June 3, 2026

The Honorable Brendan Carr
Chairman
Federal Communications Commission
45 L Street NE
Washington, DC 20554

RE: Promoting the Development of Positioning, Navigation, and Timing Technologies and Solutions (WT Docket No. 25-110); Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking (WT Docket No. 24-240)

Dear Chairman Carr:

The undersigned organizations write to express our strong support for the Federal Communications Commission's ("FCC") efforts to create a resilient backup to the Global Positioning System ("GPS") through complementary Position, Navigation, and Timing ("PNT") solutions. GPS is essential to the American economy, national security, public safety, transportation, energy infrastructure, and everyday life. We support continued federal work to identify and test technologies that can strengthen GPS resilience.

At the same time, we write to express deep opposition to any effort to reconfigure the 902-928 MHz radiofrequency spectrum range ("Lower 900 MHz Band") as part of that process. Specifically, NextNav, Inc. ("NextNav") has petitioned[1] the FCC to reconfigure the Lower 900 MHz Band. The record evidence is overwhelming: NextNav's proposal would impose hundreds of billions of dollars in largely irreversible economic harm on American consumers, businesses, utilities, and government agencies in exchange for speculative PNT benefits achievable through far less harmful means.

If granted, the NextNav proposal would fundamentally upend a band that has supported a productive, shared wireless ecosystem for decades. For 30 years, the FCC's rules for the Lower 900 MHz Band have allowed for the proliferation of licensed and unlicensed users in this band, backed by billions of dollars of investment in building out these devices and services to specifically operate on these frequencies. As outlined by the breadth and depth of stakeholder filings in opposition to NextNav's petition within the FCC docket, the band now supports an active and diverse ecosystem. First responder equipment, flood and dam control systems, medical alert devices, public utility infrastructure, railroad safety systems, home security devices, baby monitors, supply chain logistics for retailers and grocers, transportation and tolling systems, commercial and civil aviation, amateur radios, and the Internet of Things (IoT) ecosystem rely on this band to enable critical services that consumers and business rely on.

[1] NextNav Petition for Rulemaking, Enabling Next-Generation Terrestrial Positioning, Navigation, and Timing and 5G: A Plan for the Lower 900 MHz Band (902-928 MHz), Public Notice, WT Docket No. 24-240 (rel. Aug. 6, 2024) ("Public Notice"). https://www.fcc.gov/ecfs/search/docket-detail/24-240.

The practical effect of this petition is straightforward: NextNav's proposal would introduce high-power 5G operations into a band built around low-power coexistence, significantly reduce the amount of spectrum available for lower power operations, fundamentally change the operating environment for many unlicensed devices (potentially rendering them unusable), and alter the rules that have protected hundreds of millions of deployed devices for decades. That combination creates serious risks of interference, degraded performance, stranded investment, and higher costs across the economy.

Independent analysis establishes that the costs of NextNav's proposal vastly exceed any claimed benefit. In the utility sector alone, replacing deployed smart meters would create approximately $100 billion in estimated direct costs for electricity utility infrastructure and could add another 50% to total gas and water utility ratepayer cost increases.[2] The cost of replacing RFID systems relied on for inventory and logistics is estimated to be at least $5.0–$7.2 billion.[3] The Furchtgott-Roth study concluded that the benefits of NextNav's proposal amount to no more than $1.2–$2.1 billion in value, while the costs run into the tens of billions.[4] For context, NextNav's own economic analysis values its entire PNT solution at just $14.6 billion, a figure already dwarfed many times over by the combined costs imposed on utilities, retailers, toll operators, and other users alone.[5] Notably, the Brattle Group, who conducted the economic analysis that NextNav cites, states the "total quantified value of having a terrestrial backup to GPS" is $14.6 billion, which is not exclusive to NextNav's technology and could be derived from other terrestrial GPS backup systems.[6]

