

July 13, 2020

Via Federal eRulemaking Portal

Sandy R. Liu,
Office of Policy, International Affairs, & Environment,
Noise Division (AEE-100),
Federal Aviation Administration,
800 Independence Avenue SW,
Washington, DC 20591

Re: [Docket No.: FAA-2020-0316; Notice No. 20-06]; Proposed Certification of Supersonic Airplanes

Dear Mr. Liu:

On behalf of our millions of members and supporters, we write to urge you to withdraw the Federal Aviation Authority's ("FAA") proposed Noise Certification of Supersonic Airplanes, 85 Fed. Reg. 20,431 ("Proposed Rule"). By establishing noise standards for takeoff and landing of civil supersonic aircraft, the Proposed Rule would provide a means for these aircraft to be certified to fly in the United States at subsonic speed. The Concorde – the world's last commercial supersonic aircraft to operate – failed nearly two decades ago because of the aircraft's sky-high fuel consumption and inability to meet environmental regulation.¹ If finalized, this Proposed Rule would pave the way for a revival of old, dirty technology that would fuel the global climate crisis and generate extreme air and noise pollution as discussed below:

Supersonic aircraft would take aviation's climate damages through the roof.

The purpose of this rule is to facilitate the development of civil supersonic aviation in the United States.² Because of its high costs, travel via a rebooted supersonic aviation industry would not be accessible to the vast majority of people in the United States, but it would have catastrophic climate impacts for everyone. New commercial supersonic planes are expected to burn 5 to 7 times as much fuel per passenger as comparable subsonic designs,³ and exceed even weak, ineffective international subsonic aircraft carbon dioxide (CO₂) emission limits by 70 percent.⁴

Even without supersonic aircraft, aviation is responsible for about 2.6 percent of global CO₂ emissions,⁵ and 9 percent of all U.S. emissions from the transport sector.⁶ Meanwhile, the landmark 2018 report from the Intergovernmental Panel on Climate Change made clear the need to decarbonize global industry sectors to limit warming to 1.5°C and avoid devastating climate-change-driven damages.⁷ Yet, emissions from the aviation sector alone could consume one quarter of a carbon budget aimed at keeping temperature rise below 1.5°C by 2050.⁸ Embracing supersonic planes thus takes us in a direction opposite that of needed CO₂ emissions reductions.

We are in a climate emergency. Given our limited carbon budget, limited time to act, and urgent need to slash greenhouse pollution from the aviation sector overall, allowing super-polluting

aircraft to enter the U.S. sky would be madness. It is obviously inconsistent with the FAA's obligations to protect public health and welfare.

Supersonic aircraft emit other dangerous air pollutants.

Analysis shows that supersonic aircraft under development will likely exceed international nitrogen oxide (NO_x) standards for subsonic aircraft by 40 percent.⁹ Exposure to NO_x pollution is associated with heart attacks,¹⁰ strokes,¹¹ respiratory diseases including asthma,¹² and premature death.¹³ Most recently, studies published since the onset of the COVID-19 pandemic have found that exposure to higher amounts of air pollution also increases a population's vulnerability to the novel coronavirus. For instance, a study in Europe found that populations exposed to higher levels of nitrogen dioxide (NO₂) experienced higher rates of mortality during the COVID-19 pandemic and concluded that "long-term exposure to this pollutant may be one of the most important contributors to fatality caused by the COVID-19 virus in these regions and maybe across the whole world."¹⁴ Another study in England found that higher levels of ozone (O₃), nitrogen oxide (NO), and NO₂ are significantly associated with COVID-19 deaths.¹⁵ A study from China found that short-term exposure to higher concentrations of air pollutants including particulate matter, CO, NO₂ and O₃ is associated with an increased risk of COVID-19 infection.¹⁶ Finally, studies have found that Black communities and other communities of color in the U.S. have been disproportionately impacted by COVID-19—in part as a result of historically disproportionate exposures to air pollution.¹⁷ Now is simply not the time to allow aircraft to enter the sky that will emit enormous quantities of dangerous air pollutants.

Supersonic aircraft takeoff and landing noise would expose people to harmful noise pollution.

The science of harms from aircraft noise is clear: Exposure to aircraft noise over time is associated with increased risk of high blood pressure and heart disease for adults¹⁸ and cognitive impairments in children.¹⁹ The FAA has a duty to set aircraft noise standards to protect public health and welfare.²⁰ Yet this Proposed Rule would expose the public to higher noise levels than are projected if the Rule is not passed.²¹ Finalizing this Proposed Rule would violate FAA's obligation to protect public health and safety from aircraft noise.

The undersigned organizations agree that we must reduce our carbon emissions as soon as possible to prevent catastrophic warming of our planet and protect the public from harmful air and noise pollution. We therefore urge you to withdraw this Proposed Rule that would allow a new class of super-polluting aircraft to enter the sky.

