

Airport Noise Report



A weekly update on litigation, regulations, and technological developments

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Litigation

PORT OF SEATTLE SUED FOR REFUSING TO DISCLOSE PUBLIC HEALTH STUDY RECORDS

On Sept. 29, Steve Edmiston, an attorney who lives near Seattle-Tacoma International Airport and is active in efforts to reduce the environmental impacts of the airport, filed a civil complaint against the Port of Seattle seeking to compel the disclosure of records discussing the negative public health impacts from Sea-Tac operations, including impacts from airport noise and pollution on citizens living within 10-miles of the airport.

In *Edmiston v. Port of Seattle*, which was filed in King County Superior Court (Case No. 22-2-15797-6 SEA), Edmiston seeks Court intervention to address the Port's refusal to disclose unredacted copies of a 28-page report prepared by a Port consultant, the Danish consulting and engineering firm Ramboll Group.

The 'Ramboll Report' was commissioned to "generate findings and recommendations" about an earlier 2020 Public Health Seattle-King County 96-page report on *Community Health and Airport Operations Related Noise and Air Pollution* (the "Public Health Report"). The lawsuit alleges that all relevant information in the Port's Ramboll Report, including the report's conclusions, was redacted.

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REDAC

COMMUNITY ALLIANCE URGES REDAC TO SUPPORT SIX NOISE RESEARCH PROPOSALS

The co-founders of the Aviation-Impacted Communities Alliance (AICA) urged the FAA's Research, Engineering & Development Advisory Committee (REDAC) at its Oct. 5 meeting to support six aircraft noise research proposals the Alliance wants FAA to conduct in order to better understand and measure the impact of aircraft noise, especially from NextGen operations.

The AICA represents 67 grassroots community groups and nine national organizations around the country whose members are directly experiencing the adverse impact of aircraft noise and emissions from FAA NextGen airspace changes and procedures that tightly focus flight paths over them. Many, if not most, of these communities are located 10 miles or more from airports, well beyond the 65 DNL noise contour that FAA uses to mark the outer extent of significant aircraft noise impact.

The AICA wants FAA to conduct research to answer questions raised by the findings of the agency's Neighborhood Environmental Survey (NES), which show that the number of people "highly annoyed" by aircraft noise in communities around 20 U.S. airports is far greater than estimated, thus rendering invalid the

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According to the Complaint, "The risk of negative public health impacts from living near the Sea-Tac Airport is a matter of significant concern and interest to the citizens of the airport neighbor communities. The Port's decision to intentionally withhold information from the public, specifically including the "findings and recommendations" of its own consultant relating to the 96-page Public Health Report, is a matter of grave public concern."

The Complaint alleges: "The 96-page Public Health Report found significant rates of poor public health outcomes that became worse closer one lived to the airport. By way of example, the poor health outcomes addressed included lower life expectancy rates; higher rates of death overall, including higher rates of death from heart disease, chronic lower respiratory disease, diabetes, and chronic liver disease; higher hospitalization rates; and higher rates of premature births.

"The Public Health Report also addressed the likely causal nature between noise and air pollution and numerous negative health outcomes. The Public Health Report concluded, among other things, "Prevention and mitigation of airport-related pollution exposures is critical for these communities, given their increased risk. People living in airport communities are more likely to be exposed to airport-related air and noise pollution."

In announcing his lawsuit, Edmiston said the Complaint frames the issue as one of knowledge and transparency: "The Ramboll Report consists of a 28-page presentation about the Public Health Report. The Ramboll Report was attached to multiple e-mails circulated among, by and between numerous Port personnel." Further, "The Ramboll Report, by its very design, establishes (i) what the Port knew, (ii) when the Port knew it, and (iii) what the Port's own consultant advised, with respect to the negative health outcomes raised by the Public Health Report."

Trial is set for October 3, 2023.

Edmiston is a Des Moines, WA, resident. He has served on the City of Des Moines Aviation Advisory Committee, served on the Technical Advisory Committee for the 2020 Washington State Department of Commerce Study of the Effects of the Operation of the Seattle-Tacoma International Airport, and presently serves as a Governor-appointed Commissioner on the Washington Department of Transportation Civil Aviation Coordinating Commission.

Port of Seattle Comment

Asked to comment on Edmiston's lawsuit, Perry Cooper, Media Relations Manager for the Port of Seattle told ANR, "As we noted in response to the request from Mr. Edmiston, the Port withheld portions of the Ramboll slide deck under the deliberative process exemption [of state law].

