Key West International Airport
Ad-Hoc Committee on Airport Noise

Agenda for Tuesday, June 4th, 2019

Call to Order 2:00 pm Harvey Government Center

Roll Call

A. Review and Approval of Meeting Minutes
   1. For March 5th, 2019

B. Discussion of NIP Implementation
   1. Status of Construction of Building B, Floors 3-6 (34 units)
   2. Final Bid Document Preparation & Bidding of KWBTS Building C

C. Other Reports:
   1. Noise Hotline and Contact Log
   2. Airport Noise Reports

D. Other Discussion

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
March 5th, 2019 Meeting Minutes

Meeting called to order by Commissioner Dany Kolhage at 2:05 P.M.

ROLL CALL:

Committee Members in Attendance:
- Commissioner Danny Kolhage
- Peter Horton
- Nat Harris
- Marlene Durazo
- Harvey Wolney
- Nick Pontecorvo
- Norma Faraldo
- Andrea Haynes

Staff and Guests in Attendance:
- Thomas J. Henderson, Monroe County Assistant Director of Airports
- Deborah Lagos, DML & Associates
- Steve Vecchi, THC
- Heather Faubert, THC
- Sharon Van Hove, Community
- Eric Van Hove, Community

A quorum was present. Commissioner Dany Kolhage chaired the meeting.

Review and Approval of Meeting Minutes for the October 2nd, 2018 Ad Hoc Committee Meeting

Commissioner Dany Kolhage asked if there were any comments or corrections to the minutes. None were mentioned. Nat Harris made a motion to approve the minutes; Marlene Durazo seconded the motion. The minutes were approved as presented.

Discussion of NIP Implementation

Steve Vecchi provided a Power Point Presentation including the following items:

1. KWBTS Master Phasing Plan Review
2. Update of KWBTS Asbestos Testing Results
3. Building B (Floors 3-6) Construction Progress
5. Building C Construction Plan and Challenges
Other Reports

**Noise Hotline and Contact Log**

Deborah reviewed the three calls received on the hotline.

Eric Van Hove, one of the callers, attended the meeting, along with Sharon Van Hove. Mr. Van Hove explained his observation of a noticeable increase in aircraft noise at his home located at 3704 Flagler Avenue. The committee discussed the possibility that this may be because aircraft are making early left turns on departure from Runway 09. TJ Henderson said he would check with the ATCT regarding this situation.

Nat Harris, also one of the callers, mentioned his observation of additional military training operations because of bad weather up north.

**Airport Noise Report**

The following articles were discussed:

1. **Volume 30, Number 35, “1st Hybrid-Electric Aircraft Will Pay No Landing Charges at Heathrow for One Year.”** Peter Horton commented that there will still be propeller noise.
2. **Volume 30, Number 38, “Noise Grants Totaling $116.8 Million Awarded to 16 Airports in Fiscal 2018.”** Nat Harris commented on the money received by Key West.
3. **Volume 31, Number 4, “Boeing Invests in Aerion to Accelerate Development of Supersonic Aircraft,”**
4. **Volume 31, Number 4, “AIA Focuses on Urban Air Mobility at T&I Hearing on Infrastructure.”** Nick Pontecorvo commented that drones are very noisy; louder than four helicopters.

**Any Other Discussion**

The Blue Angels will be in Key West March 30-31 for an airshow. They will be practicing two days prior.

The meeting adjourned at approximately 2:45 pm.
# Key West International Airport
## Noise Hotline Log

<table>
<thead>
<tr>
<th>Date of call</th>
<th>Time of call</th>
<th>Caller</th>
<th>Contact information</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/3/2019</td>
<td>8:01 AM</td>
<td>Nathaniel Harris</td>
<td>La Brisa full-time resident</td>
<td>One of the local seaplanes headed west out to Ft. Jefferson flew right across La Brisa, instead of going straight out.</td>
</tr>
<tr>
<td>4/22/2019</td>
<td>1:05 PM</td>
<td>Nathaniel Harris</td>
<td>La Brisa full-time resident</td>
<td>Local bi-plane flew right over the Salt Pond behind La Brisa</td>
</tr>
<tr>
<td>5/13/2019</td>
<td>9:50 AM</td>
<td>Nathaniel Harris</td>
<td>La Brisa full-time resident</td>
<td>One of the local seaplanes headed west out to Ft. Jefferson flew right across La Brisa, instead of going straight out.</td>
</tr>
<tr>
<td>5/22/2019</td>
<td>1:30 PM</td>
<td>Rashon</td>
<td>Manager of Las Salinas</td>
<td>She called DML directly to ask if Las Salinas could be included in the NIP, and said the residents are really complaining about the increase in noise over the years. Sh asked what we were going to do for the 216 residents at Las Salinas. DML explained that Las Salinas was excluded from the NIP in the original P150 Study in 1999 because the developer had been cautioned not to build so close to the airport, or make sure to insulate adequately against aircraft noise. She responded that the noise has gotten significantly worse since then, with more flights and louder aircraft. DML explained that the individual aircraft are quieter, and that overall the noise levels have decreased since 1999. DML suggested she tell the residents to call the hotline, an invited them to attend the next Ad-Hoc meeting.</td>
</tr>
</tbody>
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ICAO

CAEP AGREES TO NEW AIRCRAFT NOISE GOAL; DELAYS SETTING STANDARDS FOR SST NOISE

Global measures to address aviation’s environmental impact were agreed to at a meeting of the 250 experts of the International Civil Aviation Organization’s Committee on Aviation Environmental Protection (CAEP), which was held in Montreal and ended on Feb. 15.

CAEP agreed to new technology goals for the aviation sector, including:

• Improvements of aircraft noise up to 15.5 dB below current Chapter 14 (U.S. Stage 5) limits for single-aisle aircraft by 2027;
• Improvements in oxides of nitrogen (NOx) emission by 54 percent relative to the latest ICAO NOx Standards and Recommended Practices and:
• Improvements in fuel efficiency up to 1.3 percent per annum can be expected for the new aircraft entering into production.

CAEP also approved a report on “performance-based navigation and community engagement” as well as publication of a white paper on “State of the Science 2019: Aviation Noise Impacts Workshop.” However, these documents, which were

(Continued on p. 22)

FAA Annoyance Survey

FOIA REQUEST FOR FAA ANNOYANCE SURVEY DOCUMENTS ESTIMATED TO COST $47,870

You better have very deep pockets — or have recently won a big lottery — if you want copies of documents related to FAA’s eagerly anticipated National Airports Annoyance Survey, which was launched in 2015 to determine if there has been a shift over time in people’s annoyance to civil aviation noise.

FAA estimates it would cost $47,870 and take seven agency employees a total of 600 hours — that’s 75 eight-hour work days — to fulfill aviation attorney Steven Taber’s Freedom of Information Act (FOIA) request for the annoyance survey documents.

Really!

For several years, the public has been demanding that FAA release the findings of its annoyance survey, which will determine if the agency needs to update its over 40-year-old aircraft noise policy.

FAA had expected to release the survey results in June 2018 but it appears the Trump administration is holding them indefinitely, perhaps because preliminary results of the survey provided to airports (30 ANR 131) show that:

(Continued on p. 23)
**ICAO, from p. 21**

not discussed in detail in ICAO’s press release on the CAEP meeting, may not be available until the ICAO Council considers them at an upcoming meeting in September.

**SST Noise Standards Delayed**

Regarding the new generation of SST aircraft under development, CAEP decided to delay setting takeoff and landing (LTO) noise standards for them, opting instead to conduct an exploratory study of how existing LTO noise standards for subsonic aircraft can be applied to new SSTs.

“Three U.S.-based startups are working to develop new supersonic transport aircraft including a 55-seat commercial jet,” Dan Rutherford, Program Director of the International Council on Clean Transportation (ICCT) explained in a Feb. 27 blog post entitled “Turbulence ahead for the supersonic renaissance,” at http://theicct.org/blog/staff/turbulence-ahead-supersonic-renaissance

“The Trump administration, which favors permissive standards for SSTs, has clashed with Europe about the aircraft’s potential noise impacts. To date, regulators were faced with two choices: either to develop new SST standards that would allow those aircraft to produce more noise, air, and climate pollution than new subsonic [aircraft] designs, or to apply existing subsonic standards to SSTs.

“So, what exactly happened in Montreal? ... Overall, ICAO declined to establish an international landing and takeoff (LTO) noise standard specific to supersonic aircraft (the first approach). Instead, it will conduct a comprehensive review of the likely increased noise, air, and climate pollution from supersonics and consider how the existing (Chapter 14 in UN parlance, Stage 5 in the U.S.) LTO noise requirements for subsonic aircraft can be applied to supersonics.

“In other words, the UN has selected the latter approach by declining to set weaker international environmental rules for SST aircraft. It’s now up to the U.S. to figure out how to set a domestic LTO noise standard for SSTs on its own, as required under the 2018 FAA Reauthorization Act.”

Rutherford considered what CAEP’s decision means for manufacturers of new SSTs.

“Short-term,” he said, “it shouldn’t impact Aerion and Spike, which have both committed to meeting Chapter 14 noise requirements with their smaller business jets. For Boom, which is aiming to develop a larger (55 seat) and faster (Mach number 2.2) airliner, tough choices lay ahead. Boom’s public statements to date suggests it plans to comply with Chapter 3 (1977) subsonic noise standards. But, that won’t be nearly enough.”

Rutherford said Boom could try to convince an engine manufacturer to develop a new, and more expensive advanced clean sheet engine with lower noise but that would inflate development costs.

Or, Boom could significantly reduce the design speed of its SST to reduce its LTO noise footprint. But that would require a fundamental change to Boom’s business model, which is built around being faster than the Concorde.

“Either tactic will make Boom’s goal of providing fast, cheap supersonic service to the masses that much harder to achieve,” Rutherford contended.

Section 181 of the 2018 FAA Reauthorization Act requires the FAA to propose a new LTO noise standard for supersonic aircraft by March 31, 2020 – about a year from now – and to finalize it by September 2021.

The bill is silent on how stringent the standard must be.

**New nvPM Standard**

The main outcome of the CAEP meeting in Montreal was a new stringency level that would limit the emissions of non-volatile Particulate Matter (nvPM) from aircraft engines. ICAO said the new standard is expected to drive technologies to address non-volatile particulate matter, which in the long run will minimize its potential environmental and health impacts.

Important publications also were developed as part of ICAO’s eco-airport toolkit collection in the areas of renewable energy, waste management, environmental management, and eco-design of airport buildings. Regarding climate change adaptation, a Synthesis Report was approved for publication, providing important information on the climate risk impacts and resilient options for the sector. A report on the state of aircraft end-of-life and recycling also was agreed to.

CAEP will also assess how to certify other new technologies such as hybrid and electric aircraft as part of its future work.

All the above technical recommendations agreed by CAEP will be considered by the Council for final approval in September.

**SoCal Metroplex**

**FAA PLANS TO CHANGE FLIGHT PATH OVER LAKE ARROWHEAD**

The FAA has begun work on developing a new route that would reduce commercial aircraft flights over Lake Arrowhead that have generated a number of complaints from residents, San Bernardino County Second District Supervisor Janice Rutherford announced Feb. 21.

“This is really great news for mountain residents who have been disturbed by jet noise since the FAA began using the flight path over Lake Arrowhead in 2017,” Rutherford said. “The FAA’s process will take about a year, maybe a bit longer, but the proposed new flight path will fully replace the current daytime route over the lake.”

The FAA implemented the SoCal Metroplex Project in phases in late 2016 and 2017. It replaced dozens of conventional air routes with ones based on satellite navigation. One of the routes takes planes over the Lake Arrowhead communities, which are more than 5,000 feet above sea level.

In April 2018, the FAA began diverting many night flights...
from the route over Lake Arrowhead in response to community concerns about noise the flights were generating. The FAA says the proposed new route, which would be available for use during the day as well as the night, would have significant operational benefits in addition to providing relief to Lake Arrowhead residents.

Supervisor Rutherford traveled to Washington, D.C. last year to meet with FAA officials about the problems the flight path was generating in the mountains, and she has continued to communicate residents’ concerns to the FAA as well as to Senator Dianne Feinstein, Senator Kamala Harris and Congressman Paul Cook.

“I appreciate the support our federal representatives provided on this issue, and I commend the many mountain residents who ensured the FAA was fully aware of their concerns about the flight path,” said Rutherford, who learned about the FAA’s plans during a conference call with the agency Wednesday.

She said the FAA will be conducting required environmental studies and conducting the appropriate level of community involvement on the proposed new flight path prior to implementation of the new flight path.

Reagan National Airport

FAA PRESSED FOR FLIGHT PATH CHANGES SOUGHT FOR 2 YEARS

Virginia Congressman Don Beyer (D) asked the FAA administrator in a Feb. 26 letter to expedite flight path changes to south flow departures from Reagan National Airport sought by the DCA Working Group over two years ago to reduce airplane noise in Northern Virginia communities.

“I write to inquire about the status of the FAA’s response to the Reagan National Community Noise Working Group’s (DCA Working Group) request to modify flight paths and possibly waypoints south of DCA. The DCA Working Group made this request to the FAA on August 11, 2016, and the community continues, over two years later, to wait on FAA’s response while enduring pervasive airplane noise,” Beyer wrote.

“I understand that the FAA has been reviewing the DCA Working Group’s request and has been discussing proposals with the Working Group for a new south flow departure procedure aimed to mitigate noise by flying planes further down the Potomac River before their turn west, and I appreciate this effort. Nonetheless, I remain concerned with the length of time this has taken, and the lack of real action in implementing new procedures.

“On June 6, 2017, when you last wrote in response to my inquiry into the matter, you assured me that the FAA would “do [its] best to hit the 12-18-month publication dates for south flow changes once formal design begins, though it is possible the work could stretch to 24 months” depending on a variety of factors. As I understand, the formal design began in August 2016. Now, in mid-February 2019, it has been 30 months that the community has been waiting.

“I hear directly from members of the community regularly that the airplane noise has not ceased or been alleviated, and the community and I remain eager to see the new planned procedures, and continue working alongside the FAA towards quieting our skies.

“I urge you to move this process along as expeditiously as possible, and to provide an updated timeline for the publication dates of south flow modifications. I know you understand the importance of addressing airplane noise in our communities, and I appreciate your continued effort on this front.”

Beyer mistakenly addressed his letter to Michael Huerta, who stepped down as FAA administrator on Jan. 6, 2018, when his five-year term ended.

Dan Elwell is currently serving as the Acting FAA Administrator.

Annoyance Survey, from p. 21”
Estimate Didn’t Include Copying Fees

Asked to comment on the sky-high price tag for the data he seeks, Taber told ANR, “I was shocked, to say the least. Please remember that this estimate does not include copying of documents. The $47,870 was just for the FAA to research to see if there were any responsive documents: 75 eight-hour days of research.

“In most cases, a FOIA request like this could run up to a $1,000, including copying expenses. The research element of the request is usually a small fraction of the total expense.

“As you have reported, the FAA has been willing to share the survey with industry groups, such as the ACI-NA, but it has kept the survey away from public scrutiny.”