Sincerely,

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| 1. Center for Biological Diversity | 6. Biofuelwatch |
| 2. Alliance of Nurses for Healthy Environments | 7. Center for a Competitive Waste Industry |
| 3. Animals Are Sentient Beings, Inc. | 8. CEO Pipe Organs/Golden Ponds Farm |
| 4. Animas Valley Institute | 9. Chatham Research Group |
| 5. Berks Gas Truth | |

10. Christians for the Mountains
11. Church Women United in New York State
12. CleanAirNow
13. Climate Hawks Vote
14. Committee for Aviation Transparency
15. Conservation Congress
16. DC Fair Skies Coalition
17. Earth Action, Inc
18. Echotopia LLC
19. Ecology Party of Florida
20. Food & Water Action
21. FracTracker Alliance
22. FreshWater Accountability Project
23. Friends of the Earth
24. George Mason University Center for Climate Change Communication
25. Great Egg Harbor Watershed Association
26. Hip Hop Caucus
27. Institute for Policy Studies Climate Policy Program
28. Kickapoo Peace Circle
29. Logan Aircraft Noise Working Group
30. Miras Garden
31. Montgomery County Quiet Skies Coalition, Maryland
32. Movement Rights
33. N.O.I.S.E.
34. National Children's Campaign
35. NMEAC (Northern Michigan Environmental Action Council)
36. OVEC-Ohio Valley Environmental Coalition
37. Palo Alto Citizens
38. Pelican Media
39. Public Lands Project
40. Quiet Skies Coalition
41. RedTailed Hawk Collective
42. Riverdale Jewish Earth Alliance
43. SAVE THE FROGS!
44. Save Wolves Now Network
45. SEIU Nurse Alliance
46. Sequoia ForestKeeper®
47. Sisters of St. Dominic of Blauvelt, New York
48. Sisters of St. Francis of Philadelphia
49. SoCal 350 Climate Action
50. South Asian Fund For Education, Scholarship and Training (SAFEST)
51. Spottswoode Winery, Inc.
52. The River Project
53. Topanga Peace Alliance
54. Transition Sebastopol
55. Turtle Island Restoration Network
56. Unexpected Wildlife Refuge
57. Vashon Climate Action Group
58. Wasatch Clean Air Coalition
59. 350 Mass Metro North Node
60. 350 Seattle
61. 350 Triangle
62. 5G Free California

¹ Federal Aviation Authority, Fact Sheet – Supersonic Flight (May 8, 2018), https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=22754

² 85 Fed. Reg. 20,431 (Apr. 13, 2020)

³ Kharina, Anastasia, et al., Environmental Performance of Emerging Supersonic Transport Aircraft, International Council on Clean Transportation (Jul., 2018) at 1, https://www.theicct.org/sites/default/files/publications/Environmental_Supersonic_Aircraft_20180717.pdf

⁴ Ibid at 8. These international emission limits will not apply to supersonic aircraft.

⁵ Staples, M.D. et al., Aviation CO₂ emissions reductions from the use of alternative fuels, 114 Energy Policy 342 (2018).

⁶ U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990- 2018 (Apr., 2020) at 2-32 – 2-33, available at <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>

⁷ Intergovernmental Panel on Climate Change, Global Warming of 1.5°C, An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (2018), <https://www.ipcc.ch/sr15/>.

⁸ Pidcock, R., et al. Aviation could consume a quarter of 11.5C carbon budget by 2050, Carbon Brief, (Aug., 2016), <https://www.carbonbrief.org/aviation-consume-quarter-carbon-budget>

⁹ Kharina, Anastasia, et al., Environmental Performance of Emerging Supersonic Transport Aircraft, International Council on Clean Transportation (Jul., 2018) at 8,

https://www.theicct.org/sites/default/files/publications/Environmental_Supersonic_Aircraft_20180717.pdf

¹⁰ Lee, B., et al., Air Pollution Exposure and Cardiovascular Disease, Toxicol. Res. 2014 Jun; 30(2): 71– 75. doi: 10.5487/TR.2014.30.2.071

¹¹ Ljungman, P., et al. Ambient Air Pollution and Stroke (Dec., 2014) 45(12): 3734–3741, doi: 10.1161/STROKEAHA.114.003130.

¹² U.S. Environmental Protection Agency, Basic Information about NO₂, <https://www.epa.gov/no2-pollution/basic-information-about-no2> (last visited Jun. 30, 2020).

¹³ Anenberg, S., et al., Impacts and mitigation of excess diesel-related NO_x emissions in 11 major vehicle markets. Nature 545: 467–471, 2017.

¹⁴ Ogen, Y., Assessing nitrogen dioxide (NO₂) levels as a contributing factor to coronavirus (COVID-19) fatality, 726 Science of the Total Environment (2020).

¹⁵ Travaglio, M. et al., Links between air pollution and COVID-19 in England, medRxiv, <https://www.medrxiv.org/content/10.1101/2020.04.16.20067405v2.full.pdf>

¹⁶ Zhu, Y. et al., Association between short-term exposure to air pollution and COVID-19 infection: Evidence from China, 727 Science and the Total Environment (2020),

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7159846/pdf/main.pdf>

¹⁷ Wu, X. et al., Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study (2020), https://projects.iq.harvard.edu/files/covid-pm/files/pm_and_covid_mortality_med.pdf; Bagley, Katherine, Connecting the Dots Between Environmental Injustice and the Coronavirus, Yale Environment 360 (May 7, 2020), <https://e360.yale.edu/features/connecting-the-dots-between-environmental-injustice-and-the-coronavirus>; Mikati et al., Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status, 108 AJPH Environmental Justice 480 (2018),

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5844406/pdf/AJPH.2017.304297.pdf>

¹⁸ Schmidt, Frank P., et al., Effect of nighttime aircraft noise exposure on endothelial function and stress hormone release in healthy adults, 34 European Heart Journal 3508, 2013.

¹⁹ Van Kamp, I., et al., A systematic review of evidence of the effect of transport noise interventions on human health, Inter.noise Conference, 2016; Hygge, I Staffan, et al., A prospective study of some effects of aircraft noise on cognitive performance in schoolchildren, Psychological Science 13: 469, 2002.

²⁰ 49 U.S.C. § 44715(a).

²¹ 85 Fed. Reg. 20,439.