

**IRIS Board of Directors Meeting
February 3-4, 2014
Inverness Hotel and Conference Center
Denver CO**

Attendees

Board Members – A. Meltzer (Chair), G. Abers, E. Brodsky, G. Laske, B. Magnani, J. MacGuire, K. Miller, J. Ritsema, M. Wyession,

IRIS Staff – D. Simpson (President), T. Ahern, J. Taber, R. Woodward, R. Woolley

AGENDA

MONDAY, February 3		TUESDAY, February 4	
8:00	Welcome President and Chair's Remarks Adoption of Consent Agenda Process Consent Agenda	7:30	Breakfast with UNAVCO
8:15	Management and Program Guidance Oceans GSN Review Industry Interactions <i>Houston Meeting</i> <i>Sweetwater Experiment</i> <i>Industry Subcommittee</i> EarthCube liaison Cable Fund investment	8:30	Meeting with UNAVCO
		10:00	Break
		10:15	Exec Session (with President) 2014 Salary approval Innovation Fund Transition
		11:30	Exec Session (Board Only)
		3:00	Adjourn
9:15	Governance Grand Challenge Science Committees <i>Implementation Plan</i> <i>Committee Chairs</i> Instrumentation Service (IS SC, TA AC, EM AC) <i>Charge</i> <i>Committee Chairs</i> <i>Committee Membership</i>		
9:45	Strategic Discussion: PASSCAL Sustainability <i>Overview of Issues</i> <i>Scope Definition</i> <i>Recapitalization of PASSCAL Pool</i> <i>New Technology Report</i> <i>Large N Prospectus/Timeline</i>		
11:15	Discussion with NSF		
12:00	Lunch		
1:00	Discussion with SC Chairs Program Priorities		
1:45	SAGE Award Status SMT input for Yr2 Plan Guidance to CoCom		
3:15	Break		
3:30	Exec Session (Board Only)		
6:30	Dinner		

MINUTES

Consent agenda motion

Vote: The Board unanimously approved the following motion:

"The Board approves the use a Consent Agenda as a procedure to streamline the acceptance and approval of routine business items at meetings of the Board. Documentation on all items to be included on the Consent Agenda will be provided prior to the Board meeting. A single motion will be used for all items in the Consent Agenda. Any items that require discussion to support action will be removed from the Consent Agenda and raised later in the meeting. Any Board member can request that a item be moved to the full agenda"

Format of minutes motion

Vote: The Board unanimously approved the following motion:

"The Board approves the posting of Minutes of Board meetings to the IRIS website, following Board approval, using the following format:

- *Date and location of the meeting*
- *Participants*
- *Agenda*
- *Votes and Actions*
- *Link to pre-Board webinar presentation*
- *Supplemental Materials as approved by the Board"*

Consent agenda

Vote: The Board unanimously approved the following motion:

"The Board approves the following Consent Agenda items as presented in the January 24, 2014 pre-Board webinar with documentation provided and reviewed prior to this Board meeting."

1. *"The Board received and approved the Minutes of the Nov. 4-5, 2013 Board meeting in Los Angeles"*
2. *"The Board received and approved 2014 appointments to Board sub-committees and SC liaisons"*
3. *"The Board received the report of the Membership Committee and (pending receipt of final application materials) approved Northern Arizona University as a Full Member and McGill University and Kangwon National University as Foreign Affiliates "*
4. *"The Board received the report of the Meetings and Publications Committee and approved the travel reimbursement policy and science themes for the 2014 Workshop. Progress with the IRIS e-newsletter and DMS e-newsletter was noted and endorsed.*
5. *"The Board received the report of the Budget and Finance Committee. The Annual A133 Audit for 2013 and the proposed maximum provisional ICR rates for 2014-15 were approved. The B&F committee noted that the annual IRS Form 990 will need Board approval prior to submission by 2/15/14 "*
6. *"The Board approved the San Francisco City Club as the venue for the Annual IRIS Membership Meeting on Monday Dec. 16, 2014. The Board approved use of IRIS unrestricted funds to pay for not-for-profit membership to the San Francisco City Club. "*

