

**From:** [Bill Mayben](#)  
**To:** [ARB Clerk of the Board](#)  
**Subject:** Regulation of Commercial passenger and freight jet aircraft emissions in California; based on the science and recent national and international reports of record.  
**Date:** Saturday, January 5, 2019 9:35:47 AM

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Dear CARB;

First, thank you and staff involved in putting forward zero emission requirements for airport shuttles in California. This proposal has triggered some thinking.

Right before us, operating in California day and night, as part of our daily lives, is one of the greatest unregulated air pollution sources worldwide. Am I the only complainant?

Since California has been historically effective at bringing sensibility into automobile air pollution standards; which in turn has positively influenced air quality nationwide, if not worldwide; why not open up the inevitable hearings regarding air pollution by commercial jet passenger and freight jets? This is a far worse contributor to our atmospheric pollution than airport shuttles. What is the plan to progressively reduce, then extinguish these emissions? What would be the timetable? How Can California lead in this reality?

Note that I am responsible to perform and submit regular smog testing of my vehicles, to assure that they stay in compliance. Prior to intervention by California, into automobile air pollution standards, we were dying of thick smog in our major cities. The arguments were put forward at the inception of California automobile and truck pollution control standards and associated manufacturer requirements; that we did not have jurisdiction. We proved we did. Our state, our nation, and our world are much better for it. I believe, given our eminent climate crisis, that it is time to leverage our expertise into dealing directly with civilian jet aircraft atmospheric emissions.

I note that civilian jet aircraft sound regulations have successfully been put in place on jet engines nationally, in recognition that this is a public problem that had to be regulated. Based on our own governments projections of the irrefutable progressive effects of global warming and climate change due to atmospheric pollution ([link below](#)); is CARB not the correct agency to hold hearings on the pollution in California caused by jet aircraft in our airspace? (As though our "airspace" is distinct from the rest of the world, broadly speaking.) The fact is that, similar to automobile pollution, California has distinct atmospheric and topographical features that exacerbate our vulnerability to fossil fuel air pollution. Our imposition of standards is both justifiable and has precedent. I am suggesting to the Board that we tackle the tough issues; the ones with the most potential for major reductions in atmospheric pollution.

Outside of our direct health effects; it is common scientific knowledge at this point that fossil fuel emissions are cooking us; as well as how; and the absolute limitations we must impose upon ourselves in order to survive. I thought to share some facts to hopefully help bring us into sobriety:

- The worldwide air transportation industry now expends 5% of the world CO2 budget. California undeniably suffers a disproportionate share of this air pollution.
- The industry responsible for this pollution is increasing at a rate of 5% per year, despite urgent worldwide efforts now in motion to reduce the use of fossil fuels in the next 12 years .

Air travel appears to have become a universal exception to climate concerns, despite being one of the major offenders. Why is this acceptable in California?

Aircraft industry claims of engine and fuel efficiency are inadequate given the facts we now possess on climate change. These industry claims are PR in the face of a global predicament, and should be confronted.

- The very conditions that engendered automobile pollution regulations; are magnified with unregulated passenger and freight jet aircraft; in LA, In the SF Bay Area. Statewide. Now. We have only 12 years to make a substantial reduction in our fossil fuel use and emissions. Our primary attention must be focused on major polluters.
- Who is better scientifically, and legally equipped to do this than California?
- Ozone gas emissions caused by jet aircraft equal their CO2 emissions in destructive effects. Ozone is far more destructive to the atmosphere than CO2. There are other known gasses emitted, such as NO2, carbon monoxide, HCHO, and formaldehyde. The concentrations of these gasses are greatest during takeoff; meaning they pollute locally, at or near ground level, here in California. Regardless; CO2 remains in the atmosphere for 1000 years.
- Air pollution by aircraft exceed all emissions by all vehicles on all roads worldwide, and is increasing exponentially. California must take responsibility for moving world culture away from fossil fuels. It is hard to imagine a world operating sustainability within zero emissions; if it includes jet travel.
- With this understood; what constitutes responsible action? Even though jet transportation is an ingrained part of world life; so was, and is the use of the automobile. What is the difference? Pollution is pollution. Yes, regulatory actions on the part of California to intervene in commercial passenger and freight jet engine fossil fuel emissions will likely result in lawsuits with industry and the Federal government. We need to follow the science. Such lawsuits enter into public discourse; as well as the effects of any national decision to imagine that we can continue to practice “business as usual” without substantial environmental and human costs. No matter what the immediate effects of efforts by California to regulate these major pollution sources; we will have an effect. One possible effect would be on the part of consumers. What if they begin to gravitate to airlines and freight companies which aggressively pursue pollution reductions on their own? We can lose and still win.

If this sounds radical; try this: world heat generation from fossil fuels is equivalent to the heat generated by the detonation of 400,000 nuclear weapons per day. Every day. The equivalent atmospheric heat generated by fossil fuel emissions in California would now be at least that of 3862 nuclear weapons detonated in our state every day. Obviously, this is not sustainable.

Truth be told; we are all unconscious about how far out of bounds we are. If we “wait and see” the gross negative effects before acting, it will be too late to make a difference. This is the science. Some links below form evidence of our predicament, and our very best efforts to put a plan in place to save ourselves:

<https://www.globalchange.gov/climate-change> This is the recent report by our own Federal Government.

[https://report.ipcc.ch/sr15/pdf/sr15\\_spm\\_final.pdf](https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf) This is the October report by the United

Nations Intergovernmental Panel on Climate Change

<https://thebulletin.org/2018/10/climate-report-understates-threat/> This follow on report by The Bulletin of Atomic Scientists points out certain features of Climate Change under-reported by the UN IPCC

<https://www.wired.com/story/guide-climate-change/> This is a recent article in Wired Magazine on Climate Change.

<https://www.vox.com/platform/amp/energy-and-environment/2018/5/7/17306008/climate-change-global-warming-scenarios-ambition> Recent VOX article on energy and the environment.

Thank you for your patience, I am willing, I want to speak with you in person regarding these concerns. We are out of time.

Yours,

Bill Mayben  
Fairfield, CA