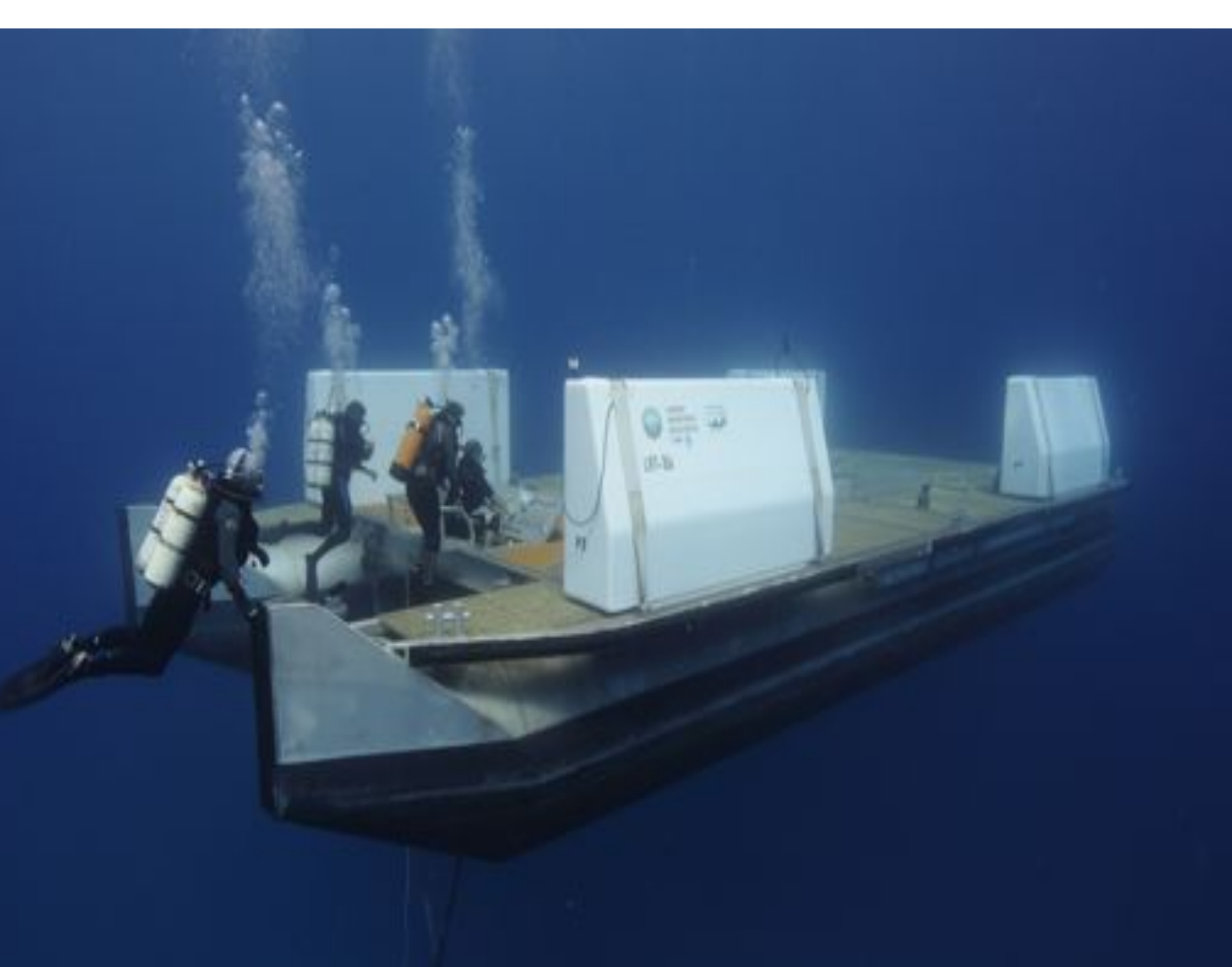


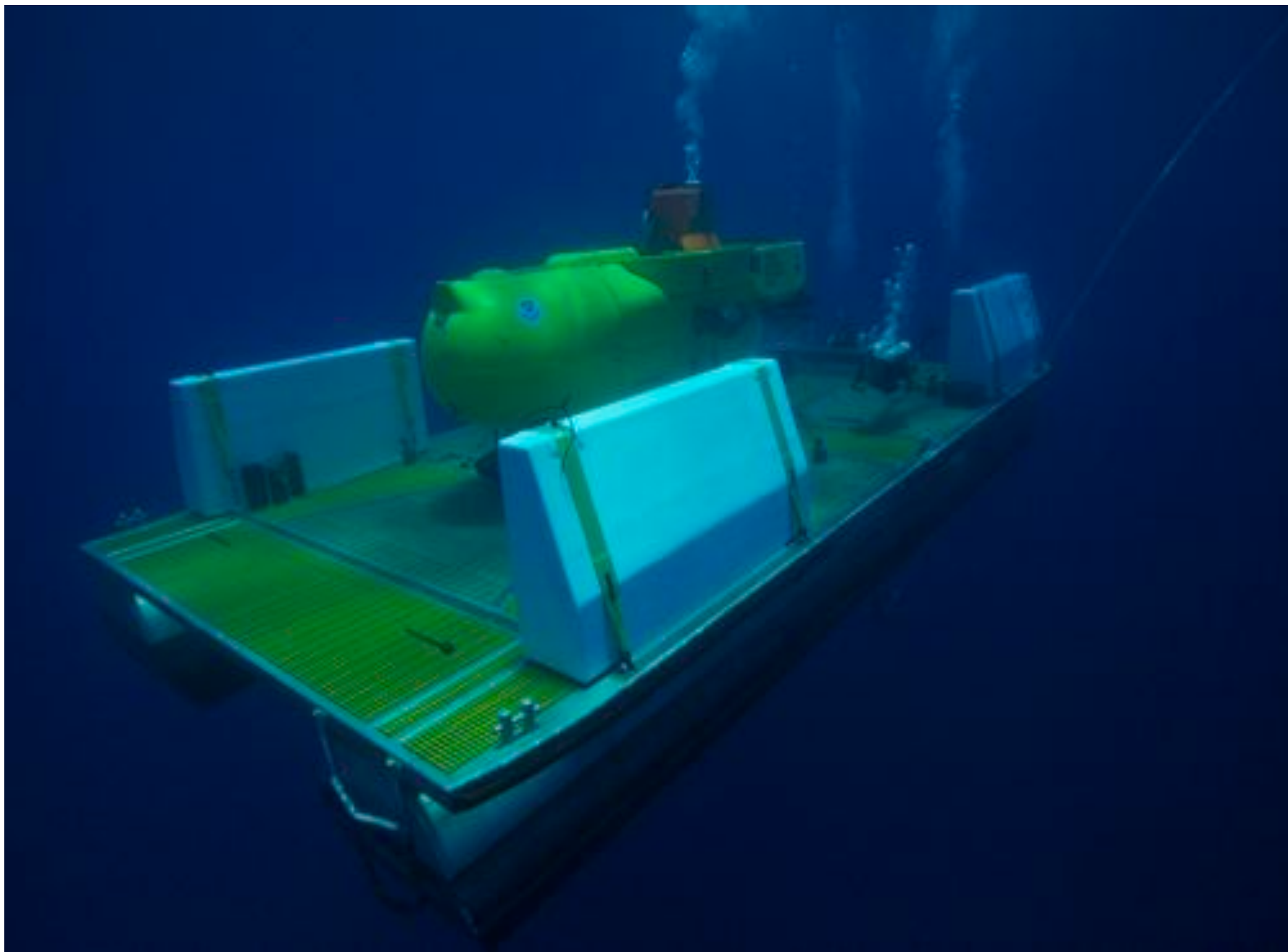


