NAVFAC
Naval Facilities Engineering Command
ENGINEERING AND EXPEDITIONARY WARFARE CENTER

Wave Energy Test Site

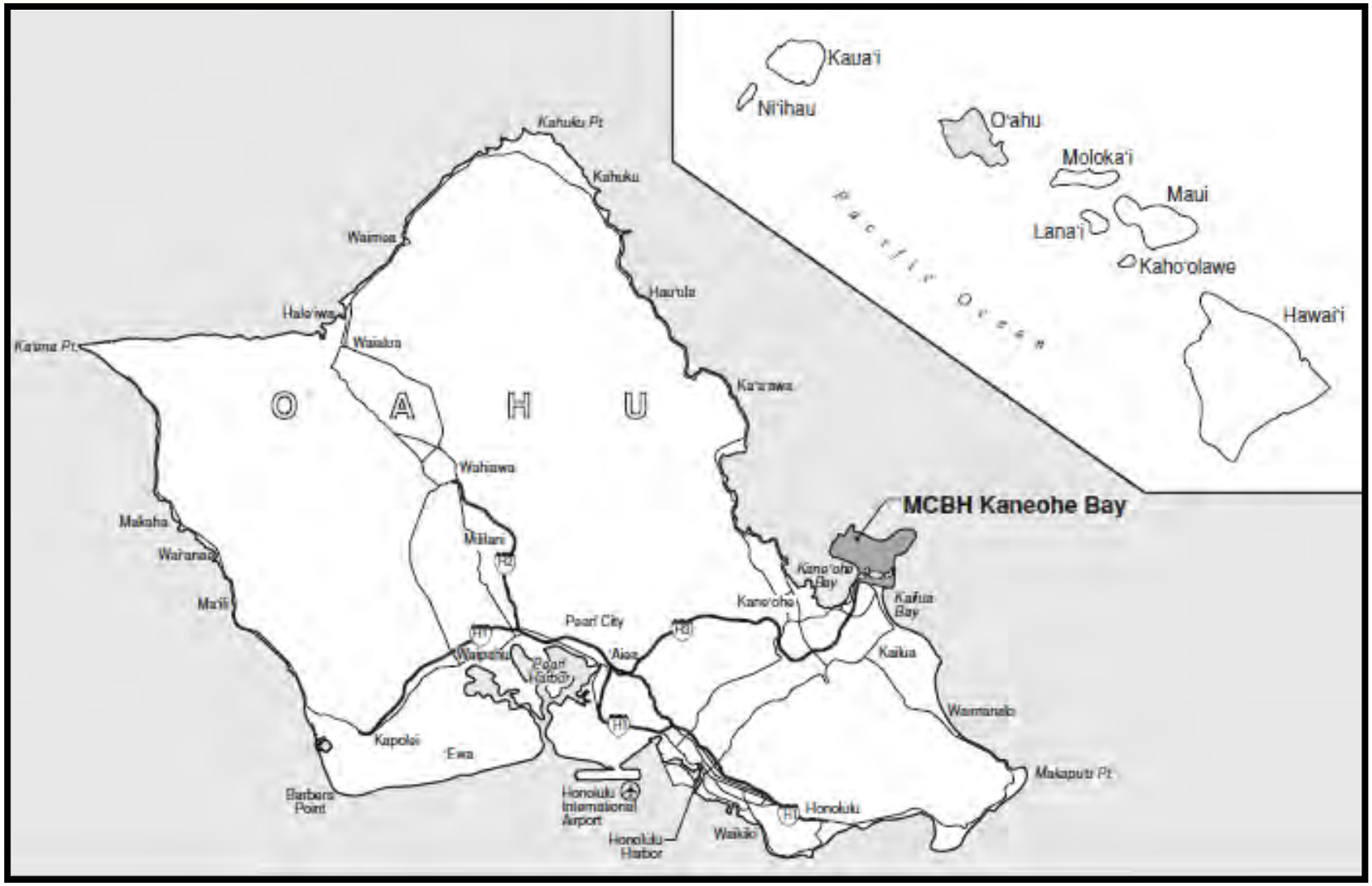
Deep Berth Moorings and Power Cables

