UC Davis

Aviation Noise & Emissions Symposium 2021

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Symposium Link: https://anesymposium.aqrc.ucdavis.edu/2021-program

Author: Marykate Harris, Member VNY CAC

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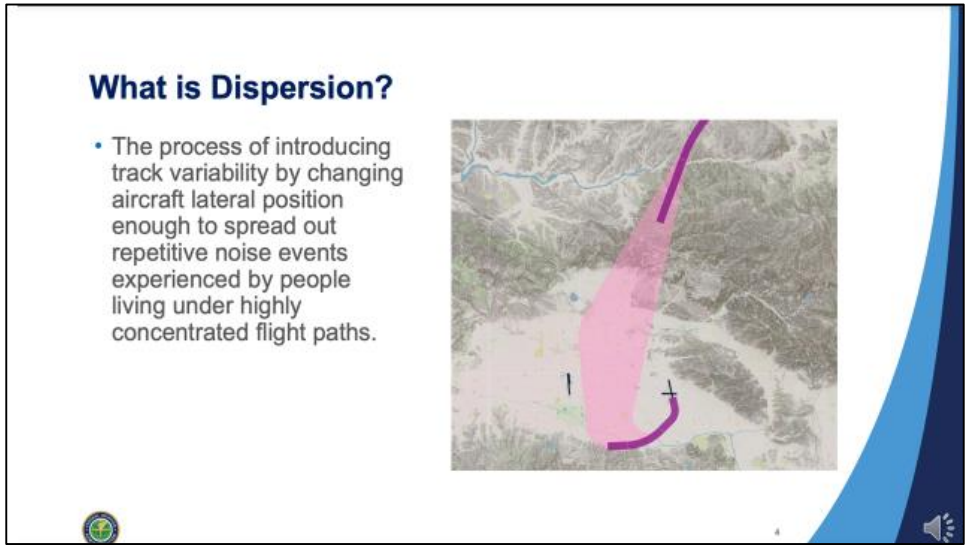
SESSION ONE
Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

Speakers:

- **Jim Allerdice**, Managing Partner, ABCx2
- **Daniel Gardon**, Noise Abatement Specialist, Charlotte Douglas International Airport
- **Michele Cruz-Murner**, Senior Advisor, Air Traffic Services, Western Service Area, Federal Aviation Administration and **Beth White**, Senior Strategist for Public and Industry Engagement, Air Traffic Organization, Federal Aviation Administration

1. Noise / Dispersion

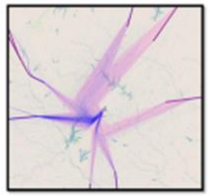
Dispersion: The process of introducing track variability by changing aircraft lateral position enough to spread out repetitive noise events experienced by people living under highly concentrated flight paths. Operational Dispersion (as opposed to Natural Dispersion involving, say, volcanic ash clouds) includes Radar Vectoring to RNAVs, Open SIDs, and Alternative Departure Headings.



Types of operational dispersion concepts

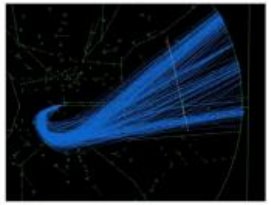
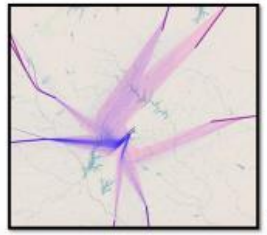
- Open SIDs
- Multiple departure tracks
- Radar Vectors to RNAV SIDs



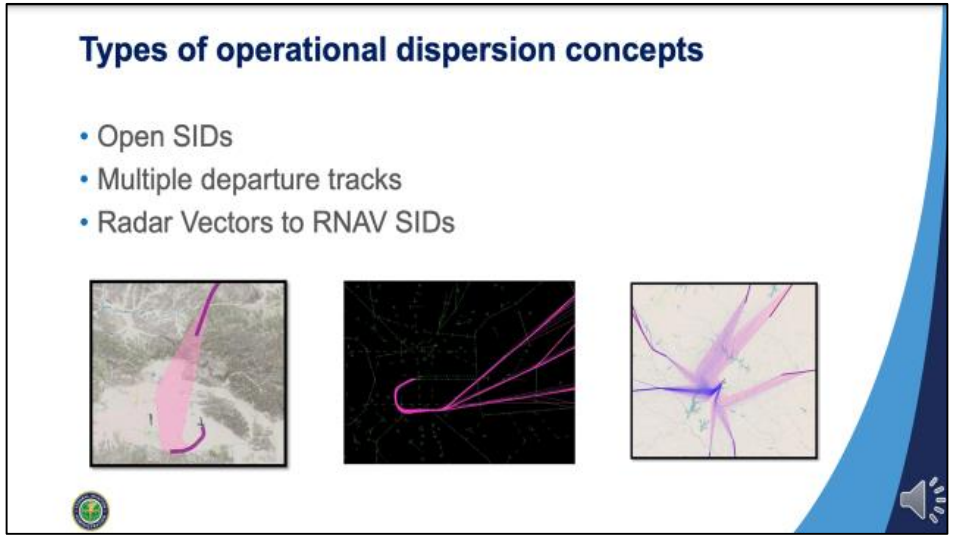


Natural vs. Operational Dispersion

- Natural (or random)
  - Associated with manually flown conventional procedures and ATC vectors
- Operational
  - Aircraft use alternative flight paths with very precise and predictable trajectories but in a controlled manner
  - This type of dispersion is most associated with the use of satellite-based navigation capabilities
  - Examples
    - Radar Vectors to RNAV
    - Open SIDs
    - Additional departure tracks

SESSION ONE (cont'd.)
Aircraft Noise and Overflight Dispersion: Opportunities and Challenges



