



Meeting Announcement

Legislative Subcommittee

Tuesday, May 11, 2021
12:00 p.m. – 1:30 p.m.

BY VIDEO CONFERENCE ONLY

Please click the link below to join the webinar:

<https://smcgov.zoom.us/j/91081341478>

Or Dial-in:

US: +1(669)900-6833 Webinar ID: 910 8134 1478

Note: To arrange an accommodation under the Americans with Disabilities Act to participate in this public meeting, please call (650) 363-4220 at least 2 days before the meeting date.

PUBLIC PARTICIPATION:

Written public comments can be emailed to amontescardenas@smcgov.org, and should include specific agenda item to which you are commenting. Spoken public comments will also be accepted during the meeting through Zoom. Please see instructions for written and spoken comments at the end of this agenda.

AGENDA

1. **Call to Order**
2. **Public Comment on Items NOT on the Agenda**
3. **Chairman's Update**
4. **2021-2022 Federal Aviation Legislation**

Roundtable Work Plan (2020-2021) Goal 3: Lobby for Aircraft Noise Reduction. Lobby for aircraft noise reduction by sponsoring legislation and research.

Action Item: Actively monitor, review, and oppose or support legislation, research, and/or aircraft noise reduction programs to achieve measurable noise reduction in our communities.

Work Plan Task(s):

- Receive regular reports from N.O.I.S.E. regarding federal legislation and action.
 - Actively monitor activities from the congressional Quiet Skies Caucus.
 - Lobby/advocate as needed.
 - Work with Congressional delegation to help develop and pass noise-related legislation.
- a. **Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives, & Predictions, Peter Kirsch, Kaplan, Kirsch, & Rockwell**
 - b. **117th Congress: Legislative Update, Justin Cook, HMMH - (15-min)**
 - c. **Update: May 11 Quiet Skies Caucus Meeting, Kathleen Wentworth, Senior Advisor, Congresswomen Jackie Speier – (15-min)**

d. Discussion and Next Steps - All (45-min)

- Identify legislation to support, and any recommended modifications.
- Develop Memo for June 2, 2021 Membership approval and distribution.

5. Adjourn

Attachments:

- HMMH Presentation – Legislation Updates
- Speier Legislation (2019-2020)
- Airport Noise Report dated February 19, 2021
- UC Davis Air Symposium Legislation Presentations
 - a. Peter Kirsch Presentation UC Davis Air Symposium February 26, 2021
 - b. Community Perspective, Darlene Yaplee
- Docket FAA-2021-0037 (legislation name)
 - a. SFO Roundtable Final Letter
 - b. Oakland Forum Final Letter
 - c. Joint Letter from Cities (East Palo Alto, Los Altos, Menlo Park, Palo Alto, Mountain View)

****Instructions for Public Comment during Videoconference Meeting**

During videoconference of the Legislative subcommittee meeting, members of the public may address the Roundtable as follows:

Written Comments:

Written public comments may be emailed in advance of the meeting. Please read the following instructions carefully:

1. Your written comment should be emailed to amontescardenas@smcgov.org.
2. Your email should include the specific agenda item on which you are commenting.
3. Members of the public are limited to one comment per agenda item.
4. The length of the emailed comment should be commensurate with two minutes customarily allowed for verbal comments, which is approximately 250-300 words.
5. If your emailed comment is received by 12:00 pm on the day before the meeting, it will be provided to the Roundtable and made publicly available on the agenda website under the specific item to which comment pertains. The Roundtable will make every effort to read emails received after that time but cannot guarantee such emails will be read during the meeting, although such emails will still be included in the administrative record.

Spoken Comments:

Spoken public comments will be accepted during the meeting through Zoom. Please read the following instructions carefully:

1. The May 11, 2021 Legislative meeting may be accessed through Zoom online at <https://smcgov.zoom.us/j/91081341478>. The meeting ID: 910 8134 1478. The meeting may also be accessed via telephone by dialing in +1-669-900-6833, entering meeting ID: 910 8134 1478, then press #.
2. You may download the Zoom client or connect to the meeting using the internet browser. If you are using your browser, make sure you are using current, up-to-date browser: Chrome 30+,

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Firefox 27+, Microsoft Edge 12+, Safari 7+. Certain functionality may be disabled in older browsers including Internet Explorer.

3. You will be asked to enter an email address and name. We request that you identify yourself by name as this will be visible online and will be used to notify you that it is your turn to speak.
4. When the Roundtable Chairperson calls for the item on which you wish you speak click on “raise-hand” icon. You will then be called on and unmuted to speak.
5. When called, please limit your remarks to the time limit allotted.

117th Congress: Legislative Update

By: Justin W. Cook – INCE, LEED GA
For: Roundtable Legislative Subcommittee



Agenda










- Status of Aircraft Noise and Emissions Legislation in the 117th Congress
 - Includes Bills that were previously introduced to the 116th Congress




Bill – Did Not Pass 116th Congress


Reintroduced to 117th Congress

Sponsor

| | | |
|---|---|---------------------------|
| Safe and Quiet Skies Act (H.R. 389) |  | Rep. Ed Case (D-HI) |
| Air Traffic Noise and Pollution Expert Consensus Act (H.R. 712) |  | Rep. Stephen Lynch (D-MA) |
| Aviation Impacted Communities Act |  | Rep. Adam Smith (D-WA) |
| Protecting Airport Communities from Particle Emissions Act |  | |
| Decrease Noise Levels Act |  | Rep. Grace Meng (D-NY) |
| Quiet Communities Act of 2019 |  | |
| Airplane Noise Research and Mitigation Act of 2018 |  | |
| Aircraft Noise Reduction Act |  | |
| Cleaner, Quieter Airplanes Act |  | Rep. Don Beyer (D-VA) |

 Bill already reintroduced

 Bill expected to be reintroduced soon

 Unclear if bill will be reintroduced



Bill – Did Not Pass 116th Congress

Reintroduced to 117th Congress

Sponsor

Responsive Employees Support Productive Educated Congressional Talk (RESPECT) Act



Restore Everyone's Sleep Tonight (REST) Act



Serious Noise Reduction Efforts (SNORE) Act



Southbound HUSSH and NIITE Help Households (SHHH) Act



Fairness in Airspace Includes Residents (FAIR) Act



Rep. Jackie Speier (D-CA)

All Participating in Process Reaching Informed Solutions for Everyone (APPRISE) Act



Notify Officials to Inform Fully and Impel Educated Decisions (NOTIFIED) Act



Low-frequency Energetic Acoustics and Vibrations Exasperate (LEAVE) Act



Bill already reintroduced



Bill will be reintroduced soon

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Unclear if bill will be reintroduced



Safe and Quiet Skies Act (H.R. 389)



Reintroduced: January 21, 2021 by Rep. Ed Case (D-HI)

- This bill applies to commercial air tours. It would:
 - Direct the FAA to adopt National Transportation Safety Board (NTSB) recommendations that will increase safety and reduce the community disruption
 - Require that tour flights fly above the 1,500-foot altitude over actual ground at all times with limited exceptions
 - Require tour flights over occupied areas (including residential, commercial and recreational areas) to be no louder than 55 dBA
 - Allow states and localities to impose additional, stricter requirements on tour flights
 - Prohibit tour flights over military installations, national cemeteries, national wilderness areas, national parks and national wildlife refuges

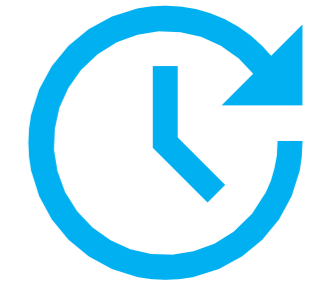
Air Traffic Noise and Pollution Expert Consensus Act (H.R. 712)



Reintroduced: February 4, 2021 by Rep. Stephen Lynch (D-MA)

- This bill would:
 - Required the FAA to sponsor an expert consensus report issued by the National Academies of Sciences (NAS) on the health effects of airplanes flying over residential areas
 - Required the NAS to convene a committee of health and environmental science experts to examine the health impacts of air traffic noise and pollution and issue an expert consensus report with their findings to:
 - Secretary of Health and Human Services
 - Administrator of the Environmental Protection Agency
 - Relevant Congressional Committees

Aviation Impacted Communities Act



To be reintroduced “soon” by Rep. Adam Smith (D-WA)

- Text of bill is not yet available, but the version introduced to the 116th congress would have:
 - Authorized \$750 million for fiscal years 2021 to 2030 to fund noise mitigation efforts in communities outside the 65 DNL noise contour that are designated as “aviation-impacted”
 - Aviation-impacted would be defined as communities located within one mile of a commercial or cargo jet route that is 3,000 ft or lower
 - Significantly expanded the current limits of FAA-funded sound insulation efforts to allow FAA and airport operators to provide sound insulation for:
 1. Aviation-impacted communities that are subjected to “substantial increases” in flight frequency or from the adoption of new flight procedures that create new noise impacts
 2. Neighborhoods within a 55 DNL contour in which an airport operator or the Administrator of the FAA determines “significant numbers” of nighttime flight operations (between 10 p.m. and 6 a.m.)
 - Require FAA to interface directly with and be responsive to residents and locally-nominated leaders on issues of aviation noise and environmental impact

Protecting Airport Communities from Particle Emissions Act



To be reintroduced “soon” by Rep. Adam Smith (D-WA)

- Text of bill is not yet available, but the version introduced to the 116th congress would have:
 - Required the FAA to enter into “appropriate arrangements” with the NAS to conduct a national study on the sources, characteristics, dispersion, and potential health effects of ultrafine particles (UFPs) in communities around airports
 - The study must:
 1. Focus on large hub commercial airports (e.g., Seattle, Boston, Chicago, etc.)
 2. Look at potential health effects associated with elevated UFP exposures, like heart and lung disease

Responsive Employees Support Productive Educated Congressional Talk (RESPECT) Act

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| <p>HR 5105</p> <p>RESPECT Act</p> <p>Requires FAA staff to answer questions and attend meetings upon request of a member of Congress.</p> <p><i><u>R</u>esponsive <u>E</u>mployees <u>S</u>upport <u>P</u>roductive <u>E</u>ducated <u>C</u>ongressional <u>T</u>alk</i></p> | <p>RESPECT Act</p> <p><i>Requires FAA staff to answer questions submitted in writing by Members of Congress relating to flight procedures or other data affecting their district within 90 days. It would also require FAA staff to appear at a meeting or town hall with a Member of Congress with 30 days' notice and under the same terms and conditions as specified by the FAA for appearances at Aviation Roundtables.</i></p> |
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Restore Everyone's Sleep Tonight (REST) Act

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| HR 5106 REST Act Access restrictions <i>Restore Everyone's Sleep Tonight</i> | REST Act <i>Allows airports, voluntarily, to impose a curfew, under specified circumstances, at any time between 10 pm and 7 am, and permits penalties for curfew violations, with exceptions for emergencies, public safety, and other circumstances.</i> |
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Serious Noise Reduction Efforts (SNORE) Act

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| <p>HR 5107 SNORE Act Residential Noise Mitigation <i>Serious Noise Reduction Efforts Act</i></p> | <p>SNORE Act <i>Establishes a program at San Francisco International Airport (SFO) to noise insulate 200+ homes per year in specific areas or provide financial support to the cities impacted by noise, as defined. Failure to do so would result in penalties</i></p> |
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Southbound HUSSH and NIITE Help Households (SHHH) Act

- Technical Working Group Subcommittee

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| <p>HR 5108 SHHH Act Continuation of the processing of NIITE & HUSSH Nighttime noise abatement flight departure procedures.</p> <p><i>Southbound <u>H</u>USSH & NIITE <u>H</u>elp <u>H</u>ouseholds</i></p> | <p>SHHH Act</p> <p><i>Supports formally initiating and continuing the standard processing of the proposed San Francisco International Airport (SFO) NIITE Departure Southbound Transition and the Oakland International Airport (OAK) HUSSH Departure Southbound Transition. The FAA would provide staffing and support to the SFO Roundtable, would not prohibit the SFO Roundtable from formally initiating the procedures, would permit Roundtable technical representatives to participate on the FAA Procedure Based Noise (PBN) Committees, and would require the FAA to follow the standard PBN process without gratuitously adding requirements or withholding permissions.</i></p> |
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Fairness in Airspace Includes Residents (FAIR) Act

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| <p>HR 5109 F-AIR Act Directs the FAA to develop expanded plans and policy for use of airspace.</p> <p><i>Fairness in Airspace Includes Residents</i></p> | <p>F-AIR Act</p> <p><i>Amends the FAA's prioritization of U.S. airspace use. Safety in managing U.S. airspace would remain the first priority. Secondary priorities would put noise and health impacts to residents and other environmental concerns on an equal basis with efficiency. It would also require the FAA to update their Mission Statement to align with the revised airspace priorities.</i></p> |
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All Participating in Process Reaching Informed Solutions for Everyone (APPRISE) Act

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| <p>HR 5110</p> <p>APPRISE Act</p> <p>Aviation roundtable technical representative to participate in FAA flight design process</p> <p><i>All Participating in Process Reaching Informed Solutions for Everyone</i></p> | <p>APPRISE Act</p> <p><i>Ensures that community knowledge and input is represented in the FAA flight procedure design process. An aviation roundtable technical representative will be allowed to fully participate in the FAA procedure design process for procedures affecting their communities. Roundtable technical representatives will participate on the same terms and conditions as representatives from airports, airlines, and procedure proponents.</i></p> |
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Notify Officials to Inform Fully and Impel Educated Decisions (NOTIFIED) Act