Oregon Renewable Energy Conference X
HydroVision International 2015

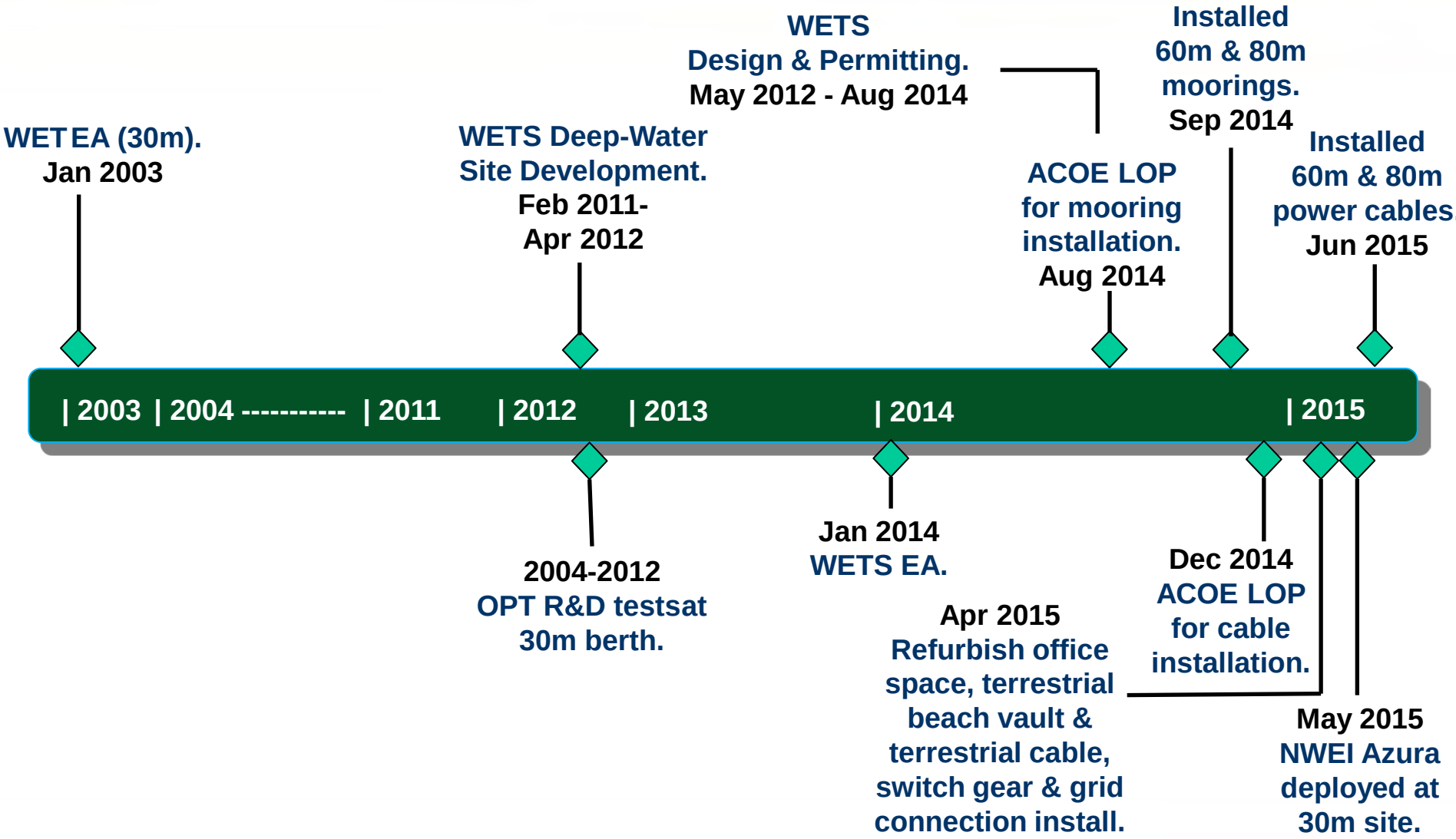
Session 7C: Perspectives on the
Interface between Government and the MHK Community

