

**Key West International Airport
Ad-Hoc Committee on Airport Noise**

Agenda for Tuesday, April 5th, 2016

Call to Order 2:00 pm Harvey Government Center

Roll Call

- A. Welcome New Members
 - 1. Peter Horton, representing the Community, replacing Kay Miller
 - 2. Norma Faraldo, Alternate representing the community, replacing Tina Mazzorana
- B. Review and Approval of Meeting Minutes
 - 1. For February 2nd, 2016
- C. Discussion of NCP Operational Measures
 - 1. Second Draft Pilot Information Brochure
 - 2. Helicopter Tour Route Changes
- D. Discussion of NIP Implementation
 - 1. Eligibility Noise Testing Completed March 13th-15th
 - 2. Meeting with FAA ORL ADO Tuesday, April 19th
 - 3. Schedule of Remaining Tasks
- E. Other Reports:
 - 1. Noise Hotline and Contact Log
 - 2. Airport Noise Report
- F. Other Discussion
- G. Next meeting: July 5th, 2015

Meeting Schedule for 2016

February 2 nd	April 5 th
July 5 th	November 1 st

ADA ASSISTANCE: If you are a person with a disability who needs special accommodations in order to participate in this proceeding, please contact the County Administrator's Office, by phoning (305) 292-4441, between the hours of 8:30 a.m. - 5:00 p.m., no later than five (5) calendar days prior to the scheduled meeting; if you are hearing or voice impaired, call "711".

KWIA Ad-Hoc Committee on Noise February 2nd, 2016 Meeting Minutes

Meeting called to order by Commissioner Kolhage at 3:00 PM.

ROLL CALL:

Committee Members in Attendance:

Commissioner Danny Kolhage
Marlene Durazo
Dr. Julie Ann Floyd
Harvey Wolney
Amy Kehoe, via telephone
Tina Mazzorana, via telephone

Staff and Guests in Attendance:

Don DeGraw, Monroe County Director of Airports
Deborah Lagos, DML & Associates
Tom Nelson, KWBTS
Janet Mooney, Riviera Shores
Rosemary A Ruymann-Wells, Riviera Shores
Bindy Blatt, Riviera Shores
Richard G. Payne, District IV City Commissioner
Marcia Howard, KWBTS
Joe Weatherby, 2627 Staples Avenue
Dottie Harden
Page Haverty, Garrison Bight
Tom Nelson, KWBTS
Brian Corbett, KWBTS
Loriellen Robertstone, Riviera Shores
Bruce Wallace, Riviera Shores
Robert S. Gold, Old Town Homeowners

A quorum was present. Commissioner Kolhage chaired the meeting.

Review and Approval of Meeting Minutes for the December 1st, 2015 Ad Hoc Committee Meetings

Commissioner Kolhage asked if there were any comments or corrections to the December 1st 2015 minutes. Marlene Durazo made a motion to approve the minutes Harvey Wolney seconded the motion. The minutes were approved as presented.

KWIA Ad-Hoc Committee on Noise February 2nd, 2016 Meeting Minutes

Discussion of NCP Operational Measures

The first draft of the Pilot Information hand-out was reviewed and discussed.

Dr. Julie Ann Floyd expressed concern about the wording of the VFR departure procedure for Runway 09, because it might cause aircraft to infringe into the Navy's airspace. She also suggested that wording be added to the Runway 09 approach procedure to request that pilots avoid flying over buildings (e.g., KWBTs, Las Brisas).

It was suggested that the "North Approach" and "South Approach" be widened and labeled.

Commissioner Payne suggested adding the helicopter routes which should avoid overflying the island.

Regarding the VFR approach to Runway 09, words should be added, similar to those on the other side of the brochure, regarding use of a variety of flight paths during daylight hours.

It was suggested that the same language be used for fixed wing aircraft and helicopters (i.e., "When time and safety allow"), then use tighter language as appropriate.

Discussion of NCP Implementation Plan

The property survey of Key West by the Sea (KWBTs) and the four (4) single-family homes located within the DNL 70 dB noise contour was completed in January.

Two different introductory letters were drafted, one for condo owners in KWBTs, the other for the single-family property owners. Both included a Noise Insulation Program (NIP) Fact Sheet. The SF property owners also received a Homeowner Interest Sheet and Property Information Survey. The letters were mailed to the SF property owners, and were distributed to KWBTs by the Property Manager. Several KWBTs residents who were in attendance indicated they did not receive a letter. Deborah indicated she would check into this.

Orientation sessions are scheduled for February 15th - 19th for KWBTs and the SF property owners. The KWBTs Orientation Sessions will be held at the clubhouse on Tuesday, Wednesday, and Thursday, and the SF Orientation Session will be held at the Doubletree Hotel on Monday evening.

The eligibility noise testing is schedule for March 15th - 17th. THC is coordinating with the KWBTs Property Manager to arrange units to be tested that represent the various floor plans. All SF homes that are interested will be tested.

KWIA Ad-Hoc Committee on Noise February 2nd, 2016 Meeting Minutes

After the eligibility noise testing has been completed, reports will be prepared and submitted to the FAA for review and approval. A meeting with the FAA is tentatively scheduled for the week of April 18th to discuss the results. After the FAA has approved the results, letters will be mailed to KWBTs and the SF property owners notifying them of their eligibility status.

Additional milestones were discussed, as shown on the Phase 1 Master Schedule in the agenda package. Highlights include:

- Grant Application for Design Development (June 2016),
- Design Development (October 2016 through January 2017),
- Bid Opening (May 2017)
- Grant Application for Construction of KWBTs Building B and SF homes (June 2017)
- Contract Award and Product Procurement (October through December 2017),
- Construction of KWBTs Building B and SF homes (January through May 2018).

Other Reports

Noise Hotline and Contact Log

There were numerous calls to the hotline from Page Haverty, who reported both good and bad departure patterns from Runway 27. Mr. Haverty was in attendance, and thanked the committee for the improvement. Don DeGraw felt that the ATCT was responsible for the improvement.

Numerous residents from Riviera Shores were in attendance at the meeting to support the use of helicopter routes that avoided overflights of their neighborhood. They expressed appreciation for the airport's efforts to correct the problem quickly. City Commissioner Richard Payne thanked Don DeGraw and everyone who assisted in getting the helicopter operators to change their flight pattern.

Airport Noise Report

The Airport Noise Reports in the agenda package include an index of issues from Calendar Year 2015. The December issue includes a list of airports that have used Passenger Facility Charges (PFCs) to help fund noise mitigation programs. Key West is shown on pages 171 -172.

Any Other Discussion

Don DeGraw indicated that PFC Application No. 16 includes funding for the NIP. It also includes the "Runway Departure Enhancements" project. Don DeGraw handed out some information regarding this project, and indicated that the additional

KWIA Ad-Hoc Committee on Noise February 2nd, 2016 Meeting Minutes

runway will be used by large aircraft for departure only, not arrival. Deborah described the potential noise impacts of the project. Robert Gold asked if the project would bring Southwest Airlines back, and Don indicated it would not, because Southwest's issue was landing on a wet runway.

Don indicated that comments will be accepted by the BOCC at their next meeting on February 10th at 11:00 am, or could be submitted via the airport's website EYW.com.

Marlene Durazo moved to adjourn the meeting. Harvey Wolney seconded the motion. The meeting adjourned at approximately 3:50 p.m.

KEY WEST INTERNATIONAL AIRPORT—EYW

VOLUNTARY NOISE ABATEMENT PROCEDURES

Curfew

- Please observe the voluntary curfew on aircraft activity between 11:00 pm and 7:00am local time.

Ground Power Units (GPUs)

- When time and safety permit, please use available GPUs in place of on-board Auxiliary Power Units (APUs).

Arrival and Departure Procedures

- When weather, time, safety, and aircraft performance permit:
- Please avoid direct overflight of multi-family residential buildings that are in close proximity to the airport.
- Aircraft departing VFR on Runway 09, upon departure please contact Navy Key West Departure at 124.025 313.7 [1200-0300Z+] for instructions to avoid entering Navy airspace.
- Aircraft departing VFR on Runway 27, please maintain runway heading until reaching the airport boundary.
- Aircraft arriving VFR on Runway 09, please coordinate with ATC to use a variety of flight paths during daylight hours when on approach.
- Departing jet aircraft please use NBAA noise abatement departure procedure or airline-approved noise abatement departure procedure.
- Propeller aircraft please use propeller and power adjustments, as safety allows.

Aircraft Engine Run-ups

- Between the hours of 11:00 pm and 7:00 am local time, aircraft engine run-ups must be conducted at the designated location as shown below. Run-up is defined as “advancing the r.p.m. of a prop aircraft’s engine or engines to the appropriate medium setting for the aircraft type as a final engine and systems test before full power takeoff.”
- Between the hours of 7:00 am and 11:00 pm local time, aircraft engine run-ups shall be made only at the ends of the parallel taxiway or near the runway ends behind the holding line markings so long as the same shall not interfere with operation of other aircraft.



Helicopters

- When time and safety allow, please depart to and arrive from the south (toward the ocean) to avoid low overflights of noise-sensitive residential areas (e.g, Riviera Shores) directly north of the airport.

Air Tour and Aerial Advertising Flights

- Please avoid direct overflight of Key West by the Sea and Las Brisas Condominiums and Riviera Shores Neighborhood.

KEY WEST INTERNATIONAL AIRPORT—EYW VOLUNTARY NOISE ABATEMENT PROCEDURES

DRAPER



From: Air Adventures Helicopters [mailto:airadventuresllc@gmail.com]
Sent: Tuesday, February 09, 2016 3:45 AM
To: DeGraw-Donald
Cc: Air Adventures Helicopters; Morgan Smith; Abigail Stogdale; James Walsh; Buck, Bryan; EYW ATCT; rpayne@cityofkeywest-fl.gov
Subject: EYW Helicopter Tour Route Changes

Mr. DeGraw,

This past week, I have put your noise concerns at the top of my very busy to-do list. As we enter into our busy season, this is something that I'd like to nip in the bud before we get any busier.

I have made changes to the helicopter tour routes, their speed, and the altitude that they fly at. Unfortunately, helicopters have always had a bad rap when it comes to noise and there will never be a 100% perfect solution, but hopefully these changes will cut down significantly on the complaints you have been receiving.

Our last 12 Months:

1,235 flights.

56% 20/30-min flights.

28% 10/12-min flights.

16% other flights.

Average 3.38 flights per day.

Average 11 hours of daylight.

On average, only 1 helicopter fly-over every 3 hours, 15 minutes during daylight hours. (in comparison, according to *AirNav.com*, EYW has landing traffic roughly once every 5 minutes).

Zero helicopter flights have been conducted between the hours of dusk till dawn, where noise is much more of a concern.

Route Changes:





New Routes:

5-min route: Unchanged. No factor; does not overfly neighborhoods.

10-min route: Altered; will climb to 700/800 ft. and divert to athletic fields for final approach.

12-min route: Altered; will climb to 700/800 ft. and divert to athletic fields for final approach.

20-min route: Altered; will divert to Cow Key Channel for final approach*.

30-min route: Altered; will divert to Cow Key Channel for final approach*.

* The Cow Key Channel approach is too dangerous to use when winds are strong and out of the East. In this scenario, the helicopter will divert to the athletic fields and climb to 700/800 ft. for its final approach.

Our 20 and 30-minute flights are our most popular tours. I have altered their routes to completely avoid the neighborhoods that have been complaining, resulting in a 56% total reduction of our already few flyovers.

Our 10-12 minute flights, which make up for 28% of our total flying, cannot be re-routed for multiple reasons, including time-constraints, wasted fuel, and pre-recorded narrations in multiple languages, however, I have increased the final approach altitude from 300 ft. to 700/800 ft. which should lower the dB level [and complaints] significantly. The new average neighborhood fly-over will be only 0.95 flights per day (daytime hours) , or 1 flight every 11 hours, 37 minutes of daylight, and 500 ft. higher than before.

I hope you find these changes acceptable.

I am cc'ing my pilots, Brian Buck, ATCT manager, and Commissioner Payne on this email so that everyone is in the loop. Please feel free to call/email me with any questions.

Thank you,

Peter Closs

President, Air Adventures Helicopters

Key West NIP Phase 1 Master Schedule

January 12-14, 2016	Property Survey (KWBTs / 4 SF)
January 18 – February 5, 2016	Development of Property Survey Report and ATP
February 5, 2016	Final completion deadline for Property Survey Report and ATP
February 8 – 12, 2016	Conference call with FAA ADO
February 15-19, 2016	Orientation Sessions (KWBTs / 4 SF)
March 15-17, 2016	Eligibility Testing (KWBTs / 4 SF)
March 21 – April 8, 2016	Development of Final Report of Eligibility Findings (KWBTs / 4 SF)
April 8, 2016	Completion of Final Report of Eligibility Findings (KWBTs / 4 SF)
April 18 – April 22, 2016	Meeting with FAA ADO to Review Eligibility Findings (KWBTs / 4 SF)
May 6, 2016	Deadline for Design Scope and Budget (Bldg. B / 4 SF)
May 9 – June 1, 2016	Grant Application development/submission (Design - Bldg. B / 4 SF)
October 1, 2016 – January 13, 2017	Design Development (KWBTs Bldg. B / 4 SF)
January 16 – May 5, 2017	Bid process tasks (KWBTs Bldg. B / 4 SF)
May 8 – 12, 2017	Bid Opening (Construction - KWBTs Bldg. B / 4 SF)
May 15 – June 1, 2017	Grant Application development/submission (Construction - Bldg. B / 4 SF)
October 1 – December 31, 2017	GC Contract Award & Product Procurement (Construction - Bldg. B / 4 SF)
January 8 – May 31, 2018	Construction (Bldg. B / 4 SF)

Key West International Airport Noise Hotline Log

Date of call	Time of call	Caller	Contact information	Message
2/15/2016	11:20 AM	Unknown		Helicopter directly over Riviera Shores Area
2/15/2016	12:20 PM	Unknown		Helicopter to the east of Riviera Shores Area, near park
2/18/2016	2:14 PM	Unknown	KWBTS	The caller was from KWBTS, and said that a white seaplane (maybe an Otter) with maroon striping flew over the pool in the middle of the complex at a very low altitude on approach to the airport. He said he had never seen a plane come in that low before, and said, "inform that pilot never to come over KWBTS that low again!"
2/29/2016		Mike Kellogg	2207 Flagler Avenue; 305-304-1111	He owns a home on Staples that was eligible in the previous program, but they deferred participation because his wife was ill. They are now ready to participate, but their house is no longer eligible. DML explained that noise contours are updated every five years so situation could change in the future.
3/4/2016	10:58 AM	Page Haverty	305-307-4001	It has been good up until today. A 2-engine big heavy airplane just flew over Garrison Bight at about 1500 to 2000 feet. It is a clear day.
3/4/2016	11:17 AM	Page Haverty	305-307-4001	A plane with red stripes on the tail turned so hard he pronanly went over Home Depot. He was at a 60-degree bank angle.
3/4/2016	5:36 PM	Page Haverty	305-307-4001	A blue-bottom plane was right on the deck. 30-degree bank angle right over Garrison Bight.
3/14/2016	4:55 PM	Page Haverty	305-307-4001	A big bird with stripes on the tail over Garrison Bight.
3/19/2016	6:42 PM	Pat Murphy	KWBTS	A Delta flight just flew over our development. We are at a function, and it blew us all away it was so loud.
3/20/2016	12:37 PM	Page Haverty	305-307-4001	The same old plane with red stripes on the tail just flew over the Yacht Club - low, slow, and noisy. Everyon else does OK.
3/20/2016	1:21 PM	Page Haverty	305-307-4001	Another plane with red stripes on the tail just flew over Garrison Bight.

Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 28, Number 10

March 25, 2016

Conferences

AIRPORTS CAN LEARN LESSONS FROM WAY PHOENIX DEALT WITH FLIGHT PATH CHANGES

There are valuable lessons for airports to learn from the way the City of Phoenix handled the community outreach crisis it faced following the FAA's implementation of unannounced flight path changes at Sky Harbor International Airport in September 2014, according to Rob Adams, executive vice president of the airport consulting firm Landrum & Brown.

At a Feb. 29 session at the UC Davis Aviation Symposium in Palm Springs, CA, Adams outlined three things that the City of Phoenix did well in addressing the community's immediate and unrelenting outrage over the flight path changes:

- City officials recognized that they were dealing with an outreach "crisis," which Adams defined as a situation with organized community opposition that is sustained and growing and exhibits hyper-sensitivity beyond the areas directly affected;
- The City took action quickly but not too quickly; city officials paused to allow time to develop a robust and meaningful public outreach plan; and

(Continued on p. 39)

Litigation

SIX SANTA CRUZ RESIDENTS SUE SFO, SJC, AIRLINES OVER NEW FLIGHT PATH NOISE

On March 6, six residents of Santa Cruz, CA, filed suit in Santa Cruz County Superior Court seeking unspecified damages for the noise nuisance caused by two new flight paths implemented under the FAA's Northern California Metroplex project that have brought over 4,000 commercial aircraft a month over their homes.

The lawsuit was filed against the City and County of San Francisco (proprietor of San Francisco International Airport), the City of San Jose (proprietor of San Jose International Airport), and five airlines: United, Southwest, Virgin America, American, and Delta.

"The new overhead flight paths [SERFR and BRIXX], and the ways airlines choose to fly them, have caused and continue to cause harm to Plaintiffs by dramatically increasing the amount of noise, disturbance and pollution to Plaintiffs' and their properties – thereby preventing Plaintiffs from reasonable enjoyment of their properties," the lawsuit asserts.

"Worse," it continues, "Defendants have routinely violated and/or encouraged violations of air regulations pertaining to altitude and speed of these large commer-

(Continued on p. 40)

In This Issue...

Phoenix ... Airports can learn valuable lessons from the way the City of Phoenix addressed the sustained community outrage over a shift in aircraft noise impact following FAA's implementation of RNAV flight paths at Sky Harbor International Airport, Rob Adams of Landrum & Brown, who advised the city on how to improve its community outreach efforts, tells participants at the UC Davis Aviation symposium in Palm Springs - p. 38

... Arizona Sens. John McCain and Jeff Flake urge FAA Administrator Michael Huerta to use a court-ordered mediation process going on this week to find a solution to the noise problem caused by the flight path changes at Sky Harbor - p. 40

Litigation ... Six residents of Santa Cruz, CA, file suit in state court seeking damages for noise nuisance caused by two new flight paths implemented last year under FAA's Northern California Metroplex project - p. 38

Conferences, from p. 38

- The City assumed a leadership position speaking on behalf of the community and representing the community's concerns.

After the flight path changes were made, the City held a public meeting on the noise problem that was a disaster, Adams said. People were screaming at FAA and nothing positive came out of the meeting. Elected officials realized they needed help and hired Adams to guide them in their public outreach efforts.

When he came on board in November 2014, city officials wanted to hold the next public meetings in two weeks but Adams insisted that was not enough time to prepare for the meetings, which were pushed back to mid-January 2015.

"That gave us time to prepare properly for the meetings and to get city officials to define what they wanted to accomplish at the meetings. It was a simple question but took a long time to answer. The city decided it wanted to be a leader on this issue and it wanted to represent all its citizens in engaging the FAA."

To accomplish those defined goals, the city held a series of four public meetings in mid-January 2015 at which they asked those attending from the community to specify the noise issues that upset them (such as night noise, constant noise, etc.), what they wanted the city to do about the problem short of changing the procedures, and how the city could communicate better with the community.

Input Documented Problem

The input gained from those meetings provided city officials with the information they needed to go to the FAA and document the noise problem the community was dealing with, Adams said. Also, responding to community requests at the meetings, the airport improved its website and added a flight tracking system and an app for filing noise complaints.

At a later, second set of four meetings, city officials provided feedback to the community on FAA's response to the concerns they had raised with the agency.

"The feedback to the community did one thing," Adams said. "It said, 'We hear you and we understand clearly what your issues are and we are delivering your message to FAA.'"

"That process of people being heard; the fact that they felt the city heard them, was very important for setting the stage for future outreach and the ability of the airport to rebuild its relationship" with the community, Adams stressed.

He also stressed the importance of the mechanics and logistics of the public meetings: city officials made sure that not just the loudest voices at the meetings were heard; that meetings were held even in small venues far from the airport where complaints had been registered; that they paid attention to the size and shape of the meeting rooms and made sure video screens were visible; and –crucially – that a purpose and goal was defined for every public meeting.

"You have to have a purpose for every meeting and it has to be meaningful to the public," Adams told the conference.

He also noted that in response to the public outreach crisis it faced, the City of Phoenix completely reorganized the airport staff to better deal with community engagement.

Adams urged airports to define in advance the "trigger events," such as the opening of a new runway, that could spark a community outreach crisis. "Have a plan and get ahead of [these events]," he advised. "Formulate your position and goals before taking action; pause and take a deep breath and make plans for your outreach and goals."

'All This for \$4 Million'

Ambrose Clay, a City Councilman for College Park, GA, located close to Atlanta-Hartsfield International Airport, asked an interesting question at the end of Adam's presentation.

"What do we have to do to get the economics on the ground merged in holistically with the economics in the airspace?" he asked, noting that Phoenix spent "a gazillion dollars" to rehab its historic district and then FAA flew planes over it. "It doesn't make sense to land use planners," Clay said.

Phoenix Deputy Aviation Director Jordan Feld agreed. The estimate is that the airlines are saving around \$4 million a year with the new flight paths, he said, adding – with resignation – "All this for \$4 million a year."

It would be better to integrate flight path changes with land use planning, he said, but noted that FAA is in charge of the airspace and "there will always be losers on the ground" from airspace changes.

In his presentation, Feld said that many components of Part 150 airport noise compatibility programs are rendered useless with NextGen flight path changes. "From an RNAV perspective, if you have a Part 150, throw it out the window," he told airports. "All that effort you put into sound insulation programs and aviation easements is for naught."

"I'm not sure what value your Part 150 is to ATO [FAA's Air Traffic Organization]," Feld said. "Our 150 recommended that RNAV be used for good. So noise experts told the community that noise will be better for you [with RNAV] but it didn't work out that way."

Asked how well the FAA has worked with the City of Phoenix in trying to reduce the noise impact of the flight path changes, Feld responded: "There are different FAAs." From a planners perspective, the ADO [Airport District Office] is the logical office to be involved. The ADO seems to be more communicative and FAA needs to let the ADO do more up-front," Feld said. "ATO talks to us but is guarded, less informative," he said. "Less banter at meetings."

Winners of Gillfillan Award

This year's UC Davis Walt Gillfillan Award for contributions to the field of airport noise was presented to two recipients: Armando Tovar, noise officer for Raleigh-Durham Airport Authority, and Sanford Fidell, principal of the Woodland Hills, CA, acoustical consulting firm Fidell Associates Inc.

Litigation

AZ SENATORS URGE FAA TO USE MEDIATION TO RESOLVE FLIGHT PATH CHANGE NOISE PROBLEM

In a March 23 letter, Arizona Sens. John McCain (R) and Jeff Flake (R) urged FAA Administrator Michael Huerta to reach a solution to the increase in NextGen flight path noise around Phoenix Sky Harbor International Airport during court-ordered mediation going on this week with the City of Phoenix and representatives of historic neighborhoods in the city that have had flight paths moved over them.

“We appreciate your attention to the concerns of our constituents associated with the FAA’s adjustment of these paths, and your acknowledgement that “[d]espite the litigation filed by the city and by Phoenix neighborhood groups, consistent with Congress’ intent, [the FAA remains] willing to work together to develop additional potential adjustments to the procedures,” wrote the senators, who have aggressively sought to resolve the noise problem.

They told Huerta that the upcoming mediation “represents one approach to resolving this matter, and, in connection with this mediation, we urge you to use the tools and authority available to the FAA to reach a workable solution for the community around Sky Harbor and the FAA, as appropriate and consistent with existing rules, regulations and ethical guidelines.”

“As you are aware,” the senators told Huerta, “there has been substantial work by our offices to address process concerns related to the lack of engagement with local stakeholders before making flight-path changes as part of the FAA’s implementation of the Next Generation Air Transportation (NextGen) System.

“This has resulted in legislation, included in FAA reauthorization bills in the House and Senate, to create a process for the FAA to take steps to mitigate the negative effects of these flight-path changes, and also ensure that other airports and communities have the opportunity to meaningfully engage with the FAA before any future changes are made. Along with ongoing engagement with your agency, we will continue to work to have this, or any additional legislation warranted under current circumstances, enacted into law, until this issue is finally resolved,” the senators asserted.

Two Lawsuits Filed

On June 1, 2015, the City of Phoenix gave up on its attempts to work with the FAA to revise RNAV departure paths at Sky Harbor to reduce their noise impact and filed suit against the FAA in the U.S. Court of Appeals for the District of Columbia Circuit (27 ANR 82).

The City petitioned the Court to review the FAA’s denial of the City’s request to modify or cease implementation of certain RNAV departure routes out of Sky Harbor that moved flight paths away from the locations where they had been effective in reducing noise impact and over an historic district

and other densely populated areas. The City also asked the Court to review FAA’s failure to reopen consultation on the flight path changes or to conduct an environmental review of the City’s requested RNAV departure routes.

On July 31, 2015, several historic neighborhood groups and residents also filed suit in the D.C. Court of Appeals alleging that they are suffering “significant, adverse impacts” as a result of revised departure routes the FAA put into effect in September 2014.

They asked the Court to review the final decisions by FAA to permanently implement the RNAV departure routes, which moved and concentrated flight track noise over their communities. They also asked the Court to review FAA’s refusal to reopen consultation or conduct required environmental review of alternative flight departure routes that would have fewer significant adverse impacts on the historic neighborhoods and their residents (27 ANR 116).

Asked if the use of mediation could prove to be a useful new legal avenue for addressing NextGen noise problems, Peter Kirsch of the Denver lawfirm Kaplan Kirsch & Rockwell, which represents the City of Phoenix in its litigation against FAA, seemed to be trying to keep expectations about the outcome of the mediation process realistic.

“The D.C. Circuit Court of Appeals has an active and aggressive mediation program,” he told ANR. “The Court very strongly encourages all cases to participate in the program so this is not unusual but rather routine for cases in the DC Circuit. Many cases (from my experience, most challenges to FAA actions) are quickly removed from the mediation program when it becomes obvious that there are no good mediation options. I have participated in mediation for many cases in the D.C. Circuit and other courts of appeals that have similarly active mediation program. Occasionally mediation results in resolution of the matter and more often mediation helps narrow the issues in contention.

“Like most cases, the DC Circuit directed that the Phoenix case be referred to mediation. A mediator has been appointed and mediation is on-going this week. As you can expect, it would not be appropriate to comment on the mediation, whether it will be successful, or its possible duration. All phases of mediation are confidential.”

Santa Cruz, from p. 38

cial aircraft, which have resulted in direct harm to Plaintiffs, as well as increased, continuing risk of midair collision with small aircraft.”

In the one year since implementation of the new SERFR flight path into SFO, there have been more than 150,000 noise complaints filed by residents of Santa Cruz County, the plaintiffs told the Court.

They asserted that “many aircraft using the new flight paths routinely fly at altitudes substantially below the designed floor for Class B airspace, fly at substantially higher speeds than allowed by FAA regulations and local noise regu-

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lations, and thus often employ loud ‘speed brakes’ as they fly over Plaintiffs’ properties.”

“Published FAA procedures allow airlines to descend their aircraft at altitudes over Plaintiffs’ community that are conducive to a quiet, idle descent, but the airlines generally choose to do otherwise. Furthermore, airlines could mitigate the nuisance by flying less or not at all during the time that people are likely to be sleeping (e.g. 10 p.m. to 7 a.m.) but they choose to not do so.”

The plaintiffs told the Court that SFO and SJC have the power to take various actions to reduce aircraft noise over their homes, such as:

- Instituting preferential runway use that would cause planes to take a different flight path and expose far fewer people to aircraft noise;
- Do more to convince airlines to take steps that would result in quieter flights (such as granting airline gate preferences based on each airline’s noise mitigation record); and;
- SFO could institute a curfew against planes taking off or landing at more sensitive “quiet” times. The plaintiffs noted that San Jose International already has a curfew.

Plaintiffs in the case are Daniel McKay, Patricia McKay, Babak Sarashki, Kathleen Dwyer, Michael Rodenbaugh, and “Doe Plaintiffs 1-10,000.” The attorney who filed the lawsuit, Michael Rodenbaugh of Rodenbaugh Law in San Francisco, is one of the plaintiffs.

Five causes of action are listed in the case: continuing nuisance, negligence, negligence *per se*, willful misconduct, and unfair competition under Section 17200 of the California Business and Professions Code which bars “unlawful, unfair and fraudulent” conduct.

No Decision Yet in Related Case

In related litigation, three residents of San Mateo County, CA, filed a lawsuit in the U.S. Court of Appeals for the Ninth Circuit on Sept. 26, 2014, challenging the FAA’s conclusion that there would be no significant noise impact from the airspace revision done under its Northern California Metroplex project (14 ANR 151).

The petitioners asked the Ninth Circuit to review the entire FONSI [Finding of No Significant Impact] on the NoCal Metroplex project and its conclusions that the proposed airspace changes would not result in a significant noise impact, that no mitigation is required; that the FONSI is consistent with national environmental policies and objectives, and that an environmental impact statement need not be prepared.

Briefings have been filed in the case, *James E. Lyons, et al v. FAA, et al* (Case No. 14-72991) but the Court has not yet issued a decision.

FAA and Department of Justice attorneys asserted in a brief to the Court filed in October 2015 that issuance of the FONSI was appropriate and the petitioners’ lawsuit was without merit.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 28, Number 3

January 29, 2016

NASA

HYBRID WING BODY AIRCRAFT ARE KEY TO MEETING ERA PROJECT'S NOISE GOAL

Hybrid wing body (HWB) aircraft designs – with engines installed over the body or wing to maximize acoustic shielding – are the key to achieving the ambitious noise goal of NASA's Environmentally Responsible Aviation (ERA) Project: aircraft entering service in 2025 with noise levels a cumulative 42 EPNL dB below Stage 4 requirements.

However, don't look for airlines to be flying significantly quieter HWB aircraft until beyond the 2035 timeframe, stressed ERA Project Manager Fayette Collier, who is based at NASA's Langley Research Center.

"It is likely that hybrid wing body aircraft will be developed first as a military transport," he told ANR, adding there are no plans for a commercial HWB right now by either Airbus or Boeing. Neither aircraft manufacturer is forecasting the need for a HWB commercial aircraft between now and 2035.

"So, I think it is safe to say that the HWB may appear in the market place beyond 2035, depending upon demands of the marketplace for its unique combination

(Continued on p. 10)

Aircraft

LUFTHANSA AIRLINE IS LAUNCH CUSTOMER FOR AIRBUS A320 NEO WITH P&W GTF ENGINES

On Jan. 20, Airbus delivered its first A320neo to Lufthansa, beating Boeing and Bombardier to the market with a greener next-generation single aisle jetliner.

Equipped with all new technology Pratt & Whitney PurePower® Geared Turbofan™ engines, Airbus said the A320neo "sets a new, even higher standard in aircraft efficiency, reducing emissions and noise as well as burning 15% less fuel than current generation aircraft from day one and 20% less by 2020."

