

R/V Thompson Mid-life Refit



UW Marine Operations

Timeline - Milestones

- ✓ Contract awarded 24 Aug 2015
- ✓ Thompson finished science 24 May 2016
- ✓ Entered shipyard 16 June 16
- ✓ First seismic compressor removed 28 June 16
- ✓ Drydocked 15 Aug 16
- ✓ First generator set removed 19 Aug 16
- ✓ First new generator set onboard 22 Sept 16
- ✓ Undocked 25 Oct 16
- ✓ First engine lite off 7 Sept 17
- ✓ Drydock for Bow Thruster Plating Repair complete – undocked 25 Oct 17
- ✓ Dock Trials complete
- ✓ Builders Sea Trials complete
- ✓ Shipyard Delivery to UW 19 Dec 2017
- ✓ Shakedown cruises late Dec 2017 & early Jan 2018
- ✓ Student cruise 13-15 Jan 2018
- ✓ NSF Inspection 23-25 Jan 2018
- ✓ Returned to science Feb 2018 starting with transit to New Zealand & first science cruise at Kermadec Trench



New propulsion plant
New Caterpillar diesel generator sets



Completely updated Pilot house



Finishing up at Vigor Shipyard



Weight test of port crane



First CTD



Departure from Vigor – 19 Dec 2017



Summary

- 18 months in the shipyard
- ~\$52M total project cost
- 44 major projects
- ~200 contract changes
- ~3 weeks to complete underway testing / grooming / sea trials
- Service life extended another 15-20 years
- Lots of lessons learned!!

Post Delivery Issues

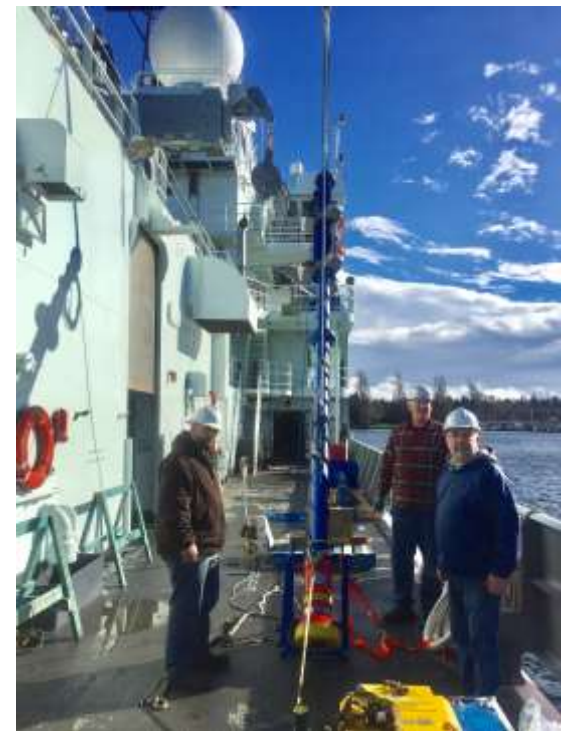
- Diesel Engines
 - Front end drive gear failure – corrected - warranty
 - Fuel oil cooler leaks - corrected – warranty
- Generators
 - Cooling pump bearings – corrected - warranty
- Transformers
 - Cooling system leaks – corrected - warranty
- Power quality
 - Notching of output power impacts sensitive electrical / electronic gear.
 - Await final report & Shipyard/Vendor recommendations
 - Most likely need to add filters to certain circuits
 - Contractual status of the issue – to be determined

First Science Cruise

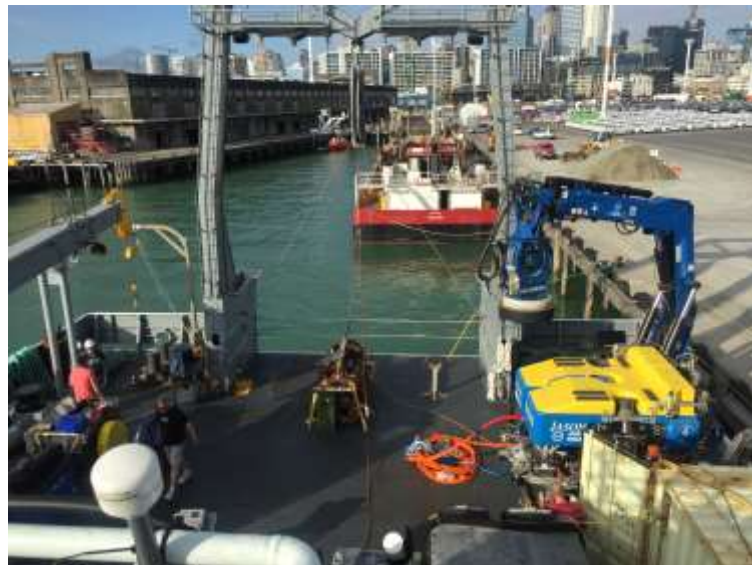
Brothers Volcano – Kermadec Trench



Thompson moored in Auckland



New USBL
Pole Set-Up



4/11/18

Aft working deck with JASON





Thompson Back in Operation!

Many, many thanks to Congress, Office of Naval Research, National Science Foundation, Scripps, WHOI, & UW!!