Sea-Tac Int’l

LEAGUE OF QUIET SKIES VOTERS FORMED TO IMPACT LOCAL ELECTIONS

Grass-roots community groups in cities around Seattle-Tacoma International Airport recently formed the League of Quiet Skies Voters to ensure that the impacts on human health and the environment of recent and proposed airport expansion projects are a focal point for the 2019 election cycle, the Sea-Tac Blog reported.

Formation of the new League was announced at the Feb. 26 Port of Seattle Commission meeting, where two Port Commissioners are up for reelection. The cities of Burien, Des Moines, and Federal Way, WA, which are near Sea-Tac and subject to aircraft noise impact, also each have several City Council seats up for reelection.

“The Port of Seattle and airport added 97,000 annual flights since 2014, and want another 80,000,” Quiet Skies Puget Sound founder Sheila Brush told the Sea-Tac Blog.

“This growth is inconsistent with the avalanche of new science – particularly including the World Health Organization’s new 2018 Environmental Noise Guidelines – which require immediate action by policymakers to reduce aircraft overflight noise. The science shows that noise, and particularly nighttime aircraft noise, causes increases in high blood pressure, strokes, and heart attacks, and learning environmental impairments.”

The League of Quiet Skies Voters also will sponsor two candidate forums for Port of Seattle and City Council candidates.
Seattle-Tacoma Int’l

STUDY OF EFFECTS OF SEA-TAC OPERATIONS ON NEARBY COMMUNITIES TO BEGIN IN MAY

A study of the environmental, public health, and socio-economic effects that the operation of Seattle-Tacoma International Airport – one of the fastest growing airports in the country – has on nearby communities is slated to begin May 1.

The results of the study must be reported to the Washington State Legislature, which ordered the study in legislation passed in March 2018 at the urging of communities near Sea-Tac.

The Washington State Department of Commerce is in the process of seeking a contractor for the study, which must address:

- Noise and air quality changes and impacts;
- Changes in “quality of life” issues, including noise impact on residences and businesses, traffic congestion, property values, public safety, and crime statistics; and
- Changes in public health statistics, including morbidity and mortality, hearing/auditory dysfunction, respiratory and cardiovascular disease, cancer, overall life

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Hollywood Burbank Airport

BURBANK MAY BE FIRST AIRPORT TO INVOKING SECTION 175 OF FAA REAUTHORIZATION ACT

The Burbank-Glendale-Pasadena Airport Authority appears to be the first airport proprietor in the country to invoke Section 175 of the FAA Reauthorization Act of 2018, which requires FAA to consider dispersal of new RNAV departure procedures under 6,000 feet if the dispersal:

- Is requested by the airport;
- Would not have safety or efficiency implications; and
- Would not increase noise over other noise sensitive areas.

The Airport Authority invoked Section 175 in a Dec. 10, 2018, letter asking Acting FAA Acting Administrator Daniel Elwell to consider the feasibility of dispersal headings or other lateral track variations of the OROSZ and SLAPP area navigation departure (RNAV) procedures at Hollywood Burbank Airport in order to address community noise concerns.

On Feb. 5, the Los Angeles City Council approved a resolution supporting the Airport Authority’s letter.

Section 175 of the FAA Reauthorization Act gives airports an option they lacked before the legislation passed last fall but only requires FAA to “consider”

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expectancy, and comparison of these statistics with jurisdictions north of Sea-Tac.

The study also must recommend to the Legislature ways to mitigate the negative impacts and enhance the positive impacts of Sea-Tac operations and recommend ideas for future studies.

March 15 is the deadline for contractors to submit proposals outlining how they would conduct the study, the scope of which was determined by the Department of Commerce.

The Request for Proposals (RFP) says the study “will present information in the context of regional (Study area) changes over time related to the on-going functions of Sea-Tac Airport with a baseline year of 1997 and emphasis on the years 2008-2018.”

The study area includes the cities of SeaTac, Burien, Des Moines, Tukwila, Federal Way, and Normandy Park, which are near the airport.

The maximum budget for the study is $500,000. The study is expected to run from May 1, 2019, to June 1, 2020. However, the Department of Commerce can extend the contract for two one-year periods.

The Department is seeking a contractor for the study that has experience with regional environmental and socio-economic studies with preference to experience with studies on the impact of airport functions on surrounding communities and municipalities, experience with statistical analyses, and experience managing a public process.

The contractor is expected to be announced on April 22.

According to the Puget Sound Business Journal, operations at Sea-Tac increased 23 percent between 2014 and 2016. The volume of passenger traffic reached 49.9 million in 2018, up from 32.8 million in 2011 due to a sharp increase in both domestic and international air service.

**Charlotte-Douglas Int’l**

**FAA CONVERTS EIS ON NEW RUNWAY TO EA DUE TO SHORTENING**

The FAA said March 5 that it has decided to convert the Environmental Impact Statement (EIS) for the proposed new runway and other projects at Charlotte-Douglas International Airport (CLT) to an Environmental Assessment (EA).

A major change to the length of the proposed new runway (shortening it by 2,000 feet) and the resulting decrease in potential significant environmental impacts prompted the decision.

In October 2018, the FAA completed a Runway Length Analysis as part of the EIS process. The analysis determined that a shorter runway length of 10,000 feet is adequate to accommodate aircraft that will operate at the airport in the future. The original proposed runway length was 12,000 feet.

The EA also will cover other projects including the proposed addition of 12 gates each to Concourses B and C, expansion of the aircraft parking aprons at the concourses, and a new North Parking Garage.

CLT’s 2016 Airport Capacity Enhancement Program (ACEP) identified and recommended the projects to meet future airfield and terminal capacity demands. Operational data gathered during the EIS process confirmed the need for the new development.

The proposed shorter runway would allow West Boulevard to be relocated on existing roadways closer to the airport’s operational area, which would lessen the impact on the community.

The City of Charlotte, which operates the airport, will produce the EA in accordance with the National Environmental Policy Act (NEPA). It can complete the EA in about one year. The public will have the opportunity to review and comment on a draft EA, and comments will be included in the final document. The FAA will issue a final environmental determination and Record of Decision on the EA.

Throughout the environmental process, the airport will keep the public fully informed of and involved in the EA as it moves forward.

**ACRP**

**PROJECT TO ASSESS FEASIBILITY OF USING ACTIVE NOISE CONTROL FOR JET DEPARTURES PROPOSED**

Joseph Czech, principal consultant at HMMH, Inc., has proposed a very interesting project for the Transportation Research Board’s Airport Cooperative Research Program to conduct.

On ACRP’s IdeaHub web site, he suggested a project to determine the feasibility of applying active noise reduction/cancellation to jet aircraft departures.

“The goal of the project is to determine if active noise reduction of the start of takeoff roll of jet aircraft departures would be a viable and practical solution for commercial and general aviation airports, with existing computer and speaker technology. Feasibility would be judged in terms of cost and benefit. A demonstration would be performed,” Czech explained in his IdeaHub entry.

“Active noise reduction (ANR) is the production of sound at the same magnitude and opposite phase of the offending noise source so as to reduce or cancel the offending noise source, in real-time. The technology has been common in headphones for decades” he explained.

“Jet aircraft departures produce a lot of low-frequency noise (rumble) at the start of their takeoff roll, in a swath to the side and to the rear of the aircraft. Low-frequency noise can propagate long distances and is a primary source of noise annoyance for adjacent communities.

“Active noise reduction has had documented success with stationary jet engines but research into a moving source has
been limited or non-existent. The bulk of ANR research is nearly 20 years old, not leveraging today’s computer speeds and speaker technology. Current research is needed in this area.”

Czech estimated the project would take 18 months to complete and cost $500,000.

His project idea is the 10th listed on the ACRP IdeaHub website at https://ideahub.trb.org/. You can comment on the project idea, ask questions about it, or vote for it on the website.

Stage 2 Aircraft

FAA SEeks Comment on Stage 2 Aircraft Info Collection

The FAA is seeking public comments on its intention to request Office of Management and Budget approval to renew the collection of information used to issue special flight authorizations for non-revenue and non-transport Stage 2 aircraft operations at U.S. airports.

FAA said that 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, such as for aircraft maintenance and repairs.

The agency estimates the data collection affects approximately 30 applicants and would take them only about 15 minutes to complete.

Public comments are invited on four aspects of the data collection:
• Whether the proposed collection of information is necessary for FAA’s performance;
• The accuracy of the estimated burden on applicants;
• Ways for the FAA to enhance the quality, utility, and clarity of the information collection; and
• Ways that the burden could be minimized without reducing the quality of the collected information.

Written comments must be submitted by April 30 and can be submitted:
• By Electronic Docket at www.regulations.gov (Enter Docket Number FAA 2019-0135 into search field);
• By mail to Sandy Liu, Engineer, Noise Division, Office of Environment and Energy, FAA, 800 Independence Ave., SW, Washington, DC 20591, Attn: AEE-100;
• By fax to Liu at tel: 202-267-5594.

For further information, contact Sandy Liu by email at sandy.liu@faa.gov; telephone: 202-267-4748.

In 1990, Congress passed the Aviation Noise and Capacity Act, which required that all Stage 2 civil jet aircraft over 75,000 lb. (commercial jets) meet more stringent Stage 3 noise requirements by the year 2000. All Stage 2 civil jet aircraft, regardless of weight, including business jets, were required to meet Stage 3 or 4 noise standards by the end of 2015.

Burbank, from p. 25

the feasibility dispersal headings and not more than that.

Last November, the FAA held two public workshops to inform the public about proposed amendments to the existing OROSZ and SLAPP departure routes at Hollywood Burbank Airport (30 ANR 147). The amendments would tighten up the initial portion of the right turn that aircraft make shortly after departing and reduce the number of aircraft that drift to the south before making their turns.

“We would do this by adding a precise, satellite-based segment to the initial part of the route,” Ian Gregor, Communications Manager for FAA’s Pacific Division, told ANR at the time.

“We actually wanted to implement this kind of route for Burbank several years ago as part of the Southern California Metroplex project but were unable to due to technical issues. Subsequently, we overcame those technical issues and are now able to implement the route, which fulfills the terms of a [recent] legal settlement agreement we reached with the Benedict Hills Estates Association and Benedict Hills Neighborhood Association south of the airport,” he explained.

Gregor said that the pre- and post-Metroplex flight tracks are pretty much the same but did shift a little to the south.

The amendments to the OROSZ and SLAPP departure procedures were proposed without FAA conducting an Environmental Assessment or consulting with the communities that would be in the eastern San Fernando Valley portion of the City of Los Angeles.

The FAA still has made no decision on the level of environmental review that is appropriate for the proposed amendments to OROSZ and SLAPP.

“We have not made a decision on the level of environmental review yet,” Gregor told ANR on March 7. “We will respond to the airport authority’s request [to consider the feasibility of dispersal headings] in an appropriate timeframe.”

He added, “We have not amended the existing [OROSZ and SLAPP] departure procedures and have not changed the way we handle aircraft as they depart from BUR.”

L.A. Wants EA Conducted

Los Angeles City Councilman Paul Krekorian, and L.A. City Attorney Michael Feuer are pushing back on FAA’s proposal to implement the RNAV departure procedures out of Hollywood Burbank Airport because of the noise impact they would have.

They say the proposed amendments to the OROSZ and SLAPP RNAV departure procedures would shift and concentrate southbound departures, increasing noise over many schools, residential neighborhoods, parks, and other noise-sensitive areas in the San Fernando Valley and Santa Monica Mountains.

In an Aug. 23, 2018, letter to FAA, L.A. City Councilman Krekorian and City Attorney Feuer asserted that FAA is legally obligated to start a formal environmental review process to consider the impacts of the proposed RNAV depa-
In Brief…

P&W Canada, Airbus Helicopter Awarded Patents

The U.S. Patent & Trademark Office on March 5 awarded separate patents to Pratt & Whitney Canada and Airbus Helicopters for noise reduction technology.

Pratt & Whitney Canada Corp. was awarded Patent No. 10,221,764 for an aircraft engine “variable geometry inlet system.”

“A variable geometry inlet system of an aircraft engine includes an inlet duct. The inlet duct includes at least first and second sections moveable between extended and retracted positions such that the inlet duct defines a variable axial length of an inlet in controlling noise,” the abstract for the patent explains.

Airbus Helicopters received Patent No. 10,220,943 for “Aircraft rotor blade of shape adapted for acoustic improvement during approach flights and for improving performance in hovering flight and in forward flight.”

“The blade is double-tapered and presents three sweeps,” an abstract of the patent explains. “The twist relationship is substantially constant over a first portion of the blade, and then decreases over the remainder of the blade in linear or in non-linear manner. Suitable variation in the gradient of the twist of the blade makes it possible to improve the aerodynamic performance of the blade in forward flight and in hovering flight.”

**APRIL NOISE REPORT**

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528. e-mail: editor@airportnoisereport.com; Price $850.

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WHO Guidelines

DEBATE CONTINUES ON ADEQUACY OF DATA UNDERPINNING NEW WHO NOISE GUIDELINES

The debate continues over the adequacy of the research database underpinning the World Health Organization’s decision to lower – by about 10 dB – the aircraft noise level associated with risk of adverse public health effects.

Papers challenging and defending the database are currently under peer review by the International Journal of Environmental Research and Public Health.

Last October, the European Regional Office of WHO strongly recommended reducing average exposures to noise levels produced by aircraft below 45 dB Lden to prevent risk of adverse public health effects (30 ANR 135). The Office also recommended keeping exposures to nighttime noise below 40 Lnight to avoid public health effects.

WHO’s new (2018) recommendation represents “an order of magnitude lower” than its former recommendation, made in 2000, of 55 dB A-weighted Sound Pressure Level (LpA) over 16 hours, Norwegian noise effects researcher Truls Gjestland explained.

(Continued on p. 30)

Military Aircraft

NAVY REJECTS ACHP CALL FOR ADDITIONAL NOISE MONITORING OVER HISTORIC RESERVE

Navy Secretary Richard Spencer has rejected a request by the Advisory Council on Historic Preservation (ACHP) to undertake additional noise monitoring of Navy Growler EA-18G jets flying over Ebey’s Landing National Historic Reserve on Whidbey Island, WA, even as the Navy plans a major increase in training flights.

The Navy said it will only contribute $867,000 to restore an historic property on the island called the Ferry House.

In a record of decision released March 13, the Navy said it will add 36 EA-9G low-flying electronic surveillance Growler aircraft to its operations at Naval Air Station Whidbey Island and increase practice landings at nearby Coupeville Field by 2022. Some 112,100 Growler operations over the island are expected to occur yearly after that date.

“In the past, the Navy has been a good partner,” Mary Attwood, chair of the Sound Defense Alliance on Whidbey Island, told the Peninsula Daily News.

“But across the region, our elected officials, community leaders, and citizens all agree that this proposal is just asking too much from our part of Washington. We are not only disappointed, we are outraged.

(Continued on p. 31)
“This is a dramatic shift in the recommended ‘safe’ limit on aircraft noise exposure for which strong and reliable evidence is essential,” he asserted in comments for peer review in the Journal.

Gjestland does not believe that the evidence used to justify reducing the WHO aircraft noise exposure level is reliable.

He argued in earlier comments to the Journal that the new WHO guidelines “are based on an arbitrary selection of existing studies comprising an imperfect and faulty set of data not representative for the general airport population” (30 ANR 177).

