

April 24, 2023

The Honorable Joseph R. Biden, Jr.
President of the United States
The White House
1600 Pennsylvania Avenue NW
Washington, D.C. 20500

Dear President Biden:

Last year, many of the undersigned wrote in reflection of the unprecedented opposition to the Federal Communications Commission's ("FCC's") *Ligado Order*¹ across the vast federal and commercial user base of Global Positioning System ("GPS"), satellite communications, and weather forecasting services. Three years after adoption of the *Order*, as eight petitions for reconsideration remain pending,² we again urge you to work together with the FCC to stay and ultimately set aside the *Order*.³ Critically, this is now necessitated by the crucial, previously unavailable information that was produced at the direction of Congress: the independent technical review undertaken by the National Academies of Sciences, Engineering, and Medicine ("NAS")⁴ analyzing the potential interference issues related to the *Ligado Order*.

We greatly appreciate your administration's opposition to the *Ligado Order* and commitment that the National Telecommunications and Information Administration ("NTIA"), on behalf of the executive

¹ *Ligado Amendment to License Modification Applications, IBFS File Nos. SES-MOD-20151231-00981, SAT-MOD-20151231-00090, and SAT-MOD-20151231-00091*, Order and Authorization, 35 FCC Rcd 3772 (2020) ("*Ligado Order*" or "*Order*").

² More than twenty parties in total signed petitions for reconsideration of the *Ligado Order* and all of these petitions remain pending before the FCC. See Petitions for Reconsideration of the National Telecommunications and Information Administration; the Air Line Pilots Association, International; the American Road & Transportation Builders Association, the American Farm Bureau Federation, and the Association of Equipment Manufacturers; the Joint Aviation Petitioners; Iridium Communications Inc., Flyht Aerospace Solutions Ltd., Aireon LLC, and Skytrac Systems Ltd.; Lockheed Martin Corporation; Trimble Inc.; and the Resilient Navigation and Timing Foundation, IB Docket Nos. 11-109 & 12-340 (all filed on or about May 22, 2020). The ten "Joint Aviation Petitioners" consist of the Aerospace Industries Association, the Aircraft Owners and Pilots Association, Airlines for America, Aviation Spectrum Resources, Inc., the Cargo Airline Association, the General Aviation Manufacturers Association, the Helicopter Association International, the International Air Transport Association, the National Air Transportation Association, and the National Business Aviation Association.

³ The Commission should also not proceed with any companion rulemakings causing harmful interference to weather forecasting and hydrology services that could result in *Ligado* deployments, particularly in light of the analysis and recommendations presented in the "Spectrum Pipeline Reallocation 1675–1680 MHz Engineering Study (SPRES) Program Report. See Allocation and Service Rules for the 1675-1680 MHz Band, *Notice of Proposed Rulemaking*, 34 FCC Rcd 3352 (2019); U.S. Department of Commerce. National Oceanic and Atmospheric Administration. National Environmental Satellite Data Information Service. *Spectrum Pipeline Reallocation 1675–1680 MHz Engineering Study (SPRES) Program Report*. Silver Spring, MD: NESDIS, October 2020 (public release August 2022).

⁴ National Academies of Sciences, Engineering, and Medicine, *Analysis of Potential Interference Issues Related to FCC Order 20-48* (2022), <https://doi.org/10.17226/26611> ("NAS Report").

branch, will continue to actively pursue its petition for reconsideration of the *Order*.⁵ As you know, the pending petitions for reconsideration convincingly demonstrate that the *Ligado Order* is legally and factually deficient. In the pending petitions, parties showed that the *Ligado Order* is fundamentally flawed, incompatible with the FCC’s rules, and inadequate in protecting incumbent services from the harmful interference from Ligado’s proposed operations. This substantial documentation, among many other concerns from federal and commercial users, resulted in Congress enacting bipartisan legislation in consecutive years *after* the FCC’s adoption of the *Ligado Order*, mandating NAS’s independent technical review and requiring the Department of Defense (“DoD”) to brief federal representatives across the government “at the highest level of classification” on the potential for widespread harm from Ligado’s proposed terrestrial operations.⁶ On this basis alone, the FCC should stay the *Order* in an acknowledgement that it clearly did not account for the full, real-world risk of harm associated with a nationwide terrestrial deployment in the L-band.

While the pending petitions have a strong likelihood of success on their own merits, the FCC’s rules and the public interest now require the FCC to reconsider the *Order* in response to the extensive analysis in the NAS Report.⁷ This new, previously unavailable information presented in the Congressionally-mandated independent technical review confirms that Ligado’s proposed terrestrial operations would cause harmful interference⁸ at significant ranges to incumbent L-band services across a broad range of deployment scenarios. This is consistent with the well-supported and robustly documented analyses and determinations of the federal government,⁹ including fourteen federal agencies and departments,¹⁰ and commercial parties¹¹ alike. Importantly, as concisely stated by DoD and detailed in the NAS Report, “[t]he terrestrial network authorized by [the *Ligado Order*] will create unacceptable harmful interference for DoD missions. The mitigation techniques and other regulatory provision [*sic*] in [the *Ligado Order*] are insufficient to protect national security missions.”¹²

⁵ Letter from Gina Raimondo, Secretary of Commerce, U.S. Dept. of Commerce, to The Honorable James M. Inhofe, ranking member, U.S. Senate Committee on Armed Services (June 22, 2021) (reiterating the NTIA’s position opposing the *Ligado Order*).

⁶ William M. (Mac) Thornberry National Defense Authorization Act (“NDAA”) for Fiscal Year 2021, Pub. L. 116-283, 134 Stat. 4074 § 1663; NDAA for Fiscal Year 2022, Pub. L. 117-81, 135 Stat. 1541 § 1613.

