MLSOC Meeting Minutes-
October 24 and 25, 2010
San Diego, California

Executive Summary-

The Marcus Langseth Science Oversight Committee, (MLSOC) met on October 24 and 25, 2010 at the Humphrey's Halfmoon Inn on Shelter Island, San Diego, California. This was the fall meeting of this committee. The next meeting will be held at AGU in San Francisco on December 12, 2010.

The meeting commenced at 1230 with a welcome and introductions. The attendance sheet is in the appendices.

Action Items

No.	Item	Assigned to:
1.	Produce a document of support to the PEIS.	**MSLOC**
2	Provide input to LDEO on the SSSE proposal.	**MLSOC**
3	Any recommendations that come out of this meeting will first go to UNOLS Council, then if they agree, will be moved up to NSF.	**UNOLS**
4	Input from MLSOC on the general purpose oceanographic capabilities of the Langseth	**MLSOC**
5	Provide deployment experts to LDEO to advise on specific areas of general oceanographic science operations.	**UNOLS**
6	Glosten Winch Study Report to MLSOC	**LDEO**

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NSF Report

Linda Goad/NSF opened the NSF report with a discussion on the 2011 ship schedule for the R/V Marcus Langseth. Jeff Rupert/LDEO scheduler, provided details on the current published schedule. Some of the issues which were discussed were:

- The Korenaga program will need a make-up cruise for the 8-9 days lost on the Shatsky Rise cruise in 2010 due to the medical diversions.
- The complexity of the Shillington cruise due to the 2 cable work which is planned.
- The Childs Extended Continental Shelf cruise permitting will need to be tracked and closely followed as there is concern for anything which may impact the schedule.

Other Issues

- What is deadline on tank inspections? May need more time for shipyard at the end of the year.
- Technical support for the January 2011 Carbotte work.
- LDEO to continue working to schedule the USGS Extended Continental Shelf cruises in 2012. USGS and NOAA may have a special permit to work in/around the Marianas area.

NSF Report, cont. - Recent Acquisition, Tech Support, and Costs
Jim Holik/NSF presented a power point on 2010 instrumentation, technical, and marine mammal mitigation support provided by NSF this year.

Highlights included:

Funds from the Passive Acoustic Monitor System, (PAM) are going to be redirected to purchase a new 75 kHz Acoustic Doppler Current Profiler, (ADCP).

W-GECO streamer- There are 270 active sections, 88 sections are new (little to no service on it). A test cruise was suggested for possibly January 2011. Jeff Rupert confirmed that this as possible and that that they could do the Nathan Banks cruise with what they have. This is the last streamer of this type left in the world.
Jeff Rupert indicated they are also getting lead-ins, front end (DAS), and mini-boom (~value $3million). Mike Purdy pointed out that this is good to get this new streamer but science is trying to use longer and longer streamers so in 10-15years, we will need to revamp everything and get a whole new streamer. The storage of this streamer needs to be considered and LDEO is making space in a warehouse.

A question was asked as to how far into the future will the 40k streamer take the program? This will depend on various operational factors and is difficult to estimate how long. It is hoped it would last at least 5 years, but there needs to be plan replace it.

State of MG&G
Rick Carlson/ NSF

The total program is less than $29million/year and are looking for ways to increase but not sure if that will happen. Future funding looks flat. The $29M includes the ship time costs. Ship Ops can pay for ~180 days, science can pay for ~120days. At present there are 3 Langseth proposals pending.
Trying to find new ways to do seismic cruises more efficiently with one idea is that the data is collected and then placed in a pool where PI's can write proposals to write-up that data. Another option is to group proposals.

At the present time it appears that Langseth will be busy into mid 2013.

Programmatic Environmental Impact Statements
Holly Smith/ NSF

Holly provided an extensive explanation of the Environmental Impact Statement (EIS) process and an overview of the public hearing on marine seismic research which was held at Scripps on Oct 25, 2010. A discussion followed on the chirp, multibeam, and other sound sources. The chirp and MB are similar and could provide a means to lump all MBs in under the seismic equipment. The EIS will not lessen the documentation required for individual cruises. The EIS is the ultimate NMFS document and looks at the seismic work as a whole. The EIS also keeps the general public more informed, sets framework for monitoring & mitigation. Each cruise will still need separate, extensive documentation. The cruises will still need an IHA, (incidental harassment authorization) that gives the specifics for each cruise.