But Rainer Guski of the Ruhr-University Psychology Department in Germany, and research colleagues from Germany, Switzerland, and the UK responsible for selecting the studies that would serve as the database for the new WHO aircraft noise exposure guidelines, rebutted Gjestland’s argument in a paper of their own that also was submitted to the Journal for peer review.

“All in all, we conclude that there were no specific flaws, faults or inaccuracies in the analysis of the available evidence in the bespoke systematic review. We are convinced that the WHO Guideline Development Group did not come to false conclusions and that their recommended guideline value for aircraft noise in not unjustifiably low,” Guski and colleagues asserted.

In a rebuttal, Gjestland said Guski and colleagues “offer no further justification for reliance on non-standardized annoyance questions, limited age-range for the respondents, and potential self-selection biases” in one major study included in the database.

It remains for the research community through the peer review process to weigh in on the adequacy of the database used for the new WHO aircraft noise exposure guidelines.

Gjestland Speaking at ICAO Symposium

Gjestland has been invited to speak at the International Civil Aviation Organization’s Environment Symposium, which will be held in Montreal on May 14-16.

The symposium includes a session on “Aircraft noise and annoyance – when non-acoustic factors drive out-of-the-box thinking.”

Jane Hupe, deputy director of ICAO’s Air Transport Bureau, told Gjestland in her invitation, “We believe that your work in relation to the non-acoustic factors of aircraft noise annoyance is of significance and worth sharing globally.”

The other two noise sessions planned for the ICAO Environment Symposium will address:

• Two decades of Balanced Approach to aircraft noise: impacts and lessons learned; and
• 50 years of Annex 16, Volume 1: The role of technology in reducing aircraft noise?”

Further information on the symposium is on the ICAO website: www.icao.int

Awards

ONCC CHAIR WINS GILLFILLAN AWARD AT UC DAVIS SYMPOSIUM

O’Hare Noise Compatibility Commission (ONCC) Chair and Mount Prospect Mayor Arlene A. Juracek was named as the recipient of the Walt Gillfillan Award on March 4 at the UC Davis Aviation Noise & Emissions Symposium held in Jacksonville, FL.

The award is presented annually to an individual or organization whose exemplary achievements and contributions to noise abatement in aviation deserve special recognition.

“I am truly honored to receive this award, which would not have been possible without the commitment and regional stewardship of the full ONCC membership and the Chicago Department of Aviation,” said Juracek. “I also commend the FAA for its longstanding dedication in the Chicago region to community involvement.”

Mayor Arlene Juracek has served as the ONCC chair since 2015. Its members represent close to 1.3 million residents living in Chicago and communities near O’Hare International Airport.

ONCC said it has accomplished much under Mayor Juracek’s leadership. Physical changes at O’Hare due to the O’Hare Modernization Plan (OMP), changes in technology, and changes in public involvement have all challenged ONCC to adapt and grow as an organization over several years. Thanks to her efforts, the FAA has described the ONCC as the “gold standard” of community round table participation, the ONCC said in a press release.

To offer nighttime relief and predictability to residents, Mayor Juracek established an ad hoc committee in 2015 to develop a proposal for an Interim Fly Quiet (IFQ) Runway Rotation Program at O’Hare. A series of three runway rotation tests were conducted which led the committee to develop the Interim Fly Quiet Proposal (IFQ). It was approved by ONCC members in December 2017.

The IFQ proposal features an eight-week rotation plan with six configurations arranged to alternate each week between parallel and diagonal runways, rotating east flow and west flow. The plan is currently under environmental review by the FAA; if approved, it will be in place from fall 2019 until Runway 9R/27L is closed for construction in 2021.

The commission is currently developing the next step in the process - a modified nighttime noise abatement program, Fly Quiet 21, with the goal of it being in place by the completion of OMP full build out in 2021.

Another goal of Mayor Juracek was to make ONCC meetings a citizen’s forum for aviation related dialog. During her tenure, ONCC has hosted two aviation discussion panels on noise abatement and departure procedures, as well as heard from experts in the field about the latest technological advances, with guest speakers representing Pratt & Whitney, The Boeing Company, United and American Airlines and the FAA Environmental Division.
At ONCC’s 20th Anniversary meeting in 2017, then FAA Administrator Michael Huerta commended the commission as a national model of advocacy and citizen engagement. Mayor Juracek has reaffirmed ONCC’s commitment to a regional approach to policy-making decisions.

ANR will provide coverage of the symposium in next week’s issue.

**ACRP**

**PROCEEDINGS ON INSIGHT EVENT ON LAND USE STRATEGIES ISSUED**

The Transportation Research Board recently released the conference proceedings of an Airport Cooperative Research Program Insight Event on “Challenges to Implementing Successful Land Use Strategies at Airports.”

The conference, held on April 10–11, 2018, at the National Academies of Sciences, Engineering, and Medicine in Washington, D.C., brought together airport representatives and community planners to discuss effective strategies for improving their ability to partner on land use issues in the vicinity of airports.

TRB’s Airport Cooperative Research Program organized the event as part of its series of ACRP Insight Events, which are forums that foster dialogue among professionals across sectors, institutions, and industries.

ACRP Insight Events convene airport industry leaders and subject matter experts in various fields to encourage discussion and promote broader and deeper insight on topics of significance to airport operators. These in-depth, face-to-face gatherings are designed to promote communication and collaboration, foster innovation, and help identify areas of future interest and research, especially for topics of emerging importance.

“Challenges to Implementing Successful Land Use Strategies at Airports” sought to bring together airport planners with a direct connection to airport management and community planners to discuss land use planning around airports.

More than 70 people registered for the event and represented airports, airlines, academic institutions, local and regional government, consulting, and more. The full list of registrants is provided in Appendix A to the proceedings.

The event led off with two plenary sessions, each one including both a presentation and a discussion participated in by session panelists and audience members. The first plenary session focused on the airport planning context and the second plenary session focused on the planning jurisdiction context. The remainder of the event included three keynote speakers and breakout sessions in which participants worked together to develop a strategy to address the land use challenges of a fictional airport and jurisdiction.

The proceedings are available at https://www.nap.edu/download/25398

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**Navy, from p. 29**

“We will not be collateral damage to this expansion directed from Washington, D.C. We are committed to continuing to work with our elected officials and people across the state and nation to get the Navy to listen and to achieve a better and sustainable outcome.”

**ACHP Letter**

ACHP Chairman Milford Wayne Donaldson sent a letter on Feb. 19 to the Navy Secretary with the ACHP’s final comments regarding the Navy’s proposed increase of Growler aircraft at Naval Air Station Whidbey Island.

The letter to Secretary Spencer contained a number of findings and recommendations to the Navy on how to further assess, monitor, and resolve noise impacts to historic properties from Growler expansion.

Recognizing the significant impact to historic properties from the proposed expansion, the ACHP made a number of recommendations on steps Navy should take to resolve these effects including carrying out further efforts to monitor and address noise impacts; working with the community to identify and carry out appropriate mitigation measures; establishing partnerships to promote the long term preservation of historic properties; pursuing technologies to minimize noise; and improving coordination between environmental and historic preservation reviews.

On Nov. 30, 2018, the Navy terminated its Section 106 consultation process under the National Historic Preservation Act, having determined that further consultation to reach an agreement was unlikely to be productive.

In accordance with regulations, the ACHP must provide comments to the Secretary for consideration in reaching a final decision on the undertaking.

On Dec. 19, 2018, ACHP staff hosted a public meeting in Whidbey Island town of Coupeville to elicit the views of consulting parties and the public on the undertaking and its effect to historic properties, at the same time accepting written comments through email and regular mail. Those comments were considered as the ACHP formulated its comments to Secretary Spencer.

The ACHP began participating in the consultation concerning Growler expansion in 2014. Beginning in June 2018, consultation focused on identifying measures to mitigate adverse effects on historic properties from increased aircraft at the installation, since the Navy had determined avoidance was not possible given the nature and location of the undertaking.

** Parties Unable to Reach Agreement**

The consulting parties were unable to reach an agreement on such measures under timelines established by the Navy, and the U.S. Department of Defense Appropriations Act of 2014 further complicated the consultation.

The regulations require the Secretary of the Navy to take the ACHP’s comments into account in reaching a final deci-
In Brief…

Airport Noise Database

HazardHub, which describes itself as the nation’s fastest-growing supplier of geospatial risk data, announced March 13 that it has added airport noise data to its website.

“We’ve taken noise contours and flight paths from hundreds of public and private airports to create our Airport Noise database, HazardHub explained.

“Airport noise can be a huge factor in a property owner’s enjoyment of their property. We provide the data to help consumers better understand any property they may consider purchasing, leasing, or renting.”

ANR hopes that HazardHub plans to update its Airport Noise database as airports post new noise contour and flight path information.

To learn more about HazardHub, visit http://www.hazardhub.com

New Southeast RNAV Routes

The FAA issued a notice of proposed rulemaking on March 13 to establish two new low altitude RNAV routes (designated T-239 and T-258) and to modify three existing RNAV routes (designated T-290, T-292 and T-294) in the southeastern U.S.

The exact routes are described in FAA’s Federal Register notice. (Google “March 13, 2019, Federal Register”).

FAA said the new and revised RNAV routes would expand the availability of RNAV routing in support of transitioning the National Airspace System from ground-based to satellite-based navigation.

FAA is seeking public comments on its proposed rulemaking. April 29 is the deadline for submitting comments.

Instructions on how to submit comments are included in FAA’s Federal Register notice.

NASA Captures SST Shockwave Images

NASA said in a March 5 press release on its website that it has captured the first air-to-air images of supersonic shockwave interaction in flight.

“We never dreamt that it would be this clear, this beautiful,” said Physical Scientist J.T. Heineck of NASA’s Ames Research Center.

The stunning images were taken using a technology called schlieren photography.
Community Engagement

COMMUNITY GROUPS RECOMMEND WAYS TO IMPROVE FAA PBN DEVELOPMENT PROCESS

Deep collaboration with community groups on the development and implementation of NextGen performance-based navigation (PBN) procedures is necessary for the successful modernization of the U.S. airspace, grass-roots community groups from across the country told FAA at a March 4 session of the UC Davis Aviation Noise and Emissions Symposium.

They recommended six ways that FAA can improve its community engagement process on PBN development and implementation that focus on expanding public notification of planned PBN procedures; providing greater transparency of FAA data and analyses; including community groups in the design process of PBN procedures; especially at the beginning; listening to communities’ ideas on PBN implementation; expanding community representation on the FAA’s NextGen Advisory Committee; and developing best practices for airport/community roundtables.

“FAA heard what you said,” Kevin Welsh, the new Executive Director of FAA’s Office of Environment and Energy, told Janet McEneaney, president of Queens Quiet Skies, who presented the consensus recommendations of the grass-roots

(Continued on p. 34)

Community Engagement

FAA COMMUNITY ENGAGEMENT PROCESS ON PBN IS SUPERFICIAL, COMMUNITIES SAY

Grass-roots groups that submitted ideas on how to improve FAA’s engagement with communities on PBN development and implementation all focused on ways to improve the process, which is what the planning committee for the Community Workshop at the UC Davis Aviation Noise and Emissions Symposium requested.

But, at times, the communities’ frustration with what FAA considers adequate community engagement could not be contained.

Here is what some community group members wrote in their comments to the UC Davis Community Workshop about FAA’s efforts to engage them in implementing NextGen airspace changes:

“The [FAA] engagement must move beyond being allowed to ask three specific questions every two months to include deeper collaborative problem solving to minimize noise over residential communities.”

- Darlene Yaplee, Palo Alto, CA

(Continued on p. 35)
community groups along with Catherine Dunlap of the O’Hare Noise Compatibility Commission, who presented the recommendations of airport/community roundtables.

Asking if Welsh would consider implementing any of the recommendations proposed by the community groups for improving FAA’s community engagement process, FAA offered only a vague statement to ANR:

“The FAA participants at the Symposium appreciated the community group panel providing a readout of recommendations for community engagement, and of course, appreciated the opportunity to listen to and speak with community participants at the Symposium. FAA welcomes this type of feedback and exchange with all of our stakeholders.”

Following are the recommendations the community groups presented at the symposium, which were well received by attendees. Put in italics are the recommendations the groups felt were most important for FAA to consider:

1. Provide Comprehensive Public Notice and “Listening”

- FAA should provide comprehensive and timely public notice regarding proposed air traffic airspace changes; use plain language - include on AEDT maps all and any changes to current and future plans;
- Notify people by first class mail and via social media;
- Provide notice beyond Federal Register and Classified notices - Define broadly to include all of the community; not limited to elected officials;
- Provide notice to city and county officials and airport proprietor;
- Opt-in/subscription notification for FAA contacts for notices in new PBN procedures – avoid falsely reassuring statements when identifying ’significant impacts’; and
- Publicize long-term strategic plans, not just each step.

2. Include/Collaborate with All Community Groups

- The FAA should include communities in the decision-making process from the beginning, especially at the initiation of the design process, regarding planning, design, and implementation of NextGen procedures;
- Collaboration should also include communities that are not just “close in” to the airport;
- FAA should hold public meetings regarding the design and implementation of proposed PBN procedures – to include noise, subject matter experts, and include an interactive process with defined points for community input;
- The FAA should hold public meeting to discuss proposed night flight changes;
- Do not confine communications only to formal roundtable groups.

3. Be Transparent

- The FAA and Airports should share data and analyses with communities in a manner that is not cumbersome and is timely (days instead of weeks/months/years);
- Data, information, and analyses should be readily available and easy to understand – use the internet to make data public;
- Visual charts and images illustrating proposed ground tracks should clearly label any noise sensitive areas that lie beneath them;
- Reestablish trust by being more proactive;
- Create formal process to allow the public to track FAA deliverables;
- All meetings should comply with relevant open meeting laws.

4. Listen and Consider Community Involvement Suggestions

- FAA should listen to community input and consider such input to seek mutually acceptable solutions to impacts from implementation of NextGen procedures;
- Community outreach should be meaningful with one-on-one conversations and with time for questions and answers in an open forum with a larger audience;
- The FAA should hold public workshops early in the PBN procedure development process;
- The FAA should listen to all community stakeholders and not cater to one community;
- The FAA should consider all community input when considering competing community demands.
5. Establish Best Practices for Roundtables
   (This was a new workshop suggestion)

   • Membership open to all communities within a certain distance from the airport;

   • Educational materials for Roundtable members should be created to help them be productive and effective representatives for their communities, and those materials should be shared with the public;

   • Properly resource i.e. funds and subject matter experts;

   • FAA should encourage and support Roundtables in all Metroplex airport communities;

   • Roundtables should not be used to circumvent or bypass communication with other community stakeholders.

6. Expand Community Representation on the NAC

   • The FAA should expand the membership of the NextGen Advisory Committee (NAC) to include more community representatives;

   • Communities should be considered stakeholders for the purposes of representation in decision making about decisions that affect communities.

Recommendations Were Fruit of Workshop

The six recommendations presented at the UC Davis symposium were the fruit of a Community Workshop held on March 3.

The workshop planning committee developed an extensive list of community anti-noise groups and airport/community roundtables located around the country and invited them months before the symposium to submit written comments on “creative, positive, and feasible input” regarding ways to improve FAA’s community engagement process on PBN “that could be discussed at the workshop and passed on for serious consideration and ultimate implementation.”