Status: LRT, ROV , ACO, Pisces

John Wiltshire

*School of Ocean and Earth Science and Technology
University of Hawai'i*



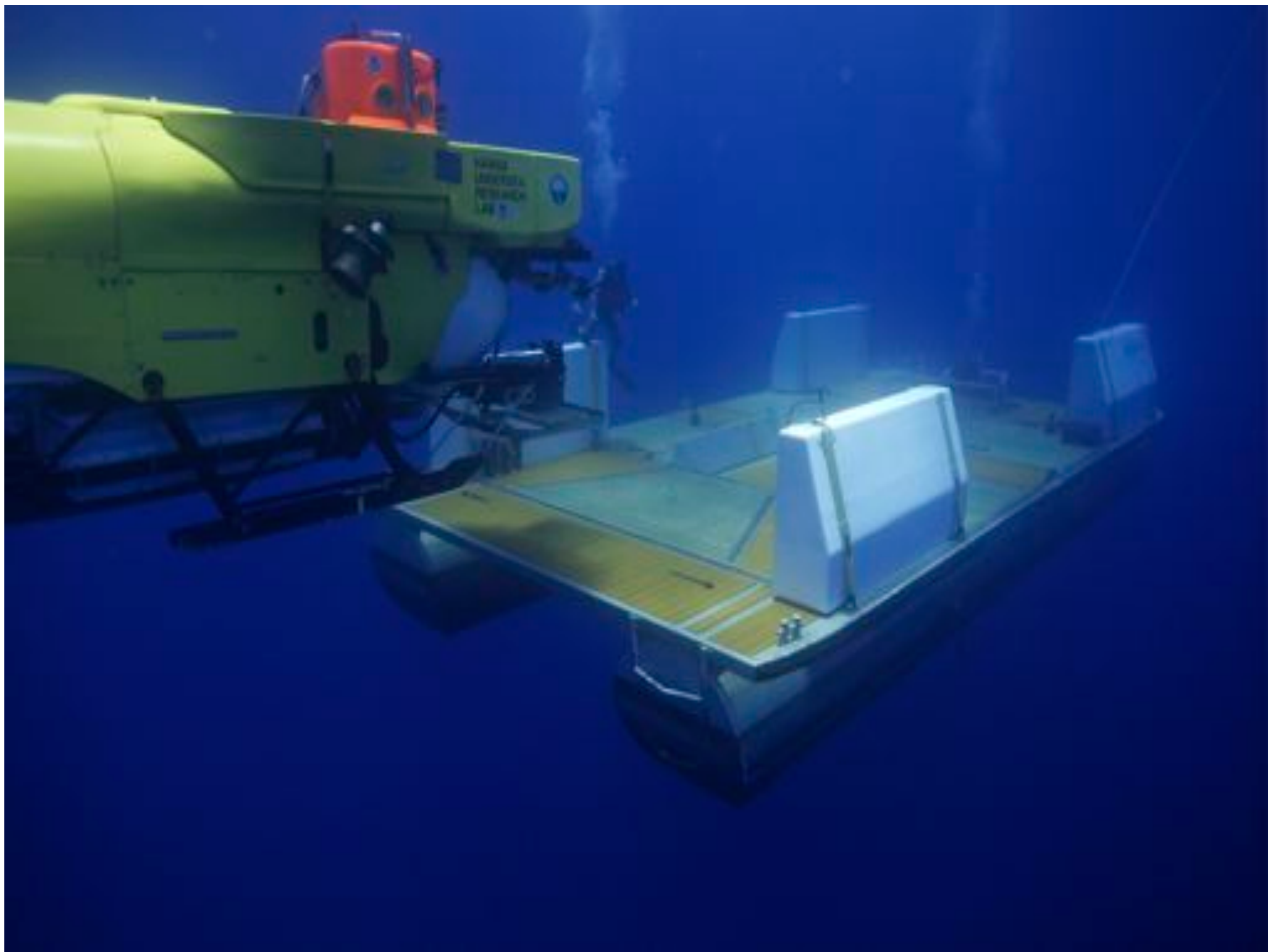