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| <p>HR 5111</p> <p>NOTIFIED Act</p> <p>Requires FAA to notify public officials of proposed new or modified flight procedures.</p> <p><i><u>Notify Officials To Inform Fully & Impel Educated Decisions</u></i></p> | <p>NOTIFIED Act</p> <p><i>If a new or modified flight path is proposed through the FAA Procedure Based Navigation (PBN) process, the FAA would be required to notify City Councils, Boards of Supervisors, Members of Congress, and Aviation Roundtables within 5 miles of the flight path in question. Notification shall include the flight procedure name, approximate path, approximate altitudes, and other pertinent information.</i></p> |
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Low-frequency Energetic Acoustics and Vibrations Exasperate (LEAVE) Act

- Ground Based Noise Subcommittee

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| <p>HR 5112 LEAVE Act</p> <p>A state cause of action for ground-based noise or nuisance is not precluded by federal law.</p> <p><i>Low-frequency Energetic Acoustics and Vibrations Exasperate.</i></p> | <p>LEAVE Act</p> <p><i>As an airplane leaves from an airport, its takeoff generates significant amounts of ground-based low-frequency noise and vibration impacting residents in the vicinity. While measurement, standards, and mitigation of airborne flight noise is well defined, low-frequency noise and vibration caused by an airplane on the runway at high thrust levels accelerating for take-off is not yet established. The bill would lead to the establishment of standards and remedies related to ground-based noise (GBN).</i></p> <p><i>If enacted, the bill would permit a state cause of action for GBN if a state has undertaken a study of GBN at an airport, determined the amount of GBN, and identified a level of substantial negative impact and any diminution in real property values caused by such GBN. Before a cause of action would be permissible:</i></p> <ol style="list-style-type: none"> <i>a. the state must complete a study of ground-based noise at the airport in question</i> <i>b. the state must set a limit for ground-based noise emanating from the airport</i> <i>c. the airport would have to be shown to have exceeded that limit</i> |
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Thank you!

Justin W. Cook – INCE, LEED GA

jcook@hmmh.com

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| <p>HR 5106 REST Act Access restrictions <i>Restore Everyone’s Sleep Tonight</i></p> | <p>REST Act <i>Allows airports, voluntarily, to impose a curfew, under specified circumstances, at any time between 10 pm and 7 am, and permits penalties for curfew violations, with exceptions for emergencies, public safety, and other circumstances.</i></p> |
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| <p>HR 5105</p> <p>RESPECT Act</p> <p>Requires FAA staff to answer questions and attend meetings upon request of a member of Congress.</p> <p><i>Responsive Employees Support Productive Educated Congressional Talk</i></p> | <p>RESPECT Act</p> <p><i>Requires FAA staff to answer questions submitted in writing by Members of Congress relating to flight procedures or other data affecting their district within 90 days. It would also require FAA staff to appear at a meeting or town hall with a Member of Congress with 30 days’ notice and under the same terms and conditions as specified by the FAA for appearances at Aviation Roundtables.</i></p> |
| <p>HR 5111</p> <p>NOTIFIED Act</p> <p>Requires FAA to notify public officials of proposed new or modified flight procedures.</p> <p><i>Notify Officials To Inform Fully & Impel Educated Decisions</i></p> | <p>NOTIFIED Act</p> <p><i>If a new or modified flight path is proposed through the FAA Procedure Based Navigation (PBN) process, the FAA would be required to notify City Councils, Boards of Supervisors, Members of Congress, and Aviation Roundtables within 5 miles of the flight path in question. Notification shall include the flight procedure name, approximate path, approximate altitudes, and other pertinent information.</i></p> |
| <p>HR 5112</p> <p>LEAVE Act</p> <p>A state cause of action for ground-based noise or nuisance is not precluded by federal law.</p> <p><i>Low-frequency Energetic Acoustics and Vibrations Exasperate.</i></p> | <p>LEAVE Act</p> <p><i>As an airplane leaves from an airport, its takeoff generates significant amounts of ground-based low-frequency noise and vibration impacting residents in the vicinity. While measurement, standards, and mitigation of airborne flight noise is well defined, low-frequency noise and vibration caused by an airplane on the runway at high thrust levels accelerating for take-off is not yet established. The bill would lead to the establishment of standards and remedies related to ground-based noise (GBN).</i></p> <p><i>If enacted, the bill would permit a state cause of action for GBN if a state has undertaken a study of GBN at an airport, determined the amount of GBN, and identified a level of substantial negative impact and any diminution in real property values caused by such GBN. Before a cause of action would be permissible:</i></p> <ol style="list-style-type: none"> <i>a. the state must complete a study of ground-based noise at the airport in question</i> <i>b. the state must set a limit for ground-based noise emanating from the airport</i> <i>c. the airport would have to be shown to have exceeded that limit</i> |

Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 33, Number 6

February 19, 2021

Legislation

AIRCRAFT NOISE AND EMISSIONS LEGISLATION THAT HAS BEEN OR MAY BE REINTRODUCED IN THE 117TH CONGRESS

(Compiled by Airport Noise Report as of Feb. 19, 2021)

Bills that did not pass in the 116th Congress (2019-2020) and have already been reintroduced in the 117th Congress (2021-2022)

Safe and Quiet Skies Act (H.R. 389)

Reintroduced on Jan. 21 by Rep. Ed Case (D-HI)

The bill would:

- Direct the FAA to adopt National Transportation Safety Board (NTSB) recommendations that will increase safety and reduce the community disruption of commercial air tours.
- Require that tour flights fly above the 1,500-foot altitude over actual ground at all times with very limited exceptions for emergencies and takeoff/landing.
- Require tour flights over occupied areas (including residential, commercial and recreational areas) to be no louder than 55 dBA, the same level of noise commonly allowed for residential areas.
- Allow states and localities to impose additional requirements – stricter than the minimum national requirements called for in the act – on tour flights.
- Prohibit tour flights over military installations, national cemeteries, national wilderness areas, national parks and national wildlife refuges.

Air Traffic Noise and Pollution Expert Consensus Act (H.R. 712)

Reintroduced on Feb. 2 by Rep. Stephen Lynch (D-MA)

Text of the bill is not available yet but, as introduced in the 116th Congress (2019-2020), the bill would have:

- Required the FAA to sponsor an Expert Consensus Report issued by the National Academies of Sciences, Engineering and Medicine on the health effects of airplanes flying over residential areas.
- Required the National Academies to convene a committee of health and environmental science experts within 30 days to examine the health impacts of air traffic noise and pollution and issue an Expert Consensus Report with their findings to

In This Issue...

Legislation... This special issue of Airport Noise Report provides an update on the status of legislation addressing aircraft noise and emissions that was introduced in the U.S. House of Representatives in the 116th Congress (2019-2020) but did not pass.

Such bills, if reintroduced, would have a better chance of passage now that the Democrats control both the House and Senate in the new 117th Congress (2021-2022).

Included in this issue are three categories of aircraft noise and emissions legislation:

- (1) Bills that have already been reintroduced in the new 117th Congress;
- (2) Bills that have not yet been reintroduced in the new Congress but will be; and
- (3) Bills whose authors have not yet announced whether their bills will be reintroduced in the new Congress.

(Continued on p. 22)

Legislation, from p. 21

the Secretary of Health and Human Services, the Administrator of the Environmental Protection Agency, and relevant congressional Committees, including the House Committee on Transportation and Infrastructure and the House Committee on Oversight and Government Reform.

Bills that did not pass in the 116th Congress but will be reintroduced soon in the 117th Congress

Aviation Impacted Communities Act

This bill was introduced by Rep. Adam Smith (D-WA) in the 116th Congress and his staff said it is expected to be reintroduced in March. The bill is being reviewed to determine if changes need to be made.

As introduced in the last Congress, the bill would have:

- Authorized \$750 million for fiscal years 2021 to 2030 to fund noise mitigation efforts – including sound insulation – in communities outside the 65 DNL noise contour that are designated as “aviation-impacted.”

- Allowed 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.

- Significantly expanded the current limits of FAA-funded sound insulation efforts to allow FAA and airport operators to provide sound insulation for:

- (1) 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

- (2) Neighborhoods within a 55 DNL contour in which an airport operator or the Administrator of the FAA determines “significant numbers” of flight operations are conducted between 10 p.m. and 6 a.m.

- Require FAA to interface directly with and be responsive to residents and locally-nominated leaders on issues of aviation noise and environmental impact.

Protecting Airport Communities from Particle Emissions Act

This bill was introduced by Rep. Adam Smith (D-WA) in the 116th Congress and his staff said it is expected to be reintroduced soon in the 117th Congress.

The text of the new bill has not been released yet but, as introduced in the previous Congress, the bill would have:

- Required the FAA to enter into “appropriate arrangements” with the National Academy of Sciences to conduct a

national study on the sources, characteristics, dispersion, and potential health effects of ultrafine particles (UFPs) in communities around airports. The study must:

- (1) Focus 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

- (2) Look 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.

Bills that did not pass in the 116th Congress and it is unclear yet whether they will be reintroduced in the 117th Congress

Decrease Noise Levels Act

This bill was introduced by Rep. Grace Meng (D-NY) in the 116th Congress but did not pass. Rep. Meng’s staff has not yet responded to inquiries regarding whether the bill will be reintroduced.

As introduced in the last Congress, the bill would have:

- Required the FAA to lower the level of noise it considers to have “significant” impact in terms of its Part 150 Airport Noise Compatibility program from 65 DNL to 60 DNL immediately and to create a plan to further lower the level of significant impact to 55 DNL in 10 years.

- Required any community outreach FAA conducts on DNL to contain the results of the evaluations of alternative metrics to DNL required under Sections 173 and 188 of the FAA Reauthorization Act of 2018.

Quiet Communities Act of 2019

This bill was introduced by Rep. Grace Meng (D-NY) in the 116th Congress but did not pass. Meng has not said whether she plans to reintroduce the bill.

As introduced in the last Congress, the bill would have:

- Reestablished the Environmental Protection Agency’s Office of Noise Abatement and Control (ONAC) and require the office to study aircraft noise.

- 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 education.

- 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.

Airplane Noise Research and Mitigation Act of 2018

This bill was introduced by Rep. Grace Meng (D-NY) in the 117th Congress but did not pass. Rep. Meng has not announced if the bill will be reintroduced in the new Congress.

As originally introduced, the bill 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

Aircraft Noise Reduction Act

This bill was introduced by Rep. Joe Neguse (D-CO) in the 117th Congress but did not pass.

It would have allowed general aviation airports to restrict noise without going through FAA's Part 161 process by giving authority to impose certain restrictions relating to noise concerns, such as limiting the number and type of aircraft that can operate, and setting curfews or specific hours for them to fly.

Rep. Neguse has not announced whether he will reintroduce his bill in the new Congress.

Cleaner, Quieter Airplanes Act

This bill was introduced by Rep. Don Beyer (D-VA) at the end of 2019 and the congressman has not announced yet whether it will be reintroduced.

As originally introduced, the bill would have directed the National Aeronautics and Space Administration to establish an initiative to build upon and accelerate previous or ongoing work to develop and demonstrate new technologies in aircraft concepts that are capable of reducing both greenhouse gas emissions and noise emissions from aircraft by at least 50%.

The goal of the initiative would be to deploy new technologies developed pursuant to the initiative on (1) regional transport aircraft intended to enter into service by 2030, and (2) single-aisle aircraft designed to accommodate more than 125 passengers intended to enter into service by 2040.

Eight Bills Introduced by Rep. Jackie Speier (D-CA) in Last Congress

On Dec. 20, 2019, California Congresswoman Jackie Speier introduced eight bills to mitigate the impact of aircraft noise on communities across the country. None of them passed in the 16th Congress. She has not yet said whether she will reintroduce any or all of the following bills:

Responsive Employees Support Productive Educated Congressional Talk (RESPECT) Act

Would require FAA staff to answer questions submitted in writing by Members of Congress relating to flight procedures or other data affecting their district within 90 days and would require FAA staff to appear at a meeting or town hall with a Member of Congress with 30 days' notice.

Restore Everyone's Sleep Tonight (REST) Act

Would allow airports to impose access restrictions between 10 p.m. and 7 a.m., without seeking approval or comment from the FAA, Secretary of Transportation, air carriers or aircraft operators, "or any other entity." The bill would provide exceptions for military, law enforcements, and Coast Guard flights.

It also would allow airports to impose a "noise deterrence penalty" on an air carrier or aircraft operator for a violation of their access restrictions. The penalty would begin at a base level sufficient to deter future violations of access restrictions and could increase above the base amount "if an aircraft take-off or landing results in noise to residents of any unit of local government exceeding 80 DBA "as evidenced by a noise monitoring device recognized as authoritative by the airport." Penalties collected for violations of airport access rules would be remitted to the unit or units of local governments impacted by the violations.

Serious Noise Reduction Efforts (SNORE) Act

Would establish a program at San Francisco International Airport (SFO) to noise insulate 200+ homes per year in specific areas or provide financial support to the cities impacted by noise.

Southbound HUSSH and NIITE Help Households (SHHH) Act

Would support formally initiating and continuing the standard processing of the proposed San Francisco International Airport (SFO) NIITE Departure Southbound Transition and the Oakland International Airport (OAK) HUSSH Departure Southbound Transition.

