

Underwater Vehicle Development at the Institute For Exploration

Jim Newman

Institute For Exploration
and
Woods Hole Marine Systems, Inc.

www.ife.org www.whmsi.com

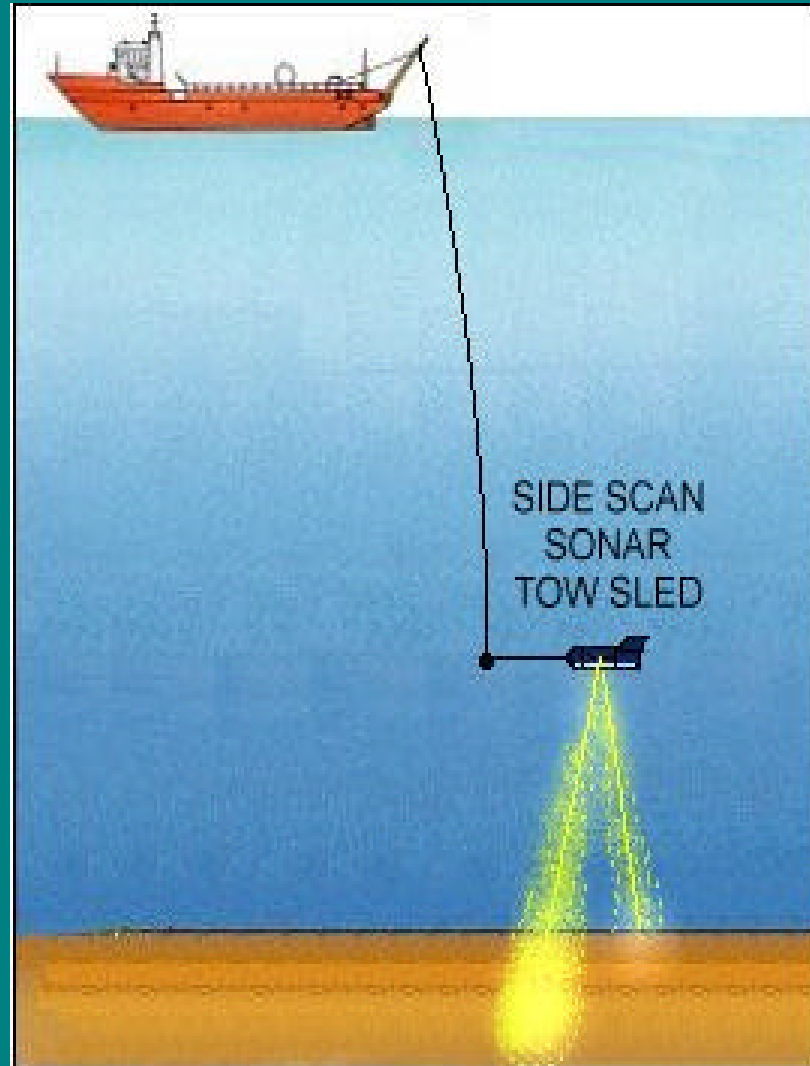
Goals

- Support search, survey and documentation of submerged sites and artifacts
- Depths to 3000 meters
- Coming soon: excavation capabilities