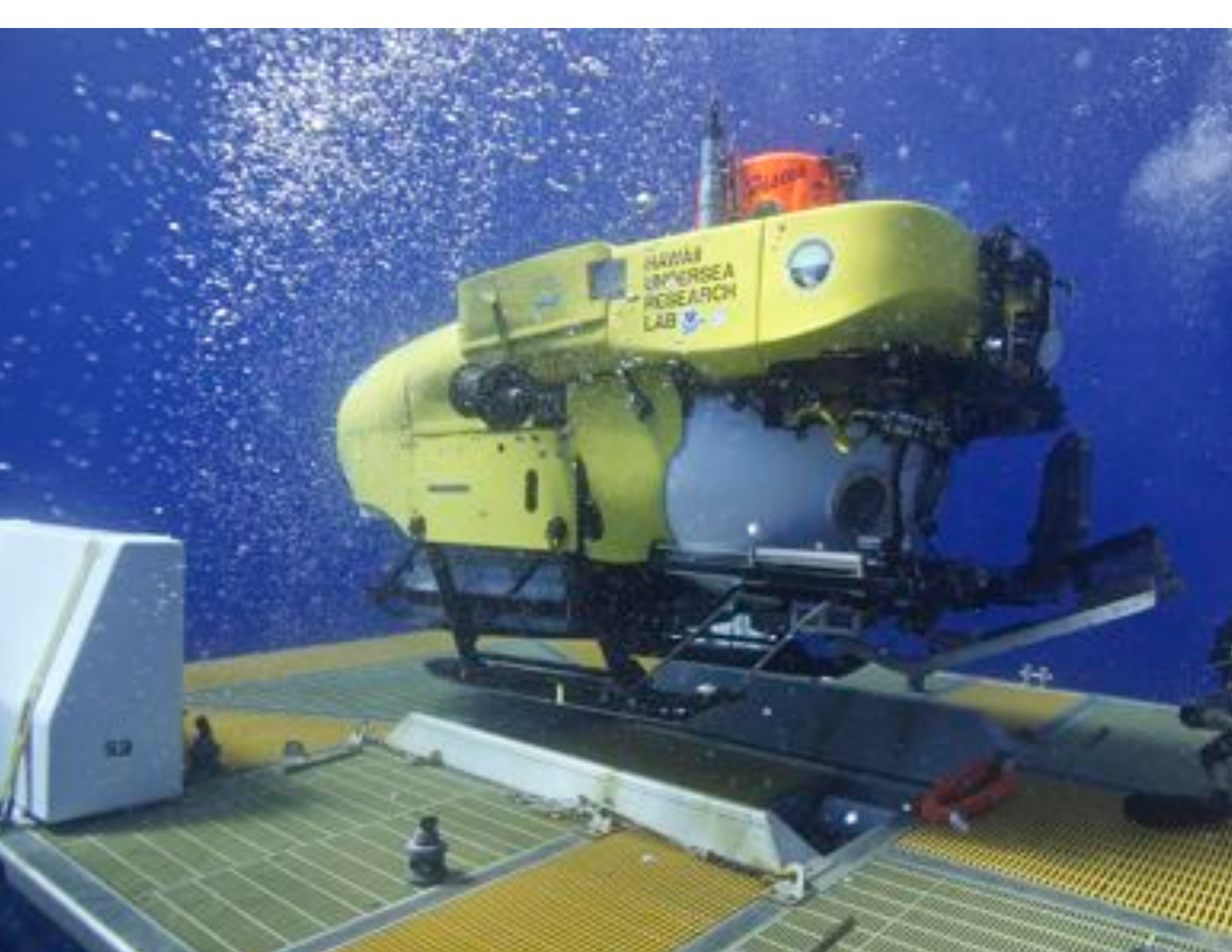
HAWAII
UNDERSEA
RESEARCH
LAB

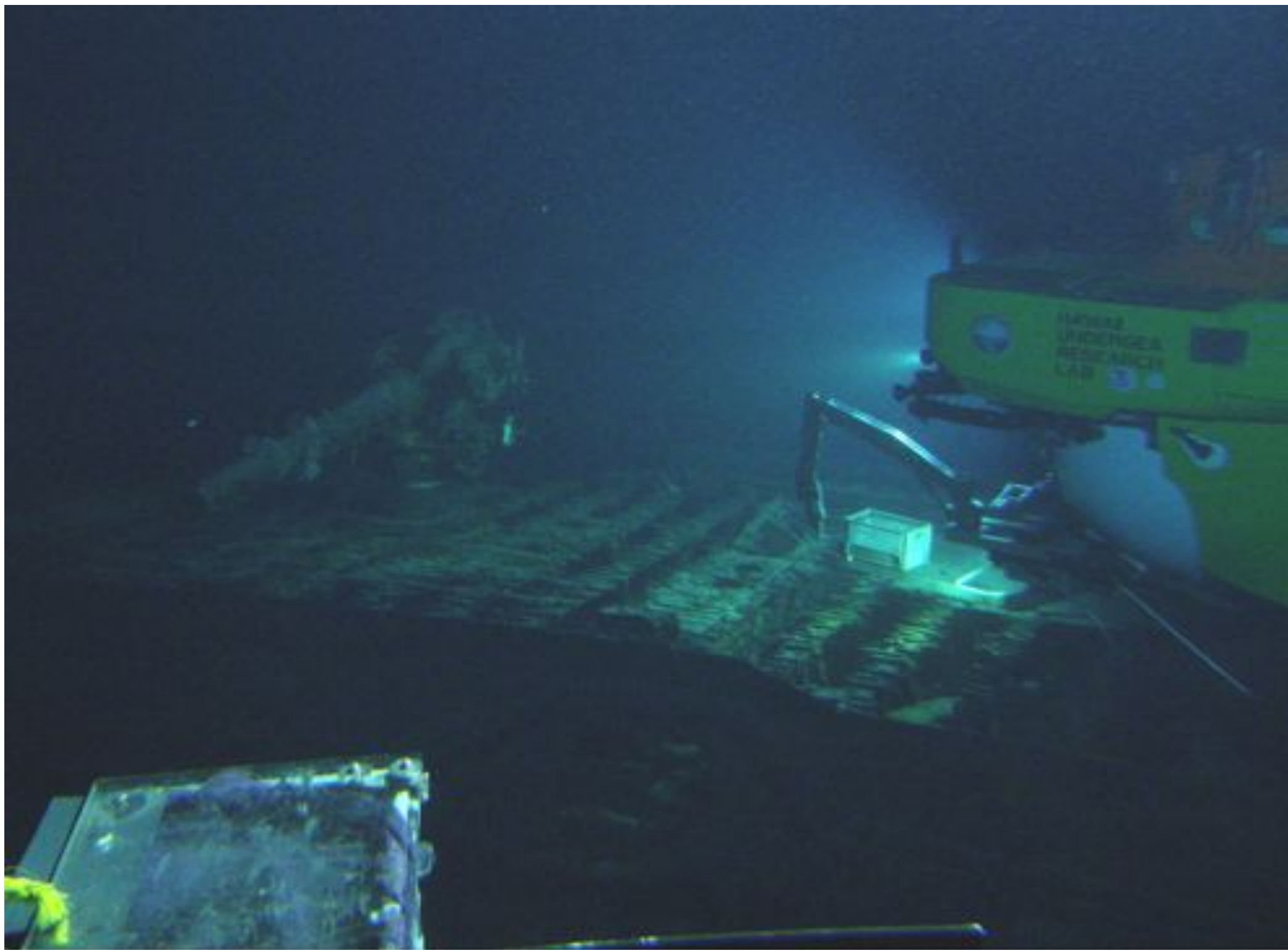


