



February 11, 2021

The Honorable Pete Buttigieg  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, DC 20590

The Honorable Steve Dickson  
Administrator  
Federal Aviation Administration  
800 Independence SW  
Washington, DC 20591

The Honorable John Kerry  
United States Special Presidential Envoy for Climate  
Executive Office of the President  
1650 Pennsylvania Avenue NW  
Washington, DC 20502

The Honorable Gina McCarthy  
National Climate Advisor  
Executive Office of the President  
1650 Pennsylvania Avenue NW  
Washington, DC 20502

Dear Secretary Buttigieg, Administrator Dickson, Special Envoy Kerry, and National Climate Advisor McCarthy:

The Aerospace Industries Association (AIA) represents over 300 aerospace and defense companies, from America's leading manufacturers of commercial aircraft and aircraft engines to family-owned businesses that make up our supply chain. Our industry is a major economic driver, employing over two million Americans and contributing \$396 billion (nearly 2 percent of the total) to U.S. GDP in 2019 alone. This success is driven by our ability to innovate to solve problems, and that includes the threat climate change poses to our country and planet's future.

While aircraft contribute only about 2 percent of global CO<sub>2</sub> emissions, all sectors need to play their part in rising to this challenge, which is why **our industry is ready to work with the Biden Administration to improve the sustainability of air travel**. Working together, we can establish a holistic approach based on international partnerships and domestic policies that increase the production and use of sustainable fuel, accelerate the development of next-generation aviation technology, and modernize our nation's airspace.

#### **Principles to Build on Aviation Manufacturers' Climate Commitments**

As aviation manufacturers work to address the climate impacts of aviation, it is important that the U.S. government identifies a clear strategy to support these efforts based on the following principles:

- Coordinated international solutions should be prioritized in recognition of the cross-border nature of the aviation industry and aircraft emissions;
- Successfully decarbonizing the industry will rely on using the array of tools at our disposal to reduce aviation's climate impacts. Focusing just on individual measures in isolation, such as more efficient aircraft, will not be enough; and,
- Domestic policies must provide the industry with the capability to transition to a green future without jeopardizing the essential role aviation plays in our economy and society.

A strategy based on these principles will build on the work our industry is already doing to address climate change and achieve the goals AIA and the wider global aviation community committed to in 2008:

- 1) Improving the fuel efficiency of the global fleet by 1.5 percent per year from 2010 to 2020;
- 2) Stabilizing CO<sub>2</sub> emissions from 2020 with carbon-neutral growth; and
- 3) Reducing net CO<sub>2</sub> emissions from 50 percent by 2050 compared to 2005 levels.

With the first two of these goals now accomplished, the focus for aviation manufacturers is on enabling future efficiency improvements in support of the industry's long-term carbon reduction target. While meeting this goal will be challenging, aviation manufacturing has a strong track record of improving the environmental performance of our products. In fact, the latest commercial aircraft are 80 percent more fuel efficient than the first generation of jet aircraft and as fuel efficient, on a per-passenger-mile basis, as a hybrid electric car. We are confident that with the right support from policy makers we can expand on these improvements and help transition aviation to a more sustainable future.

### **The Importance and Effectiveness of International Climate Action**

Much of the progress the aviation industry has made in reducing our environmental impacts has been driven by governments, industry, and NGOs working together through the International Civil Aviation Organization (ICAO), a specialist branch of the United Nations. This international collaboration is essential for an industry such as aviation, which by its very nature requires cross-border solutions.

One significant international milestone achieved this year is the initiation of ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which will require any growth in international aviation CO<sub>2</sub> emissions above 2019 levels to be offset by participating nation states. There are currently 88 countries participating in CORSIA's pilot phase – representing 77 percent of international aviation activity – and the scheme will eventually be expanded further to cover at least 90 percent of international aviation activity in 2027.

ICAO has also established a landmark CO<sub>2</sub> standard – the first ever for aircraft – which the Environmental Protection Agency (EPA) recently implemented into domestic law. This standard ensures that U.S. manufactured aircraft meet the same fuel efficiency requirements as global competitors, a crucial step to both drive up the environmental performance of aircraft and protect the important economic contribution of aviation manufacturers. This rule is essential to meet our international climate commitments, while also delivering on the bipartisan legislation – signed by President Obama in 2012 – to pursue a worldwide approach through ICAO that addresses aircraft greenhouse gas emissions. Following the finalization of the EPA rule, **we ask that the Federal Aviation Administration (FAA) develop regulations this year that will allow U.S. manufacturers to certify their aircraft to the global CO<sub>2</sub> standard.**

ICAO, with technical input from AIA members, is continuing to assess the feasibility of a new long-term goal for international aviation emissions. To build upon achievements to date, **we urge the Administration to continue to prioritize multilateral solutions and maintain the leadership the U.S. government has demonstrated in these activities.**

