

## About Sparton Corporation

### HISTORY

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

Sparton'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, Sparton and our ERAPSCO partner 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 AUV/UUVs, hostile swimmers, and mines are expanding, especially in the Asia-Pacific and Middle East theaters. Many of these threats require upgraded USW/ASW capabilities in Littoral waters. Sparton stands ready to deliver new capabilities which support the future USW/ASW ConOps and Tactics, Techniques, and Procedures.

### DIVISIONS

Sparton Corporation's Defense and Security Systems Division specializes in the rapid development of custom solutions for use in harsh oceanographic environments. Sparton 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, bathythermography, 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, EMI/RFI Shielding, Plastic Injection Molded Parts, Die Cast Parts, Stamped Parts, Extruded Parts

#### 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

### SPARTON 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 Compass 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., P3, P3, MH60R.
- 4 **Q101/ADAR** provides highly directional beamforming technology for enhanced detection.

- 9 **UAVs** have the ability to communicate directly with
- 10 **Mini-Sonobuoy Fields** that provide littoral coverage and may be delivered and managed by lower tier UAVs
- 11 **Remote Activated Systems** have the capability to release a countermeasure or a UAV from the bottom of the ocean.

- 5 **Aircraft Carrier** Task Force is protected by:
- 6 **Persistent, Large Multi-static** systems provide Fleet protection across multiple Convergence Zones (CZs).
- 7 **Hydrophone Array** provides trip wire capability.
- 8 **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 UUVs** 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 White Shipping vessels via satellite.

