

**EMWoG Telephone Conference Call
Tuesday December 20, 2005, 5-6pm EST
Minutes and Action Items**

Present: Rob Evans, , Dean Livelybrooks, Adam Schultz, Phil Wannamaker, Steve Park, Kent Anderson, Gary Egbert, Shane Ingate (quorum achieved).

Apologies: Kevin Mickus, Martyn Unsworth

Draft Rescope and Budget:

A draft statement of the rescope of EarthScope MT within the fixed budgets proposed in 2003 was distributed prior to the meeting and discussed. Minor edits were made.

Revised document is attached.

Action: Ingate to revise and forward to EarthScope Office, and thence to NSF.

The draft MREFC and O&M budget was also discussed and approved. Discussion moved to co-operation with USGS GeoMag. Group agreed that within the finite budget, it makes better scientific sense to construct 7 new and equally distributed Backbone stations across the contiguous US, rather than 5 new stations and upgrade the GeoMag Boulder site with tellurics. In both scenarios, magnetic data from the 6 USGS Observatories are accessible from NEIC. Group indicated their desire to work with USGS GeoMag, but are unable to commit extra funding at this time.

Action: Ingate was asked to delicately explain the situation to USGS.

Questions were raised over Narod's invoice for 10 m and 75 m cables, both of which appear to cost the same.

Action: Ingate to check with Narod.

ES MT and POLARIS:

Co-operation with the Canadian POLARIS program is crucial to extending the conductivity map across the US-Canada border. No funding will be made available to the Canadians, but it is hoped that natural synergy will permit the joint deployment of EarthScope Transportable and POLARIS equipment along the border. It is imperative that we make absolutely clear to any audience that no EarthScope funding will be crossing the border.

Pilot Experiments in 2006:

Group agreed that pilot experiments are a means to mitigate project delays due to anticipated arrival of equipment in October 2006.

Action: This topic will be explored further in the next conference call.

Group did determine that a Transportable pilot experiment of 6-months duration will be useful to define, and refine, minimum performance standards for contractor-installed stations.

Forthcoming meeting:

- Next telecon Tuesday, January 17, 2006, 2pm EST

| | | | | 10/03-9/04 | 10/04-9/05 | 10/05-9/06 | 10/06-9/07 | 10/07-9/08 | MREFC Total |
|-------------------------------------|-------|------------|--|------------|------------|------------|------------|------------|-------------|
| Backbone MREFC | | | | | | | | | |
| Hardware | 7 MT | | | | | \$ 91,676 | \$ - | \$ - | \$ 91,676 |
| Installation | OSU | (subaward) | | \$ 185,886 | | | | | \$ 185,886 |
| Testing | UCD | (subaward) | | \$ 14,000 | | | | | \$ 14,000 |
| Phone line install | | | | | \$ 12,600 | | | | \$ 12,600 |
| IRIS G&A | | | | \$ 6,630 | \$ 6,392 | | | | \$ 13,022 |
| Total | | | | \$ - | \$ 206,516 | \$ 110,668 | \$ - | \$ - | \$ 317,184 |
| Transportable MREFC | | | | | | | | | |
| Hardware | 20 MT | | | | | \$ 261,930 | \$ - | \$ - | \$ 261,930 |
| Total | | | | \$ - | \$ - | \$ 261,930 | \$ - | \$ - | \$ 261,930 |
| MREFC Total | | | | \$ - | \$ 206,516 | \$ 372,598 | \$ - | \$ - | \$ 579,114 |
| Fenced MREFC (2003 proposal) | | | | \$ 72,390 | \$ 217,170 | \$ 144,780 | \$ 144,780 | \$ - | \$ 579,120 |

