

**LTER Network Coordinating Committee Meeting
May 7-8, 2003
Kellogg Biological Station**

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NSF report

The Network Strategic Planning (SP) process is being mirrored by processes at NSF. LTER feeds directly and importantly into environmental research. For example:

- The successful "mini-symposium" that focused on the interface between ecological science and other sciences at the sites.
- BioScience issue-congratulations to John Hobbie and all the authors.
- The ASM this September.

Budget -There's not a lot of slack in the LTER budget because of the ASM this year. Supplements have now all been processed for SLTER and REU and extra \$25K.

People who are interested in the RET program should act quickly. The ACERE report establishes a 'venture fund' which comes from program officers. Henry has to nominate proposals to this fund, but he needs suggestions soon.

The 2004 OMB budget is on the Hill, but there's a long way to go. In the 2004 budget, the Biocomplexity program is scheduled for a 70 % increase. NEON is in the President's budget for two sites at \$12 million with the prospect of ramping up. Requests for HYPERION (for NCAR) and EARTHSCOPE are both in there as well.

NSF's budget overall in 2004 in OMB is higher- but BIO -- LTER's directorate-- is slated for a decrease of up to 3%. One important thing is to keep in mind for the Strategic Planning effort is that the 2005 budget focus will be on "Cyber-infrastructure" and the CC will have to consider how LTER can accommodate network-wide large initiatives for the 2005 budget.

Network Office - The most important decision this year was to renew Network Office - and this was done based on several assumptions - one is that neither the LTER Network nor LTER NET Office can function separately. The NET

is integral to the Network, and their strategic planning is integral to the Network as a whole, too.

NSF is looking closely at NET to develop better communications, expectations, focus of programs on facilitating synthesis, meeting organization, NIS, and leading technology development.

NSF thinks of NET as having three main foci:

- 1) leading integrative research,
- 2) serving greater global scientific community and cross-site research, and
- 3) serving individual sites in technical assistance.

All three of these areas are critical, must become more visible, and require buy-ins by larger community.

NSF would like to build the public relations aspect by developing a system to gather relevant nuggets. Henry will be sending us reminders, perhaps quarterly, to enhance this activity. These should be included in the annual reports but should be highly digested verbiage, which is valuable for a variety of uses.

Miscellaneous comments - Note the NSF Strategic Plan report - it follows on the NRC report, which covered the entire Federal government. It's a very important document which we should all be looking at. The theme 'the decade of synthesis' fits in well with this report, which focuses on environmental synthesis in three ways: coupled human and natural systems, coupled biological and physical systems, and coupled people and technology. The cross-cutting themes are education and communication infrastructure.

There is a group organized out of Rita Colwell's office focusing on environmental observatories. This group is looking at information management and synthesis, and were excited to hear about things like EML. So far it's just a discussion group, but there's an expectation that LTER will be a model in a wide range of new programs, such as information management.

In DEB there's a new Center for Evolutionary Synthesis, which is very definitely built on the NCEAS model. The Foundation is clearly looking at ways to foster synthesis and your discussions here bear on the discussions at NSF surrounding this issue. What happens at LTER feeds back, definitely.

There is the likelihood of a competition for 2 or 3 new LTER sites in near-coastal marine environments. This could be in 2004, with funding from GEO. This competition would focus on coral reefs, mangroves, continental shelves. Marine LTER sites have been discussed for a long time and in the MRE this year there's a formal request for marine observatories in 2006.

Another area that feeds into synthesis is the development of EML - this is a major contribution from LTER and allied communities-it's a huge step forward and needs to be used and promoted. Another achievement is the ramping up of Hydro and ClimDB. It is essential and long overdue that all sites be fully engaged in these databases. It's often assumed by the community out there that because it's LTER all this data is readily available and it's a shock sometimes to find out that's not true. Starting with the climate data is an essential step. Forest Service and NSF would love to have all those datasets combined so you only have to look in one place for all of them. There's no concern about protection or offense and we need to accomplish this and move on. We've also talked about the USGS participating in the HydroDB.

