Department of the Navy SBIR/STTR Transition Program

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Topic # N193-D03
Resilient Tactical Communications Using Interference Mitigation Techniques
Adaptive Dynamics, Inc

WHO

SYSCOM: NAVWAR

Sponsoring Program: Department of War (DOW)

Transition Target: Software Defined Radios (SDR)

TPOC: (619) 252-8077

Other Transition Opportunities: Virtually any system with one or more antennas. Upgrade existing Software Defined Radio (SDR) via firmware update or install SDR applique hardware in-between existing antenna(s) and receive electronics. Counter-EW capability agnostic to platform application (C4ISR, GPS, PNT, Radar, etc.)

Notes:

Image courtesy Adaptive Dynamics

WHAT

Operational Need and Improvement: Electronic Warfare (EW) is a growing threat to any system with an antenna, producing a standoff range to deny operation of C4ISR systems within the area of operation. Interference Mitigation (IM) that blindly negates EW signals serves as a countermeasure to protect C4ISR systems, restoring normal operation of protected systems within close proximity of EW systems and thus dramatically reducing effective standoff range.

Specifications Required: Interference Mitigation Benefit (IMB) is the key figure of merit specifying how much additional interference power can be tolerated by a protected C4ISR system without degrading operation. IMB specifications are generally classified.

Technology Developed: Blind, Single and Multi-Antenna Interference Mitigation (IM) algorithms developed as an ultra-resource efficient VHDL implementation that can be easily ported to any Intel or AMD based Software Defined Radio (SDR) system.

Warfighter Value: Rapid, low-cost integration into any C4ISR system (with an AMD or Intel based SDR architecture) to add EW countermeasures as a firmware upgrade.

WHEN

Contract Number: N64267-24-C-0045 **Ending on:** Sep 24, 2026

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Integration Complete	Low	Specified IMB Attained	8	TBD

HOW

Projected Business Model: Licensing of Intellectual Property (IP)

Company Objectives: Integrate Counter-EW Capability as a firmware update into any system with an antenna and an field-programmable gate array (FPGA).

Potential Commercial Applications: Counter EW, Counter Jamming, and Counter Unmanned Systems (UxS) to Protect Critical Infrastructure (e.g. Cellular Networks, Satellite Systems, GPS, Air Traffic Control, Navigation and Radar Systems, Water/Power Grid, Government Buildings, Event Venues)

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