LRT-30a



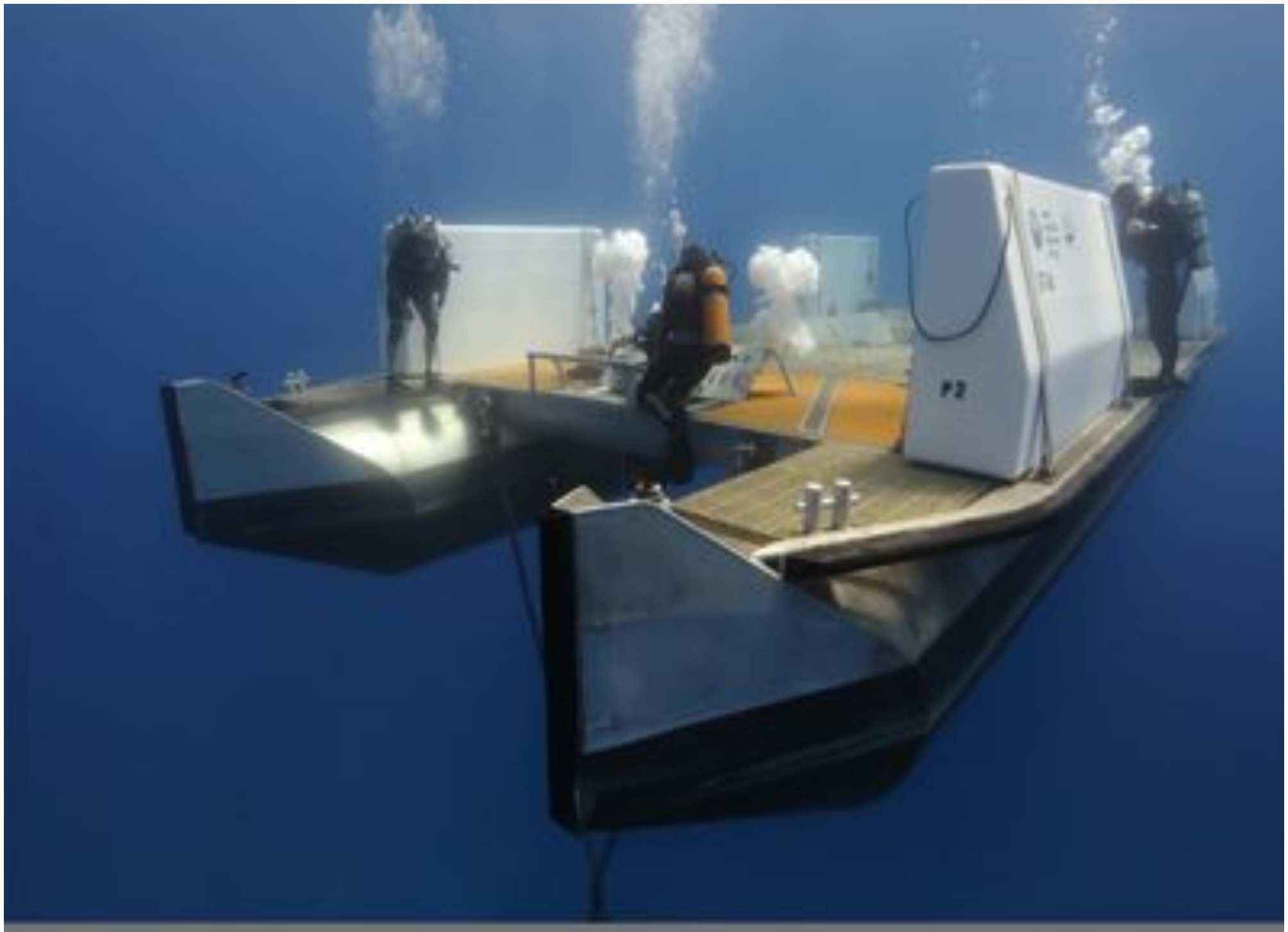






