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Fairness in Airspace Includes Residents (FAIR) Act

Would amend the FAA's prioritization of U.S. airspace use. Safety in managing U.S. airspace would remain the first priority. Secondary priorities would put noise and health impacts to residents and other environmental concerns on an equal basis with efficiency.

All Participating in Process Reaching Informed Solutions for Everyone (APPRISE) Act

Would ensure that community knowledge and input is represented in the FAA flight procedure design process. An aviation roundtable technical representative will be allowed to fully participate in the FAA procedure design process for procedures affecting their communities.

Notify Officials to Inform Fully and Impel Educated Decisions (NOTIFIED) Act

If a new or modified flight path is proposed through the FAA Procedure Based Navigation (PBN) process, the FAA would be required to notify City Councils, Boards of Supervisors, Members of Congress, and Aviation Roundtables within 5 miles of the flight path in question.

Low-frequency Energetic Acoustics and Vibrations Exasperate (LEAVE) Act

As an airplane leaves from an airport, its takeoff generates significant amounts of ground-based low-frequency noise and vibration impacting residents in the vicinity. The bill would lead to the establishment of standards and remedies related to ground-based noise (GBN). If enacted, the bill would permit a state cause of action for GBN if a state has undertaken a study of GBN at an airport, set a maximum, and the airport then exceeds the maximum, leading to substantial negative impacts on the community.

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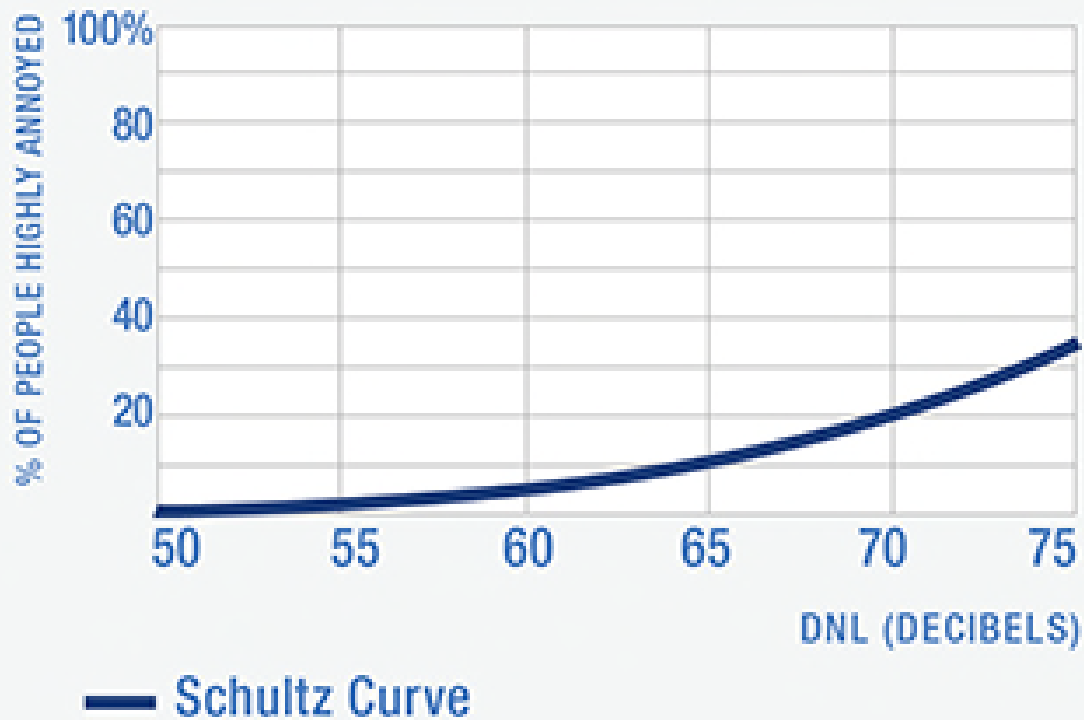
Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives, and Predictions

Peter J. Kirsch

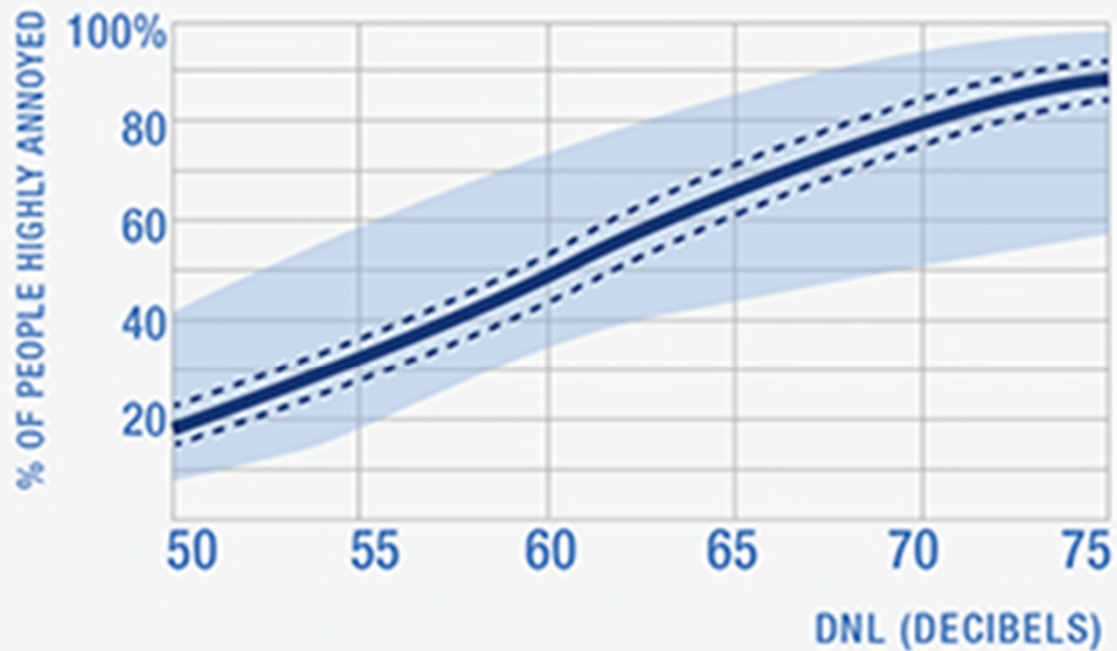
Aviation Noise and Emissions Symposium
February 26, 2021



SCHULTZ CURVE



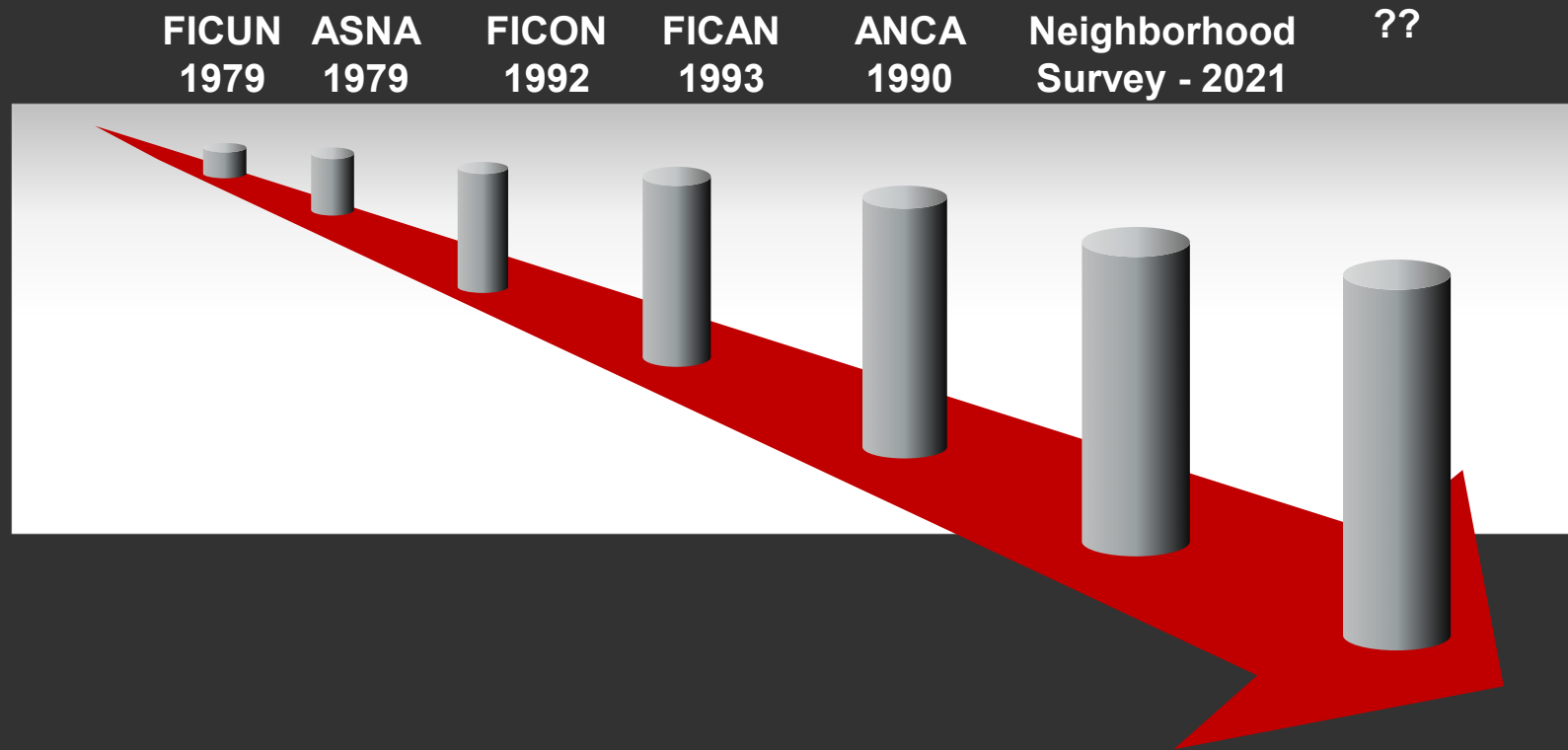
NATIONAL CURVE



- National Curve
- - - National Curve 95% Confidence Limits
- Range of Available Airports Curves



How did we get here?

