EMWoG Telephone Conference Call
Thursday March 23, 2006, 2.15-3.15 pm EST
Minutes and Action Items

Present: Phil Wannamaker, Gary Egbert, Dean Livelybrooks, Steve Park, Rob Evans, Adam Schultz, Martyn Unsworth, Shane Ingate (quorum achieved).
Apologies: Kevin Mickus.

Informal notes from March 9 telecon were approved and will be posted on the EMScope web site.

Equipment:

- Now that change order USArray #0015 has been approved, MREFC funds are available to order the 7 remaining NIMS, bringing the total of NIMS on order to 27. Ingate reports that conversations with Narod indicates that he is on schedule for a Autumn delivery of the first set of systems, and that the second set will be delivered later. Narod indicated that he is committing to a production run of 50 systems, which include all 27 EarthScope systems.
  Action: Ingate and IRIS will place a purchase order for the additional 7 systems from Narod.
- Group confirmed that the first purchase order placed with Narod incorrectly ordered 20 additional telluric channels and power supplies, and that the correct number to order is 2 only.
  Action: Ingate and IRIS will correct the purchase order with Narod.
- Ingate reports that Narod wishes to meet with Booker and Schultz in Seattle in May, to discuss system integration. Booker is on travel in Argentina and his schedule is not known.
  Action: Schultz may have a timing conflict, so he will contact Narod to discuss agenda and coordinate a more convenient schedule.

Transportable Pilots:

- Ingate reported that the RFPs have not yet been released due to personal time conflicts, and the IRIS development of a general RFP template. Ingate hopes that the RFPs will be released next week, with field-work commencing in mid to late May.
  Action: Ingate to hustle and release the RFPs..
- Group discussed whether the ESMT-PSP and ESMT-POM RFPs should be released simultaneously, or with a phase lag. Group agreed that the announcements should be simultaneous, to take advantage of economies of scale associated with coordinated permitting/installation.
- Group again discussed whether to sole-source the siting/permitting project in order to prevent conflicts of interest within EMWoG. Livelybrooks indicated that both he and Fletcher will not be bidding on the pilot RFPs. Group discussed the need for scientific oversight during the permitting and installation. Group agreed that the project without scientific oversight would produce neither good sites or data. Livelybrooks reaffirmed his interest in providing this role. It was felt that

about 2 weeks of PI time would enable initial coordination with the permitter, and on-site inspection of 10-20 locations. Ingate feels that this new cost can be easily absorbed as O&M (R&RA funds) have not yet been baselined for the EarthScope project..

- Livelybrooks requested a small change in the siting criteria. MT is very sensitive to noise generated by wind-blown trees. This is not much of an issue in the OR desert, but will be a problem in the coastal forests. Group agreed to add/change the following criteria:
  - At least 500 m from electrified fences;
  - Sites should not be adjacent to large trees.
- Group discussed the formation of the pilot proposal evaluation team and evaluation criteria. Group suggested non-conflicted EMWoG and Ian Fergusson (Jim Craven alternate), and USArray PI suggesting Busby and Woolley;
- Group is still keen to explore co-location with TA. Ingate reports that Busby has requested a joint experiment at Socorro to determine the effect of MT on TA data quality before any co-location will be considered. Group feels that the TA will not be affected by MT, but that instead, TA RF could affect the magnetometer. Wannamaker suggests that the minimum separation between the magnetometer and RF is 100 m. Unsworth reports that POLARIS have co-located seismic and MT in the NW Territories, and that a separation of 15 m has not demonstrated any deleterious affects on either data sets. Group feels that TA will not be satisfied with anecdotal evidence, and will demand a full suite of tests. Soccoro may not be the best site for this test, given that the main power trunk line into Socorro passes near the PIC, and the proximity of roadside power lines to the test site at the back of the PIC. Schultz suggested conducting the test at the Corvalis GSN site, but Group agreed that this will not satisfy TA needs. Given that only 2 systems are currently available (for the Backbone), Group agreed with Schultz's suggestion of conducting the test at ASL during the ASL Backbone MT installation 4/30-5/5. Group suggests that 2 NIMS be used, one as a reference that is well-separated from the TA station, and the other will be set up to record at several close distances from the TA station. Park and Ingate will be onsite to dig holes, lay cable and observe the tests. With this kind of schedule, it is not clear whether and agreement for co-location with the TA can be ready to provide value during the ESMT-PSP pilot.
  Action: Ingate will coordinate with Schultz and Busby to get this moving.
  Note added 3/24/05 – There are no TA sites at ASL.

Planning for other states:

- Park reports that he is still accumulating coordinates of previous long-period experiments. Wannamaker mentioned that the report from the recent GeoFrame Workshop will be of great benefit to this group in planning future deployments.

Backbone pilot:

- Schultz reports that the Backbone stations should record data at 1 Hz rather than 8 Hz, due to bandwidth limitations in telemetry and also to eliminate high-frequency noise. This would be achieved by averaging the time series. Park is

concerned that 1 Hz data would not be of any use to researchers into the Schumann Resonance, which requires 20 Hz sampling. Park also indicated that by changing the sample rate, the Backbone systems would no-longer be interchangeable with the Transportable systems.
Action: This issue is unresolved and requires more discussion by the Group.

- Group discussed an un-funded task for the Backbone construction, that of conducting NIMS acceptance tests upon delivery to ensure that the required performance specifications are met.. Acceptance tests require checking orthogonality of the magnetometer, which can be done in a Helmholtz coil. Booker has a test facility in Seattle. Acceptance testing also consists of checking gain and phase of the telluric channels. All this can be done, but at the expense of MREFC funds. Group agreed that it is important to install the sites first and get them operational, and that regular calibration will be a routine part of on-going O&M. Post-installation recovery may be the best time to conduct the acceptance tests. Group indicated that meta-data will accurately reflect the post-installation calibration. Group also discussed asking Narod to conduct the acceptance tests for us, and provide data sheets on each system.

Meetings:

- EGU, Vienna Austria, April 3-7.
- Transportable Array Working Group, San Diego CA, April 10-11.
- SSA 1906 Earthquake meeting, San Francisco CA, April 18-22.
- IRIS CoCom/BoD, San Francisco CA, May 3-5.
- USAAC meeting, Socorro NM, May 16-17.
- USArray Review and EFEC meeting, Socorro NM, May 17-18.
- IRIS Workshop, Tucson AZ, June 8-10.

Next Telecon:

- Thu 7 Apr, 2-3 pm EST.