
EPA Aircraft GHG Emissions Regulations Take Flight

Agency Announces Endangerment Finding for Aircraft Greenhouse Gas Emissions and Plans to Issue New Standards by 2018

By Matthew W. Morrison, Amanda G. Halter, Darin J. Smith and Bryan M. Stockton

After tackling greenhouse gas (GHG) emissions from passenger vehicles and power plants, the Environmental Protection Agency (EPA) on June 10 announced its latest regulatory initiative—a GHG emissions standard for aircraft. EPA’s announcement comprised two related parts: 1) a long-expected endangerment finding for aviation engine GHG emissions; and 2) an Advanced Notice of Proposed Rulemaking (ANPR) describing the process for setting international aircraft GHG emissions standards. While EPA’s announcement has significant impact for aircraft manufacturers, airline companies, and corporate purchasers of aircraft, a final standard is not expected until at least 2018.

What follows is a brief summary of

- what the endangerment finding means,
- the status of the international GHG emissions standard for aircraft,
- the development of U.S. GHG standards, and
- the implications for the global aviation industry moving forward.

What the Endangerment Finding Means for Aircraft GHG Emissions

Before the EPA can issue emission standards for GHG’s under Section 231 of the Clean Air Act, the EPA Administrator must first decide whether the emissions under consideration may reasonably be anticipated to endanger public health or welfare in the U.S. The Administrator must also decide whether emissions of an air pollutant from certain sources (here, classes of aircraft engines) cause or contribute to this endangerment. In its proposed endangerment finding, the EPA answered both questions in the affirmative. EPA’s endangerment finding concludes that emissions of carbon dioxide and other GHGs from certain classes of aircraft engines contribute to air pollution that causes climate change, and therefore endangers public health and welfare in the U.S. The finding itself,

which follows years of litigation intended to require EPA to propose an endangerment finding, does not regulate any activity; it is merely the precursor to future EPA regulation. EPA now is soliciting comments from the public on its proposed endangerment finding, and it may issue a final determination by the spring of 2016.

International Standards for GHG Emissions from Aircraft

A final endangerment finding for GHGs from aircraft will set in motion a process to regulate those pollutants. Unlike stationary sources of emissions, aircraft can cross international boundaries, making international cooperation important. Consequently, EPA has stated that it would prefer to simply adopt whatever standards are developed by the International Civil Aviation Organization (ICAO). A special agency of the United Nations, the ICAO works closely with its 191 member countries (including the U.S.) to set standards and regulations for international aviation safety, security, efficiency, capacity, and environmental protection.

The U.S. has been involved in ICAO's development of a carbon dioxide (CO₂) emissions standard for the past five years. Since 2010, ICAO has made slow but substantial progress in the development of this global standard. ICAO has decided that its global standard would apply to subsonic jet aircraft with a maximum takeoff mass (MTOM) greater than 12,566 pounds and to turboprop aircraft with a MTOM greater than 19,000 pounds. The standard will exclude piston-engine aircraft, helicopters, and military aircraft. Given the long lead time to design and build commercial aircraft, the standard probably will not be made effective until 2020 or 2023, even if an ICAO agreement is reached in the next year or two.

Aircraft Impacted by Pending Global Standards for CO₂ Emissions

Maximum takeoff mass	Type of Aircraft	Examples of Aircraft
>12,566 lbs.	Subsonic jet	A range of equipment, such as business jets like Cessna Citation CJ2+ and the Embraer E170, to the largest commercial jet aircraft such as the Airbus A380 and the Boeing 787.
>19,000 lbs.	Turbo-prop	ATR 72 and the Bombardier Q400

Aircraft Excluded from Pending Global Standards

Piston engine aircraft	Helicopters	Spacecraft	Military aircraft
------------------------	-------------	------------	-------------------

In addressing CO₂ emissions, ICAO has moved from regulating pollutant emissions from engines to regulating entire aircraft. That is, instead of only looking at the engines, the standards will attempt to wring efficiencies out of the design of the entire aircraft itself. This change in approach will reward future improvements in aircraft structures (aircraft weight), propulsion (fuel consumption), and aerodynamics.