Alongside the expected disruption and interference for incumbent users and impact to American consumers, NextNav's proposed solution itself has inherent flaws. The plan NextNav advances for a GPS backup highlights the national security concerns inherent in potential disruption in international contested environments; however, its solution focuses on deployment within the continental United States, where GPS is readily available and where adversarial disruption is less immediate. NextNav's proposal also falls technologically short of even providing a blanket national GPS backup. NextNav acknowledges that coverage would be "optimized where population and critical infrastructure are concentrated" but, in the future, they "can scale to rural areas as commercial 5G networks expand."[7] In the meantime, this would mean large gaps in coverage in the air and on the surface in rural, mountainous, and maritime corridors where 5G infrastructure has yet to expand, precisely the environment where a GPS backup would be most relevant from a national security perspective.[8]

---

[2] Itron, Inc., Generac Power Systems, Inc. and Landis+Gyr Ex Parte, FCC, WT Docket Nos. 24-240, 25-110 (Mar. 9, 2026).
[3] RAIN Alliance Ex Parte, FCC, WT Docket Nos. 24-240, 25-110 (Mar. 9, 2026).
[4] Harold Furchtgott-Roth, An Economic Analysis of NextNav's Proposal for the Reallocation of Spectrum, Furchtgott-Roth Economic Enterprises, FCC, WT Docket Nos. 24-240, 25-110, filed Apr. 28, 2025.
[5] NextNav Ex Parte, FCC, WT Docket Nos. 25-110, 24-240, filed Jul. 17, 2025.
[6] NextNav Inc., "NextNav Inc. Reports Third Quarter 2024 Results," Exhibit 99.1 to Form 8-K, filed with the Securities and Exchange Commission, November 13, 2024, https://www.sec.gov/Archives/edgar/data/1865631/000121390024097469/ex991_1.htm.
[7] NextNav LLC, *Building the Future of Geolocation: 5G-Powered 3D PNT*, https://nextnav.com/building-the-future-of-geolocation-5g-powered-3d-pnt-dr-arun-raghupathy/ (last visited May 26, 2026).
[8] Resilient Navigation & Timing Foundation, *The FCC Must Strengthen GPS Resilience* (Mar. 21, 2025), https://rntfnd.org/2025/03/21/the-fcc-must-strengthen-gps-resilience-oped-washington-examiner/.

Furthermore, NextNav itself has acknowledged that its proposed PNT system would require only 5 percent of the 15 MHz band it seeks.[9] The company's own communications to shareholders confirm its vision for the remaining 95 percent of the spectrum: leasing to mobile network operators under flexible-use rules.[10] In practice, this would ultimately mean converting a public resource that has been carefully balanced and shared for three decades into a high-power, licensed block built exclusively for a single company's business purpose.

NextNav's core premise that the Lower 900 MHz Band is lightly used and easily repurposed is demonstrably false. The band is foundational infrastructure for the American economy. More than 160 million electric, gas, and water smart meters rely on it as part of Advanced Metering Infrastructure (AMI) networks.[11] More than 120 million toll transponders are used in 33 states to process nearly 10 billion transactions annually, accounting for over $25 billion in revenue that is invested for road maintenance.[12] The band hosts the globally standardized RFID standard used by retailers, logistics operators, and the Department of War (DoW) to track assets with more than 52.8 billion RFID-tagged products entering the U.S. supply chain in 2024 alone.[13] Alarm systems, emergency monitoring devices, water and gas infrastructure, and hundreds of millions of consumer IoT devices also depend on this spectrum. The Lower 900 MHz Band ecosystem also supports industrial, telemetry, control, monitoring, logistics, IoT, and uncrewed systems applications. For three decades, industry has invested billions of dollars in direct reliance on the FCC's long-standing rules for this band.[14]

Additionally, many other viable alternatives exist that do not require reconfiguring the Lower 900 MHz Band. Other nations[15] have deployed eLORAN networks, with signal strength three to five million times greater than GPS.[16] The FCC has also identified low-Earth orbit (LEO) satellites as another promising option, given their proximity enables stronger signals than

