

Testimony of Peter J. Bunce
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U.S. House of Representatives Transportation and Infrastructure Committee
Subcommittee on Aviation
“COVID-19’s Effects on U.S. Aviation and the Flight Path to Recovery”

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Chair Larsen and Ranking Member Graves, on behalf of the General Aviation Manufacturers Association (GAMA) and its member companies, thank you for convening this hearing today which will be vital to understanding the impact of the COVID-19 pandemic on the aviation industry and what policies and initiatives can be undertaken to foster the recovery of business and general aviation manufacturing companies and maintenance providers.

We look forward to working with you, House Transportation and Infrastructure Chair DeFazio and Ranking Member Graves, members of the House Aviation Subcommittee, and the membership of the committee at large, on issues of critical importance to the future strength of our nation’s aviation and transportation system.

I want to state the deep appreciation we have for this Committee and Congress for taking actions to support the aviation industry during this crisis.

GAMA represents more than 120 of the world’s leading manufacturers of general aviation airplanes, rotorcraft, engines, avionics, components, and related services and technologies. GAMA members are also providers of maintenance and repair services, fixed-based operations, pilot and maintenance training, and aircraft management. Additionally, GAMA represents companies in the emerging sector of advanced air mobility, which includes the development of vertical take-off and landing aircraft as well as electric propulsion and autonomous systems for civil purposes. GAMA companies have facilities in 47 U.S. states and 15 countries. A recent

economic impact study determined that the general aviation industry supports \$247 billion in economic output and 1.2 million jobs in the U.S.¹

I appreciate the opportunity to highlight the impacts this pandemic has had on the aviation manufacturing and maintenance sectors. In addition to detailing the impacts, I would like to depict what can be done in the near-term and long-term to mitigate these effects and lead to a broader recovery in these sectors. I hope to portray the ways we can work with this Subcommittee, the Administration, other policymakers, and stakeholders to facilitate the sector's rebound, recovery, and reinvigoration through technological innovation and investments in sustainability.

At the outset, I also want to make it clear that GAMA recognizes these impacts go far beyond our critical sector of the aviation industry. We appreciate and respect the work of all our partners in the aviation ecosystem. Previously, I have stated before this committee that a crisis for one part of this industry typically has implications for all – unfortunately the COVID-19 pandemic has reinforced this assertion. Throughout this process, GAMA has supported efforts by all these aviation sectors to mitigate the effects of the pandemic.

The Pandemic Impacts on Manufacturers, Maintenance Providers, and Training

Prior to the pandemic, the outlook for the industry looked encouraging, particularly given that in 2019 piston airplane and business jet shipments reached decade highs.² The future of the industry looked even more promising, given ongoing development and innovations in manufacturing methods, aircraft design, avionics, automation, and propulsion systems.

Last week, GAMA released its 2020 year-end report of the shipments and billings of general aviation aircraft.³ As expected, the COVID-19 pandemic negatively impacted general aviation

¹ [General Aviation's Contributions to the U.S. Economy](#), 2018 Price Waterhouse Coopers Study on behalf of Aircraft Electronics Association (AEA), Aircraft Owners and Pilots Association (AOPA), Experimental Aircraft Association (EAA), General Aviation Manufacturers Association (GAMA), Helicopter Association International (HAI), National Air Transportation Association (NATA), and National Business Aviation Association (NBAA), February 19, 2020

² [General Aviation Manufacturers Association 2019 Databook](#), General Aviation Manufacturers Association, March 2020

³ [GAMA Announces 2020 Year End Aircraft Billing and Shipment Numbers](#), Press Release by General Aviation Manufacturers Association, February 24, 2021

and stifled the industry's growth. The value of aircraft deliveries decreased by 16% from 2019. Each segment of the industry suffered losses, some more than others. Piston airplanes fared the best as they only saw a 0.9% decline in shipments and a 7.3% decline in billings. Turboprop airplane deliveries saw a 15.6% decline in shipments and a 17.7% decline in billings. Business jet deliveries saw its lowest production since the great recession with a 20.4% decline in shipments and a 14.4% decline in billings. Preliminary civil-commercial turbine helicopters saw a 16.9% decline in shipments and a 16.2% decline in billings. Piston helicopters saw a 20.7% decline in deliveries and a 21.2% decline in billings. Despite the pandemic-related setbacks, the industry is very resilient, and we remain optimistic given the talent and strength of our phenomenal workforce and the history of industry leaders and its employees responding to challenges.

