

In the Matter of)
)
 Promoting the Development of Positioning,) WT Docket No. 25-110
 Navigation, and Timing Technologies and)
 Solutions)

 To: The Commission

For most Americans, the impact of GPS is as near as their smartphone. Using maps and navigation, social networking, shopping, dating, and relationships are all supported by their phones' location services. GPS is a link between innovation within the national lab system, technology transfer to the private sector, and the tools of their everyday lives.¹

¹ National Institute of Standards and Technology, Economic Benefits of the Global Positioning System (GPS) at 14-5 (2019), https://www.nist.gov/system/files/documents/2020/02/06/gps_finalreport618.pdf.

2Promoting the Development of Positioning, Navigation, and Timing Technologies and Solutions, Notice of Inquiry, WT Docket No. 25-110 (FCC 25-20) (rel. Mar 28, 2025) (“NOI”).

³ *Id.* at ¶ 4.

multiple complementary GPS solutions, solutions tailored to different sectors with varying requirements.⁴

The NOI presents a compelling case for the need to identify GPS complements and/or alternatives.⁵ The current GNSS satellite signals cannot reach all locations, including remote locales, indoor/underground spots, and anywhere the signal is blocked by obstructions. Increasingly, however, there is a concern that either inadvertent or intentionally malicious interference with those satellite signals could render GPS inoperable for a brief or even an extended period. There have been various studies of the economic impact of such an event on the American economy, all of which calculate devastating consequences.⁶ When one considers the further impact on military operations and the day-to-day activities of the public, the loss can appear incalculable.

As detailed in the NOI, the Federal government has already taken steps to address this need for improved GPS resiliency.⁷ Many agencies are engaged in this effort and are in the process of evaluating various technologies and strategies. The U.S. Department of Transportation (“DOT”) has taken a proactive role, including soliciting proposals from entities with operationally ready complementary PNT services.⁸ The Department of Homeland Security, the National Institute of Standards and Technology, and other agencies are also actively engaged in exploring this issue.⁹

⁴ *Id.* at ¶ 5.

⁵ NOI at ¶¶ 10-12.

⁶ *Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking*, Public Notice, WT Docket No. 24-240, DA 24-776 (rel. Aug. 6, 2024); Brattle Group Report filed by NextNav, Inc., Nov. 15, 2024 (“NextNav Proceeding”). EWA does not support the Report’s conclusion that the NextNav approach to GPS resiliency should be adopted for the reasons detailed below, but it does not dispute that there is a significant economic value to the nation of having GPS backup systems.

⁷ NOI at ¶¶ 13-15.

⁸ *Id.* at ¶ 14.

⁹ *Ibid.*

The results of these investigations are summarized in the NOI and include both space-based and terrestrial-based approaches.¹⁰ This is consistent with the detailed findings of the Resilient Navigation and Timing Foundation (“RNTF”) filed in the NextNav Proceeding. RNTF describes its mission as follows:

We advocate for policies and systems to protect, toughen, and augment America’s positioning, navigation, and timing (PNT), especially the Global Positioning System (GPS). Our organizational role is to also educate government, industry, and end-users on the increasing role of GPS and PNT in critical infrastructure and the implications for national, homeland, and economic security.¹¹

While the RNTF White Paper that accompanied its filing focuses largely on objections to the NextNav proposal for a terrestrial PNT solution, it also describes the alternatives it considers superior, in part because they require no disruption of a heavily used spectrum band.¹² Given the creativity of American technologists, working with the extensive expertise of Federal agencies and organizations such as RNTF, EWA is confident that multiple paths will be identified and can be implemented in a timely fashion.

EWA is encouraged that the NOI takes a holistic view of the need to address this issue, and that the FCC intends to consider the costs as well as the benefits of various solutions. As has been detailed extensively in the NextNav Proceeding, the terrestrial PNT solution that company has proposed would disrupt, indeed devastate, the 902-928 MHz band that supports millions of devices used in virtually every segment of the American economy as well as a wide array of products used by the public. There is no need to duplicate that record in this proceeding, but the filings of the Chamber of Commerce Coalition, WISPA-The Association for Broadband Without Boundaries, Edison Electric Institute, the Computer & Communications Industry Association, and the National Telecommunications and Information Administration, among others, raise

¹⁰ NOI at ¶¶ 24-30.

¹¹ RNTF Comments. WT Docket No. 24-240, filed Feb. 12, 2025.

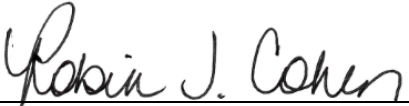
¹² *Id.* at pp. 9-10.

serious concerns about the interference potential for vital industry segments should the NextNav proposal be adopted. The Comments filed by the LoRa Alliance specifically refute NextNav's claims that adoption of its proposal would not cause interference to unlicensed devices in the 902-928 MHz band.¹³ Fortunately, the NOI demonstrates that alternative solutions are available that could be implemented without requiring a wholesale realignment of an established band that supports a wide variety of valuable services.

The FCC has responsibility for many matters vital to the security and economic vitality of the nation. One such role is, as it has stated, "to identify and cultivate technologies and solutions for civil use that can provide secure PNT sources to complement our U.S. GPS system."¹⁴ EWA is confident the FCC will be an essential part of this whole-of-government undertaking and will support the FCC in any way that it can.

Respectfully submitted,

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¹³ LoRa Alliance Comments, Docket No. 24-240, filed Mar. 26, 2025.

¹⁴ NOI at ¶ 2.