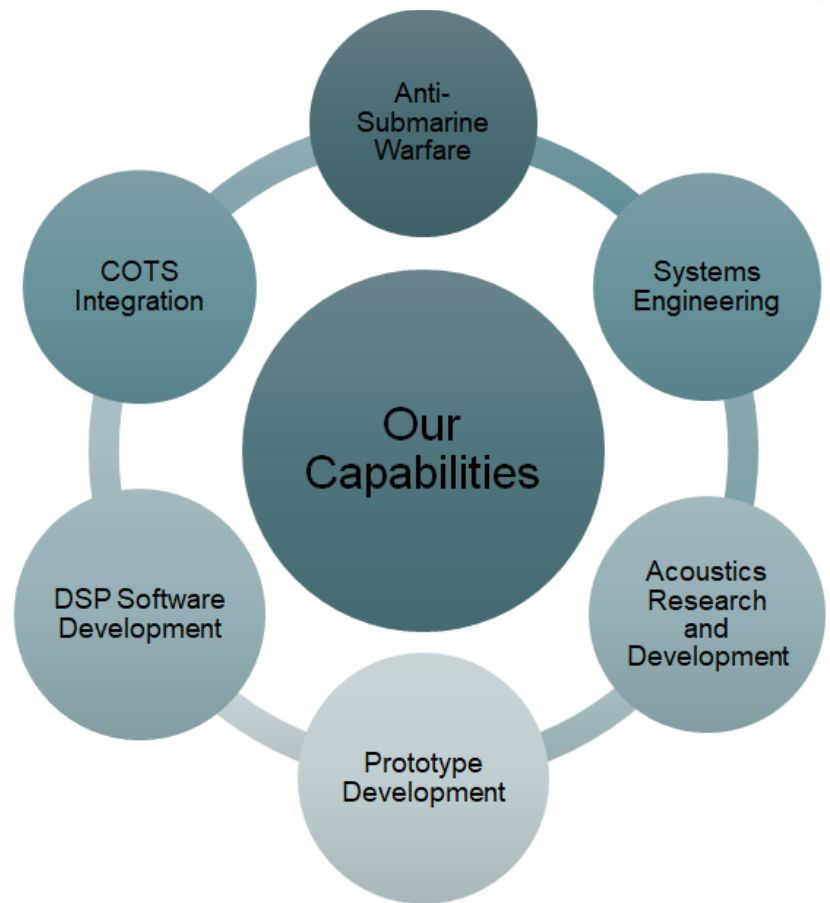# MISSION SOFTWARE SOLUTIONS

Sentient Digital's team of software engineers and scientists specialize in developing and maintaining complex mission critical software capabilities. We provide services in agile software development through the development lifecycle. In addition to writing software, we provide disciplined processes, common tools, reusable frameworks, automation, collaboration, and domain expertise to produce stable, scalable, and efficient results that deliver critical mission-quality software to meet our clients' objectives.

OUR CORE VALUES

At RDA, our core values are the guiding principles that define what we believe, who we are now, and want to be tomorrow. These values underlie our work, how we interact, and the strategies we employ to meet our objectives.

WHO WE ARE

RDA focuses on its core competencies: systems engineering, digital signal processing, and software development for SONAR systems. We continuously and successfully deliver outstanding technical leadership in engineering services to our customers in the Anti-Submarine Warfare and SONAR acoustic processing domain.

WHO WE SERVE

Our Capabilities

- Anti-Submarine Warfare
- Systems Engineering
- Acoustics Research and Development
- Prototype Development
- DSP Software Development
- COTS Integration

RDA's Low-Cost Advanced Processor (LCAP)

Overview of LCAP

- LCAP is a **Roll-On / Roll-Off testbed platform** that was pioneered onboard the Navy's P-3C Orion aircraft and now flies onboard the Navy's P-8A Poseidon aircraft.
  - **It supports a low-cost and fast turn-around platform** to develop, test, and integrate signal processing into the navy's fleet software product.
- LCAP serves as a **sonobuoy development, test, and evaluation platform.**
  - It **was most recently used** with the ADAR AN/SSQ-101 A&B, High-Gain Array and Extended Range DIFAR sonobuoys, and previously for the AN/SSQ-77C DVLA.
- LCAP is a **COTS PC-based architecture** that allows for rapid development, high performance, low-cost, and easy upgrades.
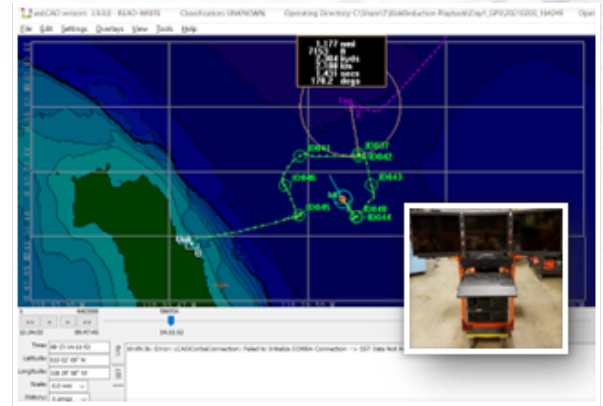
Capabilities

- LCAP is **flight-certified,** has flown hundreds of test flights, and has supported EER, IEER, MAC, MAC-E, LAMP, DEER, BTEC, and DARPA projects.
- LCAP **operates** on P-3C Orion, P-8A Poseidon, MV-22 Osprey, DHC-6 Twin Otter, NAWC-38 Research Vessel, and NAWC & SCI Laboratories.
- LCAP is **compatible with all current and experimental sonobuoy types** in the Navy's inventory.
- LCAP recorded datasets are **compatible with RDA's suite of post-test MATLAB analysis tools.**

OUR STRATEGIC BUSINESS PRODUCTS

- **Digital Vertical Line Array Sonobuoy:**
  - Shallow water bottom characteristic measurement sensor
- **SBIR 2020.1:**
  - Topic N201-034 for low-cost, expendable surface ship threat countermeasure Phase II
- **SBIR Topic #N101-042:**
  - Environmental wideband acoustic receiver and source (EWARS)
- **SBIR Topic #N182-116:**
  - Minimization of in-band interferer's on airborne anti-submarine system performance

OUR LOCATIONS

SDi HEADQUARTERS: 935 Gravier Street Ste 1840 New Orleans, LA 70112-1608

RDA MAIN OFFICE: 107 North Broad Street Ste 207 Doylestown, PA 18901

Additional Offices located in Lexington Park, MD and Warrenton, VA