

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*<sup>1</sup> 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,<sup>2</sup> we again urge you to work together with the FCC to stay and ultimately set aside the *Order*.<sup>3</sup> 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")<sup>4</sup> 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

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<sup>1</sup> *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*").

<sup>2</sup> 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.

<sup>3</sup> 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).

<sup>4</sup> 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*.<sup>5</sup> 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.<sup>6</sup> 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.<sup>7</sup> This new, previously unavailable information presented in the Congressionally-mandated independent technical review confirms that Ligado’s proposed terrestrial operations would cause harmful interference<sup>8</sup> 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,<sup>9</sup> including fourteen federal agencies and departments,<sup>10</sup> and commercial parties<sup>11</sup> 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.”<sup>12</sup>

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<sup>5</sup> 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*).

<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> 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>.

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

<sup>11</sup> 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).

<sup>12</sup> NAS Report at 6, 73.

The unequivocal conclusions of the NAS Report constitute the exact type of previously unavailable information that the FCC's rules<sup>13</sup> 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."<sup>14</sup> 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

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<sup>13</sup> 47 C.F.R. § 1.106(c)(2).

<sup>14</sup> 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