



GARY L. BANE

Specialist Consultant

Areas of Expertise

- Executive Management
- Engineering / Construction Management
- Project Control Systems
- Management Consulting
- Deep Ocean / Offshore Development and Management
- Manned Submersibles
- Offshore and Sea Floor Work Systems
- Oil and Gas Production
- Ocean Search Systems
- Unmanned / Autonomous Underwater Vehicles
- Offshore Systems / Structures
- Deep Ocean Hardware / Instrumentation

Background

Mr. Bane is a Pegasus Global Holdings Inc., Specialist Consultant who specializes in the development and management of deep ocean and offshore technology projects. His principal areas of technical expertise include manned submersibles and work systems, unmanned and autonomous underwater vehicles, offshore systems and structures, deep ocean hardware and instrumentation, acoustical sensors and subsystems and offshore / sea floor oil and gas recovery and production systems.

During Mr. Bane's 30 years as the Director of the Ocean Systems organization at Rockwell International, he successfully managed and contributed significant technical solutions and advanced the state-of-the-art for a large number of classified programs for a variety of customers. He performed successfully on major programs for global customers ranging from government and military agencies to universities and commercial sectors. A sampling of these programs and systems include autonomous UUVs (Unmanned Underwater Vehicles), deep ocean search and recovery systems, deep water oil recovery and production systems, manganese nodule recovery systems, DOLPHIN semi-submersibles for hydrographic surveys and mine countermeasures, navy high-speed laminar flow underwater vehicles, mobile acoustic torpedo targets, and surface-towed search and surface-tethered recovery systems.

As General Manager for Interstate Electronics Oceanics Division, Mr. Bane managed the scientific activities of the 185-foot oceanographic research vessel ANTELOPE. These activities included Environmental Protection Agency contracted seasonal surveys of ocean dump sites from New England to Puerto Rico, the Gulf Coast and the West Coast of the United States, including Hawaii.

Mr. Bane was also the Vice-President and General Manager of Sonatech, an acoustics systems company in Santa Barbara, California. Sonatech specializes in a variety of acoustic and sonar systems for the U.S. Navy and other customers. A particular expertise involved sensors and sonars for underwater vehicles, both manned and unmanned, military and civilian.

Mr. Bane has made major technical contributions and has gone to sea on a number of significant search-and-salvage operations. Mr. Bane is on the Board of Directors of Advance Technologies, Inc. a new high-tech company specializing in commercial applications of military developed state-of-the-art infrared sensors for aircraft, ship and truck applications, to aid in safety, security and preventative maintenance.

Mr. Bane is the sole representative of the Ocean Engineering industry to the State of California for Sea Grant programs and Ocean Resources Management Agency (1992 to present). He is also an active member of the University of California, Scripps Institute of Oceanography, and USC Sea Grant Coordinating Councils.

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Mr. Bane has over 40 professional publications and has presented major briefings as a recognized lecturer and subject matter expert in ocean technology to such organizations as the Pentagon; the U.S. Navy; NOAA (National Oceans and Atmospheric Administration); and DARPA (Defense Applied Research Program Administration). In addition, Mr. Bane is able to present these same complex state-of-the-art technical issues in lay-person terms and has done so to members of the U.S. Congress; the EPA (Environmental Protection Agency); and many Fortune 100 corporations and boards. He was also a member of the Steering Committee of the Undersea Vehicle Section of the National Defense Industrial Association in the 1990's.

He has worked on numerous domestic and international engagements (*see attached Representative Engagement Experience*).

Education and Courses

Education

- MS Systems Management, University of Southern California, California
- MS Control Systems and Instrumentation, University of Southern California, California
- BS Mechanical and Aeronautical Engineering, University of Southern California, California

Courses

- 3 Diplomas University of California, Los Angeles, California
 - Deep Submergence Vehicle Development
 - Ocean Engineering Management
 - Oceanography and Offshore Systems Engineering

Other

- American Electronics Association, Executive Institute for Management of High Technology Companies, Stanford University.

Board of Directors Memberships

For Profit Corporations

- Nauticos, 1977-2003
- Legacy Engineering, 1998-2002
- Advanced Technologies, Inc. 1992-Present

Non-Profit Corporations

- Slater Center for Ocean Technology (SCOT), 2000-2003
- California Sea Grant, 1992-Present
- Seaworld, 1999 - Present

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| <p style="text-align: center;">GARY L. BANE <i>Representative Engagement Experience</i></p> | | |
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| Industry | Type | Project Name |
| Industrial / Process | Oil / Gas | Mobil Oil SEA Floor Oil Production Recovery system |
| Industrial / Process | Oil / Gas | Shell UK SEA Floor Flow Line Pull – In System |
| Industrial / Process | Oil / Gas | Beaver MK IV Manned Submersible, Mobil Oil and Rockwell International |
| Industrial / Process | Oil / Gas | Exxon Production Research Corp. Deep Ocean Risers - Brazil |
| Industrial / Process | Oil / Gas | Gulf Oil Offshore Platform Instrumentation Systems |
| Industrial / Process | Oil / Gas | Exxon Platform Big Hondo 360 Degree Swivel and Platform Instrumentation Systems |
| Power | Nuclear | 4 Mega Watt Portable Nuclear Power Plant for Antarctica |
| Environmental | Other | North Sea Acoustical Instrumentation System for the German Government |
| Environmental | Other | EPA Seasonal Surveys of ocean Dump Sites Via the 185 foot Oceanographic Research Vessel ANTELOPE |
| Infrastructure | Buildings | New Engineering Building (30,000 sq ft) for Sonatech, United States (California) |
| Infrastructure | Buildings | Hi-Bay New Engineering and Manufacturing Building (45,000 sq ft) for Rockwell International, United States (California) |
| Transportation | Marine / Rail | Marine Rail Road from Land Hanger to 15 Feet of Sea Water to Launch and Recover Manned Submersible from a Rail Road Flat Bed Car |