Search: ECHO

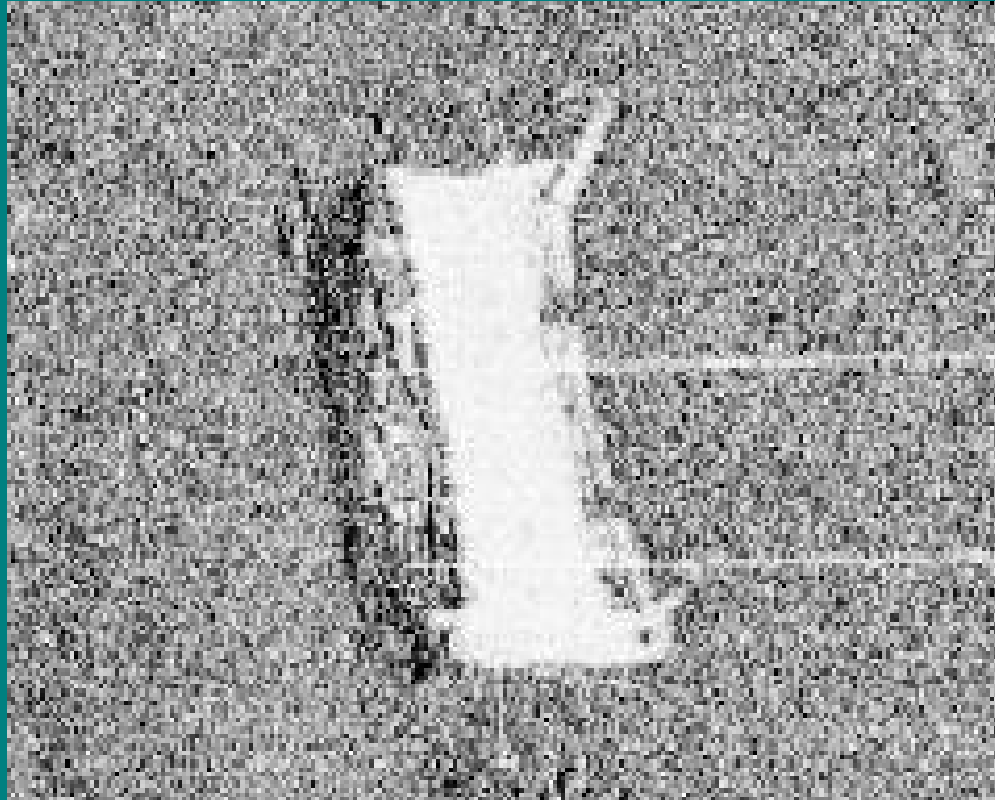
- Towed sidescan sonar system
- Sub-bottom profiler (geophysical)
- Also includes conductivity, temperature



