Marcus Langseth Science Oversight Committee
(MLSOC)
July 12, 2011
via Teleconference

Executive Summary-

The Marcus Langseth Science Oversight Committee (MLSOC) met via tele-conference on 12 July 2011 from 12-4 pm EDST. This was the summer meeting for the MLSOC.

Attendees:
Linda Goad/NSF
Brian Midson/NSF
Jim Holik/NSF
Rick Carlson/NSF
Rodey Batiza/NSF
Tim Schnoor/ONR
Jon Alberts/UNOLS
Alice Doyle/UNOLS
Graham Kent/UNR
Steve Holbrook/UWyo
David Scholl/USGS
Nathan Bangs/UT
H. Paul Johnson/UW
Sandy Shor/U Hawaii
Maya Tolstoy/LDEO
Suzanne Carbotte/LDEO
Jeff Rupert/LDEO
Paul Ljunggren/LDEO
Art Lerner-Lam/LDEO
Sean Higgins/LDEO
Dave Goldberg/LDEO

Introductions & Welcome
Graham Kent welcomed the group to the summer telcon of the MLSOC. Our next meeting will be at AGU in December 2011.

NSF Report
Linda Goad reported that she is retiring on July 26th and that Brian Midson will be taking over as interim NSF Program Director of Ship Operations.

ONR Report
Tim Schnoor reported that while the Navy has no immediate requirement for using the Langseth this year, ONR is doing some marine geology and geophysics work and is interested in hearing about the LANGSETH progress. Warren Wood does have an ONR program on the Melville using the portable seismic system. Tim is also tracking the discussion on the LANGSETH because of the expected transfer of the Long Core.

UNOLS Report
Jon Alberts provided an update on recent activities in the UNOLS office. This included the dates of meetings in which MLSOC would be involved. See Appendix II.

Operators' LDEO report –

Sean Higgins- provided an extensive presentation on several topics covering operations at LDEO and the Langseth. See Appendix III.

Glosten Winch Study – The study on the WHOI Long Core system is a continuing part of 2011 SSSE proposal. The feasibility of moving the Long Core to the Langseth continues to be studied.

On recent personnel changes at LDEO, Art Lerner Lam has taken over as Interim Director at LDEO replacing Mike Purdy. Helene Carton is taking over John Diebold's work and will be the Ch. Scientist for the Langseth. A new Deputy Commissioner was hired to deal with compliance issues, including LANGSETH. Martin Klein joined the marine office and Anthony Johnson has resigned.

Recent Objectives and Areas of Focus:

Objective 1:
Strategic planning continues and will be updated every 6 months with a specific call out on science support. A successful cruise support plan and cruise web sites has been added. Continuing to work to meet the business systems review

A review of this past year's shipyard improvements and projects which have totaled 7-8 million was given.

The new streamer from Western Geco was purchased. Eleven new reels loaded onto the ship and ~50-55 reels are moving to LDEO warehouse. There is also lots of other equipment from Western GECO. In addition lightly used Lead-ins from CGG/Veritas have been added to the inventory.
The credit for this goes to Jeff Rupert and Robert Steinhaus who were able to get this equipment.
Approximately $5-6M of equipment for around $400K was arranged. This is helping to bring the gear to more modern standards.

Objective 2:
Combining the Marine Mammal Observers & Tech Services proposals together has resulted in added savings. We are looking at the financial structure and indirect costs. We are also looking at all the people involved and their roles & responsibilities with the thought of "right-sizing" our organization.

Objective 3:
Maintaining the facility as a financially viable operation has been a major focus over the past year. We are looking at ways to save fuel money. We continue to research home-port options for the LANGSETH. Sandy Shor offered Univ. of Hawaii as a home port option since LANGSETH is there quite often. Extended Continental shelf work is in line for 2013 but the Marianas work for 2012 was postponed. We are researching other users outside the "standard" users. There are complications to this but it is still possible. One example is the USGS who did their own permitting but LDEO supplied the marine mammal observers.

Objective 4:
This has been to achieve general purpose oceanographic capability on the Langseth. A review of the equipment which has been installed was shown, see slides.
In going forward we need to ensure that the Winch Study and the Long Core study are compatible. There are going to have to be trade-offs. We have removed the elevator on the starboard side because it was not adding any capabilities.

The Phase II study for Long Core is going forward on LANGSETH and there are alot of factors to be considered. WHOI would co-run the Long-core facility.

Cruise Summaries

Bangs/ CRISP cruise –

Mammal mitigation continues to be a complex issue. The total amount of time for the cruise when we were collecting data was 74 %.

USGS cruise –
USGS was very excited about the results of this cruise.
Compressors and Cat engines that were bad during CRISP were fixed in San Diego and are running well. Talked to the mechanics who worked on the compressors in the 90s. They are working a lot better.

2012 Proposed schedule options-

USGS might add on some work onto the Weins program.
They are looking at a possible Pacific Gas and Electric PG&E 3-D study off Diablo Canyon, California. There are various contract issues to arrange and issues on access to data, insurance, permitting. The California Coastal committee will conduct a review. PG&E is working with the state of CA and the federal agencies to get permitting. The weather window may be an issue.
The area is 1.5times what they did on the CRISP cruise. LDEO is taking a serious look at this work and any legal issues.

Possible coring cruise (~3 weeks) but they will need a winch and other items. Talking about working with the OSU coring group. This would need to be worked around other cruises but it would be a good general use cruise. Paul indicated a coring winch is available for them to use.

In 2013 they are working on various Atlantic Ocean cruises, including USGS ECS cruise.

General Discussion followed:
A question on the condition of the 40km of streamer was asked. Sean reported that Western GECO found 85 new sections that were never used. Jeff Rupert stated that this was purchased on an "as-is" basis but bad sections had already been taken out. The only sections left were those that they would put back into use on the system again.