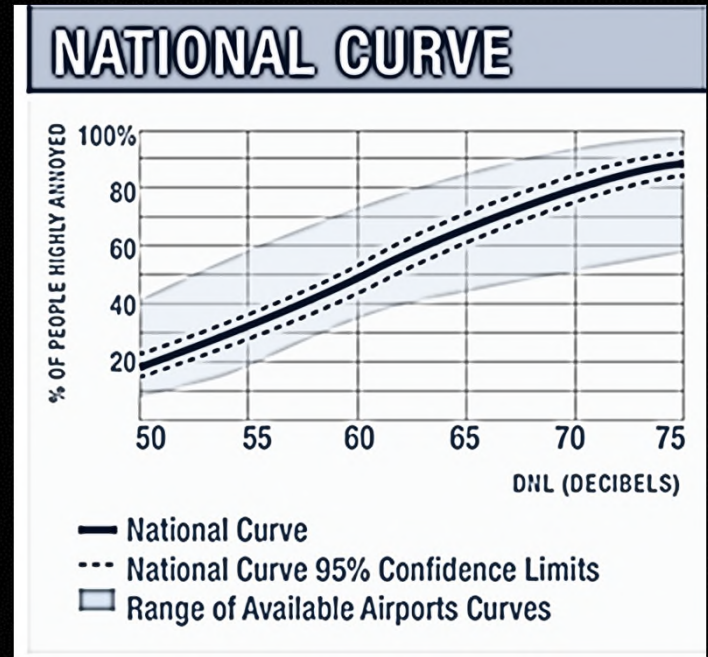


New noise annoyance data

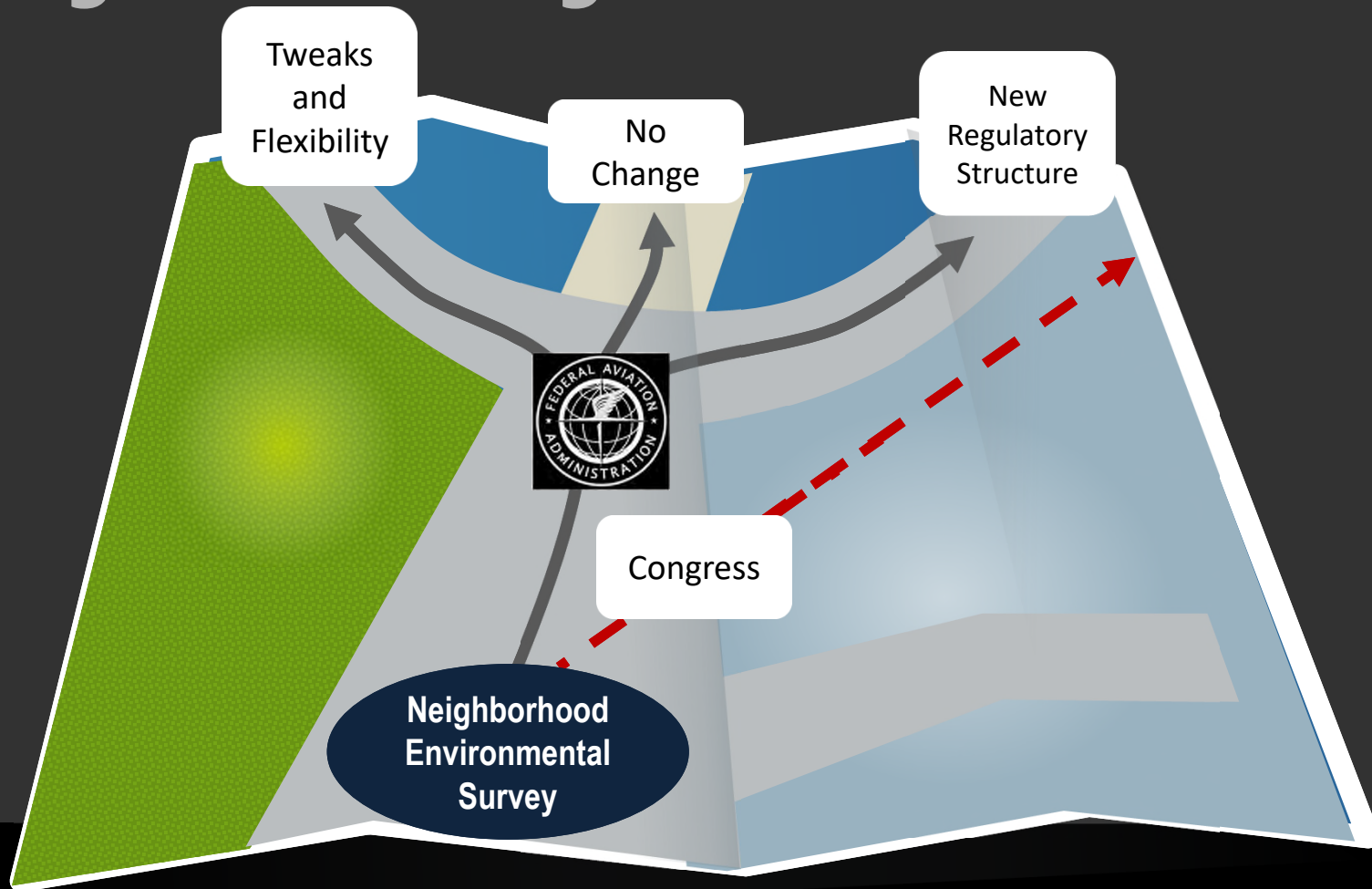
- New foundation for all legal discussions of noise
- Pressure on regulators (FAA) and legislators (Congress) and sponsors (airports) to adapt to findings from *Neighborhood Environmental Survey*
- Does it remain legally permissible to continue to rely on 65 dB DNL threshold?



Now what?



The long and winding road . . .



Legal considerations

- The 65 dB DNL threshold was developed for a narrow purpose in the 1970s-80s
- Acceptance evolved, gradually becoming more widespread
- Use of 65 dB DNL threshold is today enshrined in law, regulations, policies, guidance, past practice (legal precedents)
- Changes to those legal documents must be –
 - Transparent
 - Thoughtful
 - Collaborative (public comment)



In the meantime....?



OR



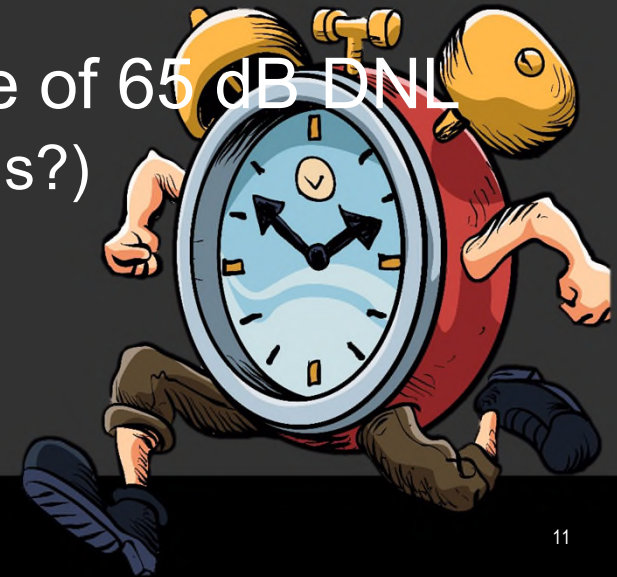
Some reasonable options (FAA only)

- Revisions agency-wide in metric (DNL) or threshold (65 dB DNL)
- Selected revisions –
 - NEPA/ Section 4(f)/ NHPA
 - Part 150
 - Part 161
 - Airport revenue use
- Just FAA or government wide
(EPA, HUD, VA, other DOT modal agencies)



Triggers/policy considerations

- New administration focused on climate change and environmental justice
- Will public, Congress accept more studies?
- Pressure to act (now)
- Transition – what does that look like?
- Potential legal challenges to continued use of 65 dB DNL
 - FAA NEPA documents (arbitrary and capricious?)
 - State law (California especially)



Implications of changes

- ✓ NEPA documentation (scope)
- ✓ State environmental reviews
- ✓ Section 4(f) determinations (parks, historic properties)
- ✓ Part 150 mitigation funding
- ✓ Airspace redesign
- ✓ Federal funding for other mitigation (AIP eligibility)
- ✓ Revenue use by airport sponsors (outside 65 dB DNL)
- ✓ Noise reporting generally





Congressional interest: statutory revisions

Quiet Skies Caucus



Hot Congressional topics

- Metroplex and NextGen (appropriateness of DNL metric generally)
- Thresholds
- Local flexibility on restrictions (revise ANCA)
- Studies, studies, studies
 - Another FICUN (1979); FICON (1991); FICAN (1993)
 - Independent review?
 - Blue ribbon commission?





Reference materials



Legal Authority – Key statutes

- **Aircraft Noise Abatement Act of 1968 (49 U.S.C. 44715)**
 - FAA may prescribe standards for measurement and regulation of aircraft noise
- **Aviation Safety and Noise Abatement Act of 1979 (ASNA) (49 U.S.C. 47501 et seq.)**
 - FAA may regulate “air noise compatibility planning”
 - FAA may fund airport projects in an approved noise compatibility program
 - FAA may establish standards for measuring noise impacts
- **Airport Noise and Capacity Act of 1990 (ANCA) (49 U.S.C. 47521 et seq.)**
 - Phase-out of Stage 2 aircraft > 75,000 pounds
 - Limits on any restrictions of Stage 2 and Stage 3 aircraft
- **FAA Modernization and Reform Act of 2012 (P.L. 112-95)**
 - Ban on almost all Stage 2 aircraft after December 31, 2015
- **FAA Reauthorization Act of 2018**
 - Section 163 limits FAA authority over considerable airport land uses



Legal Authority – Key regulations

▪Part 36

- Noise Standards: Aircraft Type and Airworthiness Certification (1969, as amended)

▪Part 91, Subpart I

- Operating Noise Limits (1976, as amended)

▪Part 150

- Airport Noise Compatibility Planning (1984, as amended)

▪Part 161

- Notice and Approval of Noise and Access Restrictions (1991)



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Community Perspectives On Legislation

Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives, and Predictions

Darlene Yaplee | ANE Symposium 2021

Founding Member of Aviation-Impacted Communities Alliance (AICA) & Palo Alto Residents

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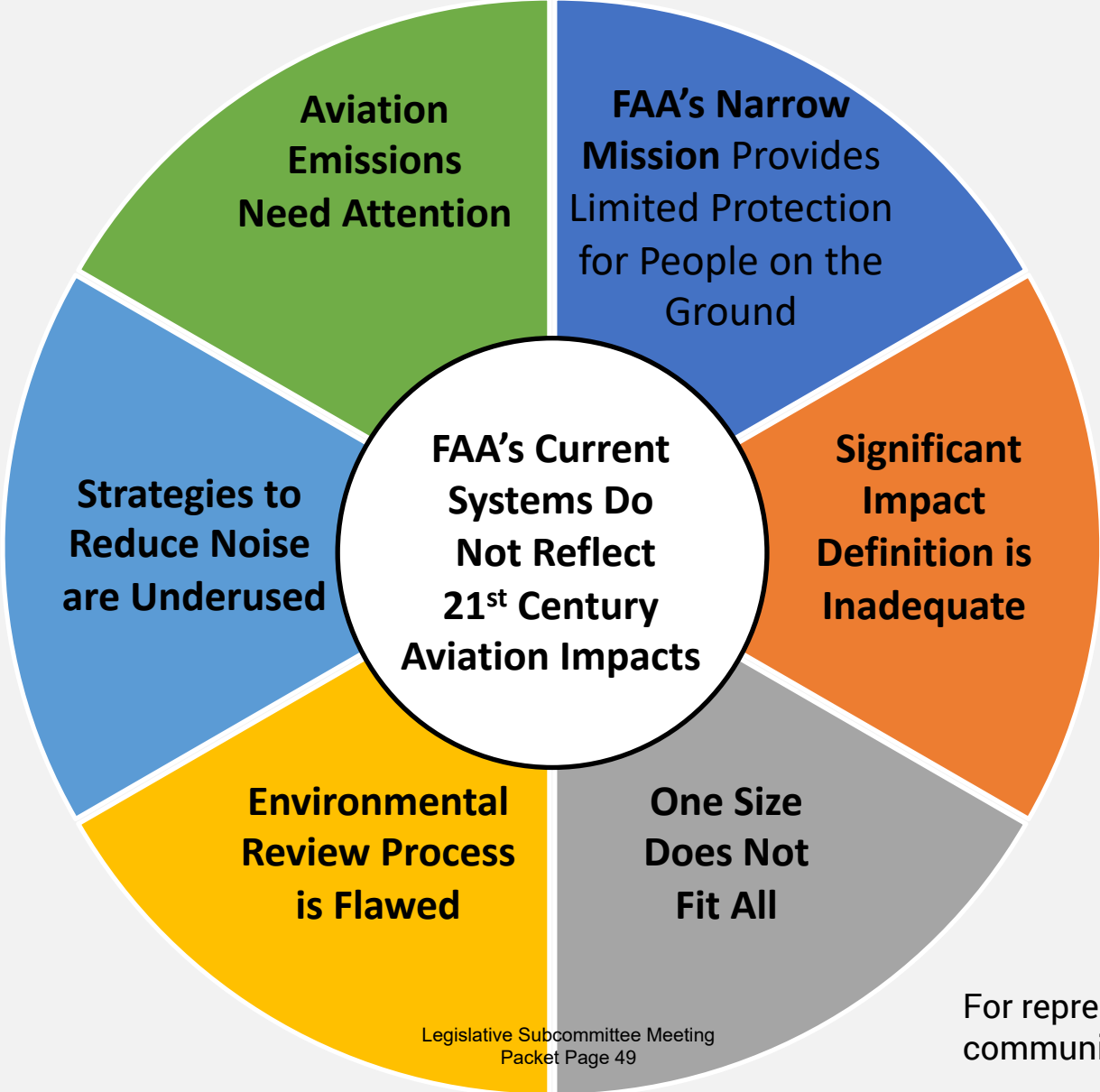
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Overarching Problem

The current systems used by the FAA to assess, report, and address noise and health impacts do not reflect the 21st Century and legislative changes are overdue.

Residents want relief from noise and emission impacts.

Framing the Problems



Problem 1 FAA's Narrow Mission Provides Limited Protection for People on the Ground

[FAA Home](#) ▶ [About FAA](#) ▶ Mission

Mission

Our Mission

Our continuing mission is to provide the safest, most efficient aerospace system in the world.

Screenshot of <https://www.faa.gov/about/mission/>, Accessed 02/14/2021

Problem 2 FAA's "Significant Impact" Definition is Inadequate

"Significant Impact" under NEPA (1969) is 65 dB DNL

- **The FAA has decided the DNL threshold determines:**
 - Basis for sound insulation programs
 - Level and outcome of Environmental Review (NEPA 1969)
- **"Significant Impact" interpretation**
 - Is based on "a single metric" (DNL), not "a single system" as directed by Congress (ASNA 1979)
 - The threshold of 65 dB DNL is fixed, regardless of ambient noise
 - Does not reflect how people experience noise
- **FAA Neighborhood Environmental Survey (2021)**
 - Casts doubt on 65 dB DNL for determining "significant impact"
 - True number of highly annoyed people is an order of magnitude higher than previously thought

Problem 2 FAA's "Significant Impact" Definition is (Cont.) Inadequate

Example of 65 dB DNL determining the outcome - FONSI

Florida Metroplex

- 29 Public Workshops
- 2 Public Comment Periods
Totaling 120 Days
- 3,239 Comments



Federal Aviation Administration

Finding of No Significant Impact (FONSI)

and

Record of Decision (ROD)

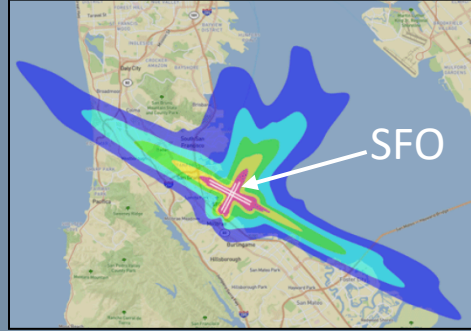
For the South-Central Florida (FL) Metroplex

October 2020

I. INTRODUCTION

This document serves as the Federal Aviation Administration's (FAA) Finding of No Significant Impact and Record of Decision (FONSI/ROD) for the South-Central Florida Metroplex (FL Metroplex) Project, October 2020. This FONSI/ROD relies on the information and analysis described in the Final Environmental Assessment for the FL Metroplex Project, attached hereto and incorporated by reference. The FONSI/ROD has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code (U.S.C.) Section 4321 *et seq.*); implementing regulations issued by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations (CFR), parts 1500-1508); and FAA Order 1050.1F, Environmental Impacts: Policies and Procedures (FAA Order 1050.1F). This FONSI/ROD is also used by the FAA to demonstrate and document its compliance with the several procedural and substantive requirements of aeronautical, environmental, programmatic, and other statutes and regulations that apply to FAA decisions on proposed actions.