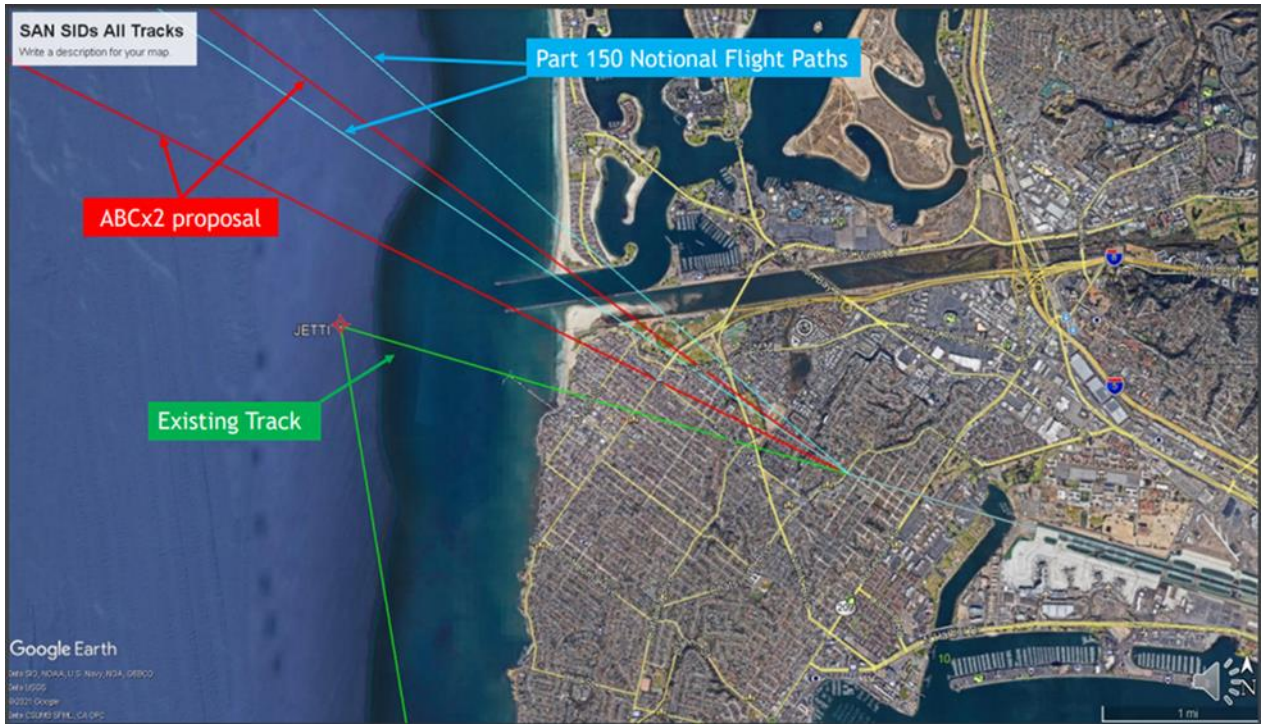
1. Beth White and Michele Cruz-Murner discussed FAA Section 175 and ongoing issues with flight path dispersion. The language of Section 175 allows for new or revised flight path dispersion by the airport operator only, not the involved communities, and the dispersion cannot increase noise.
2. Ms. White stressed that the FAA is not moving noise from one community to another, and that transparency and openness are the overarching goals.
3. Ms. Cruz-Murner stressed that in terms of departure/arrival dispersion issues, communities must be willing to "share the load" via consensus, and gave as an example the case of San Diego, where a proposed new dispersion needed 100% buy-in from the community but failed because there was no community involvement in the FAA decision-making. Conversely, Washington National Airport did have community collaboration with FAA and the proposed change was approved. Clearly, change can only be achieved when all communities participate in the process, given that there are realistic constraints.

2. Dispersion as Mitigation

Jim Allerdice, a former member of the Air Traffic Control Union in the D.C. area, and now a community organizer, stated that the issue is one of safety vs. efficiency, as well as supporting "the economics of the airport and the airlines." He pointed out that safety to the FAA means a reduced ATC workload and the need for communication with pilots. (He also stated that there is now a 33% reduction in radio air communications, due to PBN, and "try to take it away today and you'd have a coup.") Efficiency to the FAA means point-to-point navigation. (He shared that he has a model to simulate noise impacts of alternative routings.) He provided two case studies as examples: The San Diego Regional County Airport, and the Ronald Reagan Washington National Airport.

SESSION ONE (cont'd.)
Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

Case Study One: The San Diego County Regional Airport Authority: The San Diego County Regional Airport Authority is conducting an Airport Noise Compatibility Planning (Part 150) study update for SAN. Alternatives recommended by ABCx2 (the Part 150 consultant) are in draft form. The Airport Authority has not accepted the study yet. ABCx2 was asked by one of the affected communities to provide an alternative flight procedure design that would reduce noise exposure for communities north of the airport and along the ocean while preserving the safety and efficiency of SAN Airport. ABCx2's proposal reduced the total number of housing units exposed to 65 CNEL by 342 or 572 (depending on the track loading model used).



San Diego County Regional Airport

SESSION ONE (cont'd.)
Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

Case Study Two: Ronald Reagan Washington National Airport: ABCx2 was asked to address community impacts associated with PBN arrival procedures to determine if there was a way to introduce some track variability for DCA arrivals to Runway 19 ABCx2's proposal involves utilizing the Terminal Arrival Area (TAA) Concept to bypass the FERGI waypoint and initiate an approach to DCA over DARIC waypoint in a more random manner (next slide) Introduction of the TAA concept will mitigate the concentration of noise by allowing ATC to clear aircraft to the DARIC waypoint from multiple directions thereby reducing the number of aircraft on the FERGI transition Residents representing communities from Arlington and Montgomery Counties were directly involved in the procedure design process using the Vianair Airspace Information Modeling (AIM) software Proposal is currently being finalized for submission to the FAA through the Community Working Group (Roundtable).

Ronald Reagan Washington National Airport

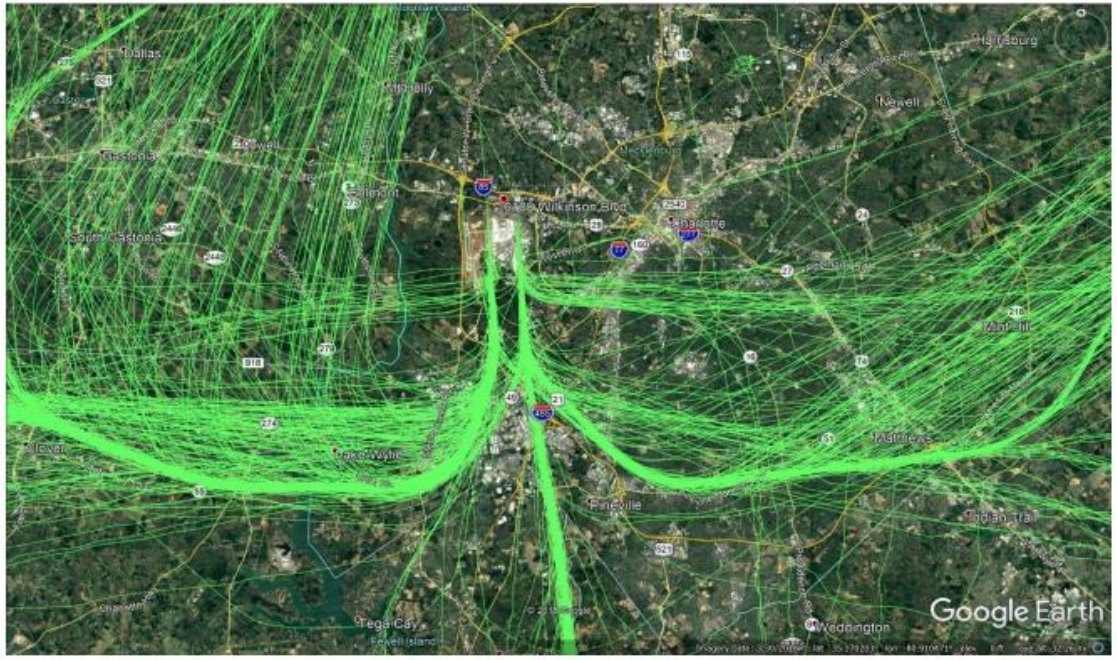
3. <u>Charlotte Douglas Case Study</u>

Per Dan Gardon, Noise Abatement Specialist:

CTL has three parallel runways (1 for arrivals, 2 for departures) so ATC can use preferential runway usage and open SID to mimic pre-NextGen dispersal. Open SID at CTL uses initial heading for 2 miles, followed by manual vectoring until reaching waypoints 20 miles out.

