

**Executive Committee Meeting  
February 24, 2003  
Washington, DC**

NSF Presentation - Henry Gholz provided general background on the current activities at NSF. Henry mentioned that Polar programs will be moved out of its current directorate, and may be moved directly into Rita Colwell's office, and perhaps expanded. The expansion should provide increase research funds. Henry thought the LTER Bioscience issue was great, and said he had 60 copies provided by NET for distribution by NSF. He said that attendance for the LTER symposium on the 25<sup>th</sup> would probably be light (although there was a large turnout from NSF as well as USGS, NOAA, NASA and EPA). There will be nine LTER site reviews during 2003.

One of Henry's largest current tasks is working on the NET proposal and cooperative grant renewal. NSF is now in its final negotiations, focusing on the core LTER efforts. Conditions that are tied to the grant are specific items such as strategic planning for the Network Office. At the same time, the LTER program as a whole will be undergoing strategic planning efforts itself. A second requirement will be increased communication between NET and NSF. A third detail will be reduced efforts in education and international activities. The education plans are still being formed with help from Sonia Ortega, and the ILTER activities are still being refined. The emergent main interest of the Network Office will continue to be towards IM and IT. Henry noted that the NET grant, as a cooperative agreement, can be ramped up or down, as well as being shut down within as short a time as 6 months. There will be three main functions of NET in the new cooperative agreement:

1. Contribute to LTER Network itself, including Network-wide IM and research,
2. Contribute similarly to the general ecological science community. These two are related, and will not be separated. This function involves a role greater than just LTER network support.
3. Respond and serve needs of individual LTER sites.

Henry does not see the LTER Network and Network Office able to function separately at level of performance expected.

Q: Jim Gosz – Is there a source of support for network strategic planning?

A: Henry would consider this.

Q: Bob Waide – Has there been a response to 20 Year Review?

A: No, and there is not likely to be one.

Q: Bob Waide – Should we plan on intermediate reporting on strategic planning to NSF?

A: No, not necessary.

Henry noted that the 20 year review was done by the BIO directorate even though LTER now receives core funding from five different directorates in four divisions plus supplemental funding from INT. This is somewhat problematical and more attention to direct involvement of the other directorates will be needed. Henry noted that NSF has formed an LTER ad hoc panel for discussions of funding (Gholz, Penhale, Taylor, Campbell, Li, Spengler, Baerwald). This committee was used for discussions of the Network Office renewal, in coming up with activity detail. In funding NET, DBI will directly support the IM/IT of the NET grant at a level of \$100k/year.

The recently signed federal budget is currently "in process" and is higher than expected. Since NSF is hoping for a doubling of budget, this is in line with about a 12-25% increase over five years. Henry also noted that the core LTER site funding was now a line item budget at the NSF Center level, and fixed within the NSF budget.

**LTER Exec – Closed Session Meeting:**

Bruce Hayden said that there seemed to be two major areas of the Network Office renewal: support of IM/IT and associated activities, and support of ecological science including synthesis. There was some discussion of the LTER reviews and strategic planning, and how extensive this effort will be. John Hobbie noted that LTER is already a focused scientific activity, so a large effort of review and planning, as compared to other programs, should not be needed. LTER already has existing efforts and strategic planning should focus on what will happen from now into the future. Nancy Grimm added that the self examination efforts should not be extremely extensive since this has already been done at a number of levels, from CC meetings to the NAB and 10 and 20 year reviews.

There was discussion of needs for cross-site, collaborative research. Implementation could be via a managed effort to specifically support cross-site efforts as part of the individual site core research. This could be implemented as an augmentation of all sites. The augmentation should be in the range of \$100k/year, earmarked for the cross-site effort. This will result in an overall budget increase of \$2,000,000/year for the LTER program. The augmentation will need to be permanent. An example would be to study regional nitrogen budgets, which would be a long-term effort with continued research needs related to global change. There could also be a separate program to support optional funds through NSF, for proposal supplements for more specifically focused efforts.

For strategic planning, Bruce pointed out that standard business practices probably don't apply to LTER, but rather we should focus on how other successful scientific programs operate. There is a need to define what LTER means by synthesis. It is clear that there are a number of levels, ranging from new, standardized efforts, to integrated work of existing research. Funding for synthesis or IM/IT needs to be institutionalized, so that it can be guaranteed into the future. Use of funding from other directorates is problematic since it is not guaranteed, and can disappear at any time.

There was a discussion of LTER Network-wide commitment from individual sites, and how to better include all sites. There also needs to be some sort of review, some way to review sites, and ensure conformance to the cross-site efforts. Perhaps on the intersite project level, a core of the participants could impose the requirements, research and participation.