Alexandra De Visser
EXWC
17 July 2015

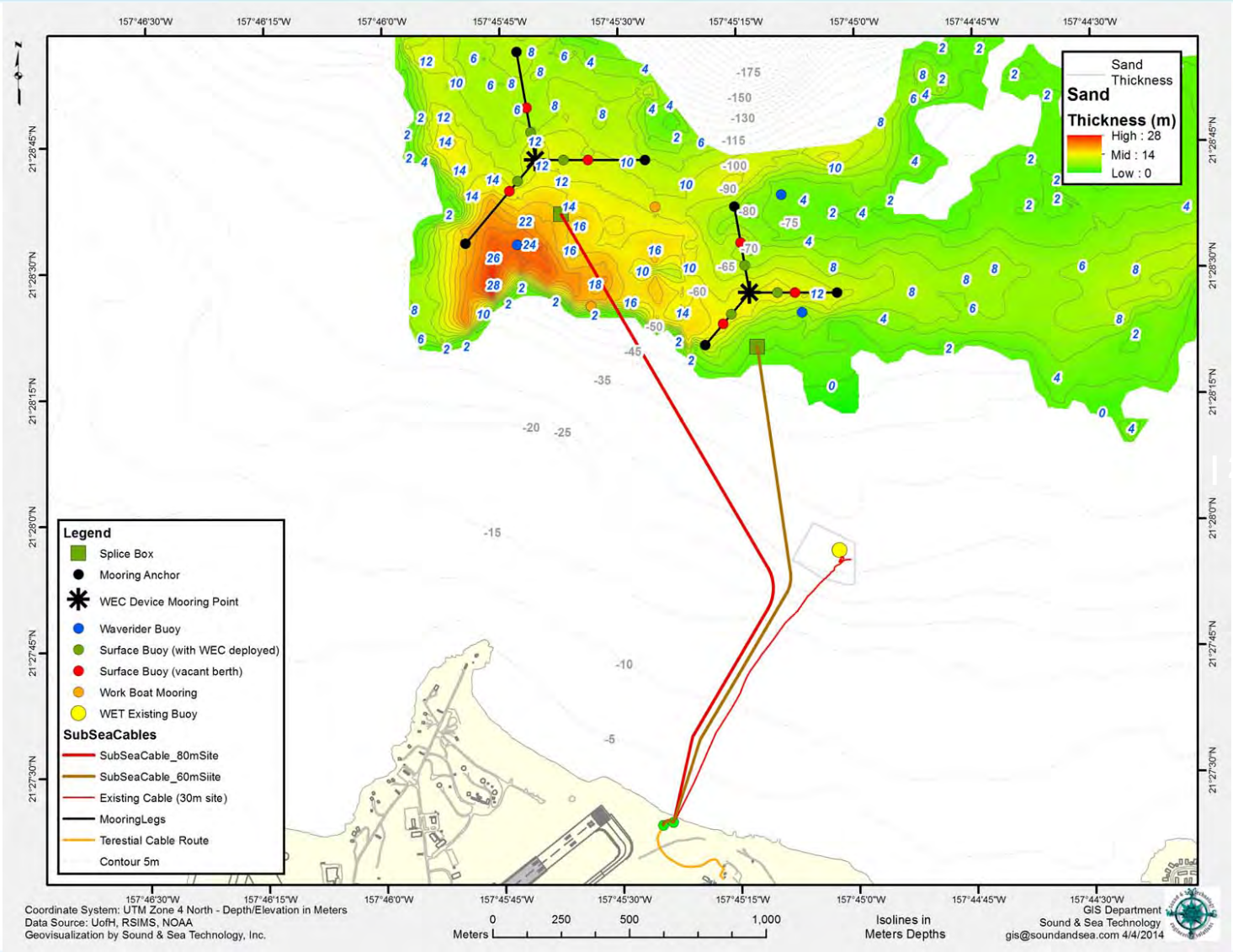
WETS Regional Location



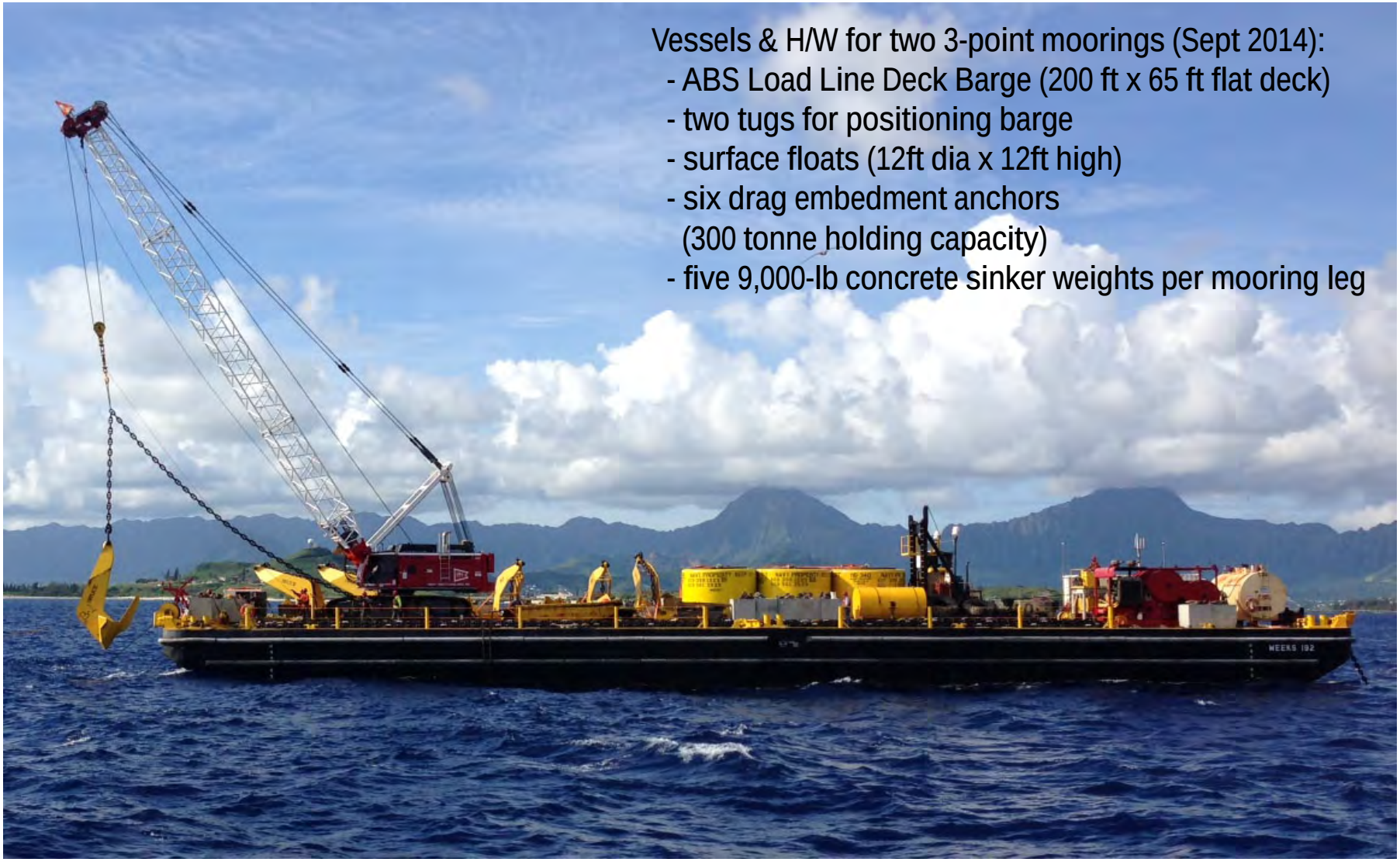
WETS Timeline



Shallow and Deep-Water Power Cable Routes

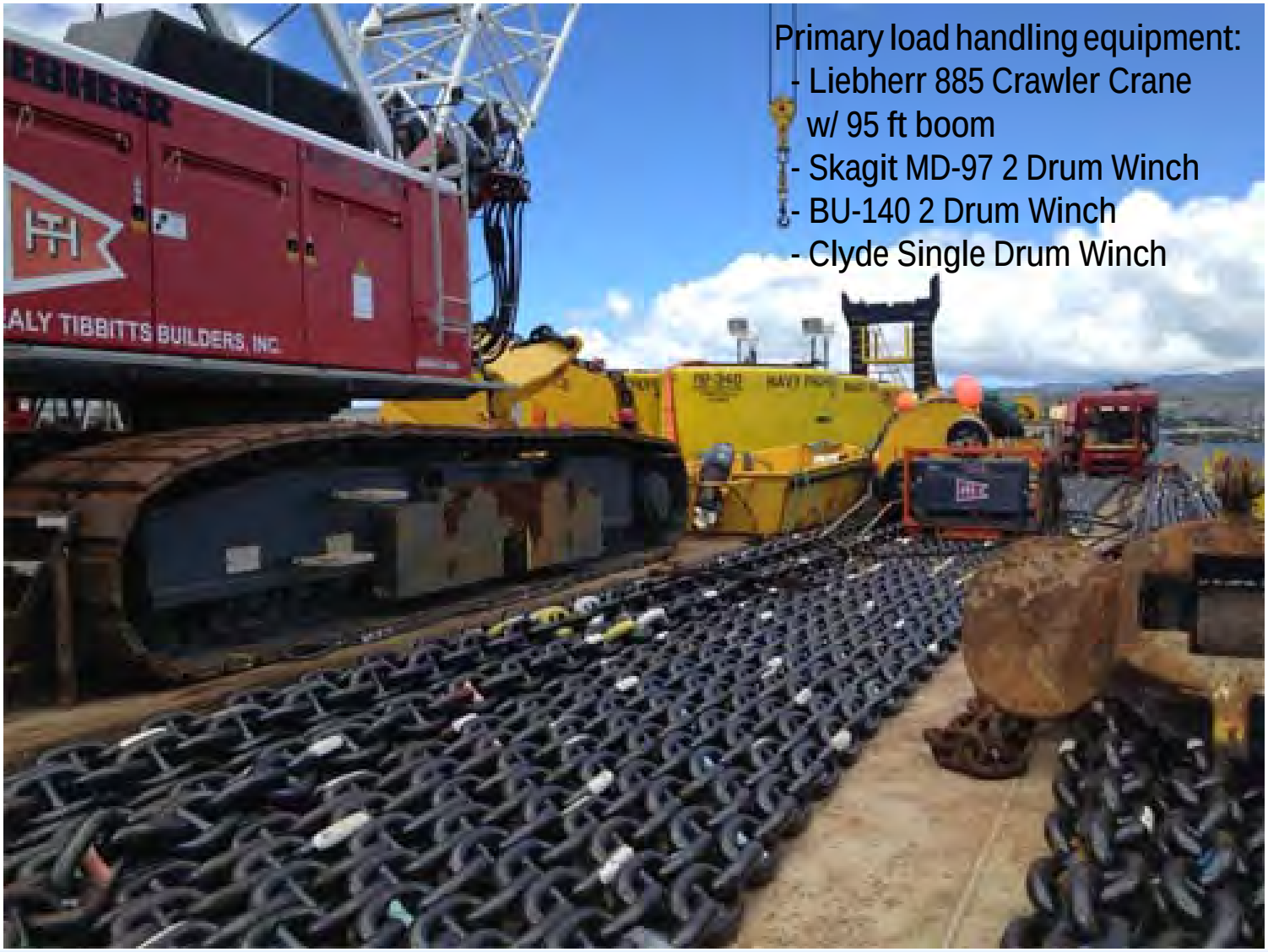


Healy-Tibbitts Mooring Deployment Barge



Vessels & H/W for two 3-point moorings (Sept 2014):
- ABS Load Line Deck Barge (200 ft x 65 ft flat deck)
- two tugs for positioning barge
- surface floats (12ft dia x 12ft high)
- six drag embedment anchors (300 tonne holding capacity)
- five 9,000-lb concrete sinker weights per mooring leg

Anchor Handling Equipment



Concrete Sinkers and Bruce Anchors

IT Intrepid Cable Ship

Specifications
- Dynamic Positioning
- Length Overall = 115m
- Breadth = 18m
- Draft = 10m
- 9T at 10m for lifting cable anchor

