



Office of
Polar
Programs



Ocean Based Research: Infrastructure Requirements

National Science Foundation
OPP Office Advisory Committee
May 18-19, 2011

+ Research Vessels – High Level Issues

- Vessel Updates
 - Polar Research Vessel (PRV)
 - R/V *Nathaniel B. Palmer* (NBP) Rebid
 - R/V *Laurence M. Gould* (LMG)
 - Vessel Piers Status
 - R/V *Sikuliaq*
 - Icebreaker *Oden*
 - USCGC *Healy*
 - Enhanced vessel support of Palmer Station
- Future direction of ocean capabilities
 - Internet
 - Bathymetry
 - Glider/AUV Support & Handling Systems
- OPP/OCE Collaborative Efforts

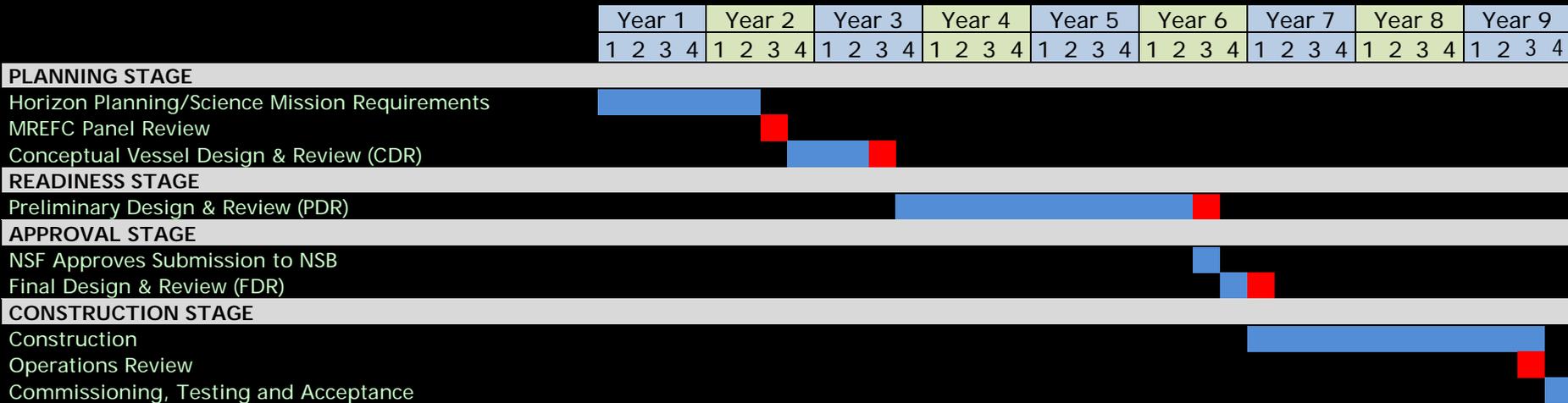
+ Research Vessels – High Level Issues

- Polar Research Vessel (PRV) Status



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- Polar Research Vessel (PRV) Status
 - Briefed MREFC Panel (Fall 2010)
 - Established OPP-OCE Joint Advisory Team (Spring 2011)
 - Initiate analysis of lease versus buy options (Spring 2011)
 - UNOLS design refresh study complete (Summer 2011)
 - Brief MREFC Panel (Summer 2011)
 - NSB Information Item & Solicit for Project Office (Fall 2011)



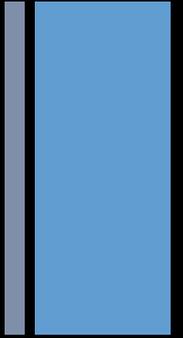


+ Research Vessels – High Level Issues

- *Nathaniel B. Palmer* (NBP) Rebid Status



+ Research Vessels – High Level Issues



- *Nathaniel B. Palmer* (NBP) Rebid Status
 - March 15, 2011 – Bidder's Conference
 - May 16, 2011 – Proposals Due
 - May 30, 2011 – Vessel Inspections & Shipyard Visits
 - June 30, 2011 – Proposal review complete – Recommendations sent to NSF
 - September 30, 2011 – Vessel Subcontract Awarded NLT
 - Current NBP contract expires March 12, 2012

