

UNOLS Report to the Antarctic Icebreaker Coordinating Committee

**Summary of the Council / Fleet Improvement Committee
Meeting Held on 13-15 October , 2004**



November 18, 2004

Summary of UNOLS Council and Fleet Improvement Committee Meeting

- **Fleet Renewal – Major Focus**
- **Deep Submergence**
- **Arctic Icebreaker Coordination**
- **Aircraft for Oceanography**
- **UNOLS Continuing Issues**

Fleet Renewal Activities

- **Regional Class Acquisition**
- **Ocean Class Acquisition**
- **Global Class SMR Development**
- **Ocean Observatory Facility Needs**
- **Input to FOFC Update of Fleet Plan**
- **Update UNOLS Fleet Improvement Plan**

Regional and Ocean Class

Regional Class:

- Phase III SMR Prioritization – completed July 1, 2004
- Stay engaged in acquisition process (ongoing)
 - Provide feedback to NSF (IPT representation, Operational capabilities and Performance Rqmts)
 - Insure community input

Ocean Class:

- Provided feedback in Phase II study (complete)
- Stay engaged in acquisition process:
 - Visit X-Craft (17 November 2004)
 - Provide a recommendation on hull form (Feb 2005)
 - Navy Timeline:
 - Operator Selection – 2nd Quarter, FY05
 - IPT and Shipyard award by end of FY05

X-Craft at Whidbey Island 17 November 2004



General Purpose Global Vessel SMR

Mid Life Refit considerations



2006 - *THOMPSON*

- **Steering Committee formed to update Global Vessel General Purpose SMRs**
- **Incorporate Heavy Lift considerations to address ocean observatory and long coring needs.**



2011 - *REVELLE*



2012 - *ATLANTIS*

Ocean Observatory Facility Needs

- Incorporated UNOLS working group recommendations into UNOLS Fleet utilization projections (April 2004)
- Initiated discussions with ORION office:
 - ORION/ESC is starting to develop an Implementation Plan, target completion: late summer 2005
 - FIC will keep abreast of Observatory facility needs and timelines

Vessel Retirement Dates and SLEP Estimates

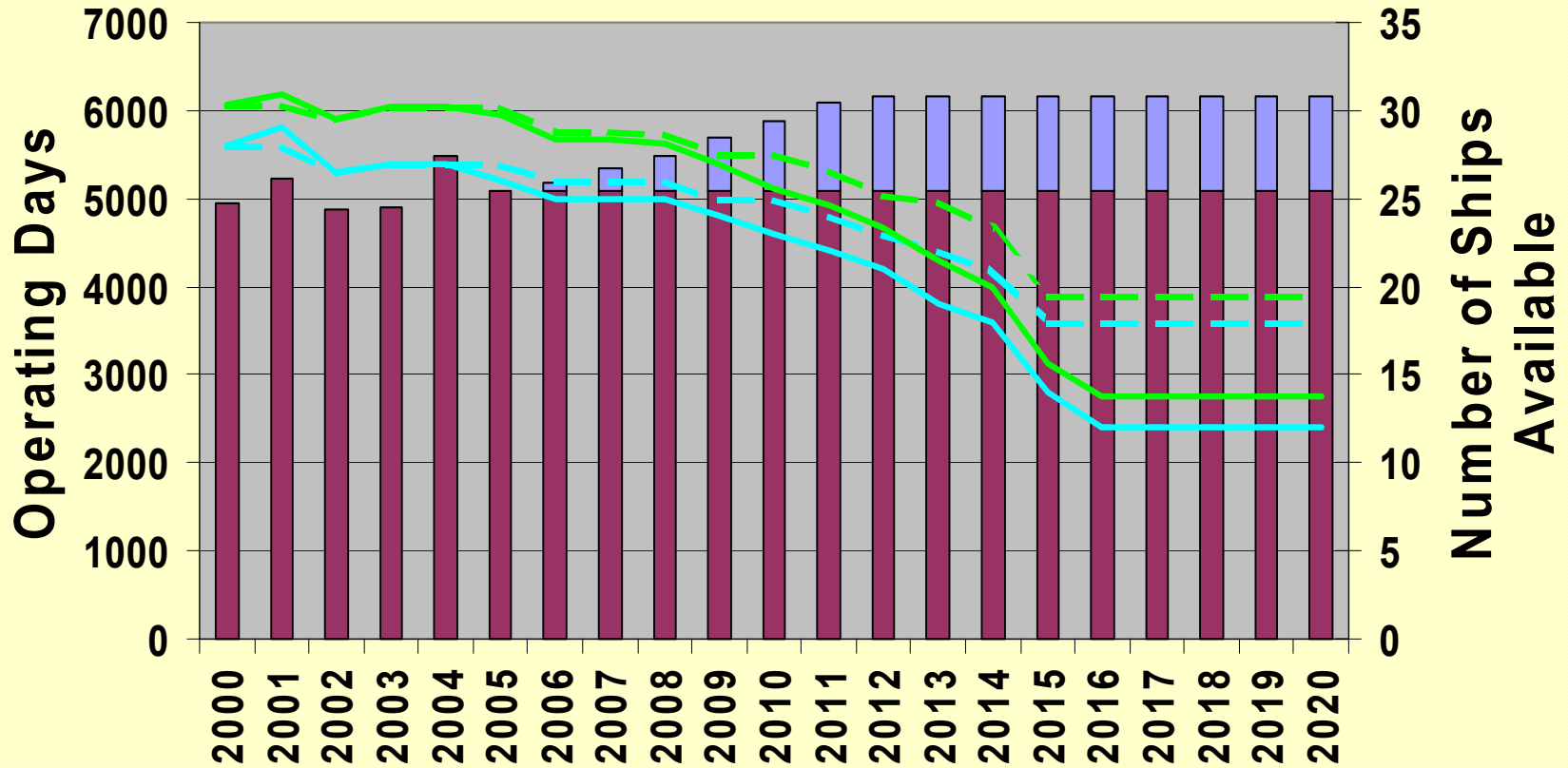
- Eleven UNOLS ships >40 m have retirement dates prior to 2020 and are potential candidates for a SLEP
- Most of the ships (>40m) can have their lifetimes extended 5 and possibly 10 years for an estimated cost of \$1.025M-\$5M per ship for a 5-year life extension.
- Extension of retirement dates for most vessels <40m is not recommended.