The ICAO is also analyzing a range of possible CO₂ emission levels depending on the design technology of the aircraft, specifically (1) the oldest and least efficient aircraft currently in production, (2) aircraft presently in-production, including most of the current operational fleet, and (3) aircraft that have either just entered production or are in final design phase but will be in-production by the time the final standard is released. EPA recognizes these distinctions, and is seeking comment on whether the aircraft emission standards it adopts should apply to in-production aircraft or only to completely new aircraft type designs. It is worth noting that under section 231 of the Clean Air Act, EPA's authority to set aircraft engine standards is not restricted to new aircraft only. The ICAO is unlikely to set final CO₂ emission levels until February 2016.

U.S. Standards for Aircraft GHG Emissions

EPA and the Federal Aviation Administration (FAA) traditionally work within the standard-setting process of the ICAO to establish international emission standards and related requirements. Historically, international emission standards are first adopted by ICAO. EPA then initiates rulemakings under section 231 of the Clean Air Act to establish domestic standards equivalent or similar to the ICAO's standards. Finally, once EPA

promulgates aircraft emissions standards, section 232 of the Clean Air Act requires the FAA to issue subsequent regulations to ensure compliance with these standards.

EPA expects to proceed using a similar approach for a domestic GHG standard. This approach is dependent, however, on EPA's issuance of a final endangerment finding and on the ICAO's adoption of an international aircraft CO₂ standard. EPA could also ask for more; the Agency's proposed rule seeks comment on whether to adopt a more stringent aircraft engine emissions standard more stringent than ICAO.

Implications for Global Aviation Industry

Between 2000 and 2014 passenger trips on U.S. airlines increased 20 percent while CO₂ emissions fell by eight percent. Despite these voluntary fuel efficiencies gains, EPA has determined that additional measures will be needed to extract further GHG emissions from this sector. Given the numerous contingencies—including the timing of an international agreement and the enforcement priorities of the next presidential administration—aircraft manufacturers, airlines and corporate purchasers of aircraft should follow the development of these standards and account for them in their designs and purchases of new aircraft. They should also take advantage of the fact that EPA is currently soliciting public comment on aspects of the ICAO proposal to use in the U.S.'s negotiations within the ICAO. Comments will be due within 60 days after publication in the *Federal Register*.

For questions on the rule and how it could impact your business, and for assistance in submitting comments, please contact [Jennifer Trock](#) or [Josh Romanow](#) of Pillsbury's Aviation, Aerospace & Transportation practice or [Matthew Morrison](#), [David Farabee](#), or [Mark Elliott](#) of the Environment, Land Use & Natural Resources practice.

If you have any questions about the content of this alert please contact the Pillsbury attorney with whom you regularly work, or the authors below.

Matthew W. Morrison [\(bio\)](#)
Washington, DC & Houston
+1.202.663.8036 & +1.713.276.7660
matthew.morrison@pillsburylaw.com

Amanda G. Halter [\(bio\)](#)
Houston
+1.713.276.7665
amanda.halter@pillsburylaw.com

Darin J. Smith [\(bio\)](#)
Houston
+1.713.276.7602
darin.smith@pillsburylaw.com

Bryan M. Stockton [\(bio\)](#)
Washington, DC
+1.202.663.8407
bryan.stockton@pillsburylaw.com

About Pillsbury Winthrop Shaw Pittman LLP

Pillsbury is a full-service law firm with an industry focus on energy & natural resources, financial services including financial institutions, real estate & construction, and technology. Based in the world's major financial, technology and energy centers, Pillsbury counsels clients on global business, regulatory and litigation matters. We work in multidisciplinary teams that allow us to understand our clients' objectives, anticipate trends, and bring a 360-degree perspective to complex business and legal issues—helping clients to take greater advantage of new opportunities, meet and exceed their objectives, and better mitigate risk. This collaborative work style helps produce the results our clients seek.

This publication is issued periodically to keep Pillsbury Winthrop Shaw Pittman LLP clients and other interested parties informed of current legal developments that may affect or otherwise be of interest to them. The comments contained herein do not constitute legal opinion and should not be regarded as a substitute for legal advice.

© 2015 Pillsbury Winthrop Shaw Pittman LLP. All Rights Reserved.