Problem 3 One Size Does Not Fit All



Near Airport



Away from Airport

Community

Noise Sources

Ambient Noise

Metrics

Thresholds

Noise Reduction Strategies

Departures, arrivals, and ground-based operations

Typically urban or suburban

DNL and non-DNL

Realistic thresholds

Examples: sound insulation, land use, ground-based noise abatement

Departures and/or arrivals: concentrated corridors and high frequency overflights

Typically suburban or rural

Non-DNL e.g. N-Above

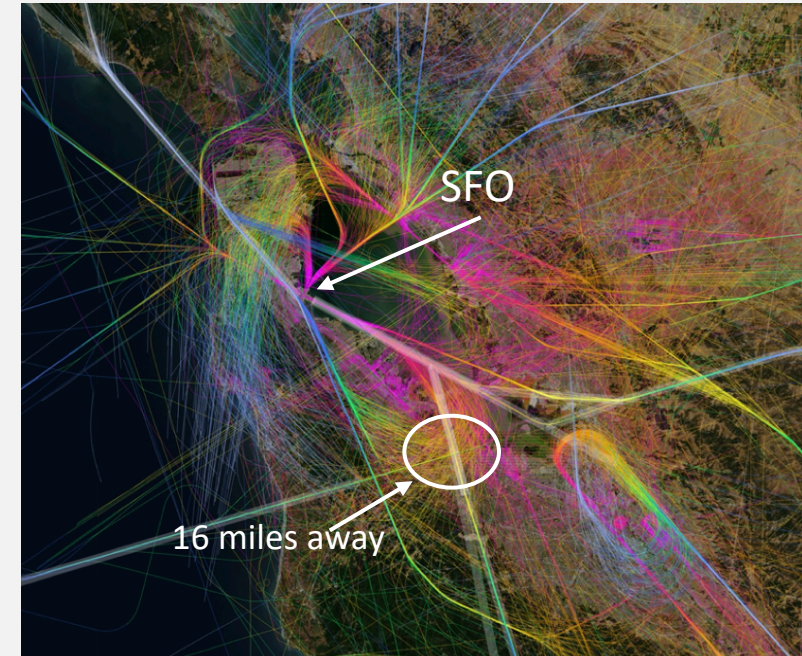
Realistic thresholds

Examples: avoid residential, quiet procedures, low concentration

Different Noise Requires Different Solutions

Problem 4 FAA's Environmental Review Process is Flawed

- **244 SFO noise events/day on average**
 - Palo Alto, CA – located in NorCal Metroplex
 - 16 miles from SFO as the crow flies
 - ~60% of SFO arrivals
 - Monitored Oct 30, 2018 - Jan 4, 2019
- **At representative neighborhood site:**
 - Aircraft CNEL*: 52 dBA
- **To reach a 65 dB CNEL threshold, Palo Alto would need almost 5,000** airplane noise events PER DAY**
 - This would be an airplane every 17.7 seconds throughout a 24 hour period



Away from the Airport - “Significant Impact” definition is a foundational flaw because even communities with very high noise impacts will never reach that threshold

*Community Noise Equivalent Level (CNEL) is like DNL but has an additional 5 dB penalty for noise events between 7 pm-10 pm. Used in CA for land use compatibility.

**Calculation: CNEL 52 dB and need +13 dB to reach 65 dB. 13 dB is a factor of $10^{1.3} = 20$. Need a total of $20 \times 244 = 4,880$.

Problem 4 FAA's Environmental Review Process (Cont.) is Flawed

RECOMMENDATIONS

- **Add a validation step** to compare the Environmental Review predicted impacts against the actual impacts
- **Eliminate use of the CATEX (Categorical Exclusion)** to implement major changes such as new RNAV procedures
- **Ensure timely, transparent, and meaningful** community involvement
- **Perform accurate impact analyses** for locations under NextGen paths due to inadequate methods, modeling tools (AEDT), definitions, and assumptions
- **Include cumulative impact** over time, multiple procedures **and** airports
- **Etc.**

Problem 5 FAA's Strategies to Reduce Noise are Underused

- STRATEGIES FOR NEAR AND AWAY FROM AIRPORT EXIST TODAY
 - Benefit both noise environments - e.g. nighttime curfews
 - Benefit unique to one noise environment - e.g. quieter arrival procedures
 - Examples of noise reduction strategies (see Appendix)
 - Commercial air tours: noise levels, altitude, and no overflights – e.g. national parks
- STRATEGIES TO REDUCE NOISE ARE UNDERUSED

Problem 6 Aviation Emissions Need Attention

ULTRAFINE PARTICULATE MATTER,
GREENHOUSE GAS EMISSIONS, AND UNLEADED
FUEL

- Limited regulation
- FAA does not have public health expertise
- One reintroduced bill and one soon to be reintroduced bill for consensus reports - National Academies
- Numerous impact studies available
- Shared cause with environmental advocacy and environmental justice groups
- Unleaded fuel continues to be used for general aviation

STATS ON TOXIC FUMES EMITTED BY SPECIFIC AIRPORTS

SEATAC AIRPORT SEATTLE, WA

The carbon monoxide levels registered above federal guidelines

VAN NUYS AIRPORT VAN NUYS, CA

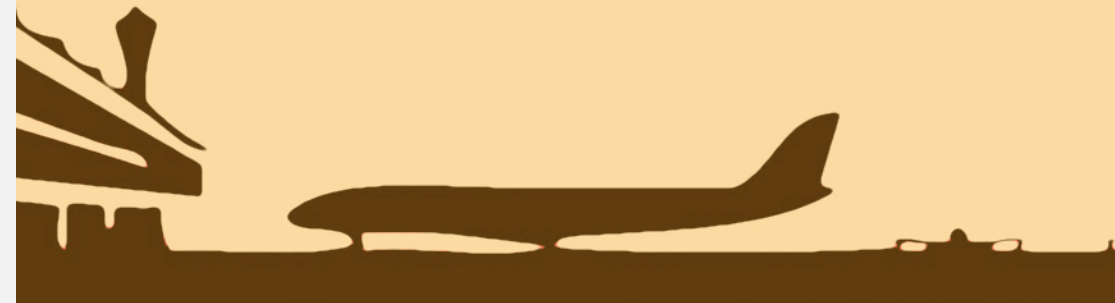
1.4 tons of lead emissions estimated annually

CINCINNATI/NORTHERN KENTUCKY INTERNATIONAL AIRPORT COVINGTON, KY

All airport terminal services employees tested exceeded the ACGIH carbon monoxide threshold limit value of 25 ppm

LOGAN AIRPORT BOSTON, MA

VOC emissions measured at 667432 kg/yr.



HEALTH RISKS OF LIVING NEXT TO AIRPORTS

Insights for Future Legislation

- Current legislation does not protect people on the ground especially given 21st century aviation impacts
- Legislative changes are required unless FAA issues new regulations
- FAA Neighborhood Environmental Survey (2021)
 - New data strongly support changing the “significant impact” - threshold and metric

Insights for Future Legislation (Cont.)

FOR EXAMPLE, EFFECTIVE LEGISLATION WILL:

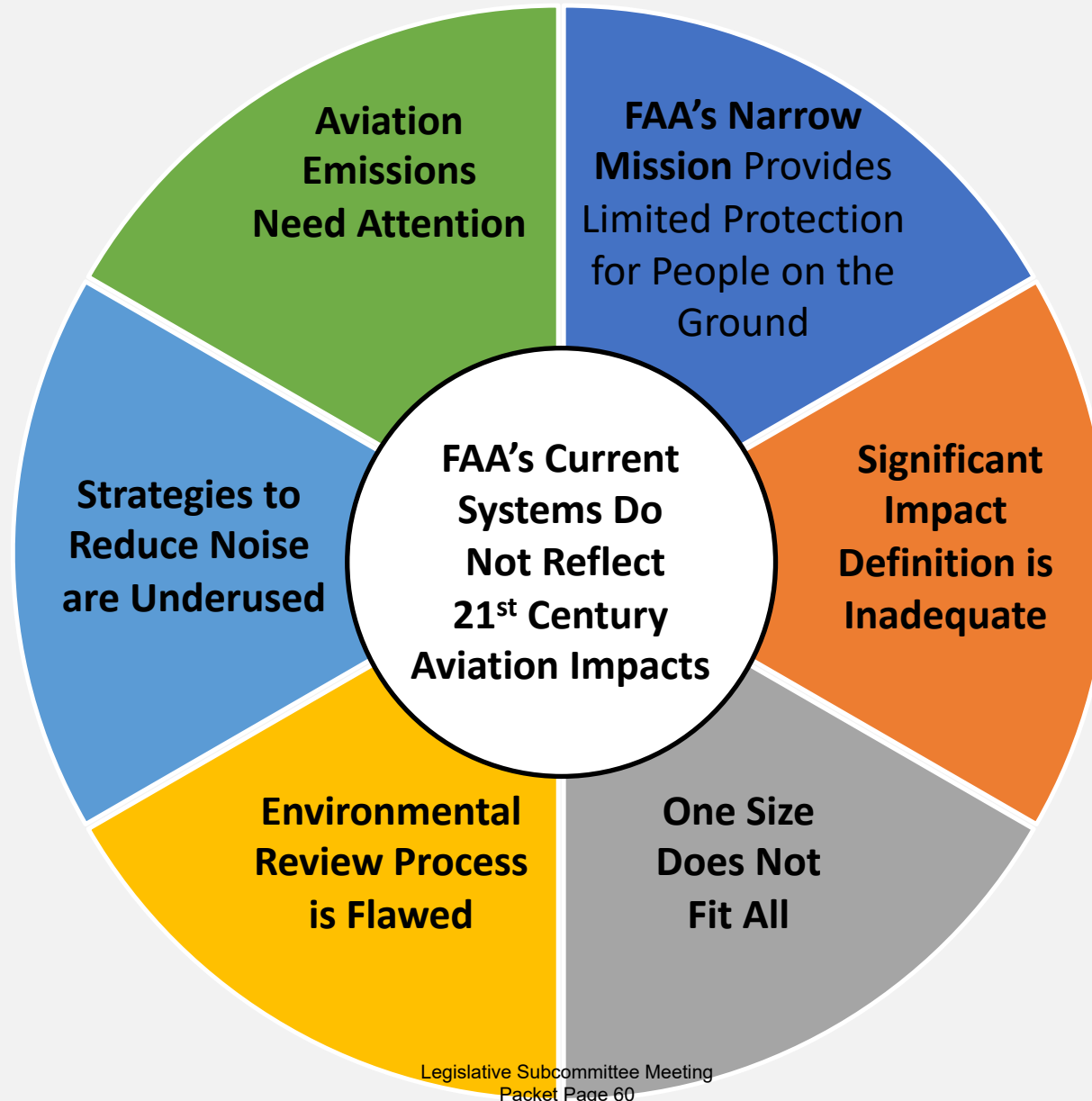
- ❑ Recognize that the Public wants less noise, not more research
- ❑ Task independent bodies of recognized experts with a track record of accelerating policy changes to review existing data and issue recommendations in a timely fashion
(e.g. H.R. 712: Division of Medicine within the National Academies for health impacts of noise & pollution)
- ❑ Be specific and hold FAA accountable: deliverables, actions, and timelines
- ❑ Give the FAA (or another agency) a mandate to protect aviation-impacted communities

Critical Legislative Items to Change

- Lower emissions

- Local control (e.g. curfew)
- Lower concentration and frequency
- Quiet procedures
- Etc.

- Eliminate CATEX usage
- Accurate impact assessments
- Effective community engagement
- Add validation step
- Accountability



- Must be broader – FAA or another agency

- Change "Significant Impact" – metrics and thresholds

- Different solutions for different noise types

APPENDIX

EXAMPLES: Strategies Exist to Reduce Noise Need Legislation for FAA to Take Action

| Near the Airport | Away from Airport |
|---|---|
| Design quieter departure procedures ⁽¹⁾ (thrust level, climb rate, ground track) | Design quieter arrival procedures ⁽²⁾ (speed brakes, angle of descent, ground track, altitude, speed) |
| Increase sound insulation ⁽³⁾ | Design GBAS arrival approaches without increasing capacity ⁽⁴⁾ |
| Allow airports to put in place night curfews | |
| Design nighttime procedures to minimize noise impact over residential areas | |
| Design curved daytime procedures to avoid residential areas as much as possible | |
| Design additional procedures to reduce concentration and disperse traffic | |
| Increase in-trail spacing ⁽⁵⁾ to reduce frequency of planes and vectoring due to airport congestion | |
| Require noise exposure capacity limits | |

Different
Noise
Requires
Different
Solutions

(1) Also applies to some extent to communities away from airport.
 (2) Per the FAA Reauthorization Bill 2018, report on Section 179 (December 2020), a Delayed Deceleration Approach proposed by MIT could reduce arrival noise **per aircraft** by 4 to 8 dBA for areas 10 to 25 nautical miles away from the runway.
 (3) Sound insulation may also be appropriate in communities further from airports if other noise reduction measures are insufficient.
 (4) The FAA has communicated to SFO that it will not consider changing the end of arrival procedures until 2025. Doing so could reduce noise for many communities under a well-designed GBAS approach.
 (5) In-trail spacing is the minimum distance separating 2 consecutive planes on the same procedure or approach.

