New UW Research Vessel

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What’s the problem?

Multi-faceted

- R/V Barnes 50 yrs old – nearing retirement
- R/V Barnes limited in ability to support today’s complex integrated research
- Limited access to on-water experience for students of marine sciences in the region
- No regional fisheries research vessels
- Limited coastal research – lack of affordable research assets
- Limited training opportunities for future mariners (Navy, deck, eng) on vessels
What’s the solution?

∗ Construct a new Local-class research vessel that:
  ∗ Supports gov’t agencies, academic institutions & NGOs in conducting oceanographic & fisheries research while also providing monitoring and oil spill response capabilities
  ∗ Can support the science needs of today and those anticipated for the next 20-30 years
  ∗ Provides hands on experience for students
  ∗ Provides training opportunities for future mariners
  ∗ Is capable of operating throughout the region throughout the calendar year
  ∗ Is affordable and flexible
R/V Barnes

- Built 1966
- Former USCG icebreaking harbor tug
- Transferred to UW 1982
- Converted to R/V 1983
- Over 1,000 research cruises
New Vessel Design Requirements

* Capability to operate further afield including offshore in summer
* Increased cruising speed (~12 knots)
* Improved maneuverability and station keeping
* Increased berthing (10 scientists, up to 5 crew) and day use capacity (~30 students)
* Option for 24 hour operations (flexible day rate)
* 12-hour operations at same crewing level and comparable day rate to Barnes
* Increased deck space
* Increased lab space (flexible wet and dry lab spaces)
* Expanded/Increased scientific capability
* Improved efficiency – Fuel economy and emissions
New Vessel Contract Design
Oceanography Configuration
Fisheries Research Configuration
Outboard Profile

**PRINCIPAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (Overall)</td>
<td>90' 0&quot;</td>
</tr>
<tr>
<td>Length (9' WL)</td>
<td>82' 9 ½&quot;</td>
</tr>
<tr>
<td>Beam</td>
<td>27' 3&quot;</td>
</tr>
<tr>
<td>Depth</td>
<td>10' 8&quot;</td>
</tr>
<tr>
<td>Draft (Full Load)</td>
<td>9' 0&quot;</td>
</tr>
<tr>
<td>Gross Tonnage (US)</td>
<td>&lt;200 GRT</td>
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<tr>
<td>Speed</td>
<td>12+ knots</td>
</tr>
<tr>
<td>Propulsion</td>
<td>Diesel Electric, Twin Screw</td>
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<tr>
<td>Propulsion Motors</td>
<td>2 x 375 kW</td>
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<tr>
<td>Bow Thruster</td>
<td>110 kW</td>
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<tr>
<td>Generators</td>
<td>1 x 500 kW</td>
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<tr>
<td>Fuel</td>
<td>2 x 250 kW</td>
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<tr>
<td>Fresh water</td>
<td>1 x 27 kW</td>
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<tr>
<td>Capabilities</td>
<td></td>
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<tr>
<td>Capacities</td>
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<tr>
<td>Fuel</td>
<td>12,710 gals</td>
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<tr>
<td>Fresh water</td>
<td>2,256 gals</td>
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<tr>
<td>Berthing</td>
<td>15</td>
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A View into the Lab Space
Pilothouse
Comparison
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