Some 15 responses were received (one from the City of Tempe, one from the O’Hare Noise Compatibility Commission, and the rest from members of grass-roots community groups affected by NextGen flight paths in or out of Phoenix Sky Harbor International, Seattle-Tacoma International, Chicago O’Hare International, San Francisco International, San Jose International, Sacramento, LaGuardia, and JFK International airports.

The assignment for those attending the workshop was to develop from the comments received a consensus statement outlining the elements of a preferred FAA community engagement process for PBN development and implementation.

The public will have access to all of the presentations made at the UC Davis symposium in May on the UC Davis Air Quality Research Center conference website. The individual submissions made by community groups and others regarding ways for FAA to improve its community engagement process on PBN also will be placed on the website. ANR will send out links to both in May.

Community Engagement, from p. 33

“The Community Engagement process should not be a PR exercise.”

- Marie-Jo Fremont, Palo Alto, CA

“The purpose of [FAA] community engagement is not to actually engage, but rather to do the least required to check a legal box and avoid, at all costs, tipping off the most affected people that their lives, as they knew them, will soon be shattered, and there’s nothing they can do about it.”

- Davis Goebel, President, Vashon Island, WA, Fair Skies

“... the FAA and airports use pliable astro-turfed cut-outs to meet community representation requirements, gerrymander who is represented on airport round tables, and then play one community against another with minor concessions that often harm others greatly. These tactics avoid any focus on the core issues or deep discussions about why NextGen is so noisy and so polluting in the first place, and what anything of real significance can be done about it.”

- Mark Shull, Palo Alto, CA, and Chevy Chase, MD

“The FAA should be frank about the fact that PBN procedures will concentrate noise over fewer people and that complex decisions must be made about how to share and minimize the impacts.”

- Anne Hollander, Janelle Wright, and Gretchen Gaston, Montgomery County Quiet Skies Coalition

“The FAA, the airports and the industry have squandered one opportunity after another to create trust and interact constructively with our community. Now Congress has mandated that they consider the concerns of communities and involve us in NextGen planning and implementation.”

- Janet McEneaney, Queens Quiet Skies
With those dim assessments of the adequacy of FAA’s current community engagement process, is it any wonder that FAA’s implementation of PBN procedures in metroplex areas around the country has been met by citizen outrage, stratospheric increases in noise complaints, raucous public meetings, and potent and successful grass-roots political action.

Roundtables

CA REPS, SENATORS ASK FAA TO FORM SAN FERNANDO VALLEY ROUNDTABLE

California Congressmen Brad Sherman and Adam Schiff and Sens. Dianne Feinstein and Kamala Harris asked FAA Acting Administrator Dan Elwell in a March 21 letter to establish an Airport Community Noise Roundtable for the San Fernando Valley region of Southern California.

They asked FAA to take a leading role in forming the new roundtable, along with local community members, the Hollywood/Burbank Airport, the Van Nuys Airport, and other relevant stakeholders.

The Democratic lawmakers noted that the Burbank-Glendale-Pasadena Airport Authority sent a letter to FAA in December 2018 asking the agency to consider the feasibility of dispersal headings or other lateral track variations of the OROSZ and SLAPP area navigation departure (RNAV) procedures out of Hollywood Burbank Airport in order to address community noise concerns (31 ANR 25).

The Airport Authority invoked Section 175 of the FAA Reauthorization Act of 2018, which allows FAA to disperse new RNAV departure procedures under 6,000 feet if the dispersal:

- Is requested by the airport;
- Would not have safety or efficiency implications; and
- Would not increase noise over other noise sensitive areas.

Concurrently, the lawmakers wrote, the Los Angeles City Council has directed Los Angeles World Airports also to submit a Section 175 request to disperse flight paths out of nearby Van Nuys Airport to reduce noise impact on the community.

“All of these and other aviation issues have a direct effect on the quality of life in the San Fernando Valley. Despite significant public input and consultation, the FAA has not addressed these concerns or developed an effective mechanism to address the community’s needs,” the lawmakers told Elwell.

“It is our goal that the concerns of residents be fully addressed. The FAA has the authority and precedent to make changes that will reduce the impacts of aviation noise over communities in Los Angeles County, while ensuring the safety of both communities and aircraft.”
Burbank Airport

**FAA AGREES TO PREPARE EA TO ASSESS NOISE IMPACT OF RNAV DEPARTURE PROCEDURES**

Under strong political pressure, FAA announced March 25 that it will prepare an Environmental Assessment of the proposed amendments to two existing departure procedures out of Hollywood Burbank Airport to address noise concerns.

FAA said its decision to prepare an Environmental Assessment — instead of relying on a less burdensome categorical exclusion to comply with National Environmental Policy Act requirements, as the agency had contemplated — was made after concerns about the noise impact of the flight path changes were expressed at two public workshops held in November 2018.

The Environmental Assessment will evaluate the potential environmental impacts of the proposed amendments to the so-called OROSZ and SLAPP RNAV departure procedures out of Burbank airport “and any reasonable alternatives to the proposed amendments,” FAA said, adding that the EA will not include a re-evaluation of its Record of Decision on the broader Southern California Metroplex project.

*(Continued on p. 38)*

Urban Air Mobility

**BLADE LAUNCHES CONTINUOUS HELICOPTER FLIGHTS BETWEEN MANHATTAN, JFK INT’L**

On March 25, in its largest service expansion to date, BLADE Urban Air Mobility, Inc. launched continuous helicopter flights between Manhattan and John F. Kennedy Airport every weekday from 7:00 am to 7:00 pm.

BLADE said its shared flight service will be the largest Urban Air Mobility (UAM) initiative in the United States and will advance its mission of continuing to reduce the cost of urban aviation.

“The heavy traffic between urban centers and area airports is a key point of friction in city life,” said Rob Wiesenthal, CEO of BLADE. “Our UAM service begins to remedy this issue at a reasonable price today, while paving the way for even more affordable solutions tomorrow driven by our partners’ next-generation electric aircraft.”

Flights will operate between BLADE Lounge West at the West 30th Street Heliport and JFK airport, with ground transportation included between the JFK helipad and all commercial terminals. The $195 price is aligned with the approximate cost of an SUV service doing the same route during rush hour.

BLADE Lounge West is located only 1,000 feet from Hudson Yards, the largest *(Continued on p. 38)*
FAA implemented the OROSZ and SLAPP routes in March 2017. They were part of the FAA’s Southern California (SoCal) Metroplex project, which included dozens of new satellite-based arrival and departure routes for airports throughout southern California.

FAA said it is in the process of developing a timeline for preparing the EA on the proposed amendments to the OROSZ and SLAPP departure procedures, which will include community involvement.

FAA’s progress in preparing the EA can be tracked at https://www.faa.gov/nextgen/nextgen_near-you/community_involvement/

Last year, Congressman Brad Sherman (D-CA) directed the FAA to complete a full environmental review process for the proposed changes to the OROSZ and SLAPP procedures that evaluates several alternatives for possible departure routes to address the immediate noise impacting his San Fernando Valley constituents.

“Hundreds of residents have appeared at multiple public forums to oppose the current unacceptable level of aviation noise,” said Congressman Sherman. “Communities in the San Fernando Valley deserve to be heard and have their concerns completely addressed.”

**Lawmakers Pleased with FAA’s Decision**

Sherman called FAA’s decision to prepare a full Environmental Assessment on the proposed changes to the OROSZ and SLAPP routes “an important development in our efforts to stop any future increase in aviation noise impacting San Fernando Valley homes, schools, and public spaces. But, much more needs to be done to address the current levels, which are unacceptable.”

“While I am hopeful that the environmental study will lead to substantial improvements, I will continue to press for immediate steps to reduce airport noise. The FAA’s decision to do the environmental study is not an excuse to delay improvements until the study is over,” said Sherman.

California Sen. Dianne Feinstein (D) also supports FAA’s decision to conduct the EA.

“While the environmental assessment will address the long-term issue, it doesn’t address current noise complaints. I ask the FAA to work with my office, other elected officials, community groups, and the Burbank and Van Nuys airports to find an immediate solution to this problem.”

Feinstein said that establishment of a community noise roundtable, which she called for last week, along with California Sen. Kamala Harris and Reps. Sherman and Adam Schiff, “would serve as a good forum to facilitate these discussions.”

They asked FAA to take a leading role in forming the new Airport Community Noise Roundtable for the San Fernando Valley Region, along with local community members, the Hollywood/Burbank Airport, the Van Nuys Airport, and other relevant stakeholders (31 ANR 36).
McClellan-Palomar Airport

CARLSBAD, SAN DIEGO COUNTY SETTLE LAWSUIT OVER EIR

The City of Carlsbad, CA, and County of San Diego announced a 20-year agreement on March 27 that will provide a framework to work together on aircraft noise and other matters related to McClellan-Palomar Airport, one of the busiest single runway airports in the United States.

The agreement is part of a legal settlement resolving the City of Carlsbad’s lawsuit against the county regarding the environmental impact report for the airport master plan approved last October that proposed extending the runway up to 800 feet.

Palomar Airport is located in the City of Carlsbad but owned and operated by the County of San Diego.

The agreement approved by the County Board of Supervisors and Carlsbad City Council specifies a collaborative approach within the parameters of each body’s legal powers to address community concerns and minimize the airport’s community impacts, such as aircraft noise, vehicle traffic and aesthetics.

On Oct. 10, 2018, the San Diego County Board of Supervisors approved the McClellan-Palomar Airport Master Plan and certified the Final Program Environmental Impact Report.

Following that, the Carlsbad City Council directed staff to pursue a multi-pronged strategy to protect the city’s legal rights and residents’ interests. The direction included working on a cooperative resolution of disagreements while simultaneously filing a legal challenge to the approval of the master plan and EIR. The city’s lawsuit was filed Dec. 9, 2018.

In settling the lawsuit, the city and county will avoid a potentially lengthy and costly legal battle that would not ultimately address all of the issues of concern to the local community, regardless of the outcome of the suit, according to the agreement.

Some of the provisions of the agreement include:
- A formalized acknowledgment that in the beginning of this year the county changed the composition of the Palomar Airport Advisory Committee to include greater representation from the North County cities.
- A quarterly meeting among city staff, county staff and staff from surrounding cities to discuss airport-related issues of mutual interest.
- A statement that the county has immunities from city building and zoning ordinances and that those immunities may also apply to projects by airport lessees and contractors.
- The agreement specifies the city and county will work cooperatively on the implementation of the airport master plan. The county will implement all design features, mitigation and other measures it committed to in the Environmental Impact Report, in the response to comments, and in the mitigation monitoring report.

Noise Mitigation Measures

The County of San Diego also agreed to coordinate with the City of Carlsbad on development of aircraft noise mitigation measures. The county will continue efforts to minimize the effects of aircraft noise on the community through pilot education, the Voluntary Noise Abatement Procedures, and outreach to flight schools, pilot groups, and airport tenants throughout the region.

The county will use data from four noise monitors to inform the public about specific noise issues and discuss noise concerns with the city at the quarterly meetings.

Two noise monitors previously existed, and at the beginning of the year, the county began the process of installing two additional monitors on the north and west sides of the runway. Installation is expected to be completed this summer.

In exchange for the provisions in the agreement, the City of Carlsbad agreed to withdraw its lawsuit and stop the process of changing zoning requirements on land surrounding the airport, which the county had opposed.

The agreement goes into effect immediately.

Las Vegas Metroplex Project

FAA HOLDING WORKSHOPS ON PROPOSED LAS VEGAS AREA AIRSPACE IMPROVEMENTS

The FAA will hold three public workshops on April 9, 10 and 11 in and around Las Vegas about proposed airspace improvements over the metropolitan area.

The proposed improvements are part of the FAA’s Las Vegas Metroplex project, which would use cutting-edge satellite navigation to move air traffic more efficiently through the area, FAA said in an April 4 announcement.

Las Vegas Metroplex project includes McCarran International Airport, North Las Vegas Airport, Henderson Executive Airport, and Nellis Air Force Base. It is one of 11 FAA Metroplex projects nationwide.

“While the airspace around Las Vegas is very safe, it’s not as efficient as it could be,” FAA explained. “The FAA proposes to address the inefficiencies by implementing new routes that are more direct, automatically separated from each other, and have efficient climb and descent profiles. The potential benefits of these routes can include reductions in pilot-controller communications, miles flown, fuel burn and CO2 emissions.”

The FAA has drafted preliminary designs for new satellite-based routes for the Las Vegas area. The upcoming workshops will feature informational videos and poster boards that show existing and proposed routes and explain the inefficiencies in the current system. FAA representatives will be available to answer questions, and people can submit written comments at the workshops and online for 30 days afterward.

The workshops will run from 5 p.m. to 7:30 p.m.
will be an open-house format, where people can attend any time during the posted times to learn about the project. Free parking will be available at all locations.

The workshops will be held at Henderson Executive Airport on April 9; at North Las Vegas Airport on April 10; and at Clark County Government Center in Las Vegas on April 11.

The FAA said it will consider all applicable comments it receives at the workshops and during the comment period in developing the Draft Environmental Assessment (EA) for the Las Vegas Metroplex project. When the FAA completes the Draft EA, the agency will hold additional workshops so people can comment on that document.

The agency will consider all applicable comments from the Draft EA workshops and associated public comment period in developing the final EA for the project. The FAA will conduct additional workshops to inform the public about any final routes.

**Noise Compatibility Programs**

**FAA APPROVES PART 150 PROGRAM FOR WESTOVER METRO AIRPORT**

FAA announced its approval of the Part 150 Airport Noise Compatibility Program for Westover Metropolitan Airport in Chicopee MA, on March 26. The agency determined on Nov. 7, 2018, that noise exposure maps submitted by the Westover Metropolitan Airport were in compliance with applicable federal requirements.

“The submitted [Part 150] program contained a few changes to noise mitigation measures in the Noise Compatibility Program,” FAA said in its Federal Register notice.

“Two measures (relating to subdivision regulations and a pilot awareness program) were not recommended for approval and the FAA concurred. One measure (relating to monitoring of nighttime operations) had been only partly approved previously, is now approved.”

FAA provided no additional information about the program measures in its announcement.

The agency’s Record of Approval, as well as other evaluation materials and the documents comprising the submittal, are available for review at the FAA’s New England Region office and at the administrative offices of Westover Metropolitan Airport.

For further information on the airport’s Part 150 program, contact Richard Doucette, FAA new England Region, Airports Division, ANE-600, 1200 District Avenue, Burlington MA 01803; tel: (718) 238-7613.

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President, Synergy Consultants
Seattle

Gregory S. Walden, Esq.
Akin Gump Strauss Hauer & Feld
Washington, D.C.

**AIRPORT NOISE REPORT**

Anne H. Kohut, Publisher

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FAA

PUBLIC WORSHOPS SET FOR DENVER, SOUTH-CENTRAL FLORIDA METROPLEX PROJECTS

FAA announced this week that it will hold a series of public workshops on the Denver Metroplex project and the South-Central Florida Metroplex project.

The agency will hold 12 public workshops in an open-house format between April 29 and May 16 in and around Denver regarding proposed airspace improvements over the metropolitan area.

