

Minutes from UNAVCO E&O Standing Committee Meeting

March 13, 2006

Denver, Colorado

Documents and presentations supporting this meeting may be found at http://unavco.org/edu_outreach/about/eosc_3-06.html

Attendees:

Krista Barbour, Eric Calais, James Cano, Katie Chick, John DeLaughter, Susan Eriksson, Michael Hamburger, Rusty Low, Jessica Murray, Lina Patino, Erin Pettitt, Will Prescott, Kim Schramm, John Taber, Becca Walker, Jennifer Yu

Call to Order

Committee Chairman, Michael Hamburger, called the meeting to order at 8:04 a.m., welcomed the committee, requested a round-robin introduction period, discussed the minutes from the previous meeting, and reviewed the day's agenda.

Update from President of UNAVCO, Dr. William Prescott

- **New UNAVCO Facility Proposal – Due in February 2007**
 - E & O was a new program in the last Cooperative Agreement
 - A small amount was direct-funded, but mostly funded by overhead money
- **New activities which may be proposed**
 - Expand GPS data activities – complete set of geodetic data
 - Processing service
 - Archive and distribute time series and rates
 - Offer classes in processing
 - Improve data access
 - Include one FTE to acquire data from other high quality sources
 - Offer classes in Strain data handling
 - Offer classes in project engineering
 - Archive and distribute InSAR data
 - Develop a processing service for InSAR data, working with ESA
 - Airborne LIDAR
 - Ground-based LIDAR (Terrestrial laser scanning)
 - Education and Outreach
 - Develop educational materials
 - Add an administrative assistant to handle RESESS and other E&O programs
 - UNAVCO Short Course Series (USCS)
 - Enhance data and visualization tools
 - Professional development

- Possible New Initiatives will not be part of the proposed work in the next cooperative agreement.
 - Expand GPS Networks (InSAR)—United States, North America, Western Hemisphere, world, specific targets
 - Hazards—PBO/planetary hazards, i.e., tsunamis, volcanoes, earthquakes
- **Discussion**
E&O funding will probably always be a mix of sources. We have been encouraged to ask for what we want, short of pie-in-the-sky, and not worry about caps. We might try to weave E&O direct funding through other programs. The NSF E&O Program Director is retiring causing that program to be in a state of flux, so other funding opportunities may not be obvious at the present time.

Section Reports

- **Jennifer Yu – Website & Voyager**

- UNAVCO E&O Website has been redesigned for efficiency and content
- UNAVCO Home Page now has a rotating highlight with one from each UNAVCO division

- **Discussion**

Jennifer fielded several questions regarding Web logistics—time involved to redesign and keep it current, fighting off “link rot”, will there be a search feature and/or an index with some suggested key words, etc.

Some committee members expressed concern about the focus on target audiences rather than products. The left side is more oriented to products, and the focus can evolve over time. User studies will help us determine if this organization is the best one.

So far, we are not tracking users, but the UNAVCO webmaster, J. Riley, is planning to implement a system by mid-2006. The hope is that scientists will see the pages and be willing to provide their information. We will soon announce the changes to the entire community and solicit feedback and hope to expand beyond GPS to LIDAR, InSAR, strainmeters, etc.

Krista will meet with Cheryl Dybas at NSF to discuss highlights/dynamics.

A Spanish translation is not a priority at the moment, but may be more important to the RESESS page.

- **Krista Barbour – Outreach**

- Krista reported on upcoming 2006 meetings at which we plan some level of presence.
- We will continue to use the web as a tool to provide timely updates and outreach activities including building a stronger outreach presence on the E&O website and integrating more field experiences into the updates.
- We are creating a unified UNAVCO visual identity and will implement UNAVCO-wide logo usage guidelines for presentations and posters.
- We have created two digital newsletters (one for UNAVCO members and one for employees), printed new pop-up banners and posters and plan to develop UNAVCO quad-folds and tri-folds to replace the one-page fliers.