+ Research Vessels – High Level Issues

- *Laurence M. Gould* (LMG) Status
 - Contract renewed Summer 2010



+ Research Vessels – High Level Issues

- Vessel Piers
 - Palmer Station Pier
 - Punta Arenas Pier



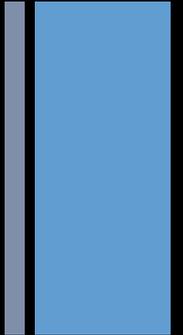
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+ Research Vessels – High Level Issues



- R/V *Sikuliaq* Status
 - Icebreaking capability: 3'
 - Length: 261'
 - Endurance: 45 days
 - Propulsion: 5,750 HP
 - Displacement: 3,665 LT
 - Deck Area: 4,360 SF
 - Science Berths: 26
 - Crew Berths: 20





+ Research Vessels – High Level Issues

- R/V *Sikuliaq* Status
 - April 11, 2011 – Keel-laying ceremony
 - June 2013 – Anticipated delivery
 - June 2014 – Full science availability





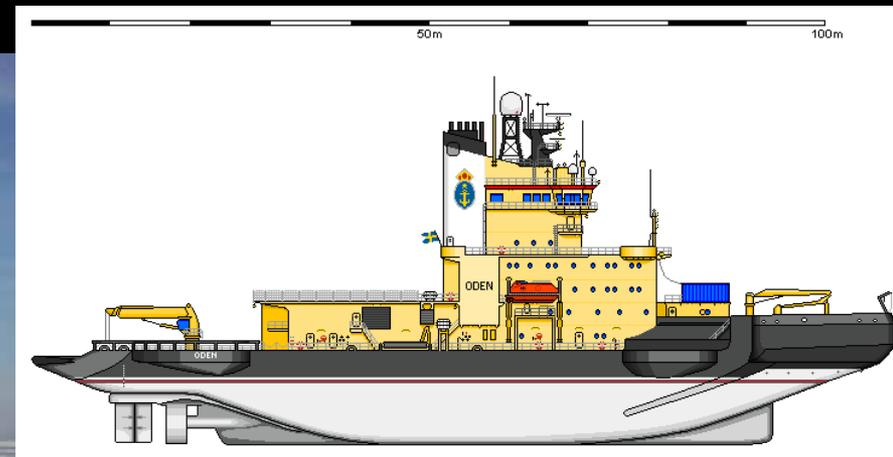
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■ Icebreaker *Oden* Status



+ Research Vessels – High Level Issues

- USCGC *Healy*



+ Research Vessels – High Level Issues

- Enhanced Vessel Support of Palmer Station
 - Regional Class Vessel
 - Length: 135'
 - Displacement: 298 GT
 - Range: 6800 nm
 - Endurance: 21 days
- Work Boats
 - Expanded operations
 - Recovery of science gear