There was also discussion of inequities of past site funding. The differential site funding was a problem, but has now been addressed by NSF by providing additional base funding to the three LTER sites which have received a lower level of funding in the past. Now, consideration for ramping-up funding needs to be made. This was in place in the earlier days of LTER, but should be re-instated. With NSF's consideration for potential new LTER sites, the LTER EXEC agreed that funding of the existing network was most important. This has been emphasized in both the 10 and 20 year reviews. In many regards, this needs to be part of the overall strategic plan of the LTER Network. Although LTER will undertake a strategic planning exercise, feedback both from and to NSF must be part of the overall strategic plan.

### **Meeting with Mary Clutter, Joann Roskoski, Kerri Ann Jones, (the new INT division director), and Frances Li**

After introductions, Mary Clutter mentioned that although the president just signed the 2003 budget, the specific details won't be known until the actual funds arrive at NSF. Although there is an increase in the range of 12 to 13%, BIO will not get much of an increase, and NEON is not in the budget at all. NEON, however, is still in the current OMB budget (2004) through 2008.

Bruce Hayden presented issues involving the LTER Network discussed by the LTER EXEC in the previous closed session. He emphasized the extensive review and planning the LTER Network has undertaken at a number of levels. This has been at both the individual site and Network level. This means there is a dichotomy of bottom-up science and top-down control. This is a recurring theme at all the LTER CC meetings, and has been discussed extensively. The LTER ten year review pointed out the LTER Network has not achieved the potential of an integrated Network. The twenty year review said that there continued to be a tension between individual site science and cross-site collaborative research. LTER has yet to implement a truly integrative project because this has not been part of the historical LTER site funding. Some cross-site funding has been available, but this has always been short-term funding. Bruce pointed out the elements of the strategic plan for the LTER Network. This needs to be based on high quality site science combined with integrated Network-wide research. What is needed now is to have site research

include a large, integrative, Network wide component. This needs to be implemented via an augmented program of Network science themes for all the LTER sites, and also to include sites beyond the LTER program.

In discussions of strategic planning and reporting to NSF, Mary emphasized that NSF wants to see what the community wants, rather than what NSF wants. She said that the strategic plan needs to come from the community out of its science. NSF itself should not itself be part of the strategic plan. In discussions of International LTER it was clear that International efforts need to be part of the overall strategic planning. There have been a large number of meetings, but now that the ILTER Network is established, the question must be raised as to what the U.S. LTER Network wants to get out of the working relationship. It should not come out of cooperative efforts with NSF. There is still a difficulty in project funding since international collaborations need to be funded on a parallel track, with funding being coordinated from both U.S. and foreign entities. Funding for ILTER activities has come historically from DEB, with quite a bit of ad-hoc INT funding for various meetings and exchanges.

## **February 25, 2003**

### **LTER Symposium 8:30am – 12:30pm**

#### **Afternoon Executive Committee Session:**

Peter McCartney gave a background of the NIS advisory group (NISAG) to the LTER EXEC. He mentioned the initial discussion of the NIS Advisory committee at the February LTER IM EXEC meeting in Santa Barbara, and its initial conference call shortly afterward. Don Henshaw at AND is the NISAG chair. Peter outlined the tasks in advising the development of the LTER NIS such as the funding, potential need for standards, site participation, evaluation etc. Discussion suggested the NIS advisory committee could be the group to form the IM portion of the LTER strategic plan. Discussion followed on the commitment needed by the individual sites. The NIS will need proper metadata. Since many datasets might not be well documented or have structured metadata at all, populating the metadata itself will be a significant effort. This will be true no matter what metadata standard is used. EML was specifically written for ecological data, its use will enhance both site data as well as permitting network level integration. It will be important to present this to the LTER CC for formal agreement, and have the buy-in from the individual site principal investigators. The Executive committee endorsed a plan to have the NIS advisory committee present a plan for implementation and formation of NIS prior to the May LTER CC meeting. This plan will be discussed and put up for adoption during that meeting.

The EXEC then discussed the potential for new LTER site funding that could come for potential coastal or future polar sites. The EXEC felt that the new sites would be expected to function as a current LTER site, including data management, online data, CC, Exec and other committee participation. The LTER Network Office put up an information Web page for prior LTER site competition. It will be important for the LTER Network to have input for the LTER site requirements. There has been discussion in the past that information on how the LTER Network and sites function be assembled to assist new sites. The EXEC decided it will be important to have input to NSF to include operational information in future RFPs for LTER sites.