1. Previously, a single loud event was a source of complaints.

Departure Flight Tracks (2014)



SESSION ONE (cont'd.)
Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

2. Now, multiple and continuous noise events, over the same targeted flightpath, are the source of substantially more complaints.

Departure Flight Tracks (2019)

SESSION TWO
Doubling Down: Implementing Noise Reductions During Recovery

Speakers:

- **Steve Alterman**, Cargo Airlines Association
- **Lynae Craig**, Alaska Airlines
- **Rich Swayze**, Delta Airlines

2. Noise Reduction During Recovery

Steve Alterman:

- "NextGen is an evolutionary process that will never be finished (e.g., the comparison of an iPhone6 to an iPhone11)."
- "If things are going to work, life is a compromise; there must be education and community involvement where [the parties] sit down in a room and work it out." [Note per CAC Member Tom Materna: Mr. Alterman said exactly the same thing at last year's 2020 ANE Symposium. In other words, year after year, no substantial systemic changes have been made.]
- "We're never going to solve the noise problem, we're only going to manage the noise problem. Flights are directed over the same people, over and over. We've gotta find compromises; it's difficult to talk about noise in an environmental vacuum."

Rich Swayze:

- "There is a huge backlog in FAA procedure implementation (i.e., " not enough resources).

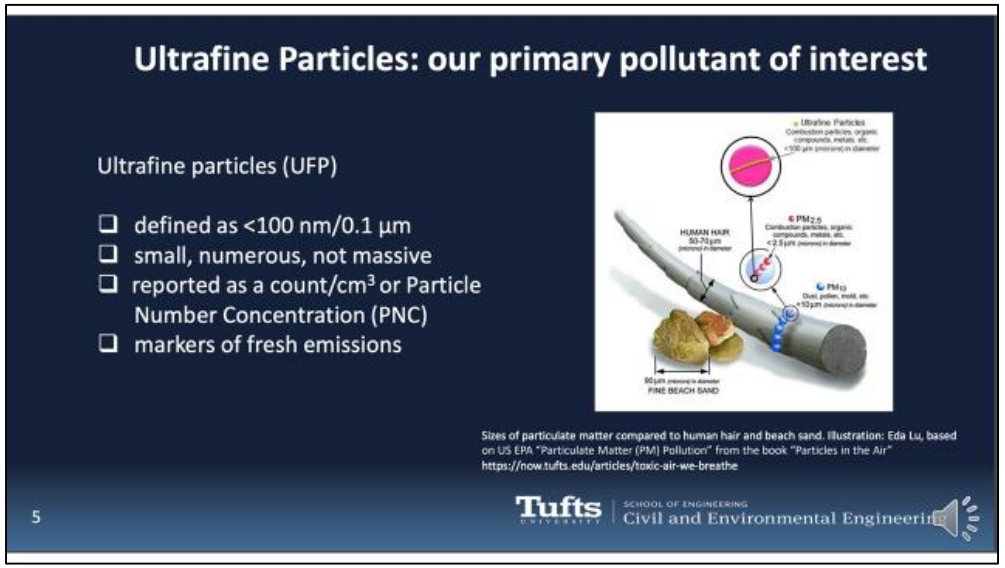
SESSION THREE
The Direct and Indirect Impacts of Aviation on Human Health

Speakers:

- **Susan Averett**, Department of Economics, Lafayette College
- **Neelakshi Hudda**, Department of Civil & Environmental Engineering, Tufts University
- **Mathias Basner**, Professor of Psychiatry, University of Pennsylvania School of Medicine (basner@pennmedicine.upenn.edu)

1. Health Impacts

The study of meteorology is important in terms of the health damage created by ultra fine particles (UFP) resulting from aircraft exhaust emissions.



SESSION THREE (cont'd.)
The Direct and Indirect Impacts of Aviation on Human Health

- Dr. Hudda referenced an important study conducted by UCLA (https://newsroom.ucla.edu/releases/jet-aircraft-exhaust-linked-to-preterm-births) (new study) that examined the health damage to local residents by nearly constant exposure to jet exhaust from LAX (particularly pregnant women). While measures such as filtration can reduce indoor concentrations, this is a serious health issue that requires more research into benefits/costs re air noise, and definitely requires "a group discussion." Dr. Hudda referred to **ICBEN,** the **I**nternational **C**ommission on **B**iological **E**ffects of **N**oise (www.icben.org), whose goal is to promote a high level of scientific research concerning all aspects of noise-induced effects on human beings and animals, including preventive regulatory measures, and to keep alive communication among scientists working in that field. She also stressed that there are large individual differences in noise sensitivity.
- The standard industry argument against postponing or changing current policy is "not enough evidence" (the issue of a few versus many). Meanwhile, the scientific evidence for noise impacts on human health are increasing, and a top annoyance has been identified as fear.
- Dr. Basner has conducted 20 Years of Research on Health Impacts and stated that the industry must strive to "lower health impacts and annoyance, and try to make the best decisions with whatever information you have." He referenced the WHO, 2011 Study, which estimated that 1.6 million healthy life years are lost annually in the EU due to environmental noise (primarily due to annoyance and sleep disturbance).
- It was also suggested that the industry needs to "gear the process for everybody every 10 years." Health Impacts, property values, and economic losses have to be weighed by policy makers against societal benefits of airport and airline industry jobs and economy. Right now, the FAA is both the policy-maker and regulator (the fox is guarding the henhouse). (A brief mention was made of ONAC, Office of Noise Abatement and Control, which President Regan defunded in 1982/3.)

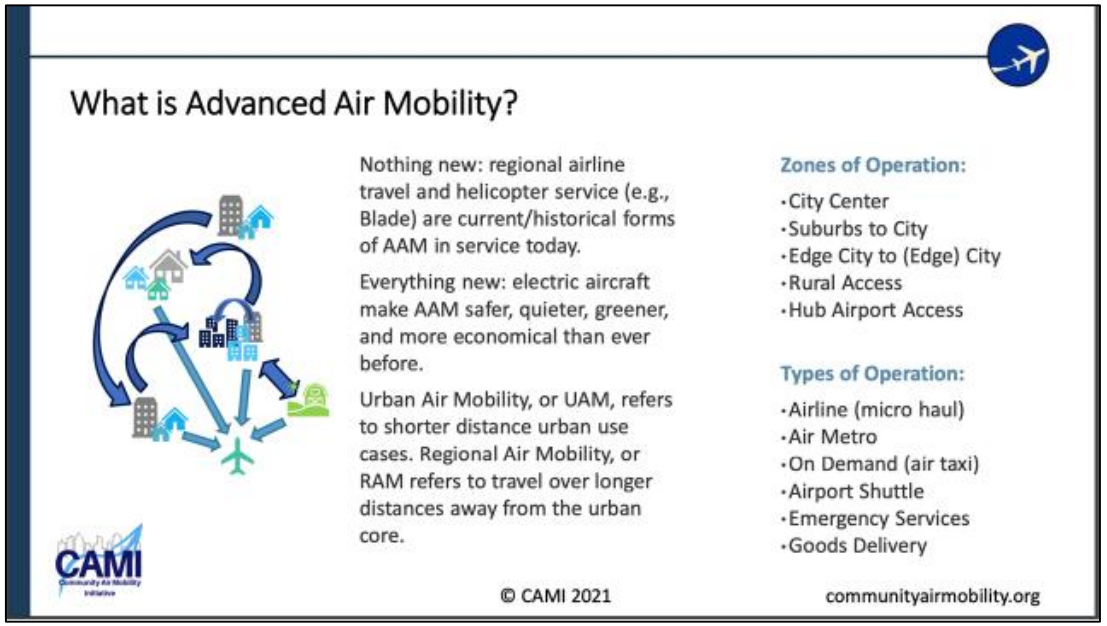
SESSION THREE (cont'd.)
How Will Advanced Air Mobility (AAM) Benefit Communities?

