge

Georgetown University

COURT RULES RESIDENTS MISSED WINDOW FOR CHALLENGING FLIGHT PATH CHANGE

In a major legal victory for the FAA, a federal appeals court has dismissed as untimely a lawsuit filed by Georgetown University and six neighborhood associations challenging a NextGen RNAV departure procedure out of Reagan National Airport (DCA) that moved aircraft noise closer to the historic Georgetown neighborhood of Washington, D.C.

A three-judge panel of the U.S. Court of Appeals for the D.C. Circuit ruled that the litigation was filed beyond the 60-day window provided by law for challenging FAA final orders and that there were no "reasonable grounds" for missing that deadline.

The ruling sends a strong signal to those considering challenging FAA airspace changes beyond the 60-day window – such as the State of Maryland – that the court will not conclude that there are grounds for filing lawsuits beyond that timeframe unless the FAA has left plaintiffs with the impression that it would address their concerns without needing to resort to litigation.

Georgetown University

In the Phoenix case, the panel found that the back-and-forth discussions between the City of Phoenix and FAA "would certainly have led reasonable observers to think the FAA might fix the noise problem without being forced to do so by a court."

Given this impression, the court in the Phoenix case concluded that the petitioners had reasonable grounds for delaying their filing "and should not be punished for treating litigation as a last rather than a first resort," the Georgetown panel reasoned.

Northern California

NoCal Metroplex

FAA MISSES DEADLINE REPS SET FOR UPDATE OF FEASIBILITY OF NOISE MITIGATION RECS

Three northern California congressional representatives appear to be running out of patience with FAA's slowness in determining the feasibility of recommendations for mitigating the noise impact of airspace changes made under the agency's Northern California Metroplex Plan.

In a March 6 letter to FAA Acting Administrator Daniel Elwell, CA Reps. Anna Eshoo (D), Jackie Speier (D), and Jimmy Panetta (D) asked FAA to present to them by March 15 "a specific timeline for implementation of all of the changes that have been determined to be feasible by the FAA and the environmental review process for each recommendation."

Southern California - Burbank

SoCal Metroplex

SCHIFF ASKS FAA TO STUDY NOISE INCREASE AROUND BURBANK

In a March 20 letter, Rep. Adam Schiff (D-CA) urged FAA Acting Administrator Daniel Elwell to review the impacts of NextGen air traffic control technology on the community surrounding the Hollywood Burbank Airport.

"Airplane noise is not new to the Burbank area, but residents are concerned that NextGen flight path changes may have exacerbated the problem," Rep. Schiff wrote.

Southern California – Burbank HOA's

TWO MORE PLAINTIFFS SETTLE LAWSUITS OVER S. CAL METROPLEX AIRSPACE CHANGES

FAA's willingness to allow a curved departure out of Burbank Airport has led to a settlement with two more plaintiffs challenging the agency's August 2016 Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for its Southern California Metroplex Project.

On March 20, Benedict Hills Estates Association and Benedict Hills Homeowners Association asked the U.S. Court of Appeals for the D.C. Circuit for an order dismissing their petitions for review, which were part of a consolidated case of eight separate lawsuits challenging the SoCal Metroplex airspace changes.

The appeals court granted their motion for voluntary dismissal of their petitions on March 29.

Southern California – Laguna Beach

SoCal Metroplex

FAA, CITY OF LAGUNA BEACH SETTLE LAWSUIT CHALLENGING SOCAL METROPLEX

On Jan. 23, the City of Laguna Beach, CA, announced that it had reached a settlement with the FAA over its lawsuit challenging airspace changes made under the Southern California Metroplex Plan related to commercial jet aircraft operations at John Wayne Airport (JWA).

The Laguna Beach City Council filed the lawsuit "because the Metroplex environmental document and record of decision appeared to give the FAA broad discretion to adopt standard commercial jet departure and arrival procedures dramatically different than longstanding patterns that would potentially have a significant noise impact on Laguna Beach residents," the City explained in its announcement.