List of Aircraft Noise and Emissions Bills for 117th Congress

See posted on ANE site “Supporting Documents,” ANES 2021 Legislation
Courtesy of Anne Kohut, Airport Noise Report/Aviation Emissions Report

- New bills introduced
- Previous bills reintroduced
- Previous bills expected to be reintroduced
- Previous bills – TBD if will be reintroduced

Representative input from
community members around
the country regarding their top
national priorities for legislation.

Problem 1 FAA's Narrow Mission Provides Limited Protection for People on the Ground

Reestablish the EPA Office of Noise Abatement and Control (ONAC)

FAA defunding should occur if aircraft noise and air pollution issues are not actively addressed with satisfactory metrics within a specified period of time

Change the mission statement of the FAA to require consideration of community health and environmental impacts

Congress to stop giving inconsistent input e.g. FAA to create supersonic airplane standards when it will result in new noise problems

Problem 1 FAA's Narrow Mission Provides Limited Protection for People on the Ground (Cont.)

Remove any powers of self-regulation of aircraft noise and environmental impacts from the FAA and reassign to an independent body

There is ZERO oversight or control of the FAA. Congress needs to create more oversight and policy that does not give the FAA carte blanche to do whatever they want in the skies over our country

The FAA has failed for years to develop, evaluate, and utilize noise metrics that have “a highly reliable relationship between projected noise exposure and the surveyed reactions of people to noise...” as already required by law. Rather than leaving this task to the FAA, which is a captured Agency, Congress should fund the EPA ONAC

Prioritize noise and emissions at a higher priority than efficiency

Problem 2 FAA's "Significant Impact" Definition is Inadequate

DNL metric and threshold used to determine noise impact are seriously flawed, resulting in inaccurate information used to justify a "finding of no significant impact"

The current metric is not a good measurement of what people experience on the ground. A new metric that measures single events and incorporates the frequency of single events is needed

Current noise standards in DNL expressions are impossible to meet as they are unrealistically high. Need to be lowered to levels that will represent real world scenarios

Despite millions of complaints there have only been Finding of No Significant Impact (FONSI) for all NextGen implementations

Problem 2 FAA's "Significant Impact" Definition (Cont.) is Inadequate

65 DNL standard is antiquated and outdated...calculated forty years ago, needs to be reevaluated – ineffective and well above the international standard

Need a non-DNL metric that measures single events and addresses concentration to accurately reflect NextGen impacts

The World Health Organization determined after a study and review of the scientific literature that generally outdoor noise levels should not exceed 55 dB in the daytime and 50 dB at night

Modernize and greatly reduce the threshold for significant noise to allow airport sponsors to use funds for soundproofing

Problem 3 One Size Does Not Fit All

Hawaii Island is the most tour copter impacted County in the Nation. The State of Hawaii is the most tour copter impacted State in the U.S.

A broader array of mitigations is needed to address the negative effects of airplane impacts. Current mitigations deal with the area within a few miles of an airport, but the vast majority of complaints filed since NextGen are from areas beyond that perimeter where today's thresholds of significance are irrelevant

Comprehensive reassessment of Next Gen's unintended consequences on communities from the perspective of increased noise pollution and heightened risks to neighborhoods experiencing departures and landings passing overhead at an altitude insufficient to guarantee the safety of those beneath should catastrophic engine failure occur

Problem 3 One Size Does Not Fit All (Cont.)

Noise events are undercounted using “threshold and duration method” for away from airport monitoring data - need “actual flight track method”

Ambient noise differences of 15-20+ dBA for near versus away from the airport must be factored into assessments

Require general aviation planes doing touch and go practice to attain an altitude of 1000 ft on takeoff before turning to circle over residential areas, and no longer consider touch and go operations as take offs and landings to avoid the FAA altitude requirement of 1000 ft. min. altitude for fixed wing aircraft

Require FAA to create noise exposure maps and install noise monitors for impacted areas, not just for at the airport

Problem 4 FAA's Environmental Review Process is Flawed

Community review is not timely, transparent or meaningful. Current focus is explaining what has been decided

Extend the FAA 60 day rule: require FAA to disclose accurate impacts and in language the public can understand

Need total impact of multiple changes: FAA assesses impacts on an incremental basis (one at a time) not the combined impact - all changes over time (procedures, all airports). This voids triggering the 65 DNL. Should not reset the "noise baseline" after each change

FAA can use noise screening tools and questionnaires which are too simplistic, poorly phrased and omit modeling for analysis of impacts

Problem 4 FAA's Environmental Review Process (Cont.) is Flawed

Eliminate use of the CATEX, it is not acceptable

Moving of flight paths over communities without prior notification; should not expect residents to track the IFP Gateway

FAA should not be allowed to create a procedure using "Segmentation" and "Presumed to Conform" regulations to exclude it from proper environmental review per NEPA

Implementing procedures just prior to Metroplex implementation and not including them in any Metroplex analyses

Problem 5 FAA's Strategies to Reduce Noise are Underused

Dispersion of arrivals similar to legislation that was passed for departures

Delaying the deceleration of the aircraft on approach could reduce noise between 4 and 8 dBA (noticeable) 10 to 25 nautical miles from touch down - per FAA Section 179 report

Realignment of the National Airspace System routes and schedules for safer, fuel efficient, and more conservative maximum flight operation/runway use rates at connecting-hub airports

Allow restriction nighttime operations: curfews

Problem 5 FAA's Strategies to Reduce Noise are Underused

(Cont.)

General Aviation (includes Helicopters): increase minimum altitude to fly and at takeoff before turning over residential areas

Increase landing fees to cover lost property value, insulation programs, health effects, and annoyance; increase fuel taxes to account for environmental and public health damage

Our pre NextGen routes were ENTIRELY OVER THE OCEAN and did not disturb ANYONE. These new routes, over densely populated residential areas, could be more preventable when old routes are close-by, over open water, and disturb no one

More sound insulation

Airplane noise that cannot be eliminated must be equitably shared

Problem 6 Aviation Emissions Need Attention (Cont.)

A significant portion of airline stimulus funds should be used to hire engineers that would work on immediate aircraft noise and air pollution reduction or elimination on their current aircraft fleet

Require general aviation airports to offer unleaded fuel for propeller driven planes, alongside toxic leaded avgas that only a minority of general aviation planes need to use for safety

Air and water pollution are a concern. Emission residue and soot are evident on our schools, properties, plants, furnace filters and cars. Can there be independent testing for pollutants? Deicing fluid runs off into near by streams and rivers. That should be tested too

There is more than enough scientific information from studies to know that PBN negatively affects the nation's health

Problem 6 Aviation Emissions Need Attention (Cont.)

When people talk about aircraft noise and emissions, they must be considered together. For the area around Sea-Tac Airport, the importance of this combined multiple pollutant impact on human health poses a greater risk than one in isolation. Considering that the communities near the airport have hundreds of thousands of people living in the highest noise levels in the state and highest emissions in the region, you would expect health consequences. And that is exactly what the King County Department of Health did find in a report recently released. Higher risk, higher health consequences, higher exposure

Need to address lead, PM2.5, and other pollutants - and global warming

An emerging concern for us is the need to regulate ultrafine particles and its relationship with pre-term births



April 13, 2021

Steve Dickson, Administrator
U.S. Department of Transportation
Federal Aviation Administration
Office of the Administrator
800 Independence Avenue, S.W.
Washington, DC 20591

Re: Docket No. FAA-2021-0037 - FAA Aircraft Noise Policy and Research Efforts: Request for Input on Research Activities to Inform Aircraft Noise Policy

Dear Mr. Dickson:

The San Francisco International Airport/Community Roundtable (SFORT) has been in existence for 40 years. The SFORT represents 23 elected or appointed officials from governing bodies in the counties of San Francisco, and San Mateo, representing a population of 1,648,122¹. The overall purpose of the SFORT is to foster and enhance cooperative relationships to develop, evaluate, and implement reasonable and feasible policies, procedures, and mitigation actions that will reduce the impacts of aircraft and airport noise in neighborhoods and communities in San Francisco, and San Mateo Counties.

At its regular Membership Meeting of February 3, 2021, the SFORT received a presentation from Harris Miller Miller & Hanson (HMMH) President Mary Ellen Eagan, on the FAA Neighborhood Environmental Survey (NES). On March 1, 2021, the SFORT Legislative Subcommittee met to discuss the FAA Aircraft Noise Policy and Research Efforts (Docket No. FAA-2021-0037) where the National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.) provided their Board recommendations, and HMMH gave an overview of the findings and conclusions on FAA's key research, tools, and technology programs. SFORT Members heard the presentations, and community feedback at each meeting.

This letter represents SFORT's consensus recommendations to the FAA on how resources should be directed to address community aircraft noise exposure.

SFORT believes that swift concrete action is necessary to modify the noise measurement methodology, report and share information with communities, and increase noise mitigation measures in communities. The NES results provide evidence to support what has been known anecdotally for years: Even though NextGen increased the efficiency of flight operations, the intensification of flights particularly over residential communities has resulted in cumulative noise disturbance that significantly reduces the quality of life for our residents that cannot be measured properly by the definition of significance at 65 dB CNEL/DNL.

The following are our recommend actions on key research, tools, and technology programs:

¹ U.S. Census, Population Estimate, July 1, 2019.

1. Effects of Aircraft Noise on Individuals and Communities

- a. Develop an Environmental Justice metric that recognizes disadvantaged communities and measures the impact of aviation noise specifically on those communities.
- b. Prioritize all SFO flights, over water instead of over land, for departures and arrivals.
- c. Establish new policy to employ the NES, rather than the FICON/Schultz Curve, to better represent aircraft noise impacts to communities.
- d. Reinstigate the FAA Office of Environment and Energy to address community noise impacts.
- e. Disallow use of the FICON/Schultz curve in Part 150 and NEPA environmental reviews. Add air quality emissions, health impacts (including psychological impact) from flights over land. Add low frequency noise, such as ground-based noise.
- f. Modify the NEPA thresholds of significance based on the findings of the NES and replacement of the CNEL/DNL metric.
- g. Eliminate NEPA Categorical Exemptions for new and updated RNAV procedures such as those for GBAS (SFO specific). Require all go through a full environmental analysis and review process.

2. Noise Modeling, Noise Metrics, and Environmental Data Visualization

- a. Replace agency-wide use of the CNEL/DNL metric with a supplemental metric such as NA (Number Above) number of events above a certain decibel level such as in NEPA, Part 150, and AIP/PFC Funding of Noise Mitigation.
- b. Consider duration within the agency approved metric(s). Use a supplemental metric that factors in duration, such as TA (Time Above).
- c. Break out noise metric standards in terms of frequency (such as low and high frequencies).
- d. Include actual real-time noise metrics, not a 24-hour average noise metric, to include the NIITE HUSSH and GBAS (SFO specific) concentrated air traffic corridors, leaf blower, freeway, and the airplane when determining community impact.
- e. Overlay on mapping, disadvantaged communities using new Environmental Justice metric recognizing communities already over-burdened by pollution, socioeconomic, and health impacts. FAA should prioritize expenditure in these communities to reduce noise pollution and recognize the relationship between NextGen or GBAS (SFO specific) narrowing and focusing of flight paths.
- f. Recommend transparent dialogue and sharing of data and information between the FAA and its partners such as the ASCENT Program to partner with Roundtables on pilot programs to test noise metrics, noise measurement in varied topography, and inclusion and testing of ground-based noise and mitigation.
- g. Implement the environmental visualization tool to help communicate aircraft noise data to the public.
- h. Update the Aviation Environmental Design Tool (AEDT) to account for aircraft vibration, and tones of multi-rotorcraft.
- i. Vet, thru Roundtables, the use of updated noise screening tool to simplify modeling processes, to facilitate expedited review of proposed Federal actions where significant noise impacts are not expected (where it could qualify for a categorical exclusion).
- j. Provide funding to Airports to accommodate sound insulation treatments on properties that opted out previously or are outside the 65 CNEL/DNL contour but underneath a flight path, or where noise reduction treatments have worn out and no longer effective. Promote the installation and

use of HEPA air filters as part of sound insulation treatment packages to purify air from aircraft emissions; ultra-fine particles are of utmost concern.

