DRAFT (rev 1)

Meeting Minutes
UNOLS Marcus Langseth Science Oversight Committee (MLSOC)
December 10, 2007
San Francisco Marriott - 55 Fourth Street - Pacific A Room
San Francisco, California

Executive Summary

The UNOLS *Marcus Langseth* Science Oversight Committee (MLSOC) met briefly in conjunction with the fall AGU meeting in San Francisco, California. Discussion centered on progress made and plans for completion of the Shakedown and Calibration cruises. Recommendations for setting priorities and metrics for success to be applied to the remaining portions of the cruises were discussed. Plans for 2008 and 2009 cruises and issues that impact readiness for these cruises were discussed. Key among these issues were crewing and technical support personnel and successful completion of 3D system testing.

Action Items:

Action Item	*Assigned to*
MLSOC recommends submitting Ship Operations Proposal immediately	LDEO
MLSOC to endorse priorities for shakedown and calibration cruise completion	MLSOC
Review and prioritize future equipment purchases	LDEO prepare, MLSOC comment

Appendices:

Meeting Summary Report

The meeting was called to order at 10:00 am by MLSOC Chair, Dr. Steve Holbrook, University of Wyoming. Introductions were made around the room. (Participants - Appendix II).

Status from NSF point of view - Dolly Dieter

JMS inspection report - They have not received the report yet. There was some concern over the condition and operation of the winches, which is being addressed. Tanks are in good shape with one exception. Ship needs to get to sea and start working. Sitting idle leads to more and more maintenance problems. There will be plenty of things to do when the report comes out. Tom Shipley was also at the inspection as an observer and felt the ship is ready to go and needs to go to sea. This will let problems come to light so they can be addressed.

Discussion regarding the day rate - Dolly explained how it is calculated. Paul said that his rate has been calculated at $31,886 for a 244 day schedule. The biggest concern is the timing of submitting the ship operations proposal. It will be difficult to get reviewers, get the reviews and make an award by the first of February at this stage. This is an issue that will need to be addressed if the schedule will go forward as currently planned.

Action item: MLSOC recommends that the Ship Operations Proposal be submitted immediately and asked to be informed when it was done.

Discussion about proposal pressure - There were still some proposals for 2008 and some for 2009. There were 2 or 3 MGG proposals for MCS and it looks like at least one ODP proposal. There seems to be more pressure for the North Atlantic. There was some discussion about what the role of MLSOC was in letting the community know how to proceed. Question about how a PI should know where and when to propose. Because these are very expensive field programs, Adam Schultz said that for these type of proposals, PI's should contact their program manager for customized advice about what might make sense.

Lamont Overview

Al and Paul gave a brief overview of the major milestones in getting the ship ready. Jeff reviewed the schedule for shakedown and calibration cruises and then showed the planned cruises for 2008. (Appendix III)

Holbrook clearances are in and responses from Costa Rica were very quick. No response yet from Nicaragua, which will have an impact on a significant portion of the cruise.

Reviewed the location and purpose of pending proposed work and whether or not it would fit in a schedule. Also talked about the 2009 scenario, timing for TAIGER may need to be later. Need to worry about trying to do Nedimovic too late in the season and Wiens may be too early. Work in the Atlantic for 2009 will probably go in 2010. We will need OBS for Lizaralde. Some PIs have been notified about there proposal's funding status. Sawyer will have to wait until scheduling is known.

Shakedown and Calibration Cruises (Appendix IV)

Sound source testing generally went well and was considered successful. Spacing of gun arrays needs to be a little wider. The Paravane test also went well. Streamers had four bad sections out of 160. They replaced some and sent some back for repair. They did not get to test the full 3-D spread with the guns.

MMO testing showed there is a problem with exhaust smoke because most of this was during deployment heading into the wind. Tested the acoustic monitoring system, but did not hear any whales (none there). Still need to set up forward looking cameras.

The alternate location for MMOs is in the wheelhouse. Question about how that would affect decisions about whether or not to shutdown. This alternate location would result in a smaller radius of view, especially as the weather gets worse.

Metrics for success of shakedown and testing cruises

• Shakedown 1

  o Equipment
  o Handling
  o System Operation - Birds, Recording

• Calibration

  o Calibration Buoys
  o Sound Source Characteristics.

• Shakedown 2

  o Get everything working together, record sound from streamers.

Problems

• Streamer Winch Brakes failed and had to be repaired.

  o Engineering support systems - had to sort out problems with the compressors and hydraulics. Seemed to have these issues worked out by the end of the cruise.

• Streamer Handling - need to repair the boots at the ends of streamers. Also, they can set themselves up to repair these on board. They estimate that they need to repair about 20 % of the streamers. Had to off spool and spool back on with tension.
• Fisher valves and Seismic work boat. Need to repair damage to the boat and make it ready to use.
• Remaining Handling work that was not completed during the first cruise.

  o Still need to set up with the cross connecting lines.