“The proposed improvements are part of the Denver Metroplex project, which would use cutting-edge satellite navigation to move air traffic more safely and efficiently through the area. Satellite-based routes that would allow for more direct and efficient routing of aircraft into and out of Denver and surrounding airports; enhancing aviation safety and efficiency, and potentially reducing flight delays,” FAA explained in its April 9 notice.

The Denver Metroplex project is a federal action under the National Environmental Policy Act (NEPA) and the FAA said it is conducting an Environmental Assessment (EA) to comply with NEPA. The agency plans to release the Draft EA on the project on April 22.

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Electric Aircraft

PLANS UNVEILED FOR MOST ADVANCED LAB TO DESIGN, TEST HIGH-POWER GENERATORS

Collins Aerospace Systems, a unit of United Technologies Corp., unveiled plans on April 4 to open The Grid, which will be the most advanced lab for designing and testing high-power generators for the next generation of “more electric” aircraft, including commercial, military, business aviation, UAV, and urban air mobility platforms.

Collins’ $50 million investment in the lab is part of a larger $150 million total investment Collins Aerospace expects to make in electric systems over the next three years and builds on the $3 billion it has spent on advancing its more electric architectures over the past decade.

Work on the 25,000-square-foot lab is already underway in Rockford, Illinois. Collins Aerospace expects the lab to be complete and fully operational by 2021.

“Collins is the innovation leader in electric systems, and The Grid positions us to remain the world leader in the electrification of aircraft for decades to come,” said Collins Aerospace CEO Kelly Orteberg.

“In the not-too-distant future, hybrid-electric and fully electric aircraft will revolutionize air travel as we know it – opening up new markets like urban air mobil-

(Continued on p. 42)


The Denver area workshops will be held in the communities of Aurora, Brighton, Broomfield, Boulder, two in the Centennial area, Denver, Erie, Green Valley Ranch, Greenwood Village Longmont, and Parker. The FAA will announce the workshop locations when it issues the Draft EA.

People can submit written comments on the Draft EA at the workshops and online during a 45-day public comment period that will run from April 22 to June 6.

South-Central Florida Metroplex Project

The FAA will hold 17 public workshops over the period of April 15 to May 2 in five south Florida cities to explain airspace changes that will be made under the South-Central Florida Metroplex project.

The workshops will be held four locations in Orlando, one location in Palm Beach, four locations in Fort Lauderdale, four locations in Miami, and four locations in Tampa Bay.

The South-Central Florida Metroplex project proposes new procedures for Miami International Airport, Fort Lauderdale-Hollywood International Airport, Orlando International Airport, and Tampa International Airport where, FAA said, “operational efficiency directly affects flights throughout the National Airspace System (NAS).”

The project also proposes changes for St. Petersburg-Clearwater International Airport and Palm Beach International Airport and several satellite airports.

The workshops will be in an open-house format where FAA experts will share preliminary designs of the air traffic procedures and answer questions. The agency will accept written comments at the workshops and for 30 days afterward.

FAA plans to begin the process of preparing a Draft EA on the South-Central Florida Metroplex project this summer, to complete the EA in 2020, and to implement the new airspace procedures in 2021.

Noise Monitoring

NEW GATWICK SYSTEM ALLOWS NOISE COMPLAINTS TO BE FILED

London’s Gatwick Airport has invested nearly £1 million ($1.3 million) in new technology that dramatically improves the monitoring of aircraft flights and associated noise — with information updated every second — so that local residents can access data and generate reports on demand.

In a first for a UK airport, the new system provided by EMS Brüel & Kjær also allows noise complaints to be submitted via an automated telephone line, a key request from the local community.

Up to 23 new noise monitoring terminals will be intro-
duced in surrounding areas to collect noise levels, which can then be presented in real time alongside flight information from the airport radar and other airport systems, the airport said in its April 9 announcement.

Gatwick is the UK’s second largest airport.

The new technology helps improve accessibility to noise information and the airport hopes it also will help improve understanding among local communities by providing one of the most accurate and up to date noise and flight data systems.

Airlines also can use the data to analyze how they might improve the performance of their flights in terms of track keeping and noise.

The new system also makes aircraft noise information easier to access and understand through a new website — expected to be available in the next few months - that can be customized to show information on flights and noise relevant to a resident’s local area.

Said Tim Norwood, Director of Corporate Affairs, Planning and sustainability, Gatwick Airport, “While many thousands of local people benefit from Gatwick’s jobs, connections and wealth creation, we know that some residents are concerned by the impacts of aircraft noise. The new noise and flight track keeping system means that residents can more easily and conveniently access information, and generate reports, on aircraft noise in real time.

“The system is comprehensive, easy to use, and based on the latest technology and we very much hope that it also helps us to improve our engagement with communities that are negatively impacted by aircraft noise.”

The new flight tracker website can be accessed from the noise enquiries section of Gatwick’s website where complaints about noise can also now be made via an online web form and a new mobile phone shortcut app. The new automated phone line is 01293 311 568.

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Electric aircraft also will be quieter than planes powered by gas-turbine engines in use today.

Among the first platforms to be supported by The Grid will be the recently unveiled United Technologies hybrid-electric flight demonstrator, Project 804.

The goal of Project 804, developed by the company’s advanced products group, is to re-engine and fly a regional turboprop aircraft powered by a 2 megawatt-class hybrid-electric propulsion system on a highly aggressive timeline. The advanced projects group combines the engineering expertise and experience of Collins Aerospace, Pratt & Whitney and UTC’s research center.

Collins Aerospace will use The Grid to help design and
test a 1 megawatt motor, motor controller and battery system in support of this goal. The 1 megawatt motor will be the aerospace industry’s most power dense and efficient to date, and the new motor and motor controller will be used to assist the demonstrator’s fuel-burning engine as part of its hybrid-electric propulsion system.

The Grid will be one of a select few facilities in the world with the capability to test complete electric propulsion systems of this capacity.

**German Aerospace Center**

**EMISSION-FREE ELECTRIC FLIGHT CURRENT PROJECTS AND TECHNOLOGIES**

[Following is a report by the German Aerospace Center on the outcome of its recent E2Flight symposium, which focuses on advancements in electric flight.]

Electric flight opens up a new dimension in aviation and offers unprecedented opportunities for sustainable mobility in the future. A growing number of projects in both research institutions and industry are investigating how electric – and thus emission-free and low-noise – aircraft concepts can be implemented and which application scenarios are the most promising.

The German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) is a pioneer in the field of electric flight. It is unique in Europe in the way it combines fundamental and application-oriented research in this field. DLR brings together all the expertise required for the electrification of air transport. This includes battery and fuel cell technologies, expertise in electric propulsion, the integration of alternative propulsion systems into aircraft, and flight testing and overall system assessment.

**E2Flight Symposium**

The ‘E2Flight’ symposium, organized by the DLR Institute of Engineering Thermodynamics in cooperation with the Institute of Aircraft Design at the University of Stuttgart, is the industry’s specialist conference. It has an eye on the pulse of the latest developments and this year brought together the international community to discuss the theme of electric flight for the fourth time.

On 28 and 29 March, more than 120 representatives from research institutions and industry exchanged information on the topic of electric flight in Leinfelden-Echterdingen, near Stuttgart. This year’s symposium focused on concepts for electric flight, hybrid propulsion systems, technical and certification aspects, and propulsion integration based on current projects.

**Why Electric Flight?**

Andreas Klöckner, the coordinator for electric flight at DLR, explains its three advantages. “First of all, purely electric flight is locally emission-free, which means that the aircraft itself does not emit any pollutants.

Second, both production and maintenance of electric propulsion systems are expected to cost less, thanks to the reduced number of moving parts.

And the third advantage is that electric propulsion enables completely new aircraft configurations, which should further reduce fuel consumption, emissions and noise levels.”

Against this backdrop, completely new transport services, such as air taxis, will also be possible in the near future.

**A Growing Industry**

“The industry has definitely recognized the potential of electric flight, as is very clear at present,” says Josef Kallo, a DLR researcher and co-founder of the symposium. For the next few years, he expects to see strong growth: “Almost all the major manufacturers of aircraft, propulsion systems and turbines are already active in this area. Funding agencies in Germany and Europe have also recognized the potential, and are authorizing and providing support for various projects.”

According to Kallo, the focus is on projects with outputs of between one and two megawatts. This would make it possible to develop aircraft capable of carrying 20 to 40 or 50 passengers on short and regional routes. In this sector, the DLR scientist is counting on new ideas, technologies and projects to emerge from Europe and America.

“There is certainly a palpable sense of optimism,” he says. “Science and industry are investigating the possibilities of existing technologies, investing in their development, and intensifying and professionalizing their work beyond small research projects.”

Kallo himself is responsible for the DLR’s HY4 – the world’s first four-seat passenger aircraft powered by a hydrogen fuel cell took off for the first time in 2016. His team is currently equipping the research aircraft with a completely new propulsion system in order to begin further flights in the autumn of 2019.

The plan is to at least double the performance of the fuel cell over time, and to store hydrogen three times more efficiently. Corresponding research projects have already started, and the team has already completed several laboratory tests, with positive results.

**Electric Flight – A New Look, Therefore Quieter**

Aircraft noise will be one of the limiting factors for the air transport system of the future. There are already restrictions at most airports, for example at night. Quiet aircraft eliminate the negative health effects of noise and make it possible to meet the ever-increasing demand for mobility.

In flight, regardless of the type of propulsion, noise is mainly due to aerodynamic factors: sound is generated by the propeller rotors or jet engines and by the airflows around the airframe.
“Electric propulsion systems are not in themselves always quiet. Nevertheless, there is considerable potential for noise reduction – although this will require intensive research over the next few years,” explains researcher Jan Werner Delfs from the DLR Institute of Aerodynamics and Flow Technology in Braunschweig.

“With electrically powered aircraft, the arrangement and distribution of engines on the plane, and their operation, can be rethought from scratch,” adds Delfs.

The aircraft can be designed much more freely together with many small, distributed electric engines. For example, the shape of the wings could be optimized and the rudder made substantially smaller or completely eliminated.

DLR researchers are already investigating what such alternative aircraft architectures could look like. They are currently using digital modelling to develop and evaluate innovative concepts for hybrid electric propulsion aircraft operating on short and regional routes.

Human Response to Aircraft Noise in Parks

On March 29, FAA issued a request for public comment on its intention to request Office of Management and Budget approval to renew an information collection that will be used to establish a scientific basis for air tour management policy decisions in the national parks as mandated by the National Parks Air Tour Management Act of 2000.

Each year, FAA collects information from approximately 16,800 visitors to national parks on their response to aircraft noise in the parks. The information collection takes about 15 minutes per person.

FAA said its research “is critically important” for establishing the scientific basis for air tour management policy decisions in the national parks. The research expands on previous aircraft noise dose-response work by using a wider variety of survey methods, by including different national park site types and visitor experiences from those previously measures, and by increasing site type replication.

Written comments must be submitted by May 28. Information on how to do that is included in the FAA’s Federal Register notice, which can be accessed by googling “March 29, 2019, Federal Register.”

In related news, FAA announced April 5 that the next meeting of the National Parks Overflights Advisory Group will be held on May 14-15 in Moose, WY.

For further information on the meeting, google “April 5, 2019, Federal Register” and scroll down to FAA.
Legislation

BILL WOULD REQUIRE NATIONAL STUDY OF HEALTH EFFECTS OF UFP AT LARGE HUBS

On April 22, Rep. Adam Smith (D-WA) reintroduced the Protecting Airport Communities from Particle Emissions Act (H.R. 4087), legislation to establish a national study on the sources, characteristics, dispersion, and potential health effects of ultrafine particles (UFPs).

The legislation would require the FAA to enter into “appropriate arrangements” with the National Academy of Sciences to conduct a study that, among other things:

• Focuses on large hub commercial airports in Seattle, Boston, Chicago, New York, the Northern California Metroplex, Phoenix, the Southern California Metroplex, the District of Columbia, Atlanta, and “any other metropolitan large hub airport identified by the [FAA] Administrator”; and
• Looks at potential health effects associated with elevated UFP exposures, including heart and lung diseases, asthma, nervous system disorders, and other health effects, that have been considered in previous studies; and potential UFP exposures, especially to susceptible and vulnerable groups.

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Seattle-Tacoma Int’l

LATE NIGHT NOISE LIMITATION CATEGORY TO BE ADDED TO FLY QUIET SCORING IN 2020

In 2020, the Port of Seattle will add a new “Late Night Noise Limitation” scoring category to the 14-year-old Fly Quiet Program for Seattle-Tacoma International Airport.

The new category will assign air carriers a penalty score for exceeding noise thresholds between midnight and 5 a.m.

The Port said April 23 that it is developing the broader Late Night Noise Limitation Program and other proposals to reduce aviation noise in consultation with the Sea-Tac Airport Stakeholder Advisory Round Table (START), a group made up of representatives of local cities and aviation leaders.

Currently, the Port is pursuing three recommendations that originated with START:

• The Late Night Limitation Program, which includes voluntary measures to reduce late night (midnight to 5 a.m.) noise by incentivizing air carriers to fly at less noise sensitive hours or transition to quieter aircraft;
• A new Runway Use Plan agreement between the FAA and the Port, which in-

(Continued on p. 47)
National Study Needed

“A comprehensive national study is vital to understanding the health effects of ultrafine particles and to what extent airport communities are exposed,” Rep. Smith said. “Federal leadership is needed to support future mitigation efforts with local and state partners. Combating negative health impacts from aviation emissions is key to ensuring a better quality of life for communities surrounding airports.”

Smith’s announcement of the legislation continues:

“In recent years, local studies conducted around major airports have indicated that UFPs may be having detrimental effects on human health. These studies also showed that aviation contributes significantly to the dispersion of UFPs. Unfortunately, the extent to which communities and residents are exposed, in addition to the health effects of UFP inhalation, are not yet fully known. Owing in part to a lack of information about UFPs, there exists a gap in regulation where federal agencies do not differentiate between UFP’s and larger particles in the atmosphere.

“More must be done to understand how UFPs affect communities around airports, to what extent aviation contributes to the creation and diffusion of UFPs, and whether or not sustainable aviation fuels could help reduce the number of these particles in the atmosphere.

“The Protecting Airport Communities From Particle Emissions Act will help to answer many of these questions. It directs the FAA to work with the National Academy of Sciences to conduct a national study of UFP generation and dispersal around major hub airports, like Sea-Tac International Airport in Washington State and others around the country.

“The study will draw from data provided by agencies like the FAA, the Environmental Protection Agency, and Health and Human Services, among others. Communities have a right to know whether the air they breathe contains high levels of UFPs and how these particles affect their health.”

Congressman Smith said the study required in his bill parallels research on airport traffic and air quality currently being conducted at the University of Washington and builds upon the collaborative efforts he has been engaged in with local communities and the Port of Seattle.


All other co-sponsors are members of the House Quiet Skies Caucus.

The bill has been referred to the House Transportation and Infrastructure Committee’s Aviation Subcommittee.

Research

AIR FORCE AEROACOUSTICS RESEARCH COMPLEX TO OPEN FOR COMMERCIAL BUSINESS

The unique research capabilities of the U.S. Air Force’s Aeroacoustic Research Complex (ARC) at the White Sands Missile Range in New Mexico will be opened for commercial use, which is expected to result in the design of quiet aircraft technologies.