"We are happy that today we are the first airline worldwide to receive the Airbus A320neo. Featuring the leading technology of Airbus and Pratt & Whitney, the A320neo is by far the most efficient and most silent aircraft on short- and medium-haul routes," said Lufthansa CEO and Chairman of its Executive Board Carsten Spohr.

"With lower fuel consumption and consequently lower CO2 emissions, the A320neo has a clearly improved environmental performance. Furthermore, the new jet engine technology makes the aircraft considerably quieter. As a result, we have ordered a total of 116 aircraft of this type for the airlines of the Lufthansa Group," he added.

(Continued on p. 11)

In This Issue...

Aircraft ... NASA engineers report that hybrid wing body aircraft – with engines installed over the wing or body to maximize acoustic shielding – are the key to meeting the ambitious noise goal of NASA's ERA project - p. 9

... Lufthansa is the launch customer for the Airbus A320 neo, which sets a new standard for noise reduction and fuel efficiency. The aircraft is the first single-aisle jetliner to be powered by the advanced P&W PurePower geared turbofan engine - p. 9

Complaints ... San Mateo County launches PlaneNoise complaint management system for San Carlos, Half Moon Bay airports - p. 11

Noise grants ... Laredo Int'l Airport gets a \$6 million AIP grant for residential sound insulation, buyouts, and aviation easements - p. 11

Part 150 Program ... FAA approves noise compatibility program for Laughlin/Bullhead Int'l Airport - p. 12

HWB, from p. 9

of significant community noise reduction and much better performance, resulting in both a smaller carbon and much smaller noise footprint,” Collier said.

But, more importantly, he added, ERA has matured airframe and engine technology that can significantly reduce the perceived community noise for advanced tube and wing (T&W) aircraft with geared turbofan engines by about one half. These technologies have a good chance of finding their way into the fleet by 2025.

In either case, the decisions for fleet application are business decisions not in the hands of NASA, Collier explained. “So, the analysis provided is more of a ‘what if’ analysis to establish what might be possible and is not a prediction of what will happen.”

Quieter than T&W

While HWB aircraft will approach runways at the standard 3 degree glide slope, they will have much better climb out performance than today’s tube-and-wing (T&W) aircraft, the NASA official explained.

When HWB aircraft do enter commercial service, they will be noticeably quieter: 1/8 to 1/4 the noise of the tube and wing aircraft. Asked if the HWB aircraft will be close to ambient noise levels in metropolitan areas, Collier replied, “Not quite but getting much closer.”

Modeled comparisons by NASA of the noise level of a 301 passenger HWB aircraft powered with geared turbofan engines to that of a 301 passenger T&W aircraft showed the following:

- The HWB concept aircraft is a cumulative 18.2 dB quieter than advanced 2025 T&W aircraft at the three noise certification measurement points (approach, sideline, and takeoff flyover), with the largest noise reduction (11.8 dB) achieved at takeoff flyover;
- Some 11.9 dB of the cumulative 18.2 dB noise difference found between the HWB and T&W aircraft is due to the acoustic shielding provided by the engines being mounted on top of the HWB and to the aircraft’s better climb-out performance.

Presentation at AIAA SciTech

How well 13 advanced aircraft/engine designs performed in meeting the ERA Project noise goal was discussed in a paper presented by NASA Senior Research Engineers Russell Thomas and Casey Burley and NASA Senior Aerospace Engineer Craig Nickol of the agency’s Langley Research Center at the American Institute of Aeronautics and Astronautics (AIAA) SciTech conference held Jan. 4-8 in San Diego.

The aircraft design concepts studied included a full range of technology assumptions deemed feasible for subsonic aircraft of various classes with entry-into-service in the 2025 timeframe:

- Conventional tube-and wing (T&W) configurations with engines mounted underneath the wing;

- An unconventional T&W configuration with engines integrated with the top of the wing, known as Over-Wing-Nacelle (OWN);

- Another unconventional T&W configuration that is distinguished with a double-deck fuselage and the engine mounted from the fuselage and positioned at the mid-fuselage location so that the inlet of the nacelle is over the trailing edge of the main wing, known as mid-fuselage nacelle (MFN); and

- Hybrid wing body (HWB) configuration with no clear line between the aircraft’s wing and body.

“For the NASA N+2 aircraft which are designed in a balanced approach to achieve simultaneously the fuel burn, emissions, and noise reduction goals, the results of the noise assessment show that several of the 13 aircraft approach levels are close to or even exceed the NASA goal of 42 cumulative below Stage 4,” the NASA engineers reported in their paper, *Assessment of the Noise Reduction Potential of Advanced Subsonic Transport Concepts for the NASA Environmentally Responsible Aviation Project*.

N+2 aircraft reflect technology that is two generations beyond that represented by 2005 best-in-class baseline aircraft.

“The key to achieving the 42 dB noise goal is an unconventional configuration that installs the engine over the wing or body in order to maximize the propulsion airframe aeroacoustic interaction effects. The HWB configuration that is able to shield both forward and aft-radiated engine noise has the highest levels of noise reduction from shielding,” NASA’s engineers explained.

A 301-passenger class HWB aircraft with geared ultra bypass engines was assessed at 40.3 EPNL dB or more below Stage 4 standards and 11.9 EPN dB of that reduction was attributed by the NASA engineers to the engine noise shielding that resulted from the engines being mounted above the wing and body of the aircraft rather than below.

Analysis of Noise Reduction

The NASA engineers reported that an analysis of the HWB design compared to the equivalent engine-under-wing aircraft showed that the low noise levels achieved by the HWB can be attributed to:

- Noise reduction from shielding of both forward and aft radiated engine noise (compared to the noise increase from reflection from the engine-under-wing design);
- Superior low speed aerodynamic performance which results in higher climb performance and altitude at the cutback point and enables lower approach speeds; and
- The absence of a trailing edge high lift flap system noise source.

The NASA engineers said that HWB and other aircraft “are likely to achieve even lower noise levels with developments in four particularly promising areas”:

- Fan noise shielding effectiveness technology (greater noise reduction from the same airframe shield dimensions);
- Reduction of noise from “Krueger flaps,” which are deployed on approach for high lift;

- Main landing gear noise reduction; and
- Acoustic liner technology for the aft duct and the bifurcators.

Since it began in 2009, NASA's ERA program has focused on developing and demonstrating technologies for integrated aircraft systems that could simultaneously meet aggressive goals for fuel burn, noise, and emissions.

The fuel burn goal is for a reduction of 50% in block fuel relative to a best-in-class in 2005; the emissions goal is for a reduction of 75 % in landing and takeoff NO_x (oxides of nitrogen) levels below the International Civil Aviation Organization's Committee on Aviation Environmental Protection (CAEP) 6 standard.

2020 is the target date for key ERA technologies to be at the technology readiness level (TRL) of 4-6, which means a system of subsystem prototype has been demonstrated in a relevant environment. This timeline aligns with typical technology development cycles allowing for additional maturation beyond ERA by the industry before application to aircraft by 2025.

Complaints

SAN MATEO COUNTY LAUNCHES PLANE NOISE COMPLAINT SYSTEM

San Mateo County, CA, announced Jan. 27 that it has launched the PlaneNoise Aircraft Noise Complaint Management System to better capture critical data about aircraft noise concerns around the San Carlos and Half Moon Bay airports and to simplify the noise complaint reporting process for residents.

The noise complaint system is designed to make reporting easier for callers and to provide timely and accurate information to County management and the Board of Supervisors about the number and location of complaints from the communities surrounding each airport.

"The County cares about the potential impact of noise on its residents and takes resident complaints very seriously," said San Mateo County Public Works Director Jim Porter. "Now, with this tool, the improved data collection will let the County better track and respond to areas of concern."

The reporting system helps give complaints context, according to PlaneNoise Founder and President Robert Grotell.

"Our PlaneNoise Complaint Box is assisting the County of San Mateo in implementing their noise abatement program by providing increased intelligence on where San Carlos and Half Moon Bay Airport complaints are being generated, how often and by whom," Grotell said.

With PlaneNoise, individuals can submit complaints by calling the phone hotline at (844) 266-6266 or online at the San Mateo County Airports Division website, www.sanmateocountyairports.org (click "File a Noise Complaint").

With the addition of San Mateo County to its client list, PlaneNoise is now coast-to-coast, Grotell told ANR. The firm

now has 20 airport clients, including eight added in 2015.

To learn more about PlaneNoise please visit www.planennoise.com.

AIP Grants

LAREDO INT'L GETS \$6 M GRANT FOR HOME NOISE MITIGATION

On Jan. 22, Rep. Henry Cuellar (D-TX) announced that Laredo International Airport had received two grants from the Federal Aviation Administration Airport Improvement Program totaling \$13.5 million.

A \$6 million grant will be used to mitigate airport noise in the residential area adjacent to the airport by providing sound insulation for 60 residences in close vicinity to the airport. The FAA also will purchase 16 residences and acquire avigation easements on 50 residences.

The second grant is for \$7.5 million and will be used for full reconstruction of an existing taxiway at the airport, which is over two decades old and poses safety concerns due to decay.

The City of Laredo will add \$1.3 million in matching funds for a total investment of \$14.8 million.

"In the last five years, aircraft operations have doubled, placing Laredo among the top 10 busiest federal contract tower airports. The increase in air traffic has caused noise concerns for neighboring residences, and these grants will fix many of those concerns," Congressman Cuellar said.

A320 neo, from p. 9

Pratt & Whitney President Robert Leduc said Airbus and Lufthansa have been important customers for Pratt & Whitney for many years. "With the A320neo's unprecedented reductions in fuel burn, emissions, and noise, I am confident that these business relationships will have continued success for many years to come," he said.

"Handing over the first A320neo to a world's leading airline and long standing Airbus customer, Lufthansa, is a truly great day for everyone at Airbus," said Fabrice Brégier, Airbus President and CEO.

"This occasion marks a new step forward to delivering on our promises and meeting our industry's goal for sustainable aviation. The A320neo embodies Airbus' passion and commitment to deliver maximum value and efficiency to our customers through continuous innovations."

Airbus said the A320neo Family incorporates the very latest technologies including new generation engines and Sharklet wing tip devices. With almost 4,500 orders received from nearly 80 customers since its launch in 2010, the A320neo Family has captured some 60 percent share of the market, Airbus said.

The neos will be powered by the P&W GTF engine or the new LEAP engine developed by GE and Snecma.

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Introduction of Geared Turbofan Engine

The A320 neo delivered to Lufthansa was the first single-aisle airliner to be powered by Pratt & Whitney's next generation large commercial engine: the PurePower geared turbofan.

Under development for two decades at a cost of \$1 billion, the new GTF engines "will cut fuel consumption (and therefore emissions) by 16 percent, reduce regulated emissions by 50 percent, and lower the noise footprint by 75 percent from the day they enter revenue service," Pratt & Whitney Commercial Engines President Greg Gernhardt said in an editorial published recently in *Aviation Week*.

He called the GTF's introduction into commercial airline service, "a tangible step toward providing cleaner, greener and quieter air transport today."

Under its Environmentally Responsible Aviation (ERA) Project, NASA collaborated with Pratt & Whitney over the last ten years on fan development for the new GTF engine.

The collaboration was focused on low speed and high speed aero and acoustics characterization of various fan designs. The work helped with design and analysis tool validation used by industry and NASA.

Pratt & Whitney GTF engine features a fan drive gear system that allows the fan to operate at lower speeds than the low pressure compressor and turbine. This increases the engine's by-pass ratio and results in a significant improvement in fuel consumption, emissions, and noise.

Part 150 Program

FAA ANNOUNCES ITS APPROVAL OF LAUGHLIN PART 150 PROGRAM

On Jan. 26, FAA announced its approval of the Part 150 airport noise compatibility program for submitted by the Mohave County (AZ) Airport Authority for Laughlin/Bullhead International Airport.

The program includes one noise abatement element, seven land use planning measures, and three program management elements. The overall program was approved with the partial disapproval of two land use management measures.

The FAA Record of Approval for the Part 150 program will be available on-line at:

http://www.faa.gov/airports/environmental/airport_noise/part_150/states/.

For further information, contact Jared Raymond, Airport Planner, FAA Phoenix Airports District Office, 3800 North Central Avenue, Suite 1025, Phoenix, Arizona 85012; tel: (602) 792-1072.

AIRPORT NOISE REPORT

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

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Legislation

NEW FAA REAUTHORIZATION BILL REQUIRES FAA TO ADDRESSES NEXTGEN NOISE IMPACT

Historic legislation introduced Feb. 3 to privatize the Federal Aviation Administration's air traffic services also includes several noise-related provisions that will please communities and airports struggling to address the focused noise impact of new NextGen procedures and flight paths.

The Aviation Innovation, Reform, and Reauthorization (AIRR) Act (H.R. 4441) would reauthorize FAA programs for a six-year period and includes the following provisions:

- **Section 137: RNAV Departure Procedures**

When proposing a new area navigation departure procedure, or amending an existing procedure that would direct aircraft between the surface and 6,000 above ground level over noise sensitive areas, this section would require that the FAA Administrator to consider the feasibility of dispersal headings or other lateral track variations to address community noise concerns, if –

(Continued on p. 14)

Legislation

BILL WOULD MOVE AIR TRAFFIC SERVICES OUT OF FAA TO INDEPENDENT CORPORATION

On Feb. 3, Transportation and Infrastructure Committee Chairman Bill Shuster (R-PA) and Aviation Subcommittee Chairman Frank LoBiondo (R-NJ) introduced the Aviation Innovation, Reform, and Reauthorization (AIRR) Act, legislation that establishes an independent, not-for-profit corporation, outside of the federal government, to modernize and provide U.S. air traffic control (ATC) services.

The AIRR Act maintains the FAA's role as the nation's aviation safety regulator.

"The federally chartered air traffic control corporation will be governed by a board representing the aviation system's users and the public interest," the House Transportation Committee stressed in a press release.

However, ANR examined the bill and found no representatives of the "public interest" – meaning non-aviation stakeholders – on either the Board of Directors of the Advisory Board. The Board of Directors includes representatives of the Federal Government, the airlines, general aviation, air traffic controllers, and airline pilots.

The 15-member Advisory Board is composed for representatives of commercial service airports, general aviation aircraft owner operators and owners, aerospace

(Continued on p. 16)

In This Issue...

Legislation ...

New FAA reauthorization bill would

- Require agency to submit report to Congress in three years recommending revisions, if appropriate, to Part 150 land use compatibility guidelines;
- Require FAA to notify and consult with airports, consider consultation with communities, before applying CatEx 1 or CatEx 2;
- Consider shifting flight tracks to address community concerns about noise from RNAV departures;
- Improve community involvement in Metroplex projects - p. 13

... Bill would move FAA air traffic services into not-for-profit corporation; unclear whether FAA or corporation would develop PBN procedures, conduct environmental reviews of them - p. 13

O'Hare Int'l ... New runway announcement ignores "noise challenges" being faced by their constituents, Illinois Reps. Quigley, Schakowsky, and Duckworth assert - p. 15

Legislation, from p. 13

- The affected airport operator, in consultation with the affected community, submits a request to the FAA Administrator for such a consideration;

- The airport operator's request would not, in the judgment of the FAA Administrator, conflict with the safe and efficient operation of the national airspace system; and

- The effect of a modified departure procedure would not significantly increase noise over noise sensitive areas, as determined by the FAA Administrator.

Section 138: Review and Notification of Categorical Exclusions Granted for Next Generation Flight Procedures

Under this section, Section 213(c) of the FAA Modernization and Reform Act of 2012 – which communities strongly opposed because it established the so-called CatEx 1 and CatEx 2 categorical exclusions for certain RNAV/RNP procedures – would be amended to require:

- The FAA Administrator to notify and consult with the operator of an airport at which the procedure would be implemented regarding appropriate community involvement practices; and

- The FAA Administrator consider consultations or other engagement with the community in which the airport is located to inform the public of the new procedure.