Southern California – Lake Arrowhead

FAA MAY MOVE NIGHT ONT ARRIVAL PATH AWAY FROM LAKE ARROWHEAD COMMUNITY

By this spring, FAA may be able to tweak – at night only – a new arrival path into Ontario International Airport that has moved aircraft over residents of Lake Arrowhead, CA, a resort area nestled high up in the San Bernardino Mountains.

The new NextGen arrival route was implemented in April 2017 as part of FAA's vast Southern California Metroplex Project and has sparked strong protests by Lake Arrowhead residents ever since.

FAA's tweak of the nighttime arrival path, which is currently undergoing an environmental review, would move aircraft about 2.1 miles east of the new route and over an unpopulated area close to where it was originally located.

Southern California – Los Angeles

Plaintiffs, City of Los Angeles File Briefs

On March 16, the remaining plaintiffs in the consolidated case challenging FAA's approval of the SoCal Metroplex filed their opening brief with the U.S. Court of Appeals for the D.C. Circuit.

The 93-page brief asserts that FAA's environmental assessment of the project "figuratively thumbed its nose at NEPA and its own regulatory requirements and thus abused its discretion."

The City of Los Angeles, proprietor of Los Angeles International Airport and Van Nuys Airport, filed an amicus brief in the case, to provide the court with "additional context" on "the shortcomings of FAA's environmental assessment process" for the SoCal Metroplex Project.

Heathrow

AIRPORT SEEKS PUBLIC INPUT ON 'RULES' TO APPLY IN DESIGNING HEATHROW AIRSPACE

On Jan. 17, Heathrow Airport opened two 10-week consultations to give the British public an opportunity to comment on options under consideration for the physical expansion of the airport – including potential lengths for a new third runway – and on potential principles, or rules, that could apply when designing the new airspace required for an expanded Heathrow.

The U.S. public was largely left out of FAA's process of redesigning airspace to take advantage of advanced NextGen aircraft navigation technology and the result has been legal challenges of major airspace redesigns in Northern and Southern California, Phoenix, and Washington, DC.

The Brits, however, are doing just the opposite. The public consultation just announced by Heathrow Airport is one of the largest consultations in the country's history and will include 40 "consultation events."

Passenger Forecast

U.S. AIRLINE PASSENGERS WILL GROW BY 400 MILLION IN 20 YEARS

U.S. airline enplanements (passengers) will increase by more than 400 million in the next 20 years, from 840.8 million in 2017 to 1.28 billion in 2038, FAA said March 15.

All indicators show that air travel in the United States is strong and the trend will continue, FAA said in its Aerospace Forecast for Fiscal Years 2018-2038.

This strong growth in enplanements is occurring while American air travelers are experiencing the highest levels of safety in modern aviation history, the agency stressed.

Federal Funding

FY 2018 Omnibus Appropriations Bill

FUNDING FOR NEXT-GEN PROGRAM, NASA AERONAUTICS IS INCREASED

The fiscal year 2018 omnibus appropriations bill, which passed the House on March 22 and is expected to pass the Senate today, includes $1.3 billion for FAA's NextGen program, an increase of $239 million, Rep. Mike Quigley (D-IL), who serves on the House Appropriations Committee, announced.

The bill will provide funding for federal government agencies through Sept. 30, the end of fy 2018.

The bill also includes language instructing the FAA to conduct short- and long-term noise mitigation activities around O'Hare International Airport and to provide eight new FAA field staff to address noise concerns, Quigley said in a March 22 statement.

FAA Bill

New FAA Bill Covers Host of Issues, but No ATC Reform

by Kerry Lynch - April 15, 2018, 6:29 AM

House Transportation and Infrastructure (T&I) Committee leaders on April 13 re-introduced a revised FAA reauthorization bill that is absent the air traffic control organization reform measure that had been a stumbling block to the comprehensive aviation legislation. The new bill, which was jointly introduced and supported by both Republican and Democratic leaders on the committee, would reauthorize FAA programs for five years and address a range of aviation safety and technology advancement issues.

