Opposition to Authorization of Overland Supersonic Flight in the FAA Reauthorization Act

August 27, 2018

Dear United States Senators,

On behalf of the undersigned environmental, conservation and public health organizations and our millions of members and supporters, we write to express our opposition to section 5017 of the Federal Aviation Administration Reauthorization Act (S.1405 of 2017-2018) (the "Supersonic Provision"). That provision would lift the 43-year ban on supersonic flight over land in the United States and allow future supersonic aircraft to simply ignore the landing and takeoff noise standards for new subsonic jets. We oppose this provision because supersonic aircraft, once again under development, threaten Americans with lasting damages from extreme climate, noise and air pollution effects. The U.S. Federal Aviation Administration has prohibited commercial supersonic flight over land in the U.S. since 1973.[1] 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.[2] If passed, the Supersonic Provision would pave the way for a revival of old, dirty technology that failed spectacularly the first time it was introduced. We urge you to oppose any bill that would authorize supersonic flight over land in the United States.

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

According to supersonic start-up companies, removal of the existing ban on overland supersonic flight would prompt a revival of supersonic air travel.[3] Because of its high costs, a rebooted supersonic aviation industry would not be accessible to the vast majority of Americans, but would have catastrophic climate impacts for the public at large. New commercial supersonic planes are expected to burn 5 to 7 times as much fuel per passenger as comparable subsonic designs,[4] and exceed international subsonic aircraft carbon dioxide (CO_2) emission limits by 70 percent.[5]

Even without supersonic aircraft, aviation is responsible for about 2.5 percent of global CO_2 emissions,[6] and 9 percent of all U.S. emissions from the transport sector.[7] The aviation sector seriously threatens the ability of the United States, and the world, to reduce emissions in line with targets set out in the Paris Agreement. Emissions from the aviation sector alone could consume one quarter of a carbon budget aimed at keeping temperature rise below 1.5°C.[8] Given our limited carbon budget, the United States cannot afford to let a new class of super-polluting aircraft enter the sky.

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 respiratory disease including asthma,[10] heart attacks,[11] strokes[12] and premature death.[13] In addition to NO_x, aircraft emit other air pollutants including hydrocarbons, sulfur oxides (SO_x) and particulate matter.[14]

Supersonic flight would expose people and wildlife to harmful noise pollution
The infamous “sonic boom” isn’t just heard once when supersonic planes break the sound barrier – it is a roar that continues along the entire supersonic flight route, subjecting anyone in the flightpath to the noise.[15] The science is clear: Exposure to aircraft noise over time is associated with increased risk of high blood pressure and heart disease for adults,[16] cognitive impairments in children[17] and life-threatening disturbance for sensitive and endangered wildlife.[18]

The undersigned environmental, conservation and public health organizations agree that we must reduce our carbon emissions as soon as possible to prevent catastrophic warming of our planet and stop super-polluting supersonic air travel. We urge you to oppose any bill that would lift the existing ban on overland supersonic flight.

Sincerely,

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[1] 14 C.F.R. § 91.817.
[2] Federal Aviation Authority, Fact Sheet – Supersonic Flight (May 8, 2018), https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=22754
[3] Boom statement on the passage of the Lee-Gardner Amendment (May 3, 2018), https://boomsupersonic.com/news/show/boom-statement-on-the-passage-of-the-lee-gardner-amendment
[4] 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
[5] Ibid at 8. These international emission limits will not apply to supersonic aircraft.
[6] Lee, D., at al. Aviation and global climate change in the 21st century, Atmos. Environ. (2009) doi:10.1016/j.atmosenv.2009.04.024.
[7] U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2016 (Apr., 2018) at 2-31 – 2-32, available at https://www.epa.gov/sites/production/files/2018-01/documents/2018_complete_report.pdf
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[16] 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.
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Synthesis, U.S. Fish and Wildlife Service (1998), *available at* https://www.fs.fed.us/eng/techdev/IM/sound_measure/Manci_et_al_1988.pdf