This section also would required the FAA Administrator to review a decision by the FAA Administrator to grant a CatEx 1 to RNAV departure procedures at Phoenix Sky Harbor International Airport.

If the FAA Administrator determines that the procedure “has a significant effect on the human environment in the community in which the airport is located,” the Administrator is required to consult with the airport operator (the City of Phoenix) to identify measures to mitigate the effect of the procedure on the “human environment” and to consider the use of alternative flight paths “that do not substantially degrade the efficiencies achieved by the implementation of the procedure being reviewed.”

Phoenix wants to revert to its original noise-abatement flight paths using NextGen technology on them.

• Section 604: Aircraft Noise Exposure

This section would require the FAA to conduct a review of the relationship between aircraft noise exposure and its effects on communities around airports.

Within three years of passage of the legislation, FAA must submit a report to Congress, which must contain preliminary recommendations that the FAA Administrator determines appropriate for revising the land use compatibility guidelines in the agency's Part 150 airport noise compatibility program “based on the results of the review and in coordination with other agencies.”

• Section 614: Community Involvement in FAA NextGen Projects Located in Metroplexes

This section would require the FAA Administrator, within 180 days of enactment of the legislation, to complete a review of the FAA's community involvement practices for NextGen projects located in metroplexes identified by the agency.

At a minimum, the review shall include a determination of how and when to engage airports and communities in performance based navigation proposals.

No later than 60 days after completion of its review, the FAA must submit to the House Transportation and Infrastructure Committee and to the Senate Commerce, Science, and Transportation Committee a report on:

- How the FAA will improve community involvement practices for NextGen projects located in metroplexes;
- How and when the FAA will engage airports and communities in performance based navigation proposals, and
- Lessons learned from NextGen projects and pilot programs and how those lessons learned are being integrated into community involvement practices for future NextGen projects located in metroplexes.

In collaboration with the aviation industry the FAA has identified 21 metroplexes where it believes that improved air traffic performance could benefit not only the region but the entire national airspace system.

Metroplexes are defined as “one or more commercial airports with shared airspace that serves at least one major city.”

FAA currently has or is in the process of implementing 12 metroplex projects at Cleveland-Detroit, Washington, DC, Charlotte, Atlanta, South Central Florida, Houston, N. Texas, Denver, Phoenix, Las Vegas, Southern California, and Northern California.

• Section 131: Extension of Grant Authority for Compatible Land Use Planning and Projects by State and Local Governments

This section would extend the end date for this FAA grant program from March 31, 2016, to Oct. 1, 2022.

• Section 609: Right to Privacy When Using Air Traffic Control System

This section will displease many airport noise officers because it bars them from identifying general aviation aircraft violating airport noise levels or flight paths.

It would block the registration number of a private aircraft owner or operator from any public dissemination or display for non-commercial flights of the owner or operator.

Many of the noise-related provisions of H.R. 4441 were originally proposed or are similar to those in an amendment added by Arizona Senators John McCain (R-AZ) and Jeff Flake (R-AZ) to the THUD appropriations bill and were later rolled into the legislative report on the Consolidated Appropriations Act of 2016 (28 ANR 1).

What does not appear to have been addressed in H.R. 4441 is whether the FAA would continue to develop NextGen Performance-based Navigation Procedures and conduct environmental reviews of them after the agency's air traffic services are moved to the private ATC corporation or whether the new ATC corporation would take over those responsibilities.

ANR has asked the House Transportation Committee to clarify that issue.

AIP/PFC Funding

The legislation would only allow airports to increase Passenger Facility Charges to levels of \$3, \$4, or \$4.50.

It would authorize the FAA's Airport Improvement Program at the following levels: \$3.35 billion in fy 2016; \$3.424 billion in fy 2017; \$3.499 billion in fy 2018; \$3.576 billion in fy 2019; \$3.655 in fy 2020; \$3.735 in fy 2021; and \$3.817 billion in fy 2022.

O'Hare Int'l Airport

NEW RUNWAY IGNORES NOISE CHALLENGES, REPS TELL CITY

Illinois Reps. Mike Quigley (D), Jan Schakowsky (D), and Tammy Duckworth (D) – who represent communities impacted by noise from the major east-west runway realignment at Chicago O'Hare International Airport – asserted that Chicago Mayor Rahm Emanuel's Jan. 30 announcement to add a new sixth east-west parallel runway "ignores the noise challenges" their constituents have been experiencing.

"Prioritizing the construction of yet another east-west runway without first addressing the significant increases in noise that our constituents have endured since the implementation of the O'Hare Modernization Program (OMP) comes at the expense of our constituents' health and property values," they said in a Feb. 1 statement.

"The promise that relief from O'Hare noise will only come after OMP's completion ignores the reality that our constituents are currently facing. The Chicago Department of Aviation (CDA) needs to implement near-term solutions that will mitigate noise impacts now and commit to a long-term plan to fairly distribute air traffic during day and night time hours upon OMP's completion. More can and must be done to help reduce noise in our communities and ensure O'Hare remains a world-class airport."

The congressional representatives, who are members of the congressional Quiet Skies Caucus, said they "look forward to a continued dialogue with Chicago Department of Aviation and Mayor Emanuel where we will continue to stress that sensible noise mitigation strategies are not incompatible with a vibrant O'Hare."

On Jan. 30, Chicago Mayor Rahm Emanuel, IL Sens. Richard Durbin (D) and Mark Kirk (R), representatives from United and American Airlines, and the Federal Aviation Administration announced a nearly \$1.3 billion infrastructure

plan for O'Hare International Airport that includes the new east-west parallel runway scheduled to be commissioned in 2020. The runway will be the second longest at O'Hare and the final east-west parallel runway to be added under the O'Hare Modernization Plan.

New Runway Will 'Balance' Noise Exposure

Said Mayor Emanuel, "This runway will balance the capacity of the north airfield with that of the south airfield, providing increased flexibility for east and west flow operations, as well as balancing noise exposure among communities east and west of O'Hare. The city also plans to ensure that sound insulation of all eligible homes and schools will commence and be completed before the runway opens. The cost of construction for Runway 9C/27C is \$648.5 million."

Chicago Department of Aviation Commissioner Ginger Evans said the project "will further modernize O'Hare's airfield and significantly increase safety and efficiency; and give air traffic the most flexibility for routing aircraft." She acknowledged the O'Hare Noise Compatibility Commission and Suburban O'Hare Commission "for their hard work to maximize the benefits of our proposed operational changes for residents affected by noise."

But the citizens anti-noise coalition Fair Allocation in Runways (FAiR) was having none of it. Their goal has been to keep open two diagonal runways at O'Hare scheduled for closure that they want used at night to direct planes non-residential areas to reduce noise impact on the communities west of O'Hare's runways that are taking the brunt of the noise impact.

Evans contends that the diagonal runways cannot be used in O'Hare's east-west parallel runway system that went into effect in October 2013 because they would decrease safety and efficiency. FAiR asserts that the diagonal runways could be used at night and in off-peak hours under current FAA and National Transportation Safety Board safety directives.

The group accused Mayor Emanuel – who is on very shaky political grounds – of wasting their time and trying to curry favor with city residents in meeting with them recently after years of requests to discuss the noise impact of the runway realignment and what could be done about it. The mayor knew the new runway announcement was to be made only two days later but never mentioned it to the FAiR representatives he met with.

"The OMP has over-promised and under-delivered, as FAiR and so many other elected officials have pointed out," said FAiR Leader Helen Rosenberg. "There is a huge and growing human problem that will not go away, and that's what Mayor Emanuel, Commissioner Evans, and every mayor and commissioner going forward are going to have to deal with. Unless this is fixed now, Mayor Emanuel's and Commissioner Evans' legacy will be the concentration of noise, visual, and air pollution over a narrow band of people and neighborhoods, and all the negative health and economic impacts that follow."

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Legislation, from p. 13

manufacturers, commercial unmanned aircraft systems, labor organizations, the Department of Defense, and “small communities,” which likely means rural communities.

“The AIRR Act is transformational legislation that prepares the U.S. aviation system for the future, helps ensure a modern, safe system that benefits passengers and the economy, and keeps America competitive in a vital industry,” Shuster said.

He added, “This majority of this bill was developed in the same bipartisan manner as previous committee bills. There have been genuine policy differences, and Committee Members we will have the opportunity to further discuss the legislation at a hearing next week and offer amendments during the markup process.”

Comments on Bill

Sen. John McCain thanked Rep. Shuster for including language in the House Transportation Committee's FAA reauthorization bill that would address concerns raised by residents of Phoenix about recent flight path changes at Phoenix Sky Harbor International Airport.

He said that Sen. John Thune (R-SD), chairman of the Senate Commerce Committee, has committed to including such language in the Senate FAA reauthorization bill.

"It's critical that affected communities in Phoenix and around airports across the country have a seat at the table before flight path changes are made. Our language would not only create a process for the FAA to determine steps to mitigate the negative effects of these flight path changes in Phoenix, but it would also ensure that other airports and communities have the opportunity to fully engage with the FAA before any future changes are made," McCain said.

Rep. Joe Crowley (D-NY), a co-founder of the House Quiet Skies Caucus, expressed concern the Shuster's bill would privatize air traffic control. “However, if there is a silver lining, it is that we may finally see a concerted effort to address the very serious issue of aircraft noise pollution,” he said.

"In my district, which includes LaGuardia Airport, aircraft noise pollution plagues our communities - disrupting my constituents' ability to sleep, learn and enjoy daily life. I am pleased this bill aims to respond to these concerns by requiring the FAA to assess the impact of noise pollution on communities near airports and make recommendations to Congress.

"As the process moves forward, I hope there is opportunity to make improvements and ensure this legislation addresses the needs of the FAA, the traveling public, and airport-adjacent communities while maintaining our position as a leader in aviation."

AIRPORT NOISE REPORT

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

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Legislation

BILL WOULD REQUIRE COMP. GEN. REVIEW OF FEDERAL AIRCRAFT NOISE R&D PROGRAMS

On Feb. 4, Rep. Eddie Bernice Johnson (D-TX), Ranking Member of the House Science Space and Technology Committee, introduced the Federal Aviation Research and Development Reauthorization Act of 2016 (H.R. 4464) to ensure that federal research and development in support of civil aviation remains at the forefront of addressing challenges confronting the nation's air transportation system, including aircraft noise mitigation.

Title III of the legislation would:

- Require the Comptroller General of the United States "to carry out a review of federal government research programs on aircraft noise levels and the use of such research to inform the Department of Transportation's noise evaluation processes, adjustments to noise metrics, and development of noise abatement procedures."

The review must include the R&D activities of other federal agencies and international bodies and "identify any barriers to the application of the research to updating noise evaluation processes and metrics."

(Continued on p. 18)

Budget

FY 2017 BUDGET LAUNCHES MAJOR NEW NASA AERONAUTICS RESEARCH INITIATIVE

A major new NASA Aeronautics research initiative called New Aviation Horizons (NAH) is launched under President Obama's proposed fiscal year 2017 budget request.

Described as "a bold series of experimental aircraft and systems demonstrations to advance the NASA Aeronautics strategic vision in partnership with the aviation community," New Aviation Horizons establishes:

- A subsonic demonstrator project that will develop a large-scale Hybrid Wing Body experimental aircraft and validate aircraft configurations and technologies to achieve a 50 percent reduction in fuel use while also dramatically reducing noise;
- A series of transformative hybrid electric propulsion demonstrators starting at a small scale and later moving to a larger scale X-Plane demonstration; and
- A Low boom Flight Demonstrator to demonstrate quieter supersonic flight.

NASA also plans in FY 2017 to establish a Hypersonics Technology Project that supports and leverages the work of the Department of Defense with investments in fundamental hypersonics research.

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The Comptroller General must submit the review to Congress no later than one year after enactment of the legislation.

- Require the Comptroller General of the United States to carry out a review of the FAA Research, Engineering, and Development Advisory Committee's role in advising FAA "on the effectiveness of the organization, management, and budgetary structure" of RE&D programs and their long-term strategic planning.

- Require the Secretary of Transportation to enter into an arrangement for an independent external study to identify the implications that a potential non-government U.S. air traffic control system could have on FAA's RE&D activities as well as what organizational changes would be required under a non-governmental air traffic control system for overseeing such RE&D activities.

The Secretary would be required to submit a report to Congress on the findings of that external study within 12 months after enactment of the legislation.

It is unclear at this point how much chance this legislation – which only has Democratic co-sponsors – has to pass the Republican-controlled Congress.

R&D Strategy for Next Decade

The bill also would direct the Secretary of Transportation to enter into an arrangement with the National Academies to conduct a comprehensive research survey and develop a strategy for FAA's civil aviation activities for the next decade, including NextGen.

The survey must prioritize FAA's civil aviation research needs and examine the status of research methods and tools, including modeling and simulation, data analysis, and technology demonstration capabilities, among other things.

The survey must be submitted to Congress no later than two years after enactment of the legislation. Nine months after that, FAA must submit to Congress a Strategic and Integrated Research Plan that established a program of research and development activities that reflects the results of the survey.

The Science, Space, and Technology Committee has jurisdiction over the R&D portions of the larger FAA reauthorization legislation (H.R. 4441) introduced Feb. 3 by Rep. Bill Shuster (R-PA) Chairman of the House Transportation and Infrastructure Committee (28 ANR 13).

"As Ranking Member of the Science, Space, and Technology Committee and a senior Member of the Transportation and Infrastructure Committee, I am pleased to introduce this bill that would reauthorize a healthy R&D agenda at FAA," Johnson said in introducing her bill.

H.R. 4464 would authorize funding for FAA's Research, Engineering, and Development (RE&D) program, its Facilities and Equipment Program, and its Grants-in-Aid for Airports for fiscal years 2016, 2017, and 2018.

For FY 2016, the bill would authorize a total of \$428,050,000:

- \$166 million for RE&D
 - \$216.05 million for F&E and
 - \$46 million for Grants-in-Aid for airports.
- For FY 2017, the bill would authorize a total of \$490,200,000:

- \$169 million for RE&D
 - \$275.2 million for F&E and
 - \$46 million for Grants-in-Aid for airports.
- For FY 2018, the bill would authorize a total of \$536,270,400:

- \$173,346,000 for RE&D
- \$316,832,400 for F&E and
- \$46,092,000 for Grants-in-Aid for airports.

Helicopters

AGREEMENT CUTS MANHATTAN HELICOPTER TOUR OPS IN HALF

On Feb. 1, the New York City Economic Development Corporation (NYCEDC) and the Helicopter Tourism and Jobs Council (HTJC) announced an agreement to significantly reduce the impact of tourism helicopters on New York City residents while simultaneously preserving an industry that brings in millions of tourism dollars each year.

Under the agreement, tour operators will reduce the number of flights to and from the Downtown Manhattan Heliport at Pier 6 in Lower Manhattan by 50 percent by January 2017, resulting in the elimination of nearly 30,000 flights per year.

In addition, operators have agreed to end all flights on Sundays and prohibit flights over Governor's Island off the southern tip of Manhattan, part of which is an historic site managed by the National Park Service.

Operators will be required to provide monthly reporting on the number of flights conducted, and if they are determined to have violated key terms of the agreement, NYCEDC will have authority to mandate further reduction in operations.

"The non-stop din of helicopters has been a major quality of life issue for New Yorkers living near heavily trafficked routes," said Mayor Bill de Blasio.

"Today we're addressing it. We've reached an agreement that will significantly cut down on the number of helicopter tours near residential areas and major parks, while keeping this part of our tourism sector active and viable. Everyone gave a little to get to this outcome, but the solution will mean a more livable city for everyone."

