

COSMOS

Board of Directors Meeting Minutes

November 21, 2013

Hilton Garden Inn
Emeryville, California

BOD Participants:

W. D. Iwan
W. U. Savage
Donald Wells
Jon Heintz
John Parrish
Jamison Steidl
Robert Nigbor
Alan Yong

Other Participants:

R. E. Bachman (Director of Engineering Applications)
Claire Johnson (Office Manager)
A. Shakal (Guest)

Not Present

C.B. Crouse
D. Dreger
D. Levish
D. Yule

Call to Order and Roll Call

Meeting was called to order at 3:16 pm

Review and Approval of 8 May 2013 Minutes

No comments or issues. The Minutes were approved unanimously at 3:23 PM

Board of Election Results (Johnson)

Sixteen ballots were received. Donald Wells was unanimously voted in to serve another three-year term. Jon Heintz was unanimously voted in to serve a new three-year term. Iwan congratulated Heintz and welcomed him to the COSMOS Board of Directors.

Presidents Opening Remarks (Iwan)

Iwan reiterated from the last Board of Directors' Meeting that COSMOS is at a critical point in terms of its funding and base support. He asked the Board what would happen if COSMOS were to cease operations? Would the community care? Johnson noted that the this year's Technical Session has had the best response ever, and she has received many comments that this is the most valuable meeting of the year for some participants. Iwan asked if we needed the COSMOS organization to host a Technical Session. Savage reminded the Board that funding for the ANSS was in a smooth pipeline in Washington at the time of the formation of COSMOS that the 9/11 attacks set back the funding for ANSS, which reduced the opportunity for COSMOS' growth. Bachman reviewed the history of

COSMOS and Bruce Bolt's vision that the Core Membership would support COSMOS. He suggested that COSMOS rethink our mission and do what we can do with the available funding. The connections with funding agencies in D.C. need to be rebuilt.

Director of Engineering Applications' Report (Bachman)

Last year's Technical Session had 90 participants and was considered successful. Simulated ground motions for use in design is the focus of the 2013 Technical Session. Attendance for 2013 is extremely robust. In anticipation of higher reproduction costs and AV fees, this year's registration fee has been increased, and it is anticipated that COSMOS will turn a small profit or break even at a minimum.

J Steidl is working in concert with M. McLaren at PG&E, and they will host a strong-motion forum at the 10NCEE/EERI conference in Alaska in July 2014.

Bachman informed the Board that he had asked Yousef Bozorgnia to come to the Board meeting for a brief discussion on current PEER activities in the interest of determining overlapping activities and the potential for collaboration. Of special interest is the DGML and foreign ground motions being added to the DGML. Parrish was unclear as to the purpose of this meeting with Bozorgnia and what could they possibly offer to COSMOS. Savage noted that it was beneficial to both organizations to understand their current and future activities in order to pinpoint areas where we can collaborate.

Yong noted that an area that PEER is not involved in and that COSMOS could take the lead is the Vs30 database currently under development by Yong and Stewart. Yong proposed that COSMOS and USGS each commit \$5K to develop the software for the database. Johnson asked how to provide funds to Caltech. Would it be possible to purchase equipment for this project as opposed to paying for salaries? Nigbor suggested revisiting the \$5K proposal in the next agenda item.

Initiatives and New Projects Prospects (Nigbor)

Vs30 Database (Yong)

Yong proposed that COSMOS provide \$5K to support the development of a Vs30 database. In response to Savage's request for more information, Yong responded that the archive would not just be the Vs30 data at sites but also include geophysical data to generate the average velocity. This has not been done before. It allows future researchers to use the geophysical data to make improvements in the analysis of Vs30. The initial data would be that coming from the ARRA project that has multiple measurements using different techniques to determine site characterization at 191 strong-motion observation stations.

Bachman wondered about the access, and if the project would be set up so that additional data could be added. He asked if there would be a link from the COSMOS website to the new database. Shakal asked if CGS might also be interested in this project, and asked if PEER has had any involvement in this project at this point. He noted that this might benefit COSMOS in terms of its visibility. Iwan asked what would be the benefit of COSMOS supporting this initiative. Yong replied that this would be an excellent opportunity for a collaborative project between COSMOS and USGS, and potentially CGS as well. Steidl noted that COSMOS needed to stay relevant or close up shop. Parrish asked about the timeline, and Yong replied that the front end should be up and running by the end of the fiscal year.