+ Research Vessels – High Level Issues

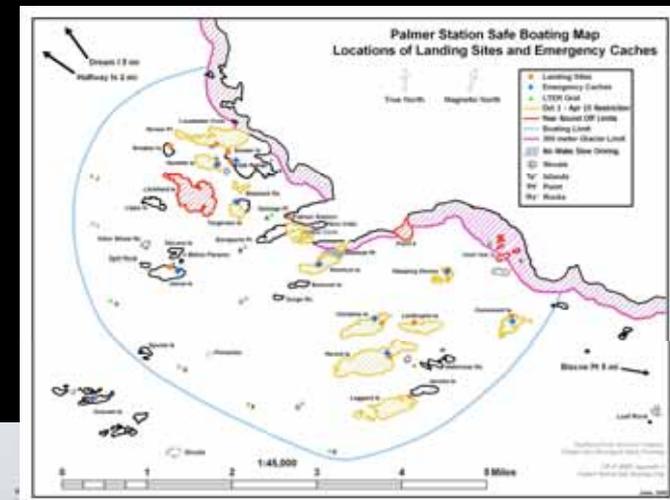
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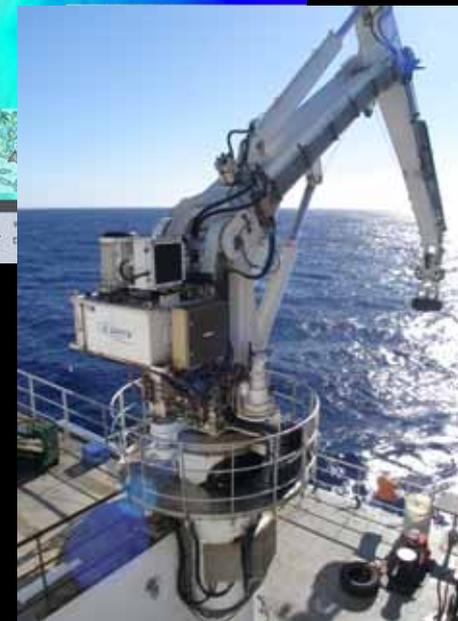
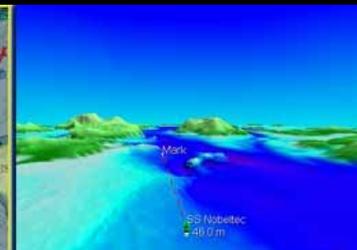
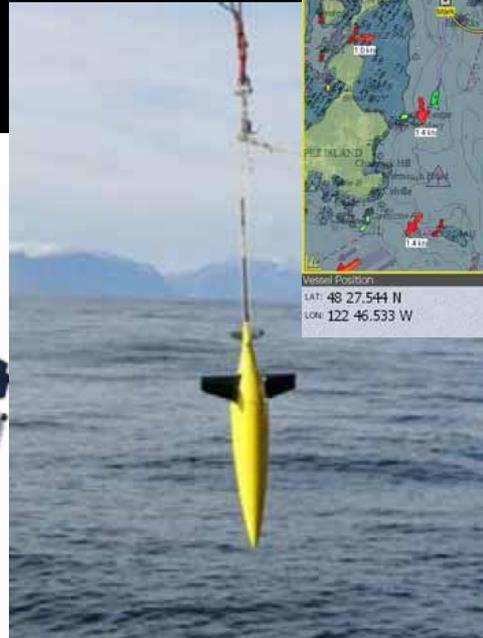
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+ Research Vessels – High Level Issues

- Future direction of ocean capabilities
 - Internet
 - Bathymetry
 - Glider/AUV Support & Handling Systems