Shakedown cruise items remaining and planned schedule. (Appendix V)

• Un-spool and rewind streamers, remove bad sections - one streamer has not been deployed yet.
• Deploy, ballast and adjust 4 hydrophone cables - still in the process of completing this.
• Deploy 4 source strings, adjust in 3D mode, fire - not done.

Estimate of time needed for second shakedown leg.

Deployment time for 3D test estimate is optimistic because it is the first time, plus there are the items that weren't done. This means they need 10 tens, six of which were not originally planned for or funded. Normally, it would take about four days to deploy the four streamers.

Discussion about the need for six days extra.

Steve asked to what extent staffing was a factor in not finishing all the work on leg one. John Diebold estimates that with three additional people they could have gone 24 hours per day, but there were other factors that also impacted getting everything done such as weather.

Discussion about whether or not there is a possibility to add the funding for the six days. The funds would have to go to the Ewing Replacement grant, which may not be possible. Adding to the Langseth Cooperative Agreement will be too late and there may not be funds available.

Discussion about what would be lost if there were no additional 6 days. You would not have time to do a full 3D block. There may be time to deploy the equipment and collect 3-D data but not get a full block.

Bare minimum would be to get everything out and test navigation and data collection. You would try to run this for a day to be sure the navigation and processing would work.

Nancy asked about how the staffing would affect this test. Al is working on getting the people needed to complete the test and is fairly confident they will be successful.

Question from Steve Holbrook about how dropping the slope calibration would affect future permitting efforts. Sandy thought it would be important to get the slope calibration because not getting it for EWING left a big gap in the baseline data. He would argue strongly not to give up the slope calibration.

During the test cruise and during the Mutter cruise, LDEO has contracted for navigation experts that will be able to tell whether the navigation data is working correctly.

Suzanne Carbotte thought that if they were able to tow the gear correctly and get a day or so of data that they would be willing to go forward with their cruise (Mutter et al. 3D cruise on EPR). She pointed out that even if a 3-D block was collected it would not be processed and analyzed to the point where you could tell anything significant before their cruise takes place. There is always a risk when collecting 3-D data and doing the first segment of the Mutter cruise would essentially be the second test of the 3-D system.

Steve asked what the consensus of the committee is: The committee is willing to accept three days of collecting 3-D data with this ending with at least some of the time successfully collecting data and navigation.

Discussion about whether or not there was enough contingency time in this estimate for time. Net result is that without needing the full 3-D block, then you have time to try for 3 days of collecting data. If there are further problems then the schedule will be impacted.

MLSOC will write a letter of endorsement saying what are considered priorities for the successful completion of the shakedown cruises.

Personnel:

At the moment they only have two key people left in the tech group and three of eight engineers for the crew. They are still trying to go to industry and hire people. Many times they have visa issues as a further complication.

LDEO is contracting support for navigation and a gun person on a long term gap filling strategy. They hope to develop a pool of people familiar with Langseth operations that they can continue to draw on as needed.

They are also looking at possibilities for strategic hires from UNOLS and Polar Programs in order to try to train people with potential. They would try to develop from within and are looking at sharing technicians with UW. Creating structural flexibility by hiring managers separate from technical expertise.

The need to address the competition from industry; try to find people that are no longer interested in working in industry. Start by finding independent contractors and let them try this type of work.

Need to work on getting more work on the ship to offset the costs of operations to be able to operate efficiently. Ideas including partnering with industry for crewing and potentially for use of the ship by Western. These ideas for different operating paradigms will be difficult and will have to be carefully worked out and vetted past NSF lawyers. They will examine the feasibilities of new operating paradigms and funding sources.

Graham: Need to think about making data available to the community instead of the legs being PI centric. Cruise legs would be funded on behalf of the larger community instead of a single PI proposal. Just too expensive to not do it differently.

Specifics of personnel plans for coming cruises.

Al showed slides for Holbrook cruises. Second Science officer for training and data acquisition. Also a contract streamer/recording specialist that is experienced. Also add a fifth gunner for training person.

Need to hire the senior and second science officer, IT person and an ET and a junior gunner. They have offers to people for all but the junior gunner, which they have not started looking for yet.

For Mutter 3-D. They would have both chief gunners, plus one additional gunner, an additional data acquisition specialist, the contract streamer/recording specialist, a contract nav person and some others over the normal manning for this cruise.

For the Test Cruise - Robert Steinhouse is still willing to participate, a contract navigation person, Bob Arko, Two chief gunners, one additional gunner, both science officers. They are trying to get the science officers onboard by January 1. They have reasonable expectations of getting the people on board prior to this cruise.

The model that Al showed will just cover the 202 days scheduled after the shakedown. They have good candidates for most positions except for the IT person.

Equipment needs for near future.

Bathy 2000 - get with Findley and write up for one of the Knudsen group purchased systems.
Priorities for equipment - circulate by email and get input on priorities from committee as soon as possible. LDEO should submit equipment proposals by the first of the year in order to not miss the opportunity for this years equipment funds.

Meeting adjourned.