

UNOLS FLEET IMPROVEMENT COMMITTEE MEETING

October 5, 2005

National Science Foundation

4201 Wilson Boulevard, Room 320

Arlington, VA 22230

Meeting Minutes

Executive Summary:

The UNOLS Fleet Improvement Committee (FIC) met on October 5, 2005 at the National Science Foundation (NSF) in Arlington, VA. The first part of the meeting was spent reviewing Fleet renewal activities. An update on the Regional Class acquisition status, operator selection, and timeline was provided. A Request for Proposals (RFP) for design/build teams is expected in the first quarter of FY06. NSF has indicated that operator selection for the Regional Class ships might have to wait until there is official authorization to construct the ship. Authorization for construction would be requested after the Phase I design process has been completed and the construction cost is known. John Freitag reported on the Ocean Class acquisition status. ONR was directed to include \$25M in their FY07 budget and that it should be SCN funds. There is also \$4M in their budget to begin the design process. The status of these items is currently unclear. The Navy FY06 budget has not been passed and they are operating on a continuing resolution.

Bob Houtman provided that status of the Federal Oceanographic Facilities Committee (FOFC) Long-Range Fleet Renewal Plan. The Plan groups the ships into two categories, Research and Survey, and three classes, Global, Ocean, and Regional. Based on agency budget projections, the overall fleet size will decrease from 48 ships to 47 by 2015; 18 ships will be retired and 17 new advanced ships are planned during this period. By 2025 an additional 14 ships will be retired while only 2 new ships are planned, decreasing the fleet size to 35 ships, provided that the funds are available to build the ships identified in the plan. They hope to have a revised draft to FOFC in November.

A good part of the meeting was devoted to a detailed the review of the draft UNOLS 2006 Fleet Improvement Plan (FIP). There was consensus that the report's introduction and executive summary should emphasize the need for the Fleet. Also, the science sections need to clearly state why ships are needed. The draft will be revised.

The need to establish research vessel guidelines for the American's with Disabilities Act (ADA) was discussed. NSF has indicated the need for new ship construction and ship conversion efforts to address ADA requirements. A UNOLS ad hoc committee will be formed to develop ADA guidelines.

Reports on various ship design, construction, conversion and transfers were provided. These included the *Marcus Langseth* conversion status, Alaska Region Replacement

Vessel, *Hugh R. Sharp* delivery and outfitting update, and *Seward Johnson II* transfer to BBSR status.

In other business, Ron Benner's first FIC term will end in January 2006 and he will not to seek a second term on FIC. Clare Reimers' first term is also ending and has agreed to stay on for a second term. Nominations to replace Ron Benner will be solicited.

Action Items:

Task Description	Action
Regional Class Actions:	
<ul style="list-style-type: none"> • Stay engaged in acquisition process <ul style="list-style-type: none"> ▪ Provide feedback to NSF ▪ Insure community input 	FIC, RCAC
KILO MOANA Actions:	
<ul style="list-style-type: none"> • Continue Select Debrief Interviews with more focused set of questions. 	FIC
<ul style="list-style-type: none"> • Compile Debriefs for posting on the UNOLS website 	Office - Ongoing
<ul style="list-style-type: none"> • Draft EOS or other appropriate article 	Dave and Brian Taylor
FOFC Fleet Plan Update - Provide the Working Group information when requested. <ul style="list-style-type: none"> • Provide Statements of Science Imperative for Research Vessels 	FIC
Design and Constructions Efforts - Stay engaged in ongoing design and construction efforts (ARRV, <i>Langseth</i> Conversion, etc.)	FIC - Ongoing
Ocean Class Planning – Provided input as requested	FIC and OCSC
Global Class: Update SMRs	Global Class SMR Committee – ongoing
2005 Fleet Improvement Plan: <ul style="list-style-type: none"> • Revise outline and plan organization. • Provide standard format for Science sections and clearly state the need for ships. • Complete draft text for all sections • Review Draft should be available for March Council Meeting 	FIC – ongoing
Ocean Observatories – Stay in contact with ORION Office.	Dave Hebert – ongoing
FIC Membership – A replacement is needed for Ron Benner. Announce a call for nominations.	Office

<p>ADA Guidelines:</p> <ul style="list-style-type: none"> • Form a subcommittee to draft guidelines for new construction or ship conversions. Establish procedural guidelines for at-sea operations. • Convene a 2-day workshop as needed • Provide preliminary recommendations to NSF for Regional Class Construction effort • Provide draft recommendations in Spring 05 	<p>Peter Wiebe will task and form committee.</p>
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Appendices:

- I. [Agenda](#)
- II. [Attendees](#)
- III. [FIC Chair and Office Meeting Slides](#)
- IV. [FOFC Fleet Renewal Plan Update](#)
- V. [Marcus Langseth Conversion Update](#)
- VI. [Alaska Region Research Vessel Design Update](#)
- VII. [Letter from Matt Hawkins to FIC regarding R/V Hugh R. Sharp status](#)

Meeting Summary Report:

Call the Meeting: The UNOLS Fleet Improvement Committee (FIC) met on October 5, 2005 at the National Science Foundation (NSF) in Arlington, VA. Dave Hebert, FIC Chair, called the meeting to order at 0830 and provided an opportunity for introductions. The meeting agenda was followed in the order as recording in these minutes. The meeting agenda is included as *Appendix I* and the meeting participants are listed in *Appendix II*.

A motion was made to accept the minutes of the [March 2005 FIC Meeting](#). One correction was pointed out. On page 9 it should read “single streamer,” not “single screw.” The minutes were approved upon the correction of page 9.

Dave reviewed the status of the FIC Action/Task List from the October meeting (included in *Appendix III*). He reported that he and Peter Wiebe have attended FOFC meetings to represent UNOLS and keep abreast of their plans to update the long-range fleet plan. UNOLS and FIC will be tasked to establish ADA guidelines for research vessels. David Chapman of the University of Delaware has been funded by NSF to study how research vessels currently accommodate disabilities. UNOLS should keep abreast of his findings. Dave reported that he has been keeping in contact with the ORION Office and Bob Detrick. There is an ORION meeting in March 2006 to review the proposed ideas for the observatory. Dave will attend the meeting.

Fleet Renewal Activities:

Regional Class Acquisition Status, Operator Selection, and Timeline - Pete Kilroy provided a brief status on the Regional Class acquisition effort. First there was a discussion on the open meeting policy. UNOLS meetings are open. Pete expressed concern over having a contractor present at the meeting. The representative from Titan

left the meeting. Mike Reeve indicated that this issue would require further discussion. Pete Kilroy presented slides, but they will not be included with the meeting minutes or posted on the web.

NSF has signed a Memorandum of Agreement with PEOShips to manage the Regional Class acquisition effort. PEOShips expects to release the RFP for design/build teams in the first quarter of FY06. Pete presented the project timeline.

Mike Reeve discussed the operator selection process for the Regional Class ships. He explained that in order to get permission to spend funds for the ship construction, they would need to make the request before the NSF Board. They cannot go before the Board until they have designed the ship and know its cost. In turn, they cannot go out for operator selection until they have permission for construction. This translates to operator selection in early calendar year 2007. Margaret Leinen may ask for guidance on this topic at the spring Board meeting. Mike Reeve explained that this is a default stance and hopefully they will be successful in moving the operator selection earlier.

The group discussed the Regional Class performance specifications. FIC had expressed concern with including science equipment details in the RFP. Pete Kilroy explained that there are three options: government furnished equipment (GFE), shipyard furnished, or purchase after delivery. If the decision is to provide equipment as GFE, they would need to provide the space reservations - footprint, weight, etc. If equipment were shifted from contractor provided to GFE, the money would be shifted accordingly. Pete explained that there is flexibility and funds for change orders.

Terry Whitlege asked if ADA modifications would be considered and the budget available to implement them. Pete replied that if the ADA guidelines are defined now and built into the designs, it would save cost. Peter Wiebe asked if ADA requirements are defined and included in the bid package? Pete Kilroy replied, "no" because the ADA requirements are not defined. Dave Hebert commented that Dave Chapman has identified some items in his proposal. ADA will be discussed later in the meeting.

There was concern over the science outfitting specifications. A better set of specs for mission equipment is needed.

Al Suchy commented that UNOLS provided many comments on the Regional Class performance specifications, yet they did not get feedback on what was incorporated by PEO Ships. Pete Kilroy indicated that they probably would not be allowed to circulate a final draft of the SOR before its release. Dan Rolland indicated that they tried to incorporate as many comments as possible; about 80% were included.