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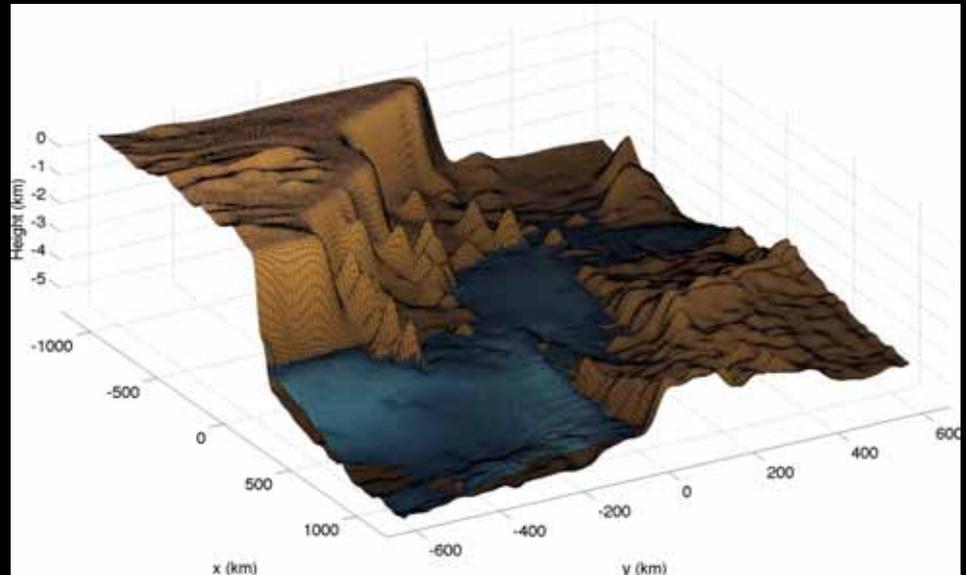
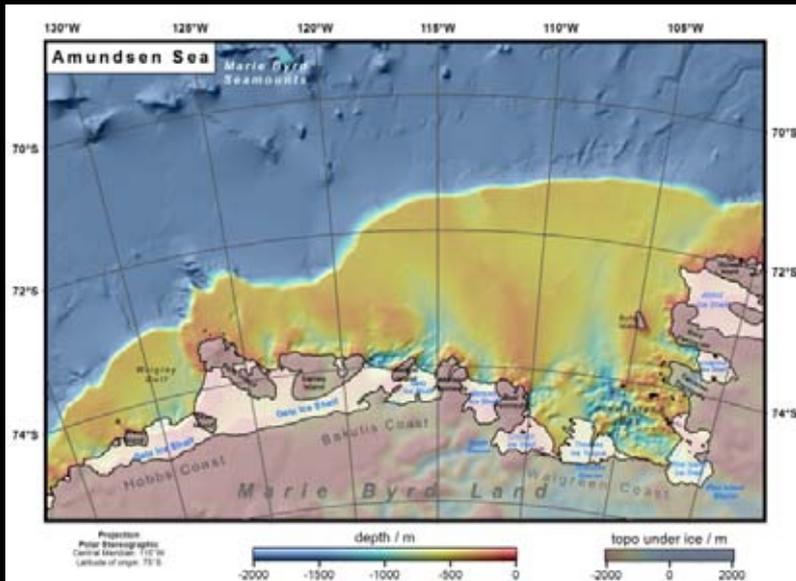
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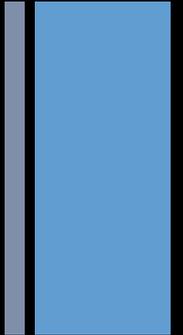
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- Future direction of ocean capabilities
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Arctic glider yields unrivaled under-ice data

-May 6, 2009

A University of Washington team recently set a world record by successfully operating one of its seagliders for six months as it made round trips hundreds of miles under the ice at Davis Strait. The result contributes to the longest continuous measurement of fresh water exiting the Arctic.....



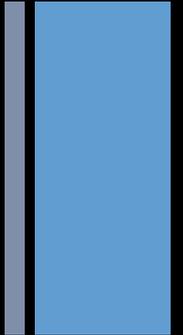
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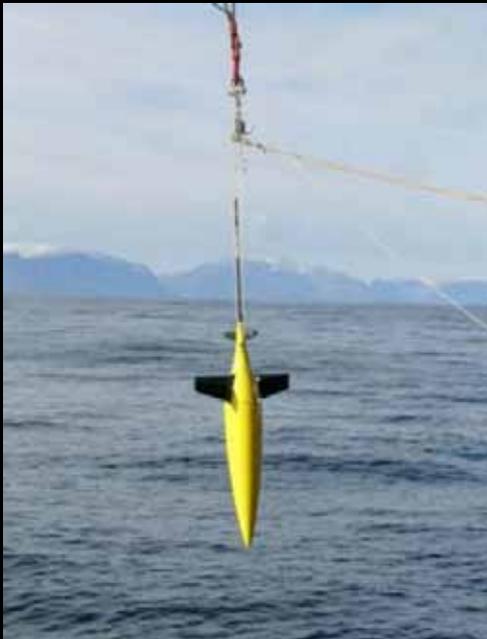




