Noise Research Summit

Tufts Community Assessment of Freeway Exposure and Health Study (CAFEH)

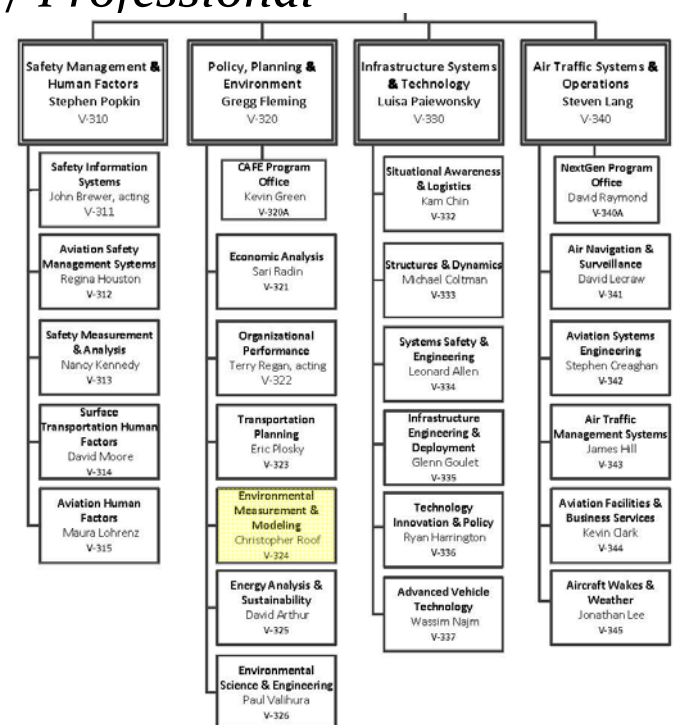
The National Transportation Systems Center

Advancing transportation innovation for the public good

U.S. Department of Transportation
Office of the Secretary of Transportation
John A. Volpe National Transportation Systems Center

What is the Volpe Center?

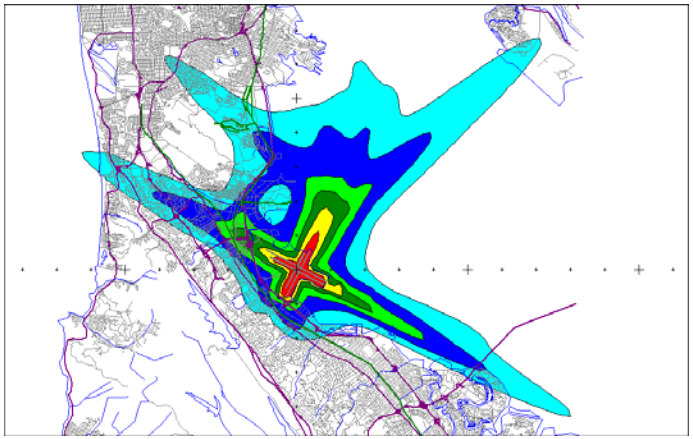
- Federal agency, 100% project funded
- <u>Purpose</u>: *Advancing transportation innovation for the public good*
- <u>Mission</u>: *Improve the nation's transportation system by anticipating emerging issues and advancing technical, operational, and institutional innovations*
- <u>Values</u>: *Public service / Innovative solutions / Professional excellence / Collaboration & partnering*
- 500+ federal employees
- Multi-modal
- Multi-disciplinary



Volpe's Environmental Measurement and Modeling Technical Expertise

- Acoustics
  - Source Characteristics
  - Propagation
- Air Quality
  - Dispersion
- Measurements
- Analysis
- Model Development
- Policy Development
- Specialized Instrumentation

Noise Monitoring / Health Experience



- Cardiovascular Disease and Aircraft Noise Exposure
  https://ascent.aero/project/noise-impact-health-research/

- Pilot Study on Aircraft Noise and Sleep Disturbance
  https://ascent.aero/project/noise-exposure-response-sleep-disturbance/

- Traffic Noise Model (TNM)
  http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v30/

