About Spartan Corporation

HISTORY
Spartan Corporation (NYSE: SPA), over 113 years old, designs and manufactures complex, reliable electronic and electro-mechanical products and sub-assemblies. Spartan has delivered over six million US/AWS (Undersea Warfare / Anti-Submarine Warfare) products to Navies worldwide over the past 60 years. We currently ship over 50,000 units per year.

Spartan’s Sonobuoy production began in the infancy of the U.S. Navy ASW Sonobuoy program in the 1950’s. Today, in addition to supporting the U.S. Navy, Spartan and our EMR/SSD partners manufacture and deliver Sonobuoys worldwide.

STANDARDS
Our partnership with the government is even more critical as non-allied nations continue to increase their capabilities in undersea warfare. At least 41 nations operate over 450 subs, primarily quieter Diesel Electrics. In addition, the threat of mini-Subs, hostile AUVs, hostile swimmers, and mines are expanding, especially in the Asia-Pacific and Middle East theaters. Many of these threats require upgraded US/AWS capabilities in littoral waters. Spartan stands ready to deliver new capabilities which support the future US/AWS ConOps and Tactics, Techniques, and Procedures.

DIVISIONS
Spartan Corporation’s Defense and Security Systems Division specializes in the rapid development of custom solutions for use in harsh oceanographic environments. Spartan solutions and products assist with passive and active undersea motion, sound detection devices and associated technologies (i.e., air and undersea deployment systems as well as undersea-to-air deployment systems).

LEGACY PRODUCTS
Sonobuoys are integral to the detection, localization, identification, and tracking of potential hostile submarines or other targets of interest. Sonobuoys provide underwater signaling, bathymetry/geography, deployable active acoustical signal sources (“pinger”) and passive receivers of underwater signals of interest.

ENGINEERING CAPABILITIES
Electronics
- Digital Analog, Digital Signal Processing (DSP), RF/Wireless, Optics, Printed Wiring Board Layout, Embedded Software Development

Mechanical
- Mechanisms, Sealed Assemblies, EM/RF Shielding, Plastic Injection Molded Parts, Die Cast Parts, Stamped Parts, Extruded Parts

Unique Capabilities

SPARTAN DESIGN / MANUFACTURING / PRODUCTION
- Medium – High Volume, Low cost
- End-to-End Program Management, Engineering and Product Development
- Environmental Testing, including RF Testing, Acoustic Shock, Vibration, Temperature Cycling and Component Calibration
- 200,000 gallon water test tank (40 ft. diameter x 25 ft. deep)
- Supply Chain Management
- Depot Maintenance and Repair
- Six Sigma – Green and Black Belt Certified Personnel
- ISO 9001, AS 9100, IPC 610

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Sparton Detection System Capabilities

1. **Persistent multi-static** systems have the ability to communicate BLOS (Beyond Line-of-Sight).
2. **Low Cost Dipping Sonars** provide an expendable, acoustic source for rotary platforms.
3. **High Power Pingers** provide active detection support to ASW Platforms e.g., HSL, PS, MH60R.
4. **Q101/ADAR** provides highly directional beamforming technology for enhanced detection.
5. **UAVs** have the ability to communicate directly with Mini-Sonobuoy Fields that provide littoral coverage and may be delivered and managed by lower Tier UAVs.
6. **Remote Activated Systems** have the capability to release a countermine from an UAV from the bottom of the ocean.
7. **Aircraft Carrier** Task Force is protected by:
   - Persistent, Large Multi-static systems provide Fleet protection across multiple Convergence Zones (2/2).
   - Hydrophone Array provides trip wire capability.
   - Networked Sonobuoys provide enhanced signature analysis and recognition.

**Unique Capabilities**
- Ocean Isolation Systems
- Package Design for Extreme Environments
- Compact and Complex Packaging
- Sensors (Acoustic, Magnetic, E-field, Arrays)
- Aerodynamics
- Hydrodynamics
- Batteries (Salt Water Lithium)
- Low Cost RF Communications
- Autonomous / Remote Deployment

12. **Communication Buoys** with acoustic modems allow submerged assets to communicate without surfacing.
13. **Tethered Communications Buoys** provide higher data rates.
14. **Mine Hunting** with RIB platforms provide low cost mine hunting solutions with expendable assets.
15. **Expendable Mine Hunting UVs** with fiber optic tether relays video to the operator.
16. **Flying Periscope** has the ability to fly and swim to bring the benefits of Airborne ISR to submerged assets.
17. **SDV or SEAL Delivery Vehicle** receives above surface Situational Awareness from the Flying Periscope, before deploying Warfighters.
18. **Expendable Drifter Buoy** provides status to Mine Shipping vessels via satellite.