

## July 23, 2010 "Maritime Robotics – Unmanned Underwater and Surface Vehicles"

Co-sponsored by the San Diego chapter of AUVSI



To foster growth and leverage the strengths of the San Diego maritime technology cluster, **The Maritime Alliance** works to bring together innovative technologies and innovative thinkers to share ideas, discuss industry trends and ultimately create opportunities for collaboration. **The Maritime Alliance** promotes collaboration year-round by hosting quarterly seminars, each one focusing on activity within a segment of the maritime technology industry. With the ocean and coastal economies expected to drive economic recovery and marine technology expected to outpace US industry generally, the diverse hardware and applications in maritime robotics are among the most dynamic of the maritime technology sectors. To highlight some of the innovative work being done in this exciting field, **The Maritime Alliance** is hosting a morning seminar with panels that will address unmanned underwater and surface vehicles. The panel is comprised of speakers representing a number of different maritime robotic technologies.

The event will be at National University, 3580 Aero Court, San Diego, CA 92123-1711

### **The Technologies:**

- **USV**
  - The Harbor Wing Autonomous Unmanned Surface Vehicle (AUSV). Defined by three innovative components: the WingSail, the Hydrofoils, and the Guidance System, it will perform a range of critical missions.
  - The Liquid Robotics Wave Glider features a unique two-part architecture and wing system that directly converts wave motion into thrust and solar panels that provide electricity for sensor payloads.
  - The Lorimar Group Littoral Acoustic Warning System, a JAUS compliant robotic Acoustic Hailing Device and a purpose built (M Hull), high payload, shock mitigating, fuel efficient Unmanned Surface Vehicle.
- **AUV**
  - Developed at Woods Hole Oceanographic Institution, and utilized by the Waitt Institute the Kongsberg Hydroid REMUS 6000 is a low-cost Autonomous Underwater Vehicle designed for environmental monitoring, mine counter measures and hydrographic surveys.
- **ROV**
  - The SeaBotix LBV is a small ROV that can often match the performance of the larger ROV systems. SeaBotix manufactures LBV systems with depth ratings

from 150 to 1,500 meters (500 to 4,900 feet) and with cable lengths up to 2,000 meters (6,000 feet).

- The Spray underwater glider was developed by Scripps Institution of Oceanography to provide a small long-range autonomous platform for long-term ocean measurements. The Spray is versatile because it is small enough to be deployed from small boats close to shore while still being able to carry a variety of sensors.

### **Agenda on July 23**

#### **7:30 – 8:30 am**

Registration and continental breakfast

#### **8:30 – 9:00 am**

Keynote Address: Cliff Hudson – Department of Defense and SPAWAR Systems Center Pacific

#### **9:00 – 10:00 am**

Panel 1: “UUVs - Unmanned Underwater Vehicles”

- Scripps Institution of Oceanography - underwater glider ([http://spray.ucsd.edu/pub/rel/info/spray\\_description.php](http://spray.ucsd.edu/pub/rel/info/spray_description.php))
- SeaBotix - ROV ([www.seabotix.com](http://www.seabotix.com))
- Waitt Institute – AUV ([www.waittinstitute.org](http://www.waittinstitute.org))

#### **10:00 – 11:00 am**

Panel 2: "Unmanned Surface Vehicles"

- Harbor Wing Technologies ([www.harborwingtech.com](http://www.harborwingtech.com))
- Liquid Robotics ([www.liquidr.com](http://www.liquidr.com))
- Lorimar ([www.lorimargroup.com](http://www.lorimargroup.com))

[Register for "Maritime Robotics Above and Below the Water".](#)