## A Holistic Approach to Tackling Aircraft CO<sub>2</sub> Emissions

While more efficient aircraft technology is both vital to meeting our climate targets and the most direct way AIA members will contribute to these goals, **we must also use other measures at our disposal if we are serious about reducing our climate impacts.** These tools include:

- **Sustainable Aviation Fuel (SAF)**, which offers lifecycle CO<sub>2</sub> reductions of up to 80 percent currently (and potentially 100 percent in the future) when compared to traditional jet fuel and, crucially, can be used in the existing fleet without modifications to aircraft or infrastructure;
- **Operational Improvements**, such as more accurate navigation technology, which enable aircraft to fly more direct routes and burn less fuel (additional efficiencies can be gained through operational practices by airlines, such as flight planning, flight operations, cabin utilization, and other business practices); and,
- **Market-Based Measures**, such as carbon offsetting schemes like CORSIA, which provide a “gap-filler,” so that aviation can reduce its net emissions beyond what can currently be realized through more efficient aircraft, SAF, or operational improvements.

Unlike new aircraft or engine technology, which can have long development times and take several years to filter through the fleet, these additional options can benefit the entire system immediately. Policies that embrace/promote/support SAF, operational improvements, and market-based measures will allow aerospace manufacturers to give greater attention to more radical breakthrough technologies for future aircraft, as well as more incremental benefits using current and near-term technologies.

## Enabling Industry Emissions Reductions with Domestic Actions

Sustained government support is needed for the aviation sector to meet our climate goals. As part of the necessary holistic approach highlighted above, **government leaders should take the following actions to lead us to a more sustainable system.**

### *Measures to Accelerate the Production and Use of Sustainable Aviation Fuel (SAF)*

SAF offers by far the most effective way of reducing the environmental impact of flying in the short-term. SAF is already commercially produced and used in limited amounts, but not in quantities for it to be an economically viable option for airlines today. If the Administration wishes to take immediate steps to reduce the environmental impact of flying in the near-term, it should:

- Support incentives for greater production of SAF through a blender’s tax credit;
- Provide increased funding for R&D to drive down the cost of development and production, including through the use of new feedstocks and production processes;
- Adopt policies to encourage sustainable fuel production specifically for aviation, recognizing the much wider range of current and in-development options for decarbonization that other modes of transportation have; and
- Demonstrate government commitment to helping grow the market by increasing military procurement and use of SAF.

### *Enhance Public-Private Partnerships to Accelerate Next-Generation Aircraft and Engine Technology Development*

AIA members are exploring a range of technologies for next-generation aircraft in the 2030s, offering improvements in fuel efficiency of 15-25 percent compared to current aircraft. To realize these benefits, U.S. aviation manufacturers will require support to remain competitive, given the impact of COVID-19 and the billions of dollars European governments are providing their industries to support similar efforts. The Administration can assist these efforts by:

- Advancing the National Aeronautics and Space Administration (NASA) Aeronautics Research Mission Directorate's work in enabling technologies for next generation aircraft, such as new airframe and engine architectures, improved aerodynamics, advanced propulsion (including electrification), advanced manufacturing, and lightweight materials;
- Accelerating the timetable of a NASA subsonic demonstrator 'X-plane' incorporating these innovations to ensure U.S. companies can bring these technologies to maturity ahead of European competitors;
- Increasing funding for the Federal Aviation Administration's (FAA) Continuous Lower Energy, Noise and Emissions (CLEEN) Program to accelerate near-term fuel-efficiency improvements in conjunction with reductions in noise and other emissions that manufacturers need to balance; and
- Developing a comprehensive, long-term research agenda to secure U.S. leadership in transformational aviation technologies, leveraging partnerships between industry and government agencies such as NASA, the Department of Transportation, Department of Defense, and Department of Energy.

#### *Deliver Modernization of our Nation's Airspace*

The FAA has already made significant progress in terms of delivering enhancements to the National Airspace System (NAS) through its NextGen efforts. The Administration should continue to prioritize realization of these improvements, which are expected to deliver 2.8 billion gallons of fuel savings through 2030, by:

- Implementing performance-based navigation (PBN) routes that enable aircraft to fly shorter, more direct routes – reducing unnecessary fuel wastage; and
- Ensuring PBN implementation is complemented by continued efforts to promote community involvement in changes to airspace structure, which will deliver improvements in terms of both noise and climate impacts.

#### **Conclusion**

A strong aviation sector is crucial to the U.S and global recovery from COVID-19. An important part of this recovery should be strengthening the sector to help it realize a green future. But we must do that without jeopardizing the connectivity upon which our economy and society rely. The White House is committed to tackling climate change and leading in green technology development – a commitment our industry shares. Through leadership at ICAO and policies supporting greener aviation practices, the Administration can help usher in a more economically successful and environmentally sustainable future for our industry, country, and world.

Sincerely,



Eric Fanning  
President and CEO  
Aerospace Industries Association

cc. **EPA Administrator-Designate Michael Regan**  
**NASA Acting Administrator Steve Jurczyk**