Noise Monitoring / Health Experience

- Quiet Pavements

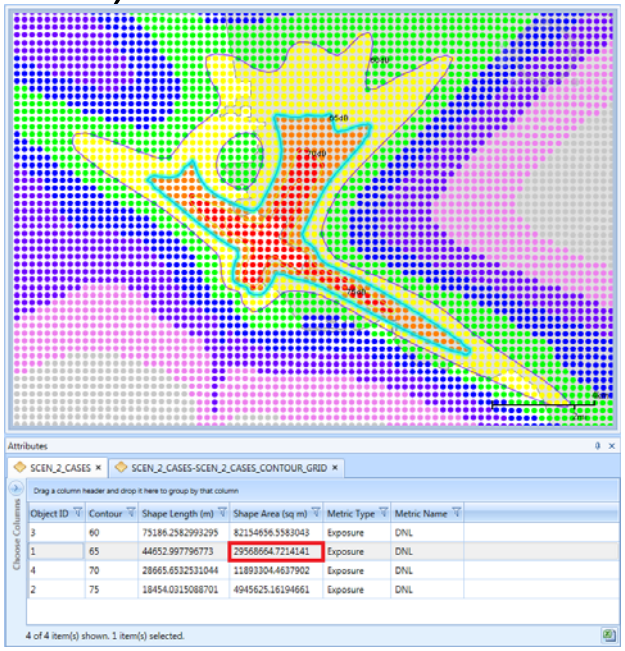
  https://ascent.aero/project/noise-impact-health-research/

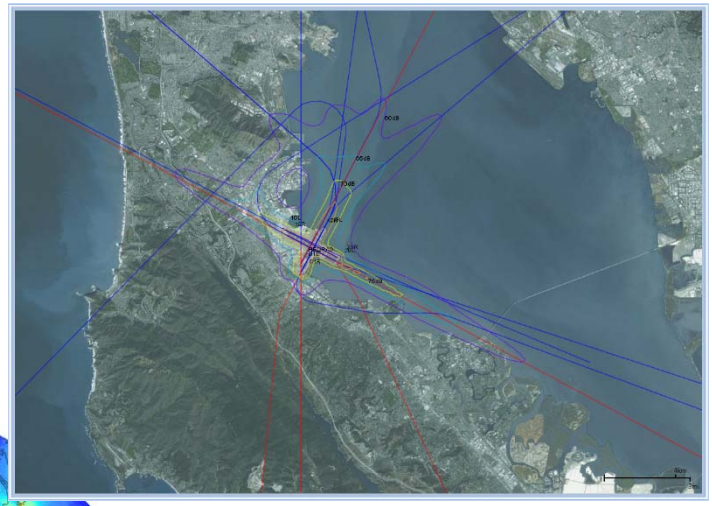
- Quiet Vehicles

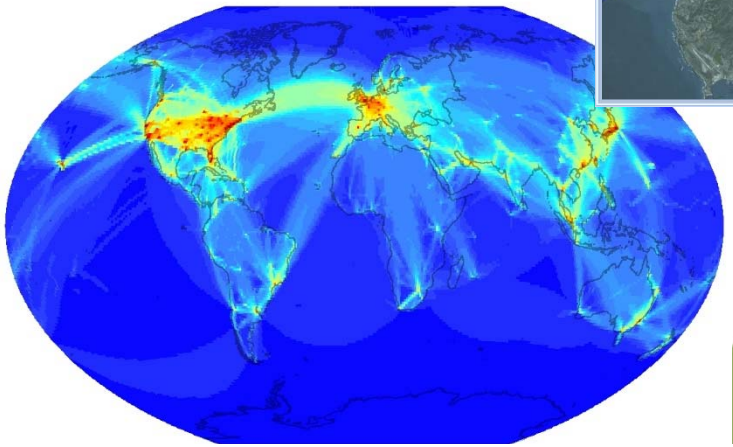
  http://www.volpe.dot.gov/safety-management-and-human-factors/aviation-human-factors/cross-disciplinary-team-helps-nhtsa

Air Quality Research

- Aviation Environmental Design Tool (AEDT)
  - Updated version of EPA modules
    (AERMOD, AERMET & MOVES)
  - High fidelity meteorological capabilities
    https://aedt.faa.gov/







Funding Opportunities

- FAA's Aviation Sustainability Center (ASCENT) Center of Excellence

  https://ascent.aero/

- National Academies
  - NCHRP / TCRP / ACRP

    http://www.trb.org/NCHRP/NCHRP.aspx

- Small Business Innovative Research (SBIR) Program

  http://www.volpe.dot.gov/work-with-us/small-business-innovation-research

NCHRP: National Cooperative Highway Research Program
TCRP: Transit Cooperative Research Program
ACRP: Airport Cooperative Research Program

Thank you

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Backups

Delta