Further discussions included synthesis activities. Philip Taylor mentioned there could be future competition for up to three new coastal marine sites. The Executive Committee was glad to have this discussed with LTER prior to the competition. The EXEC did not think there were any real negative aspects of adding new coastal sites, and the inclusion of the new diversity these sites would offer would further opportunities for collaboration and new technologies to be included within the LTER Network.

Jeff Morrisette gave a presentation on the EOS Core site validation, focusing on MODIS products. He presented some of the Bigfoot strategies to scale from field measurements to the roughly 1km scale of the MODIS data products. Seven LTER sites are currently listed as EOS core validation sites. Jeff also mentioned the current research announcement for collaboration between validation sites and data availability. This could be a potential area of collaboration between LTER and NASA researchers. JVC will coordinate with Jeff and poll the LTER sites as to their interest in the validation and the site use of MODIS data.

The LTER Executive Committee discussed the funding of travel to the 2003 ASM meeting. After consideration and discussion, the Exec decided to have the Network Office fund hotel and airfare for site representatives of the meeting was seconded and approved. The amount allocated to each site will depend on the average airfare costs for each site. After discussion of meetings by associated LTER groups such as the planned data management workshop, a motion was approved that each site will send the following as a minimum for each site:

- 2 Principal Investigators
- 5 Students
- 1 Education Representative
- 1 Data manager

The Network Office would arrange direct payment of the air travel and hotel costs for the nine official site representatives. Sites will be asked to reimburse meals and local travel.

The EXEC brought up an issue that the LTER 20 year review recommended there be an ASM every other year. The EXEC thought this was too frequent given the organization efforts, costs and the amount of time follow-on and synthetic activities take to develop and proceed. A motion was approved that LTER should hold ASM meetings every 3 years rather than the 2 recommended in the 20 year review. Bob Waide also mentioned that there was also a recommendation that LTER participate in joint symposiums. The EXEC decided that this was good, but should be done on an opportunistic basis. The EXEC discussed activities that should be included in the September ASM meetings, and thought that one of the important aspects would be to include an organizational meeting of collaborative nodes focusing on specific collaborative research.

Sonia Ortega presented information regarding the activities of the LTER Education committee. This included information on the strategic plan that the Education Committee that has already been developed, and the current interactions with NSF. NSF had planned to have LTER perform an evaluation of educational needs, but currently does not plan to proceed with this. The LTER Education Committee itself has undertaken the preliminary evaluation of activities which resulted in a request that there be a formal Education representative on the LTER EXEC. The EXEC felt that for LTER education activities, there needs to be an inventory of what is going on, that the education activities and strategic plan must be integrated with the overall LTER strategic plan, and that the Education Committee should present their needs and request for a representative on the LTER Executive Committee to the full CC Committee for consideration.

The EXEC discussed strategic planning logistics, and the EXEC thought that the EXEC itself should act as the "LTER Planning Team". This planning team was proposed to develop the strategic plan, and the EXEC felt that its committee was probably the best entity to work on this. The EXEC itself agreed to work on this. The first meeting was proposed and approved for April 5 and 6 at Sevilleta as the first "Assessment Meeting". This would be the first planning effort for strategic planning of both the Network as well as how the Network Office strategic plan fits within that.

The LTER EXEC discussed updates of the vision, mission, and goals of the LTER Network in light of finding of the 20 year review. The EXEC developed the following vision, mission and goal statements for the LTER Network:

**LTER Network Vision:**

Attain predictive understanding of long-term patterns and processes of ecological systems at multiple scales to improve the nation's capabilities to identify and address environmental challenges.

**LTER Network Mission:** The LTER Network will increase the effectiveness of current site research and site scientists to address the broader scales. This will be accomplished by identifying questions that can best be answered by multi-site collaborative research.

The Network will facilitate this effort. In this way, the network will enable synthesis beyond the scale of individual sites.

**LTER Network Goals:**

- *Understanding*: Gaining ecological understanding of a diverse array of ecosystems at multiple spatial and temporal scales
- *Synthesis*: Using the network of sites to create general ecological knowledge through the synthesis of information gained from long-term research and development of theory
- *Information*: Creating well designed, documented databases that are accessible to the broader scientific community
- *Legacies*: Leaving a legacy of well designed and documented long-term observations, experiments, and archives of samples and specimens
- *Education*: Using the uniqueness of the LTER programs and network to promote training, teaching, and learning about long-term ecological research and the earth's ecosystems.
- *Outreach*: Providing knowledge to the broader ecological community, general public, resource managers, and policy makers to address complex environmental challenges

This will be accomplished by providing improved integration of data, enhancing cross-site research and facilitating multidisciplinary collaboration.