The bill could reach the House floor for a vote next week. While the bill is revised to account for the shelving of the ATC provision and includes a few other new measures, House leaders have indicated a desire to limit amendments and controversial measures in particular to smooth the path for the bill to passage.

Technology – Low Boom

LOCKHEED MARTIN AWARDED CONTRACT TO DESIGN, BUILD, TEST LOW BOOM SST DEMO

NASA announced April 3 that it has awarded a contract to Lockheed Martin to design, build, and test a low boom supersonic demonstrator aircraft that will be used to gather crucial community response data that the International Civil Aviation Organization (ICAO) will use to set a noise level for overland supersonic flight.

Current regulations, which are based on aircraft speed, ban supersonic flight over land. With the low-boom flights, NASA intends to gather data on how effective the quiet supersonic technology is in terms of public acceptance by flying over a handful of U.S. cities, which have yet to be selected.

Work under the $247.5 million contract awarded to Lockheed Martin began April 2 and runs through Dec. 31, 2021, at which point the contractor will deliver the Low Boom Flight Demonstrator (LBFD) aircraft to NASA's Armstrong Flight Research Center in California.

Technology – Synthetic ILS

BOEING 2018 ECO-DEMONSTRATOR TESTING SYNTHETIC ILS EXPECTED TO REDUCE NOISE

A synthetic instrument landing system (SILS) that is expected to reduce community noise up to 1.5 dB and also increase airport capacity and efficiency is one of the technologies being tested in Boeing's 2018 ecoDemonstrator program.

SILS uses satellites to mimic traditional radio beam, ILS landing guidance that is standard at all airports. It allows satellite guidance to be retrofitted into older airplanes without having to change out a lot of hardware.

Because SILS uses satellites, airplanes landing in the future could use different approaches to airports or steeper approaches, Boeing explained.

"Airplanes wouldn't have to line up with the radio beam and could come in on less disruptive approaches to people living in the flight path. Airplanes could also fly steeper approaches to the airport even on the current flightpath that have them at higher altitudes closer to the airport. Either of these options could reduce noise around airports," a Boeing spokesman told ANR.

Boeing's 2018 ecoDemonstrator program, which will flight test new technologies aimed at environmental sustainability, will use a FedEx 777 Freighter aircraft,

Technology - Electric

NORWAY'S SHORT-HAUL FLIGHTS TO BE ALL-ELECTRIC BY 2040

Seeking to be a leader in the transition to electric transport, Norway's airport operator Avinor said Jan. 24 that all short-haul flights by Norwegian airlines will be entirely electric by 2040.

Avinor "aims to be the first in the world" to make the switch to electric air transport, said Avinor Chief Executive Dag Falk-Petersen.

"We think that all flights lasting up to 1.5 hours can be flown by aircraft that are entirely electric," he said, adding that includes flights to neighboring Scandinavian capitals.

Avinor hopes to have a 19-seat electric aircraft operating on a commercial route beginning in 2025.

DNL Alternatives

OMNIBUS APPROPRIATION DIRECTS FAA TO EVALUATE ALTERNATIVE METRIC TO DNL

Six members of the House Quiet Skies Caucus representing the New York City area announced April 2 that they have secured a provision in the newly enacted omnibus appropriations bill, signed into law by President Trump on March 23, that directs the FAA to examine new methods of measuring aircraft noise in order to reduce the impact of excessive airplane noise over their districts.

The provision states that the House Appropriations Committee "directs the FAA to continue to evaluate alternative metrics to the current Day-Night Average Sound Level (DNL) 65 standard and other methods to address community airplane noise concerns. The Committee encourages FAA not to rely solely on modeling and simulation, to the greatest extent that is technically feasible."

