

Domestic Action on Aviation Carbon

Using the Clean Air Act to Cut Aviation Emissions
and Create an Alternative to the European Union
Emissions Trading System

Nathan Richardson and Samuel Grausz July 2012

About the Blue Skies project

The Blue Skies project is a collaborative research initiative that works to help make aviation safe, affordable, secure, and clean. The project provides in depth legal, political, and economic research on issues that vitally affect the aviation sector. Through this research and outreach to key stakeholders, the project seeks to build consensus and positive collaboration.

Our first report, “Is the Sky Falling for Airline profits in the European Union?”, seeks to create common understanding of the economic consequences of one of the most controversial aviation emissions policies currently under consideration, the inclusion of aviation in the European Union Emissions Trading System. This report, our second and also a collaboration between Climate Advisers and the Center for American Progress, explores the possibilities of using the Clean Air Act to prepare for an international policy in ICAO or crafting a domestic alternative policy for the United States. Both of these reports are analytical and do not attempt to advocate for a specific policy or set of policies.

This paper is based off a more detailed analysis of the same issue by Nathan Richardson, “Aviation, Carbon, and the EPA,” published by Resources for the Future.

For more information on the Blue Skies project or this report, please contact Samuel Grausz of Climate Advisers by phone at (206-851-6156) or by email at grausz@climateadvisers.com, and Rebecca Lefton of the Center for American Progress by phone at (202-478-5323) or by email at rlefton@americanprogress.org.

Executive summary

International aviation generates a small but rapidly growing share of global greenhouse gas emissions. Until recently the sector faced no limits on these emissions. But starting this year the European Union began regulating emissions from all flights to and from EU airports. The new law is opposed by much of the aviation industry and has led to an ongoing legal and diplomatic conflict with the United States and other countries, and threatens to trigger a trade war.

Countries on both sides support replacing the EU law with an international policy under the International Civil Aviation Organization, and after 15 years of debate, there is some evidence that this process is accelerating. But past failures and the inherent difficulty of international climate negotiations suggest that the United States should not rely on the International Civil Aviation Organization alone.

The U.S. Clean Air Act will play a vital role in future policy discussions whether the ICAO process succeeds or fails. If ICAO succeeds, then the United States will likely use the Clean Air Act to implement the ICAO policy much as it has done for past aviation policies. If ICAO fails, then the United States could develop its own aviation emissions policy under the Clean Air Act and thereby escape the EU program. A U.S. measure to limit greenhouse gas emissions that is deemed equivalent to the EU program would exempt flights to and from the United States under the EU law. Any other policy through new legislation under either of these scenarios is unlikely due to the current political climate in Washington. Thus, to inform either of these scenarios, this paper explores opportunities for regulating greenhouse gases from aviation under the Clean Air Act, focusing on opportunities for flexible, cost-effective regulation.

We contend that the Environmental Protection Agency could craft aviation emissions regulations under the Clean Air Act that could achieve both environmental and industry goals while implementing the ICAO policy or satisfying the EU “equivalency” requirement. These regulations could be both broad and flexible, covering existing and new aircraft engines and allowing compliance through airframe and operational changes. The Environmental Protection Agency might also be able to use market-based regulatory tools, further increasing flexibility and likely cost-effectiveness.

We recognize, however, that there are important limitations as well as challenges. Clean Air Act regulation could not generate revenue to fund international climate finance or other priorities. Further, the regulation would likely not cover emissions outside of U.S. airspace, though it would indirectly reduce them. International law may also complicate regulation of foreign-flag airlines. And, as with any contentious regulation under the Clean Air Act, political, administrative, and legal challenges are likely to occur.

These and other findings are summarized in Figure 1.

FIGURE 1
Summary of findings

Issue	Finding
Could EPA regulate greenhouse gases from aviation?	Yes
Could EPA regulate airframes and operations in addition to engines?	Yes
Could EPA regulate existing engines in addition to new engines?	Yes
Could EPA regulate foreign air carriers?	Maybe
Could EPA regulate emissions outside U.S. airspace?	No, but indirect reductions occur
Could EPA employ flexibility mechanisms like trading, banking, and borrowing?	Probably
Does EPA have discretion over stringency?	Yes
Could EPA use the regulation to raise revenue?	No

The Center for American Progress is a nonpartisan research and educational institute dedicated to promoting a strong, just, and free America that ensures opportunity for all. We believe that Americans are bound together by a common commitment to these values and we aspire to ensure that our national policies reflect these values. We work to find progressive and pragmatic solutions to significant domestic and international problems and develop policy proposals that foster a government that is “of the people, by the people, and for the people.”



Climate Advisers is a consulting firm specializing in U.S. climate change policy, international climate cooperation, global carbon markets, and climate-related forest conservation. Climate Advisers is known for its vision, policy expertise, political acumen, and access to senior policymakers in the United States and around the world. Our clients include leading national governments, financial institutions, companies, think tanks, philanthropic foundations, conservation organizations and climate advocacy groups. Climate Advisers helps clients develop and advance environmentally effective, economically affordable and politically realistic climate change policies, strategies, and investments. In short, the firm is working with others to actively shape the low carbon economy.

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