- Krista has initiated contact with NSF media staff and developed media contacts during recent activity on Augustine Volcano. There is now a stock of marketing materials to send out as needed. The next task is to build working relationships with local and regional media outlets and become more familiar with the workings of the Colorado Associated Press.
- We will continue to work closely with EarthScope. In concert with EarthScope and IRIS, we have created a landowners' newsletter, coordinated joint Congressional Visit Days. We provide EarthScope with regular project status information including installation photos from all six regional offices.
- Initial meetings were held early in January to discuss (Data Image Management System) DIMS update to current, creation of UNAVCO-wide access to DIMS and giving public access to the photo archive.
- **Discussion**
 Read access to DIMS will be open to the public. At issue is balance of access for members only vs. outside access.
 If members are happy with the highlights focusing on them, we hope they'll be more willing to favorably mention us in the articles.
 Much of the news is related to new-site installation. Maybe we should be moving toward the science coming out of it.
- **Becca Walker – PBO Nucleus Education**
 - Goals include increased understanding and public appreciation of geodynamics; Earth deformation processes and their societal relevance; broad use of UNAVCO data and products by a wide audience of educational and research users.
 - Secondary audience work includes interacting with strategically selected, pre-existing teacher networks; putting teacher resources on the web, and establishing an evaluation plan.
 - Upcoming activities—
 - More focus groups
 - GSA Cordilleran Section Meeting
 - Master Teacher Summer Program
 - SACNAS National Meeting
 - AGU Fall Meeting 2007
 - NSTA National Meeting 2007
 - Discussed faculty interview results, GSA short course, resources for college audience on the web.
 - There is a Master Teacher and Faculty in Residence Program scheduled for June at UNAVCO Headquarters. Participants will work 1-2 weeks to assist us in module development, pilot-test the modules in their classrooms during the following school year and aid in dissemination.
 - **Discussion**
 How does this integrate with other E&O parts? Are there clear boundaries? Is it Nucleus-funded so Nucleus content is emphasized, or is it an integrated effort? Strategy is to focus on specific study areas—Cascadia, San Andreas, Yellowstone.

How is the balance with IRIS? Each organization preserves identity, but balance has been good with IRIS and others. Some activities are full partnerships and some are completely separate.

Will the Master Teacher program modules be done in time for the June class? Becca plans to put the information together to facilitate discussion to formulate modules with those participants. Modules will be a mix of Voyager and stand-alone activities. Feedback from past experience has been positive even though it was fairly basic. The Committee asked to receive the Master Teacher announcement. We hope to have Master Teacher candidate mix be 1 local, 1 out of town, with nominations from organizations we have worked with previously (Yuma Network, Teachers on the Leading Edge, etc.) Qualifications have been established and are available for review. We are attempting to consider and include diversity.

- **Susan Eriksson – Education and Outreach**

- **Jules Verne Voyager** interface has been redone to target upper-level education. This redesign was based on user research, uses familiar web-based commands and module-based text, branded with the UNAVCO banner. The eye is drawn to the map. It has multiple drop-down lists that can easily be rearranged. The tools are easier to use and are currently being tested.

- **Discussion**

The revision does not work on all browsers yet. Stuart Wier is still working on technical problems in this new version.. The strategy for the future of Voyager products is to keep our finger on the pulse of technology then go with what emerges as most useful. We are looking into using Google Earth.

Classic Jules Verne and other Voyager versions need to be integrated into this one. Stuart Weir will be here this week to answer questions. We will talk later today about GLOBE. We do have to stay within the UNAVCO Strategic Plan and core science.

- **RESESS Status:** Materials are in the booklet. The program is on track with two applicants selected and Stephen Hernandez returning. There is no UNAVCO banner at the top of the RESESS homepage because we want the community to see it as a larger project than just us.

- **Discussion**

Research for RESESS is done in Boulder the first year, but may go elsewhere in subsequent years. The students participate in the beginning and ending activities with SOARS in Boulder every year. After so many years, we do see it as separate from SOARS (probably funded in 2008).