Workshop on Site Characterization using Non-Invasive and Passive Techniques (Nigbor)

Nigbor proposed a COSMOS-supported workshop on site characterization using non-invasive and passive techniques. He suggested \$10K in support with matching funds from the USGS, in addition to \$20-\$30K from NSF (still to be proposed). He pointed out that the Europeans are very active in blind testing using different methods at various sites. A proposal to the NSF would be better received if \$10K each from COSMOS and USGS had already been committed. This workshop would be a COSMOS workshop; therefore, the proposal to NSF should come from COSMOS. The Proceedings would be electronic COSMOS proceedings. Nigbor considers this as a seed proposal to get COSMOS visible again in terms of NSF funding. Iwan asked if COSMOS should be

supporting these activities when its financial status is in flux. Both Steidl and Parrish suggested holding off on making any decisions regarding these proposals until the Treasurer's Report is presented.

Status of USGS/USBOR/USACE Funding 2012/2013/2014 (Johnson)

R Bachman reported contacting Duane Campbell regarding renewed USBOR funding. They are not able to support COSMOS at this time and are not providing a BOD member. Wells was tasked with contacting the USACE. Board member Yule did not respond to repeated inquiries. There is no funding for this year. Johnson reported receiving the \$20K from the USGS for the FY 2012 and noted that COSMOS cannot bill for the \$5K FY2013 funds until 2014. CGS will be billed after the Technical Session. Core Member USBOR has not paid their dues for four years and Core Member USACE has not paid their dues for two years. Parrish suggested sending a letter with an invoice and informing them that lack of response will be interpreted as a mutual desire to terminate the relationship. Savage suggested that they revert to suspended membership rather than terminate them. Parrish didn't see the point as they are not active. Johnson pointed out that they "inhabit" two positions on the Board and suggests opening these spots to other agencies and/or corporations who would be interested in participating. Heintz suggested making them emeritus or founding members but not Core Members given that they might be partners in the future. Bachman agreed. Steidl proposed sending them a letter that confirms that they will no longer be a Core Member but that they will still be listed as a data provider and leaving the door open if they want to consider rejoining in the future. Parrish pointed out that they hadn't responded in two-four years. Their interest in COSMOS is extremely unlikely at this point. Iwan suggested three levels of response: (1) letter with invoice; (2) letter removing them from the COSMOS BOD and saying that we are sorry to see them go and hope they consider returning; (3) establish contact with other individuals at these organization; and (4) take no action. After additional discussion it was decided to search for a contact within these organization that seems receptive and send a little asking for their participation and support as a Core Member if a response is not elicited from either USACE or USBOR.

Action Item: Iwan to send a query letter to USACE and USBOR regarding their status within COSMOS as Core Members.

Treasurer's Report: Financial Report for 2013 (Wells)

2013 Budget and Actual Expenses and Income

Core membership continues to be an issue. In addition, institutional and individual membership is either stagnant or decreasing. Wells stressed the need to continue to show progress on initiatives and products beyond hosting the Technical Session. Report suspended until after Bozorgnia's presentation. Once resumed, Wells presented the P&L, the actual versus the projected budget. Some payments are accrued for this year's budget but will show up in next year's ledger. Puerto Rico continues as a strong-motion member and has contributed \$2000 to COSMOS. PG&E has not remitted their dues for 2013. Johnson will send another query to them. Committee activity is limited to International Committee. Other committees had no expenses, which has helped improve the bottom line. The projected loss for 2013 is ~\$15K. The Balance Sheet in review: there is \$100K in the CD account and \$57K in the checking account. With a similar income and expenses, COSMOS could be sustained for ten years.

Nigbor suggested investing some of the current funds to ensure that we are a vibrant organization. Parrish volunteered that CGS will cover the requests for the workshop proposal by Nigbor and the database proposal by Yong. Iwan asked what COSMOS' contribution should be for these efforts. Yong pointed out that COSMOS needs to show the USGS program office that COSMOS is committed to the database project: that could be \$5K in equipment. Nigbor asked about the workshop commitment from COSMOS. COSMOS would be responsible for generating the \$30-40K of support, presumably from the NSF workshop proposal).

Nigbor moved that COSMOS provide \$5K worth of equipment for the Vs30 database. Motion Seconded by Parrish. Motion approved (funds could be used in 2014).

Nigbor moved that COSMOS provide in kind support for the proposal development activity and up to \$5K in support. Motion seconded by Parrish and motion approved.

Review of 2014 Budget

Projected Income from membership is \$40K. This total is tenuous given current fiscal environment and pending COSMOS future activity. Anticipated expenses include committee expenses, funding a booth at 10NCEE with Iwan and Johnson attending and at least partial support for a representative from CGS and USGS, and support for the proposal development up to \$5K. This brings the total expenses to ~\$60K and income of ~\$40K, with a projected loss of ~\$20K.

Nignor moved to approve a 2014 budget with estimated loss of \$20K. Seconded by Parrish and motion approved.