Annoyance - Guidelines

WHO/EUROPE EXPECTED IN MAY OR JUNE TO ISSUE UPDATED ENV. NOISE GUIDELINES

The European office of the World Health Organization (WHO) is expected in May or June to issue Environmental Noise Guidelines for the European Region that will update Community Noise Guidelines adopted by WHO/Europe in 1999.

The new guidelines will focus on the WHO European Region and will be used by the European Union to orient its environmental noise policies.

But because of the strict evidence review criteria adopted to ensure that only the best quality study data are included in the update, the new WHO environmental noise guidelines are expected to be influential far beyond Europe.

The guidelines will be based on systemative evidence reviews on the health effects of environmental noise and will incorporate significant research carried out in recent years through 2014.

Two significant European studies completed after 2014 – the Swiss SiRENE study on acute, short- and long-term effects of transportation noise exposure on annoyance, sleep disturbances and cardiometabolic risks and the German NORAH

Annoyance Surveys - Abroad

DOSE/RESPONSE CURVES ON ANNOYANCE HAVE SHIFTED OVER TIME, STUDY SHOWS

A review of surveys of aircraft noise annoyance conducted between 2001 and 2014 in communities around 15 airports in Europe and Asia reached two major conclusions:

- Dose/response curves showing the percentage of people highly annoyed by aircraft noise have shifted over time, leading to a higher percentage of annoyed people at a given noise level compared to older surveys; and
- This increase in the percentage of people highly annoyed by aircraft noise is greater at so-called "high-rate change" airports – those facing a sharp change in noise exposure due to activities, such as opening of new runways, operational changes, etc. – than at low-rate change airports.

Annoyance Survey – U.S.

FAA Aircraft Annoyance Survey

By June, FAA is expected to release the results of its own survey on aircraft noise annoyance conducted in communities around 20 U.S. airports.

The agency did not respond to a question from ANR regarding whether a new U.S. dose-response curve for aircraft noise annoyance would accompany the survey results.

But an FAA spokesman said the following:

"The survey results and a draft report are in the process of being reviewed by the FAA in coordination with the Department of Transportation and other federal agencies. Once final, the report will be made available to the public.

"While we do not have a specific release date, we hope to make the survey results publicly available sometime in the first half of 2018.

Flight Concentration Relief – Dispersion

MITRE EXPANDING TOOLBOX AVAILABLE TO FAA FOR DISPERSING PBN FLIGHT TRACKS

All across the country, communities under newly concentrated NextGen flight paths and their elected representatives have been pleading with the FAA to disperse aircraft departures over a wider area to reduce noise impact and provide respite from constant, tightly-focused streams of overflights.

Research that MITRE Corporation has been conducting for FAA since fiscal year 2016 is addressing those pleas by developing and evaluating aircraft departure concepts that will reduce flight path concentration and move noise away from sensitive areas.

"The goal of the work is to expand the toolbox available to [FAA] procedure designers for noise management and to increase awareness of available options and potential tradeoffs," MITRE airspace procedures design expert John Brandt told ANR.

Brandt serves as Senior Principal Aviation Systems Engineer for Airspace & Procedures Design and Analysis at MITRE.

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Flight Concentration Relief – Slower Flights

SLOWING AIRCRAFT DEPARTURE SPEED CUTS NOISE SIGNIFICANTLY, MIT STUDY FINDS

Slowing aircraft departure speed by about 30 knots (35 mph) – to the point at which airframe and engine noise are equal – could significantly reduce noise on the ground, according to an MIT aeronautics professor who is leading a landmark study at Boston Logan International Airport seeking ways to reduce the noise impact of concentrated NextGen flight tracks.

Airframe noise dominates at some later stages of takeoff on newer aircraft, which have much quieter modern engines.

Dr. John Hansman, who directs MIT's International Center for Air Transportation, reported the findings of his study to date at the U.C. Davis Aviation Noise and Emissions Symposium in Long Beach, CA, on Feb. 26.