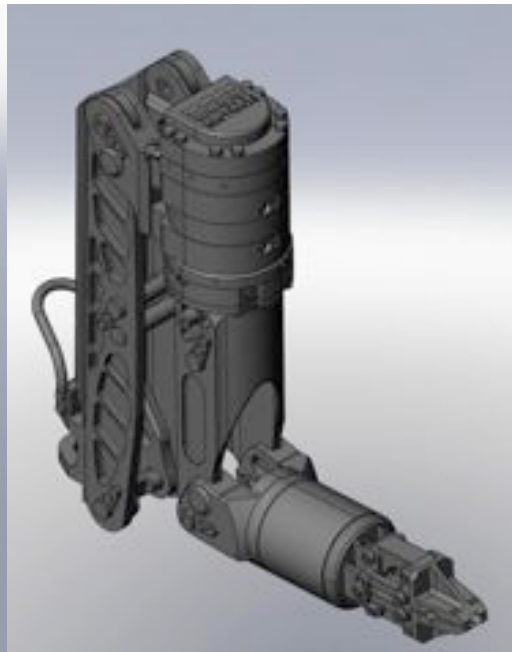
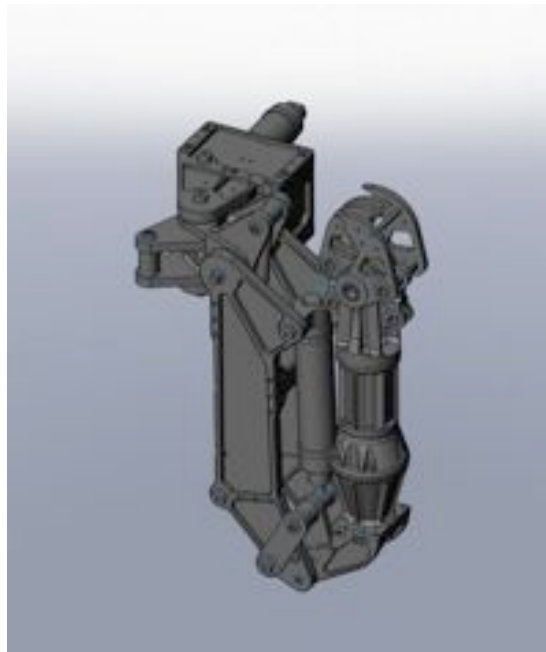