UNOLS Fleet Improvement Plan Outline

- **Executive Summary / Intro**
- **Identify Future Science Initiatives** – includes Major Science Disciplines, Education, Ocean Egr, and Cross cutting initiatives.
- **Current Fleet Composition and Utilization Trends** - includes updated vessel retirement dates and SLEP estimates.
- **Future Fleet Projections**
 - Addition of other facility projections (Ocean observatory, etc)
 - Other Facilities – aircraft, deep submergence facilities
 - Shortfalls and Extensions and expansions beyond the FOFC Plan
 - Future Fleet Composition
- **Fleet Budget Projections and Requirements**
- **Recommendations**

Final Draft – September 2005

UNOLS Fleet Utilization and Projections (2000 - 2020)



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|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|  Fleet Utilization & Projected Use |  Observatory Installation and O&M Ship Time |
|  Total Ships in Service (with 3 new OC and 3 local ships) |  Total Ships in Service |
|  Total Ship Days Available (with 3 new OC and 3 local ships) |  Total Ship Days Available |

Deep Submergence

Community input to NSF on ALVIN replacement and Hybrid ROV development

ALVIN Replacement Timeline:

2005 - Hull design and construction.

2006 – Hull design and fabrication continues.

2007 – Vehicle fabrication and purchase

2008 – Sea Trials, ready for service

HROV Timeline: Ready for service in 2007

National Deep Submergence Facility training session in Portland, January 2004

Aircraft for Oceanography



- SCOAR is developing procedures and criteria for broader use and accessibility of aircraft
- Interact with NCAR-OFAP and ICCAGRA
- Set up procedures for designating new National Oceanographic Aircraft Facilities
- Define basic instrument suite for UNOLS ocean science aircraft
- Set up web-based CIRPAS request system
- Determine operational guidelines and safety standards for UNOLS NOAF aircraft

Other UNOLS Activities and Interests

Ship Scheduling – Ship Scheduling Committee resolved complex scheduling issues created by budget situation

Quality Improvement - Post-cruise assessment process, Kilo Moana debriefs, application of “best practices” through RVTEC and RVOC

Community Engagement/Outreach

Marine Mammals and Acoustic Permitting Issues

Frequency Spectrum Management Issue

Shipboard Over-the-Side Handling Systems - Manufacturer winch inspections and load handling system workshop

Research Vessel Security and new regulatory requirements

Chair Elect – Marcia McNutt

Questions ???



Revised Retirement Dates

Preliminary Findings

- The SLEP estimates focus on maintaining the ship in an operational condition without enhancing the scientific capabilities of the platform.
 - Existing Intermediate Class and Regional Class vessels fall short of meeting the Ocean Class and Regional Class SMRs, respectively.
- Maintaining the current UNOLS fleet vessels beyond their designed service life will significantly impede the advance of ocean science relative to that possible with new ships that meet the SMR specifications.