7. *"The Board acknowledges receipt of the following Informational Items, as presented in the January 24, 2014 pre-Board webinar, with documentation provided and reviewed prior to this Board meeting:*
- a. Annual IRIS Schedule of meetings and 2014 Calendar*
 - b. EarthScope Ten-Year Celebration Plan*
 - c. Description of ID/IQ procurement process*
 - d. List of current IRIS awards and status as of 12/31/13*
 - e. IRIS Management Organizational Chart*
 - f. Status of responses to CoCom from last Board meeting"*

Management and Program Guidance

OBS Management Office

Informational Item - The Board received a report from Bob Woodward and Brent Evers on the status of the OBS Management Office (OMO) award to IRIS, noting progress on interactions with NSF and the Institutional Instrument Centers (Lamont, Scripps and Woods Hole); quality control; project scheduling and opportunities for broader IRIS involvement in ocean seismology. The Board acknowledges significant progress by OMO and the IICs working together to operate the OBSIP facility to meet community needs. Data delivery from backlog experiments to the DMC is a high priority where progress is being made and OMO is encouraged to work constructively with IICs to develop and implement a data quality plan. It was reported that the GSN Standing Committee and the OBSIP Oversight Committee plan a joint meeting in March at Lamont.

Action Item - GSN SC and OBSIP OC are requested to provide the Board with a one-page "strategic vision" statement following from their joint meetings in March. This should include high level science objectives and facility needs

Action Item - It was noted that the National Research Council's Decadal Survey of Ocean Sciences provides an opportunity for input to long range planning. The Board will continue to track the progress of this study and review ways in which IRIS can potentially play a role in ocean seismology that incorporates and extends beyond OMO activities.

GSN Review Charter

Informational Item – The SAGE Cooperative Agreement includes the following requirement:

"By the end of the second year of this CA, conduct a full external review of the GSN, including all associated subawards, and exploring alternative configurations, management approaches, and the possible scientific impacts. The review will be developed and carried out in collaboration with the USGS. The Awardee will keep the NSF Program Officer informed throughout the process."

The Board was provided with a copy of the Review Charter and Report from a similar GSN Review carried out in 2003.

Action Item - Ritsema (as Board liaison with GSN) will work with Simpson, Meltzer and Woodward to develop an initial draft of a Panel Charter for the GSN Review for approval by the Board. The draft will be provided to the GSN SC for discussion and input at their meeting in March. The draft charter should be completed for final Board approval in May, following which it will be presented to NSF and USGS for their input and concurrence prior to implementation.

Industry Interactions

Information Item - The Board received a report on a workshop for academic-industry interaction planned for Houston in May.

Action Item - The Board approved back-stopping up to \$10K for local expenses from IRIS unrestricted funds and ~\$25K of participant support costs under Large N funding to support the cost of academic participants. The Workshop committee is encouraged to continue to seek cost-share from industry to offset IRIS support. The planning committee for the Houston workshop is asked to identify concrete anticipated outcomes from the meeting.

Action item - Based on the outcome of the Houston meeting, the Board will develop more specific plans and consider appointing a special Working Group to further pursue industry interactions

Sweetwater deployment

Information Item - The Board received and endorsed the plan for a mixed-mode (high-frequency and broadband) deployment at Sweetwater Texas. This is intended to be a trial interaction with industry, with the understanding that the effort will result in an open data set.

Action item - The Instrumentation Services Director is to evaluate the impact of the Sweetwater deployment on PIC workload and verify PIC participation is feasible and within scope.

EarthCube

Information Item - the Board expressed interest in interacting with EarthCube and learning more about proposed activities and structures. Rick Aster (as Data Services Chair and an IRIS governance representative) will attend the EarthCube Governance workshop in Boulder Feb. 12-14.

Action Item - Ahern (as an EarthCube Building Blocks PI) is requested to continue to track EarthCube development and keep the Board informed.

Action Item - Brodsky (as BoD liaison to Data Services) and Aster are requested to discuss IRIS opportunities for EarthCube interactions at the March Data Services SC meeting and prepare a report to the Board, with special attention to opportunities for IRIS participation in the governance of EarthCube, and governance responsibilities within IRIS for IRIS EarthCube efforts.

Action Item - The Board approved Ahern to proceed with development of a proposal with COOPEUS for the upcoming EarthCube Building Blocks solicitation for eventual BoD review prior to submission

Cable recovery funds

Action Item - The Budget and Finance subcommittee will provide recommendations for investment for approval at an upcoming conference call.