President of helicopter tour operator Saker Aviation Ron Ricciardi thanked EDC and Mayor de Blasio "for working so diligently to find a way to harmonize the interests of all stakeholders. This agreement will ensure the Downtown Manhattan Heliport remains a vibrant part of the City's life, as a business hub and a tourism mecca. We are proud to remain the City's concessionaire and partner in the years to come."

The agreement was the result of months of good faith negotiations between NYCEDC and the HTJC, working in partnership with a number of elected officials.

Specific terms of the agreement include:

- The heliport concessionaire will prohibit all tourist flight operations from the Downtown Manhattan Heliport on Sundays beginning on April 1, 2016.

- The heliport concessionaire will reduce the total allowable number of tourist flight operations from 2015 levels by 20 percent beginning June 1, 2016; by 40 percent beginning October 1, 2016; and ultimately reaching a 50 percent reduction by the beginning of 2017. Flights in excess of these thresholds will trigger further reductions in tour flight levels.

- Starting in July 2016, the operators will provide a monthly written report to NYCEDC and the New York City Council detailing the number of tourist flight operations conducted out of the Downtown Manhattan Heliport as compared to these agreed upon levels. The report will also include information on any tour helicopter flights that fly over land and stray from agreed upon routes over water. A third party firm will be made available to verify these reports periodically.

- The heliport concessionaire has reaffirmed its commitment to prohibiting operators from flying over Governor's Island while conducting tourist flight operations. Flights over Governor's Island will subject the concessionaire to further reductions in allowable tour flight levels.

- Although tourist flight operations do not pass over Staten Island, helicopters travelling to and from their home bases outside New York City sometimes do. Effective immediately, the concessionaire will require any such flights over Staten Island to ensure maximum altitude, working in coordination with the air control towers at Newark and LaGuardia airports.

- The heliport concessionaire will establish a system to monitor air quality in the vicinity of the Downtown Manhattan Heliport and report monthly on readings to NYCEDC and the New York City Council.

- The heliport concessionaire will make best efforts to curtail idling by tour helicopters at the Downtown Manhattan Heliport during the periods between flights.

- The heliport concessionaire will actively research available technologies to further mitigate helicopter noise, reduce emissions, and promote fuel efficiency, and to implement any such technology as it becomes commercially feasible.

NASA, from p. 17

The agency also plans to increase funding to revolutionize airspace operational efficiency by developing and demonstrating gate-to-gate Trajectory Based Operations (TBO) capabilities, building on the success of the Air Traffic Management Technology Demonstrations (ATDs) that have been performed in partnership with the Federal Aviation Administration and industry.

FY 2017 Goals

Following is an excerpt from NASA's budget document describing key achievements planned for FY 2017:

1: Safe, Efficient Growth in Global Operations

NASA will continue to make significant progress in developing automation that enables the success of the Nation's NextGen initiative, in partnership with FAA and industry, and ultimately lead to gate-to-gate TBO capability.

The development of ATD-1 flight-deck interval management technologies will culminate in flight test demonstrations planned for early FY 2017. NASA will install and evaluate prototype flight hardware and software based on an algorithm for Airborne Spacing for Terminal Arrival Routes. Upon successful integration of the systems in the demonstration, final analysis, documentation, and technology transfer to the FAA will occur late FY 2017.

NASA will also conduct an ATD-2 Departure Metering demonstration at Charlotte Douglas International Airport, the test site for this initial simulation of a NextGen departure metering capability. This demonstration supports the FAA's joint government/industry initiative aimed at improving air traffic flow management through increased information exchange among airline and airport stakeholders.

2: Innovation in Commercial Supersonic Aircraft

NASA will begin the NAH Initiative to develop and test experimental aircraft and systems. As part of this initiative, NASA will initiate the detailed design and build of the world's first Low Boom Flight Demonstrator. This demonstrator will be used to collect the flight data necessary to establish overland supersonic noise regulations.

In support of the future LBFD flight experiments, NASA will complete development of an initial set of models for the prediction of the community response to noise created by the overflight of future supersonic commercial aircraft.

Based on simulations conducted in NASA's Interior Effects Laboratory, the first of these models will be capable of predicting the response of a person who hears supersonic overflight noise while indoors. This model evaluates the level of noise required to prevent annoyance due to supersonic overflight. The second of these models will be able to predict the indoor noise created by supersonic overflight in a wide variety of homes with different room arrangements and construction techniques.

With the combination of these models, NASA will begin analytical studies of community response to the overflight of future low noise supersonic commercial aircraft, enabling NASA to design the LBFD community overflight experiments.

3: Ultra-Efficient Commercial Vehicles

The NAH initiative will also take the next steps on the development of a series of ultra-efficient subsonic transport (UEST) experimental aircraft. This builds off the overwhelming success of the Environmentally Responsible Aviation (ERA) project [which recently concluded] and the multiple advanced configuration studies and experiments that have been performed over the past several years.

In FY 2017, NASA will initiate the preliminary design for a large scale, fully integrated HWB experimental aircraft. The HWB is the most mature of the advanced concepts studied by NASA and various partners to date, and is ready for flight demonstration and concept validation. Preliminary Design Review (PDR) is targeted for FY 2018, with detailed design and build beginning in FY 2019.

NASA will also continue design studies with industry for future UEST experimental aircraft other than the HWB configuration that will emphasize other key technologies requiring flight demonstration and validation. Transition of these initial design studies to selection of UEST experimental aircraft for formal preliminary design will begin in FY 2018.

In support of the eventual development of UEST experimental aircraft, in FY 2017 NASA will test a revolutionary engine inlet-fan combination at the NASA Glenn Research Center, through a NASA Research Announcement (NRA) with United Technologies Research Center (UTRC).

The evaluation centers around the performance of this very promising, unique engine inlet-fan design for its vehicle-level fuel burn benefits at flight conditions that are typical of a modern transport aircraft. With this testing, NASA will complete a technical challenge related to understanding the interaction effects between engines and airframes for some advanced configurations relevant to a potential UEST experimental aircraft. In addition to this test, NASA will conduct other key high fidelity ground tests to further understand the potential of new configurations and reduce risks for UEST experimental aircraft.

4: Transition to Low-Carbon Propulsion

NASA will accelerate research efforts to enable revolutionary hybrid-electric propulsion systems. NASA will conclude preparations for the testing of a superconducting motor. This motor test represents a major advancement in a key technology needed to realize practical larger-scale hybrid electric propulsion systems in the future.

First flight of NASA's small scale distributed electric propulsion demonstrator aircraft will occur in FY 2017, demonstrating the efficiency benefits of the distributed integration of multiple smaller electric motors for small aircraft propulsion, and starting a research progression from smaller scale to larger scale experiments. The knowledge and experienced gained will complement and feed into NASA continued hybrid electric system concepts development.

5: Real-Time, System-Wide Safety Assurance

NASA will achieve a key milestone in enabling development of real-time, system-wide safety tools. In late FY 2017, the Beta build of the SMART-NAS Test Bed will deliver capabilities to (1) evaluate emergent air traffic behavior due to novel air traffic control concepts and (2) provide the FAA and airspace users the ability to evaluate mature concepts/technologies.

Critical for development of a real-time safety system, the Test Bed will enable not only safety analysis for novel technologies but also testing and evaluation of tools that support a real-time system-wide safety capability.

The Test Bed will be used to evaluate and refine data capture and fusion techniques, hazard identification and alerting using operational data, and decision support tools. By the end of FY 2017, matured hazard identification tools and initial decision support tools, featuring prognostic state awareness, will be ready for assessment in the Test Bed environment.

6: Assured Autonomy for Aviation Transformation

NASA will continue to lead the U.S. in researching key issues for safe Unmanned Aircraft Systems (UAS) operations. NASA will continue to develop and mature UAS Traffic Management (UTM) technology to [technology readiness level] TCL 2, which will incorporate weather/wind integration, trajectory routing, object avoidance, and congestion management for operation of small UAS at low altitude in the first quarter of FY 2017. TCL 2 will leverage TCL1 results and focus on beyond visual line-of-sight operations in sparsely populated areas.

Researchers will test technologies that allow dynamic adjustments to user-requested flight plans based on availability of airspace and contingency management.

In addition, NASA will continue research focused on UAS integration by continuing to support the second phase of RTCA MPOS [Minimum Operational Performance Standards] development. Initial research beginning in FY 2017 will focus on extended interoperability of manned and unmanned aircraft, satellite communications and advanced detect and avoid systems.

Budget

OBAMA BUDGET SEEKS INCREASE IN PFC CAP FOR LARGE AIRPORTS

President Obama's Fiscal Year 2017 budget request proposes to restructure the Federal Aviation Administration's Airport Improvement Program (AIP) and increase the Passenger Facility Charge cap to allow for higher levels of funding for large airports.

The budget request seeks \$2.9 billion for grant-in-aid to airports, a decrease of \$450 million from the fiscal year 2016

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enacted level.

At the same time, the Budget proposed to increase the Passenger Facility Charge (PFC) limit from \$4.50 to \$8 for all commercial service airports and eliminate guaranteed AIP entitlement funding for large hub airports, giving them greater flexibility to generate their own revenue.

The Budget proposed focusing federal AIP grants to support smaller commercial and general aviation airports that do not have access to additional revenue or other outside sources of capital. That would “assist those airports that are in the most critical need,” the Budget explains.

The FY 2017 Budget request seeks \$15.9 billion to support FAA plans for air traffic controller and safety staffing, research and development, capital investment, and NextGen.

That level is \$400.8 million less than the FAA’s FY 2016 enacted level.

President Obama’s budget request also seeks:

- \$877 million for NextGen capital investments, an increase of \$22 million above FY 2016. That level includes \$18 million to optimize the use of airspace and procedures in the metroplex areas;
- \$26.2 million for FAA’s NextGen environmental research program which is focused on maturing aircraft technologies that can reduce aircraft noise, emissions that degrade air quality, greenhouse gas emissions, and energy use and advancing alternative jet fuels.

With President Obama now in his last year in office and Congress currently debating a new FAA reauthorizing bill, the President may not have much political leverage to push his budget, although airports will certainly support his proposal to increase the PFC cap.

In Brief...

SFO Noise Maps Approved

On Feb. 10, the FAA announced that noise exposure maps submitted by the City and County of San Francisco for San Francisco International Airport meet federal requirements.

For further information, contact Camille Garibaldi in FAA’s San Francisco Airports District Office; tel: 650- 827-7613.

NAC Meeting

The RTCA NextGen Advisory Committee (NAC) will meet on Feb. 25 from 9 a.m. to 3 p.m. at Delta Air Lines headquarters in Atlanta.

The agenda includes a presentation on “PBN Blueprint Community Outreach Task Group” by James Crites, executive vice president of operations at Dallas-Ft. Worth International Airport, and Brian Townsend, an American Airlines captain involved in FAA Metroplex implementation.

AIRPORT NOISE REPORT

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ATC Privatization

UNCLEAR IF BILL ALLOWS FAA TO REJECT AIRSPACE CHANGE BECAUSE OF NOISE IMPACT

On essentially a party-line vote of 32 to 26, the Republican-controlled House Transportation and Infrastructure Committee on Feb. 11 approved the Aviation Innovation, Reform, and Reauthorization (AIRR) Act, historic legislation that would establish an independent, not-for-profit corporation outside the federal government to modernize the U.S. air traffic control system and provide air traffic services.

An important question left unanswered in the legislation is whether the FAA would have the authority to reject an airspace or policy change sought by the ATC Corporation for non-safety reasons, such as community or environmental impact.

The legislation would limit FAA's role in air traffic control to safety oversight and regulation.

To try to bring some clarity to the issue, ANR posed two questions to aviation law expert and ANR Advisory Board member Peter Kirsch:

- Would the National Environmental Policy Act (NEPA) still apply if air traffic services are moved out of FAA and into a private corporation? NEPA only applies

(Continued on p. 23)

Chicago O'Hare Int'l

ONCC FLY QUIET COMMITTEE PROPOSES NIGHTTIME RUNWAY ROTATION PROGRAM

As early as this May, runways used at night at Chicago O'Hare International Airport could be rotated on a weekly basis to achieve a more balanced distribution of community noise impact, under a proposal approved by the O'Hare Noise Compatibility Commission (ONCC) Ad Hoc Fly Quiet Committee on Feb. 17.

Under the current O'Hare Fly Quiet Program, certain runways are used predominantly for aircraft arrivals and departures. Communities near the flight paths of these designated runways are the most heavily impacted by aircraft noise at night.

With a rotation program in place, the designated nighttime arrival and departure runways at O'Hare would be rotated on a weekly basis.

Called "Fly Quiet II," the runway rotation proposal – developed by the Chicago Department of Aviation (CDA) in consultation with CDA and Suburban O'Hare Commission (SOC) aviation experts – has the potential to significantly reduce nighttime noise impacts to communities most affected by aircraft noise, ONCC said.

(Continued on p. 24)

In This Issue...

ATC Privatization ... An important question left unanswered in historic legislation approved by the House Transportation and Infrastructure Committee last week that establishes a private ATC Corporation is whether the FAA would have authority to reject airspace changes sought by the corporation for non-safety reasons, such as the noise impact of flight path changes on communities. Attorney Peter Kirsch addresses the issue - p. 22

O'Hare Int'l ... A nighttime runway rotation program intended to achieve a more balanced distribution of community noise impact is approved by the ONCC Fly Quiet Committee and could be in place by May - p. 22

News Briefs ... FAA approves noise exposure maps for Great Falls International Airport ... FAA seeks comment on its intent to renew information collection for special Stage 2 flight authorizations - p. 25

Privatization, from p. 22

to federal actions but the ATC Corporation would not be a federal entity; therefore, it would not be taking a federal action; and

- Would the federal government still preempt state and local governments on aircraft/airport noise restrictions if there is an ATC Corporation? FAA would no longer have control of aircraft once wheels are up; the corporation would.

Kirsch said these issues have come up repeatedly in hearings on the legislation and there have not been clear answers.

“There will be at least some NEPA applicability because the FAA has to approve or disapprove any changes to airspace. At least that’s what Airlines for America (A4A) said over and over again in the hearings,” he told ANR.

“The Act also carries over the Airline Deregulation Act (ADA) preemption provision barring state and local regulation of airline routes, rates, and services to apply to the “air traffic control services” provided by the Corporation, while preserving the “proprietors exemption” [which gives airport proprietors considerable ability to regulate or abate aircraft noise]. What this means for the relationship between airports and the proposed ATC Corporation is less clear,” he said.

Commercial service airports have at least one representative on the ATC Corporation’s Advisory Board (see Section 90308 of H.R. 4441) but would not be represented on the Board of Directors. Amendments proposed during markup on Feb. 11 to add an airport representative to the Board did not pass the T&I Committee (by voice vote).

“One big question,” Kirsch explained, “is whether FAA has authority to reject a change initiated by the ATC Corporation for non-safety reasons (i.e. community or environmental impact). That’s not clear. And what incentive the ATC Corporation has to engage communities or do right by them, since they don’t have to worry about constituents and are not really subject to congressional oversight?”

“The simplistic answer is that there are a lot of details to be worked out in the government-ATC relationship. This has happened in the past whenever government functions have been privatized but this proposal is both further reaching and has greater potential local impacts than most prior federal government privatization efforts. Working out these details is one of the reasons that some experts suggest that it could take 5+ years to work out the transition.”

Legislative Language

Under H.R. 4441, the ATC Corporation “or another interested party” may submit to the Secretary of Transportation proposals:

- To modify “air traffic management procedures, assignments, classifications of airspace, or other actions affecting airspace access that are developed pursuant to a safety management system” or
- To modify FAA policies and other administrative materials adopted before ATC services are transferred to the ATC Corporation.