---

[9] *See* Petition for Rulemaking of NextNav Inc., WT Docket No. 24-240 at 27 (filed Apr. 16, 2024) (as supplemented by Letter from Robert Lantz, General Counsel, NextNav Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 24-240 (filed June 7, 2024)); *see also* Broadband Breakfast, FCC Flooded with Opposition to NextNav's GPS Backup Proposal, https://broadbandbreakfast.com/fcc-flooded-with-opposition-to-nextnavs-gps-backup-proposal/ (last visited May 26, 2026).

[10] NextNav LLC, *Lays Out New Vision*, https://nextnav.com/lays-out-new-vision/ (last visited May 26, 2026).

[11] Itron, Inc., Generac Power Systems, Inc. and Landis+Gyr, Ex Parte, FCC, WT Docket Nos. 24-240, 25-110 (Mar. 9, 2026).

[12] International Bridge Tunnel & Turnpike Association (IBTTA),Ex Parte, FCC, WT Docket Nos. 24-240, 25-110 (Jul. 24, 2025).

[13] RAIN Alliance Inc., Ex Parte, FCC, WT Docket Nos. 24-240, 25-110 (Mar. 9, 2026).

[14] The RAIN Alliance, a consortium of over 200 member companies that use RAIN RFID technology, has estimated between $5.0 and $7.2 billion in direct costs just to RFID end users should the FCC adopt NextNav's proposal. See An Economic Analysis of the Harm Caused to RAIN RFID Devices from NextNav's Proposal for the Reallocation of Spectrum and the Modification of Rules in the Lower 900 MHz Band, Harold Furchtgott-Roth (Feb. 2026), attached to Letter from Aileen Ryan, RAIN Alliance, to Marlene H. Dortch, FCC, Secretary, WT Docket No. 25-110 (Mar. 9, 2026) ("RAIN Alliance Letter").

[15] Resilient Navigation & Timing Foundation, *PNT GPS Critical Issue for New Administration and Congress* (Feb. 4, 2025), https://rntfnd.org/2025/02/04/pnt-gps-critical-issue-for-new-administration-and-congress/.
Reuters, *South Korea Revives GPS Backup Project After Blaming North for Jamming*, https://www.reuters.com/article/world/south-korea-revives-gps-backup-project-after-blaming-north-for-jamming-idUSKCN0XT01U/ (last visited May 26, 2026).

[16] Hellen Systems, *Our Technology*, https://hellensystems.com/our-technology/ (last visited May 26, 2026).

traditional GPS satellites.[17] More broadly, the U.S. DOT Volpe Center is actively evaluating a wide range of complementary PNT technologies and has awarded more than $12 million to at least fourteen vendors for real-world field testing.[18] DOT completed Rapid Phase I testing[19] in 2025 and Rapid Phase II testing remains underway through at least August 2026. The breadth of alternative solutions and ongoing federal process underscores why the FCC should not prematurely reconfigure the Lower 900 MHz Band around one company's preferred solution when less disruptive PNT approaches are available and already under evaluation.

The undersigned associations and organizations collectively represent the technology, retail, electricity, oil and natural gas, commercial and civil aviation, security, and manufacturing sectors of the American economy, industries that together employ tens of millions of Americans, power critical infrastructure, and drive the supply chains on which consumers depend every day. Nearly 2,000 comments have been filed in this proceeding, with only a handful supporting NextNav's proposal. The breadth and depth of this opposition is not coincidental. It reflects the simple reality that NextNav's proposal would impose largely irreversible harm on the American economy in exchange for speculative benefits that can be achieved through other means, at lower cost. We respectfully request that the Commission dismiss NextNav's Petition for Rulemaking and pursue technology-neutral, multi-solution approaches to PNT resilience that do not sacrifice the Lower 900 MHz Band ecosystem.