The MLSOC was invited to attend the public hearing. Their support was encouraged as it is important to show the benefits of the science, societal benefits and broader impact, etc.

Lamont Doherty Operator's Report- Part I
Mike Purdy/LDEO led a discussion on several topics including the LDEO Business Systems Review, upcoming maintenance and shipyard plans, strategic planning and future plans at LDEO.

The committee remembered the late Dr. John Diebold and discussed plans to name a seamount on the Cascadia Margin the Diebold Seamount. Anne Trehu and Paul Johnson are working on the application process. A memorial was held at LDEO on 24 September 2010. Filling the skill set which John Diebold brought is going to be difficult to replace.

The NSF Business Systems Review,(BSR) was discussed in detail and efforts to date were presented. A strategic planning session for the Office of Marine Operations, (OMO) followed on October 26, 2010. Additional personnel at LDEO and the Earth Institute have been assigned to the BSR. An Assistant Director for Large Projects has been hired. A timeline and corrective action have been established and must be met over the next year. An NSF panel will review this operation at the end of the one year. OMO submits 2 reports monthly to NSF and UNOLS.

Quality of the ship operations is being measured as well as how the implementation plan is put into effect. An agreement, drafted by the Earth Institute, was signed by NSF and the institute.

The next NSF ship inspection for the Langseth will begin on March 8, 2011.

The new hires will not affect the day rate and the OMO staff will provide documentation to the task force as required. LDEO will be hiring a port engineer for the shipyard, new financial person and a new administrative assistant. The ship operations must and will remain the focus. LDEO is working to make the Langseth a general purpose research vessel to accommodate the ocean observatories and other global ship cruises. They are researching possible home ports for the Langseth and this will be discussed with NSF and the science community.

Lamont Doherty Operator's Report- Part II

Sean Higgins/LDEO led a discussion on operations in 2010, maintenance and the shipyard plan, the 2011 instrumentation and equipment proposal, and an overview of 2011 operations.

Various Issues:

The upgrade to the steering system and the problems which followed were a result of software errors. This has been corrected. The engine control was a hardware issue.

The shipyard bids will be opened on November 4, 2010. Five shipyards in Portland, Seattle, and San Francisco have looked at the ship. This will be a 40 day yard period from Dec 22, 2010 to Jan. 31, 2011. The list of items identified by JMS inspection will be addressed in the shipyard. Fisher Maritime has been engaged to assist with the shipyard contract. The next JMS inspection will be March 8-10, 2011

LDEO is in the process of procuring a Western Geo streamer. LDEO is setting up a warehouse to store the new streamer and electronics, etc.

Glosten has completed a Phase I plan looking at ship modifications and locations as well as types of oceanographic winches which could be installed on the Langseth. Current plan is to purchase only a waterfall type winch. If a trawl winch is needed in the future, they will borrow it. Initial estimates are in the 700 K range. One option is to close off sections of the starboard deck to reduce the amount of water coming over the side there as it is a very wet deck.

LDEO is looking a replacing the workboat. The current one is not repairable and is required for tending the streamers.

LDEO is working with APC on the uninterrupted power supply (UPS) system. APC will come to the ship to do a survey and design an appropriate system.

A discussion on which MRU to use, either Seapath or POS MV was held.

Discussions on the feasibility of the Langseth becoming a global general purpose research vessel replacement was conducted. Having general purpose capabilities will help fill in the schedule and may result in fewer deadhead transits. For example if there is a mooring turnaround in between where two seismic cruises, the Langseth can do it rather than send another ship.

Monday October 25, 2010

Incline Village March 2010 Workshop

Graham Kent/MLSOC Chair led the discussion of the Incline Village workshop. He reviewed the basic findings and the list of recommendations that were generated out of the workshop. They would like the MLSOC community to vote on these recommendations and submit it to the UNOLS Council for submission to the NSF.

In addition to the workshop report, NSF requested that an informational brochure in layman's terms be generated. Sean Gulick, Donna Shillington, Steve Holbrook and Graham Kent are working on this and a draft has been completed and will be shown at the MLSOC Meeting at AGU. This brochure will be designed with the assistance of a graphic designer and will be used to promote the Langseth as an important seismic facility. It can be used to bringing into the classroom and will be posted on the UNOLS website.

The LDEO brochure is available and sections may go into the brochure. Meagan Cummings/LDEO can assist with this.

The question was asked on whether international collaborations were being explored and the committee stated that while the Langseth is a US facility they need to think about international collaborations. The Langseth is the only "fully capable" 3D academic facility, there are other smaller 3D facilities but they are not as capable.

