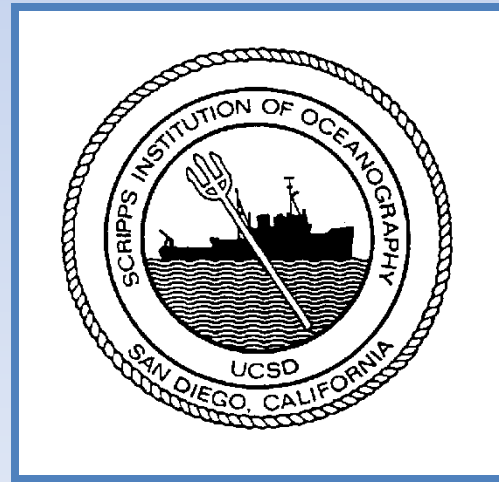


RVOC Annual Meeting April 2014

NSF West Coast Winch Pool
operated by
Scripps Institution of Oceanography



Winch Pool Mission

- Shared-use facility procures, maintains, upgrades, and provides variety of science-requested portable oceanographic winches for broad range of research vessels
- Support scientific needs of users and comply with strict safety standards (CFRs & RVSS Appendix A & B)
- Skilled technical staff for maintenance, repair, fabrication, engineering & answers
- Strive for continuous improvement

Pool Assets (NSF-owned)

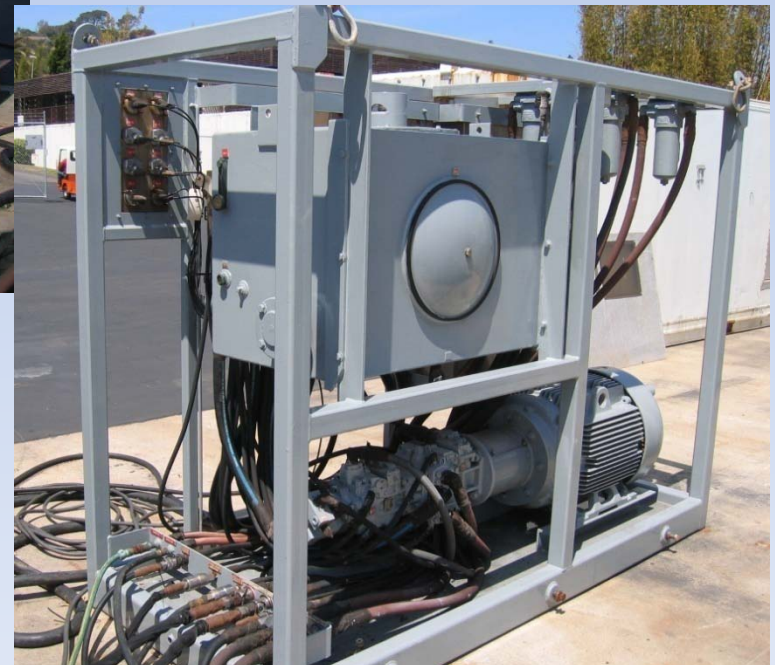
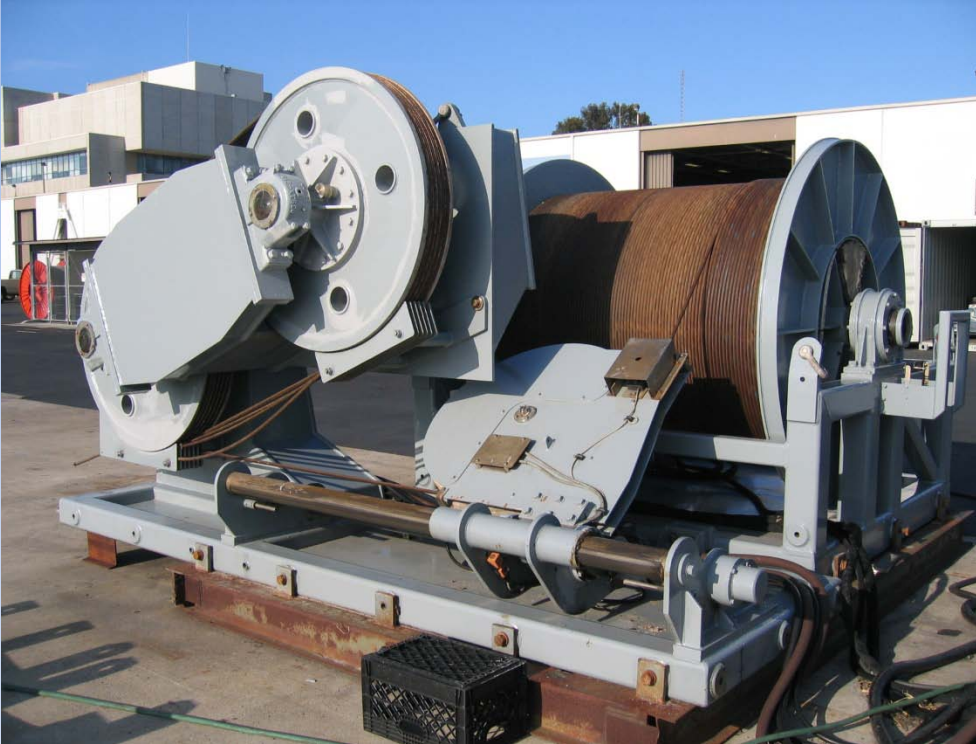
- 1 Dynacon traction winch (DTW)
- 1 Dynacon CTD traction winch
- 3* TSE mooring spoolers
- 3 sets fiber optic slip rings