In the U.S., aviation manufacturing, maintenance and repair operations were deemed essential, enabling many to continue at some level of production throughout the shutdowns. Companies rapidly implemented a wide range of health and safety protocols in accordance with local, regional, and national level guidance. Unfortunately, this "essential industry" designation did not extend worldwide, and unique nation by nation health and travel restrictions put in place to respond to the pandemic, including the U.S., significantly impeded global operations, supply chains, sales, and deliveries.

Throughout the course of the COVID-19 pandemic, GAMA has sought to understand the impacts across our broad membership. While a survey is only a partial picture of the pandemic hardship, we thought it might be useful to highlight some key findings for the Subcommittee:

- Due to the pandemic, over 70% of the respondents had to undertake action regarding their workforce, including pay and/or hour reductions, furloughs and/or closure of operations. Just over half of the respondents indicated that additional workforce measures may still be needed, depending on the progress of relief and recovery efforts.
- Nearly 50% of the respondents indicated that they had to either limit or shut down operations due to national/regional/state/local decisions or for economic reasons. Several

respondents indicated that international business relations were severely hampered due to international travel restrictions.

- Losses in revenue were reported by 86% of the respondents. On average, losses tended to be estimated around 24%, with some estimating losses as high as 50% and as low as 4%.
- Nearly 70% of the respondents reported experiencing supply chain issues, causing slowdowns in production and deliveries. Supply chain issues appeared at the outset of the pandemic and they have continued to persist, particularly with critical parts and equipment.

General Aviation Supporting Communities

Our industry has a rich history of quickly pivoting and adapting to help communities in times of crisis. Throughout the pandemic, the general and business aviation industry has played an integral role in the fight against COVID-19. Companies across the globe have supplemented ongoing activities to assist with the relief efforts through the production of masks, shields, gowns, and ventilator parts, while others have transported medical personnel and supplies for front line health care workers. We have also seen companies working with their supply chain partners to provide information about financial assistance opportunities as well as best business practices in areas like procurement.

Key Steps for the Initial Recovery of Aviation Manufacturing, Maintenance, and Training

As we continue to navigate the pandemic, I want to express appreciation for FAA Administrator Dickson and the FAA for quickly responding to immediate challenges that threatened to shut down U.S. manufacturing and maintenance activities. For example, FAA enabled implementation and expanded use of technology for inspections, test, and oversight. Without these collaborative efforts, the challenges faced by manufacturers, maintenance, and training providers would have been compounded exponentially. It is our belief that the use of remote technologies will have lasting benefits for the effectiveness of regulatory oversight.

Aviation Manufacturing Jobs Initiatives

As discussed earlier, the pandemic has had a profound impact on the workforce of the business and general aviation community. Overall, in the aerospace industry, according to a study commissioned by the Aerospace Industries Association (AIA), it is estimated that 100,000 workers have already lost their jobs, and 220,000 additional jobs remain at risk of furlough or layoff.⁴

Given these challenges, we are grateful for the action your Committee took on February 11, 2021 to provide \$3 billion in support for aviation manufacturing employees as part of the budget reconciliation package. The provision is based on legislation introduced by Chairman Larsen and Congressman Ron Estes to create a temporary and targeted 50-50 cost share program between government and industry to retain, recall, or rehire aviation manufacturing employees. The funds can only be used to support the compensation of these employees. Senators Maria Cantwell, Jerry Moran, and Mark Warner have worked on similar legislation in the Senate and we have appreciated the strong bipartisan support we have received throughout Congress. Aviation stakeholders including GAMA, AIA, the Aeronautical Repair Station Association, and the National Defense Industrial Association have all endorsed this framework, and the legislation also earned strong support from the International Association of Machinists and Aerospace Workers, which represents workers and their families.

If enacted, we look forward to working with the Department of Transportation (DOT) and the Committee on ensuring successful implementation of this vital program for aviation manufacturing workers.

National Interest Exception

There is an urgent need for clear policy guidance from the Administration confirming that the Department of State will issue the National Interest Exception (NIE) waiver when travel by a foreign person to the U.S. is required to support business activities of businesses that are

⁴ [AIA COVID-19 Road to Recovery](#), Avascent, Boston Consulting Group, and McKinsey & Company for the Aerospace Industries Association, July 31, 2020.

“Critical Infrastructure” (as defined by the DHS Cyber & Industrial Security Agency), including general aviation. Many aerospace companies have been attempting to handle these situations for the past year with mixed results and inconsistent interpretation and application.