| | | | | 10/03-9/04 | 10/04-9/05 | 10/05-9/06 | 10/06-9/07 | 10/07-9/08 | O&M Total |
|--|----------|------------|--|------------|------------|------------|------------|------------|--------------|
| Backbone O&M | | | | | | | | | |
| 5% amortization | | | | | | \$ - | \$ 4,584 | \$ 4,584 | \$ 9,168 |
| OSU servicing | | (subaward) | | \$ 14,399 | \$ 75,000 | \$ 75,000 | \$ 75,000 | \$ 75,000 | \$ 239,399 |
| Phone line lease | | | | | \$ 18,000 | \$ 18,000 | \$ 18,000 | \$ 18,000 | \$ 54,000 |
| IRIS G&A | | | | \$ 4,250 | \$ 7,310 | \$ 8,089 | \$ 8,089 | \$ 8,089 | \$ 27,738 |
| Total | | | | \$ - | \$ 18,649 | \$ 100,310 | \$ 105,673 | \$ 105,673 | \$ 330,305 |
| Transportable O&M | | | | | | | | | |
| 5% amortization | | | | | | \$ - | \$ 13,097 | \$ 13,097 | \$ 26,193 |
| TA MT Ops (subaward) | | | | | \$ 200,000 | \$ 235,000 | \$ 235,000 | \$ 235,000 | \$ 670,000 |
| 2 x 0.5 FTE (include benefits) | | | | | | | | | |
| Travel | | | | | | | | | |
| Permitting | | | | | | | | | |
| Consumables | | | | | | | | | |
| Per diem | | | | | | | | | |
| Shipping | | | | | | | | | |
| IRIS G&A | | | | | \$ 4,250 | \$ 6,476 | \$ 6,476 | \$ 6,476 | \$ 17,203 |
| Total | | | | \$ - | \$ - | \$ 204,250 | \$ 254,573 | \$ 254,573 | \$ 713,396 |
| Data Management | | | | | | | | | \$ - |
| 0.5 FTE (includes benefits) | Analysis | (subaward) | | | \$ 37,500 | \$ 75,000 | \$ 75,000 | \$ 75,000 | \$ 187,500 |
| 0.5 FTE (includes benefits) | Tech | (subaward) | | | \$ 37,500 | \$ 75,000 | \$ 75,000 | \$ 75,000 | \$ 187,500 |
| IRIS G&A | | | | | \$ 8,500 | \$ 8,500 | \$ 8,500 | \$ 8,500 | \$ 25,500 |
| Total | | | | \$ - | \$ - | \$ 83,500 | \$ 158,500 | \$ 158,500 | \$ 400,500 |
| Management O&M | | | | | | | | | |
| Mangement (0.3 FTE, includes benefits) | | | | | \$ 48,195 | \$ 49,641 | \$ 51,130 | \$ 51,130 | \$ 148,966 |
| Management Travel | | | | | \$ 2,000 | \$ 2,000 | \$ 2,000 | \$ 2,000 | \$ 6,000 |
| EMWoG Travel | | | | | \$ 5,000 | \$ 5,000 | \$ 5,000 | \$ 5,000 | \$ 15,000 |
| IRIS o/head | | | | | \$ 7,925 | \$ 8,163 | \$ 8,408 | \$ 8,408 | \$ 24,497 |
| IRIS G&A | | | | | \$ 10,730 | \$ 11,017 | \$ 11,311 | \$ 11,311 | \$ 33,059 |
| Total | | | | \$ - | \$ - | \$ 73,851 | \$ 75,821 | \$ 77,850 | \$ 227,521 |
| O&M Total | | | | \$ - | \$ 18,649 | \$ 461,911 | \$ 594,567 | \$ 596,596 | \$ 1,671,722 |
| Fenced O&M (2003 proposal) | | | | \$ 234,392 | \$ 449,741 | \$ 490,724 | \$ 500,546 | \$ 500,546 | \$ 1,675,402 |
| TOTAL MREFC+O&M | | | | \$ - | \$ 225,165 | \$ 834,509 | \$ 594,567 | \$ 596,596 | \$ 2,250,836 |

EarthScope MT (EMScope, outyears)

10/08-9/09

Backbone O&M

| | | | |
|------------------|------------|-----------|----------------|
| 5% amortization | | \$ | 4,584 |
| OSU servicing | (subaward) | \$ | 75,000 |
| Phone line lease | | \$ | 18,000 |
| IRIS G&A | | \$ | 8,089 |
| Total | | \$ | 105,673 |

Transportable O&M

| | | | |
|--------------------------------|--|-----------|----------------|
| 5% amortization | | \$ | 13,097 |
| TA MT Ops (subaward) | | \$ | 235,000 |
| 2 x 0.5 FTE (include benefits) | | | |
| Travel | | | |
| Permitting | | | |
| Consumables | | | |
| Per diem | | | |
| Shipping | | | |
| IRIS G&A | | \$ | 6,476 |
| Total | | \$ | 254,573 |

Data Management

| | | | |
|-----------------------------|----------|-----------|---------------|
| 0.5 FTE (includes benefits) | Analysis | \$ | 60,000 |
| 0.5 FTE (includes benefits) | Tech | \$ | 30,000 |
| IRIS G&A | | \$ | 8,500 |
| Total | | \$ | 98,500 |

Management O&M

| | | | |
|--|--|-----------|---------------|
| Mangement (0.3 FTE, includes benefits) | | \$ | 35,109 |
| Management Travel | | \$ | 2,000 |
| EMWoG Travel | | \$ | 5,000 |
| IRIS o/head | | \$ | 5,773 |
| IRIS G&A | | \$ | 8,140 |
| Total | | \$ | 56,023 |

O&M Total \$ 514,768

Fenced O&M (2003 proposal) \$ 512,843

TOTAL MREFC+O&M \$ 514,768