Paying-out Submarine Power Cable

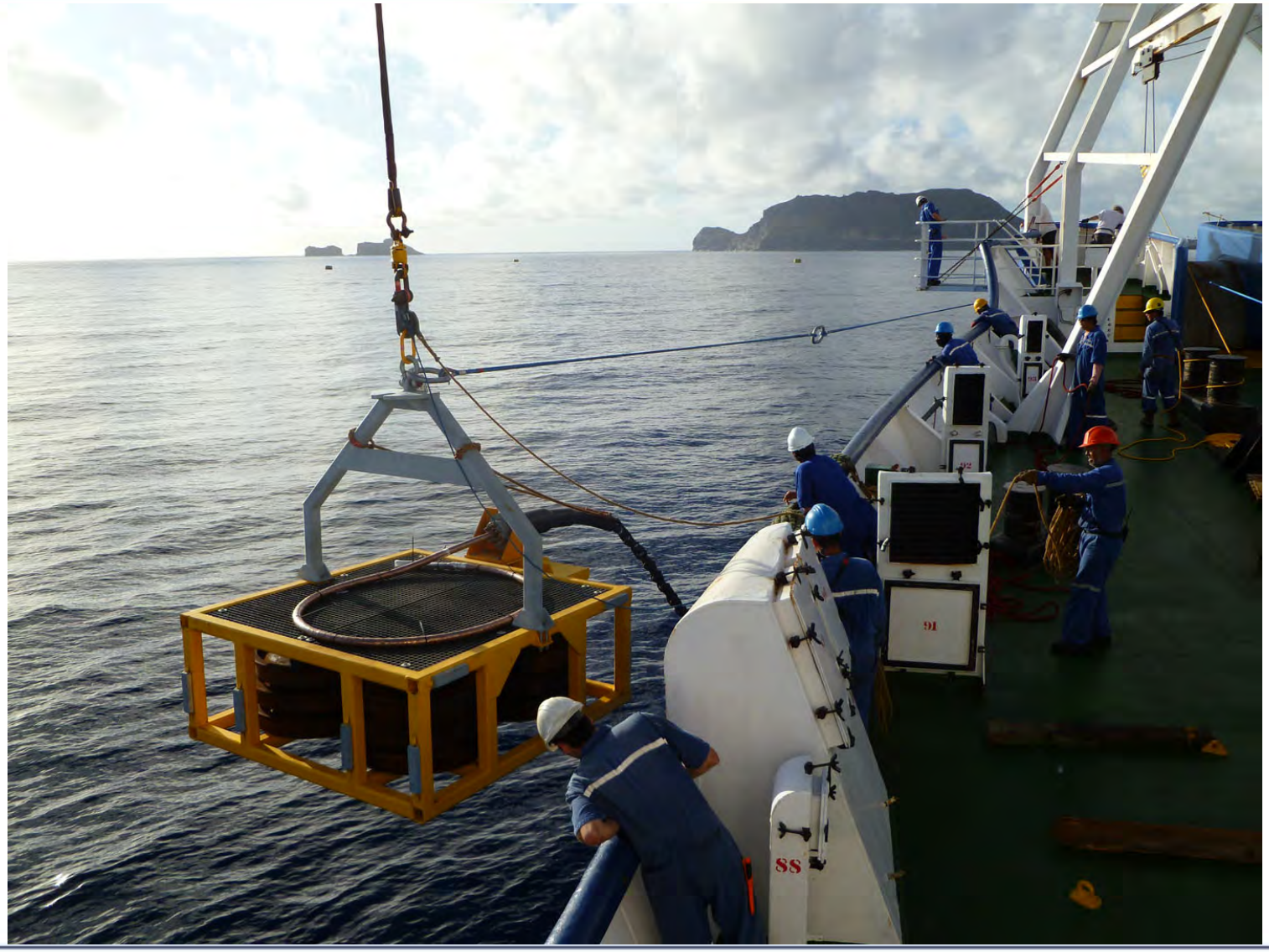
Subsea Cable Protection

Shore-Landing Phase of Cable Installation

Protected Submarine Cables

Marine Cables to Above-Ground Conduits

Power Cable Anchor Lowered Over Rail



Deep-Water WETS