SIO Assets

- Line spoolers & tensioners (1960's vintage)
- Cranes & forklifts

* 1 TSE Mooring Spooler is SIO-owned, but operated as pooled asset

Pool Assets (cont.)



DTW Components

Three deployments in 2013; only one deployment in 2014 thus far.

DTW generally returns to our facility between deployments for overhaul and service.

Pool Assets (cont.)



Dynacon CTD

Acquired fm UHMC in 2010

Formerly on long-term
deployment to R/V
MARCUS LANGSETH

Returned to SIO late 2013

Awaiting refurbishment and
the addition of a flagging
block

Pool Assets (cont.)



3 TSE Mooring Spoolers

2 of 3 spoolers heavily
subscribed in 2013.

Less requests in 2014
(40% fewer than April 2013)

Asset Utilization in 2013

- **Dynacon CTD Winch:** long-term deployment aboard R/V Langseth (11/12 months).
- **Dynacon Traction Winch:** 3 deployments, 74 days of usage (a 40% decrease from 2012).
- **TSE Mooring Spoolers:** deployments aboard six vessels (*Melville, Revelle, Sproul, Oceanus, Sharp, Knorr*). Funded days decreased by 12%.

Spooler	Days	Deployments
NSF1	71	10
NSF4	128	5
SIO	68	5
TOTAL →	267	20

Projected Asset Utilization in 2014

(Numbers certain to increase as year progresses.)

- **Dynacon CTD Winch:** No deployments scheduled. We expect interest in this winch to increase dramatically with the demand for 0.322 FO cable.
- **Dynacon Traction Winch:** 1 deployments, 36 days of usage onboard R/V Merian.
- **TSE Mooring Spoolers:** world-wide deployments aboard six vessels.

Spooler	Days	Deployments	Ship
NSF1	41	8	<i>Oceanus, Melville</i>
NSF4	27	4	<i>New Horizon, Healey</i>
SIO	50	3	<i>Revelle</i>
TOTAL TO DATE →	118	15	

SIO Assets

Line Spooling & Tensioning



Note: all of this equipment is 1960's vintage; no capability for precise level winding or tensioning.



WP Elements

- Management and Quality Control
 - Pool Manager (part time, 20 %)
 - Winch/Wire Engineer (full time)
- Travel
 - WP tech attends vessels for mob/de-mob of Dynacon deep sea traction winch
 - Occasional travel supporting other winches

WP Elements

- Normal Equipment Maintenance & Support
 - Covered by the day rate for each winch
 - Includes tech wages, materials and supplies, cable spooling on pool assets (when spooling is done at SIO Marine Facility)
- Specialized Services
 - Engineering: design, analysis, MCD development, etc.
 - Base funding amount requested annually; big ticket items called-out separately

WP Elements

- Logistics (Shipping and Crane Service)
 - Expenses estimated annually and funds requested
- Specialized Maintenance, Upgrades & Repair
 - Major overhaul/repair items not part of routine maintenance; called-out separately in proposals
 - Winch mods for RVSS Appendix B compliance, or improved functionality
 - Improvements to TSE spoolers
- Capital Equipment Purchases
 - Generally big ticket items; called-out separately in proposals

