COSMOS
Consortium of Organizations for Strong-Motion Observation Systems

MINUTES BOARD OF DIRECTOR'S MEETING

25 April 2007
9:30 AM – 4:00 PM

Pacific Earthquake Engineering Research Center
Richmond, California

9:42 President Davis called meeting to order.

Roll Call:

Directors Present:
Norm Abrahamson
John Anderson
Jim Davis
Bill Iwan
John Parrish
Maury Power
Woody Savage
Jerry Wright

Directors Present by Phone for Part of the Meeting:
Farzad Naeim

Directors Absent:
Don Yule

Others Present:
Bob Bachman
Roger Borcherdt
Doug Dreger
Claire Johnson
Robert Nigbor
Tony Shakal
Jaimison Steidl

Others Present by Phone for Part of the Meeting:
C.B. Crouse
Carl Stepp

Welcome

Davis opened the meeting with the comment that this will be an important meeting because it will consider Long-Range Planning Committee results.

Minutes of Prior Meeting
Savage moved and Iwan seconded to adopt minutes of last meeting. Approved.

Report of Director of Engineering Applications
Bob Bachman

Anderson moved and Parrish seconded a motion that the fall meeting of the Board of Directors will be on the afternoon of Nov. 8th, and the Technical Session on November 9th. Unanimously approved.

Bachman raised the issue: Should the business meeting be at lunch instead of before the technical session? There was a rough consensus that a lunchtime meeting should be very concise and focused on information that will attract new members, as well as the essentials to satisfy our requirements as a California non-profit organization. Iwan moved and Parrish seconded that we hold the business meeting at lunchtime. Unanimously approved.

Bachman proposed to introduce as a code change to the IBC to require strong motion instrumentation in major structures. The proposal would be introduced with the same wording as in the UBC. Parrish moved and Savage seconded that the COSMOS Board endorse this effort. Unanimously approved.

Report of Treasurer. Maury Power's report is attached in Appendix C. The review by the accounting firm is very helpful to the Treasurer and the COSMOS Office Manager, and Power recommends that this be continued. CGS auditors will place some restrictions on how COSMOS can spend CGS funds in the future. Davis will hold a meeting of the provisional finance committee (the previous ad-hoc committee was Iwan, Johnson, Power, Davis, Bachman) again later this year, tentatively in the next 4-6 weeks. Parrish indicated that he would like to participate, and other directors are welcome to participate.

[Carl Stepp joined by phone at 10:36]

We need decision this year. We have been investing in a CD at Bank of America at 2.36% interest. Should we change that? Davis indicated that the finance committee will take this issue. Do any Board members have an opinion? Bachman thinks a money market account is equally safe and has higher return. Davis thinks that it is important that some is insured. Shakal is concerned about the appropriateness of investing public funds. Davis looks forward to the experience of the auditor team.

Parrish asked on the VDC: Why is it still embedded in the COSMOS budget? Davis replied that the Auditor has converted financial flow to show what we are responsible for even though it does not come through a COSMOS account.

Davis thanked Power for his extraordinary and dedicated efforts as treasurer. Power acknowledged the great job by Claire Johnson.

Iwan moved and Parrish seconded that the 2007 budget be approved as provided, but with the recognition that some subsequent actions in this meeting might have a financial impact that will be voted on as they come up. Unanimously approved.

Parrish moved that we continue to use an outside auditor on an annual basis to assure that our finances are conducted properly, and Iwan seconded. Unanimously approved.

Projects update:
Stepp directed the Board to the report on the status of our NSF award for a workshop on site selection, installation, and operation of geotechnical arrays which is attached n Appendix D. Stepp intends to publish the proceedings only on CD. Appendix D also has a report on the status of our PEER Lifelines project to develop a virtual data center to distribute geotechnical data.

Discussion: The report on locations of geotechnical arrays should be on the COSMOS website. Bachman asked if there are any specific sites that are favored for potential sites. Steidl noted a strong recommendation that a committee form to help make these decisions. Savage asked about continuations: PEER lifelines project and geotechnical arrays project.

Stepp replied that neither projects were slated to be continued beyond their current end date. They did not recommend a specific organization to maintain the GVDC, but they identified COSMOS as a possible home. COSMOS could do it very effectively; but it is a worldwide issue. He sees need for both us and international coordinating committees. Davis noted that the Long-Term Planning Committee sees the need for an international role for COSMOS.

