APL-UW Research Vessels

APL-UW has pier facilities on nearby Lake Union equipped with davits/hoists for loading the R/V Robertson and R/V Henderson; there are vehicles and forklifts available to transport heavy equipment. There are also various small boats available to support marine operations. Access to Puget Sound and deep water is available through a nearby system of locks.

The R/V Robertson was added to the APL-UW fleet in September 2008. The vessel features generous lab space on the main level, ample deck space, and operator’s locator for good view of the deck and over-the-side operations, and bunk, galley, and head facilities. The A-frame, utility hoist, 12-ft wide folding swim step, and two hull wells allow multiple, flexible instrumentation deployment.

Specifications:
Length: 56'-8''
Breadth: 19'-0''
Draft: 5'-0''
Freeboard (aft): 4'-0''
Construction: Fiberglass w/ aluminum work deck
Speed: 0.5–10 kts
Operating area: Puget Sound, Strait of Juan De Fuca and the coastal waters of Washington, Oregon, and Vancouver Island
Range: 740 n mi
Fuel: 1200 gal
Water: 500 gal
Main Engine: 455 HP - John Deere 6125AFM
Bowthruster: 40 HP - 12” tunnel
Electrical System: 240 VAC, 3 PH., 60 Hz, 24 VDC
Generators: 55 KW and 20 KW - Northern Lights
UPS: 4000 Watt - Xantrex SW4024
Work deck: 418 sq. ft.
Swim step: 12'W x 3'D x 1' above WL (folding)
Bolt Pattern: 3/4”-10 deck bolt sockets on aft deck (2’x 2’ pattern)
Deck Load: 6 LT (4’ CG above work deck)
A-Frame: 6,000 lb. (12’H x 12’W)
A-Frame Winch: 6,000 lb with 50 ft. of 1/2” Spectra line
Crane: Morgan 40-3L with 23 ft. reach and 30,000 ft.lb. capacity
Utility Winch: Nordic 32 Series - 1000’ of 1” line, 3,950 lb. full line pull
Anchor Winch: 1000’ of 1/2” wire, 90’ of 5/8” chain plus 145# Forfjord
Stern Winches: (2) 1000’ of 3/8” wire, 90’ of 3/8” chain plus 90# Forfjord
Hydraulic System: 21 GPM @ 2900 PSI
Air Compressor: 8.5 CFM @ 135 PSI (30 gal. tank)
Lab: 286 sq. ft.
Wet Wells: 19” and 10”
Berthing: 6 persons
Galley: Stove, refrigerator, and microwave/convection oven
Head: (1) marine head with sink and shower
Holding Tank: 200 gal. capacity
The R/V Light was added to the APL-UW fleet in August 2018. The vessel was designed to be a versatile and efficient platform to test ocean science instrumentation and equipment under development at APL-UW. Dedicated to Russell Davis Light, the late head of the Ocean Engineering Department, this vessel embodies his professional values — to be the best prepared, hardest working, and most adaptable to adversity.

**Specifications**
- **Hull Form:** Catamaran
- **Hull Material:** Aluminum
- **Range:** Inland waters of Puget Sound and Lake Washington
- **Wind Velocity:** 35 knots, with gusts to 45 knots
- **Maximum Speed:** 6.5 knots
- **Length Overall:** 65’ 9”
- **Length on Deck:** 65’
- **Beam Molded:** 25’
- **Depth Molded:** 6’ 9”
- **Draft Molded:** 3’ 2”
- **Propulsion Generator:** 125 KW, 480- VAC, 60 Hz, 3-phase
- **Service Generator:** 25 KW, 240 VAC, 60 Hz, 3-phase
- **Navigation Electronics:** GPS, GPS Compass, Autopilot, Radar, Depth Sounder, VHF Radio, Chart Plotter
- **Diesel Fuel Oil:** 2000 gallons, 2 x 500-gallon tanks per hull