His study also was the focus of a March 7 story in the *Wall Street Journal* ("A New Antidote for Noisy Airports: Slower Planes").

Professor Hansman's study was agreed to in 2016 under a Memorandum of Understanding signed by the FAA and the Massachusetts Port Authority (Massport) that framed a process for analyzing opportunities to revise NextGen arrival and de-

Emissions

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Greenest Airline

UNITED IS HIGHEST AIRLINE IN NEWSWEEK GREEN RANKING

United Airlines ranked number one among global carriers in *Newsweek's* 2017 Global 500 Green Rankings, which the airline called one of the most recognized environmental performance assessments of the world's largest publicly traded companies.

United placed 59th among 500 U.S. brands and 100th among 500 global brands, further strengthening the company's position as a leading sustainable airline.

No Lead

COMING SOON: REVOLUTION IN AVIATION FUEL FOR GA AIRCRAFT

[Following is a Jan. 22 news feature from Embry-Riddle Aeronautical University.]

Two flight engineers at the Embry-Riddle Aeronautical University's Eagle Flight Research Center (EFRC) in Daytona Beach, Fla., are working to remove lead from aviation gasoline (avgas), thanks to a $993,000 award from the U.S. Federal Aviation Administration.

Lean-Burn

ROLLS-ROYCE RUNS LEAN-BURN DEMO ENGINE FOR FIRST TIME

For the first time, Rolls-Royce has run a demonstrator engine specifically devoted to the optimization of a new lean-burn and low-emissions combustion system.

The system is being designed for future jet engine programs.

The ALECSys (Advanced Low Emissions Combustion System) demonstrator successfully ran for the first time on a testbed in Derby, UK, Rolls announced Feb. 6.

The lean-burn system improves the pre-mixing of fuel and air prior to ignition – delivering a more complete combustion of the fuel and, as a result, lower NOx and particulate emissions, both of which are increasingly important to airline customers in terms of operating economics and environmental performance.

Drones

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Drones Are The Future

LARGE UAS IS CORNERSTONE OF FUTURE AVIATION, AIA SAYS

The Aerospace Industries Association, in partnership with the aerospace and defense management consulting firm Avascent, has released a study projecting explosive growth in the global market for large unmanned aerial systems (UAS) over the next two decades.

The report, *Think Bigger: Large Unmanned Systems and the Next Major Shift in Aviation*, shows that large UAS represent a cornerstone of future aviation and will change the nature of travel, technology, and transport and the economies surrounding those markets, AIA said in Feb. 27 release announcing the report.

Drone Use is Growing

'Phenomenal' UAS Growth Forecast

The FAA forecast also highlighted what it called the "phenomenal" growth in the use of Unmanned Aircraft Systems (UAS), often referred to as drones.

The FAA projects the small model hobbyist UAS fleet to more than double from an estimated 1.1 million vehicles in 2017 to 2.4 million units by 2022. The commercial, small non-model UAS fleet is set to grow from 110,604 in 2017 to 451,800 in 2022. The number of remote pilots is set to increase from 73,673 in 2017 to 301,000 in 2022.

In addition to UAS, FAA said another rapidly growing aerospace field is the FAA's licensing, oversight and regulation of commercial space transportation activities.

The agency projects that commercial space launch and reentry operations may triple from 22 in 2017 to as high as 61 operations in 2020.

Ice Cream and Aircraft Noise

BEN & JERRY'S CO-FOUNDER ARRESTED FOR NOISE PROTEST

'Cone of Silence' could be the next whimsically-named flavor of ice cream offered by the legendary ice cream company Ben & Jerry's in light of co-founder Ben Cohen's activism against aircraft noise, which is as creative as some of his confections.

Cohen and two other people were arrested in early March for violating the noise ordinance of the City of Burlington, VT – where the world famous ice cream company is based – by blaring noise simulating the level of an F-35 military jet flyover from speakers in the back of a pick-up truck to demonstrate how loud and annoying it would be.

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