NAVSYS Corporation SINCE ITS FOUNDING IN 1986 168 SBIR Awards **13** Employees Colorado Springs, CO Women-Owned Small Business http://www.navsys.com/ **5** Patents from SBIR/STTR 719-481-4877 Global Navigation Satellite System+ SATCOM Space SoOP Digital TV, Cellular Terrestrial SoOP SEMM Mission Module AN/PRC -1485 NBITR2 Smart Interface Adapter Module -(SIAM) SRW Intra-network Ranges AN/PRC -1485 MBETR2 (Future) Smart Interface Adapter Hodule (SIAM) WALDO MBITR2 MBITR2/ SEMM SEMM THALES DiNO-Pos Primary Unit **DiNO-Pos Remote Unit**

Solicitation: *Robust Distributed GPS Apertures*

DARPA SBIR Sponsor SB091-012 Topic Number Resilience Primary Innovation Upgradability Secondary Innovation

Tactical Applications of Distributed Network Opportunistic Positioning (DINO-Pos)

DoD users require back-up position, navigation and timing (PNT) in the event GPS is denied and continuous PNT coverage in urban environments where GPS is degraded.

NAVSYS Corporation developed DiNO-Pos solution, that can be embedded within Software Defined Radios (SDRs) for tactical applications and is implemented with an open architecture Internet of Things (IoT) protocol to facilitate use of current and future terrestrial, networks and space Signals of Opportunity (SoOP) for PNT.

IMPACT TO THE MISSION

The DiNO-Pos solution is a cost effective assured PNT in the absence of GPS. The precision timing provides Time Difference of Arrival or Time of Arrival observations for signal geolocation and Real-time spectral Situational Awareness through Software Defined Radio fast Fourier transform. Overall benefits of the solution will increase military operational effectiveness, providing higher probability to save lives.

BEYOND PHASE II

NAVSYS has received follow-on contracts with NAVAIR, Air Force, and Navy SSP. DINO-Pos technology is targeted for insertion into WALDO compliant radios developed under DARPA's RadioMap project. NAVSYS has garnered commercial licensing with multiple industry partners for manufacturing of A-PNT and SDR devices. The DiNO-Pos technology was demonstrated at Army's PNTAX20 and US Special Operations Command Technical Experimentation (TE) 21-2 event.

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