The question is: "How does LTER maintain its core identity in all these relationships: to NEON and other initiatives?" There's a lot of talk of how things could be, which is positive- rather than how things shouldn't be, which is negative.

ILTER - In the global context, it's extremely important time for ILTER as well. Jim Gosz has developed a network that now encompasses 25 countries. The question is now what do we do? You all got a copy for a plan for NSF's support for ILTER sent out from Francis Li. We'd like to use it for the basis for discussion on the following:

We have a network that's been formed and coordinated at NET thanks to Jim Gosz and Bob Waide and his staff at the Network Office. But now this entity is sitting there and is ripe for use. Coincidentally, there is a new director in the International Programs office and so there is potential for building on to the existing ILTER. Discussions between (new INT program directory) Kerri Ann Jones and Mary Clutter will be elaborated further this afternoon.

Jim has asked to resign as chair as ILTER. Hen Bau King will be interim person. The annual ILTER meeting is scheduled for Beijing this September, which may or may not happen.

NSF proposes to provide full support for a coordinator for ILTER as well as a training session for IM. This training would include a one week-long session in the U.S. and potentially a second week-long session in a foreign country. Looking ahead, Drs. Clutter and Jones are looking at a research initiative in the 2005 budget focused in cross-site research for International work.

Question: (Phil Robertson) - As a site PI, I get questions about cross-site competitions. How should I respond?

Answer: (Henry) - Looking back, there were three competitions spaced 3 years apart. There hasn't been an analysis of their success, but they seem to have been good. They were established in a way that utilized flexibility in the core programs. That has disappeared because of lean funding and the opportunity is not as readily there as it was. It would take a new initiative for funding. Right now there is no immediate plan for specific x-site funding. But do not ignore other NSF programs for doing research you want to do.

Question: (Mark Harmon) - NEON: why should congress support genomics and other stuff at NSF when it's just doubled the NIH budget?

Answer: (Henry) - Can't forget that BIO has had good increases recently. NSF budget is increased in 04 scenario.

Question: Has there been any interest in homeland security and is there any interest in involving the Network in it?

Answer: (Henry) - So far it's been separate and there has not been earmarking for any funding. So far the focus on cyber infrastructure is in large part is driven by security in the federal government. Certainly in the engineering directorate there is a lot of direct connection but not so much in BIO.

Network Office Cooperative Agreement (Bob Waide)

Bob Waide reviewed briefly details of [NET cooperative agreement with NSF](#) to make sure that the CC understands how goals for NET are being developed with the NSF. Before the NET renewal proposal was submitted, it was discussed with the CC. After review of the proposal, there was a site review visit which led to a revised scope of work. The new cooperative agreement is based on this revised scope of work.

Key issues for the Network Office include synthesis, the Network Information System, ILTER and Education, all of which are on the agenda for discussion at this meeting. These discussions will help direct the actions of the Network Office in regard to these issues.

The initial task of the new Cooperative Agreement is the development of a Network Office Strategic Plan. Coordinating the Network and Network Office strategic plans is very important. Waide introduced Jack Jekowski of Innovative Technology Partnerships, who is facilitating the strategic plan for the Network Office. This effort is funded by the University of New Mexico. The timeline for development of the NET strategic plan has shifted. The Cooperative Agreement indicates that the plan must be finished by the end of the second year of funding, but the plan is to finish within 12 months and to present it to the Coordinating Committee at the Santa Barbara meeting in 2004.

The Cooperative Agreement calls for better bi-directional communication between the sites and the Network Office. To initiate this process, Waide will try to visit all the sites to give a short presentation to the site on what NET is doing and ask for input as to what could be done better.

Question: (Gus Shaver) - You had an ambitious proposal, does this mean that the whole thing has been restructured?

Answer: (Waide) - No, we had modularized the proposal into discrete items- the first 5 items were accepted-

these are our 'core areas.' We requested additional funds for synthesis, including science theme meetings. NSF did not accept that proposed activity in whole. They did, however, give us \$50K out of a requested \$200K and will consider increasing that amount based on the results of the strategic plan. We also requested \$200K for NIS and they gave us \$100K. We also requested additional funds for ILTER and Education, which were not granted. All in all we got about \$200K more than we were told was our bottom line.