The Air Force has entered into a cooperative research and development agreement (CRADA) with the private company CDO Technologies, based in Dayton, OH, to make the White Sands facility available to commercial aerospace companies to test their aircraft for a fee.

“This is a really exciting opportunity because we’re really breaking new ground. We’re taking something very specific we’ve been doing for the Air Force for years and commercializing it,” said Al Wofford, founder and president of CDO Technologies. “This will be one of the first times we can successfully transfer advanced technology capability from a government client to the commercial space.”

He anticipates that commercial organizations will use the specialized facility’s unique research capability and high fidelity 3-D modeling results to design quiet aircraft technologies.

As an Acoustic Signature Capture and Modeling Research and Development facility, the ARC’s primary purpose is to characterize air vehicle audibility signatures.

The facility consists of a control system, a full-scale outdoor sensor array of 50 microphones calibrated down to 20 micropascals positioned on the ground and on two vertical towers sampling at a rate of 48 kilohertz and 24 bit in addition to five miles of buried cable. The ARC enables high-fidelity, 3-D modeling of aircraft sound signatures in the environment when aircraft overfly the array. The facility has been operational since 2009 modeling the audible footprint of over 50 military aircraft to include fixed wing, rotary wing, manned, and unmanned aircraft.

“We’ve got this facility that is capturing this fine fidelity on the acoustics of aircraft so we can provide customers data they can use to quiet aircraft and comply with noise abatement at commercial airports or even for drones as they become more prevalent,” said John Hall, Research Scientist for the Air Force Research Laboratory.

“If you look at companies delivering packages with drones, we have the facilities to make sure those drones aren’t disrupting people’s daily lives in urban and even rural areas.”

As part of the CRADA agreement, CDO Technologies will be responsible for managing and maintaining the facility while scheduling and conducting testing on aircraft that will be provided by third-party entities. The ARC has relied on CDO’s technical expertise and qualifications for the past six years to manage the facility and develop the software for pro-
cessing and delivering of the final product, often in a classified environment.

“The Air Force was really looking for an organization that had a solid history of developing sophisticated software and effectively managing large data sets,” said Don Ertel, senior vice president of operations at CDO Technologies. “Over our 25 years of working with the Air Force, we have really proven ourselves up to the task by building complex algorithms in the time frame needed with the level of accuracy required to develop the application needed to process the information we gathered.”

CDO Technologies provides data-collection, advanced technology communications, and managed services solutions to help commercial and federal organizations operate more efficiently and effectively.

Illinois

STATE BILLS WOULD PROVIDE TAX CREDIT FOR SOUND INSULATION

Illinois State Rep. Mark Walker, D-Arlington Heights, announced April 12 that he is backing legislation that would amend the Illinois Income Tax Act to create income tax credits for area residents who choose to soundproof their homes against air traffic noise pollution.

“Major area airports like O’Hare and the Chicago Executive Airport bring important economic opportunities and activity to our area, but these positives come at the cost of noise pollution,” Walker said. “Providing incentives like tax credits for soundproofing is a reasonable solution to combat an often annoying and intrusive burden for residents.”

Walker is supporting Illinois House Bills 2193 and 2879, which, a summary of the legislation states, would “create an income tax credit in an amount equal to the amount paid by the taxpayer during the taxable year for the purpose of purchasing acoustical materials, other materials, labor, and professional services to soundproof a residential home located at an eligible address against aircraft noise generated by an airport governed by the provisions of the Permanent Noise Monitoring Act. Provides that the credit may not reduce the taxpayer’s liability to less than zero; however, the credit may be carried forward. Provides that the credit is exempt from the Act’s automatic sunset provision. Would be effective immediately.”

According to airport statistics, Chicago Executive Airport handled about 80,000 flights in 2016. In 2018, over 83 million people flew out of O’Hare International Airport, Walker said.

“Chicago and our suburbs have long been a critical transportation hub, but that shouldn’t come at the expense of those living in the area,” the Assemblyman added. “We should offer the opportunity for residents to affordably improve their quality of life.”

H.B. 2879 was introduced by Illinois State Reps. Martin Moylan and Mark Walker on March 29.

H.B. 2193, an identical bill, was introduced by Illinois State Reps. Diane Pappas, Martin Moylan, John D’Amico, Michelle Mussman, Kathleen Willis, and Mark Walker on the same day.

Neither bill has been reported out of the Rules Committee yet.

Legislation, from p. 45

includes revising the current Runway Use Plan for the FAA to minimize the use of the third Runway at Sea-Tac during late night hours (midnight to 5 a.m.) and

• A long-term project that includes an Instrument Landing System (ILS), a glide slope proposal that would raise Runway 34R’s glideslope for arriving aircraft to potentially reduce noise.

These proposals, and others in development, require ongoing discussion and approvals from airlines and federal aviation officials, the Port noted.

2019 Fly Quiet Awards

On April 23, the Port also announced that Southwest, Jazz Aviation, and Spirit Airlines received 2019 Fly Quiet awards, which recognize those airlines doing the best job minimizing noise impacts on local communities for operations at Sea-Tac International Airport in the last calendar year.

Airlines are judged using three award criteria: the sound levels of their operations (utilizing four of the Port’s noise monitors); success at flying within the noise abatement flight procedures; and adhering to the airport’s ground maintenance engine run-up regulations.

Southwest Airlines received the Fly Quiet Bravo Award, which goes to the quietest jet airline among the five busiest airlines operationally at Sea-Tac. Southwest Airlines was recognized for noise levels that were consistently lower than competitors and for flying noise abatement procedures at a high rate of success.

Jazz Aviation, operating as Air Canada Express, received the Fly Quiet Regional Award for operating as the quietest regional jet airline. Jazz reached “remarkably low levels of noise from their operation and had success flying noise abatement procedures,” the Port said.

Spirit Airlines received the Fly Quiet Award for operating the quietest jet airline with at least 1,000 annual operations. Spirit reached noise levels that were significantly lower than their competitors in this large group and consistently flew noise abatement procedures correctly, the Port noted.

“We appreciate the efforts and consideration made by our award winner for Fly Quiet, who recognize the importance of reducing impacts to our local communities,” said Lance Lyttele, managing director of Sea-Tac Airport. “This is an impressive cross-section of our airlines and we feel it is important to continue to recognize their work that is not always apparent to the public.”
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Sea-Tac’s annual Fly Quiet Awards were developed by Port staff and a citizen advisory committee in 2005 as a way to increase airline and pilot awareness of aircraft noise impacts on local communities. Fly Quiet was included as a continuing noise program measure in the most recent Part 150 noise study update completed in 2014.

Drones

DOT ANNOUNCES FIRST AIR CARRIER CERTIFICATION FOR DRONE DELIVERY

Secretary of Transportation Elaine Chao announced on April 23 that the FAA awarded the first air carrier certification to a drone delivery company, Wing Aviation, which is affiliated with Google.

The certification paves the way for Wing Aviation to begin commercial package delivery in Blacksburg, VA.

Wing partnered with the Mid-Atlantic Aviation Partnership and Virginia Tech, as one of the participants in the Department of Transportation’s Unmanned Aircraft Systems Integration Pilot Program.

“This is an important step forward for the safe testing and integration of drones into our economy,” said Chao. “Safety continues to be our Number One priority as this technology continues to develop and realize its full potential.”

Wing demonstrated that its operations met the FAA’s rigorous safety requirements to qualify for an air carrier certificate, DOT said. This is based on extensive data and documentation, as well as thousands of safe flights conducted in Australia over the past several years.

In Brief…

ARAC Committee Meeting

The FAA’s Aviation Rulemaking Advisory Committee will meet on June 20, the agency announced April 17 in the Federal Register.

The meeting will begin at 1 p.m. at FAA headquarters, which are located at 800 Independence Ave., SW, Washington D.C.

An agenda for the meeting will be published on the FAA Meeting web page (https://www.faa.gov/regulations_policies/rulemaking/npm/) once it is finalized.

Attendance is open to the public but limited to the space available. Attendance must be confirmed with Lakisha Pearson, at tel: (202) 267-4191; email: 9-awa-arac@faa.gov

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In This Issue…

**Phoenix Sky Harbor Int’l**

**AZ SENATOR SINEMA URGES FAA TO WORK WITH SCOTTSDALE ON FLIGHT PATH NOISE**

In a May 6 letter, Arizona Sen. Kyrsten Sinema (D) urged Acting FAA Administrator Daniel Elwell to engage all residents in communities affected by noise from Phoenix Sky Harbor flight paths, particularly those impacted by eastbound departures like the city of Scottsdale.

Sinema’s letter was sent to FAA a week after the agency conducted three workshops in Phoenix agreed to in a settlement of a landmark lawsuit with the City of Phoenix over changes to the westbound flight path made in 2014.

In August 2017, the U.S. Court of Appeals for the District of Columbia Circuit dealt a major legal blow to FAA’s implementation of NextGen airspace changes by ruling that the agency’s imposition of new flight paths and NextGen procedures at Phoenix Sky Harbor International Airport violated federal law (29 ANR 111).

FAA’s implementation of airspace changes without notifying local elected officials and residents was arbitrary and capricious and violated the National Historic Preservation Act, the National Environmental Policy Act, the Department of Transportation Act, and FAA’s Environmental Order 1050.1E, the Court held.

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**Reagan National Airport**

**JOINT MD, VA COUNTY STUDY SEEKS TO FIND WAYS TO MITIGATE DCA FLIGHT PATH NOISE**

Two of the wealthiest and most powerful counties in the metropolitan Washington, D.C., area – Arlington County, VA, and Montgomery County, MD – will jointly fund a study to identify ways to mitigate the noise impact on their residents from flight paths into and out of Reagan National Airport.

Each of the Counties has agreed to contribute up to $125,000 to support the study.

Reagan National Airport (DCA) is located on the south bank of the Potomac River across from Washington, DC. The river serves as a noise abatement corridor for the airport. Arlington County straddles the south side of the river and Montgomery County sits on the north side.

Over the last decade, but particularly since the implementation of NextGen in the Washington, D.C., Metropolex in 2014, the noise impact from flight operations at Reagan National has had “a significant and worsening impact” on the quality of life of communities in Arlington County, County staff explained in an April 23 report recommending the County Board approve the study contract, which it did.

*(Continued on p. 51)*
The decision was the first to vacate NextGen routes for failure to follow environmental laws and involve stakeholders. It made clear that FAA’s Air Traffic Organization must involve airports, cities, and neighborhoods in the assessment of flight routes that affect neighborhoods, parks, and historic districts.

The FAA decided not to appeal the ruling and worked with the City of Phoenix and historic neighborhood associations to develop a plan to address the noise impacts of the flight path changes, which the Court accepted.

Currently, the FAA is working with the City of Phoenix and historic neighborhoods associations in Phoenix to gather community feedback regarding airspace and flight path changes.

However, Sinema – who serves as the Ranking Member of the Senate Commerce Committee’s Subcommittee on Aviation and Space – stressed that FAA should do more to engage with communities outside the City of Phoenix.

“I am concerned the FAA is not fully engaging with all stakeholders affected by Sky Harbor flight procedures,” Sinema told Elwell. “I urge the FAA to establish and continue dialogue with elected leaders representing communities affected by eastbound flight procedures and to continue working on finding alternatives to lessen the noise impacts on the residents under the eastbound flight paths.”

Said Scottsdale Mayor W.J. “Jim” Lane, “I want our residents to know that their city is working to have these new flight paths reevaluated – our goal is to restore the unique environment for which Scottsdale is internationally known. Our community appreciates Senator Sinema’s assistance to resolve this important matter.”

**FAA Forecast**

**AIRCRAFT OPERATIONS TO GROW OVER 25% OVER NEXT 20 YEARS**

All safety, efficiency, and economic indicators show that air travel in the United States is strong, according to the FAA’s Aerospace Forecast Fiscal Years (FY) 2019-2039 (PDF), which was released on May 1.

With aircraft operations expected to increase more than 25 percent over the next 20 years, FAA said it is advancing major airspace modernization and infrastructure improvements to meet this tremendous projected growth.

**Enplanements**

The FAA forecasts U.S. airline enplanements (passengers) will increase from 743.9 million in 2017 to 780.8 million in 2018, a 5.0 percent increase.

- Enplanements for domestic mainline carriers, which primarily use aircraft with 90 or more seats, increased 5.4 percent, while domestic enplanements for regional carriers, which primarily use aircraft with 89 or less seats, increased 3.4 percent.
  - International enplanements are expected to increase from 9.6 million in 2017 to 99.6 million in 2018, a 2.8 percent increase.
  - Mainline carrier international enplanements were up 2.9 percent while regional international enplanements decreased 1.8 percent.

**Revenue Passenger Miles**

Revenue passenger miles (RPMs) are the industry standard for measuring air travel demand. An RPM represents one revenue passenger traveling one mile.

- Domestic RPMs increased from 683.6 billion in 2017 to 720.2 billion in 2018, a 5.4 percent increase.
- Domestic mainline carrier RPMs increased 5.5 percent while domestic regional carrier RPMs increased 4.4 percent.
- International RPMs by U.S. carriers increased from 271.3 billion in 2017 to 280.6 billion in 2018, a 3.4 percent increase.
  - Total system RPMs increased from 954.8 billion in 2017 to 1.00 trillion in 2018, a 4.8 percent increase.
  - Total mainline carrier RPMs increased by 4.9 percent, while total regional carrier RPMs increased by 4.0 percent.

**Landing and Takeoffs**

Underscoring this point, the FAA forecasts total operations (landings and take-offs) at air traffic control towers to increase from 51.8 million in 2018, at an average annual rate of 0.9 percent during the forecast period, reaching 62.0 million 2039.

The Department of Transportation and FAA are planning to meet this growth in air travel with robust infrastructure investments through the Airport Improvement Program. Satellite-based, air traffic modernization technologies and procedures being deployed by the FAA are enhancing safety while improving efficiency in the nation’s airspace system.

FAA’s 20-year forecast also highlights the phenomenal growth of Unmanned Aircraft Systems (UAS), often referred to as drones. The FAA projects the small model UAS fleet to grow from 1.2 million vehicles in 2018 to 1.4 million in 2023, an average annual growth rate of 2.2 percent. The commercial, small non-model UAS fleet is forecast to nearly triple from 277,386 in 2018 to 835,211 in 2023, an average annual growth rate of 24.7 percent.

In addition to UAS, another rapidly growing aerospace field is commercial space transportation. The FAA, which licenses and regulation this industry, projects that commercial space launch and re-entry operations will increase from 35 in 2018 to an estimated 56 in 2021.

The FAA aerospace forecast is the industry-wide standard of measurement of U.S. aviation-related activities. The agency uses data, trends, and other factors to develop the forecast, including generally accepted economic projections, surveys and information sent by the airlines to the DOT. Additionally, the scope of the report looks at all facets of avia-
tion including commercial air travel, air cargo and private general aviation.

**Litigation**

**PARKS GROUP DEMANDS INFO ON NAVY FIGHTER JET NOISE**

On May 2, the National Parks Conservation Association (NPCA) filed a lawsuit against the U.S. Department of the Navy for repeatedly withholding information regarding its “Growler” jet training activities over Olympic National Park.

