

**WHO**

**SYSCOM:** NAVAIR

**Sponsoring Program:** NAVAIR PMA 290 - Maritime Patrol and Reconnaissance Aircraft (MPRA) Program

**Transition Target:** Minotaur Program - Minotaur Bloodhound Sidecar

**TPOC:** (301) 997-3125

**Other Transition Opportunities:** NAVSEA PEO IWS-6 Cooperative Engagement Capability (CEC) COMTHIRDFLT MIOC, COMPACFLT

**Notes:** Major take-away(s): IMINT/SIGINT data fusion critical to detecting and tracking contacts of interest - no single sensor is a silver bullet.

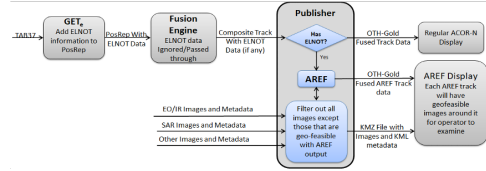
- Advanced Correlator-Navy (ACOR-N) enhances: Counter-Intelligence, Surveillance, Reconnaissance, and Targeting
- Persistent Long-Range Maritime Targeting
- Persistent Target Engagement
- National and Organic Data Fusion
- Battlespace Awareness
- Command and Control (C2)

Advanced Correlator-Navy (ACOR-N) Near-Real Time NOS/Organic Data Fusion Code Delivery with Final Report and Transition Plan.

The Fleet can use Minotaur/ACOR-N data fusion to detect, track, classify, and identify threats of high interest. ACOR-N is TRL-8 and ready for detection, tracking, classification, and identification of adversary naval combatants.

PoLP is TRL-4 that can rapidly be developed into a near-real time processor connected to ACOR-N. ACOR-N / PoLP address the Adversary Naval Combatant and Adversary Naval Support Ship threat in COMPACFLT strategic areas.

Specific examples available upon request.



Advanced Correlator-Navy (ACOR-N) Unique SIGINT/IMINT Data Fusion Capabilities. Image courtesy Jove Sciences.

**WHAT**

**Operational Need and Improvement:** Detection, Tracking, Classification (DT&C) of Contacts of Interest provided by the Advanced Correlator-Navy (ACOR-N) – cueing for dark contact acquisition through optimized search.

Automated data fusion of EO/IR/SAR with ELINT/SIGINT and COMINT required for contact DT&C – cueing tactical asset search areas.

ACOR-N tracks AIS ships accurately to declutter non-interest to enhance contact DT&C

**Specifications Required:** Data Fusion: Improve DT&C of contacts of interest by increasing information and relevance throughout with all-source data and cueing search areas for enhanced track management.

Hunting without Maritime Patrol Aircraft, using ACOR-N capabilities to DT&C contacts of interest over vast areas that need search and screening. ACOR-N's advanced sensor detection to improve DTC&I is game changing for tracking and identification.

MPA Surface Asset Utilization with ACOR-N data fusion: ACOR-N will enhance the performance of limited numbers of interdiction assets to patrol large areas. ACOR-N's "Fly on Top" CONOPS could help achieve maximum potential and utility.

**Technology Developed:** ACOR-N's data fusion is well tested, and associated enhancement applications support detecting intermittent SIGINT now and COMINT in the future.

ACOR-N's Global ELINT Tracker-enhanced (GETe) detects ELNOTS of interest from time sparse transmissions.

The ACOR-N Radar ELNOT Filter (AREF) "filters in" tracks of interest.

ACOR-N uses a Vector Space Model ML algorithm for IMINT/SAR/ISAR detection and tracking.

**Warfighter Value:** Detection of contacts of interest in difficult, dense maritime environments for contacts with low radar cross section (RCS) or non-emitting contacts data fusion of tactical, National Overhead Sensors, and manned/unmanned airborne sensors necessary to detect contacts of interest with low RCS or non-emitting contacts

ACOR-N's fusion of sensor sources integrated to operational picture enhances interdiction probability.

**WHEN**

**Contract Number:** N68335-22-C-0244

**Ending on:** Jun 28, 2024

Milestone	Risk Level	Measure of Success	Ending TRL	Date
ACOR-N Transition to Program of Record	Medium	SBIR Phase II.5 contract award	8	TBD

**HOW**

**Projected Business Model:** Current TRL 8; associated applications vary in TRL, but all integrate with the fusion engine.

**Company Objectives:** Develop Minotaur ACOR-N "Sidecar" to add value to the Minotaur Program. Collect AIS and other ship track data in Area of Interest before mission execution date to provide a Pattern of Life (PoL) ship historical baseline.

**Potential Commercial Applications:** Develop Minotaur ACOR-N Sidecar for commercial detection and tracking applications, such as IUU fishing, drug runners, and pirates.