- k. Develop Noise and Operations Monitoring System (NOMS) standards and consider the use of noise monitoring data to calibrate noise modeled contours.
 - l. Establish a framework for tracking and including ground-based-noise, using the SFORT funded ground-based noise study, completed on January 19, 2021, as a baseline study.
3. Reduction, Abatement and Mitigation of Aviation Noise
- a. Include broader definition of noise in Continuous Lower Energy, Emissions, and Noise (CLEEN) Program, to include all types of noise such as vibration.
 - b. Develop Advanced Air Mobility (AAM) operational standards and procedures and noise abatement procedures for multi-rotor and vertical aircraft. Consider municipal-level standards for uses such as air taxis, or local good delivery and interface and transition to municipal multi-model transportation hubs.
 - c. The likelihood of home-based package deliveries trending upward is likely to continue. In planning for increases in cargo (whether as part of larger aircraft types or within bellies of smaller commercial aircraft), include nighttime curfews for airports in urban areas.
4. Miscellaneous: Range of Factors / Additional Categories
- a. Clarify the role of the Community Engagement Officers (CEO) to actively engage in a transparent, complete, and forthright collaboration, sharing, and pilot testing programs with Roundtables.
 - b. Address the Final Recommendations of the Select Committee on South Bay Arrivals dated November 17, 2016; and the SFORT recommendations.
 - c. FAA should provide guidance to airports on the removal and relocation of Noise Monitoring Systems (NMT) as part of an existing noise monitoring system.
 - d. Complete the Certification of Supersonic Airplanes SFORT recommendations (FAA-2020-0316) dated June 8, 2020.
 - e. Voluntarily implement provisions of proposed legislation on community noise reduction, such as Rep. Jackie Speier REST Act, to enable airports to impose noise deterrence penalties and impose access restrictions between 10:00p-7:00a, or SNORE Act to noise insulate 200+ homes annually; or FAIR Act to add to the FAA Mission noise and health impacts, along with safety; and LEAVE Act to create standards and remedies related to ground-based noise.
 - f. Partner with regional governments to discuss electric and vertical aircraft (such as air taxis) on municipal buildings and provide standards, suggested zoning, and best practices for interface with multi-model transportation hubs and emergency services.

Please consider the SFORT a partner to the FAA. We are interested in discussing in more detail the challenges in the San Francisco Bay Area. Thank you.

Sincerely,



Ricardo Ortiz, City of Burlingame, Vice Mayor
Chairman of the Roundtable

OAKLAND AIRPORT-COMMUNITY NOISE MANAGEMENT FORUM

An Advisory Body to the Executive Director of the Port of Oakland

Co-Chairs

March 11, 2021

Ms. Trish Herrera
Spencer
Elected -
Representative and
City of Alameda
Councilmember

Mr. Donald Scata, Noise Division Manager
Office of Environment and Energy (AEE-100)
Federal Aviation Administration
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Mr. Walt Jacobs,
Citizen -
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for Alameda

VIA EMAIL

**RE: 86 FR 2722 - Overview of FAA Aircraft Noise Policy and Research Efforts:
Request for Input on Research Activities to Inform Aircraft Noise Policy**

Docket No. FAA-2021-0037

Members

Dear Mr. Scata:

City of Alameda
City of Berkeley
City of Hayward
City of Oakland
City of Richmond
City of San Leandro
County of Alameda
Port of Oakland

For over twenty-two years the Oakland Airport-Community Noise Management Forum (Forum) has represented the interests of community members residing in six cities, and in the unincorporated areas of Alameda and Western Contra Costa counties on aircraft noise and air quality issues. The Forum is now pleased to submit this response to the FAA's "Request for Input on Research Activities to Inform Aircraft Noise Policy." The FAA has specifically requested comments on three areas of interest for allocating resources to further research on a revised Aircraft Noise Policy. The three areas of requested input are listed below with areas of specific Forum interest highlighted in **boldface** type:

Forum Facilitator

Michael R.
McClintock

(1) Effects of Aircraft Noise on Individuals and Communities:

- Speech Interference and Children's Learning;
- **Neighborhood Environmental Survey;**
- **Health and Human Impacts Research;**
- Impacts to Cardiovascular Health;
- **Sleep Disturbance;** and
- **Economic Impacts**

(2) Noise Modeling, Noise Metrics, and Environmental Data Visualization

- Aviation Environmental Design Tool;
- **Noise Screening;**
- **Environmental Data Visualization;** and
- **Supplemental Noise Metrics**

(3) Reduction, Abatement, and Mitigation of Aviation Noise

- Aircraft Source Noise Reduction;
- Noise Abatement;
- **Noise Mitigation Research;** and
- Aircraft Noise Policy Background

Technical Advisors

Federal Aviation
Administration
FedEx Express
KaiserAir, Inc.
Southwest Airlines
Harris Miller Miller &
Hanson, Inc.
Landrum & Brown

The following recommendations set forth the additional investigation, analyses, and/or research the Forum and community members believe the FAA should undertake in each of the three groups outlined above (while not commenting specifically on some of the above issues, the Forum nonetheless also believes them to be of material significance). The thoughts expressed herein are those of the Forum, and may not necessarily coincide with airport and aviation industry concerns; but are nonetheless offered in the interest of informing FAA research and development for a new or updated Aircraft Noise Policy.

(1) EFFECTS OF AIRCRAFT NOISE ON INDIVIDUALS AND COMMUNITIES

Although it is common knowledge that the federal aircraft noise and land use compatibility planning program effectively began in 1979, when Congress enacted the Aviation Safety and Noise Abatement Act (ASNA); it is less recognized that the FAA, over the past forty-two years, has not successfully fulfilled the first two of the three following requirements in the law that it:

1. “establish a single system of noise measurement to be uniformly applied in measuring noise at airports and in surrounding areas for which there is a highly reliable relationship between projected noise and surveyed reactions of people to noise;
2. establish a single system for determining the exposure of individuals to noise from airport operations; and
3. identify land uses that are normally compatible with various exposures of individuals to noise.”

FAA’s implementation of ASNA resulted in the adoption of 14 CFR Part 150—*Airport Noise Compatibility Planning*. In part, Part 150 established the “day-night average sound level” (DNL) as the single noise metric for determining the exposure of individuals to aircraft noise. DNL is but one of many metrics used by FAA to describe aircraft noise; but, it still is not the single system as mandated by Congress in ASNA. As a result, DNL has been, and continues to be used by the FAA as the one unique metric for determining if a proposed action will result in a significant or less than significant impact on people; even in situations where other metrics may be more appropriate or even superior. DNL is a metric, not a “single system” as specified by ASNA; and therein lies the problem.

- The FAA must focus its research initiatives on developing a “single system” for measuring noise at airports and in their environs that incorporates a variety of noise measurement metrics to better inform FAA decision-makers and the public of the effects of aircraft noise on people and the communities in which they live.

The Forum also believes that to truly understand the impacts of aircraft noise on people and property, the FAA needs to make it much less difficult for people to report such noise. Currently, every airport has its own way to receive complaints about aircraft noise, even in regions with many densely-packed airports like the San Francisco Bay Area. Many of these reporting mechanisms are quite cumbersome, requiring one to fill out a web form for each report. This inherently discourages people from reporting noise. There are some sites that endeavor to make this process easier. One that many people in the San Francisco Bay area find to be particularly convenient is stop.jetnoise.net; where reporting a noisy or annoying flight is as simple as a single click on a smartphone. A similarly-convenient system needs to be available nationwide if the FAA is serious about compiling and understanding the effects that aviation noise has on people, and especially so in developing the ASNA-mandated single system for determining the exposure of individuals to noise from aircraft operations.

In addition, a more thorough understanding of annoyance response is needed in the development of national and local noise policies. Further study is needed in the field of non-acoustic factors that influence aircraft noise annoyance response. The next most important need is understanding and quantifying sleep response in a habituated population. Health effects are an increasing concern and the research to date has failed to come close to identifying any dose-response relationships.

- Health effects research must be directed at developing dose-response relationships.

Continuing efforts that merely suggest there may be effects without identifying dose-response

relationships are not helpful to answering the fundamental question of how much noise is too much. In this respect, the Forum endorses the comments of Sky Posse Palo Alto that:

- “[N]either the Schultz curve or the new national curve address health effects or disease burden from given levels of exposure to aircraft noise,” and
- “What metrics and threshold criteria are consistent with protecting public health with an adequate margin of safety?”

Neighborhood Environmental Survey (NES). The Forum offers the following observations and recommendations in response to the request for input on the factors that may be contributing to the increase in annoyance shown in the NES results compared to the findings of earlier transportation noise annoyance surveys, including the survey methodology and comprehensibility. Community response to the NES document was critical of it because it *“was written in a way that no lay person could possibly comprehend what they [FAA] are saying...[the] conclusion was that the FAA didn’t want...anyone else to understand it and thus wanted to discourage comments.”*

Furthermore, the results of the NES showed a marked difference in annoyance response from one community to another. For example, if one were to compare the annoyance response at 65 DNL at the Tucson and Syracuse airports, there would be a range of about 40% highly annoyed at Syracuse and about 80% highly annoyed at Tucson. It might be pointed out that Tucson is a joint-use civil/military airport with fighter aircraft. But O’Hare airport was almost as sensitive, at about 75% highly annoyed at 65 DNL (NES, Figure 8-1).

- It is imperative to be able to understand this difference, i.e., almost twice as many people at one airport were highly annoyed compared to another airport with the same degree of cumulative noise exposure. It’s not likely that people hear differently at one airport or the other, and it’s pretty much the same types of aircraft flying out of these airports.

The NES telephone follow-up survey did not shed much light on these differences. It is well known that both acoustic and non-acoustic factors play a role in annoyance response and that acoustic response (as DNL or LEQ) may only account for about 30-50% of the annoyance.

- Follow-up research is needed to identify these non-acoustic factors and the reasons why they may vary from airport to airport.

Previous studies on Community Tolerance Levels (CTL/L_{ct}) showed that communities form unique attitudes about aviation noise. Fear and distrust of government are usually identified as major non-acoustic factors along with a long list of other factors. This begs the question of revision of the existing outdated federal Aircraft Noise Policy:

- Should there actually be only a single Aircraft Noise Policy?
- Should the FAA’s Aircraft Noise Policy need to have both a federal and local component?
- State and local governments need to have a greater role in controlling aircraft noise.
- Are the findings of the NES’ New National Curve the basis for requiring the FAA to pursue, as a minimum, an EA for proposed Nextgen airspace procedure changes, as opposed to a CATEX?

Such questions are key to development of policy and possibly recognize that ANCA preemption of local roles in noise management does far more harm than good. It is time for a comprehensive look at non-acoustic factors and who has roles in managing them, and how they would best be managed.

(2) NOISE MODELING, NOISE METRICS, AND ENVIRONMENTAL DATA VISUALIZATION

Is further study of noise metrics a waste of time and resources? This question has been addressed often over the past 50 years, and it is clear that all of the various noise metrics are so interrelated to each other that there is no potential benefit to further research on this topic. Given that the correlation between noise and annoyance is at best 50%, research into new metrics may have diminishing returns. Overflight frequency information and time-above data capabilities are inherent to existing metrics, but are underutilized. These capabilities need to be included in the requirements for environmental analyses.

- The issue is not which noise metric is best, but what should the policy level be? Consider it as though you have a problem with speeding cars on your street, and it has been suggested that the problem is that speed should be measured in kilometers per hour instead of miles per hour – it's not the metric, it's the limit that you set (and ultimately, its enforcement). The same applies to noise.

Noise modeling research needs to expand our understanding of model prediction uncertainty. Today's models are very good at approximating the 65 DNL (or CNEL) noise contour around an airport. But if the Aircraft Noise Policy is reduced to 60, 55, or even 50 DNL, how well can current models predict these lower levels? Experience tells us "not as well." Other factors for consideration include temperature inversions, wind direction, humidity, etc., which may cause LEQ and DNL to fluctuate by +/- 5 dB. How will increased uncertainty at lower-level contours affect potential policy changes? Models may also need to be expanded to cover large-scale AAM and UAM personal air vehicle operations (e.g., Uber, Volocopter, and Archer Aviation) as well, due to their proposed use as air taxis and as delivery vehicles for goods and other commodities.

Alameda's Citizen's League for Airport Safety and Serenity (CLASS) has advised the Forum that it would like to see consideration given to the use of single-event noise metrics to supplement "*the limited 65 CNEL [DNL] metric...because people do not hear noise averaged over a 24-hour period. All aspects of single-event noise impacts from a given Project, including noise shift related to changes in flight tracks [read NextGen], should therefore be analyzed for single-event noise impacts.*"

The Forum also supports Sky Posse Palo Alto's position that "*DNL is not a complete measure of aircraft noise. Additional existing metrics that better account for the number of intrusive aircraft noise events over neighborhoods, or the duration of those events, [or even the period of respite] could reveal factors causing impact where DNL, by itself, cannot.*" For example, when one cannot continue a conversation outdoors due to noise interference, one's train of thought is interrupted or even lost. This has obvious implications for outdoor education, sports, and work.

FAA should also require the Sound Exposure Level (SEL) noise metric be used for noise impact studies under NEPA, such as is required by California under the California Environmental Quality Act (CEQA) as cited by CLASS in *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners*; wherein the court held that a lead agency "*cannot simply ignore the CEQA standard of significance for assessing noise [and] the credible expert opinion calling for further evaluation of the impact of single event noise.*" (2001) 91 Cal. App. 4th 1344, 1382. *King & Gardiner Farms, LLC v. County of Kern* (2020) [45 Cal. App. 5th 814, 894, as modified on denial of rehearing (Mar. 20, 2020)] (holding that the agency failed to consider the magnitude of the increase in noise, and thus to "accurately describe how changes in noise levels affect human beings"). A description of how noise affects a community without meaningful quantitative and qualitative analysis of "*the community*"

reaction to aircraft noise, including sleep disturbance” renders an EIR inadequate. *Berkeley Keep Jets Over the Bay Com.* [91 Cal. App. 4th at 1380-81]. The court in *Berkeley Keep Jets Over the Bay Committee* expressly referred to single-event noise analysis as an appropriate method for measuring disturbance [annoyance].