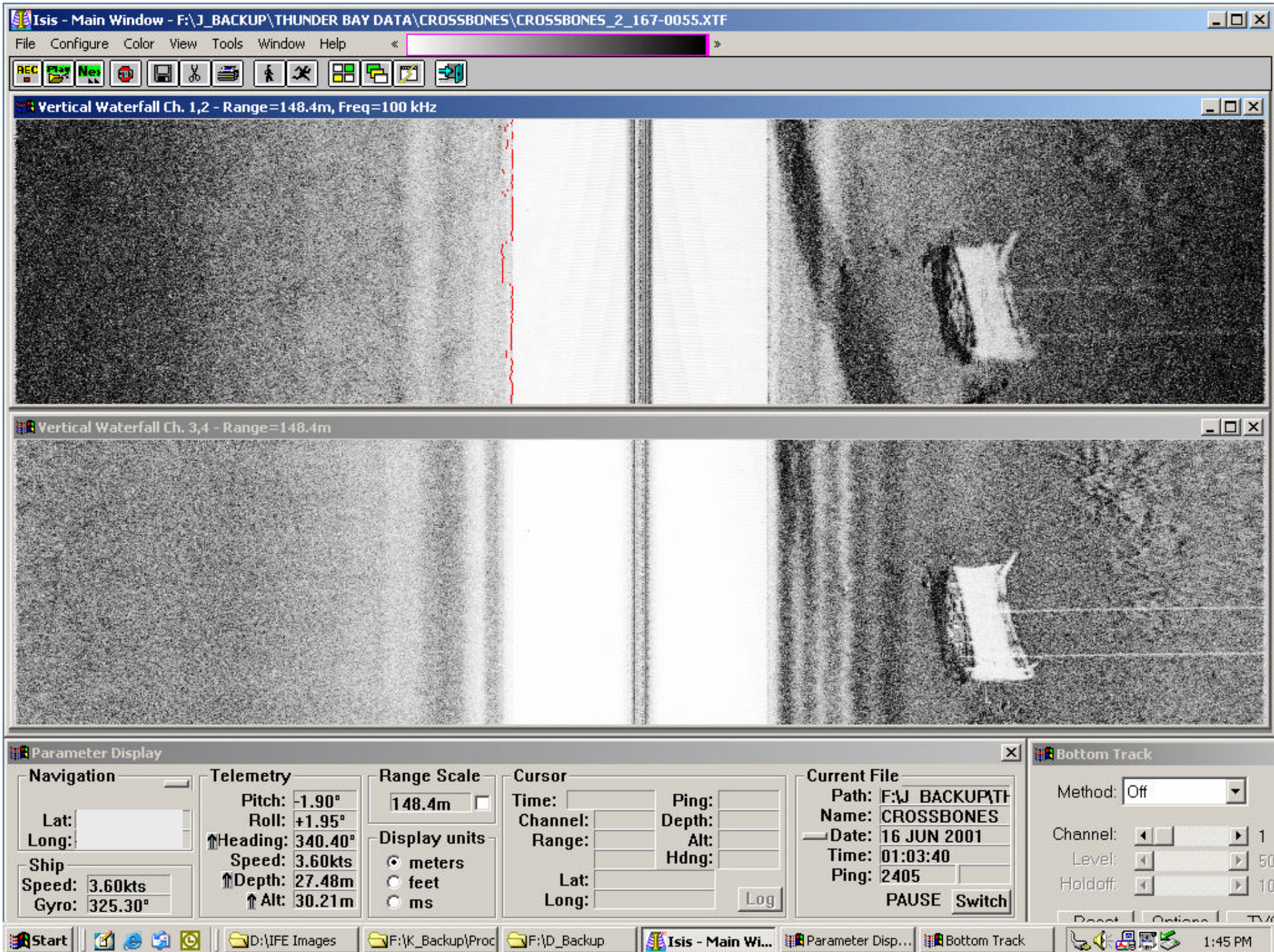




ECHO Image, Thunder Bay 2001:
New Orleans, 