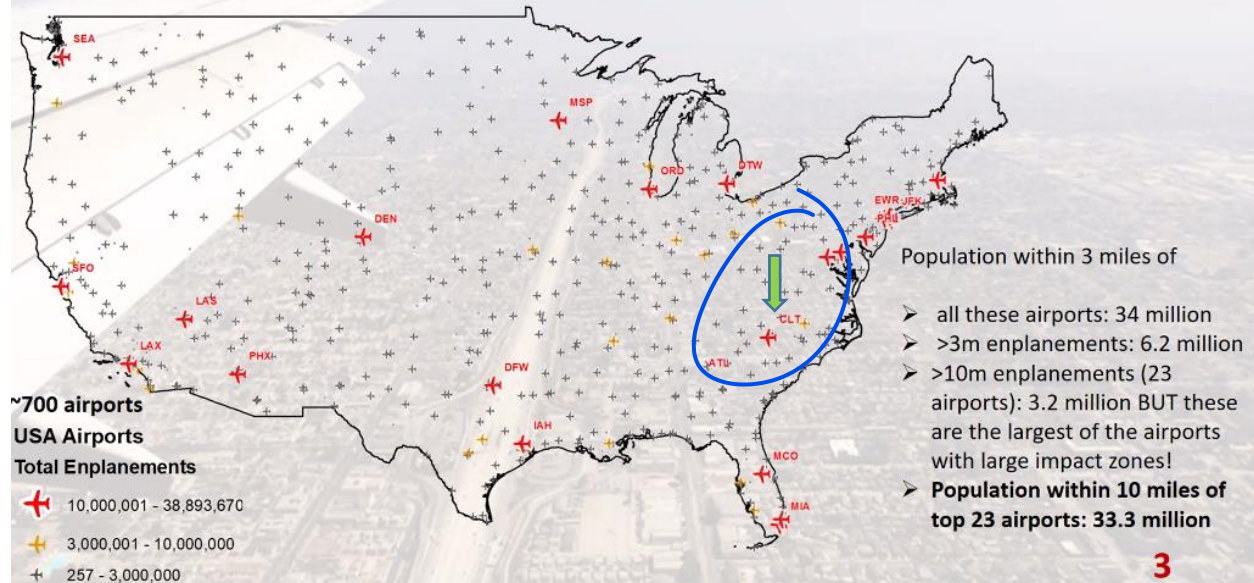


Research has implications for large populations in near-airport communities that rank high on environmental justice metrics



Key Findings

1. Airports adversely impact air quality over LARGE areas located downwind of the airport
 - Impacts extend up to 12 miles downwind
 - Particularly pronounced for ultrafine particles
 - Wind direction and runway configuration important in assessing impacts
2. The ambient pollution infiltrates indoors
 - Highest indoor and outdoor concentration observed when residences up to 5 miles were downwind
 - Overhead landing jets lead an order of magnitude worse impact
 - Filtration does reduce indoor concentrations
3. Health effects needs to be studied further
 - Evidence of higher rates of pre-term birth near LAX

LAX/Los Angeles International work on ambient

Aviation activity at Los Angeles International Airport (LAX) produces ground-level ultrafine particle concentrations more than twice the nearby ambient levels at distances up to 12 miles away from the airport.

Hudda et al. 2014 <https://pubs.acs.org/doi/pdf/10.1021/es5001566>

Hudda et al. 2016 <https://pubs.acs.org/doi/pdf/10.1021/acs.est.5b05313>



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Tufts
UNIVERSITY

SCHOOL OF ENGINEERING
Civil and Environmental Engineering



1. By mid 2000s, Washington National (DCA) had grown from regional -> national hub
2. In 2015, all departure and arrival paths were moved from Virginia -> Maryland
3. Performance Based Navigation concentrated air traffic in narrow, repetitive flight rails
4. No nighttime curfew

→ In 2016, Montgomery County Quiet Skies Coalition (MCQSC) was formed

WE PURSUED MULTIPLE STRATEGIES

LEGAL REMEDIES



UNSUCCESSFUL
Dismissed on timeliness issues

LEGISLATIVE REMEDIES



VERY LONG TERM
But we are still working on it!

LOCAL REMEDIES



UNSUCCESSFUL...
UNTIL RECENTLY

DCA Community Working Group (CWG)



Hosted by Metropolitan Washington Airports Authority (MWAA)

Reps from 6 Jurisdictions in MD, VA and DC

Reps from Airlines

FAA

Federal Congressional staff (House and Senate) attend & observe – **very important**

Met monthly for years (now quarterly via Zoom)

40+ meetings since 2015

20 Recommendations – NONE IMPLEMENTED

FAA DID NOT INVEST RESOURCES TO FIND WIN/WIN SOLUTIONS