"The exemption allows governments to withhold records in which opinions are expressed or policies are formulated if the release of the records would be disruptive to an ongoing decision-making process, in this case the Sustainable Airport

Master Plan environmental review which has yet to be published. We will respond to the litigation through the legal process.

"As for the timeline for the environmental review to be published, we are currently awaiting a schedule update."

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dose/response relationship for annoyance to aircraft noise that serves as the basis for FAA's decades-old 65 DNL threshold of significant noise impact.

Following are the six aircraft noise research proposals presented to REDAC by Cindy L. Christiansen, PhD, and Darlene Yaplee, co-founders of the AICA. They plan on including their recommendations to REDAC as part of an AICA proposed slate for the new FAA reauthorization bill:

1. An updated noise exposure study and report based on the FAA's Neighborhood Environmental Survey (NES)

Data provided by FAA Office of Environment and Energy personal correspondence to the US Department of Transportation Statistics indicates a 39% increase over the last 10 pre-Covid years in the number of people in the US who are exposed to DNL 65dB or greater. This is despite the quieter engines and despite the FAA's change to satellite navigation and its narrowed flight paths.

From the FAA's Neighborhood Environmental Survey Study (NES Study), we now know that the 65dB threshold for identifying excessive aviation noise is invalid. Using the same standards that set the current DNL threshold of 65dB, the scientifically rigorous results from the recent NES study found the "highly annoyed" threshold should be DNL46+. Because DNL65 is invalid, we do not know the number of individuals exposed to excessive aviation noise; we do not know if that number is increasing, but we do know that it is much greater than the 440,000 that the FAA reports lived in the DNL65 contour during 2019. Please recommend a study that determines numbers exposed to aviation DNL of 40dB to 75+dB from 2010 to present.

2. A National Academies Division of Medicine Consensus Report on the effects of aviation noise and pollution on public health

Please recommend charging the National Academies Division of Medicine with studying the copious peer-reviewed public health manuscripts and studies and writing an independent-expert consensus report to guide FAA policy on aviation public health effects. This study for the Division of Medicine is especially important now that we know that the DNL metric and its threshold are seriously flawed when considering humans' negative reactions to aviation noise.

It also is especially important because the FAA's NextGen and Performance Based Navigation procedures have concen-

trated noise and pollution over unfortunate communities, without their consent. It is well known that concentration of carcinogens and disturbances cause negative public health impacts.

We need an independent committee of public health and environmental health scientists to assess the current evidence of aviation noise and pollution on public health and to recommend any needed policy changes based on the experts' findings.

3. A National Academies Division of Medicine and Division of Engineering Consensus Report that recommends a System to measure aviation noise close to airports and, separately, aviation noise close to Performance Based Navigation procedures (PBN)

US Code 49 Section 47502 from the 96th Congress requires the Secretary of Transportation to establish a single system of measuring aviation noise. Instead of using a single system to measure aviation noise, the FAA regulates noise using a single metric (DNL) and even states incorrectly in the Neighborhood Environmental Survey Study (NES Study) that "Congress directed the Federal Aviation Administration (FAA) to establish a single metric."

Understanding that all aviation noise events do not occur close to airports, a single system allows for the appropriate use of more than one metric to determine noise burden. With the onset of PBN procedures, we need a system that recognizes that there is more than one type of aircraft noise problem: both the new problem created along NextGen PBN procedures, as well as the longtime significant noise impacts in areas close to airports. There is strong evidence from [MIT] Professor John Hansman's BOS/Massport/FAA RNAV study that the metric N-above captures aviation noise complaints from residents living in areas away from airports but who are close to or under these new-navigation flight paths.

Please recommend that the FAA fund a National Academies Division of Medicine-led consensus report, with a sub-contract to the National Academies Division of Engineering, to assess and determine a valid system of metrics that recognizes the FAA's current aircraft noise problems are not simply tied to areas close to airports, but also to those away from airports but close to PBN procedures.

4. N-Above and T-Above Research Using the Neighborhood Environmental Study (NES) Data

For the airports included in the NES and for the respondents to the NES survey around those airports, compute and report N-Above and T-Above at noise levels from 45 dB-A to 65 dB-A in increments of 5 dB, on granular geographic grids. Compare the correlation between N-Above and annoyance, versus the correlation between DNL-65 and annoyance. The rich data from the NES exists, please use it to understand metrics beyond DNL and the correlation to annoyance.