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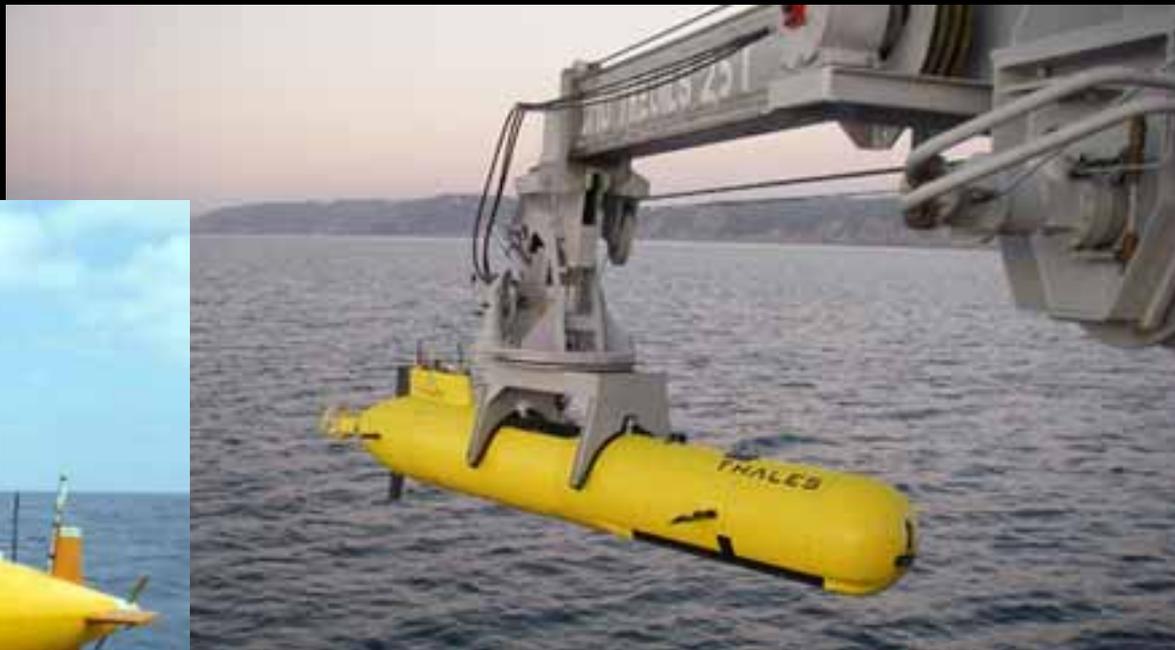


