

High Bandwidth Wireless Communication



AT26-17 July 26 – Aug 06

CORK Optical Modem/Hi-speed optical communication

Alvin / Sentry

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Optical Modem

- Long range, deep water system
- 10Mbps rate, 150m range



- Silicon based transceiver for full daylight operation
- Commercially available through Lumasys Inc.



Alvin and optical comms development

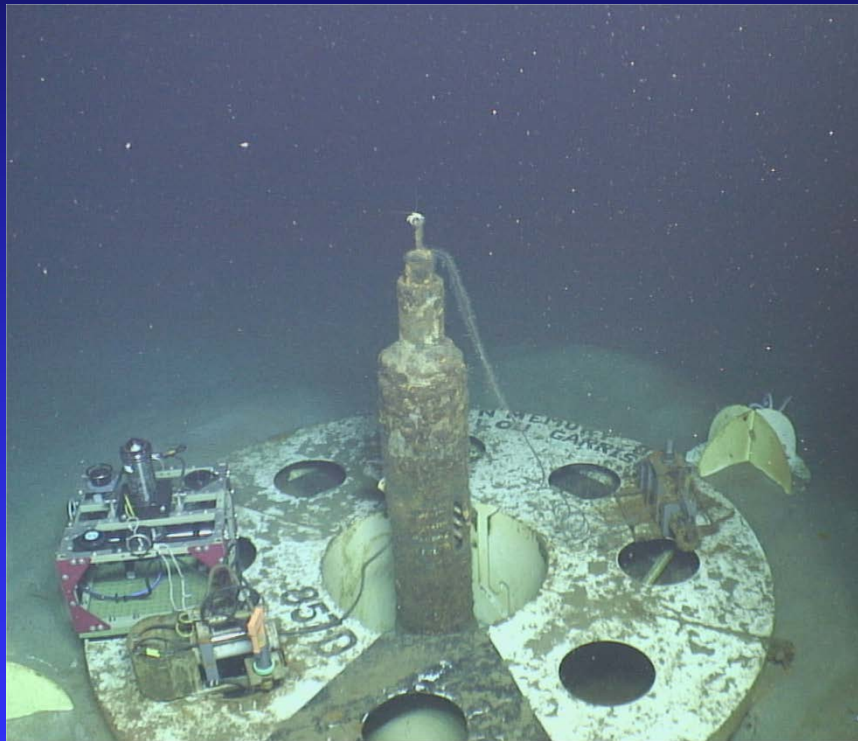
- Improve ambient light immunity (vehicle lights and sun)
- Test TDM bidirectionality



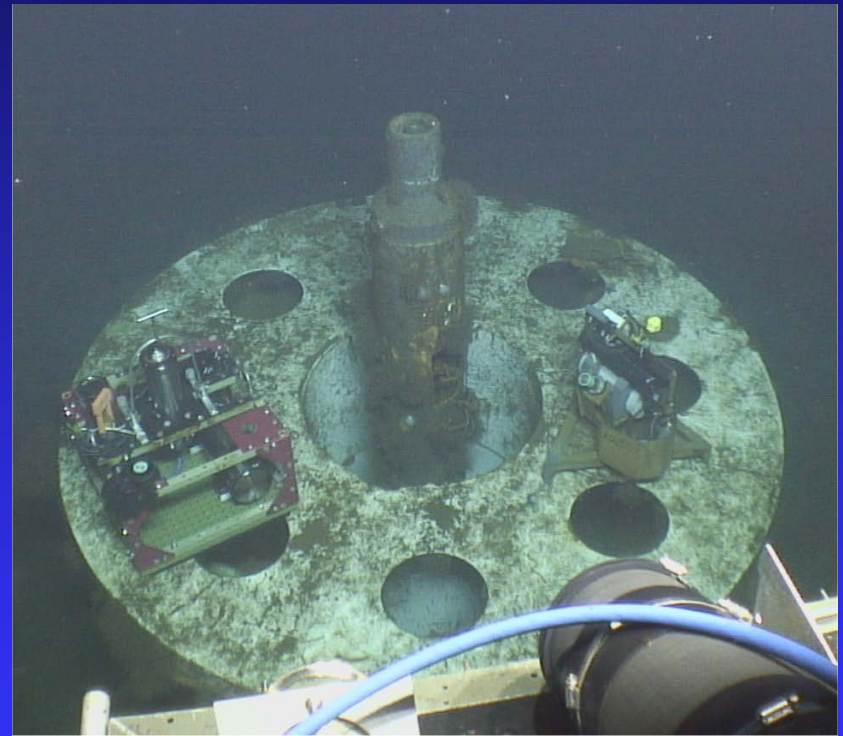
Wireless Data Recovery from Surface Vessel