Ocean Class Acquisition Process Status and Timeline - John Freitag (ONR) reported that once the Navy begins the acquisition process, they plan to select the operator early. ONR was directed to include \$25M in their FY07 budget and that it should be Ship Construction Navy (SCN) funds. This would be included annually, so that there would be funds available to construct a ship every three years. With the ship construction funds

included in the SCN account, it is competing against all other Navy gray ships. There is also \$4M in their budget to begin the design process. The status of these items is currently unclear. The Navy FY06 budget has not been passed and they are operating on a continuing resolution.

Peter Wiebe questioned how the Navy would get community input into the Ocean Class process.

Status of FOFC Long-Range Fleet Renewal Plan - Bob Houtman reviewed the status of the FOFC Long-Range Fleet Renewal Plan. His slides are included as *Appendix IV*. The FOFC Working Group developed an initial draft. A Technical Writer/Editor/Designer was brought on board to assist. NORLC was briefed on the status of the Plan development at their July meeting. The Plan's basic message is that the ships are invaluable national capital assets critical to the future success of the broad ocean community. To accomplish federal agency missions, at a minimum it is necessary to maintain current fleet capabilities and regardless of the budget environment, ships age and need to be replaced.

The Plan groups the ships into two categories, Research and Survey, and three classes, Global, Ocean, and Regional. Based on agency budget projections, the overall fleet size will decrease from 48 ships to 47 by 2015; 18 ships will be retired and 17 new advanced ships are planned during this period. By 2025 an additional 14 ships will be retired while only 2 new ships are planned, decreasing the fleet size to 35 ships, provided that the funds are available to build the ships identified in the plan.

Bob reviewed the Plan's conclusions:

- At a minimum, there is a need to maintain fleet capabilities
- The fleet should be sized to balance current and projected requirements with federal agency budgets.
- There is the potential for rapid reductions in the fleet if appropriations for planned and authorized vessels do not materialize, or if ships now being funded are not allowed to continue through to completion.
- Planning suggests that renewal is keeping up with aging fleets.

The plan has been challenging to put together. The number of ships is much greater and the issues are more complicated. They hope to have a revised draft to FOFC in November.

Discussion followed:

- Terry Whitlege asked if the observatory facility needs had been addressed. Bob replied that since the ocean observatories are not budgeted and funded, it is not reflected in the plan. However, the text of the report makes mention of them. They have not been ignored, observatories are addressed to the level that they feel that they can address it.

- Al Suchy asked if the topic of SLEPs was addressed in the report. How are the costs being factored? Older ships are having a difficult time finding maintenance parts.
- Peter Wiebe asked who would approve this the Plan. Bob explained that the National Oceanographic Leadership Council (NORLC) is trying to work with the Ocean Action group. They are moving towards resolution.
- Clare Reimers asked how could we make sure that the FOFC and FIP reports are consistent. Bob indicated that Peter and Dave have attended FOFC meetings.
- Terry Whitledge asked what should FIC provide as input if they don't know what the FOFC report includes. Bob replied that they are looking for statements on why the fleet is needed. The Ocean Action Plan very clearly states that the Fleet renewal plan is required. This report will have tremendous visibility. The report will be carefully reviewed and scrutinized by OMB and others.

Break

Review status of Fleet Improvement Plan (FIP) Update- Dave Hebert reviewed the FIP outline. The next few hours were spent reviewing and commenting on the FIP working draft. Below is a listing of many of the comments and suggestions that were made.

- Move the SLEP section into the section on future needs.
- The introduction and executive summary should emphasize the need for the Fleet.
- The Executive Summary should be able to serve as a stand-alone glossy brochure.
- In the Future Fleet section – Use the FOFC plan as a starting point. Can the FOFC plan meet current demands?
- Explain that SLEPs are needed if construction timelines shift.
- There should be an important introduction to the science section that ties it all together.
- The group felt that there should be a common format to the sections.
- The science sections need to clearly state why ships are needed.
- Put ship needs into science introduction.
- What is the compelling need for ships now?

- Outreach and Education - Discuss the attributes for both the real experience vs. virtual experience. Explain any special needs, communications requirements, and space.
- Page 36 – Retirements chart. Either separate or color code. Only show current fleet.
- Page 38 - Explain what *Alvin* is.
- Page 40 - remove highlight
- Add a section on Polar vessel capability
- Page 41 – delete nuclear sub section.
- Remove observatories from this section.
- Page 42 – Move retirement dates and SLEP
- Page 42 – add why the SLEP is considered. “In order, to meet current demand, SLEPs can be conducted; however...”
- Page 46 – Explain why was Fleet underutilized? Explain how the ships were used.
- Page 46 – Explain what the FOY is and why they differ by ship. Keep all ship classes in document.
- Page 51 – Science berths represent non-crew bunks
- Page 52 – Show days. Add days.
- Page 54 – We should explain the change from solid to dotted line is budget reductions.
- Page 55 – what would have been needed in dollars to accommodate the deferred work?
- Fleet Costs – pie chart, show Kilo Moana as Ocean Class. Indicate the number of ships per class.
- Peter – add a chart that shows the cost per bunk.
- Cost of operating, fully utilized ship, by class for bunk cost.
- 57 – personnel (salary and fringe), fuel cost – can be added to the fleet chart.
- Remove chart showing Annual operating cost by class
- Start Kilo Moana in 2003