Discussion with Y. Bozorgnia about PEER Activities (Bozorgnia/Bachman)

Bachman asked Bozorgnia about PEER's current activities. PEER's NGAW-2 has just released the database and GMPE's. Overall, the database has 63,00 recordings that have been processed/filtered one by one. This involved a tremendous effort on the metadata, providing Vs30 values for each site. Thirty thousand are California records, including events to M3.0. Thirty thousand are moderate to larger magnitude, including both California and international records. After much negotiation with China, PEER obtained the Wenchuan M7.9 records plus 64 aftershocks, 20 m down to 500 m/s velocity for suspension logging. Also available are the New Zealand events, Iran events, and Japanese events that include 5-7 well-recorded crustal events. Spectra has been released. It is hoped that time series will be released by PEER in January 2014. The next phase for the website is to expand its capabilities; only acceleration is currently available. In response to feedback from practitioners, it is hoped to add AVD plus spectra at various damping, currently limited to 5%. Other databases include Central and Eastern North American for NGA-E, which has taken a fair amount of effort to clean up, but it is hoped that these records will be included in the database by early 2014. This has taken three years and includes 10,000 records with magnitudes ranging from 2.3 to 5. The moderate magnitudes are Canadian.

The third database is subduction database, largely comprising data from the Tohoku event: 1300 records are publically available, plus some private local networks, for a total of 2000 records from the mainshock plus many aftershocks. Other Japanese subduction events are included and have been processed. There are records for some Chilean events. Rob Kayen went to collect some of the site characterization data in Chile. PEER has signed MOU's with all these agencies. They are looking at legacy subduction records from C.B. Crouse. The NGA-Subduction Database will likely be available mid-2015.

All these records are tied to the DGML (with the exception of the Wenchuan event unless they get permission). The database is very popular. For the most part the stations are free field, however the siting or housing for some stations is uncertain, and some GMPE developers used records from these stations and some did not. Much effort was required to clean up the database for foreign data, to remove sites in a castle on top of a mountain in Italy, or in a tunnel, in addition to much effort expended to ensure the metadata for stations is complete and correct.

Bachman was concerned about the duplication of efforts vis á via COSMOS and PEER. He also asked about MOUs between PEER and different foreign agencies. Steidl asked if NEID had provided permission to re-disseminate the data via PEER? Bozorgnia replied yes, and that it took much negotiation to get these MOU's in place. Time histories and response spectra are both being released. Bachman asked if this was competition for the CESMD? Parrish replied that that the CESMD is initially only California. The USGS covers the rest of the U.S. and the international data. It is not a goal of the CGS to set up MOU's with international providers.

Action item: Bachman wants reports for standard data processing and metadata collection. Steidl and Bozorgnia to get together to discuss MOU developments for international data.

Wells pointed out that structural response data is also important, but much of that data is in the hands of private owners. Some of it might be available from public networks. What would be useful would be to put together the infrastructure to collect future new data. Bozorgnia suggested that COSMOS provide the structural data when people request it at the DGML. Steidl reminded the Board that COSMOS doesn't store the data, only the metadata. Therefore it wouldn't be useable by DGML tools because it won't be in the PEER format but in the provider's original format. Bozorgnia noted that support for maintenance of and continued development of the

DGML is a problem. PEER is considering charging for use of the data. The DGML has been turned into a web-based system and is limited to only 100 records at a time for dissemination (per UC lawyer). It is planned to add arias intensity and CAV by mid-2014.

Status of Three-Year Plan Activities (all)

The presentation by Bozognia raised the issue of whether many of COSMOS' previous goals are viable given PEER's dominance in several areas. Is COSMOS duplicating what PEER has with DGML?

Action Item: Steidl to propose to Polat Gulkan a joint COSMOS/IAEE Committee

Action Item: Bachman confer with Bozognia if we can use PEER's DGML (possibly a moot issue).

Report of the Vice President and Update on Bruce Bolt Medal (Savage)

Mustafah Erdik received the Bolt Medal at the EERI meeting in Seattle in 2013. The awardee for next year is Tony Shakal, who will receive his medal at November 2014 COSMOS meeting. There has been a slowdown in nominations. SSA has suggested that the submission period for nomination materials be moved up to April through June or July. Savage suggested that organizational Board members and past awardees be solicited for potential candidates.

Report on Status of CESMD (Parrish/Savage)

The big initiative for this year is the credit information labeling on international records. A fact sheet and a presentation on the status of the CESMD will be reported tomorrow at the Technical Session.

New Business

Heinz asked what is the plan for generating new revenue, through either Core Membership or individual members. Potential members include PEER and PG&E. One potential activity is to propose monitoring and upkeep of instruments that are being installed in buildings in Los Angeles. No one is currently doing this.

Adjourn for Dinner