Issues & Open Discussion

Steve Holbrook and Graham Kent feel strongly that we need a new funding program within NSF to stabilize funding, even if we make data sets open. See: steveholbrook.com

There is a need for advance planning as to where the ship will be especially in 2012 as the community needs to know now where to write proposal too.

Need a separate panel for judging Langseth proposals, also maybe a pre-proposal process. The stronger the proposal, the better success we will have. A mentor program may help young scientist of the next generation. We had almost 20 people young students there at the Incline Village Workshop.

Commercial Processing

Commercial processing was discussed and endorsed by the community. There are issues with commercial processing which must be considered.

- There must be very careful communication between the PI who collected the data and the commercial processor company to be sure you get what you want.
- The data processor person may know very little about geology, they may be a software person or a mathematician.
- The level of commercial processing and final product will need to be project specific.
- Discussion on commercial processing for 3D cruises. At Workshop – they agreed that the 3D should be processed commercially to make it more standard and have it happen quickly.

The MLSOC Committee made a motion to accept commercial processing as written.
All were in favor and none opposed.

Community Driven Proposals

The committee discussed at length the concept of community driven proposals and several points made during the discussion included

- A community driven program would be a result of the workshop which determined the science.
- A workshop that provided a stamp of approval would give the panel reviewers a sense that it was driven by a fairly large community of people.
- The workshop report is a good document, it must stress that the US needs to be a leader in this work and the Langseth is a very important asset.
- The facility needs to be healthy.
- Science funding needs to be increased for the community plan to work.
- Getting the data out there is the key thing to success. PI's on soft money can use the data which has already been collected.
- The Ewing dataset are openly available and over the past 4 years, we have had 14,000 downloads, but very few of these are from academic community. Can we get NSF to fund analysis of this older data?
- There must be proposal demand ahead of any efforts to ask NSF to set up a new funding program. Community driven proposal pressure will be the only way to break this cycle.
- Can these community programs be more interdisciplinary?

MLSOC discussed various models and MLSOC endorses three models of data access

- Community proposals- program develop out of a science workshop
- Open access programs- few PI's write proposal and produce open data sets.
- PI-driven programs

Motion- to accept the three classes of data access with Steve Holbrook's edits.
Paul Johnson made a motion and this was seconded by Dave Scholl. All in favor with none opposed.

The importance of geographic regional planning was discussed. It is important to attempt to forecast future operations. This is actually part of the terms of reference for the MLSOC committee.

Letters of Intent

The MLSOC in an attempt to bring the seismic community closer together will solicit
Letters of intent from the science community. It was decided by MLSOC not to use the term pre-proposal, but use "letters of intent" which contain the location, length, science set-up, weather windows, time constraints, affiliation with any other programs. These letters of intent would serve as a commitment to submitting a proposal.
MLSOC can help facilitate this by reviewing these letters of intent

Other Issues

- The concept of a dedicated Langseth Panel was discussed and MLSOC voted in favor of this. All in favor as written- yes, none opposed.

- MLSOC endorses training the next generation as well as improving the educational footprint

- Discussions on whether this new model is really more efficient use of funding. It was decided that yes, they need more money but these new mechanisms could broaden the use.

- They realize that if they do not have enough participation then the platform is going to go away.

- There were comparisons between the Langseth and Earthscope but Earthscope is an MREFC and Langseth is not, so the setup and funding are different.

General Committee Business-
The MLSOC committee planned the December 12th meeting which will be held at AGU in San Francisco.

Agenda items to be included are:

Workshop Report will be presented
Draft Informational Brochure will be presented
Conduct a Review of the Letters of Intent
Review of the items endorsed at this meeting
2011 Schedule Review and a Projection of the 2012 Schedule
Upcoming Data Sets of Interest

MLSOC input to LDEO on the Shipboard Scientific Services Equipment
Plan the next Workshop

Membership on MLSOC
Graham Kent has agreed to stay on as interim chair until October 2011.
Dale Sawyer is interested in joining the MLSOC.
Sandy Shor was nominated to serve as the MLSOC rep to the UNOLS Fleet Improvement Committee.
Ray Schmitt will step down
Michael Enachescu confirmed that he will stay on the committee.

Meeting Adjourned at 3 pm and was followed by a ship tour of the R/V Marcus Langseth berthed at the Scripps Marine Facility.