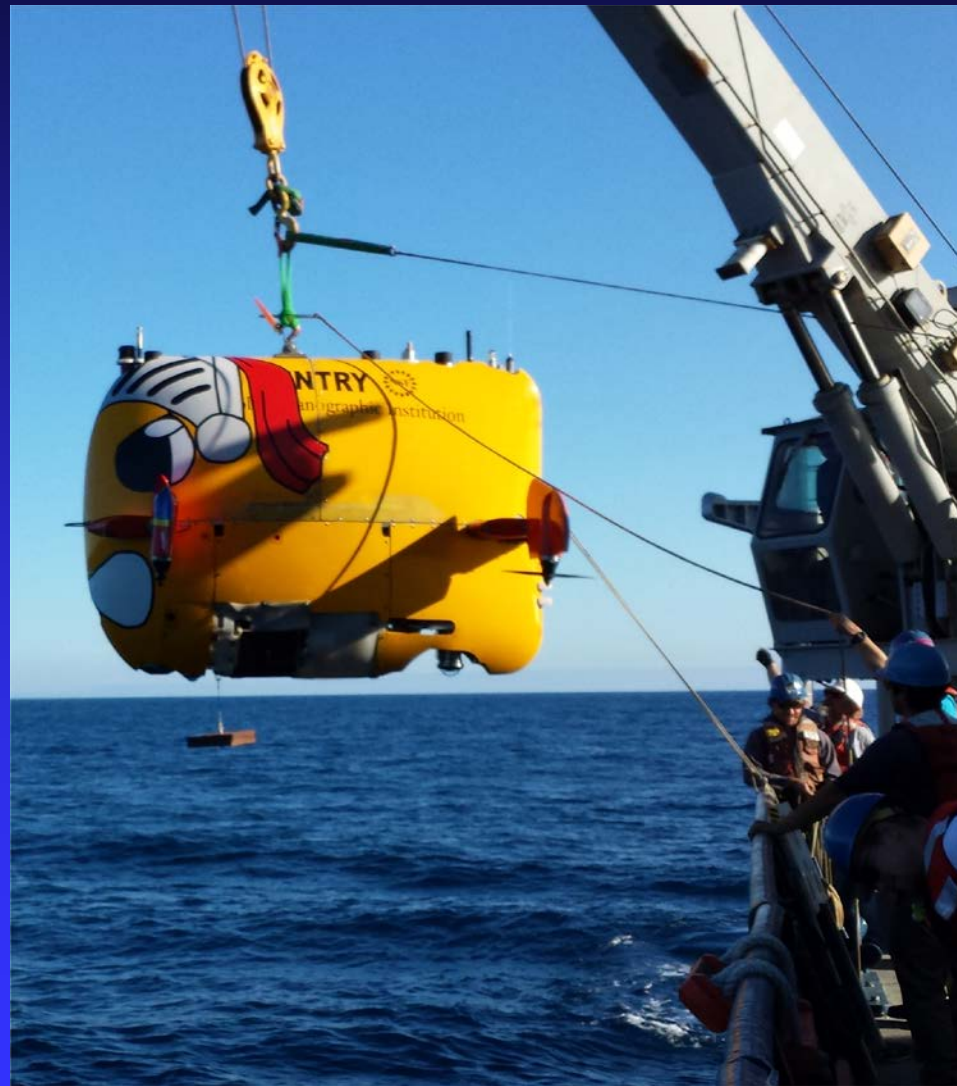
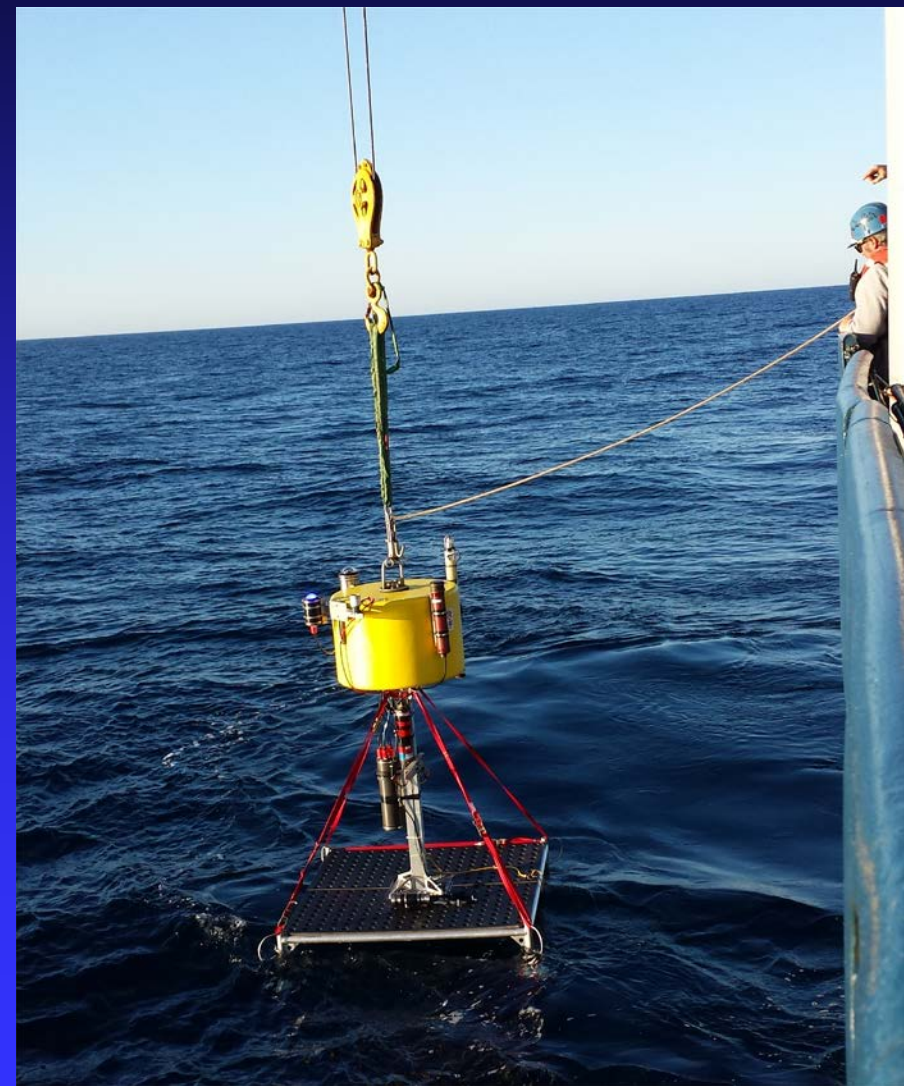
CORK OTMs on seafloor