Section 90501 of the legislation would require the Secretary of Transportation to approve such proposals if they (1) comply with “performance-based regulations and minimum safety standards for the operation of air traffic services by the Corporation” and (2) are “otherwise consistent with the public interest, including that such proposal would not materially reduce access to an airport.”

The phrase “including that such proposal would not materially reduce access to an airport” was added during markup in a Manager’s Amendment to the bill.

It is unclear whether the term “public interest” in the context of Section 90501 refers narrowly to public safety or more broadly to noise impact and other environmental and quality of life issues.

Also unclear, is whether FAA noise policy would be among the policies that the ATC Corporation could seek to modify.

Any decision by the FAA to approve, disapprove, or modify a proposal submitted by the ATC Corporation must be acted on in 45 days and would be subject to judicial review, which, in the case of FAA’s denial or modification, would not be entitled to deference.

Moreover, such a review would appear to focus only on whether the FAA’s determination was consistent with the “performance-based regulations and minimum safety standards for the operation of air traffic services by the Corporation,” without express consideration of the public interest.

The FAA’s approval of a proposal submitted by the ATC Corporation also would be subject to judicial review, however could be overturned only upon a finding of “clear error” or “abuse of discretion” – among the most difficult standards to meet.

What Can FAA Do About Noise?

Confusion over how the AIRR Act affects FAA’s ability to control flight paths and address community noise concerns was evident at the House T&I Committee’s only hearing on the bill, held Feb. 10 at the insistence of Rep. Peter DeFazio (D-OR), Ranking Member of the Committee, and at the Feb. 11 Committee markup of the bill.

DeFazio, who is staunchly opposed to privatizing the FAA’s ATC, painted a dark picture of what a privatized ATC would mean in terms of aircraft noise impact.

The ATC Corporation “would determine policy for the whole industry, including flight routes, schedules, and airplane noise issues,” he asserted in a Feb. 11 editorial in *The Hill*.

At the markup on H.R. 4441, DeFazio said that if an airline no longer wanted to follow the Potomac River noise abatement corridor into Washington Reagan National Airport because it was not “efficient,” it could request a more direct flight path that would take it directly over the upscale and densely populated suburb of Arlington, VA, on its way into DCA.

Under the legislation, the corporation controls the airspace; not the public, he asserted.

“Who does the public complain to about noise?” Rep. Eleanor Holmes Norton, the District of Columbia’s Delegate to Congress, asked at the markup on the bill. “How does the Corporation’s Board provide a remedy for noise?”

In a similar vein, Rep. Michael Capuano (D-MA), who represents residents under NextGen flight paths into Boston Logan International Airport, asked, “Who should I call when a private corporation is in charge and why should it give a hoot about my constituents?”

Rep. Dan Lipinski (D-IL) wanted to know if FAA has any authority under the legislation “to eliminate the noise problem; can FAA do anything to deal with noise?”

In response to these concerns, T&I Committee Chairman Bill Shuster (R-PA) told the Democrats that FAA is still the “regulator” under the legislation. “If you need a noise remedy, go back to FAA,” he told them.

“Call either FAA or the Environmental Protection Agency,” A4A’s President and CEO Nicholas Calio advised, stressing that “NEPA stays in place” under the legislation. The airlines are sensitive to the noise problem and will work with the FAA, he told the Democrats.

But, countered Ed Bolen, president and CEO of the National Business Aviation Association – which also opposes privatizing the FAA’s ATC – “The bill is vague. The public can complain about noise but that’s it; there is no appeal.”

He also predicted that the airlines would have effective control of the ATC Corporation’s Board.

Committee Chairman Shuster noted that H.R. 4441 already includes noise provisions. Among other things, they would require FAA to inform communities about new RNAV/RNP procedures, allow the agency to move NextGen flight tracks laterally to reduce noise impact on noise sensitive areas, and require FAA to improve its community involvement practices for NextGen projects in metroplex areas (28 ANR 13).

The noise provisions have bi-partisan support on the T&I Committee. The Democrats voted against the bill solely because of its ATC privatization provisions.

H.R. 4441 still must be approved by the full House of Representatives and the Senate. The bill is scheduled, tentatively, to be reported on the House floor on Feb. 24.

O’Hare, from p. 22

SOC is a coalition of officials of communities surrounding O’Hare. SOC has hired its own airspace experts to find ways to reduce the noise impact caused under a major east-west runway realignment put into effect under the O’Hare Modernization Program.

“The goal of this committee was to bring relief quickly to communities most impacted by nighttime noise,” said Fly Quiet Committee Chair Joseph Annunzio, who also serves as attorney for the Village of Nilens, IL, a northwest suburb of Chicago.

“Approval of the Fly Quiet runway rotation concepts

presented to the committee today puts the testing of a runway rotation plan on a fast track,” he said.

The Fly Quiet II proposal contained a set of criteria that includes: plans to alternate East and West Flow runway use to further distribute noise exposure more evenly; to include use of diagonal Runway 14R/32L for nighttime operations until its closure in 2019; requests the Federal Aviation Administration to conduct a six-month test and monitor performance; allows citizen feedback during the test phase; and requires full ONCC review after testing prior to finalization.

It has been one of the main goals of the community coalition Fair Allocation in Runways (FAiR) to keep the parallel runways at O’Hare open at night because they direct air traffic over less populated areas. Diagonal Runway 14L/32R was closed in August 2015.

The committee also voted to approve modifications to the Fly Quiet program, dividing it into three periods to address operations during the late evening, overnight, and early morning hours. At a previous meeting, the committee approved a measure that would refine nighttime departure flight headings to reduce the number of homes impacted by aircraft noise.

The Fly Quiet Committee will present all of the proposals to the full ONCC membership for consideration at the next regularly scheduled ONCC meeting on March 11. If the proposal is approved by the ONCC, the CDA will package and submit it to the FAA for review and approval. Implementation of the rotation plan as a test program could begin as early as May 2016.

“The city’s goal is to provide immediate relief for communities most impacted by nighttime noise, and that’s what this plan will accomplish,” said CDA Commissioner Ginger S. Evans.

She thanked the Fly Quiet Committee members “for their hard work studying this complex issue,” and said she looked forward to discussing the proposal at the ONCC March meeting.

“Ensuring that O’Hare is both the economic engine of the city, as well as a good neighbor, is my top priority. We have more work to do, but this is an important first step,” she said.

ONCC Chair and Mount Prospect Mayor Arlene Juracek said she was encouraged by the Ad Hoc Fly Quiet Committee’s meeting. “We heard different points of view, everyone listened to each other and a productive discussion took place,” Juracek said. “It was a group of people who wanted to reach a decision. The committee took an important step forward toward putting the wheels in motion on an Interim Fly Quiet Plan,” she said. “All of the parties involved – CDA, SOC and the FAA – are working together and talking to each other in a constructive way that will bring relief.”

The measure approved by the Committee seeks to establish a weekly runway rotation program at O’Hare during overnight hours that is designed to achieve a more balanced distribution of noise exposure for Chicago and suburban communities. Each period may consist of one arrival and one departure runway or one mixed use runway (runway used for

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both arrivals and departures). The rotation schedule would also be published for the public to view.

“The FAA looks to ONCC as the representation of all noise affected communities,” said Commissioner Evans. “It is key that the ONCC has set up a process that garners input from those communities. The FAA has made it clear that they will focus on what ONCC recommends. The details of the plan must be developed by the FAA themselves and the experts. The FAA agrees with concept and they want it to work,” Evans said.

“The city is committed to this process. We all share the same goal of giving people relief, both in the short and long term,” Evans added. “We will use every tool in the tool box to get there.”

The ONCC Fly Quiet Committee was formed in fall 2015 to explore ways to modify O’Hare Fly Quiet procedures. The committee is comprised of nine voting members from Chicago and suburbs near O’Hare as well as representatives from SOC and FAiR.

In Brief...

Great Falls Noise Maps Approved

On Feb. 4, the FAA announced its determination that noise exposure maps submitted by the Great Falls International Airport Authority for Great Falls International Airport meet federal requirements.

For further information, contact Scott Eaton at FAA’s Helena, Montana, office; tel: 406-449-5291.

Stage 2 Flight Authorizations

On Feb. 4, FAA invited public comment on the agency’s intention to request Office of Management and Budget approval to renew an information collection that will be used to issue special flight authorizations for non-revenue transport and non-transport jet operations of Stage 2 airplanes at U.S airports.

Only a minimal amount of data is requested to identify the affected parties and determine whether the purpose for the flight is one of those enumerated by law, FAA said.

Comments are due March 7 and can be sent to the Desk Officer, DOT/FAA at e-mail: oir_submission@omb.eop.gov; faxed to (202)-395-6974; or mailed to the Office of Information and Regulatory Affairs, OMB, Docket Library, Room 10102, 725 17th St, NW, Washington DC 20503.

For further information, contact Ronda Thompson at tel: (202) 267-1416; e-mail: Ronda.Thompson@faa.gov.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 28, Number 7

February 26, 2016

Legislation

SENATE BILL WOULD ESTABLISH WITHIN FAA AN AIRSPACE MGMNT ADVISORY COMMITTEE

On Feb. 25, Arizona Sens. John McCain (R) and Jeff Flake (R) introduced the Airspace Management Advisory Committee Act (S. 2585), legislation that would require the Federal Aviation Administration to create an Airspace Management Advisory Committee to review and provide input on future significant airspace changes.

The bill would amend Section 213(c) of the FAA Modernization and Reform Act of 2012 (Acceleration of NextGen Technologies) to establish an Airspace Management Advisory Committee, composed of representatives of air carriers, airports of various sizes and types, and state aviation officials.

The Advisory Committee would review and comment on “proposed changes in regulations, policies, or guidance of the Federal Aviation Administration relating to airspace that affects airport operations, airport capacity, the environment, or communities in the vicinity of airports.”

No later than 100 days after passage of the legislation, the Airspace Manage-

(Continued on p. 27)

Research

GERMANY TO STUDY IMPACT OF NIGHT NOISE ON CHILDREN’S SLEEP; DEVELOP E/R CURVES

The world’s first field study of the effect of aircraft noise on children’s sleep was announced this month by the German Aerospace Center (DLR).

The sleep patterns of 50 children living near Cologne/Bonn Airport will be studied in order to provide insight into how nighttime aircraft noise affects the sleep, cognitive ability, and psychological well-being of children.

Using collected acoustic data, electro-physiological data on sleep patterns, and subjective questionnaire data on sensitivity to disturbance, the researchers will generate exposure-response curves that will indicate how the probability of a specific noise reaction (for example, a change of sleep state) changes as a function of noise.

“Until now, exposure-response curves have only been produced for adults in relation to nocturnal aircraft noise and sleep, not for children,” explained Susanne Bartels of the DLR’s Department of Flight Physiology.

“We will be able to calculate such curves for children as well as a result of our study and then compare them with those of adults. Only then will we be able to say whether the effects of aircraft noise on the sleep patterns of adults and children are different.”

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ment Advisory Committee would be required to complete a review and recommend revisions of FAA practices and procedures for developing airspace regulations, policies, and guidance material.

The Advisory Committee also would have to assess the extent to which there is consultation – or lack of consultation – on airspace matters:

- Between and among the various offices of the FAA, including the Air Traffic Organization, the Office of Airports, the Flight Standards Service, the Office of NextGen, and the Office of Environment and Energy; and
- Between the FAA and affected entities, including airports, communities, and state and local governments.

The bill builds on a recent legislation introduced by the senators that would require the FAA to engage with communities and airports before altering flight paths (28 ANR 1). That bill stemmed from the FAA's failure to engage with communities and airports before changing flight paths at Phoenix Sky Harbor International Airport.

“While modernizing flight paths is critical to enhancing safety for all travelers, our communities and airports deserve to have a seat at the table before the FAA implements any changes,” said Sen. McCain.

“Our legislation would ensure that all impacted communities, like those around Phoenix Sky Harbor International Airport, are able to voice their concerns before future changes go into effect.”

“While I continue to support efforts to improve the safety and efficiency of the national airspace system, it's clear that the FAA would greatly benefit from working with relevant stakeholders before all major airspace changes go into effect,” said Sen. Flake.

Sens. McCain and Flake said they have engaged extensively on behalf of residents of Phoenix who have been negatively impacted by an increase in flight noise around Phoenix Sky Harbor International Airport due to recent flight path changes, which the FAA made in September of 2014 without adequately engaging the airport or community.

This month, the House Transportation and Infrastructure Committee released its latest FAA Reauthorization bill, which included Sens. McCain and Flake's language that would create a process for the FAA to determine steps to mitigate the negative effects of these flight path changes in Phoenix, and ensure other airports and communities have the opportunity to fully engage with the FAA before any future changes are made (28 ANR 13).

The Senate also recently unanimously agreed to a similar requirement filed by Sens. McCain and Flake as an amendment to the Transportation, Housing and Urban Development (THUD) Appropriations Bill (27 ANR 156).

In addition, the enacted omnibus spending bill includes a provision directing the FAA to take steps to address community concerns stemming from NextGen flight path changes like those at Phoenix Sky Harbor International Airport.

UK**GROUPS DEMAND MORATORIUM ON UK FLIGHT PATH TRIALS**

In a Feb. 18 open letter to UK Prime Minister David Cameron, over 20 community coalitions in the London and Edinburgh areas demanded that a moratorium be placed on flight path trials and airspace changes in the UK until a new policy governing airspace changes and community consultation is put in place.

The letter describes the current approach for making airspace changes as “not fit for purpose,” noting that flight path trials over the last few years have led to significant community disturbance around major airports across the UK, especially where communities have been overflown for the first time.

“It has become clear that the principles guiding the Civil Aviation Authority (CAA) on how to assess and manage the environmental impacts of airspace change are currently too crudely defined to be directly applicable to the issues posed by the introduction of modern technologies,” the groups told Cameron.

“Issues such as the location of intensely concentrated flight paths, how effectively their proposed introduction is publicized, what the trigger should be for the deployment of respite options, and whether it is appropriate to expose new communities to aircraft noise evoke strong reaction and – in our view – require clearer guidance, based on evidence on noise impacts,” they asserted.

The UK Government and the CAA were expected to consult on proposals to change the policy and process for making changes to flight paths early this year. However, the Government does not currently plan to review its policy for airspace change until at least the summer when it makes a decision on where a new runway will be added in the London area.

The community groups stressed that the airspace policy review is required urgently to address existing problems relating to a reorganization of UK airspace and should be independent of any future decisions on expanding runway capacity in the London area.

Communities Feel Excluded

“The current airspace change process is confusing, with a lack of transparency about who is responsible and insufficient public information and engagement. This leaves many communities feeling angry and excluded,” said Tim Johnson, Director of the Aviation Environment Federation, the national NGO which co-ordinated the letter.

“We need a clearer policy direction from Government with effective community consultation to avoid any more disastrous flight path trials. David Cameron needs to know that people up and down the UK are calling for a review immediately, and there is no justification for this to be held up by the Government's deliberations on a new runway.”

Helena Paul, spokesperson for Stop Edinburgh Airspace

Trial (SEAT), representing communities affected by Edinburgh flight path changes, said: “2015 will be remembered as a terrible summer for thousands of people, some living many miles from Edinburgh Airport, who woke up to find themselves suddenly living under a busy flight path. The reality of “airspace trials” is constant and unwelcome noise disruption – readings of over 80 decibels during the so called “TUTUR” trial were commonplace in previously tranquil rural areas.

“Despite receiving nearly 8,000 noise complaints – a 200 fold increase – and a debate being called with cross-party support in the Scottish Parliament, as well as a motion in Westminster Parliament, Edinburgh Airport has recently declared the trial to have been a “success.”