Sustaining PASSCAL

Information Item - The Board received an interim report from the Working Group on Sustainability of Portable Seismology (Abers, Moran, Woodward and Gridley). As requested at the November 2013 Board meeting, this group

"should initiate the development of a strategy for dealing with the aging instrument pool and examine the broader issues of how to restructure and perhaps curtail the level of services that PIC can provide. This may include guidelines on instrument availability and services, formalizing and specifying much more clearly the agreements between PIC and PI's perhaps as a formal part of proposal submission, and should help lay the groundwork for longer-term capitalization plans."

Action Item - the Sustainability Working Group is requested to continue its efforts; provide a status report to the PAS SC prior to its March meeting and complete the Board tasking with a full report to Board prior to its May meeting.

Action Item - Board members were asked to help ensure that the PAS SC Chair and IS Director were informed of PI's problems/issues with PASSCAL program

New Technologies Report

Action Item - The Board received the PASSCAL New Technologies report and requested posting on IRIS and PASSCAL websites. The Board requests that the PAS SC report back to the Board concerning the implications of the findings in the New Technologies report on PASSCAL instrumentation services: sustainability, recapitalization, and large N.

Large N Working Group

Information Item - The Board received a report updating the activities of the Large N Workshop group (chaired by John Hole), including plans for a series of "virtual workshops" over the next few months to define the scientific opportunities and technical requirements for new generation instruments.

Action Item - The Large N Working Groups is requested to insure that its activities include mechanisms to engage broader Earth science/Geoscience communities.

Action Item - The Large N Working Group is requested to provide a report on outcomes from the first round of webinars to be available for distribution in advance of June IRIS workshop.

IRIS Biennial Workshop

Action Item - The IRIS Workshop Program Committee is directed to consider the following in developing the program for the June Workshop:

- The structure should be like a "workshop" and not a "meeting", encouraging community engagement through a variety of formats.
- A process for responding to Scientific Grand Challenges should be a key element.
- A critical outcome of the workshop should be to provide community guidance on science and facility planning - on the 2020-2025 time frame - to inform the development of a facilities proposal for re-competition in 2018.
- Each session should be expected to produce and document specific "products" that will be used in long range planning leading to 2018 re-competition.
- NSF participation should be encouraged, with invitations to Anderson and Whitcomb to engage in the long term planning session
- Industry participation should be encouraged to follow up on developing industry/academic interactions

Discussion with NSF

Informational item - A one hour discussion was held with Greg Anderson, NSF Program Officer for EarthScope during which the following information was provided:

- *IRIS can anticipate level funding +/- few percent for SAGE YR2.*
- *SAGE priorities should continue as in CA guidance*
- *CEUSN funding anticipated to continue at ~2.5M /year*
- *It is anticipated that USGS plans to support CEUSN operations beyond FY17*
- *NSF acknowledges that the EarthScope Decadal Celebration will be an opportunity to*

raise visibility of USArray and CEUSN within NSF, OSTP, OMB

- *Long term planning is underway within GEO and EAR*
- *The new EAR Acting Division Director has been briefed on SAGE and CEUSN*

Action Item – The Board expressed concern about continuity of leadership at the Division level within EAR and emphasized the importance of strong EAR/GEO leadership

Action Item – The Board will develop input to provide to NSF as part of their strategic planning at the GEO level (1-5 year time horizon, ~one-two month turn around time) and EAR level (5-10 year time horizon, 12-18 month turn around time).

Action Item – The Board will provide NSF with letters on the value of CEUSN and provide Anderson with materials to use in demonstrating the value of SAGE facilities.

Action Item - The Board will arrange for meetings with the new GEO Associate Director and EAR Acting Division Director to brief them on Consortium and facility issues and seek ways in which IRIS can support their long-term planning efforts.

Governance

Informational Item - The Board reviewed the revised IRIS Governance structure; plans for the structure and implementation of the Instrumentation Services Standing Committee (IS-SC); and charges and membership for committees. Input from the GSN and PASSCAL Standing Committees with comments on the proposed IS-SC were received and discussed.

