

WHO

SYSCOM: NAVWAR

Sponsoring Program: PMW/A 170

Transition Target: Navy GPNTS

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Other Transition Opportunities: Other programs with PNT requirements that cannot afford/fit sophisticated anti-jam/spoof detection antennas.

Notes: This image depicts a snapshot from the GPS IntelliSense Situational Awareness User Interface. In this example, the solution has identified a GPS spoof attack – occurring on satellite 20 – as shown in red. Specific details including the attacker's intent, the effect on location and timing as well as others are visualized. In addition, the solution is able to “remove” the attack and proactively correct the PNT data – as shown in green.

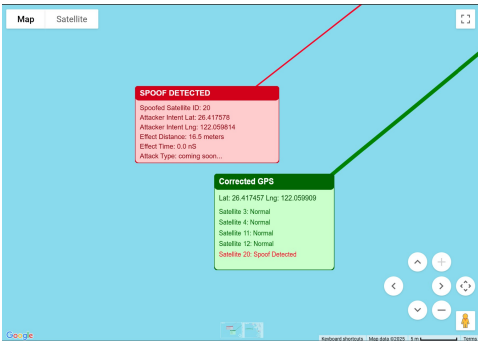


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WHAT

Operational Need and Improvement: Current GPS anti-jamming/spoof detection solutions are largely hardware-based, and often costly, systems that are integrated into antenna designs including both active and passive multi-phase antenna systems, anti-jam antennas, and systems with multiple receivers to exploit angle of arrival analysis. While often effective, these systems are often immutable and cannot easily evolve with emerging threats and/or provide additional Navigation Warfare Situational Awareness. BlueRISC’s GPS IntelliSense™ addresses this critical gap through a software-based, AI/ML-driven approach that detects spoofing attacks – including previously unseen, sophisticated timing and position manipulation – without requiring hardware changes. The solution has been validated with actual GPNTS data and is designed for flexible, software-based integration.

Specifications Required: Given the security critical nature of PNT data in DoD system, it is essential to understand when the data is trustworthy, when it is under attack as well as understanding the intent of the attack such that remediation and mitigations can be effectively employed.

Technology Developed: BlueRISC’s GPS IntelliSense™ is a low cost, software-only, AI/ML GPS jamming/spoof detection, attribution and characterization module supporting navigation warfare situational awareness. It significantly reduces operational risk by providing a validated and independent spoof detection capability that strengthens GPS-based situational awareness under adversarial conditions. It is trained with real-world GPNTS data, ensuring detection reliability in operational defense environment and more.

Warfighter Value: BlueRISC’s GPS IntelliSense™ is a GPS spoof detection and mitigation solution for mission-critical navigation systems, provides enhanced situational awareness under sophisticated spoofing threats, electronic warfare resilience, simulation and training support. It can be integrated into systems that cannot afford or fit hardware-based PNT threat detection solutions. Initial target integration is the Navy GPNTS program.

WHEN

Contract Number: N68335-25-C-0158

Ending on: May 25, 2026

Milestone	Risk Level	Measure of Success	Ending TRL	Date
SBIR Phase I proof-of-concept demonstration	N/A	Proof-of-concept GPS IntelliSense in GPNTS	5	1st QTR FY25
Initial Prototype solution	Low	Prototype solution validated through test and evaluation with GPNTS data	6	1st QTR FY26
Prototype solution operating in Navy GPNTS	Low	Prototyped demonstrated in GPNTS system	7	3rd QTR FY26
Matured solution demonstrated in GPNTS	Medium	Product utilized in live GPNTS system(s)	8	3rd QTR FY27
Transition solution to GPNTS	Medium	Operational solution meeting Navy requirements	9	3rd QTR FY28

HOW

Projected Business Model: Since 2002, BlueRISC has worked with the government to provide innovative solutions to cutting-edge problems in the embedded system assurance space. BlueRISC will license the GPS IntelliSense™ to large system integrators and/or U.S. Navy programs. BlueRISC will provide users with full documentation, as well as example use cases, on how to use GPS IntelliSense™. BlueRISC has commercialized toolkits resulting from SBIR efforts in the past and will leverage its existing online and licensing infrastructure. These solutions have been sold worldwide in more than 20 countries.

Company Objectives: BlueRISC is helping to ensure mission resilience by delivering AI/ML-driven spoof detection capabilities to enhance GPS integrity and situational awareness. For over twenty years, BlueRISC, Inc. has delivered advanced system assurance and cybersecurity technologies to government and commercial partners. GPS IntelliSense™ is a software-based solution that provides real-time spoof detection and situational awareness, validated in the Navy GPNTS program with actual GPNTS data.

Potential Commercial Applications: This solution targets Navy GPNTS platforms and is currently being validated in partnership with the Raytheon/Collins PNT group. With that said, it is largely use-case agnostic and has can be easily adapted to ground and avionics use-cases as well. We seek to expand adoption through direct licensing to major defense integrators and U.S. Navy programs.