Sincerely,

Aerospace Industries Association (AIA)
AIM Global
Airlines for America
Air Line Pilots Association (ALPA)
Alarm Industry Communications Coalition
American Gas Association
American Petroleum Institute
American Trucking Associations
Association of Uncrewed Vehicle Systems International (AUVSI)
California Alarm Association
California Trucking Association
Cargo Airline Association
Commercial Drone Alliance (CDA)
Computer & Communications Industry Association (CCIA)
Consumer Technology Association (CTA)

---

[17] Federal Communications Commission, *Promoting the Development of Positioning, Navigation, and Timing Technologies and Solutions*, Notice of Inquiry, WT Docket No. 25-110 (adopted Mar. 27, 2025).
[18] U.S. Department of Transportation, *Complementary Position, Navigation, and Timing (CPNT) Services Rapid Phase II*, https://sam.gov/opp/396f1f1e901a4155ace2263e3c70a588/view (last visited June 3, 2026).
[19] U.S. Department of Transportation, *Executing Rapid Phase of the U.S. DOT Complementary Positioning, Navigation, and Timing Action Plan: One Step Closer to User Adoption*, https://www.volpe.dot.gov/news/executing-rapid-phase-us-dot-complementary-positioning-navigation-and-timing-action-plan-one (last visited May 28, 2026).

Dynamic Spectrum Alliance
E-ZPass
Edison Electric Institute
Electronic Security Association
FMI - The Food Industry Association
General Aviation Manufacturers Association
GPS Innovation Alliance (GPSIA)
GS1 US
Illinois Trucking Association
Information Technology Industry Council (ITI)
International Bridge, Tunnel and Turnpike Association (IBTTA)
Interstate Natural Gas Association of America
Iowa Motor Truck Association
Kentucky Trucking Association
Louisiana Motor Transport Association
Maryland Motor Truck Association
Minnesota Trucking Association
Missouri Trucking Association
Montana Trucking Association
National Association of Manufacturers
National Retail Federation
Nevada Trucking Association
New Jersey Motor Truck Association
North Carolina Trucking Association
Ohio Trucking Association
Pennsylvania Motor Truck Association
PrePass Safety Alliance
RAIN Alliance
Regional Airline Association
Retail Industry Leaders Association
Rhode Island Trucking Association
Security Industry Association
Software & Information Industry Association (SIIA)
South Carolina Trucking Association
TechNet
Telecommunications Industry Association (TIA)
Tennessee Trucking Association
Texas Trucking Association
Thales Group
The Monitoring Association
Trucking Association of New York
U.S. Chamber of Commerce
Vertical Aviation International
WI-FI Alliance
WifiForward

cc:

The Honorable Brett Guthrie, Chairman, House Committee on Energy and Commerce
The Honorable Frank Pallone, Ranking Member, House Committee on Energy and Commerce
The Honorable Richard Hudson, Chairman, Subcommittee on Communications and Technology
The Honorable Doris Matsui, Ranking Member, Subcommittee on Communications and Technology
The Honorable Ted Cruz, Chairman, Senate Committee on Commerce, Science, and Transportation
The Honorable Maria Cantwell, Ranking Member, Senate Committee on Commerce, Science, and Transportation
The Honorable Deb Fischer, Chair, Subcommittee on Telecommunications and Media
The Honorable Ben Ray Lujan, Ranking Member, Subcommittee on Telecommunications and Media
The Honorable Pete Hegseth, Secretary of War
The Honorable Howard Lutnick, Secretary of Commerce
The Honorable Sean Duffy, Secretary of Transportation
The Honorable Chris Wright, Secretary of Energy
The Honorable Laura Swett, Chairman of the Federal Energy and Regulatory Commission
The Honorable Arielle Roth, Administrator, National Telecommunications and Information Administration
The Honorable Anna M. Gomez, Commissioner, Federal Communications Commission
The Honorable Olivia Trusty, Commissioner, Federal Communications Commission