Vote – The Board unanimously approved the following new or updated charges to Standing and Advisory Committees:

Grand Challenges Science Committees

The science committees exist to provide a central place to ensure alignment of the facilities with the scientific goals of the consortium. The three major scientific themes of the SAGE proposal each has a corresponding science committee:

- 1) *Thermo-chemical internal dynamics and volatile distribution,*
- 2) *Faulting and deformation processes, and*
- 3) *Change and interactions among climate, hydrology, surface processes, and tectonics.*

The charge to each of these three committees is identical although it is expected that individual committees will interpret and emphasize different aspects of the charge as appropriate for their particular agenda.

The committees' charge is:

- *to revisit regularly the scientific goals and strategies pertaining to their area as articulated by the SAGE proposal*
- *to identify the key facilities and services required to achieve their scientific goals*
- *to evaluate the efficacy of the facilities in meeting their scientific needs*
- *to identify new infrastructural needs that are required to meet their scientific challenges.*

Instrumentation Services Standing Committee

The Instrumentation Services Standing Committee is charged with providing advice to the IRIS Board of Directors, IRIS President, and the Director of Instrumentation Services on IRIS Instrumentation Services activities. The Committee will identify cross-cutting instrumentation needs and services, develop activities and initiatives across Instrumentation Services programs, and ensure effective and efficient use of resources. The committee will

undertake strategic planning to ensure the best use of existing resources and to identify future needs and opportunities. The committee will work with the Data Services, Education and Public Outreach, and International Development to coordinate instrumentation services activities and efforts with other components of IRIS.

The Committee will meet as needed, but no less than twice per year, and will provide an annual written report to the IRIS President and Board of Directors. Additionally, the Committee may be charged with reviewing special topics and questions requiring prompt action. Members of the Committee are appointed by the Board of Directors and serve renewable three-year terms. The chair will be chosen from members of IS SC having served at least one year during the past three years.

TA Advisory Committee

The Transportable Array Advisory Committee (TAAC) will review and provide advice on the operation, evolution, and technical performance of the USArray Transportable Array. The TAAC is neither a science planning nor operations committee, but should review TA operations in the context of the science framework for USArray and EarthScope, including an annual review of the Scope Management Plan. The TAAC will cultivate and incorporate community input and participation regarding the operational and scientific aspects of the TA, via convening of special interest groups or other mechanisms. The Transportable Array Manager will be the primary IRIS staff liaison with the Advisory Committee and will coordinate with the TAAC Chair to develop topics and questions for review and action by the TAWG.

The Committee will meet as needed, but no less than twice per year, and will provide an annual written report to the IS SC, the IRIS President and Board of Directors. Additionally, the Committee may be charged with reviewing special topics and questions requiring prompt action. Members of the Committee are appointed by the Board of Directors and serve renewable three-year terms.

EM Advisory Committee

The Electromagnetic Advisory Committee (EMAC) will review and provide advice on the operation, evolution, and technical performance of the USArray Magnetotelluric Array. The EMAC is neither a science planning nor operations committee, but should review MT operations in the context of the science framework for USArray and EarthScope. The EMAC will cultivate and incorporate community input and participation regarding the operational and scientific aspects of the MT effort, via convening of special interest groups or other mechanisms. The MT Project Lead and the MT Subaward PI will be the primary IRIS staff liaisons with the Advisory Committee and will coordinate with the EAAC Chair to develop topics and questions for review and action by the EAAC.

The Committee will meet as needed, but no less than twice per year, and will provide an annual written report to the IS SC, the IRIS President and Board of Directors. Additionally, the Committee may be charged with reviewing special topics and questions requiring prompt action. Members of the Committee are appointed by the Board of Directors and serve renewable three-year terms.

Informational Item - The Board received and reviewed suggested chairs for the Grand Challenges Science Committees and membership for the other committees above.

Action Item - Meltzer will contact proposed Science Committee chairs and Woodward will contact proposed chairs and members of the Instrument Services Standing Committee and related

Advisory Committees. The Board will review and approve the final membership, after which charges and committee rosters will be posted on the IRIS governance website.

Action Item - Meltzer will arrange a conference call with the approved Chairs of the Grand Challenges Science Committees to develop 12-24 month objectives, membership and activities. The Chairs will be requested to lead the development of the program for a special Grand Challenges Science session at the IRIS Workshop in June.