Lunch

Continue review of FIP Update:

- Page 61 – Start the section with an intro about projections. In the second paragraph: “The academic community envisions a need for ship support...”
- Then define the FOFC projections. Explain that FOFC Plan is constrained by budget.
- Then explain our projections that would enable the future science.
- Keep the ocean observatory projections in – just shade it lighter.
- Keep the first chart and the second chart.
- There is concern about showing utilization with out showing demand. What was deferred?
- Add the STR estimate to the chart.
- Move the construction timeline back or remove. Remove “realistic”
- Ocean Observatory: Chave report is extreme – knowing this, we are reducing it by 1/3.
- Move Fleet distribution, scheduling, and operating modes to the “Fleet description” section.
- There was discussion on who is going to read this document– who is the audience?
 - UNOLS
 - Academic community
 - Agency reps
 - Congress.
- Move some sections of the report into the Appendix.
- Move the distribution and leasing into the “What is a UNOLS Ship” section.
- Page 72 – ship scheduling – describe how the process takes place – short piece.
- Shortfalls are the priority – should be in front of report. Ex Summary
- Define possible scenarios:
 - FOFC Plan
 - Less than FOFC Plan

- SLEPs carried out

American's with Disabilities Act (ADA) Guidelines – Peter Wiebe reported that NSF has indicated the need for new ship construction and ship conversion efforts to address ADA requirements. In response, an ad hoc committee should be formed to develop ADA guidelines for new ship construction/conversion. This task has become more urgent now that guidelines are needed for the Regional Class.

Peter reviewed the draft task statement. His slides are included in *Appendix III*.

Draft Task Statement:

- Establish ADA Guidelines for new ship construction/conversion–Review and provide input to the ADA paper drafted by Terry Whitledge.
 - Evaluate guidelines on how to implement ADA requirements for passenger vessels <<http://www.access-board.gov/pvaac/guidelines.htm>>.
 - ADA guidelines should take into consideration the size of the vessel, as well as the nature of the disability (hearing, vision, and mobility). There are levels of accommodations that can be made.
- Recommend how procedural guidelines could be established for accommodating seagoing scientists with disabilities. This should consider shipboard mobility and access areas, research operations, and evacuation / safety procedures.

Terry Whitledge recommended that the committee hold a two-day workshop to brainstorm and develop the guidelines. Representatives from the US Coast Guard can be invited.

Membership on the Committee was discussed. Terry was asked to consider the Chair position. It was agreed that the Committee include sea-going scientists with disabilities.

The guidelines would not apply to the crew, since they come under STCW.

The recommendation to hold a workshop will be added to the task list. In order to meet the Regional Class schedule, the draft ADA guidelines would be needed in March.

Global Science Mission Requirements (SMRs) Update – Annette DeSilva reported on the status of the Global Class SMR. Slides are included in *Appendix III*. A committee was formed and is chaired by Bruce Howe (UW).

Their goal is to produce an SMR document that provides general-purpose requirements. As a follow-on activity, they will incorporate heavy-lift considerations and seismic capabilities. Information about their project is available at <http://www.unols.org/committees/fic/global/global_smr.html>. The committee met in December 2004 in San Francisco and had phone/web conferences in: January and March. Their current effort is to draft a community on-line survey to seek input on science requirements.

Break

Design, Construction, Conversion and Transfers:

Marcus Langseth Conversion Status - Jim Cochran provided a status report on the *Marcus Langseth* conversion effort. His slides are contained in **Appendix V**. Jim reported that a UNOLS Oversight committee, Marcus Langseth Science Oversight Committee (MLSOC), has been proposed for the vessel. The UNOLS membership will vote on adopting that committee at their Annual meeting. Jim reviewed the conversion timeline. LDEO is required to have an open bid process, which has resulted in a delay of the conversion effort. LDEO has hired a 3-D seismic science officer. They have submitted a proposal for the post-conversion shakedown cruise. The shakedown will be a two-phase approach. In the first phase, non-seismic items, such as, hydraulics, DP, OBS recovery, and marine mammal mitigations would be evaluated. The second phase would evaluate seismic operations. A 3-D seismic imaging 2-day workshop was held in September and was well attended. The request for shipyard bids has been issued. The timeline indicates that the ship could be ready for science operations in October 2006.