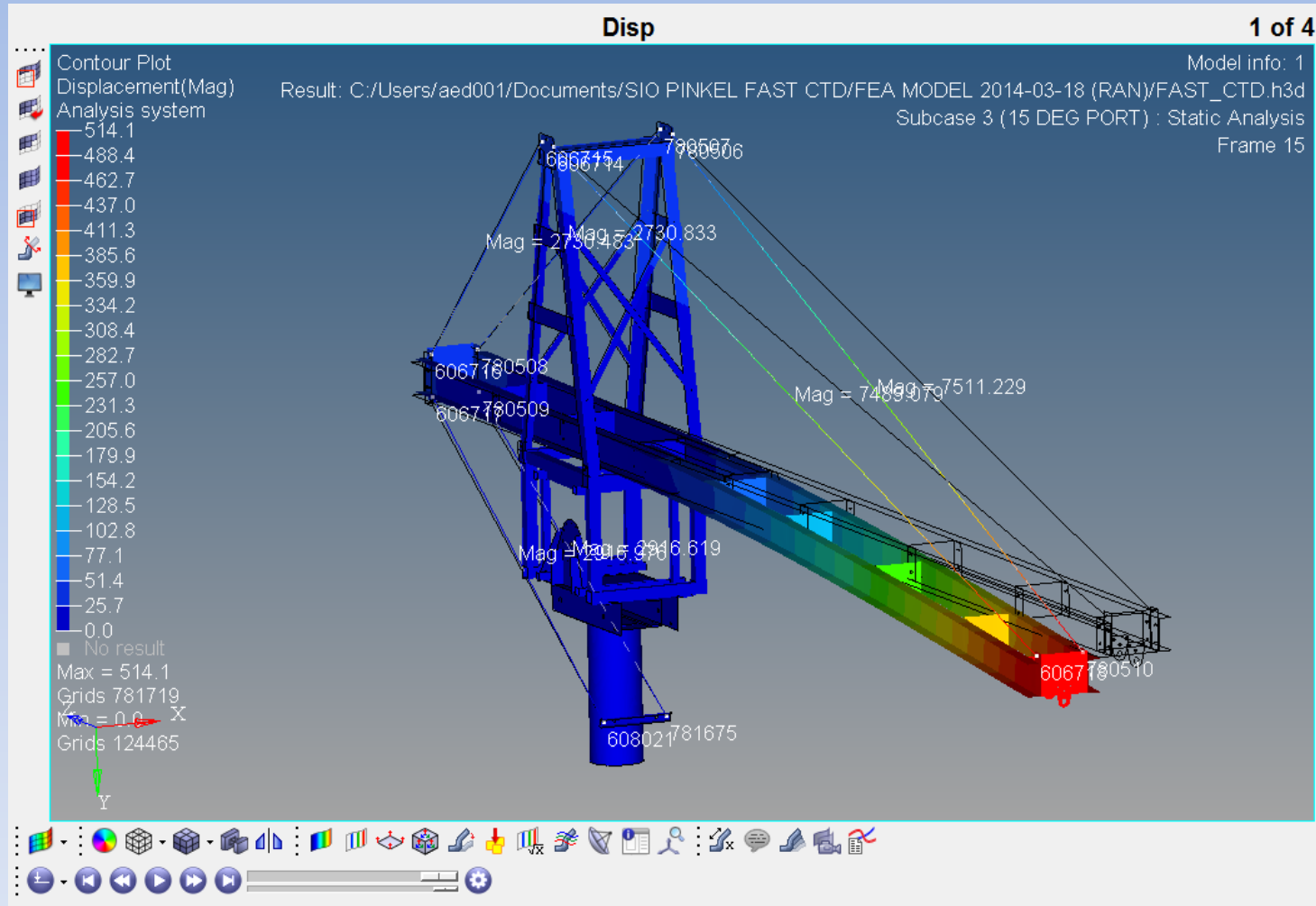
Current Challenges Facing the Pool

- Attaining RVSS App A/B compliance for pooled assets and NSF-funded UNOLS operators
- Scheduling/prioritizing engineering services
- Specifying and purchasing much needed assets (mooring spooler, portable spooling equipment, light-duty winches)
- Attaining compliance with upcoming wire maintenance standards

Current Projects

- RVSS Appendix B Revision
- R/V New Horizon J-Frame MCD
- R. Pinkel Fast CTD mod
(Altair HyperWorks FEA training)
- R/P FLIP face boom
- Commissioning one Lebus double capstan winch

Current Projects



Fast CTD mod

Current Projects



R/P Flip face boom

Future Projects

- Dynacon CTD TW refurbishment
- Dynacon CTD flagging block design and fabrication
- R/V New Horizon trawl winch MCD
- R/V Revelle CAST-6 MCD
- R/V Atlantis, Thompson(?) crane/crutch
- R/V Atlantis trawl winch
- R/V Atlantis guide sheaves