The litigation results from the Navy’s failure to fully respond to numerous public information requests from NPCA under the Freedom of Information Act. NPCA said it initially submitted a FOIA request in 2016 to determine the impacts of the Navy’s training exercises “over one of the quietest places in the lower 48 states.”

The current lawsuit was filed in the U.S. District Court for the Western District of Washington in Seattle.

Through its lawsuit, NPCA seeks information “to provide thorough and thoughtful responses” to the public comment period regarding the Navy’s training exercises over Olympic National Park.

“Unfortunately, the Navy has forced us to go to court due to their failure to provide the documentation necessary for NPCA and the public to make informed comments on the impacts of their latest proposal,” said Rob Smith, Northwest Regional Director for the National Parks Conservation Association.

“We recognize the Navy’s training needs, but also value the importance of preserving natural sights and sounds for visitors and wildlife at one of the quietest places in America, the Hoh Rain Forest in Olympic National Park.”

The Navy released its Draft Supplemental Environmental Impact Statement last month for its proposal, which would extend training operations over the Olympics to 2025, while potentially increasing the frequency of flights.


The airspace noise analysis is in Appendix J. It states that noise modeling results show that the area underneath the areas where military aircraft will be operating over the park would experience a cumulative noise exposure of less than 37 dBA for both current activities and proposed activities.

NPCA said that Olympic National Park is the most popular national park in the Northwest, attracting over 3.1 million visitors in 2018, and is consistently regarded as the “least noise-polluted” place in the Lower 48 states.

“The significance of this park has not gone unrecognized, leading to a World Heritage Site designation for its unique landscape and environment of international significance. In addition to the exceptional quiet of this site, the park is full of natural sounds, such as the whistles of the Olympic Marmot and bugling call of the Roosevelt Elk. However, the tranquility of the park has already been disrupted by the periodic roar of Navy Growler jets, one of the loudest aircraft in the skies. The latest proposal from the Navy could intensify this deafening roar by increasing the number of flights over the Olympic National Park to 5,000 per year. NPCA has long fought to protect the soundscape for the wildlife and park visitors who come here to enjoy the peace and solitude.”

The Navy has not commented on the lawsuit.

**Noise study, from p. 49**

Under the terms of the contract, Arlington County will assume responsibility for managing and issuing the cooperative solicitation and entering into the resulting contract with the contractor selected to carry out the study.

The solicitation will seek a contractor “to provide elected officials, staff, and representatives on the DCA Community Working Group (CWG) with technical resources to better understand the detailed nature of airspace management and possible alternatives and to assist with coordination among surrounding jurisdictions, the Metropolitan Washington Airports Authority (MWAA), and the FAA,” the staff report explains.

The DCA Working Group, which both Counties participate on, was created in 2015 by MWAA to serve as the venue for a regional discussion on aircraft noise impacts and solutions.

“This effort mirrors those undertaken throughout the country by other airport operators and communities seeking to address community impacts,” the Arlington County staff explained to the Board in its report.

“Despite the work to date of the CWG, there remains a lack of data-driven understanding of what has caused the increased noise impacts and what can be done to address them. In order to address this impediment to progress on the issue, additional technical expertise in the area of aircraft noise and airspace management is required.”

The counties also want the process of selecting a contractor for the study to include a robust public engagement process. The Counties will establish a joint Selection Advisory Committee to review and evaluate proposals and make a recommendation for award of the contract to the Arlington County Manager and the Montgomery County Executive.

In addition to community meetings and communications during major project milestones, the results of the study will be made public before being provided to the DCA Community Working Group and the FAA for consideration, Arlington County staff told the County Board.

They said that additional public engagement will occur at the Working Group before a recommendation is made to the FAA and the FAA will conduct further public engagement as required under federal law for the Performance-Based Navigation Implementation Process.
Legislation

MENG PLANS TO REINTRODUCE BILLS TO REFUND EPA NOISE OFFICE, REQUIRE RESEARCH ON AIRCRAFT NOISE IMPACTS

Rep. Grace Meng (D-NY) – a founding member and former co-chair of the congressional Quiet Skies Caucus – told the House Transportation and Infrastructure Committee May 1 that she plans to reintroduce the Quiet Communities Act of 2017 and the Airplane Noise Research and Mitigation Act of 2018.

Her announcement was part of testimony she presented at the Committee’s May 1 Members’ Day hearing, which provided an opportunity for all members of the House of Representatives to highlight issues of importance as the T&I Committee develops its legislative agenda.

With the T&I Committee now under Democratic control, Meng sees an opportunity to move legislation that did not interest the Republicans who controlled the Committee prior to the mid-term elections.

Meng’s Airplane Noise Research and Mitigation Act of 2018 would have amended title 49, Section 44513(b)(1)(A), to require regional centers of air transportation excellence, that FAA may establish at institutions of higher learning, to conduct research on the impacts of aircraft noise on humans and on effective methods for mitigating such impacts.

The bill had 13 co-sponsors.

Meng’s Quiet Communities Act of 2017, which had 14 co-sponsors, would have required the Environmental Protection Agency to reestablish its Office of Noise Abatement and Control (ONAC), which was defunded in the early 1980s under the Reagan administration. The bill would have reauthorized the office’s activities through FY 2022.

The bill defined the responsibilities of ONAC as: (1) promoting the development of effective state and local noise control programs, (2) carrying out a national noise control research program, (3) carrying out a national noise environmental assessment program, (4) establishing regional technical assistance centers to assist state and local noise control programs, (5) assessing the effectiveness of the Noise Control Act of 1972, and (6) conducting related outreach and educational activities.

Using funds made available to the office, the EPA would have been required to carry out a study of airport noise.

The bill would have amended the Noise Control Act of 1972 to expand the quiet communities grant program to include grants for establishing and implementing training programs on use of noise abatement equipment and implementing noise abatement plans.

There have been several bills introduced to refund ONAC over the years it has been dormant but none have passed Congress.
Airports

AIRCRAFT NOISE REMAINS KEY PRIORITY FOR AIRPORTS, ACI WORLD TELLS SUMMIT

As the aviation industry prepares to accommodate growth in air service demand, the Airports Council International (ACI) World emphasized that limiting or reducing the nuisance of significant aircraft noise remains a key priority for airports and aviation stakeholders.

Speaking May 13 at the Air Transport Action Group (ATAG) Summit in Montreal, ACI World Director General Angela Gittens highlighted the importance of managing aircraft noise as the industry meets new challenges.

“Aircraft noise is the most significant cause of adverse community reaction related to airports’ license to operate and grow, a necessary component to meeting future growth,” said Gittens. “Limiting or reducing the number of people affected by significant aircraft noise is thus a shared priority for airports, the aviation industry, and regulators alike.

“The industry has done a good job at managing aircraft noise but new challenges are arising including the development of supersonic aircraft for business jets and commercial airplanes. While ACI supports the development of new technology,

(Continued on p. 54)

FAA

STAKEHOLDER ENGAGEMENT WILL BE MAJOR FOCUS OF NOMINEE FOR FAA ADMINISTRATOR

Stephen M. Dickson, President Trump’s nominee for administrator of the FAA, told the Senate Commerce Committee at a May 15 hearing that stakeholder engagement will be a major focus of his leadership of the agency.

“I have found that the only way to get things done is to foster an inclusive, collaborative environment that welcomes diverse points of view and provides transparency,” he told the Committee.

“If confirmed, I look forward to working with this Committee and the Congress to ensure you are aware and informed of our progress toward achieving our goals of ensuring safety and fostering innovation and process improvement. Of course, we will also ensure we include all perspectives in our decision-making including aviation operators, manufacturers, labor, airports, communities, and international safety and regulatory organizations.”

“We also need to recognize that we are in a time of tremendous change but also opportunity,” he told the Committee. “It is important to thoughtfully manage the changes we are experiencing in the aviation system today and in the coming years,

(Continued on p. 56)
noise and emissions standards for supersonics must be stringent enough that they do not compromise the work that airports and the industry have been doing for decades.”

She also spoke on the importance of non-acoustic factors that make up a portion of variables responsible for community annoyance, including the level of trust residents have in airports or authorities in general, as well as their attitude towards aviation. Further research on non-acoustic factors is needed to properly address aircraft noise annoyance, she said.

“While we have come a long way as an industry in this regard, new challenges are demanding a new and broader perspective that has communities at the heart of the matter,” said Gittens. “While we continue to improve our technology and provide effective noise insulation, we must also strengthen our community engagement.

“This includes better understanding non-acoustic factors, beginning engagement early in the process of new projects, having transparent communication, knowing the community because no two airports are alike, developing a tailored engagement plan, and going well beyond the minimum requirements.”

Gittens said ACI supports the International Civil Aviation Organization’s (ICAO) Annex 16 Volume 1, dedicated to aircraft noise, and the current work at the ICAO Committee on Aviation Environmental Protection (CAEP) to develop Standards and Recommended Practices for new supersonic aircraft.

In a May 15 interview with Reuters, Glittens said “a new generation of U.S.-produced commercial supersonic jets must be no louder than existing planes or risk exacerbating complaints over noise from air traffic.”

The ACI World director told Reuters “supersonic jets should not get a ‘free pass’ to generate more noise than subsonic planes or fail to meet global carbon emissions standards for new aircraft.”

Personnel

PUTNAM ASSUMES TOP ENVIRON.
HEALTH ROLE IN COLORADO

Attorney John Putnam, noted for his expertise in aircraft noise and airspace issues, assumed the top environmental health role in the State of Colorado on May 6 when he became director of Environmental Programs at the Colorado Department of Public Health and Environment.

Putnam has represented states, counties, cities, and clean electricity producers on complex environmental, transportation, and energy problems nationwide. His core strengths are the Clean Air Act, the National Environmental Policy Act, transportation impacts and noise, and much more. Putnam’s legal background spans all areas of environmental law and rules.

Said Peter Kirsch, one of the founding partners in Kaplan Kirsch, “We will miss John enormously in the firm but are delighted for him and especially pleased that the State of Colorado will have the benefit of his deep knowledge and sage counseling on environmental matters.

“This is an especially crucial time for Colorado since the Governor has made clear that he wants to become a national leader in addressing climate change. We are confident that, with John at the helm, the State will accomplish great work.”

Kirsch told ANR that he is taking over the State of Maryland’s lawsuit against FAA but his partner Eric Ptisk will remain as the lawyer of record on the briefs.

Final briefs in the case – State of MD v. FAA (No. 18-1173) – must be submitted to the U.S. Court of Appeals for the D.C. Circuit by May 30.

As the Director of Environmental Programs at the Colorado Department of Public Health and Environment, Putnam will serve as a senior adviser to Executive Director Jill Hunsaker Ryan. The Environmental Programs Director oversees the federal Clean Air Act, Clean Water Act, and the mitigation of hazardous materials – as well as other state laws and programs.

“After a nationwide search of top environmental professionals, we are so fortunate to have John come on board. With John at the helm of environmental programs, the state will lead on reversing the consequences of climate change, work to get the Front Range swiftly into ozone compliance,” said Ryan. “Governor Polis has asked us to take bold action to ensure that every Coloradan has clean air to breathe and a healthy environment to live in and enjoy, and we intend to do just that.”

Putnam has represented states, counties, cities, and clean electricity producers on complex environmental, transportation, and energy problems nationwide. His core strengths are the Clean Air Act, the National Environmental Policy Act, transportation impacts and noise, and much more. Putnam’s legal background spans all areas of environmental law and rules.

“Like so many others who want to move Colorado forward, I’m thrilled at the direction Gov. Polis is taking the state and am so grateful to now get to be a part of it,” Putnam said in a press release.

“We are clear in our mission of always putting the health and well-being of Coloradans first, and in doing so, we will preserve the majestic environment that we all cherish as Coloradans. It’s time to build off of the Colorado’s past progress to ensure all Coloradans can enjoy clean and healthy air, water, and lands.”

It is unclear if Putnam will get involved in potential health issues regarding aircraft noise and flight path changes in Colorado, where FAA is in the process of preparing an Environmental Assessment on proposed airspace changes it plans to make under its Denver Metroplex project.

Communities in the Denver area are concerned about possible health impacts of living under concentrated NextGen flight paths.
**Heathrow Airport**

**CONSULTATION ON EXPANSION TO BE MOST INNOVATIVE YET**

Officials of London Heathrow Airport said the upcoming public consultation on a third runway and related infrastructure expansion at the airport will be its largest and most innovative public engagement exercise yet.

The statutory 12 and a half-week consultation on its expansion plans, which begins on June 18, “is the latest delivery milestone for the critical national infrastructure project, and the responses received will feed into a final planning application,” they explained.

Heathrow officials said they have invested in new technology to show the public the current expansion proposals, including a model of the future airport which uses augmented reality and a sound booth to be used at certain locations which features virtual reality to demonstrate the effect of noise insulation on properties that will be overflown by aircraft.

Having listened to feedback from previous consultations, Heathrow officials said they will be holding events in more locations than previously and, in addition to an extensive national publicity campaign across newspapers, radio, billboards, digital and – for the first time - Spotify, will be contacting 2.6 million households directly in the vicinity of the airport with a leaflet encouraging participation.

The consultation follows the UK High Court’s dismissal of legal challenges against Heathrow expansion. “The debate on Heathrow’s plans – and its commitments to grow sustainability – has been had and won, both in Parliament and now in the courts,” the airport said.

“Heathrow has consistently demonstrated best practice by holding additional consultations at earlier stages of its project development to ensure feedback is incorporated in its plans, and to be as transparent as possible about its emerging proposals. The plans revealed in this consultation include the consolidated feedback received in the Airspace and Future operations consultation that concluded in March, and previous consultations last year, as well as from Heathrow’s continuous engagement with local communities, local authorities, airlines, and other interested parties.”

**Four Key Areas of Input**

The upcoming consultation will seek feedback on four key areas:

- Heathrow’s preferred master plan for expansion: The airport’s proposals for the future layout of the airport, including the runway and other airport infrastructure such as terminals and road access. The master plan also will reveal the airport’s growth in phases – from runway opening in 2026, to the end master plan in approximately 2050. This incremental growth in infrastructure will align more closely with forecast passenger growth, and help airport charges remain close to 2016 levels – ultimately resulting in more affordable fares for passengers;

- Plans to operate the future airport: how the future three runway airport will be operated, including important elements such as night flights, as well as how potential additional flights before the new runway opens could be operated on Heathrow’s existing two runways;

- Assessment of impacts of the airport’s growth: A preliminary assessment of the likely impacts of expansion on the environment and local communities will be released; and

- Plans to manage the impacts of expansion: Heathrow will set out the airport’s plans for mitigating the effects of expansion, including property compensation, its Noise Insulation Policy, a Community Compensation Fund, and measures to mitigate against air pollution, carbon, and other environmental effects.

Inviting people to participate in the consultation, Emma Gilthorpe, Heathrow’s Executive Director for Expansion, said: “Heathrow’s expansion is a project of huge national and local significance, and it is critical to our country’s economic growth. An expanded hub airport will allow the country to access more of the world, create thousands of jobs locally and nationally and it will open up new trading routes. But we can’t deliver these plans alone. We urge everyone to have their say in this consultation, to shape our plans, and to help us deliver expansion in the fairest and most sustainable way.”