Clear and workable guidance will help reverse a growing concern about the lack of proficiency training for foreign pilots operating in U.S. and global airspace, supporting the safety of U.S. state of design aircraft, and avoiding further economic damage to the U.S. aviation industry and its highly skilled workforce. Given the type of economic activity being undertaken, combined with the required COVID-19 testing and related safety protocols, this presents an extremely low risk to public health.

The types of activity of activity which will be supported by such policy guidance include:

- The delivery of new aircraft and continued safe operation of aircraft manufactured in the U.S. requires initial pilot type training and regular recurrent training of pilots and maintenance personnel (as required by U.S. and international aviation safety regulators). This training is primarily conducted at facilities located in the U.S., including for foreign nationals, who purchase and operate U.S.-manufactured aircraft.
- Aircraft are routinely flown to the U.S. for maintenance. Flight crews and maintenance technicians travel to the U.S. as passengers to pick up aircraft after maintenance is complete or observe maintenance activities performed on their aircraft. Travel restrictions have impacted the ability of aircraft owners worldwide to get their aircraft maintenance and safety checks completed at U.S. maintenance facilities.
- The worldwide export of aircraft manufactured in the U.S. requires the travel of small groups of foreign nationals to the manufacturer to inspect, take delivery, and fly the aircraft back to the country in which the airline or operator is based.

The use of NIE is essential to maintaining aviation safety during the challenges of the pandemic. Appropriately tailored safety protocols can help ensure that foreign travelers pose an extremely low risk to public health, especially since the number of travelers is relatively low. The current travel restrictions are having a significant negative impact on U.S. general aviation given the

importance of international customers to U.S. manufacturers, and maintenance and training providers.

Regulatory Review and Implementation of Key Priorities

Actions taken in recent years have put in place procedural requirements for rulemaking and guidance that impose additional layers of bureaucratic review and substantially delay the FAA's issuance of regulatory guidance critical to aviation innovation and safety enhancing technologies in aircraft and equipment. It is essential that DOT and FAA work together to improve the effectiveness and efficiency of procedures to issue regulatory documents in such a way that the authority for review and approval rests once again with the appropriate technical and safety expertise at FAA. Achieving a more effective and efficient process for the FAA to promulgate new and updated guidance and accept consensus standards for compliance will encourage safety improvements in aviation, keep pace with rapidly evolving technology, and spur innovation while also providing the regulatory framework for industry recovery through new products coming to market.

Opportunities and Investments for the Future

As the general aviation industry looks to the future, there are key areas that need leadership and collaboration from both industry and government. Making these investments now will strengthen the industry as it emerges from the pandemic and moves forward.

Sustainability

Our industry's commitment to sustainability is a long-standing one. In 2009, general aviation industry leaders established the Business Aviation Commitment on Climate Change. The goals of this commitment are threefold: 1) improve fuel efficiency 2% per year from 2010 to 2020; 2) achieve carbon neutral growth from 2020; and 3) reduce CO₂ emissions 50% by 2050 relative to 2005.⁵

To meet these goals, GAMA members have led the way for many years in designing, developing, testing, and manufacturing airframes, engines, aircraft components, and materials

⁵ [GAMA and IBAC Joint Position on Business Aviation Tackling Climate Change](#), General Aviation Manufacturers Association and International Business Aviation Council, 2009

which produce improvements in fuel efficiency. Our members will continue to make upgrades to manufacturing processes and facilities including ones powered by clean energy as well as by using more sustainable materials.

The Environmental Protection Agency's (EPA) adoption of the first ever CO₂ emissions standards for aircraft developed at the International Civil Aviation Organization (ICAO) was an important milestone. The standards will contribute to environmental progress, help ensure all global manufacturers have the same efficiency rules and affirm the centrality of multilateral collaboration in making these decisions. We ask the FAA to move forward in developing regulations this year to enable the certification of aircraft meeting these global standards.

Our industry remains committed to investing and developing new technologies to help reduce emissions. Congress can assist through robust funding of Research and Development (R&D) efforts for FAA's Continuous Lower Energy, Emissions and Noise (CLEEN) Program as well as the National Aeronautics and Space Administration's (NASA) Aeronautics programs which will help accelerate the development of new aircraft and propulsion technologies.