Said Brendon Sewill, Chairman for the Gatwick Areas Conservation Campaign, “Never in the sixty years that GACC has been in existence have we seen such anger at new flight paths. Complaints to the airport have increased six-fold. GACC has, as paid-up members, some 60 councils and some 40 groups, and new groups formed to protest about new flight paths are springing up every month. People are not prepared to put up with having their peace and quiet destroyed.’

Germany, from p. 26

The study will take place between June and October of 2016 and 2017.

Research into the effects of noise on the human body has been carried out in Germany for 40 years, the DLR said.

“The influence of nocturnal traffic noise on sleep has also been investigated in numerous studies. Nevertheless, many questions remain unanswered. For example, the ‘vulnerable’ group that includes children has not yet been studied. But researchers suspect that, in this group in particular, noise has negative effects on sleep – and hence on the ability to recover from its effects.

“Good, sound sleep is extremely important for the physical and psychological development of children. However, whether and exactly how aircraft noise affects the sleep of children is still largely unknown. Data acquired from past research is somewhat contradictory. Specifically, there is still a lack of understanding of how aircraft noise affects sleep patterns ‘in the field’ – that is, at the test subjects’ homes rather than in a laboratory.”

Finding Answers

For this reason, experts at the DLR Institute of Aerospace Medicine are planning to investigate how children’s sleep is affected by aircraft noise; how long it takes children to fall asleep in the evening because of aircraft noise; how often they wake up in the night because of this; and how often and when a shift from a deeper to a lighter sleep state takes place.

To record their sleep data, the children will be studied polysomnographically at home for four consecutive nights.

“This means that a variety of electro-physiological bodily

functions are recorded throughout the night,” Julia Quehl from the Institute’s Department of Flight Physiology, explained.

To do this, the children will wear child-appropriate electrodes on their heads and upper bodies every night. These will provide the researchers with data that will help them measure levels of brain activity, to determine the various sleep states and waking reactions.

In addition, all noise reaching the sleeping children’s ears will be recorded in their rooms throughout the night. In this way, the researchers will be able to combine measurements of sleep patterns (for example, changes in the state of sleep or waking reactions) with individual noise events such as a take-off or landing at night.

In addition to this objective data, the researchers will use child-appropriate questionnaires conducted each morning to provide subjective data on how the children have personally experienced their sleep and aircraft noise during the night. This, in turn, will reveal the extent to which the children have been disturbed by the noise – from their own perspective.

In addition, their cognitive abilities will be measured each morning in a psychological reaction time test on a laptop.

“We will carry out the test with the children prior to the study,” said Quehl. “It will allow us to know their individual performance level in the test. Using the test scores during the study, we will be able to determine whether any noise-related impact on performance is detectable.”

Strict Criteria for Selecting Test Subjects

Only boys and girls between the ages of 8 and 10, in good health and with normal hearing, will take part in the study, which will be carried out as part of the German MIDAS project (Maßnahmen und Instrumente des Aktiven Schallschutzes bei Fluglärm – Procedures and Instruments for Active Protection relating to Aircraft Noise).

The reason for this is that, in order to achieve scientifically credible results, all of the children must have a similar sleep structure. This is because, with age, the amount of time that children spend in the various phases of sleep and the total amount of sleep change. Children with hearing difficulties, chronic illnesses, or those that need to take medication cannot take part in the study.

Potential test subjects must live in the vicinity of Cologne/Bonn Airport and their district must be affected by aircraft noise at night. In addition, the children must not be exposed to other sources of noise, such as road traffic, trains or industry. Only the effects of nocturnal noise from aircraft are intended to be studied.

Furthermore, the test subjects will be selected in accordance with acoustic criteria. Acoustic test measurements will be carried out on site to ensure that individual aircraft noise events are not being masked by background noise. This would make a huge difference in the comparison of the acoustic data with the sleep data.

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Mobile Complaint App

While some community groups have developed their own aircraft noise complaint apps, until recently there has been no mobile complaint app designed solely for use by airports and their governing bodies.

That changed last June when Phoenix became the launch customer for PlaneNoise Inc.'s Complaint Box Mobile, an iOS/Android compatible app designed to significantly reduce the time needed to file online complaints, while providing airport management with complete control over the complaint collection process and more accurate date/time stamp data for complaint correlations.

The mobile app is the third input to the PlaneNoise communications module, which also includes complaint hotlines and web forms.

"The app is unique and we expect other airports to start using it in the near future," said PlaneNoise President Robert Grotell.

For further information, go to <http://www.planenoise.com>

LAX Noise Maps Approved

The Federal Aviation Administration announced Feb. 24 that noise exposure maps submitted by Los Angeles World Airports for Los Angeles International Airport meet federal requirements.

For further information, contact Victor Globa, and environmental protection specialist in FAA's Los Angeles Airports District Office; tel: (310) 725-3637.

ICBEN 2017 To Be Held in Switzerland

The International Commission on Biological Effects of Noise (ICBEN) announced that the 12th ICBEN Congress on Noise as a Public Health Problem will be held in Zurich, Switzerland, on June 18-22, 2017.

Held once every three years, the congress convenes elite noise researchers from around the world to present their latest findings in nine research areas: noise-induced hearing loss; noise and communication; non-auditory health effects of noise; effects of noise on cognition, performance, and behavior; effects of noise on sleep; community response to noise and noise annoyance; noise policy and economics; noise exposure assessment in health effects studies; and special topics related to noise effects.

For further information, visit <http://icben2017.org>

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SSTs

NASA AWARDS \$20 M CONTRACT FOR PRELIM. DESIGN OF ‘LOW BOOM’ SUPERSONIC DEMO

The return of supersonic passenger air travel is one step closer to reality with NASA’s award of a \$20 million contract to a team led by Lockheed Martin for the preliminary design of a “low boom” flight demonstration aircraft.

This is the first in a series of ‘X-planes’ in NASA’s New Aviation Horizons initiative, introduced in the agency’s Fiscal Year 2017 budget (29 ANR 17).

NASA Administrator Charles Bolden announced the contract award at a Feb. 29 event at Ronald Reagan Washington National Airport in Arlington, VA.

“NASA is working hard to make flight greener, safer and quieter – all while developing aircraft that travel faster, and building an aviation system that operates more efficiently,” said Bolden. To that end, it’s worth noting that it’s been almost 70 years since Chuck Yeager broke the sound barrier in the Bell X-1 as part of our predecessor agency’s high speed research. Now we’re continuing that supersonic X-plane legacy with this preliminary design award for a quieter supersonic jet with an aim toward passenger flight.”

(Continued on p. 31)

PBN

COMMUNITIES WILL BE BROUGHT INTO PBN PLANNING EARLIER, HUERTA TELLS CONGRESS

The Federal Aviation Administration’s update of its Community Involvement Manual for NextGen Performance-based Navigation (PRBN) procedures will bring community groups around airports into the planning process earlier and will provide information about airspace changes that is easier for the public to understand, FAA Administrator Michael Huerta told a congressional panel March 2.

At a hearing before the House Appropriations Committee Subcommittee on Transportation, Housing and Urban Development (THUD), Rep. Mike Quigley (R-IL) pressured the FAA Administrator to commit to taking actions to protect residents and their property around O’Hare International Airport from aircraft noise that has increased as a result of a major runway realignment done under the O’Hare Modernization Program.

Quigley was instrument in getting language added to the Consolidated Appropriations Act of 2016 – signed into law on Dec. 18, 2015 – that requires the FAA to improve its methods for involving communities and airports in its implementation of NextGen PBN procedures (28 ANR 1).

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SST, from p. 30

NASA selected a team led by Lockheed Martin Aeronautics Company of Palmdale, California, to complete a preliminary design for Quiet Supersonic Technology (QueSST). The work will be conducted under a task order against the Basic and Applied Aerospace Research and Technology (BAART) contract at NASA's Langley Research Center in Hampton, Virginia.

After conducting feasibility studies and working to better understand acceptable sound levels across the country, NASA's Commercial Supersonic Technology Project asked industry teams to submit design concepts for a piloted test aircraft that can fly at supersonic speeds, creating a supersonic "heartbeat" – a soft thump rather than the disruptive boom currently associated with supersonic flight.

"Developing, building and flight testing a quiet supersonic X-plane is the next logical step in our path to enabling the industry's decision to open supersonic travel for the flying public," said Jaiwon Shin, associate administrator for NASA's Aeronautics Research Mission.

Lockheed Martin will receive about \$20 million over 17 months for QueSST preliminary design work. The Lockheed Martin team includes subcontractors GE Aviation of Cincinnati and Tri Models Inc. of Huntington Beach, California.

The company will develop baseline aircraft requirements and a preliminary aircraft design, with specifications, and provide supporting documentation for concept formulation and planning. This documentation would be used to prepare for the detailed design, building and testing of the QueSST jet. Performance of this preliminary design also must undergo analytical and wind tunnel validation.

In addition to design and building, this Low Boom Flight Demonstration (Lbfd) phase of the project also will include validation of community response to the new, quieter supersonic design. The detailed design and building of the QueSST aircraft, conducted under the NASA Aeronautics Research Mission Directorate's Integrated Aviation Systems Program, will fall under a future contract competition.

The New Aviation Horizons X-planes will typically be about half-scale of a production aircraft and likely are to be piloted. Design-and-build will take several years with aircraft starting their flight campaign around 2020, depending on funding.

ICAO**'NOISE NEUTRAL GROWTH' IS POSSIBLE IN 2030, ICAO SAYS**

The International Civil Aviation Organization said that, for the first time, it and its member states will be able to consider the possibility of "noise neutral growth" in aircraft operations beginning in 2030, if advanced noise technologies and aircraft operational improvements are employed.

Such noise neutral growth "is a clear demonstration of how ICAO's standards for aircraft noise are working and foreshadows a likely decoupling of air traffic and noise growth as [commercial air traffic] expansion continues," ICAO said in a Feb. 12 press release issued after the recent meeting of its Committee on Aviation Environmental Protection (CAEP) in Montreal.

ICAO's assertion that "noise neutral growth" in aircraft operations is possible in 2030 is based on an updated noise trends projection, with a 2010 baseline and forecasts to 2020, 2030 and 2040, prepared by CAEP.

This noise trends projection included various scenarios covering low, medium, and high noise technology improvements, all with moderate operational improvements, Anthony Philbin, Chief, Communications Office of the ICAO Secretary General, told ANR.

"The trends projection showed that, in terms of aircraft noise contour area above 55 Day-Night average sound level (DNL), under the advanced technology improvements scenario, an increase in aircraft operations may no longer result in an increase in noise contour area after 2030. This can be referred to as the possibility for 'noise neutral growth from 2030'."

Of course, the CAEP projection depends on the airlines employing advanced noise technologies, which likely means buying new aircraft and retiring older aircraft.

It also is based on noise contours drawn with the noise metric DNL, which is not sensitive to the addition of significant increases in operations by newer, quieter aircraft. DNL responds to the loudness of aircraft overflights but is not sensitive to the frequency of overflights, which is the key issue under concentrated NextGen flight paths.

Communities under new RNAV/RNP flight paths complain about the constant aircraft overflights that allow no respite from noise impact and disturb their sleep. They consider DNL to be a relic of the pre-NextGen era and want it replaced with a new metric that is sensitive to the dramatic increases in aircraft operations over their heads.

So, communities under NextGen flight paths are not likely to accept the assertion that no increase in the 55 DNL noise contour, with significant increases in aircraft operations, equates to "noise neutral" growth.

Supersonic Aircraft

At its meeting in Montreal, CAEP also began to anticipate the possible resumption of supersonic flight by discussing progress on a new supersonic noise standard for future aircraft, Philbin noted.

He said CAEP continues its work on the development of a new supersonic noise standard for future aircraft, and its understanding of the current state of sonic boom knowledge, research, and supersonic airplane projects.

It is anticipated that the certification of a supersonic airplane could occur in the 2020-2025 timeframe, he said.

He noted that the importance of the CAEP work was recently highlighted as Flexjet placed a firm order for 20

Aerion supersonic business jets, with delivery to begin in 2023. The first flight of the Aerion supersonic airplanes is expected in 2021.

Philbin did not estimate when an ICAO supersonic aircraft noise standard would be ready.

PBN, from p. 30

The legislation requires the FAA to update its 1990 Community Involvement Manual as it relates to new air traffic procedures, public outreach, and community involvement and to develop a plan to enhance community involvement technique and proactively address community concerns associated with PBN projects.

The updated Community Involvement Manual and Community Involvement Plan must be presented to Congress by mid-June.

Huerta said the FAA wants its community outreach process on PBN procedures to reach community groups that are beyond even the list that airports develop.

Quigley told the FAA Administrator his agency needs to be honest with people regarding airspace changes. No one told communities around O'Hare that they would get an increase of 150 flights or more a day over their heads; "that bluntness never happened" and people feel misled, Quigley said.

He also told Huerta that there are insufficient funds – even with the help of the airlines – to provide sound insulation to all the homes around O'Hare that need it.

Huerta said the FAA is open to having a conversation with O'Hare officials about providing more AIP resources for sound insulation.

Asked about the status of FAA's study of annoyance to aircraft noise that is underway, Huerta said it will take two years and the agency is still in the data collection stage.

That study will be used to determine whether FAA needs to find a new noise metric to replace DNL and/or whether its threshold for compatible residential use around airport should be moved beyond the current 65 dB DNL noise contour line, which would greatly expand the number of homes eligible for sound insulation.

NAC Recommendations to FAA

At its upcoming June 14 meeting in Washington, DC, the NextGen Advisory Committee (NAC) will present recommendations to the FAA on how the agency can improve community outreach in its implementation of PBN procedures.

Recognizing that early community outreach and collaboration is a major hurdle in implementing PBN procedures, the NAC set up a subcommittee that has been reviewing FAA community outreach guidance materials, getting input from FAA on current community outreach efforts, and interviewing representatives of communities around Phoenix and Washington, DC, where PBN implementation has resulted in lawsuits.

The subcommittee is reviewing two FAA documents cur-

rently under development at FAA:

- An update of FAA's 1990 Community Involvement Manual by the Office of Environment and Energy; and
- Development of a community outreach plan by the Office of Air Traffic.

From this review, the NAC will make specific recommendations to FAA on how it can improve community outreach and provide overall guidance to all stakeholders.

Legislation

BILLS INTRODUCED IN IL HOUSE TO ADDRESS O'HARE NOISE

A group of Illinois state legislators from Chicago and its suburbs recently announced a bi-partisan legislative effort to help bring relief to the more than one million residents impacted by adverse noise from O'Hare International Airport.

"Our constituents are discouraged by the seeming lack of concern by the Chicago Department of Aviation and the FAA," said Rep. Christine Winger (R). "Their daily lives are in the hands of these two entities whose missions, quite frankly, do not include protecting the health and quality of life of area residents. That's why we need to get involved."

State Representative Michael McAuliffe (R-Chicago) and Senators Laura Murphy (D-Des Plaines) and John Mulroe (D-Chicago) joined Rep. Winger in outlining their legislative plan that would reduce the noise level from O'Hare, help constituents soundproof their homes and identify the ill effects of O'Hare on the people living in the communities impacted by noise.

They introduced the following bills in the Illinois House:

HJR128 – Urging Chicago airport officials to use latest technology to measure noise and compliance of airlines to Fly Quiet protocols. Also, urges the consideration of Fly Quiet compliance in the allocation of departure gates and support facilities. Calls for a measurable improvement in Fly Quiet compliance by Jan. 1, 2017.

HR960 – Calling upon the FAA to assist the City of Chicago in the implementation of the provisions of SB636 and to use new CNEL data to promptly redraw contour maps as new airport noise data is submitted. (Similar legislation will be introducing the state Senate.)