Question: (Mark Harmon) - Are there milestones or a timeline for the IM tasks coming up so we can evaluate progress?

Answer: (Waide) - Yes but we're still in the process of developing these with the NIS Advisory Group and the Coordinating Committee

Comment: (Gholz) - There's also a big nebulous area that you all need to work out, the specific role of the NET in site science. NSF doesn't want to dictate the answer, but the LTER community needs to wrestle with it.

Comment: (Gosz) - We must integrate all strategic planning efforts. We must get something to NSF that might be the basis for increased level of support. We have to target early 2004 to get into the 2006 budget. We'd like to get on a faster track for this, so we'd like to get the NET strategic plan going faster to facilitate this effort.

Comment: (Gholz) - You must also be opportunistic. If there are opportunities for submitting to a "cyber-infrastructure" program in 05 you don't want to wait until 06 to get on that wagon.

NIS Advisory Group - (Mark Harmon)

Harmon presented the results of the meeting of the NIS Advisory Group, which took place at KBS on May 5-6.

The [NIS Advisory Group presented three recommendations](#) to the CC:

o Motion: that the network adopts a strategy of a tiered trajectory toward improved IM functionality for synthesis. The trajectory increasingly incorporates common, structured metadata. The network adopts a general goal of improving each site's position in the trajectory. The NIS Advisory Group will develop metrics for assessment of progress at site and Network levels. Approved 23-0.

o Motion: that individual sites commit to populate and update existing basic network databases (ClimDB, HydroDB, SiteDB), where applicable. This commitment would also apply to any new network databases agreed upon by the coordinating committee in the future. Approved 22-1.

o Motion: that NIS Advisory Group continues as a standing committee. Approved 23-0.

Discussion - Don Henshaw discussed the status of ClimDB, which now houses climate data for 21 sites. There are presently 113 met stations and 42 hydro stations in the system. Queries allow sorting by station as well as parameters. You can download or graph any variables against each other. It is important that the remaining sites participate in the

system.

A joint project with the San Diego Supercomputer Center explores web service technology to facilitate harvesting of data from other databases. The collaboration provides expertise that LTER doesn't have. In this issue of [LTER "DataBits"](#) there are several articles describing many important aspects of this project.

Comment: (Gholz) - I spoke with Doug Ryan about this and he said that USGS has in their statement that the data they produce is available for free re-distribution. USGS is very happy to see other groups use it.

Question: What are plans to bring in USGS data? Are you downloading data that hasn't been subjected to quality assurance/control procedures?

Answer: (Henshaw) - You can actually ask for historic data - get older, quality checked data - as well as real-time data.

Question: (Shaver) - I like the idea of capturing a dataset per year but John Hobbie distributed a note talking about different kinds of synthesis from conceptual modeling, to scaling, etc. How much thought has been given to different ways and different kinds of synthesis activities?

Comment: (Harmon) - This will be a feature of the SP - an example might be that modeling might like some validation and verification, but will also be dependent on hydro or climate data to run the models, and there will be some decisions to make. I do believe that many of these aspects of discovery - where is the data? Where do I get it? How can I aggregate it? Will be very useful for many things? If you're setting up an experiment then you might look for background information - which might be quite a different use and you 'd be using the data for 'scoping' but we need to figure out how to maximize it for each one of these things.

This selection of projects (one dataset /year) should depend on the community.

Comment: (McCartney) - Gus's point is important - we are building features to address this. SiteDB is a summary of information about sites - not looking for primary data but designed to capture results. We also recognize that synthesis goes on ad hoc at the site-to-site level, and while we're trying to working question driven activities, we also want to get data on line so we can respond to ad hoc queries. We recognize the importance of a multi-level approach, focusing on a few discrete question-driven things to prove the concept, as well as try to answer high-level questions such as 'what's going on at all the sites and why'. It's a range of products, short term and long term, and it's a process of progression.