Following the conclusion of the consultation, and after feedback has been incorporated, Heathrow will submit a final proposal to the Planning Inspectorate in 2020, kick-starting its approvals process. The decision on whether to grant the airport expansion project will be made by the UK Secretary of State following a public examination period led by the Planning Inspectorate.

**Montreal-Trudeau Int’l**

**AIRPORT LAUNCHES WEBTRAK FLIGHT TRACKING SYSTEM**

Aéroports de Montréal (DM) said May 9 that it is officially launching the EMS Brüel & Kjaer WebTrak system to provide citizens with greater access to aircraft activity data at Montréal-Trudeau International Airport.

ADM called WebTrak “the most accurate flight data that provides information about aircraft flight paths, types and altitude, as well as noise levels recorded at various measurement stations.”

“The maintenance of a harmonious cohabitation with neighboring communities is a priority and an integral part of ADM’s mission,” said Philippe Rainville, President and CEO of Aéroports de Montréal.

“We are making every effort to strike a balance between the needs of the community for efficient air links and respect for local residents, especially through our soundscape management plan. The launch of WebTrak represents an impor-
available on the Internet and through a smartphone, the WebTrak system has a graphical interface that displays flight data in near real time. It locates an address on the map and facilitates submitting a complaint. This is linked to a specific air movement and directly registered in the airport's soundscape management system.

The WebTrak system provides flight information from NAV Canada's radar data. Citizens may view the data retroactively for a period of 30 days. For security reasons, the data is accessible only after a 10-minute delay. Similarly, information about the identity of the airline and flight number remains hidden. Government flight operations, such as military and law enforcement flights, are not displayed.

For more information, please click on the following link: https://www.admtl.com/en/adm/communities/soundscape

FAA, from p. 53

so safety is not compromised but innovation and development of new technologies are supported. New technologies, including flight deck automation and air traffic management systems, can provide significant benefit but they also introduce changes to a stable, mature safety system that need to be managed carefully and thoughtfully.

“Unmanned systems technologies are developing rapidly but the process of scaling the technologies for broad use is in its infancy. Additionally, we are seeing a new generation of aviation industry professionals come into our ranks: pilots, engineers, technicians, developers among others. We need to ensure they have the training and experience required that will continue to raise the safety bar.”

Dickson’s career in aviation spans 40 years. He graduated from the Air Force Academy in 1979. After completing his military service, he was hired by Delta Air Lines as a pilot, eventually qualifying on the B727, B737, B757, B767, and A320 series aircraft.

Last October, he retired after serving the last 12 years at Delta as Senior Vice President – Flight Operations, where he was responsible for the safety and operational performance of the company’s global flight operations. He also has served as chairman of several industry stakeholder groups and federal advisory committees.

“If confirmed,” Dickson told the Commerce Committee, “I intend to perform my role with accountability to the FAA’s stakeholders, including the American public. As stated above, safety will always be my first priority. I will also be driven by the values of honesty, integrity and mutual respect.”
**Legislation**

**SMITH TO REINTRODUCE BILL DESIGNATING COMMUNITIES AS BEING ‘AVIATION IMPACTED’**

Congressman Adam Smith (D-WA) plans to reintroduce legislation in the U.S. House of Representatives that would allow communities located within one mile of a commercial or cargo jet route that is 3,000 ft or lower to be designated as “aviation impacted,” thus allowing residents to petition the FAA to study and create action plans to solve aircraft noise and emissions impacts.

The bill also would significantly expand the current limits of FAA-funded sound insulation efforts to allow FAA and airport operators to provide sound insulation for:

- Aviation-impacted communities that are subjected to “substantial increases” in flight frequency or from the adoption of new flight procedures that create noise impacts in neighborhoods that did not previously experience significant impacts from commercial aircraft operations; and
- Neighborhoods within a 55 DNL contour in which an airport operator or the Administrator of the FAA determines “significant numbers” of flight operations are

*(Continued on p. 58)*

**Legislation**

**NY STATE BILLS WOULD REQUIRE STUDY OF ENV., HEALTH EFFECTS OF JFK, LGA OPS**

Identical bills introduced May 16 in the New York State Legislature would require the state Department of Environmental Conservation, with the assistance of the state Department of Transportation, to conduct a study of the environmental and human health impacts of John F. Kennedy International Airport and LaGuardia Airport.

The bills would direct the state agencies to monitor actual noise levels experienced in 2020 and 2021 and they must pay “particular attention to the impact of air pollution, noise pollution, the emission of gases and fluids by aircraft, and similar factors on the quality of life, health, and property values of persons who live adjacent to flight paths used by aircraft at John F. Kennedy International Airport and LaGuardia Airport.”

NY State Senator Jim Gaughran (D) and Assemblywoman Judy Griffin (D), who represent residents of Long Island, introduced the bills (S05855 and A07710) following what they described as a flood of complaints from constituents as a result of increased air traffic and changing flight patterns at the airports.

*(Continued on p. 59)*
ways now bear an increased majority of the noise burden.”

Pactsover specific areas and those living under these pathways under NextGen “has concentrated noise and other impacts on communities around fast-growing Seattle-Tacoma International Airport,” said in written testimony.

A new report from the Transportation Research Board’s Airport Cooperative Research Program (ACRP) offers guidance for using Geographic Information Systems (GIS) as a collaboration tool to encourage compatible land use around airports.

ACRP Research Report 200: “Using GIS for Collaborative Land Use Compatibility Planning Near Airports” is designed to help airport and community planners seeking to work together to protect existing and future airport development as well as maintain safety and improve quality of life for those living and working near airports.

The report includes a description of the perspectives, goals, responsibilities, and concerns of the federal government, airports, and local communities to ensure that each has a good understanding of the others’ missions and priorities.

**Legislation, from p. 57**

conducted between 10 p.m. and 6 a.m.

Adam’s bill says the FAA Administrator “may” make grants for noise mitigation measures in designated communities for residences, hospitals, nursing homes, and schools. The FAA Administrator would be required to develop standards to determine which of these structures are eligible for mitigation funding.

Noise mitigation grant funds would be limited to sound insulation of noise-sensitive structures and construction of noise barriers or acoustic shielding to mitigate ground-level noise.

**Community Boards**

On June 20, 2018, Smith first introduced his Aviation-Impacted Communities Act, which “would codify into law a formal process for localities to join together and constructively engage with the FAA through the work of Community Boards,” the congressman told the House Transportation and Infrastructure Committee in written testimony.

Smith’s original bill (H.R. 6168) died in the House T&I Committee, which was in Republican control in the last Congress. Smith sees an opportunity in the new Congress, where Democrats now control the House T&I Committee, to move his legislation.

Smith’s original bill had five co-sponsors, including Rep. Stephen Lynch (D-MA), who now serves as co-chair of the congressional Quiet Skies Caucus, which has yet to announce any legislative goals for the new Congress.

“As the Committee develops its legislative agenda for the 116th Congress, I would like to highlight the importance of acting to stem the increasing impacts of aviation noise and emissions on communities surrounding airports,” Adams, who represents communities around fast-growing Seattle-Tacoma International Airport, said in written testimony.

He stressed that the narrowing of departure and arrival routes under NextGen “has concentrated noise and other impacts over specific areas and those living under these pathways now bear an increased majority of the noise burden.”

“Sadly,” he told the Committee, “my constituents and others living in similarly situated areas too often feel as through the have little or no recourse or remedy. The FAA has not always been responsive to their concerns, and while the FAA Reauthorization Act of 2018 included meaningful and positive provisions that will improve community engagement, I believe more can and must be done.”

Smith said his bill will improve the manner in which the FAA engages with noise-affected areas and help bring some relief to those on the ground.

Under Smith’s bill, communities that request and meet the criteria to be designated as “aviation impacted” must:

1. Form community boards (including local airport operators, local elected leaders, and community representatives) to address aviation impacts or
2. Maintain an existing group of primarily elected local officials formed to work on aviation issues.

FAA would be required to designate an agency representative to work with these groups and to attend every meeting. If agency experts are needed at meetings, FAA must send them.

The Community Boards may, in collaboration with airports and the designated FAA representatives, draft a “community report” detailing the community’s concerns and issues related to disparate aviation impacts.

The Community Boards or established groups also could ask FAA to conduct a “community study” to recommend actions or mitigation that can be taken to alleviate concerns raised in the community reports.

**Action Plan Must Be Developed**

Within six months of receipt of the community study findings, the FAA would be required to develop an action plan in collaboration with airport operators and affected communities.

The action plan must include:

1. A long-term regional plan that focuses on reducing and minimizing disparate impacts for the designated communities and;
2. “Where effective, consider the implementation of changes to operations and flight paths if the community report or community study indicates that such changes would decrease the impacts on the designated community.”

If the FAA Administrator determines that changes to operations and flight paths that a community report or community study indicates would decrease aviation effects on the designated community would not be effective, Adam’s bill would require the FAA Administrator to explain the rational for this determination in the agency’s action plan.

**ACRP**

**REPORT ISSUED ON USING GIS FOR COLLABORATIVE LAND USE PLANNING NEAR AIRPORTS**

A new report from the Transportation Research Board’s Airport Cooperative Research Program (ACRP) offers guidance for using Geographic Information Systems (GIS) as a collaboration tool to encourage compatible land use around airports.

ACRP Research Report 200: “Using GIS for Collaborative Land Use Compatibility Planning Near Airports” is designed to help airport and community planners seeking to work together to protect existing and future airport development as well as maintain safety and improve quality of life for those living and working near airports.

The report includes a description of the perspectives, goals, responsibilities, and concerns of the federal government, airports, and local communities to ensure that each has a good understanding of the others’ missions and priorities.
The report also examines potential benefits that GIS might have on fostering collaboration and offers guidance on initiating and maintaining collaboration, and for developing, sharing, and using data.

A key feature of the guidebook is examples of how GIS was used collaboratively to address various land use compatibility issues, including aircraft noise, obstructions, wildlife hazards, and solar glare.

A set of appendices supplements the guide by summarizing the role of government, providing a brief history of FAA aeronautical surveys, case studies, and example data sharing agreements.

Presentation templates for stakeholder outreach on noise and obstruction, as well as a sample outreach flier on the value of GIS in airport planning, were produced as part of this project, which was a joint effort by TRB, the National Academies of Sciences, Engineering, and Medicine, and Arora Engineers, Inc.

The report can be downloaded at https://www.nap.edu/catalog/25464

**Part 150 Program**

**FAA APPROVES PART 150 UPDATE FOR SAN FRANCISCO INT’L**

On May 17, the FAA announced its approval of an update to the Part 150 Airport Noise Compatibility Program for San Francisco International Airport.

FAA granted outright approval for all three of the recommended measures in the proposed update:

- Installation of permanent or portable aircraft noise and operations monitoring equipment:
  
  This measure includes replacement of the hardware associated with SFO’s permanent noise monitors (29 remote noise monitors and five on-airport monitors) and SFO’s four portable noise monitors, which were all installed in 2004.

  The Airport Commission intends to remove and recycle the existing noise monitors, batteries, and solar panels. The new permanent and portable monitors will be equipped with and/or capable of: acoustic signal processing, data transfer, self-calibration and external calibration, two-way communication systems, sound level displays, poles and microphone access for permanent monitors, weatherproof security case, live community interface, wind sensors, and AC power for portable units.

  This measure does not include an upgrade to the noise monitoring system software. The Airport Commission may apply for an FAA Airport Improvement Program grant at a later date for this upgrade.

- Continuation of the voluntary residential sound insulation program at SFO for eligible single-family and multi-family residential properties that are within the CNEL 65 dB and higher Noise Exposure Map contour for the forecast year of 2019 accepted by the FAA on Jan. 29, 2016, and whose previous home owners declined to participate or failed to respond to earlier invitations to participate in the airport’s sound insulation program.

  Some 37 homes with new owners and 274 homes with original owners who declined to participate in the sound insulation program earlier of failed to reply are eligible for insulation.

- Continue to monitor aircraft noise levels at the airport and in the airport environs using the 29 remote monitoring stations, the five on-airport noise monitors, and the four portable noise monitors that will be upgrade.

For further information on FAA’s approval of the SFO Part 150 Program update, contact Camille Garibaldi, an Environmental Specialist in FAA’s San Francisco Airports District Office; tel: 650-827-7613.

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**Legislation, from p. 57**

A spokeswoman for Sen. Gaughran said both bills have a good chance of being passed by the Legislature. An identical bill failed last year when the State Assembly was under Republican control. The Democrats now control it.

“The high volume of airplanetraffic on Long Island is a tremendous nuisance to Long Islanders, with noise level far above the average noise threshold,” Sen. Gaughran said in a prepared statement.

“This occurrence has grown progressively severe and more frequent with recent changes in flight patterns and an overall increase in air traffic at JFK and LaGuardia airports, affecting residents across Nassau and Suffolk counties alike.

“This raises serious questions about potential environmental impacts, effects from noise pollution, and other possible negative impacts. This study is essential to identifying the environmental and health effects that hundreds of Long Islanders experience every day.”

Added Assemblywoman Judy Griffin: “… While air traffic is primarily a federal jurisdiction, I believe this state study will scientifically validate what residents already know – the noise is excessive, harmful to humans, and needs to be better regulated and mitigated. Although we will always endure a level of airplane noise, I am hopeful that this study will illustrate that many residents are faced with excessive noise way above the acceptable level.”

Jana Goldenberg and Elaine Miller, leaders of the Long Island community group Plane Sense 4 LI, called the bill long overdue. “The residents of Nassau County are exposed to dangerous levels of noise and air pollution, which impacts our health. The study will lead us to find viable solutions to the problem of excessive overflights, which are negatively affecting the residents of Nassau County. Plane Sense 4 LI has worked to create this legislation with our elected officials.”
San Carlos Noise Maps Approved

On May 15, FAA announced its determination that the noise exposure maps submitted by the County of San Mateo for San Carlos Airport are in compliance with applicable federal requirements.

The effective date of the FAA's determination on the maps is April 23. For further information, contact Camille Garibaldi, and Environmental Specialist in FAA's San Francisco Airports District Office; tel: 650-827-7613.

Stage 2 Aircraft Information Collection

On May 10, the FAA issued a notice seeking public comment on its intention to request Office of Management and Budget approval to renew the collection of information used to issue special flight authorizations for non-revenue and non-transport Stage 2 aircraft operations at U.S. airports.

The public has until June 10 to submit comments.

FAA said that 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, such as for aircraft maintenance and repairs.

The agency estimates the data collection affects approximately 30 applicants and would take them only about 15 minutes to complete.

Public comments are invited on four aspects of the data collection:

- Whether the proposed collection of information is necessary for FAA’s performance;
- The accuracy of the estimated burden on applicants;
- Ways for the FAA to enhance the quality, utility, and clarity of the information collection; and
- Ways that the burden could be minimized without reducing the quality of the collected information.

Written comments on the proposed information collection should be addressed to the attention of the Desk Officer, Department of Transportation/FAA and sent via electronic mail to oira_submission@omb.eop.gov, or faxed to (202) 395-6974, or mailed to the Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington DC 20503.

For further information, contact Sandy Liu by email at sandy.liu@faa.gov; telephone: 202-267-4748.

FAA said this information collection is required under the Airport Noise and Capacity Act of 1990 and the FAA Modernization and Reform Act of 2012.