SB636 would amend the Illinois Aeronautics Act to expand the allowable number of runways at O'Hare from eight to 10, which would allow retention of two diagonal runways slated for demolition that communities want to retain in order to spread aircraft noise impact.

HB5917 – Creating an income tax credit for the purchase of soundproofing materials for eligible homeowners.

HB5040 – Requiring the Illinois Environmental Protection Agency to conduct a study on the environmental and human health impact of runways and air traffic at O'Hare Airport.

HR1023 – Urging the Chicago Department of Aviation to

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adopt the Suburban O'Hare Commission Recommendations for Fly Quiet enhancements. (Similar legislation will be introducing in the state Senate.)

Part 150 Program

FAA APPROVES PART 150 PROGRAM FOR LAFAYETTE REGIONAL AIRPORT

On March 3, the Federal Aviation Administration announced its approval of the Part 150 Airport Noise Mitigation Program for Lafayette Regional Airport in Lafayette, Louisiana.

FAA granted outright approval for both elements of the program:

- A preventive land use mitigation measure that would offer owners of vacant residential parcels located within the existing DNL 65 contour the opportunity to participate in the airport's Avigation Easement Acquisition Program; and

- A remedial measure that would offer owners of residential properties located within the DNL 65 contour the same opportunity to participate in the airport's Avigation Easement Acquisition Program.

For further information contact Tim Tandy, an environmental protection specialist in FAA's Southwest Region in Fort Worth, Texas; tel: (817) 222-5644.

Legislation

EXTENSION OF FAA AUTHORIZATION LIKELY TO ALLOW MORE WORK ON AIRR

Politico is reporting that it is likely that House and Senate leaders will agree to a three month extension of FAA's current authorization – which expires at the end of March – in order to give Republicans and Democrats needed time to work out differences on the new reauthorization (H.R. 4441) which would establish an independent corporation, outside the federal government, to provide air traffic services.

The Aviation Innovation, Reform, and Reauthorization Act (AIRR), which includes noise provisions, passed the House Transportation Committee on essentially a party-line vote on Feb. 11 (28 ANR 13). It has not yet been considered by the full House or the Senate.

House Democrats expressed concern about various aspects of privatizing FAA's ATC, including whether the legislation would allow FAA to reject airspace changes because of noise impact (28 ANR 22).

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

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Legislation

NOISE PROVISIONS IN SENATE FAA BILL ARE NOT AS EXTENSIVE AS IN HOUSE BILL

On March 16, the Senate Commerce Committee approved bipartisan legislation to reauthorize the programs of the FAA that addresses the noise impact of NextGen Performance-based Navigation (PBN) procedures but not as extensively as similar legislation in the House that is currently stalled.

The House FAA reauthorization bill is historic and controversial because it would privatize the FAA's air traffic control system. The Senate bill would not privatize the ATC and thus has dealt a significant blow to plans by House Transportation and Infrastructure (T&I) Committee Chairman Bill Shuster (R-PA) to quickly move his FAA bill to the House floor for vote.

Shuster's Aviation Innovation, Reform, and Reauthorization Act (AIRR; H.R. 4441) was approved by the House T&I Committee on a party-line vote on Feb. 11 with Democrats on the committee in strong opposition to the ATC privatization provisions (28 ANR 22).

Realizing that the House must now work with the Senate to try to resolve dif-

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N. Cal. Metroplex

PALO ALTO AWARDS CONTRACT TO FREYTAG FOR NOISE STUDY OF FLIGHT PATH CHANGES

In February, the Palo Alto, CA, City Council awarded a \$237,500 contract to the San Rafael, CA, acoustical consulting firm Freytag & Associates for a technical study of air traffic noise over the city of Palo Alto, which sits under the convergence of new flight paths into San Francisco International Airport established under FAA's Northern California Metroplex project.

The study will:

- Evaluate changes in flight patterns over the San Francisco Bay area, and particularly over Palo Alto, over the past 10 years;
- Evaluate changes in noise exposure and noise impact over the Bay Area, and particularly Palo Alto, over the past 10 years;
- Use supplemental metrics to evaluate awakenings in Palo Alto using standard ANSI S12.9-2008, Part 6 (Quantities and Procedures for Description and Measurement of Environmental Sound – Part 6: Methods for Estimating of Awakenings Associated with Outdoor Noise Events Heard in Homes);
- Use supplemental metrics to evaluate the noise environment in Palo Alto classrooms using standard ANSI/ASA S12.60-2010 on Classroom Acoustics; and

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In This Issue...

Legislation ... Republican and Democratic leaders of the Senate Commerce Committee introduce legislation to reauthorize the programs of the FAA only through fiscal year 2017. The bill addresses NextGen noise impact but not as extensively as similar legislation in the House. Significantly, the Senate bill does not propose privatizing the FAA's air traffic control services, which has stalled movement on the House bill - p. 34

N. Cal. Metroplex ... City of Palo Alto awards a contract to Freytag & Associates to study the noise impact of air-space changes made under FAA's Northern California Metroplex project that moved flight paths into SFO over the city - p. 34

John Wayne Airport ... Newport Beach City Manager gets City Council approval to work with airport, FAA to determine if curving RNP procedure would better keep aircraft over noise abatement departure path - p. 36

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ferences between their bills, Shuster and Ways and Means Committee Chairman Kevin Brady (R-TX) on March 10 introduced legislation (the Airport and Airway Extension Act (H.R. 4721) to extend the FAA's current authorization, which expires at the end of March, through July 15. The extension gives Shuster time to try to convince House and Senate Democrats to support his effort to privatize FAA's air traffic control services. Congress passed the bill on March 14.

Rep. Grace Meng (D-NY), a founding member of the House Quiet Skies caucus, expressed disappointment that the short-term extension of FAA's authorization contains no noise provisions to combat aircraft noise.

However the original long-term House FAA reauthorization bill (H.R. 4441) does include several significant provisions addressing NextGen noise impact (28 ANR 13) that are not affected by the passage of the short-term extension bill.

While the H.R. 4441 would reauthorize FAA programs for six years (through fiscal 2022), the Senate bill (the Federal Aviation Administration Reauthorization Act of 2016) would only reauthorize FAA programs through fiscal 2017 (Sept. 30, 2017).

Following are provisions of the Senate's Federal Aviation Administration Reauthorization Act of 2016 (S. 2658) that address aircraft noise:

Sec. 1217. Clarification of Noise Exposure Map Updates.

This section would clarify an existing statutory provision that deals with the submission of noise exposure maps from airport operators to the FAA. The Vision 100 – Century of Aviation Reauthorization Act (Pub. L. 108-176) required the FAA to “make noise exposure and land use information from noise exposure maps [prepared under 14 CFR part 150] available to the public via the Internet on its website in an appropriate format.”

This section would clarify when airports must supply noise map revisions to the FAA. It would revise Section 47503(b) of Title 49 of the U.S. Code to add subsections (1) and (2) as follows:

(b) Revised Maps.—

If, in an area surrounding an airport, there is a change in the operation of the airport [that] would establish a substantial new noncompatible use, or would significantly reduce noise over existing noncompatible uses, that is not reflected in either the existing conditions map or forecast map currently on file with the Federal Aviation Administration, the airport operator shall submit a revised noise exposure map to the Secretary showing the new noncompatible use or noise reduction if the change has occurred during the longer of –

(1) the noise exposure map period forecast by the airport operator under subsection (a); or

(2) the implementation timeframe of the operator's noise compatibility program.

Sec. 4108. Implementation of NextGen Operational Improvements.

This section would require the FAA to work with the airlines, and other users of the national airspace system, to develop and implement a system to systematically track the use of existing performance based navigation (PBN) procedures and to require consideration of other key operational improvements in planning for NextGen improvements, including identifying additional metroplexes for PBN projects, non-metroplex PBN procedures, as well as the identification of unused flight routes for decommissioning.

Additionally, the FAA would be required to develop and implement guidelines for ensuring timely inclusion of appropriate stakeholders, including airport representatives, in the planning and implementation of NextGen improvement efforts and to assure that NextGen planning documents provide stakeholders information on how and when operational improvements are expected to achieve NextGen goals and targets.

Finally, the FAA is required to report to Congress on the progress made toward implementing these requirements and on the timeline and process that will be used to implement PBN at additional airports, including information on how the FAA will partner and coordinate with private industry to ensure expeditious implementation of PBN.

Sec. 5002. Performance-Based Navigation.

This section would require the FAA to consult with affected airports before taking certain actions related to airspace redesign. The FAA would also be required, if requested by the affected community, to review certain new airspace procedures to determine if implementation of the procedures had a significant effect on the human environment in the community in which the airport is located. If it is determined that there was such an impact, the FAA must consider the use of alternative flight paths that do not substantially degrade the efficiencies achieved by the implementation of the procedure being reviewed.

This section of the Senate bill is very similar to Section 138 of the House FAA reauthorization bill (see p. 14 of ANR Vol. 28, No. 4) and was developed to address the noise impact of RNAV departure procedures implemented at Phoenix Sky Harbor International Airport that resulted in thousands of noise complaints and concerted political pressure on FAA by local officials to undue the flight path changes, which moved aircraft away from long-used noise mitigation routes and over a renovated historic district of Phoenix.

Sec. 5003. Overflights of National Parks.

This section would amend current law to ensure the continued availability of air routes used by air tour operators transiting over Lake Mead on their way to and from the Grand Canyon.

The House FAA reauthorization bill includes provisions not in the Senate bill that would require the FAA to study the relationship between aircraft noise exposure and its effect on communities around airports and would require FAA to complete a review of its community involvement practices for NextGen projects located in metroplex areas (28 ANR 13).

Federal Preemption of Drones

Section 2142 of the Senate FAA bill would preempt all local regulation of drones, which are expected to be used extensively in the package delivery industry.

Section 2142 states, “No State or political subdivision of a State may enact or enforce any law, regulation, or other provision having the force and effect of law relating to the design, manufacture, testing, licensing, registration, certification, operation, or maintenance of an unmanned aircraft system, including airspace, altitude, flight paths, equipment or technology requirements, purpose of operations, and pilot, operator, and observer qualifications, training, and certification.”

NASA is studying the noise level of drones but ANR is not aware of any local restriction on drone noise. Federal preemption would allow the FAA to set a single national drone policy.

John Wayne Airport

NEWPORT BEACH STUDYING RNP DEPARTURE PROCEDURE

The Newport Beach City Council recently gave City Manager Dave Kiff approval to work with staff of John Wayne Airport and the FAA to determine whether a curving RNP departure procedure at John Wayne Airport would better keep aircraft over the upper part of Newport Bay, which serves as a noise abatement departure corridor for the airport.

In 2013, the City asked the FAA to revise an RNAV departure procedure the agency proposed for John Wayne Airport to make it a more advanced curving RNP departure that GE Aviation determined was feasible and would more precisely keep aircraft over the upper portion of Newport Bay, where homeowners complain that aircraft stray away from the water and fly over their homes (25 ANR 50).

Newport Beach was the first U.S. city to hire one of the two firms that FAA has certified as capable of developing public use RNP procedures, which are based on standard design criteria and published for use by all qualified aircraft operators. RNP (Required Navigation Performance) is a refinement of RNAV (Area Navigation). RNP establishes highly refined parameters for the containment of aircraft within airspace.

A key component of RNP is curved flight tracks which interest airports and communities because they present greater opportunities than straight flight tracks to avoid overflying noise-sensitive areas.

Newport Beach suggested that FAA use the NRP departure procedure in comments on the Environmental Assessment done on FAA’s proposed RNAV departure procedure for JWA, which FAA has yet to implement.

FAA’s work on the Southern California Metroplex project may serve as a basis to refine and modify the departure procedures at JWA following further analysis, Kiff said in a report to the City Council.

“Having more curves in the Upper Bay departure paths might keep more planes further from homes on each side of the bay, and may further reduce noise impacts,” Kiff’s report notes. It said that GE Aviation concluded that a curved RNP design offers a number of significant benefits, including:

- The designed location of the flight path could incorporate input from citizens of Newport Beach to a greater extent than has been previously possible with legacy navigation methods. A curved flight path could be designed that would reduce the potential for direct overflights of residential communities on both the east and west sides of the Back Bay;
- The new departure procedure would represent an important milestone for the FAA’s NextGen plan: the first use of an RNP specification for a public-use departure in the continental United States; and
- The RNP departure procedure could be flown by the majority of airline operators serving JWA.

Newport Beach also wants to examine whether aircraft altitudes on departure have changed over the last several years with the introduction of new aircraft models. As louder aircraft like the MD-80 have transitioned out of use at JWA, some planes now can depart from the airport without using its well-known noise abatement departure procedure which requires engine thrust cutback at 800 feet to reduce noise impact.

City Manager Kiff told the City Council in his report that some residents believe planes are now departing lower, and therefore may be louder, than in years past.

Kiff told ANR he did not yet know when the study would be completed or whether the City would work with GE Aviation on it.

Palo Alto, from p. 34

- Conduct a property valuation study to evaluate the effects of aviation noise on residences in Palo Alto.

In addition, Freytag & Associates will provide technical representation on behalf of Palo Alto in discussions with the SFO Community Roundtable, the Federal Aviation Administration, and community groups.

The historical aircraft operations and noise assessments done in the study will use files from the FAA’s National Off-load Program (NOP) which records radar records of the location (latitude, longitude, and altitude) and aircraft data from all flights every six seconds, Freytag explained.

These assessments, he said, require sorting individual flights sequentially, creating the flights tracks and operational

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data, and preparing inputs for each flight into the FAA’s Aviation Environmental Design Tool (AEDT) program for computing noise exposure. This enables assessment of changes in operations and noise exposure with respect to FAA criteria over the study period.

With 1,200 flights per day from SFO and many more from Oakland, San Jose, and other Bay Area airports, this is a formidable task, Freytag told ANR. But, while using the NOP data and extracting it for input to the AEDT is tedious, it allows Palo Alto to present data to the FAA that is objective rather than subjective.

FAA Relies on Objective Data

“In my opinion, many communities rely solely upon subjective rather than objective assessments” of noise impact, Freytag said.

“Certainly the FAA has heard a barrage of general unsubstantiated noise complaints over the Bay Area (and at most other airports throughout the U.S.): it’s too noisy, I can’t sleep, my children can’t study, can’t hear the TV, etc. While these are all true, they do not relate to any criteria (apart from general unhappiness). Obviously it is impossible to make everyone happy, so the FAA doesn’t know how to handle the tradeoff between community dissatisfaction and air commerce; they are reluctant to award the squeaky wheel and steadfastly remain objective.

“So the FAA seems to have limited itself to objective (measured) criteria rather than subjective (expressed feelings) complaints. The most recent impact criteria, relative to this project, is the recently revised FAA Order 1050.1F, ‘Environmental Impacts: Policies and Procedures’, to include the following new noise impact criteria [for determining significant noise impact under the National Environmental Policy Act]:

DNL 65 dB and higher, a noise increase of +1.5 dB

DNL 60 dB to <65 dB, a noise increase of +3 dB

DNL 45 dB to <60 dB, a noise increase of +5 dB

“This is what we’re evaluating for Palo Alto (in the 45 dB - 60 dB range). The trick is that it’s difficult to prove past noise exposure to assess against the new NextGen impacts.”

Freytag believes the use of FAA’s NOP data to assess noise impact on Palo Alto from airspace changes is unique to this study.

Under strong political pressure from congressional representatives from the San Francisco Bay Area, FAA agreed last year to explore the feasibility of implementing ideas proposed by the public and the SFO Community Roundtable for reducing the noise impact of new NextGen arrival and departure paths for SFO (27 ANR 156).

Sky Posse, the advocacy group representing Palo Alto residents, wants some flight paths over the city moved over San Francisco Bay at higher altitudes.

AIRPORT NOISE REPORT

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