Comment: (Gholz) - Don was understated in his comments about HydroDB and ClimDB, considering enormity of what could be accomplished. The minimum climate data required to participate is virtually nothing. This is an enormous benchmark to get this far and it's a good place to start.

Comment: (Harmon) - NISAG fought through issues and we want to make sure they're captured. The IM committee will meet in June to begin defining "tiers". Eventually the process will lead to an NIS plan that will fit into overall SP. 'Tier trajectory' - recognizes that we are all in different stages or tiers of a system. We need to recognize that and move ahead. The minimum standard is the lowest amount of metadata a given site has online. It's important for the CC to make these decisions. We believe this is the best body to make these decisions. We will try to get everyone advance forward, rather than to make everyone uniform right now- buying into the strategy rather than trying to level everyone out right now.

Question: How specific should we be about what these 'tiers' are? There has to be a general consensus about what each tier is.

Answer: (Harmon) - The SP will have to define these. We haven't done it yet. "Tiers" will ultimately be defined as synthetic functionality that is available at the site. We were deliberately fuzzy but they are defined by functionality that is available - software and hardware.

Question: Does everything rely on importance of collecting these datasets? I see very few syntheses that require such broad data - we want to do our synthesis on already synthesized data -not harvest raw data.

Answer: (Harmon) - But if you're doing a modeling exercise you do need that raw data.

Comment: (Gosz) - The CC could create a motion to encourage sites to raise level of information management toward a common goal.

Question: Defining the tiers will help facilitate communication at the site level.

Answer: (Harmon) - Information managers will develop tiers and will be voted on in the fall. If we delay on these decisions, then how do we make progress now?

Question: Do Information managers think this is do-able?

Answer: Yes, they've been active throughout.

Comment: (Gholz) - A network wide initiative will require additional resources and you can aim toward the 2005 'cyber infrastructure' program NSF is planning.

Comment: (Harmon) - Motion is to commit as a network to get these databases completed. We're assuming that the "science-theme databases" is agreed upon. If you vote for this here, it will oblige the sites to participate.

Comment: Right now it isn't in the renewal guidelines, but if it appears in the future, it will be the 'big stick' sites use to actually do these things. Right now there are no metrics or methods of assessment. Those criteria are in the sites' review and renewal guidelines but we have not had the metrics for assessment.

Comment: (McCartney) - EML and SITE DB -if you don't know what it is, spend some time with your information manager to get up to speed.

Comment: (Reed) - Add verbiage to paragraph one to direct NIS advisory group to identify metrics needed to accomplish tasks?

Discussion of "Bylaws" Jim Gosz

Not far along enough to address this right now- perhaps we should create an ad hoc committee to get to this and come back to it. The CC made many suggestions for changes to by-laws document. Gosz will make changes and send out revised document electronically.

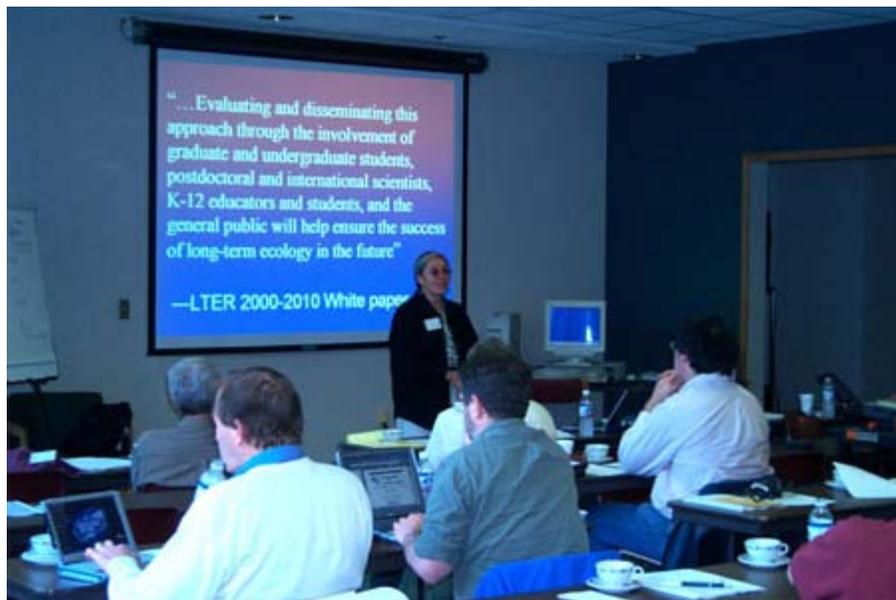
Comment: (Waide) - We're bringing the SP to the NAB in June and asking for comments so keeping up with that time line is appropriate.

