

**Notes from TIC WG E Conference Call #1  
Thursday, July 28, 2004 (1:00–2:02 pm EDT)**

**Participants**

Walter Arabasz, Chair/Recorder  
Ray Buland  
Art Lerner-Lam  
Phil Maechling  
Tom Murray  
Rick Schult  
Tony Shakal  
Mitch Withers

Absent: David Oppenheimer (on vacation)

**Agenda**

1. Introductions
2. Review of charge
3. Action plan and timeline
4. Identifying key issues & guiding principles

Confirmed that all working-group members have been able to access the group Web site (<http://www.seis.utah.edu/anss/wge/>)

1. Introductions

This was the first group interaction for TIC Working Group E (TIC WG E). We began with sequential introductions, allowing each participant to briefly describe his background and particular views and interests . . .

*[Note: I captured only a fraction of these self-descriptions. —WJA]*

Walter Arabasz: Director of University of Utah Seismograph Stations; ANSS regional coordinator for ANSS Intermountain West Region; also member of ANSS Technical Integration Committee (TIC) and National Implementation Committee (NIC); longstanding involvement in planning and building ANSS; one personal interest is a sensitivity to state/local ownership and support of seismic-monitoring infrastructure and need to avoid jeopardizing that ongoing support. (How can we reconcile local ownership, investment, and ongoing support of some infrastructure with prescriptions of ANSS decision-makers? What incentive will there be for continued state/local support? Need a “Roadmap for Partnership.”)

Ray Buland: Task Leader, USGS/Golden; involved extensively with new seismic processing systems at NEIC; member of original TIC group; interested in better organization of seismic monitoring throughout ANSS.

Art Lerner-Lam: Associate director of Seismology, Geology & Tectonophysics at Lamont-Doherty Earth Observatory, Columbia University; member of IRIS Executive Committee and chair of IRIS Planning Committee; involved in seismic network operations at Lamont and in northeastern U.S.; member of NIC and one of two ANSS regional coordinators for Northeastern U.S. region.

Rick Schult: Geophysicist/seismologist with the Air Force Research Laboratory at Hanscom Air Force Base in Massachusetts; involved in efforts relating to remote seismic monitoring for nuclear test detection; formerly worked for AFTAC, where he had to deal with many of the same issues facing our working group; experience with useful applications for solving the nuclear test monitoring problem and with network design. [Rick advised Walter Arabasz before joining TIC WG E that he wouldn't be able to participate in any face-to-face meetings until after the end of this calendar year, but he'll participate in our telephone conference calls as he's able.]

Phil Maechling: Information Technology Architect at the Southern California Earthquake Center (SCEC), University of Southern California; computer systems developer; worked earlier in the aerospace industry and later on seismological systems development for 10 years; worked on TriNet for more than 7 years; has experience with "lessons learned"; involved heavily with IT issues at SCEC; project manager on IT research project—Community Modeling Project for seismic hazard analysis . . . seismic simulation; [participated in early shaping of the original TIC report, OFR 02-92 before he moved from Caltech to USC/SCEC].

Tom Murray: Scientist-in-charge at the Alaska Volcano Observatory (AVO) in Anchorage; also a member of the NIC and ANSS regional coordinator for the Alaska region; AVO is one of five observatories under the USGS's Volcano Hazards Program and has a primary mission to deal with tsunami and volcano hazards; Tom serves as a useful bridge between ANSS and USGS's volcano observatories; interested in coordinating seismic monitoring between the two and in technology transfer from ANSS to AVO.

Tony Shakal: California Geological Survey—Strong Motion Instrumentation Program (CSMIP); [background both in engineering and in seismology]; one of five program managers for the California Integrated Seismic Network (CISN)—along with David Oppenheimer, Lind Gee, Doug Given, and Egill Hauksson; concerned about preserving the importance of individual programs (such as CSMIP) and their project health; echoing earlier comments by Walter Arabasz regarding the state of Utah, it must be clear to the state of California that there is a continuing need for state support; need recognition of importance and distinctive mission of programs like CSMIP at the state level; [was member of original working group—Subcommittee on Network Architecture and Interconnection—that wrote Section 2 and Appendix D of the original TIC report, OFR 02-92].