⁷ These statements are based on the publicly available portions of the NAS committee’s work. In addition, NAS prepared a classified annex, which further details the risks of Ligado’s proposed terrestrial network and additionally warrants FCC action.

⁸ The term “harmful interference” is herein used to describe the results of the NAS Report. In turn, the undersigned believe the results of the NAS Report dictate that the FCC must reach the legal conclusion that Ligado’s operations would cause harmful interference under the FCC’s rules.

⁹ See, e.g., National Telecommunications and Information Administration Reply to Ligado Networks LLC’s Opposition to Petitions for Reconsideration or Clarification, IB Docket Nos. 11-109 & 12-340, at 10 n.26 (filed June 8, 2020); U.S. Department of Transportation, *Global Positioning System (GPS) Adjacent Band Compatibility Assessment*, Final Report (Apr. 2018) (“DOT ABC Report”), <https://www.transportation.gov/pnt/global-positioning-system-gps-adjacent-band-compatibility-assessment>.

¹⁰ See Memorandum from Thu Luu, Executive Agent for GPS, Department of the Air Force, to IRAC Chairman (Feb. 14, 2020).

¹¹ See, e.g., Letter from J. David Grossman, Executive Director, GPSIA, to Marlene H. Dortch, Secretary, FCC, IB Docket Nos. 11-109 *et al.*, at 6 (Sept. 17, 2020); Letter from Bryan N. Tramont, Counsel to Iridium Communications Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, IB Docket Nos. 11-109 *et al.* (Jan. 19, 2022); Update to 2016 Technical Assessment of Ligado User Terminal Interference to Iridium attached to Iridium Communications Inc. *et al.*, Petition for Reconsideration, IB Docket Nos. 11-109 *et al.* (May 22, 2020).

¹² NAS Report at 6, 73.

The unequivocal conclusions of the NAS Report constitute the exact type of previously unavailable information that the FCC’s rules¹³ dictate must be addressed on reconsideration. Indeed, NTIA stated on behalf of the executive branch that the NAS Report “offers the [FCC] an important opportunity to reconsider Ligado’s Authorization.”¹⁴ We therefore urge you to work with the FCC to address the harm from Ligado’s proposed terrestrial network to critical GPS, satellite communications, and weather forecasting services by staying the *Order*, addressing the previously unavailable information contained in the NAS Report, and resolving the pending petitions for reconsideration.

Sincerely,

AccuWeather, Inc.
Aerospace Industries Association
Agricultural Retailers Association
Airborne Public Safety Association
Aircraft Electronics Association
Aircraft Owners and Pilots Association
Airlines for America
Alabama Agricultural Aviation Association
ALERT Users Group
Allied Pilots Association
Air Line Pilots Association, International
American Geophysical Union
American Meteorological Society
American Rental Association
American Road & Transportation Builders Association
American Weather and Climate Industry Association
Arizona Agricultural Aviation Association
Arkansas Agricultural Aviation Association
Associated Equipment Distributors
Association for Uncrewed Vehicle Systems International
Association of Aerial Applicators Washington
Association of Equipment Manufacturers
Association of Marina Industries
Association of Montana Aerial Applicators
Aviation Spectrum Resources, Inc.
BoatU.S.
California Agricultural Aircraft Association
Cargo Airline Association
CNH Industrial
Coalition of Airline Pilots Associations
CoBank
Colorado Agricultural Aviation Association
EarthScope Consortium

Florida Agricultural Aviation Association
General Aviation Manufacturers Association
GeoOptics, Inc.
George Washington University
Georgia Agricultural Aviation Association
Helicopter Association International
Idaho Agricultural Aviation Association
Illinois Agricultural Aviation Association
Indiana Agricultural Aviation Association
International Air Transport Association
Iowa Agricultural Aviation Association
Iridium Communications Inc.
Kansas Agricultural Aviation Association
Land Improvement Contractors of America
Lockheed Martin Corporation
Louisiana Agricultural Aviation Association
Marine Retailers Association of the Americas
Michigan Agricultural Aviation Association
Microcom Environmental
Minnesota Agricultural Aircraft Association
Mississippi Agricultural Aviation Association
Missouri Agricultural Aviation Association
Narayan Strategy
National Agricultural Aviation Association
National Air Carrier Association
National Business Aviation Association
National Cotton Council
National Society of Professional Surveyors
National Weather Association
Nebraska Aviation Trades Association
NetJets Association of Shared Aircraft Pilots
New Mexico Agricultural Aviation Association
North Carolina Agricultural Aviation Association
North Dakota Agricultural Aviation Association
Northeast Agricultural Aviation Association

¹³ 47 C.F.R. § 1.106(c)(2).

¹⁴ Press Release, NTIA, *NTIA Statement on National Academies of Sciences Report* (Sept. 9, 2022), <https://ntia.gov/press-release/2022/ntia-statement-national-academies-sciences-report>.

Ohio Agricultural Aviation Association
Oklahoma Agricultural Aviation Association
Oregon Agricultural Aviation Association
Pacific Northwest Aerial Applicators Alliance
PlanetIQ
Recreational Boaters of California
Resilient Navigation and Timing Foundation
Seafarers International Union
South Dakota Aviation Association
Southeast Aero Cultural Fair
Space Science and Engineering Center at the
University of Wisconsin-Madison
Subsurface Utility Engineering Association

Tennessee Aerial Applicators Association
Texas Agricultural Aviation Association
The Airo Group, Inc.
The Semaphore Group
Trimble Inc.
U.S. Geospatial Executives Organization
University Corporation for Atmospheric
Research
USA Rice
Vertical Flight Society
Westwind Helicopters
Wisconsin Agricultural Aviation Association