Strategic planning - [Jim Gosz's presentation](#)

[Education Strategic Plan](#) - Ortega and Bohannon

Question: Will there be an education assessment?

Answer: The Education Committee still wants to do this, but we must get funding for it, which may involve applying to a program in EHR for it. Like the DM committee, we have a dedicated group of people and it will



happen.

Question: (Ortega) - Education is a standing committee, right?

Answer: (Gosz) - Education will be one of the standing committees we identify in the bylaws. The education committee will present their strategic plan to the coordinating committee, which may or may not adopt it verbatim.

ILTER - Francis Li (NSF)

NSF INT recognizes ILTER as a good program that it would like to maintain and grow. To that end, INT has drafted a proposal for this effort, and is presenting the draft to the LTER CC. The process will be:

1. Discuss the draft proposal with LTER CC here today
2. Discuss LTER CC comments within NSF
3. Revise draft proposal during summer of 2003
4. Discuss revised proposal with ILTER reps in September 2003 at the ILTER meeting
5. Discuss ILTER comments within NSF

Discussion:

The main issue revolved around whether ILTER should "lay more track, or move more freight?" Other issues include:

- What is the role of US in ILTER?
- What is the relation of US LTER to ILTER?
- What is the role of the Network Office in ILTER?
- What is the role of the proposed coordinator and relationship to US representative and to ILTER?
- How to go about IT training?

Action item: Francis Li would like to know how many PIs at sites have done ILTER work. Francis asked PI's to tally at sites and send her a count at fli@nsf.gov.

The Executive Committee presented four motions for consideration:

Motion: that the U.S. LTER Network initiate an ILTER Standing Committee. Robertson moved, Childers seconded. Approved 23-0.

Motion: that there be nominations for the U.S. LTER representative to the ILTER Network. This person would chair the U.S. ILTER standing committee. Action on this motion was postponed until the fall CC meeting, and Jim Gosz was elected interim representative until that time by a vote of 23-0.

Motion: that the location of the ILTER Office be selected through an open competition. Hollibaugh moved, Tilman seconded. Motion was withdrawn after discussion.

Motion: that the LTER Network Office be authorized to compete for the ILTER Network Office location/management. Motion was tabled after withdrawal of previous motion.

Day 2 Announcement - Jim Gosz Announced that ILTER meeting in Beijing has been cancelled.

[See continuation of this discussion](#)

Strategic Planning

Break out groups were formed to address the issue of scientific questions to be presented to NSF as part of the Strategic Planning process. Five themes were chosen (leaders in parenthesis):

Outreach (Jim Ruzak)

Information management (Peter McCartney)

Legacies (Alan Knapp)

Education (Bruce Hayden)

Synthesis (John Hobbie)

The charge of these groups was to devise a list of questions that suited to be addressed by the LTER Network. Gosz suggested that we continue to think about why the LTER network is best poised to answer these questions. The eventual target is to develop at least a white paper that addresses these issues by February 2004 to gauge NSF response.

Aliases will be created for breakout groups [for SP development]. Group leaders will need to flesh out final evaluation aspects and get them to the Executive Committee by June 1 so we can get them to the NAB by the 20th of June. They will be reviewed again at the meeting in September, so we can go to the NSF with them next February.

NCEAS

The following motion:

The LTER Coordinating Committee believes that scientific syntheses are essential for significant and novel advances in ecology and in the relevance of ecological research to society. Because of the major role that the National Center for Ecological Analysis and Synthesis (NCEAS) has had in initiating and fostering such synthetic activities in ecology, and because of the unusually high quality and important scientific and societal impacts of the work that NCEAS has fostered, we strongly endorse its continued support by NSF.