232 foot freighter sunk 1906



ECHO image, Thunder Bay 2001
Unidentified Schooner

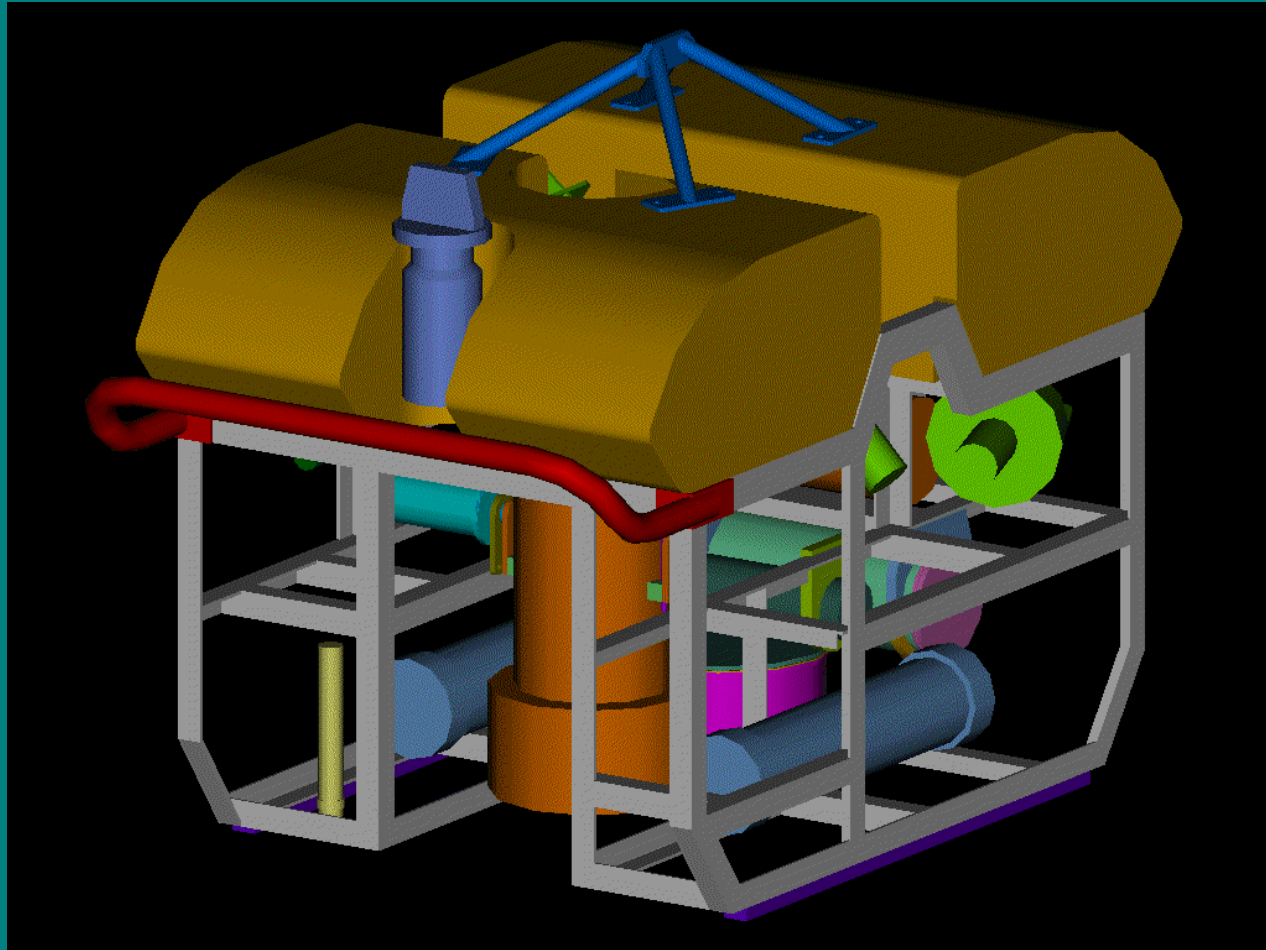


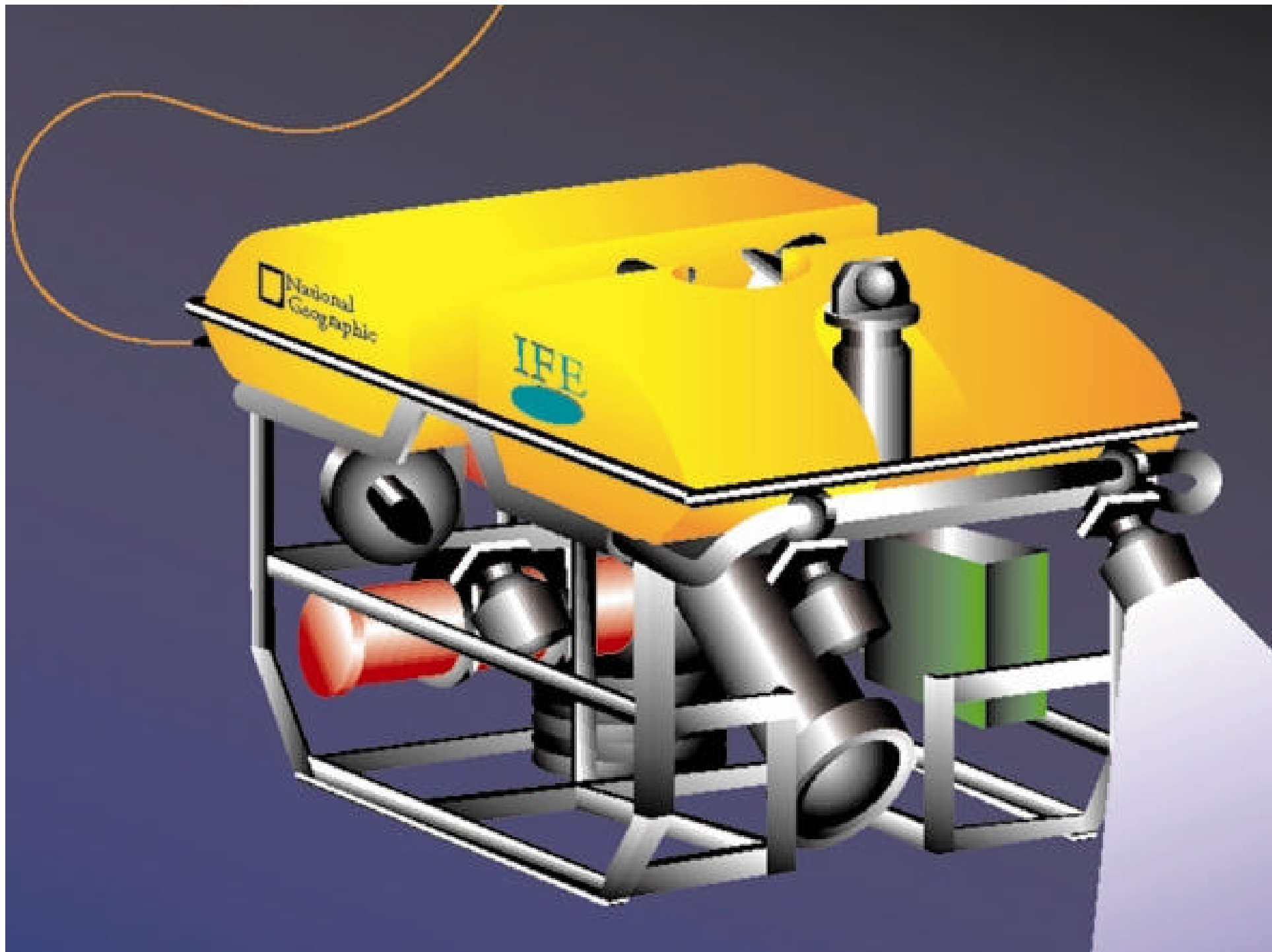