The MLSOC had questions about the Long Core study and how the reduced fuel capacity by adding the Long Core would affect endurance. The LANGSETH uses approx. 5200gal/day during 3D operations and approx 3000 gal/day on 2D cruises. Capacity is 220,000 gallons available which yields 40-45 days at sea. MLSOC's biggest concern is that the Long Core will adversely affect OBS Ops and will shorten

3D cruises. This next Phase will look on how we can marry the two systems and whether we can still meet the community's needs.

A question was asked about insurance for your equipment. On a 3D cruise, LDEO does take out a supplemental policy.

A question was asked about the EM120 water column package and why it was taken off the proposal. Apparently it did not do well in the panel and it needs to justified better in the community. There is still a question whether the water column logging is worth the expense.
Jim Holik is willing to see it proposed again on another panel. They are reviewed within the instrumentation community.

A question was raised on early indications of what the ice coverage in the Chukchi will be on the Coakley cruise. LDEO doesn't expect extensive ice is going to be a problem but they will need to be concerned with ice. They are working with Renee and Bernie on getting ice imagery consistently and reliably. Chase boats or over-fly support are not planned, but will have an end buoy. The plan is to work as far north as possible, then work south from there.

On tech support, LDEO has had great collaboration with Alice Doyle & Jim Holik in using other UNOLS techs. They have had 1-2 techs on each cruise and this has proved to be a great success.

MLSOC Items

Steve Holbrook reported that the glossy brochure was delayed, partially due to poor response from community for input. Hope to get it done by end of summer.

MLSOC Recommendations- See Appendix IV
The MLSOC recommendations which were sent to Council and then onto NSF were reviewed and feedback from NSF was requested. These recommendations touch on the following topics:

Separate Panel for LANGSETH proposals:
Rick Carlson thought this was a good idea but they have not figured out how to implement it. The process of how panels are arranged is being reviewed. Rodey reported that internally we have talked about having an extra panel for LANGSETH and large ship proposals would be discussed separately on last day of proposal week (Friday) so that similar size programs would be compared. The issue is to make sure the large cost proposal get their fair shake. There is merit in the recommendations and

for now they have taken intermediate step of grouping all large cost proposals together.

Data Access & Availability
The three models of data access, community programs, open-access program and PI driven programs are the direction NSF is going and in the foreseeable future, they will have all three options open. This is essentially a done deal. Brian Midson mentioned the new data policy which is considering automatic release without directive. Jim Holik mentioned that all underway data is automatically public.

Proposals for Specific Regions
Grouping proposals together in specific ocean regions improves the overall schedule efficiency.
The planning letters should help in this and thereby reduce transits.

Planning Letters.
Graham Kent did get a wave of them from AGU and we should request them again this year at AGU. MLSOC should put out a call for planning letters. Still seems like the long-term forecasting issue, MLSOC is still trying to work out how they can fit into this process.

Data Processing
MLSOC endorsed commercial processing and Rick Carlson said that this it the model they are working on right now. If they can do something for Cascadia they will use this. The Bang's CRISP cruise is using commercial processing which was donated by a Spanish company.

Improving the Educational Footprint
NSF endorses this and others are working on ways of doing this. Funding continues to be a limiting factor. A question was asked if NSF education has any interest in being involved in this or would it all be MG&G core? There is both Geo Education and OCE education.

Rick Carlson offered in regards to the recommendations, NSF views all of them with favor. Question is whether they can execute and if so, how.

Broadening Access to Langseth Products for Scientists and Educators
Maya Tolstoy reported on the Columbia undergrad course taught during the spring semester.
See Appendix VII. Five students sailed on the Shillington cruise with travel funded by NSF. First semester prepared them to go to sea with an effort to send them as

educated watch-standers so they could contribute. Gave them a broad background of proposal process, how ships are scheduled, what happens at sea, how different teams work together, science objectives, cruise design and watch-standing duties. The students met with the marine office to learn about ship operations and with personnel in the OBS lab. Data collection was covered as well as the importance of having both a scientific and practical/technical background. Overall it has been a very terrific experience with great feedback from a very enthusiastic & engaged group of students. Part of the goal was to entrain more students into the field and into graduate school. One student commented after the OBS lab/Marine Ops tour that: "that made me want to go to Grad school." All were earth science majors or minors. Steve Holbrook is thinking more about graduate student and early career scientists. Maya would like to be able to give them a stipend so that all students could participate (even those who need to work in the summer) but they cannot get paid and get credit.

Input from OBSIP Group

Jeff Babcock reported on current activities within the OBSIP group and a review of the OBSIP schedule for 2011-2013. At least 2/3 of the cruises deal with OBSs. A lot of the scheduling and consideration go hand in hand and issues such as cancelled or postponed cruises have a detrimental affect with their operations. Need to have good communication between the OBSIP and LANGSETH groups.

Large portion of their OBS pool is being committed to long-term programs so they are trying to keep some out of rotation for shorter-term active work. Plus, their stocks are over a decade old. What is a good number of instruments to have "in stock" for these other programs. Is 50 enough? The need for a full-time OBS program coordinator was also discussed.

MLSOC Committee Items

Call for Nomination- See Appendix VI.

The MLSOC committee is currently comprised of 7 members. Terms of reference allow for 9 members. The UNOLS office will distribute a call for nominees. At present the committee is lacking a marine mammal person and a general oceanographic person. It was also suggested we have someone with long coring experience.

Graham Kent has offered to remain as Chair until just after the December 2011 AGU meeting when we will step down. Paul Johnson will also step down after the AGU meeting.

Next meeting: MLSOC on Sunday December 4, 2011 at AGU- San Francisco

Meeting Adjourned: 3 pm Eastern