5. Research to Improve AEDT Accuracy for Locations "Away from Airport"

Compare AEDT modeled arrival noise to actual arrival measurements for aviation noise events in affected communities from at least 10 different Core 30 airports that were newly impacted by NextGen and up to 50 miles from the airports. Affected communities are defined by DNL-46 and greater; DNL-46 is the value at which 12.3% are highly annoyed as per the Neighborhood Environmental Survey (NES). Comparisons should include modeled versus measured noise of individual aircraft Lmax and SEL, and the resulting impact on DNL and N-Above. If there are material differences (greater than 1dB) between the predicted and measured noise levels for individual noise events, then the research should recommend an AEDT improvement plan, and the FAA should include the AEDT error bar findings in all its Environmental Reviews. This research will verify AEDT accuracy or inaccuracy for the "Away from Airport" noise problem.

6. National Airport Complaint Data Research

To assess the noise impacts of frequent overflights from Performance Based Navigation, metrics for understanding the annoyance mechanism is necessary. Extend the analysis based on the methodology described in "Aircraft Noise Models of Dispersed Flight Tracks and Metrics for Assessing Impacts" by Alison Yu and John Hansman of the Massachusetts Institute of Technology Department of Aeronautics and Astronautics to include at least five additional and different core airports in the United States. Airports nationally collect data on noise complaints; please use it for research to assess noise impacts from PBN and build on Yu and Hansman's analysis.

Electric Aircraft

EVIATION'S ALICE ACHIEVES MILESTONE WITH FIRST FLIGHT OF ALL-ELECTRIC AIRCRAFT

On Sept. 27, Eviation Aircraft, a manufacturer of all-electric aircraft based in Washington State, successfully completed the first flight of its nine-passenger zero-emission regional Alice aircraft.

Eviation called it an historic day and major milestone in electric aviation.

Alice lifted off at 7:10 a.m. from Grant County International Airport (MWH), in Moses Lake, WA, flying for 8 minutes at an altitude of 3,500 feet.

"Today we embark on the next era of aviation – we have successfully electrified the skies with the unforgettable first flight of Alice," said Eviation President and CEO Gregory Davis. "People now know what affordable, clean and sustainable aviation looks and sounds like for the first time in a

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fixed-wing, all-electric aircraft. This ground-breaking milestone will lead innovation in sustainable air travel, and shape both passenger and cargo travel in the future."

Alice produces no carbon emissions, significantly reduces noise, and costs a fraction to operate per flight hour compared to light jets or high-end turboprops, the company said.

Eviation said "all-electric aircraft will make regional travel more economically and environmentally sustainable for businesses and consumers. This new generation of aircraft has the power to transform communities by providing access to airports not currently used by commercial flights due to noise concerns or restricted operating hours. Eviation Alice is targeted at commuter and cargo markets, and will typically operate flights ranging from 150 miles to 250 miles."

Cape Air and Global Crossing Airlines, both US-based regional airlines, have placed orders for 75 and 50 Alice aircraft respectively. DHL Express is Eviation's first cargo customer, with an order of 12 Alice eCargo planes. With this engagement DHL aims to establish the first electric express network, leading the way for a new era of zero-emissions air freight.

"The first flight of Alice represents a transformational milestone for the aviation industry," said Cape Air Founder and Board Chairman Dan Wolf. "We currently fly more than 400 regional flights per day, connecting more than 30 cities across the United States and Caribbean. Alice can easily cover 80 percent of our flight operations, bringing sustainable, emission-free travel to the communities we serve."

"The first flight of Alice confirms our belief that the era of sustainable aviation is here," said Geoff Kehr, Senior Vice President, Global Air Fleet Management, DHL Express. "With our order of 12 Alice e-cargo planes, we are investing towards our overall goal of zero-emissions logistics. DHL is the industry leader by introducing new and more sustainable cargo aircraft types to the global market. Alice is the true game-changer by enabling long distance air transport for the first time with zero emissions. This historic flight marks a significant milestone on our journey to ultimately achieving net-zero emissions by 2050."

Alice is powered by two magni650 electric propulsion units from magniX, the only flight-proven electric propulsion systems at this scale.

Eviation said "Alice's advanced battery system is highly efficient and endlessly upgradeable enabling range improvements as battery technology evolves. The aircraft also incorporates a fly-by-wire cockpit, providing greater reliability and systems redundancy."

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Anne H. Kohut, Publisher

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