Speakers:

- **Yolanka Wulff, CAMI**
- **Alex Gertsen, NBAA**
- **Tim Middleton, HMMH** (tmiddleton@hmmh.com)
- **Danielle Rinsler, Uber Technologies**

2. <u>Advanced Air Mobility</u> (AAM)

Initially named Urban Air Mobility (NASA), then renamed to Advanced Air Mobility.



SESSION THREE (cont'd.)
How Will Advanced Air Mobility (AAM) Benefit Communities?

Goals of CAMI (communityairmoblity.org) are Trust, Public Benefit, Integration, Limited Adversarial Effects ("local government and the general public are very important"):

- Integrate with communities, practice transparency, create partnerships.
- Increase mobility of people and goods.
- "Not just for the rich."

Only 30% of noise annoyance correlates with the physical properties of aircraft. Need to:

- Integrate with communities, practice transparency, create partnerships.
- Increase mobility of people and goods.
- "Not just for the rich."

FAA Order1050.1F Requirements

- Updates FAA Order 1050.1E to: "1) provide a clear, concise, and up-to-date discussion of the FAA's requirements for implementing NEPA; and 2) clarify requirements in order to facilitate timely, effective, and efficient environmental reviews of FAA actions, including NextGen improvements."
- Panelists promoted AAM as extensions of ground-based transportation in the air and helicopters (i.e., EVTOL, drones for air taxi and movement of goods). Early vehicles could be ready in 2-3 years, but more than likely at least a decade away. (There's a "long horizon in terms of scaling up.")
- Lesson from NextGen: Get in front of the issues.
- Noise and land use compatibility is key.

SESSION THREE (cont'd.)
How Will Advanced Air Mobility (AAM) Benefit Communities?

- Would require new infrastructure (take-off and landing sites), cannot just use existing airports.
- Planning has to be integrated from Federal to local level.
- There must be early integration of the industry and communities.
- Nationally there are over 3,000 Federally Funded and 5,000 Public airports.
- There is a much greater focus on sustainability now (a "greening of the industry").
- The FAA is a "captured regulator." (In politics, regulatory capture is "a corruption of authority that occurs when a political entity, policymaker, or regulatory agency is co-opted to serve the commercial, ideological, or political interests of a minor constituency, such as a particular geographic area, industry, profession, or ideological group".)
- Re impacts, "Need to start with the broad public benefit; define as adverse, as opposed to negative." (Yolanka Wulff)
- Engine noise and plane noise are different. (AEDT does detect engine noise.)
- Acoustic energy is 30% noise, only.
- AAM will fly lower in airspace (a lot will be short flights, due to electric range)
- Lower frequency noise is acoustic
- System is modelling off of current metrics (so, basic)
- NAF: visual disturbance, colors, type, too close to buildings

How do these issues relate to Van Nuys Airport?

SESSION FOUR
Climate Change and Aviation: Opportunities in the Midst of Adversity

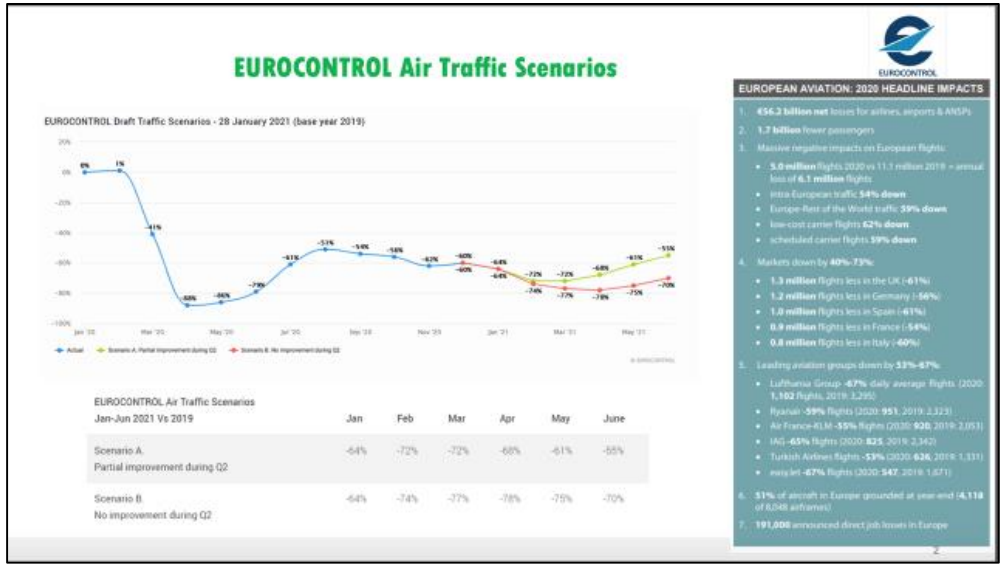
Speakers:

- **Marylin Bastin, Head of Aviation Sustainability, EUROCONTROL (MarylinBastin@EuroControl.com)**
- **Erin Cooke, Director, Sustainability & Environmental Policy, San Francisco International Airport**
- **Tim Johnson, Director, Aviation Environmental Federation**
- **Tim Pohle, Senior Managing Director, environmental Affairs, Airlines for America**

1. Climate Change and Aviation

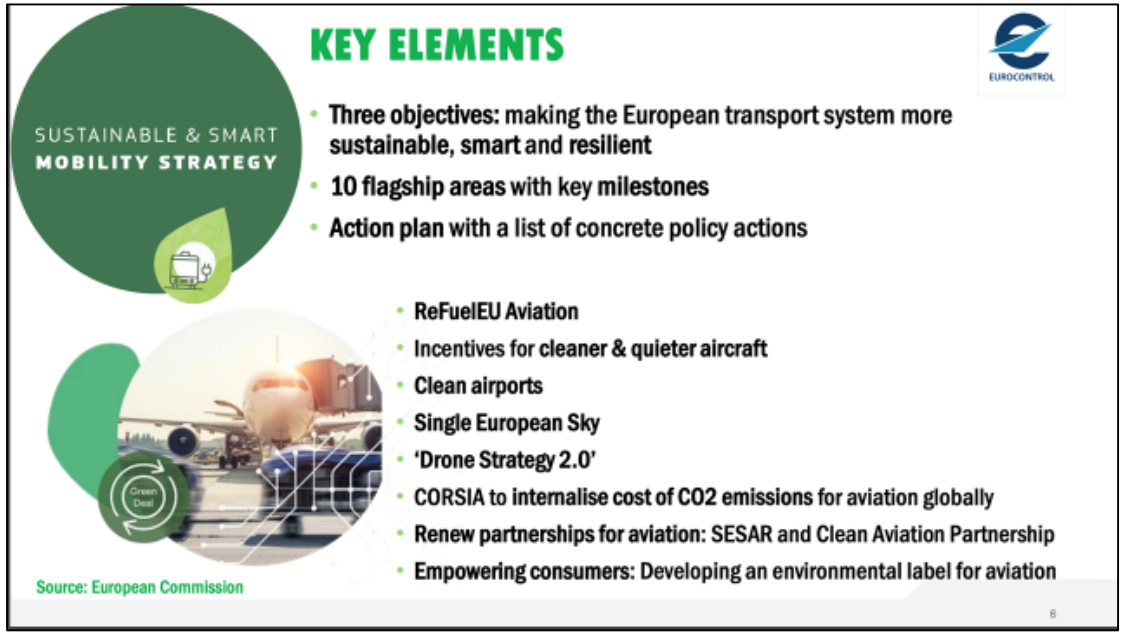
Marylin Bastin:

- Goal in Europe is to "build back better." (https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/SESSIO~2_0.PDF), slide 1
- In Europe in 2020 there was a loss of 6 Million flights; "The Covid-19 has a massive impact on airlines in Europe." An extra dimension is that people have become used to quiet skies. (Briefly referenced the phenomenon of "flight shaming.")



SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

- According to the Aviation Environment Federation of UK, Aviation warming impact is currently 3 times that associated with it's CO2 emissions alone. The goal is a sustainable and smart mobility strategy, with a goal of Net Zero emissions by 2050. Collaboration is necessary.



SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

Erin Cooke:

A Case Study: SFO Tackling the Challenges of COVID & Climate

https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/SESSIO~1.PDF, slides 4, 7, 11

- SFO aims to cut emissions by 41%.
- Climate change and the pandemic have had negative effects.

SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

Erin Cooke:

A Case Study: SFO Tackling the Challenges of COVID & Climate

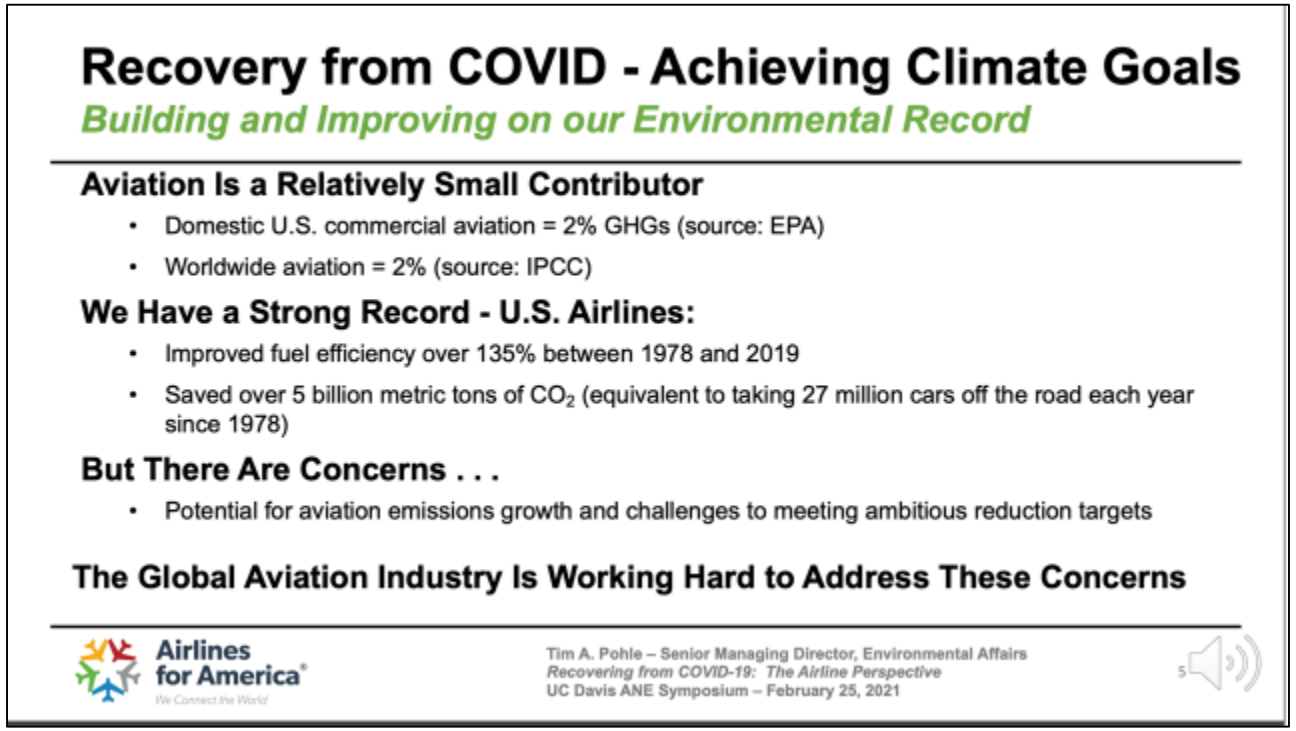
https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/SESSIO~1.PDF, slides 4, 7, 11

- Long-term goal is to create only Healthy buildings at SFO and Zero Net Energy. "This was once a moonshot, but now is a playbook."

SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

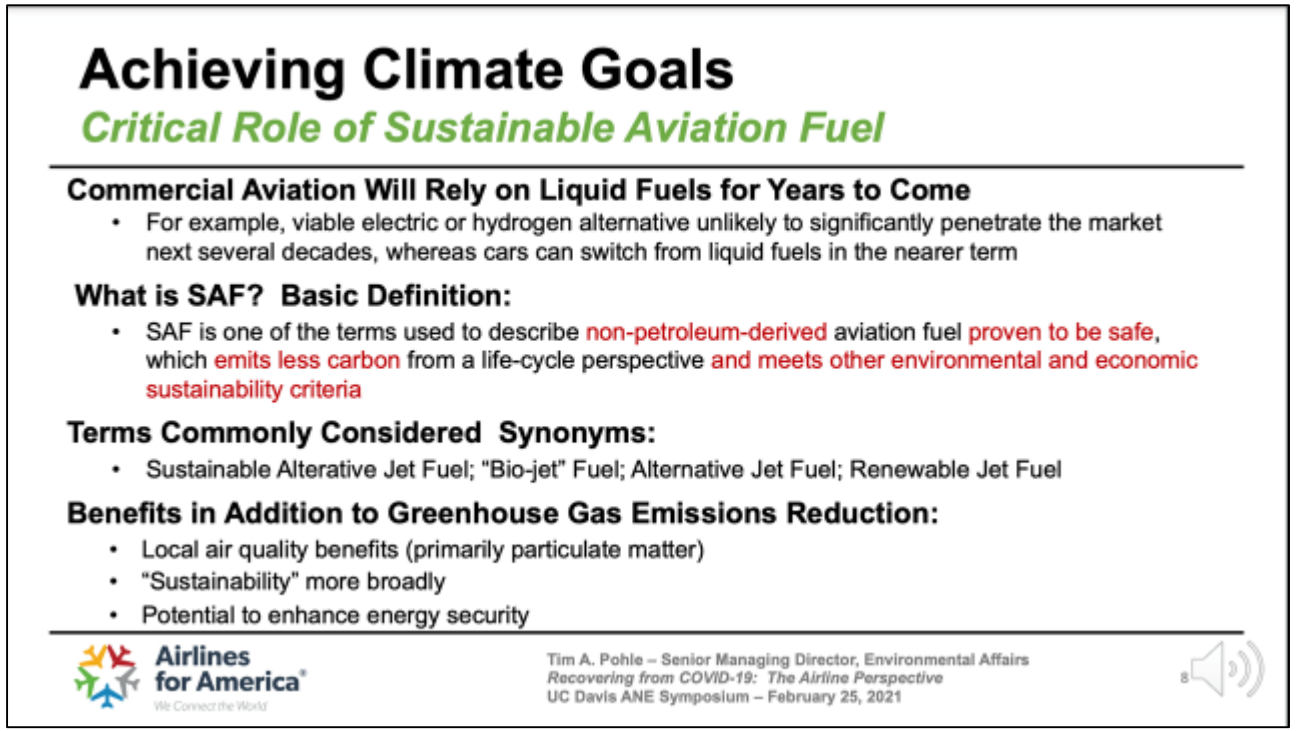
Tim Pohle:

- Covid-19 has had a devastating impact on U.S. airports, although this has not been the case for Van Nuys Airport, given that it is not a commercial airport.



SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

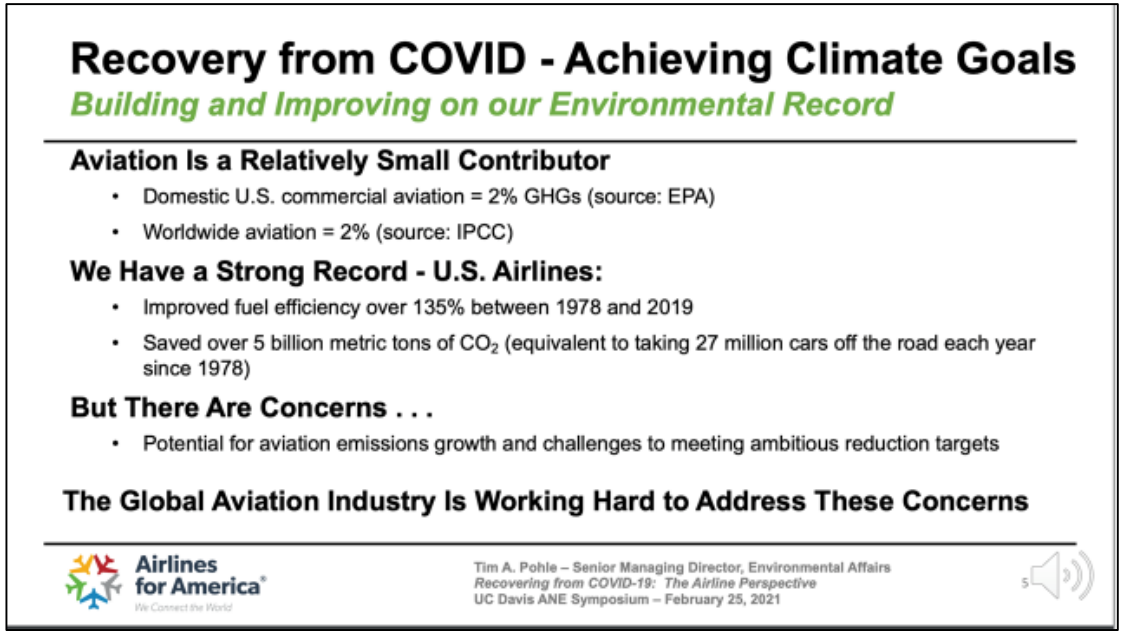
- Commercial aviation contributes 2% of Green House Gasses according to EPA. Reaching sustainability goals of ICAO relies on cost competitive Sustainable Aviation Fuel (SAF) which is now much more costly than legacy fuels.



SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

Tim Pohle: (cont'd.)

- "Electric is not necessarily plug and play."
- Achieving sustainable aviation is vital.
  - There needs to be an accelerated retirement of less efficient aircraft.
  - Must achieve climate goals. A 50% reduction, as opposed to Net Zero, from 2005 levels by 2050. (ICAO, CORSIA)
  - Must move to SAF (non-petroleum fuel source). The whole point is to make fuel more efficient. (Airtimes.org has a primer on fuels.)
    - Increase safety, gain environmental benefits, increase commercial viability (CAAFI, etc.).



- "Noise is anything but forgotten."

SESSION FOUR (cont'd.)
Climate Change and Aviation: Opportunities in the Midst of Adversity

Tim Johnson:

- Goal is Zero (CO2) emissions by 2050. This is too long a timeframe in which to effect significant change. "Ambitious, yes, but we need to accelerate the transition."
- Could 2019 be a peak year?
- "Emissions are clearly rising, year on year." https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/ANES%202019_Session%205_Tim%20Johnson_PPT.pdf slide 6

- Three drivers for change:
  - Strong regulatory and policy frameworks to create accountability and reduce uncertainty.
  - Effective carbon pricing.
  - Provide the consumer with information.
- Must consider climate and efficiency.

SESSION FOUR (cont'd.)
Aviation Emissions: Reduction Efforts and Current Research

2. <u>Alternative Fuels</u>

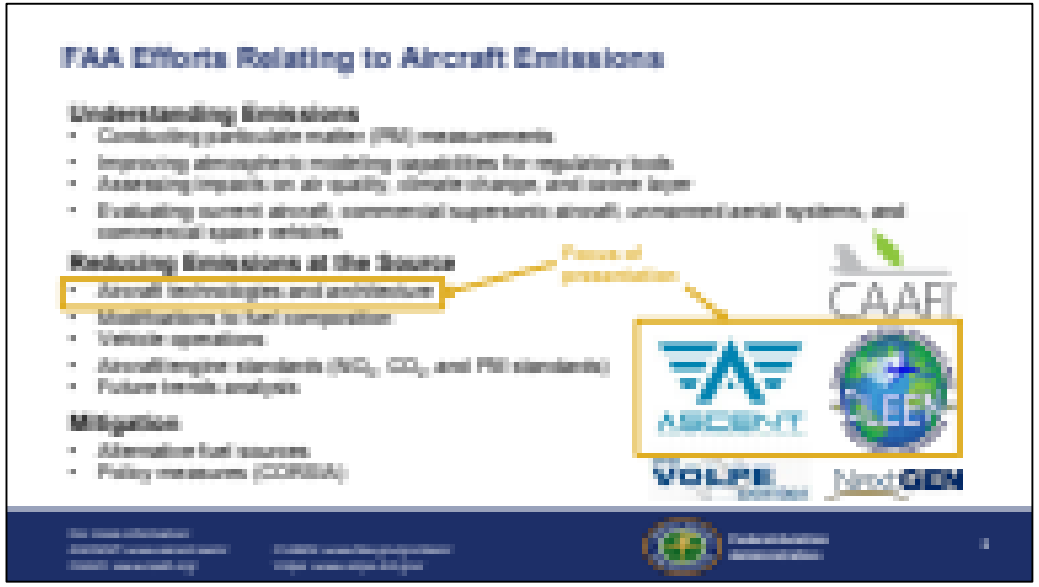
Speakers:

- **Christiane Voight**, German Aerospace Center (Christiane.Voight@d/r.de), https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/ANES%202021_Aviation%20Emissions_Voigt_Slides_Revised_Redacted_Version.pdf
- **Chris Dorbian**, Federal Aviation Administration Engineer, Office of Environment and Energy (christopher.dorbian@faa.gov)
- **Robbie Gross**, Environmental and Atmospheric Engineer, Crawford, Murphy & Tilly

In May 2020, there was an 80% ice and a 50% radiation reduction in air traffic.