Motion was made and approved 23-0. The resolution will be submitted to NSF.

NEON

There was a discussion about creating an ad hoc committee to address ways of supporting NEON. The charge of this committee would include orchestrating visits to DC to work with Appropriations Committee members and sub-committee members. The committee should be for promoting large biological infrastructure in general, not just NEON.

Motion: to create an ad hoc committee on major biological infrastructure with the immediate goal for support for NEON and continued support for future preparedness.

Comment: We need leadership by people who have been at NSF who understand these processes.

The motion was approved 23-0.

Center for Evolutionary Synthesis

Gosz proposed a motion that we express our support for the proposed "Center for Evolutionary Synthesis" in a letter to NSF. A motion to this effect was made and seconded. The motion was approved 23-0.

ILTER revisited

Motion: that the LTER Network recommends to NSF that continued support of the ILTER network be at the Network Office. The U.S. representative to ILTER, who will be elected at a later date, can be located anywhere. Details of how the Network Office would support the U.S. representative will be worked out. The motion was approved unanimously.

All Scientists Meeting status

Bob Waide gave an ASM status report. There is a revised agenda on web site. A program subcommittee chaired by Dan Childers have been instrumental in organizing an all-day ERF/LTER joint session.

- Please sign up for PI lunches with graduate students
- Will roll out 'strategic planning' on Saturday late afternoon.
- Full day workshops should be on Sunday -when we have large rooms available so we don't have to move around
- ILTER/NSF meeting will be on Monday- may include a business meeting pending further developments. IM meeting will also be on Monday
- Registration is now available on the web site. We are not taking credit card payments for registration. Registration for the LTER meeting covers coffee breaks and mixers. Everyone must pay for registration themselves. You must register for both meetings if you are attending both LTER and ERF meetings.
- We must have more workshops registered. There will be 75 total and 15 concurrent working groups.
- Everyone else must contact hotel directly and make their own reservations.
- NET will pay for Executive Committee participation in ASM.
- Sites will send a list of nine representatives to NET, which will pay travel and lodging for these people directly. NET is not paying per diem - we are just paying for the hotel.
- We need more recommendations for sociologists to attend the meeting.
- Please send me the list of 9 people as soon as possible and then make your reservations
- ILTER participants: There's money for 30 people in the supplement - about one from each country --and we have asked them to provide support for others. Last time each one paid for about one more attendee on their own.

LTER Symposium at NSF - February 2004

Proposed title for next NSF-LTER mini symposium: "Applications of LTER science to Management" including water, agriculture, streams, management, plague, everglades.

Comment: (Gholz) - We need to update our invitee list. You all have a lot of connections in DC so we need to get more people coming. Our list is about 75 people and about 50 people come. Please help NSF to update this list.

Dates for the spring 2004 meeting are the last weekend in April 2004- we have to block dates at NCEAS as soon as possible. There is a list of possible synthetic themes from the last CC meeting. However, our plans were base on the expectation that there would be money for a post doc in the Network Office to help with the science theme. NET only has \$15K, which could support a graduate student or information manager. NET will emit a call for proposals for the spring 2004 science theme.

Summer 2004 Coordinating Committee planning

We can't make any decisions now because there is no representative from BNZ in attendance.

Meeting adjourned - 12:19 p.m.

Attendees:

John Vande Castle
Henry Gholz
Bob Waide
Jack Jekowski

Donald Henshaw
Sonia Ortega
Berry Lyons
James Brunt
Gus Shaver
Eugene Kelly
James Gosz
Alan Knapp
Steward Pickett
Tim Fahey
John Hobbie
Bill Michener
Mark Harmon
Langdon Quetin
Dan Reed
Dan Childers
Peter McCartney
Patty Sprott
John Blair
Tiffany Gann
Ted Gragson
Doug Goodin
Emery Boose
Aaron Ellison
Charles Hopkinson
Frances Li
Scott Collins
Mark Williams
Jim Rusak
Jason Kaye
Bruce Hayden