Alaska Region Replacement Vessel (ARRV) - Terry Whitledge gave a status report on the ARRV. His slides are included as **Appendix VI**. The tasks that remain before construction include the final design spiral, updated science instrumentation, enhance ADA configuration, update science justification, and encourage community support. They reserved \$20K of their budget for the final design spiral. They plan to complete the final design spiral once the actual funding get closer.

Terry reviewed the various shore-side facility improvements that the state of Alaska plans to support. They have determined that the ARRV support needs include an all weather dock, dedicated warehouse, shops, and administrative offices. A conceptual plan for these upgrades has been developed.

Lastly, Terry showed a project timeline. If funds become available, construction could begin in 2007.

Hugh R. Sharp – Delivery and outfitting update – Matt Hawkins provided a written status report on *Hugh R. Sharp*'s delivery and outfitting efforts. It is included as **Appendix VII**. Annette DeSilva provided a brief summary of the report (included in **Appendix III**):

- Sept/Oct 2005 – Shipyard Trials
- Sept 15 – Preliminary Acoustic trials – Overall results were excellent
- Oct 10 – Acceptance of vessel by UDel is planned
- Early Dec – Ship arrives in Port Everglades, FL
- Winter 05/06 – *Cape Henlopen* cross-decking in Lewes, DE
- Jan 06 – Caley CTD Handling system delivery.
- March 21-23 – NSF Inspection
- Late March – Science operations begin.

Seward Johnson II transfer to BBSR status - Annette DeSilva provided a brief status on the transfer of *Seward Johnson II* (*SJII*) to Bermuda Biological Station for Research (BBSR). A slide is included in **Appendix III**. BBSR is moving forward with plans to acquire *R/V Seward Johnson II* and retire *R/V Weatherbird II*. *SJII* completed sea trials on September 29th and ABS certified the ship classification on September 30th. *SJII* will arrive at Lyon's Shipyard in Norfolk, VA for a 4.5-month modification and maintenance period. In January, *Weatherbird II* will arrive at Lyon's shipyard for cross decking. *Cape Hatteras* will support BATS during this period. *SJII* is scheduled to begin operations and support of BATS in March 2006.

Kilo Moana discussion - Dave Hebert lead a discussion on the *Kilo Moana* debrief process and future plans. Slides are included in **Appendix III**. Dave review a revised set of *Kilo Moana* debrief questions that had been prepared by Terry Whitledge:

- A. What were the most positive aspects of your research cruise on the R/V KILO MOANA?
- B. What were the most negative aspects of your research cruise on the R/V KILO MOANA?
- C. Did sea conditions ever prevent or impair any of the science operations? If so, how?
- D. Was station keeping and maneuvering on station satisfactory for all science operations?
- E. Were all science systems operating properly and fully functional?
- F. What was the habitability of the science spaces and living quarters?

Marc Willis commented that only questions C and D are relevant to a SWATH. So why are these questions needed? Dave replied that there is a need to inform the community about what is real and what is not in regard to the *Kilo Moana's* capabilities.

There was a discussion on FIC's interaction with the University of Hawaii. FIC sent UH a set of questions and issues that were identified in the debriefs, but UH hasn't responded. John Freitag and Dolly Dieter indicated that the funding needed to correct some of the problems has not been provided to UH. Better interaction and improved communications with Hawaii and FIC is probably needed. Dave will contact Brian Taylor to discuss a future approach that would meet everyone's goals.

Ocean Observatories –Dave Hebert reported that he has been in contact with the ORION office. A conference is planned in March 2006 and additional information about facility needs might be known at that time.

Review FIC Action Items and Assignments – A recap of the FIC meeting actions items are provided at the beginning of this meeting report.

Other business - 2006 FIC membership changes - Ron Benner's first term will end in January 2006. He has new responsibilities at his university and has decided not to seek a

second term on FIC. Clare Reimers' first term is also ending. She indicated a willingness to stay on for a second term. Nominations to replace Ron Benner will be solicited.

The Meeting Adjourned at 5:00 pm.