ROV science capabilities

- * Science Manifold
 - * 6 bulkhead connectors
 - * Will support RS-232/422/485 and Gigabit Ethernet
 - * Supported voltages include 5, 12, 24 and 48 VDC
 - * Additional ACO support manifold is being developed, bulkhead connector TBD
- * Expandable to larger sample basket and/or tool skids

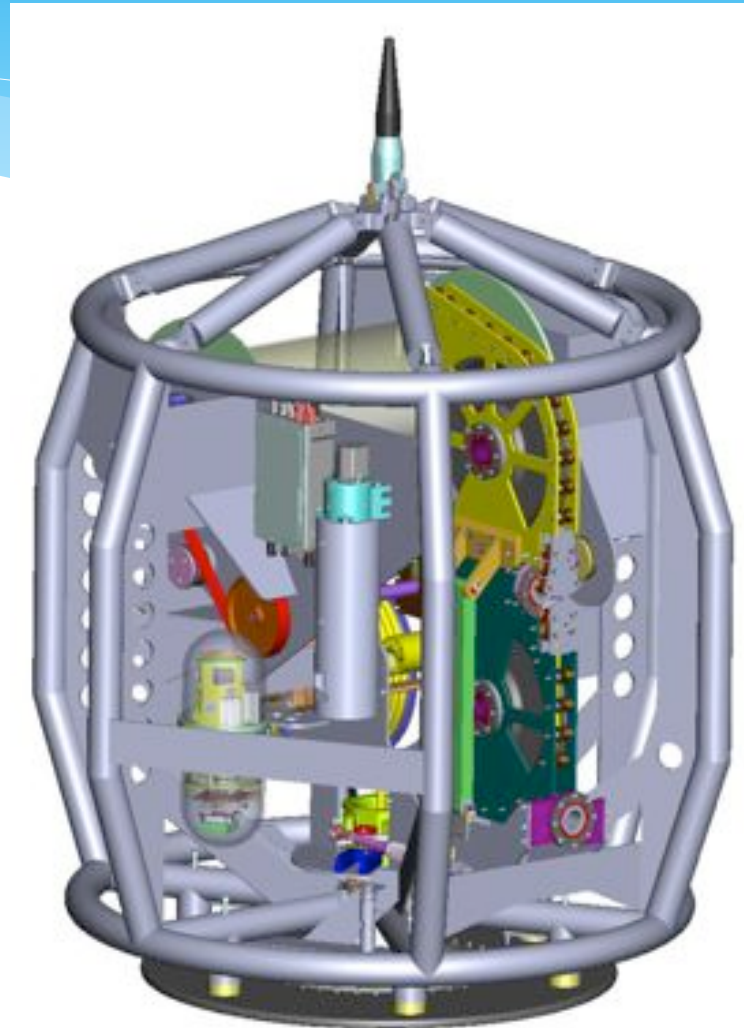
ROV science capabilities

- * Manipulators
 - * Schilling Orion 7P, seven-function
 - * DOER SeaMantis, five-function



Tether Management System

- * 75" diameter, 68" high (top-hat only)
- * Transition between .681 cable and neutrally bouyant tether
- * Winch drum w/ slip-ring and level-wind instead of RCV-150's bail-style tether management
- * 5 HP hydraulic motor