Noise Screening. The FAA’s proposed update of its noise screening tool that “*will use a simplified noise modelling process to facilitate an expedited review of proposed Federal actions where significant noise impacts are not anticipated [emphasis added]*” does not seem to correlate well with supplementing the “*high fidelity noise modelling capability of the AEDT.*” Community members have expressed their certitude that “*...the effects of aircraft noise depend not just on the average level of noise [DNL/CNEL], but even more on the intensity of the peaks in the noise [events], and the frequency and regularity of those peaks.*”

- Any noise modeling, metrics, visualizations, and policies should take the intensity, frequency, and regularity of aircraft noise events into account.

Environmental Data Visualization. People who live in the airport environs know how loud it is. Simply providing a picture of how loud it is, is not helpful except to the extent the community is reassured that decision makers will know how loud it is, but only on paper.

- The question is “*do regulators and policy makers actually care how loud it really is?*” Visualization reflects an attitude that “if people knew more about [*i.e.*, could visualize] the noise level they would have less adverse response.” There is no evidence that this is true.

Further study is needed on graphically illustrating how proposed changes in flight procedures may affect impacted communities. For example, on the proposed Oakland International Airport WNDSR TWO STAR procedure, it will be necessary to be able to show and describe the potential changes over Richmond (and other affected communities) in terms that residents can understand by not only using supplemental metrics, but also aircraft altitude and flight frequency graphics, as well as detailed land use and noise sensitive facilities mapping.

(3) REDUCTION, ABATEMENT, AND MITIGATION OF AVIATION NOISE

In light of the twenty airport National Environmental Survey (NES), a renewed look at the federal preemption of local noise control efforts included in the Airport Noise and Capacity Act of 1990 (ANCA) and promulgated in 14 CFR Part 161 is warranted. These preemptions include but are not limited to:

- The prohibition on meaningful forms of restrictions on airport flight operations, including caps on numbers of flights and noise levels;
- No use of noise budgets;
- No mandatory night curfews;
- No noise-based scaling of landing fees;
- Not allowing quality of life benefits to contribute to cost-benefit analyses; and
- Restricting eligible benefits to only the area within the 65 DNL and above contours.

Additionally, the restrictions on mitigation expenditures to only those noise exposures above 65 DNL should be modified as well.

- All of the noise mitigation prohibitions contained in ANCA should be revisited as they represent burdensome obstructions to potentially positive local controls on aircraft noise.

Noise Mitigation Research. The FAA has requested input on what, if any, additional categories of investigation, analysis, or research should be undertaken to inform FAA noise policy? It is a fact that airports are a key part of the national transportation system and are also known economic generators for the regions they serve. Research is needed to better quantify these economic benefits. While any agreement among economists will be disparate, there is little doubt that commercial airports provide substantial regional economic benefit. What is not known well enough is who gains from these benefits; and how to weigh these regional economic benefits against any disproportionate impacts on communities close to the airport, especially those that may be under-served or marginalized.

- A key question is, are there mechanisms to better balance regional benefits with potential local adverse environmental and social impacts?

Currently the cost-benefit analysis component of a 14 CFR Part 161 application is limited to the community within the 65 DNL contour. If the Aircraft Noise Policy is reset at a lower DNL the impact area will increase in size and population, and the cost-benefit equation will be changed dramatically.

Another recommendation for additional research should be the analyses of noise impacts and overflight on property values. Meaning, if the 65 DNL noise impact area threshold is lowered, will homes within the new noise impact area be considered subject to significant noise impact, and the property values be reduced accordingly? Also, the requirements for sound insulation eligibility are widely, and incorrectly, tied only to areas within the 65 DNL and above contours. Actually, the test for sound insulation qualification is within 65 DNL contour and an indoor noise level exceeding 45 DNL. The 45 DNL interior noise guideline has not historically been a controversial guide. There is no doubt that there will be calls for expanding the sound insulation boundary if a lower Aircraft Noise Policy for exterior noise is set. Research is needed to provide additional support for the interior noise level guideline of 45 DNL.

A significant part of the 14 CFR Part 150 Airport Noise and Land Use Compatibility Planning regulation is focused on land use controls in the airport environs; but land use planning is primarily the role of local planning authorities with the Federal Government having little or no involvement in local planning matters, except under 14 CFR Part 77. The ability of airports or local land use authorities to control land use is dependent critically on state enabling legislation. Research is needed to define, for each state and territory, what land use authority is available to control encroaching land use. If the Aircraft Noise Policy is set to a lower level, far more undeveloped land will be added to the area for which land use controls would be advisable.

- Is there the possibility for federal legislation that would aid airports in preventing further encroachment by noise-sensitive or other noncompatible uses?

Lastly, future research into noise mitigation should focus on finding ways to equitably spread out and randomize aircraft noise events to the maximum extent possible. The Forum's constituents are very cognizant of the fact that, prior to NextGen, flights approaching and departing major airports tended to be reasonably spread across the surrounding airspace. NextGen has compressed these tracks into very narrow, intensively used corridors. It is the frequency of events and activity interference that is the crux of the matter with NextGen complaints and concerns.

From a historical viewpoint, it's quite obvious that people were less likely to be highly annoyed by scattered aircraft overflights and random noise events, at varying levels of intensity, from different directions and at varying intervals than they were to repetitive, frequent, noise at the same intensity from the same direction, along the same track as is currently the case with NextGen.

The repetitive and intensified nature of overflight noise that NextGen subjects people to is much harder to ignore. As was affirmed by a community member in a statement to the Forum:

- “if you hear a few planes a day at various levels of noise in various parts of the sky, you're unlikely to even bother to notice or remember them. Planes flying overhead on exactly the same route several times an hour are likely to start to [seem] like a leaky faucet, and be almost impossible to ignore.”

In this respect, the Forum concurs with N.O.I.S.E. that “*with increased air traffic volume over the last decade as well as the enhanced navigational capabilities that enable aircraft to fly more precisely, the resulting concentrated traffic corridors have a more noticeable effect on the ground that must be considered thoroughly and as a priority concern [by the FAA].*”

It is not just the concentrated frequency of overflights and consequent activity interference that is the crux of the frustration caused by the implementation of NextGen procedures, but it is also the lack of diligence by FAA airspace utilization planners to even consider the demographic and cultural landscapes that are being overflown (e.g., population densities, noise-sensitive land uses, and social, economic, and environmental justice circumstances). Reasonableness suggests that with a more equitable distribution of the concentrated flight tracks created by individual NextGen procedures, the FAA may actually see a significant reduction in the percentage of people highly annoyed as is currently depicted on the new National Curve.

The Forum thanks the FAA for the opportunity to contribute to this important matter.

Respectfully submitted:

Oakland Airport-Community Noise Management Forum

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April 8, 2021

Filed electronically through www.regulations.gov

Docket Number FAA-2021-0037

Mr. Donald Scata

Office of Environment and Energy

Federal Aviation Administration, DOT

RE: Comments on the Federal Aviation Administration's Overview of FAA Aircraft Noise Policy and Research Efforts: Request for Input on Research Activities to Inform Aircraft Noise Policy

Dear Mr. Scata:

The Cities of East Palo Alto, Los Altos, Menlo Park, Mountain View, and Palo Alto, California (the Cities) appreciate the opportunity to submit these comments regarding the Federal Aviation Administration's (FAA) Overview of FAA Aircraft Noise Policy and Research Efforts: Request for Input on Research Activities to Inform Aircraft Noise Policy; Docket ID No. FAA-2021-0037.

As with many municipalities around the country, the Cities play pivotal roles in the conversation about aircraft noise. In the case of Palo Alto, the City plays dual roles - as a government responsive to its residents' concerns about noise issues and also as the sponsor of a federally obligated airport (Palo Alto Airport, PAO). Aircraft noise is an important issue in many communities, and the Cities are encouraged by the FAA's significant work to better understand the current state of community levels of concern.

In particular, the Cities believe the publication of the recent Neighborhood Environmental Survey (NES) represent a clear inflection point for FAA noise policy. The Cities understand that FAA does not intend to take any specific regulatory actions in reliance on the NES alone, and appreciates that FAA has committed to considering public and stakeholder input before implementing any changes in agency policies or regulations. Nonetheless, the Cities believe that given the robust analysis conducted in the NES and the significant, illustrated differences from current baseline assumptions, FAA should use the NES as an important tool in immediately examining and potentially adjusting FAA noise policies.

For more than a generation, FAA has relied on the *Schultz Curve* (and its predecessors and progeny) and the 65 dB DNL as the threshold for agency decision making in a wide variety of contexts. Based upon historic data, agency policy assumes that for most purposes, areas outside the 65 dB DNL threshold do not experience significant noise impacts. For almost as long, residents have complained about impacts outside the 65 dB DNL contour, suggesting that

Comments on the Federal Aviation Administration's Overview

FAA's baseline assumptions and reliance on the *Schultz Curve* did not reflect the reality of noise issues on the ground. With the advent of NextGen and realignment of flight paths around the country in the last several years, complaints from residents outside the 65 dB DNL contour have exploded. This evidence only reinforces the conclusions of the NES that levels of community annoyance are far greater than predicted in the *Schultz Curve* and similar studies. The Cities and our residents are no exception to this trend and have experienced significant impacts from nearby flight track realignments in areas far outside the 65 dB DNL contour.

The NES and the new National Curve shows a clear and significant departure from the *Schultz Curve* and "a substantial increase in the percentage of people who are highly annoyed by aircraft noise over the entire range of aircraft noise levels considered, including at lower noise levels." In contrast to earlier research that formed the basis for the *Schultz Curve*, the NES was focused solely on aviation noise and used updated, best-in-class survey methodology.

These findings validate the concerns and complaints about aircraft overflights expressed by residents who live and work outside the 65 DNL, including many of those in and around the Cities. At the bare minimum, the results of the NES suggest that the *Schultz Curve* has outlived its usefulness and FAA must immediately reassess its threshold for noise-affected communities. The NES also calls into question whether the continued use of the DNL as the FAA's sole, "one-size-fits-all" decision-making metric remains viable or whether different/additional metrics should be used to report noise impacts in a more comprehensive manner. For example, the NES suggests that a NUMBERABOVE50 metric, which is premised on a 50 dB noise level and associated with "noticeable" aircraft overflights, may be appropriate in some circumstances. Furthermore, metrics and thresholds for determining the significance of impacts must reflect the local noise environments including ambient noise.

In the *Federal Register* notice opening this docket, the FAA specifically asked for comments on the following questions:

1. What, if any, additional investigation, analysis, or research should be undertaken in each of the following three categories:
 - Effects of Aircraft Noise on Individuals and Communities;
 - Noise Modeling, Noise Metrics, and Environmental Data Visualization; and
 - Reduction, Abatement, and Mitigation of Aviation Noise.
2. What other factors (e.g., survey methodology, aircraft design, and social/demographic considerations) may contribute to the increase in annoyance shown in the NES results?
3. What, if any, additional categories of investigation, analysis, or research should be undertaken to inform FAA noise policy?

The Cities understand FAA's desire to complete additional research and determine whether the results of the NES are attributable to factors that have not been examined. The Cities do not have the expertise to suggest specific new areas or strategies for research, though we believe that the existing and ongoing research represented in the *Federal Register* notice provides a broad and welcome evaluation of aircraft noise issues. The Cities caution FAA, however, against engaging in repeated and continual research on these (or other) issues indefinitely when the

Comments on the Federal Aviation Administration’s Overview

results of the NES – even if partially attributable to factors not specifically considered – make it clear that immediate FAA regulatory response is warranted. Considering the NES findings, the FAA should quickly lay out a timeline for addressing the viability of the 65 dB DNL as both a threshold for significance and underlying metric. FAA should entertain interim metrics and thresholds while it develops a revised comprehensive national framework consistent with both the results of the NES and the mandates of the Airport Safety and Noise Abatement Act of 1979.

As a further measure, the Cities encourage FAA to ensure that data sets on ongoing and recently completed research is made available to the public as soon as possible. For example, the Cities suggest that the data sets underlying the conclusions of the NES be released quickly. FAA has been in possession of this data for several years, and there is no reason that it should not be released as soon as practicable. Other ongoing research described in the notice (e.g., sleep disturbances and supplemental noise metrics) should be made publicly available to the extent possible. This will help speed the process of making appropriate policy modifications.

The Cities advise FAA to be cognizant of its own role in communicating with the public and other stakeholders on such changes and aircraft noise issues in general. As this process continues to evolve, the Cities strongly support any FAA effort to provide accessible and understandable interpretations of its research findings – and future policy changes – to assist local governments and airport sponsors in communication with the public. FAA should acknowledge in all appropriate fora – for NEPA analyses, Part 150 analyses and in analyses mandated by myriad other federal statutes – that the 65 dB DNL threshold has been called into question and should invite use of alternative metrics and alternative thresholds when local expectations dictate. Such flexibility would be productive in demonstrating to the public that FAA understands the implications of the NES study and is sensitive to community concerns. It further would demonstrate that the agency intends to address the implications of this study immediately rather than engage in a process which could take years to reach a final, nationwide approach.

Once again, the Cities appreciate the FAA’s efforts on these issues. The Cities look forward to thoughtful FAA action based on the significant results of the NES, and FAA’s publication of additional research as necessary.

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