ARGUS and Little Hercules

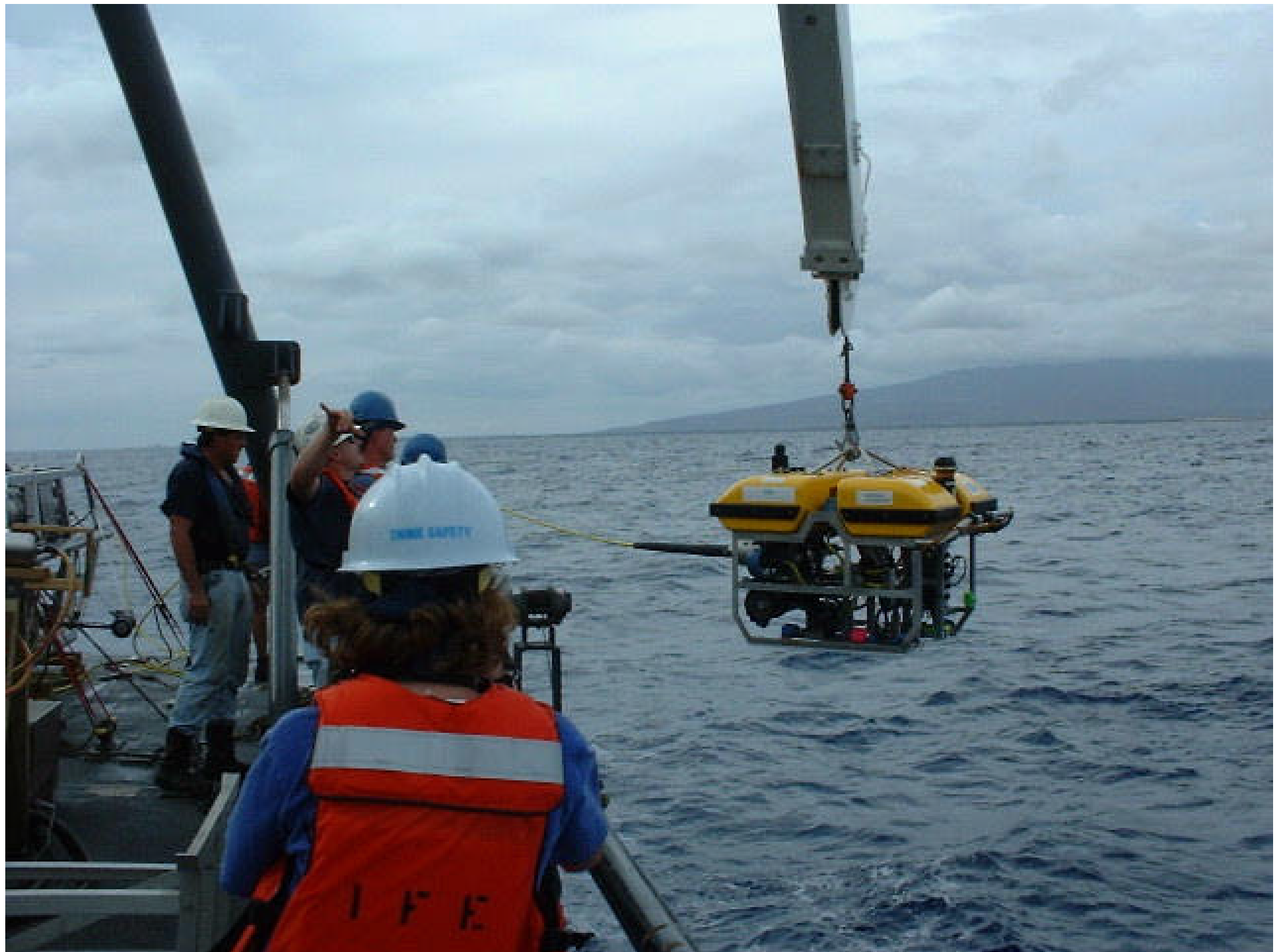
Paired vehicles work together to:

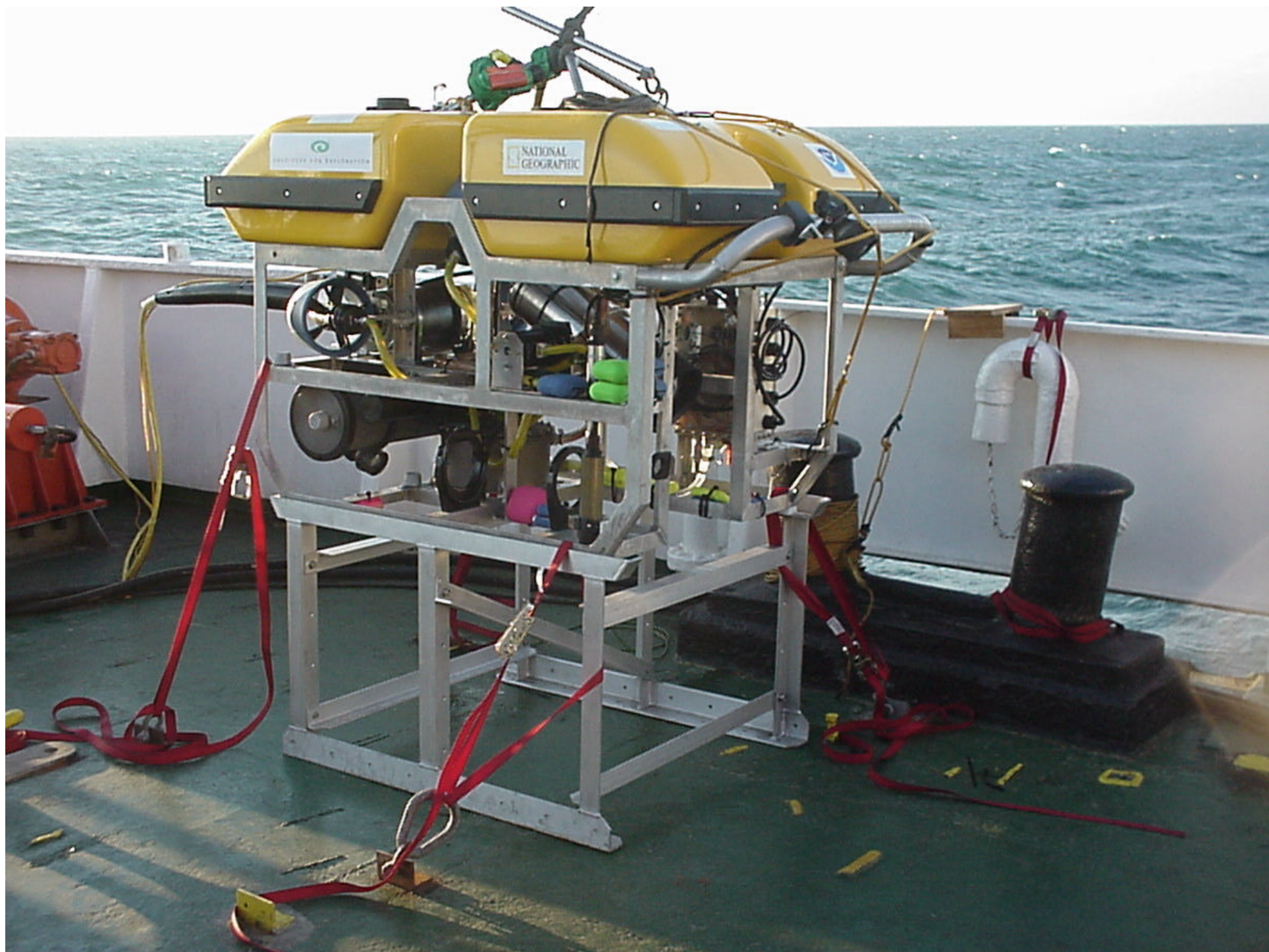
- provide isolation from ship and cable motions
- optimize lighting

Little Hercules











23:21:13 12-SEP-2000



19:47:46 10-SEP-2000



22:54:55 18-SEP-2000





20:49:30 25-SEP-2000



20:47:21 25-SEP-200

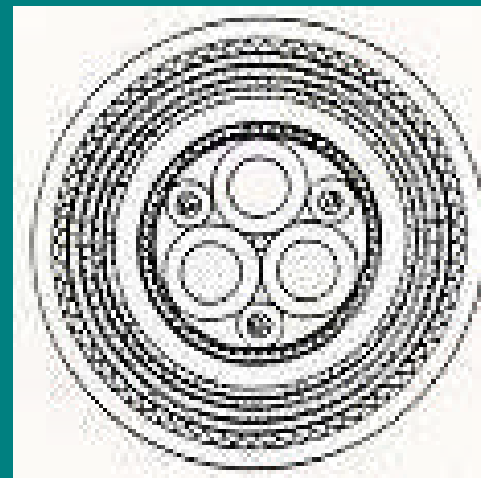
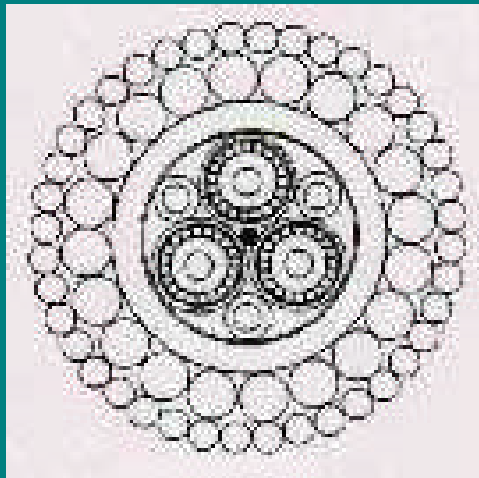