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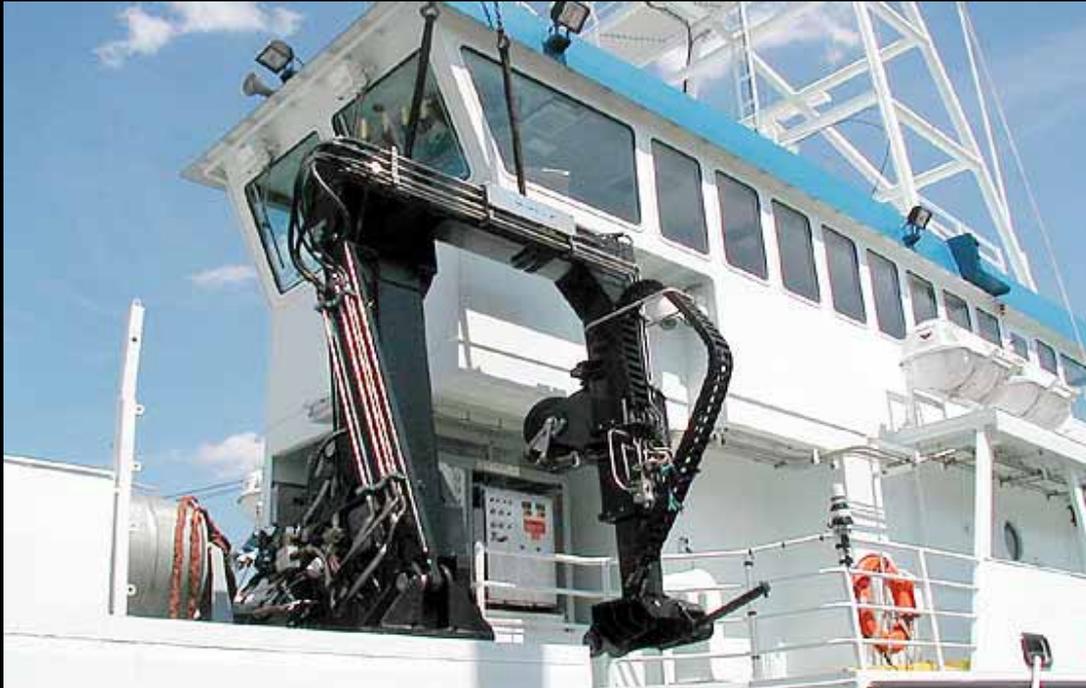
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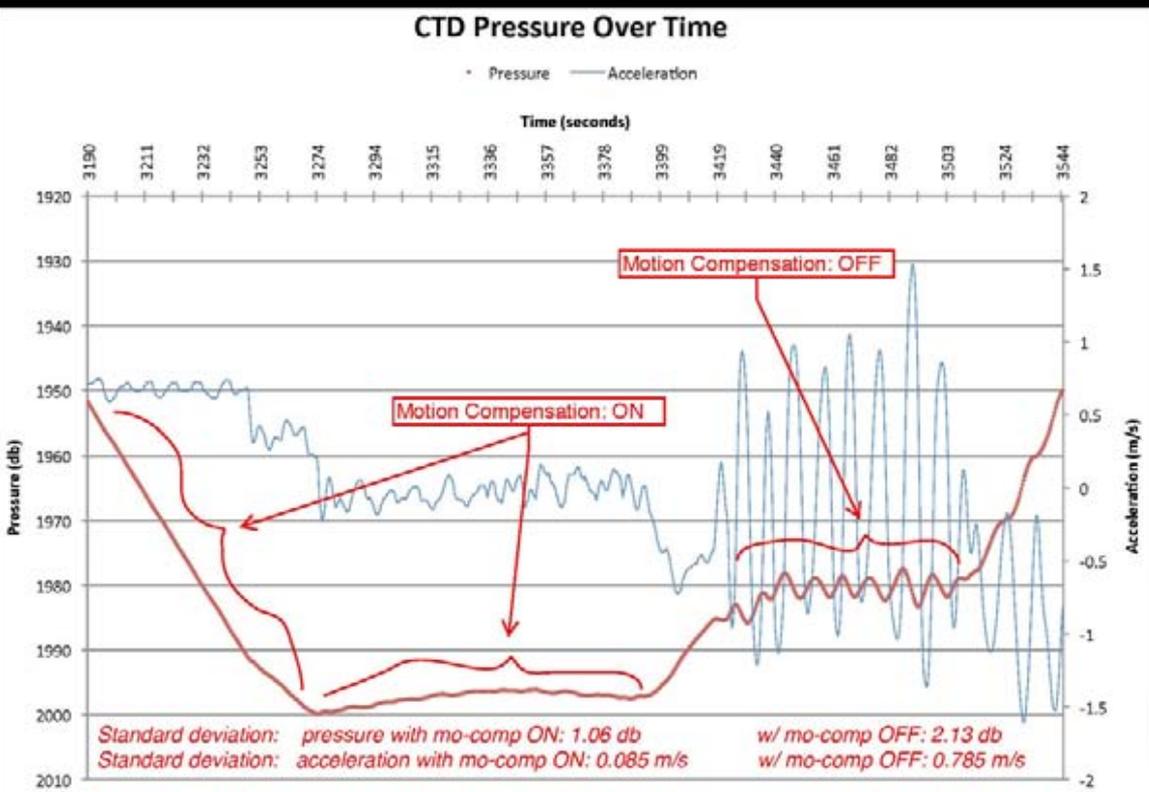
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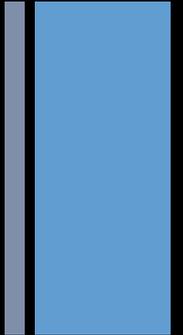
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- OPP/GEO Collaborative Efforts
 - OPP/OCE Working Group on vessel operations, design and construction chartered in March 2011
 - IMO Polar Code development
 - USCG Polar Icebreaking Requirements Business Case
 - Satellite Communications Support (Fleet-wide contract through WHOI)
 - Use and support of UNOLS Shared-Use Equipment Pools (winches, vans)
 - Sea-going technician training and exchange
 - UNOLS Ship Scheduling model implemented
 - Ship Inspection Program (June 12-13 *Healy* and *Kilo Moana*)