<u>Chris Dorbian</u>:

- FAA conducting the CLEEN Program (**C**ontinuous **L**ower **E**nergy **E**missions and **N**oise), https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/SESSIO~3.PDF, slide 2



SESSION FOUR (cont'd.)
Aviation Emissions: Reduction Efforts and Current Research

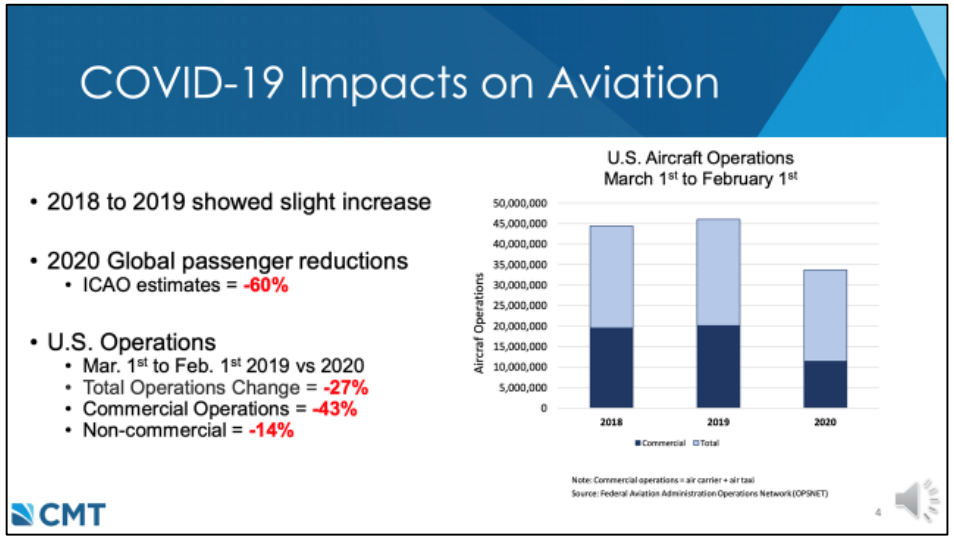
Chris Dorbian (cont'd.):

- Environmental Objectives are to reduce:
  - Fuel Burn;
  - NOx Emissions;
  - Noise.
- FAA also conducting aircraft environmental technology research via the ASCENT Program (Georgia Tech Environmental Technology research). Work being done includes:
  - Improved technology noise modelling;
  - System-level modelling and design considerations;
  - Propulsion-airframe integration;
  - Combustion;
  - Turbomachinery;
  - Supersonics.

SESSION FOUR (cont'd.)
Aviation Emissions: Reduction Efforts and Current Research

Robbie Gross:

- In 2020, Covid pandemic had significant impact on aviation industry – both air quality and the number of flights and passengers:



- ICAO estimates 60% increase of previous normal, picking up rapidly, but not yet back to normal.
- Air quality monitoring showed that sites downwind of airports had higher UFPs (measured from 1 mile or less, up to 6-7 miles distance from airports). (Do BUR, VNY, LAX have constant air quality monitoring?)
    - ICAO or EASA databases have up-to-date noise certification for engines.
    - What is the climate impact from contrails?
- Supersonic aviation has issues that need to be resolved before business rollout.

Christiane Voight:

https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/ANES%202021_Aviation%20Emissions_Voigt_Slides_Revised_Redacted_Version.pdf

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

Speakers:

- **Darlene Yaplee,** Community Activist: Aviation-Impacted Communities Alliance and Palo Alto Citizens
- **Peter J. Kirsch,** Partner, Kaplan Kirsch & Rockwell
- **Jacqueline Hamilton,** Office of Congressmember Karen Bass

1. **ANE Legislation in Congress (HR712 -** Air Traffic Noise and Pollution Expert Consensus Act of 2021, Introduced in 117th Congress, 02/02/21**)**

Darlene Yaplee:

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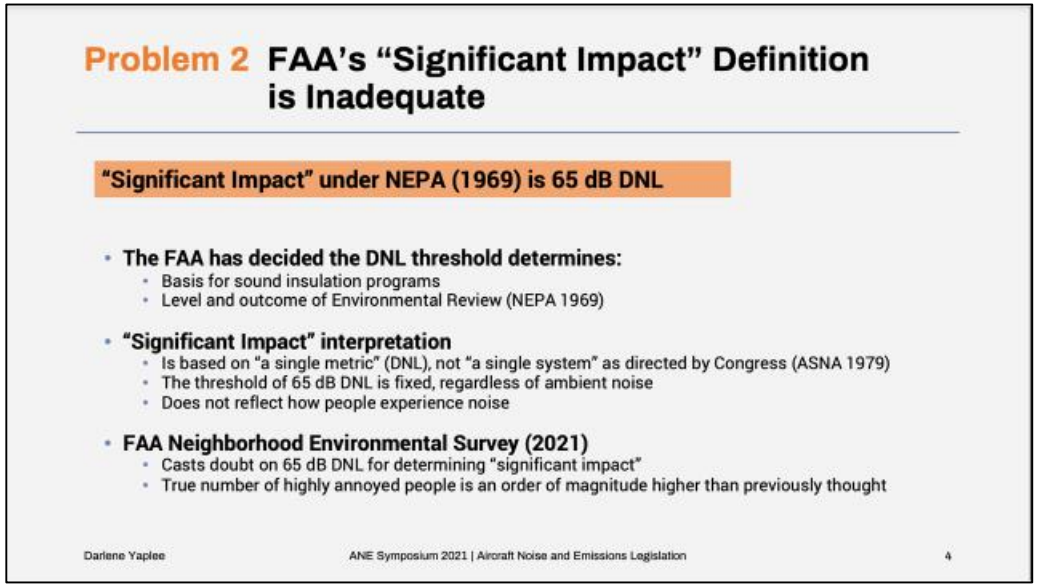
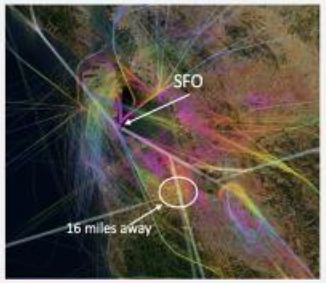
Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives and Predictions