Evaluation money is available for RESESS, and we are working to integrate the overall NSF evaluation of the OEDG program with the RESESS evaluation. There are so many candidates wanting to do research, but we are mandated to serve underrepresented groups. All students can apply, but we are funded to provide opportunities for students from underrepresented groups in STEM.. The big question is, “How do we serve the majority population?” Eric has proposed and received funds for a RESESS and one other student to participate in his research in Tanzania this

summer. We could have a page on the web for more opportunities offered by various universities.

We discussed internships for pre-service teachers, but based on SOARS projects outside of scientific research, this is not a priority for RESESS at this time. Focus is to get them through a Masters Degree in a STEM field. Gender is not a target area for NSF's OEDG program.

○ **Action Items from the October 2005 Meeting**

- Item 1: Done
 - Item 2, a—ongoing; b—ongoing; c—done; d—done; e—done; f—done; g—done
 - Item 3: After a particularly strong effort, E&O was included in the proposed
 - Item 4: No input from Committee members
 - Item 5: In process
 - Item 6: Susan has a plan to propose this afternoon
 - Item 7: Done
 - Item 8: Done
 - Item 9: To be discussed this afternoon
 - Item 10: To be discussed this afternoon
 - Item 11: To be discussed this afternoon
- 2007 Polar Budget, even funding two interns in the proposal. Outreach materials are being carried to the field by engineers, hopefully by next field season.
- PBO yearly review at NSF: E&O helped with the presentation, which was very successful and well received.
- Short Courses: The temporary name is UNAVCO Short Course Series (USCS), but we would like to give it a permanent name.
- Cyberinfrastructure response was well received and appreciated.
- CWS Community Work Space (PLONE): Susan demonstrated and would like to establish one for E&O Standing Committee. Right now it's experimental and security is an issue.
- An evaluation Plan is in place for Nucleus. Next is protocol. All are on schedule.
- Science Workshop:
- Lina and John have organized a presentation in proposal writing.
 - There is a SIG on broadening participation in our science.
 - There is a need for scientists' participation in defining the UNAVCO Community.
 - A good visual presence has been prepared to empower members to take control of UNAVCO.

Collaborations

• **John Taber – IRIS**

- Collaborations are working well.
 - Professional development
 - Outreach to the Native American Community involved in USArray siting.

- Museum Lite is still being tested and is not yet live. IRIS has developed a simple web-based tool to create displays which could be real-time or static. There are 4 running currently. We hope to open it to the general public in time.
 - **Discussion**
The group discussed ways to keep Museum Lite content current. Raw time series data is noisy and confusing for the general public. Episodic tremor & slip data interests people. Strainmeter data might be more interesting than GPS if we can get filters in place.
- **John DeLaughter – EarthScope**
 - EarthScope is developing a strategic plan
 - There have been several successful collaborations with IRIS and UNAVCO (i.e., group booths at smaller meetings).
 - EarthScope is preparing a speakers' bureau with slides available to download.
 - We have just started preparing a newsletter for landowners with the help of Krista and Pearl. The next one will be PBO focused. Each area is responsible for its own input.
 - GLOBE Proposal
 - Just finished a joint proposal (IRIS, UNAVCO, EarthScope) which includes discussion of 'classic science experiments' that have led us to the current state of the art. Students can repeat original experiments to reach the same conclusions leading through the same through processes.
 - GLOBE has recently changed focus from data collections (which is useless to them) to collecting specific data that they can understand such as gravity, 3-D structures of magnetic fields. We are looking for ways that teachers can use their GPS units to gather meaningful (to them) data.
 - IRIS and UNAVCO have about the same level of involvement.
 - **Discussion**
What is the status of PBO O&M funding and how does E&O fit into it? What is NSF philosophy on E&O? (Lina will investigate and report back at a later date.) It seems there is not much willingness to directly fund E&O out of the O&M budget.

The meeting adjourned for lunch at 12:05 p.m.

Reconvened at 1:05 p.m.