Action Item - Meltzer and Woodward will develop an update to the ISSC Implementation Plan and respond to GSN and PASSCAL input, prior to the March meetings of the SC's.

Action Item - Meltzer will work with Simpson and Woodward to prepare a Governance Wiring Diagram and explanation of the new governance structure for distribution to CoCom prior to the March Standing Committee meetings and posting on the IRIS website.

Action Item - Meltzer and Simpson will report to NSF on changes in the IRIS governance structure and seek any necessary approval for modifications.

Action Item - The Board will review the CoCom charge for uniformity with the new governance structure and provide it to CoCom prior to their April meeting

Action Item - Simpson to work with Linn to develop a table with all previous IRIS committee members and post it on the Board Manual webpage.

Discussion with SC Chairs

Informational Item - The Board held a one-hour conference call with the Standing Committee Chairs during which the Chairs identified the primary goals for each program over the next year. [Copies of the one-page reports from each committee are attached to these minutes].

Action Item - At their upcoming SC meetings, the SC Chairs are asked to prepare 1-2 slides illustrating the scientific value of their programs, to be used in the development of materials for NSF to document the value of SAGE investments.

SAGE Award Year 2 Plan and Budget

Informational Item - The SAGE budget and plan was reviewed, including the original five-year budget profile; the cuts made to YR1 to reach the NSF funding allocation; the original proposed budget for YR2 and the impact of various funding scenarios for YR2.

Action Item - It was agreed that the general guidance below should be provided to the Standing Committees and CoCom for their upcoming discussion of the program plans and budget for SAGE YR2. This will result in a total YR2 budget that is approximately 1% above the YR1 funded level.

Develop YR2 budgets based on level funding for each program at the YR1 awarded level - except that TA should follow the re-scoping plan presented to the USArray Advisory Committee in December and Community Activities should remove the costs for the Biennial IRIS Workshop.

The Standing Committees for the core programs should develop nominal budgets and plans for prioritized activities that might be added if NSF provides a funding target that is more than 1% above YR1 funding.

Each program is requested to develop a scope management process for the remainder of the SAGE award (yr3-5) taking into consideration the potential for level funding for the duration of the SAGE award. The document ("Scope Management Process") used to describe the de-scoping of the TA efforts in Alaska should be used as a guide.

Action Item - Abers (as CoCom Chair) will work with Woolley, Meltzer and Simpson to develop more specific explanation and guidance related to the YR2 SAGE Budget and Plan, to be provided to

the SC's and CoCom prior to their upcoming meetings. The guidance will also include a request for CoCom to begin development of the following cross-programmatic topics:

- Define and develop a project charter for "Dirt to Desktop"
- Pull together an overview of re-capitalization needs across all programs
- Revisit the opportunities for IRIS participation in international development. This should include: an assessment of the current portfolio of IDS activities; identification of activities within existing IRIS programs that include an international component; and a strategic vision for international involvement across all programs.

Meeting with UNAVCO

Informational Item – The Board and SMT met with senior staff from UNAVCO (Miller, Meertens and Mattioli) to review the current status of SAGE and GAGE activities and explore opportunities for increased collaboration between IRIS and UNAVCO.

Action – IRIS, UNAVCO and the EarthScope National Office will continue to collaborate on the development of the program and materials for the EarthScope Decadal Celebration in DC in May.

Action - Arrangement will be made for a joint meeting of the IRIS and UNAVCO Boards, possibly at the time of the EarthScope Decadal Celebration in May, to explore areas of mutual interest, including strategic planning related to the re-competition of SAGE and GAGE facilities in 2018.

Action - IRIS and UNAVCO will work together to develop opportunities to engage with the seismology, geodetic and broad Earth science communities to pursue plans for a Subduction Zone Observatory. The upcoming IRIS and UNAVCO Workshops were identified as potential targets for engagement on this topic.

Executive Session

Informational Item – Topics discussed by the Board during Executive Session included approval of FY14 salary guidance for IRIS staff and the selection of a candidate for the new IRIS President.

Attachments

Pre-Board meeting Webinar PPT - January 24, 2014

Standing Committee presentations - Feb 3, 2014