



## New Research Shows Flawed Spectrum Proposal Would Cause Public Safety Risks, Communications Disruption

A new technical study conducted by engineering firm Pericle Communications Company reveals that a proposal before the FCC would cause harmful interference to consumer electronics, appliances, security systems, smart home equipment and more.

SILVER SPRING, Md. — A new research report, filed by the Security Industry Association (SIA) with the Federal Communications Commission (FCC), details the risks of a proposal under consideration by the FCC that would restructure portions of the Lower 900 MHz band, which is used by billions of unlicensed, low-power devices.

NextNav has petitioned the FCC to reconfigure the frequencies between 902-928 MHz (the Lower 900 MHz Band) and grant the company a nationwide license for 15 megahertz of spectrum so it can establish a 5G terrestrial-based position, navigation and timing network—radically altering the spectrum. The new research conducted by engineering consulting firm Pericle Communications Company, commissioned by [SIA](#) and with additional support from the [Alarm Industry Communications Committee](#), the [Electronic Security Association](#) (ESA) and [The Monitoring Association](#) (TMA), shows that the proposal would severely limit the range and compromise the effectiveness of devices operating in this spectrum, including:

- Panic buttons, motion sensors, carbon monoxide detectors and smoke alarms
- Personal medical alert devices and emergency call buttons
- Wireless microphones, headsets and license-free two-way radios
- Wireless security cameras and doorbell cameras
- Outdoor public safety and security devices, including traffic control and tolling devices, vehicle status and alerting devices and gunshot detection devices

Lower 900 MHz band is heavily used by “Part 15” security and life safety systems, smart home technology, consumer and business electronics and more devices that would face harmful interference from NextNav’s high-power usage in the band.

In addition to these public safety and security uses, other critical systems that could be disrupted include equipment that first responders use during emergencies, municipal infrastructure, railroad operations and safety, highway infrastructure, retail and supply chain operations and agriculture solutions.

“Our research modeling and simulations show that NextNav’s proposed system would render an enormous number of public safety and mission-critical devices—along with countless other devices that rely upon the Lower 900 MHz Band—inoperable,” said Michael McGinley, senior systems engineer at Pericle. “This amount of interference would simply be unacceptable due to the severe disruption it would have on the user experience

and radio performance. The interference would be a direct result of the incompatibilities between NextNav's high-power cellular network and the low-power, radio frequency devices currently operating in the band."

"NextNav's proposal would be detrimental to the operation of devices that are critical for our life safety and security, first responders and the public," said SIA CEO Don Erickson. "This proposal would have devastating effects in many U.S. households, and make everyday life less safe, less convenient and more costly."

"Since the proposal to the FCC was filed more than 16 months ago, the Commission has been flooded with concerns from affected companies and trade groups about the potential consequences," said TMA President Steve Butkovich.

"The Pericle study confirms the negative impact to consumers and to public safety that would result if the petition were to be granted," said ESA Executive Director and CEO Merlin Guilbeau.

As other concerned parties have noted, there are a variety of GPS alternatives that do not require severely disrupting existing spectrum users. While a backup GPS system is needed, these other solutions would cause much less disruption, and implementing NextNav's proposal would present tradeoffs that are not worth the harmful impact on our nation's safety and security and major inconveniences the proposal would cause.

The full research report [can be found here](#). More information and resources related to the Lower 900 MHz band [can be found here](#).

## About SIA

SIA is the leading trade association for global security solution providers, with over 1,600 innovative member companies representing thousands of security leaders and experts who shape the future of the security industry. SIA protects and advances its members' interests by advocating pro-industry policies and legislation at the federal and state levels, creating open industry standards that enable integration, advancing industry professionalism through education and training, opening global market opportunities and collaborating with other like-minded organizations. As the premier sponsor of ISC Events expos and conferences, SIA ensures its members have access to top-level buyers and influencers, as well as unparalleled learning and network opportunities. SIA also enhances the position of its members in the security marketplace through SIA GovSummit, which brings together private industry with government decision makers, and Securing New Ground, the security industry's top executive conference for peer-to-peer networking.

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