Mitch Withers: Seismologist, University of Memphis; director of seismic and computer networks at CERl (Center for Earthquake Research and Information); member of NIC, regional coordinator for ANSS's Mid-America Region, and chair of TIC WG A on "National Performance Standards"; [also was member of original working group—Subcommittee on Network Architecture and Interconnection—that wrote Section 2 and Appendix D of the original TIC report, OFR 02-92].

## 2. Review of Charge

When the original TIC report was written, it was assumed that full funding for ANSS would be obtained quickly, and the system design described in that report basically assumed "unlimited dollars." Now, our charge instructs us to account for "geopolitical realities" and "realistic ANSS funding projections" in revisiting OFR 02-92.

**ACTION:** Walt Arabasz to outline more specifically ANSS funding and organizational constraints that our working group should consider as guidelines for deliberations and recommendations.

In response to a question by Phil Maechling about our working group's deliverables, Walt Arabasz pointed to specific wording in tasks 3 and 4 of our charge:

“3. Based on the region-by-region review, and considering how the California Integrated Seismic Network (CISN) has evolved, make specific written recommendations for either adopting or modifying what was proposed in OFR 02-92 for ANSS architecture and interconnection.”

“4. Combining the outcomes of tasks 1–3, define an evolutionary path for transforming existing elements of ANSS into a functional nationwide system, including prioritized steps that can be taken in the near term (1–3 years) to maximize system performance under realistic ANSS funding projections.”

In revisiting OFR 02-92, our specific focus is on Section 2 (“Network Architecture and Interconnection”) and Appendix D (“Production, Interpretation, and Outlets”).

### 3. Action Plan and Timeline

- Group consensus that we could complete our tasks by late Spring of 2005 if we exerted will and effort.
- Tony Shakal asked whether we might use online, Web-based conferencing for some interactions. Because of very limited experience within ANSS for such conferencing, it's likely that we'll simply use telephone conference calls plus two face-to-face meetings—one this fall and one sometime during the first half of 2005.
- Judged to be inefficient to have a face-to-face meeting before the NIC meeting in St. Louis on September 26–27, 2004. Results and updates from other TIC working groups should be available after that meeting.
- **DECISION:** five members of TIC WG E who are also members of the NIC (Arabasz, Lerner-Lam, Murray, Oppenheimer, and Withers) will piggyback a get-together at the St. Louis NIC meeting (probably an evening get-together), to help move ahead with TIC WG E tasks.
- An opportune time for our first TIC WG E face-to-face meeting will be in mid-November, piggybacked onto a meeting of the ANSS National Steering Committee (NSC), scheduled to meet November 18–19 in San Francisco. According to Bill Leith, regional coordinators (Arabasz, Lerner-Lam, Murray, Oppenheimer, Withers) will be involved in making presentations of regional ANSS summaries to the NSC; the California meeting site should be convenient for Maechling, Oppenheimer, and Shakal.

### 5. Identifying Key Issues & Guiding Principles

An important starting point for our working group is to individually read Section 2 and Appendix D of the original TIC report, OFR 02-92, and to identify key issues that our working group needs to address. Walter Arabasz pointed out, for example, two earlier recommendations that warrant attention:

- “In general there will be only one primary operational center per ANSS region at which routine data processing for the whole region will be done” (OFR 02-92, p. 7). How does this square with what CISN subsequently decided for the ANSS California region? What other “lessons learned” does the CISN experience offer?
- “[W]e recommend . . . a separation of the development and interpretation functions from routine processing” (OFR 02-92, p. 6; see also discussion in Appendix D on p. 88).

ACTION:

By Friday, August 13, 2004, each working group member should . . .

1. Read Section 2 and Appendix D of OFR 02-92
2. Identify some key issues to be addressed by TIC WG E
3. Try to articulate and propose some guiding principles that should influence our eventual recommendations
4. E-mail “issues and guiding principles” to other members of TIC WG E