Challenges (Susan Eriksson)

- Quality of work and workload—must keep a lid on ambitions
- Voyager redesign and update of other versions, materials, etc
- Map tools—need to publicize new simplicity of use
- PBO regional needs
- Scientist involvement
- Collaboration vs. productivity and UNAVCO visibility
- Diversity

- Opportunities provided by our involvement in projects around the globe.
- **Discussion**
Michael Hamburger suggested a brainstorming session for ideas to be included in the next proposal
 - How can we provide seed money/mini grants for scientists to stay involved?
 - Tenure credit for scientists
 - Diversity (& reaching teachers) in the target community college faculties
 - Pair a community college faculty member with a Research-1 institution. This is built into RESESS (CWU and Highline Community College). Work is being done to develop a network in geology programs.
 - Success has been noted in pairing Physics and Geology teachers, even including high school level (link to Math also).
- Budget
 - Nucleus money
 - Becca's salary and travel expenses
 - Money for evaluation (\$4,000/year)
 - \$4,000-6,000/year to help engage people to work on models
 - Some participant support money
 - Bringing Kathy Ellis from Texas for Science Workshop
- RESESS (3 years)
 - Money goes to UCAR for interns' expenses and publications plus a laptop for each student.
 - Some of Susan's travel
 - Eric Baer for community college project
 - \$15,000 to participant support (will be spent next year)
 - Year 3 is short \$40,000 (plan to add to the proposal)
- GLOBE
 - Money is in the budget(s) for an educational specialist (\$30K/year1; \$10K/year2; \$20K/year3; \$30K/year 4)
- Headquarters Money
 - \$18-20K for quad-fold and other materials
 - E&O staff travel
 - Booths at conferences (includes upgrades)
 - \$12K for consultant fees
- **Discussion**
Items are limited by funding, especially posters and publications. As far as prospects for new proposals are concerned, EarthScope is the largest with \$27 million now, with O&M in the future at \$10 million. It has been suggested that we move some of the overhead costs into the Facility proposal. Russ Kelz has counseled in the past that this is probably not a good idea and could be a risky strategy. However, IRIS has their E&O program as a separate entity within their cooperative agreement. Strategic plans should make a persuasive case for E&O handling, and the Board and the Standing Committee could transmit recommendations to NSF.

Strategic Plan

- Susan asked the committee to break into groups to complete worksheets summarizing E&O goals, examples of activities, and metrics of success. The group took about 1.5 hours for this activity.
- **Discussion**
 - NSF has emphasized E&O and diversity but has not communicated to their review panelists. Lina hopes that corrections now being considered will change that.
 - James Cano was asked what would be useful to him. He mentioned templates, time set aside for short courses and/or field work, flexible modules for classroom use that can be fit to individual needs. Students are visual so animation attracts their attention.
 - A Spanish version of Web information and lessons would be a great place to start with translation(s)—curriculum lessons, background information (static stuff).
 - Committee will check with faculty and community in Mexico, Nicaragua, Chilean Geological Survey and Costa Rica to see if they have information in Spanish already covering the pertinent information. Then we could provide links to Spanish and other languages and countries.

Action Items

1. Check with faculty and community in Mexico, Nicaragua, Chilean Geological Survey and Costa Rica to see if they have information in Spanish already covering the pertinent information. Then we could provide links to Spanish and other languages and countries.
2. Identify important objectives that require money
3. Hire a graphically artistic person competent in computer animation-- OR
4. See about working with Scripps Visual Animation Center, CU Graphics Center, and with Bill Holt.
5. Create relevant regional workshops to assist teachers in presenting information to students using templated modules.
6. Hold workshops to develop flexible templates (w/input from each community).
7. Provide incentives for teachers.
8. Create field-based E&O programs built on existing research.
9. Steps for Strategic Plan:
 - Return worksheets to Susan
 - Susan will consolidate and create a work plan
 - Provide feedback on that plan after the next iteration, offering general suggestions.
 - Establish a deadline.
 - Susan will provide a timeline after further calendar study.

The meeting adjourned at 5: 00 p.m.