

# A glider called "Blue"

## OCEANOL - Ocean Observation Lab



### About Blue

Built locally by **Teledyne Webb Research** in North Falmouth, MA, Blue is a **Slocum electric autonomous underwater vehicle (AUV)**. This torpedo-like robot "glides" through the water in a saw-tooth pattern with no artificial propulsion. It dives and surfaces by pumping water into and out of its nose (which **changes its buoyancy**) while its wings provide **forward momentum**. This low-powered instrument is designed to be at sea for long periods of time, covering greater distances than traditional research cruises – and at a fraction of the cost. **Unlike human scientists at sea, Blue doesn't need to sleep, doesn't need to eat, and doesn't get seasick!**

### Blue's Boastings:

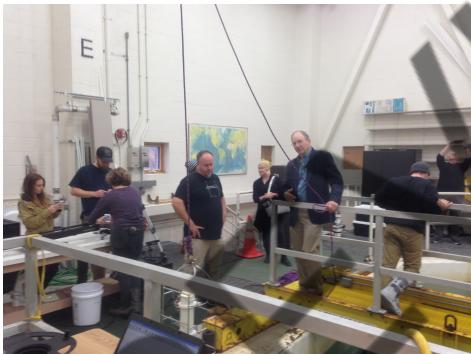
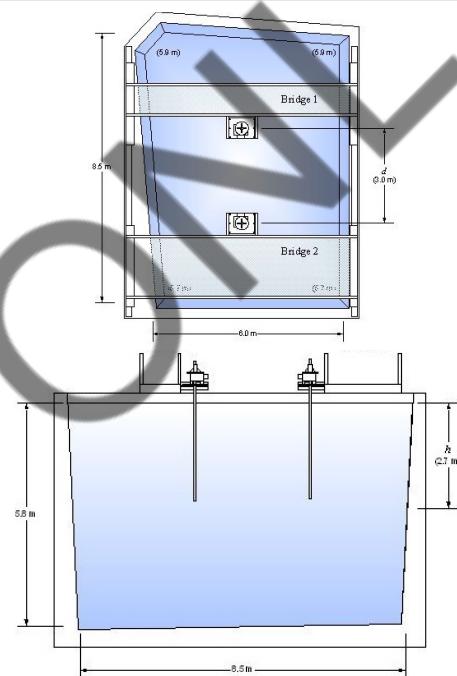
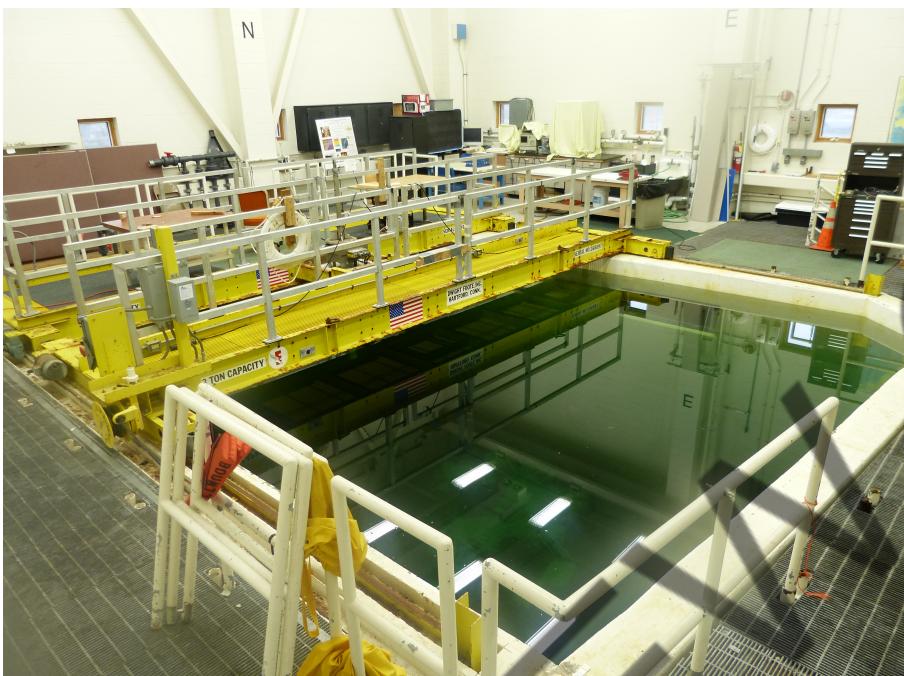
- **Weight:** 127 lbs (57.8 kg)
- **Flight speed:** ~0.8 mph (40 cm/sec)
- **Maximum depth:** 325 ft (100 m)
- **Maximum time at sea:** 30 days
- **Distance (per 30 days):** ~1000 mi (1500 km)
- **Navigation tools:** GPS, magnetic compass, altimeter, subsurface dead reckoning
- **Powered by:** 240 C Cell alkaline batteries
- **Cost:** \$120,000 base model + science sensors, accessories, tools, etc.

### What does Blue sample?

- Conductivity, temperature, depth (pressure)
- Dissolved oxygen
- Dissolved organic matter (at 370/460 nm)
- Chlorophyll-a concentrations (at 470/695 nm)
- Light backscattering (at 700 nm)

# Optic & Acoustic Test Tank

## Fact Sheet



The state-of-the-art **underwater optic and acoustic test tank** at UMass Dartmouth's School for Marine Science and Technology is designed to be a resource for local academic, government, and industrial researchers and product developers.

- **Dimensions:** 21' long x 30' wide x 20' deep
- **Capacity:** 90,000 gallons, fresh or salt water
- Fully supported on vibration isolators
- Acoustically **two times quieter than sea state**
- **Outfitted** with a variety of computer-controlled acoustic and laser-signal sources and power amplifiers
- **Two moveable bridges** for working over the water
- **Two overhead 2-ton lifts**, operated simultaneously or individually

For more information, please contact [REDACTED] Facilities Manager Office: [REDACTED] Email: [REDACTED]

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