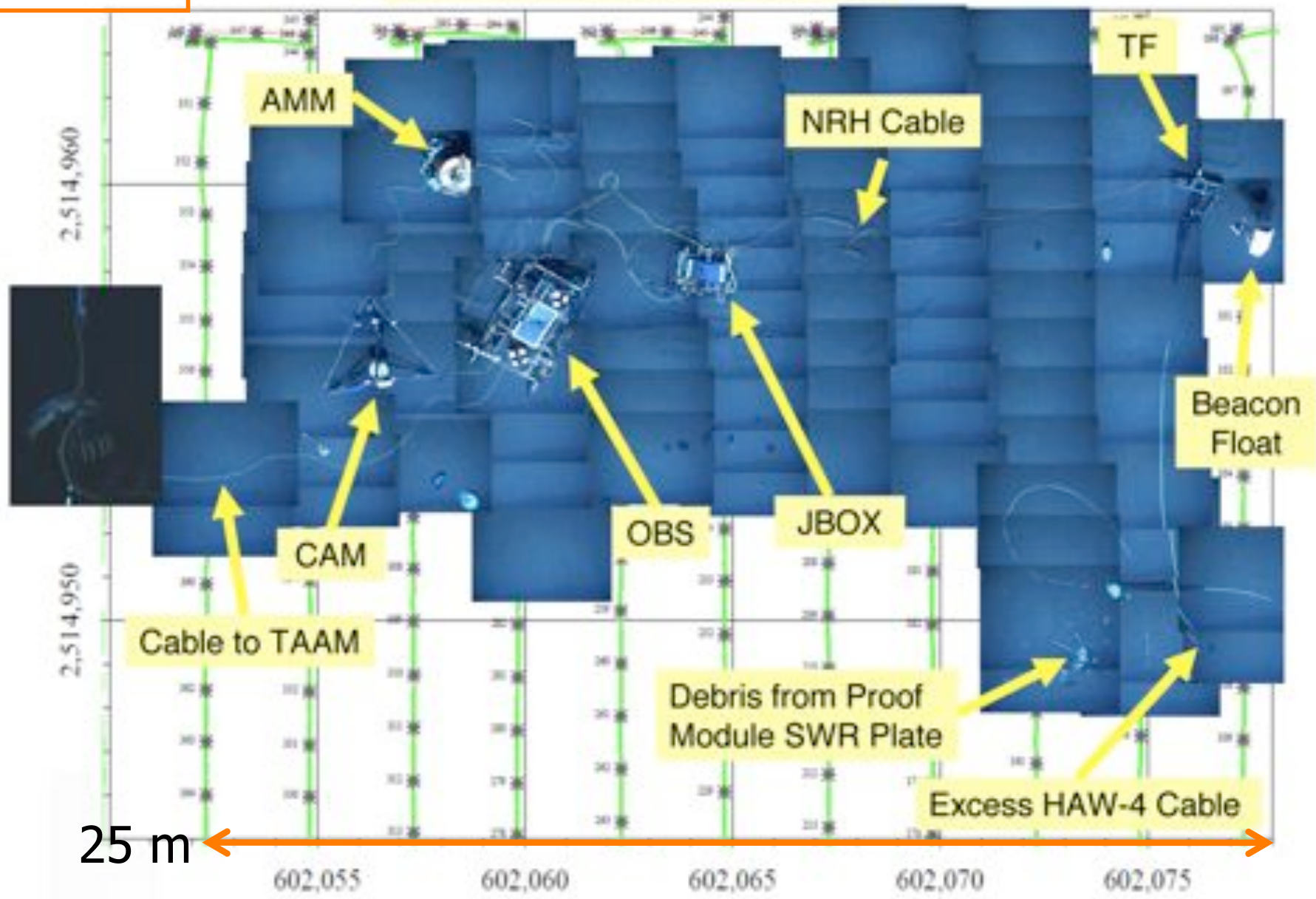
ROV and tether management



Mosaic of bottom components

4728 m

ACO Mosaic Navigation - UTM Zone 4



ACO bottom configuration

Cable Termination ✓

TAAM mooring
✓ (thermistor array, FLNTU,
acoustic modem) ✗

JBOX (HEM-
pressure, 2 ✓
hydrophones) ✗

OBS (8-port; μSEM-
temperature, salinity,
✗ ADPs, light ✗) ✓

✗ AMM Secondary node (4 port;
SIIM- 2 CTDO₂, FLNTU) ✗

CAM (Video PZT
Camera, ✓
2 ✗ lights, hydrophone ✗)