GAMA, along with other industry leaders, is also promoting the increased production, distribution, and uptake of Sustainable Aviation Fuels (SAF) given its potential importance in meeting the aviation industry's climate commitments. In the past two years alone, GAMA and other associations worked to promote the use of SAF through events in the U.S. and Europe and by publishing a comprehensive SAF Guide. Individual GAMA members have been using SAF in daily operations including flight-test programs, offering initial tanks to be filled with SAF for delivery, and announced agreements with fuel producers to establish a permanent supply of low emission fuel at key business aviation airports.

Despite these initiatives, SAF supply is currently inadequate to meet the growing demand and the price of SAF is still significantly more expensive than conventional jet fuel. Congress can take several steps to promote the wider production and distribution of SAF for aviation through a SAF Blender's Tax Credit and other financial incentives. Strong research and development funding for the FAA's Aviation Sustainability Center (ASCENT), which is exploring ways to produce sustainable aviation fuels at commercial scale, would also be welcomed.

Advanced Air Mobility

As we recover from the pandemic, we need to consider areas of opportunity that can add jobs and a renewed enthusiasm to the aviation sector. Advanced Air Mobility (AAM) is an emerging sector of the aviation industry which uses electric airplanes and electric vertical take-off and landing (eVTOL) aircraft to transport passengers or cargo at low/medium altitudes in urban, suburban, rural, and regional environments. This next frontier of aviation will facilitate better transportation options, advance environmental sustainability, and foster sustainable transportation, generate increased economic activity, and support natural disaster and emergency response services.

While the industry is working with the FAA on aircraft certification and initial flight operations to ensure safety, AAM stakeholders are also focused on addressing physical and digital security issues; leveraging existing infrastructure and facilitating targeted and coordinated investment; and supporting initiatives to achieve and build public awareness of the economic, transportation, and environmental benefits of AAM.

Given the potential of this industry, we want to commend U.S. Representatives Sharice Davids and Garret Graves for introducing H.R. 1339, the Advanced Air Mobility Coordination and Leadership Act, which will ensure the federal government is effectively engaged and coordinated internally with industry and other stakeholders to support the evolution of AAM. This bill authorizes the Secretary of Transportation to establish an interagency working group to plan for and coordinate efforts for the advancement of operating AAM aircraft. The working group will be tasked to review and make recommendations for the federal role in the AAM sector, beyond the initial critical stage of aircraft certification and operations which FAA is currently working, with a focus on economic and workforce opportunities, potential physical and digital security risks and mitigations, infrastructure development, and maturing AAM aircraft operations and concepts past initial operations. It will help leverage critical expertise and resources through the government to maximize the potential of this vital and exciting industry sector and take it to the next level.

We hope that other Committee members will join Reps. Davids and Graves in this effort and look forward on other initiatives to advance this exciting new and transformative industry.

Global Collaboration and Aviation Safety

As we move forward, international regulatory cooperation will be even more important in raising the level of aviation safety and dealing with challenges like the pandemic. The U.S.-European Union (EU) bilateral and other arrangements are global cornerstones of international aviation safety cooperation and focus on promoting and improving safety and addressing potential hazards in the exchange of aviation products, parts, repairs, maintenance, and pilot training. We must ensure that these agreements continue to work effectively. There is increasing European Union Aviation Safety Agency (EASA) involvement in validations to re-review or recertify the FAA's work, particularly in areas focused on system safety assessment and human factors. The FAA is also increasing involvement on EASA validations in these same areas. These actions comply with procedures under the US-EU bilateral for involvement in safety critical and new/novel design or technologies. However, regulators must ensure that such involvement focuses only in these areas to the extent necessary to resolve technical issues and build confidence in their respective safety systems in accordance with the bilateral agreement. It is essential that this involvement does not migrate to all validation activities, which would squander safety resources and add unnecessary costs and delays to the process. Despite any public rhetoric, at the working certification directorate level, there is a good relationship and strong commitment between the FAA and EASA for continued cooperation and collaboration under the EU-US bilateral. GAMA and our member companies will continue to work with FAA, EASA and regulators globally to facilitate safety cooperation for the safe and effective certification of aviation products.

Conclusion

I appreciate the opportunity to testify today on the impact of the pandemic and what can be done to recover and build back the industry. Your Committee and Congress is already taking steps to spur this recovery and we are grateful for those efforts. We also look forward to working with

you, in a bipartisan manner, to address these opportunities, and to build a stronger and more sustainable aviation community. Thank you, Chair Larsen, and Ranking Member Graves for convening this important hearing and for the other members who are participating and giving us their valuable time.