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

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 x 244 = 4,868.8

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

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

- People want/need relief from aircraft and emissions impacts, but FAA's limited Mission Statement only provides limited protection for people on the ground and needs to be amended. *In other words, the FAA is not talking about the public on the ground.*
- System uses a "single metric" (DNL), not a "single system" as directed by Congress, but this is not a "one size fits all" issue.
    - FAA uses the same 65 DNL to determine noise impacts near airports as it uses to determine mitigation (e.g., insulation, land use, noise abatement procedures), as well as for Impacts away from airports, where concerns are concentrated repetitive overflights.
    - *A different method of determining significant impacts is needed (e.g. non-DNL such as N-Above). AEDT allows for noise metrics besides DNL*
- The FAA's Significant Impact definition is inadequate: 65 DNL is fixed regardless of ambient noise and does not reflect how people experience noise. The 2021 Neighborhood Environmental survey (NES) casts doubt on the 65 DNL as the threshold for significant impact. (The true number of highly annoyed people is far greater than previously thought.)
    - *FAA needs to add a validation step to compare EA findings to actual impacts*.
    - The health effects of ultra fine particles (UFPs) caused by aviation must be included in EAs.
- **Legislation is needed to:**
    - Change FAA Mission Statement;
    - Redefine Significant Impact;
    - Correct EA process;
    - Require different solutions that fit each airport's context;
    - Address aviation emissions as a health impact.
- Use "public" involvement, not "community" involvement, as the FAA regards "community" as the aviation community.

SESSION FIVE (cont'd.)
Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives and Predictions

1. <u>ANE Legislation in Congress</u> (cont'd.)

<u>Peter J. Kirsch</u>: (Practices law in airport development and legislation.) https://anesymposium.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/SESSIO~1_2.PDF, slides 6, 8, 9, 10

- Multiple NES implications:
  - The current policy is based on 1979 FICUN.
  - The 65DBL threshold is enshrined in law, regulations, policies, guidance, past practice (legal precedents). Do they remain legally permissible?

- Any changes to those legal documents must be:
  - Transparent;
  - Thoughtful;
  - Collaborative (including public comment.
- Meanwhile, potential legal challenges of FAA EAs are seen as arbitrary and capricious.
- Congress is now interested in the issue:
  - Statutory revisions proposed through the Quiet Skies Caucus, NextGen EAs metrics, revisions to ANCA.
  - Use "public" involvement, not "community" involvement, as the FAA regards "community" as including the aviation community.

Jacqueline Hamilton:

- Lives near LAX, involved in Prospects for Noise Action; Karen Bass, her boss, is one of signatories on a Congressional letter to the FAA.
- In 2014 the House Quiet Skies Caucus had 700 members, the Senate Caucus had 100, however there is currently no Quiet skies House representative, making it harder to get focus on the issue. (The Annual Appropriations Bill is a good place to introduce bills, efforts.)
- Important for people affected by aircraft noise and emissions to add their Public Comments to the NES (deadline extended from March 15 to April 14).
- Affected persons need to find out who on their Congress member's staffs are working on this issue. Be specific about asks, be polite, be persistent.
  - Darlene Yaplee: "This could be a sea change in noise legislation; the door is opening – we must go through." "We now know what's wrong – let's fix it."
- The FAA must make current data available – don't focus on more research.

SESSION FIVE (cont'd.)
Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives and Predictions

Community Groups and Organizations

Speakers: **Sandy Fidell**, **Vince Mestre**: Authors: "A Guide to US Aviation Noise Policy"

- FAA is still a partisan to the airline industry, rather than objective.
- City-pair routes were turned into hub and spoke.
- EPA office for aviation noise control.
- ASNA (Aviation Safety and Noise Act)
- 65db came from the Air Force and is simply a mathematical equation.
- FAR Part 36 used to establish noise limits by aircraft weight class.
- Integrated Noise Model
- FAR Part 50 – primarily for land use control, extremely varied across 50 states
- FAR Part 36 – control noise at source
- All are effective measures for areas close to airports, not others
- Current policies are based on obsolete assumptions (from the 1950s)
- Chapter 7: Potential Changes to Noise Policy:
    - Significance of noise exposure is a key element.
    - Why is 65 the right number?
    - "One size fits all" approach should be abandoned.
    - Amend or repeal ANCA – airports are very restricted as to how they can deal with.
    - The greatest numbers of complainants re noise live outside the 65 DNL contour.
    - "The problem is growing and the FAA can't ignore it."
    - Airports are the magnets for complaints, not airlines.

SESSION FIVE (cont'd.)
Aircraft Noise and Emissions Legislation in the Next Congress: Priorities, Perspectives and Predictions

Community Groups and Organizations (cont'd.)

- "Health effects are an enormous can of worms. If we start legislating on health effects, will lose a decade, at least, of progress." (Fidell)
- Prior to 1996, FAA had development as its primary thrust.
- Reduced thrust is used globally as a cost-saving measure, not a fuel-saving measure.
- FAA needs to be more upfront about purposes, rationale for policies.
- Now, engines are quieter, so aircraft frames are noisier.
- Engine noise is dominated by thrust, air noise is dominated by speed.
- NES: The elephant in the room is not veracity, but FAA is ignoring it; has pointed out how policy is in urgent need of revision, updating. (Fidell)
    - Uses mail-in surveys now, people don't answer their phones.
    - 66% are highly annoyed by noise.
    - Schultz Curve: was for road, rail and aircraft noise. NES response found a higher level of annoyance than Schultz, partially due to non-acoustic factors such as the inability to make changes, due to ANCA (?).
    - Ironically, the reduced thrust takeoff has very little impact on noise, a much bigger impact on emissions.
- AEDT is designed for use in multi-airport context.
- *Changing noise metric will take too long, instead focus on lowering threshold of what constitutes a Significant Impact. Should not be one size fits all*
- It will be difficult to get consensus from all stakeholders on what level of annoyance should be used as the new threshold.
- At lower DNL threshold, the degree of uncertainty increases (e.g. at 65 DNL plus or minus 1.5 DB; at 60 DNL plus or minus 3 DB; at 45 DNL plus or minus 10 DB).

TAKEAWAYS

How does dispersion relate to Van Nuys Airport?

1. Van Nuys Airport is owned by Los Angeles World Airways (LAWA) and currently operates under the Metroplex NextGen procedures. This means that most flights in and out of the airport vector to the PPRRY waypoint with little to no variance, subjecting the people living under that flightpath to constant aircraft noise and emissions, as noted by all the comments the CAC received today.
2. This change has adversely affected those living under this unannounced flight path and the affected citizens have been calling for dispersion for the past 2+ years (*vis a vis* community organizations – Uproar LA, Studio City for Quiet Skies, Save our Skies LA – SOSLA).
3. The City Attorney of Los Angeles (Mike Feuer) has filed a lawsuit on behalf of the city against the FAA. Can LAWA help us get an update on this?
4. Given that airport operations are beginning to move back to pre-pandemic arrival and departure levels, **Dispersion is definitely called for**.
5. Communication, Transparency, Legislation are needed.
6. HR712 needs discussion. (HEALTH IMPACTS OF AIR TRAFFIC NOISE AND POLLUTION.)
7. Any Questions? Items for discussion? Topics for our next meeting?