



# Aviation Noise & Emissions Symposium 2021

Summary of Sessions (Part 1)

By: Nancy Higgs

# Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

Presented by Jim Allerdice, Jr, Managing Partner, ABCx2, LLC

## **CASE STUDY 1-Equivalent Lateral Spacing (ELSO) at San Diego International Air (SAN)**

- 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 the SAN Airport.
- Their proposal involved the use of ELSO to provide some track variability while preserving the safety and efficient design for Air Traffic Control.
- The proposal reduced the total number of housing units exposed to 65 Community Noise Equivalent Level (CNEL) by 342 or 572 (depending on the track loading model used). However, since the proposal “shifted” noise and put new housing units inside the 65 CNEL contour, the Airport Authority required unanimous consent of the Citizen Advisory Committee (CAC) for acceptance, which it did not receive.

# Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

## CASE STUDY 2-Terminal Arrival (TAA) at Washington National Airport (DCA)

- 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.
- Their proposal involves utilizing the Terminal Arrival Area (TAA) Concept to bypass the FERGI waypoint and initiate an approach to DCA over DARIX waypoint in a more random manner.
- Introduction of the TAA concept will mitigate the concentration of noise by allowing Air Traffic Control (ATC) to clear aircraft to the DARCI 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 Work Group (Roundtable)

# Aircraft Noise and Overflight Dispersion: Opportunities and Challenges

Presented by Dan Gardon, Noise Abatement Specialist

## City of Charlotte Douglas International Airport (CLT)

- 570,000+ flights in 2019, making CLT the 7th busiest Airport by operations count
- 3 parallel runways (a 4<sup>th</sup> crosswind runway is rarely used)
- Easternmost runway 18R/36L is used only for arrivals
- Almost 300,000 departures on only two runways
- In 2015 implementation of the Charlotte Metroplex allowed for FAA design dispersed departure procedures.
- Unable to disperse arrival traffic
- **MORE** residents affected (albeit affected by fewer overflights)
- Technical difficulty in implementation

# Aircraft Noise Emissions Legislation that has been or may be reintroduced in the 117<sup>th</sup> Congress

Presented by Peter J. Kirsch, Kaplan, Kirsch & Rockwell

- Bills that did not pass in the 116<sup>th</sup> Congress (2019-2020) and have already been reintroduced in the 117<sup>th</sup> Congress (2021-2022)
  - Safe and Quiet Skies Act (H.R. 389), reintroduced on Jan. 21 by Rep. Ed Case (D-HI). In summary the bill directs the FAA to adopt National Transportation Safety Board (NTSB) recommendations that will increase safety and reduce the community disruption of commercial tours.
  - 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 2019-2020 the bill would have: Required the FAA to sponsor an Expert Consensus Report issued by the National Academics of Sciences, Engineering and Medicine on the health effects of airplanes flying over residential areas. And 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 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 on Oversight and Government Reform.

## Aircraft Noise Emissions Legislation that did not pass but are expected to be reintroduced in the 117<sup>th</sup> Congress

- Bills that did not pass in the 116<sup>th</sup> Congress but are expected to be reintroduced soon in the 117<sup>th</sup> Congress
  - Aviation Impacted Communities Act, introduced by Rep. Adam Smith (D-WA) and 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 outside the 65 DNL.
    - 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”.
    - Significantly expanded the current limits of FAA-funded efforts to allow FAA and airport operators to provide sound insulation to aviation-impacted communities that are subjected to “substantial increases” in flight frequency of commercial operations; and neighborhoods within a 55 DNL contour of flight operations 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.

## Aircraft Noise Emissions Legislation that did not pass but are expected to be reintroduced in the 117<sup>th</sup> Congress (cont.)

- Bills that did not pass in the 116<sup>th</sup> Congress but are expected to be reintroduced soon in the 117<sup>th</sup> Congress
  - Protecting Airport Communities from Particle Emissions Act, introduced by Rep. Adam Smith (D-WA). 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:
      - Focus on large hub commercial airports
      - Look at potential health effects associated with elevated UFP exposures

## Aircraft Noise Emissions Legislation that did not pass and it is unclear yet whether they will be reintroduced in the 117<sup>th</sup> Congress

- There is a multitude of bills that the Reps have not announced yet whether they will be reintroduced. This is something we may want to explore if we learn more.



# Climate Change and Aviation: Opportunities in the Midst of Adversity

## The Road to Aviation – A European perspective by Marylin Bastin, EUROCONTROL

- 1.7 fewer passengers
- Markets down by 40%-73%
- Leading aviation airlines down by 53%-67%
- Estimating a recovery of number of flights in Europe by 2024 if vaccine is available in 2021
- EU Aviation Maps a Sustainable Post –Crisis Future in Round Table Report
- All stakeholders, including policy makers, to work together to reach net zero CO2 emissions by 2050

# Climate Change and Aviation: Opportunities in the Midst of Adversity

Recovering from COVID-19, The Airline Perspective by Tim A. Pohle, Airlines for America Senior Managing Director, Environmental Affairs

- Despite the negative Economic impacts of COVID-19, Airlines are committed to Contributing to and supporting environmental progress
- The important role of Sustainable Aviation Fuel (SAF)
  - What is SAF? SAF is one of the terms used to describe non-petroleum-derived aviation fuel prove to be safe, which emits less carbon from a life-cycle perspective and meets other environmental and economic sustainability criteria
  - Commercial aviation will rely on liquid fuels for years to come
  - Terms commonly considered synonyms: Sustainable alternative jet fuel: Bio-jet, Alternative jet fuel, Renewable jet fuel
- Airlines remain committed to ambitious emissions targets
  - 1.5 annual average fuel and carbon efficiency improvement, 2009-2020
  - Carbon neutral growth starting in 2020
  - 50% net reduction in CO2 in 2050 relative to 2005 levels

## Part 2 (at a future Roundtable Meeting)

- Aviation Emissions: Reduction Efforts and Current Research
- Civil Society expectations for a green recovery
- A guide to U.S. Aircraft Noise Regulatory Policy (book by Sanford Fidell and Vincent Mestre)