857D



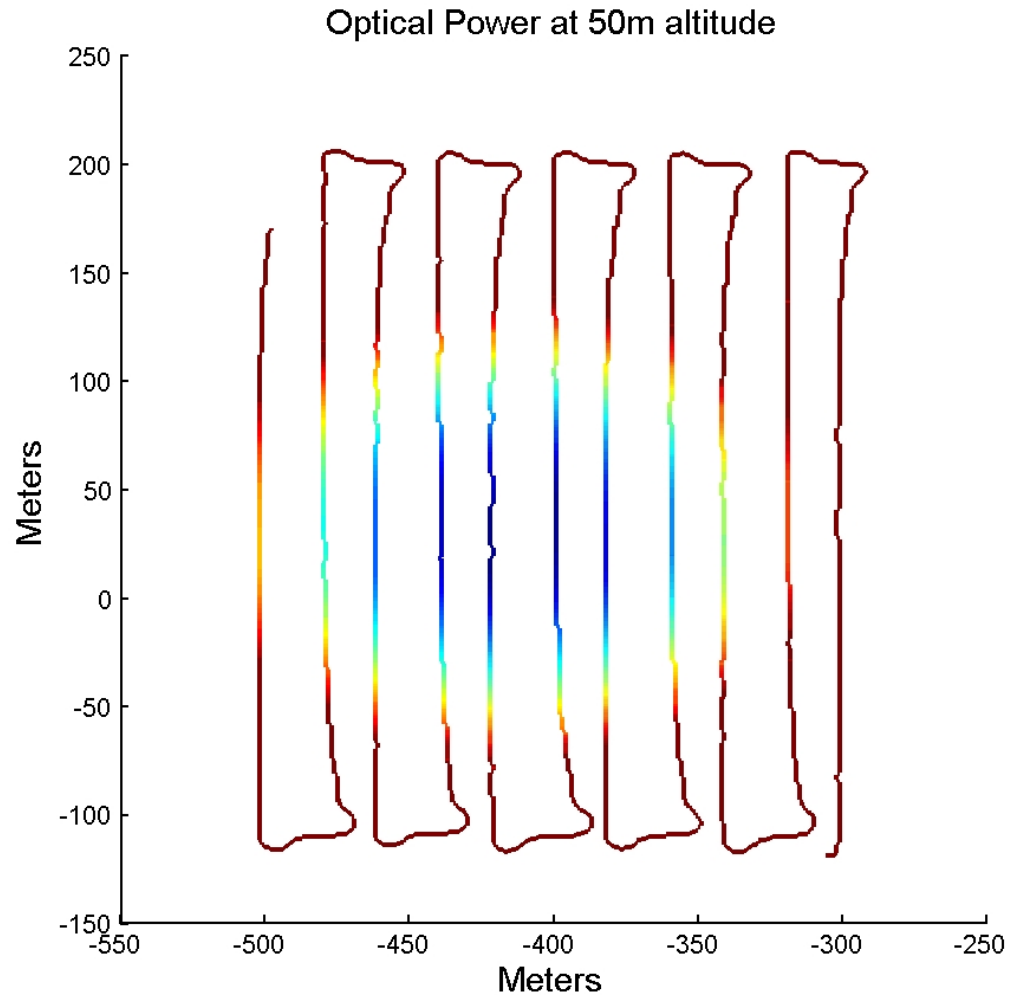
1025C



Sentry dive 227

- First OComms dive, was 7-28-14
- 5 hours on the seafloor
- Mapped the power level at 50m alt and spend ~25 minutes circling the lander in a 25m radius trajectory while Sentry to offloaded data
- Two 100MB sets were offloaded

“mow the lawn” vehicle track lines





1930