

## Pressure Test Vessels

- Custom, Ruggedized Solutions using Commercial Components
- Computer Control of Desired Parameters
- Rigorous Structural Integrity Analysis of Designs
- Quality Assurance Testing and User Manuals Provided

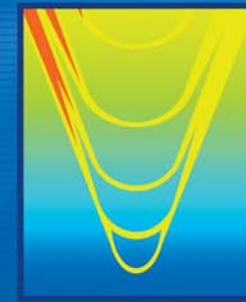
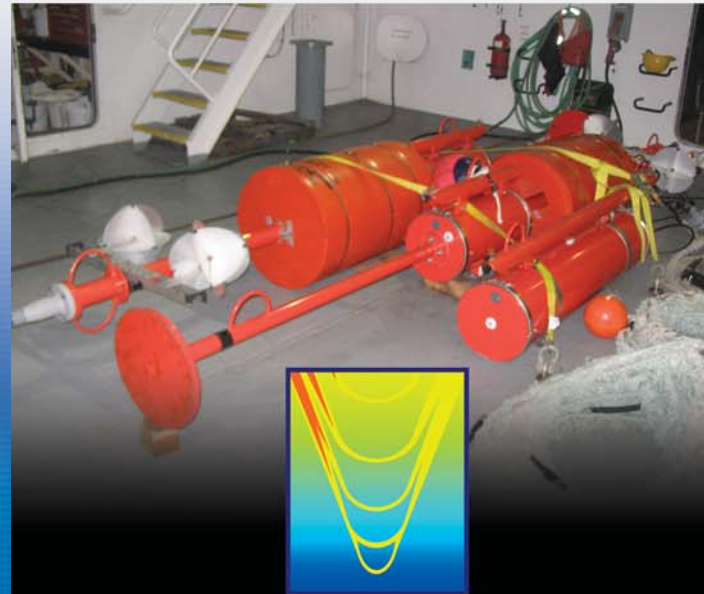


Applied Physical Sciences Corp. (APS) is a high-technology R&D company dedicated to providing affordable solutions to critical National Defense and Homeland Security problems involving the physical sciences. Our Ocean Engineering Department provides technical services ranging from sensor and system design and fabrication to prototyping and small scale production in our 6,000 sq. ft. manufacturing facility. APS' experienced technical staff, together with our state-of-the-art engineering tools, well-instrumented acoustic test tank and manufacturing capabilities, can provide complete turnkey solutions to the most challenging problems involving:

- Acoustic Array Development and Fabrication
- Acoustic Communications and Data Acquisition
- Rotational Positioning Systems
- Surface and Sub-Surface Buoys
- Pressure Test Vessels

## Rotational Positioning Systems

- Custom Transducer Positioning Systems
- Simultaneous Coaxial Rotation Capability
- Incremental Positional Accuracy and Continuous Rotation
- Computer Controlled



# Applied Physical Sciences

Engineering Solutions Through Science



**Applied Physical Sciences Corp.**

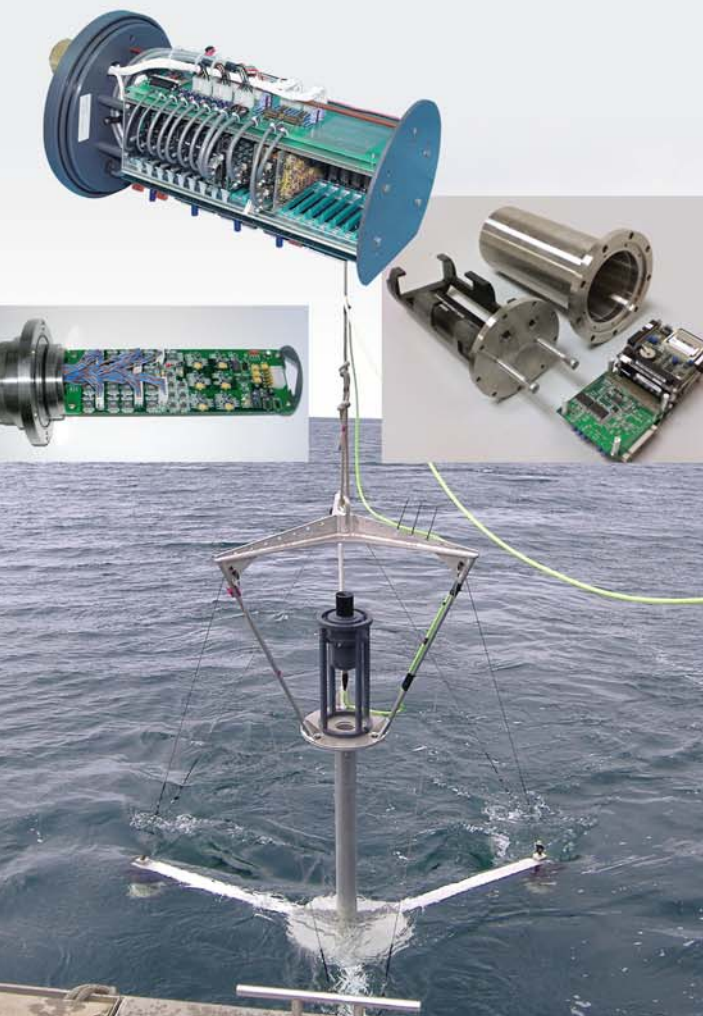
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## Ocean Engineering

## Acoustic Communications and Data Acquisition

- Develop and Fabricate Small, Lightweight, Underwater Data Acquisitions Systems
- Digitize Acoustic Data and Transmit Via Coaxial or Fiber-Optic Cable to Ship or Shore
- Provide High-Precision Simultaneous Sampling at High Data Rates
- Maximize Acoustic Bandwidth Utilizing Low Power
- Independently Configure Channels via Remote Commands
- Pressure Proof Mechanical Designs for Deep Submergence Operations



## Sensor and Array Development / Fabrication

- Inertial, Diffraction and Pressure Gradient Type Vector Sensors
- Single Crystal, Low Noise Accelerometers
- Multimode Hydrophones
- Deep Submergence Hydrophones and Vector Sensors
- Ultrasonic Vector Sensor Arrays
- Data Acquisition Electronics for UUV Line Arrays
- Specialized Array Hose Termination Capability
- Development and Tailoring for Marine Environments and Low Power Applications
- Array Calibration and Factory Acceptance Testing



## Surface and Sub-Surface Buoys

- Design and Fabrication of High-Frequency ACOMMS Source Receiver Array Systems
- Transmit and Receive Capability over a Wide Frequency Range
- Acoustic Transmission of User's Complex Digital Waveforms
- 1-64 Channels
- Digitize, Receive, and Record Acoustic Data
  - GPS Positioning
  - Wireless Network Command/Control/Data Transfer
  - Rugged, Reliable and Autonomous Operation