22:43:59 25-SEP-2000

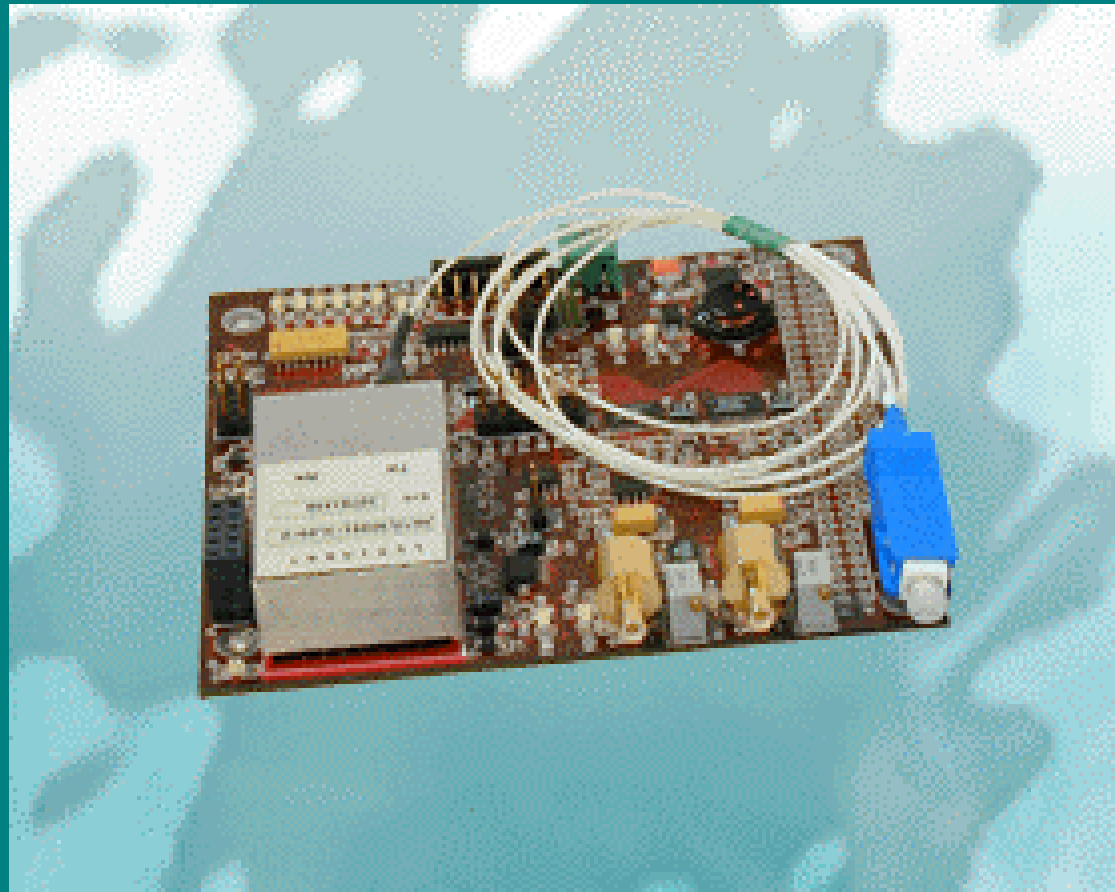




Fiber optic cables



Prizm MiniMux



HERCULES

- Concept: a vehicle capable of excavating an ancient shipwreck site to archeological standards.
- Record relative positions of all artifacts
- Excavate up to 1 meter below exposed surface
- Collaboration with WHOI DSL



P. Paul
OBERLANDER

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Figure 1

Dynacon Winch