Stepp reiterated that there was no current plan to continue the PEER lifelines developmental project and it was not clear to him how it will go about the future of this work. There are a lot of players, including strong private players. COSMOS will have the only server system when the project is completed using the DIGGS model. We have a commercial server at PEER and one at UCSB. Borcherdt commented that the geotechnical project has grown into a broad and important international project. It is important for the overall mission of COSMOS.

[Farzad Naeim joined by telephone at 11:08 am, Stepp signed off for now]

COSMOS VDC report:
Savage announced that Mindy Squibb has decided to take a position with NEES-IT in San Diego. She has offered to help with the transition. The National Center Management Committee (Parrish, Bill Leith (USGS), Savage, and Steidl) will have to adjust the transition plans. They still plan to have the transition completed by the end of August 2007. The funding model does not need to be changed.

At last board meeting they suggested roles for COSMOS for future operation of VDC. It is in the Secretary's Report (pages 30-32). Refer to page 31 where roles are identified. Savage encouraged the Board take some action with respect to these roles: endorse, develop detailed plan. These are part of the agenda for this afternoon.

Parrish expressed regret that Mindy is leaving COSMOS, and appreciation that Mindy will help with the transition. CGS does have an open position and funding for replacement for Mindy, with ideas for suitable individuals. Parrish is optimistic that it will continue on schedule. Savage added that Leith is also willing to consider alternatives to the funding plans they have discussed with Borcherdt and Rufus Catchings. Borcherdt commented that here has been some change in USGS management for the program. Applegate and Leith are discussing a new staffing plan. New plan is consistent with this plan to bring CGS and USGS together as much as possible. Davis asked if input from would COSMOS help? Borcherdt didn't believe it was needed. Davis asked that Borcherdt please keep the Board updated. The COSMOS governing board is willing to help.

Bruce Bolt Medal Committee
Committee members include Savage, Shakal and Dreger. Last year, the committee addressed comments from the EERI Honors Committee – how to be compatible with the EERI awards strategy. The current status is as follows: Bob Olsen is new the EERI Honors Committee Chair and the amended version should be brought before him. Malone will also bring it to the attention of the SSA honors committee. Iwan noted that rotating committees with rotating chairs work well for awards that are shared by multiple organizations. The current game plan is to find out if there is an EERI/COSMOS consensus and then approach SSA afterwards. Davis noted that early in the process, they did approach Bruce Bolt's widow, and she supports the award.

Long-Range Planning Committee
Bachman noted that the minutes of the Long-Range Planning Committee meeting are attached in Appendix E. EERI and SEAOC have meetings like this every couple of years, and he stressed that it was important that these meetings be separate from the Board meetings. The key items in the minutes are as follows:

COSMOS has an unbelievable opportunity to take leadership internationally.

Davis began today's discussion regarding long-range planning with a discussion of some short-term objectives.

Mission statement:
Altogether, there are six alternatives under consideration:
Borcherdt and Nigbor circulated a summary, included in the minutes as Appendix F. Alternative mission statements are referred to in these minutes as 1-6, in the order encountered in the Borcherdt/Nigbor summary.

1. Present statement.
To expand and modernize significantly the acquisition and application of strong-motion data in order to increase public safety from earthquakes.

2. Mission statement alternative 1 from page 7 of the LTPC minutes.
Promote and advance recording of strong shaking close to future earthquakes to improve public safety.

3. Mission statement alternative 2 from page 7 of the LTPC minutes.
Promote the advancement of strong-motion measurements on the ground and in structures to ensure that future large earthquakes are thoroughly recorded for the purpose of building an improved earthquake resistant environment.

4. Davis proposed alternative from page 15 of LRPC
COSMOS is the primary voice for the strong-motion issues and globally promotes and advances increased and improved recording of strong shaking in order to extend the capabilities of better prediction of damaging ground and building motions from future earthquakes and to encourage the application of these fundamental data to earthquake-resistant new and retrofit designs to achieve safer structures throughout appropriate regions everywhere.

5. Bachman proposed alternative from page 15 of LTPC
To provide international leadership in properly capturing and disseminating quality earthquake strong motion measurements that provide the fundamental data needed to create an earthquake resistant environment.

6. Borcherdt/Nigbor proposal which only appears in Appendix in section IV
Significantly advance the acquisition, dissemination, and interpretation of critically needed strong-motion measurements for engineering research, design, retrofit, and construction of improved earthquake-resistant built environments worldwide.

Davis stated that the Mission should be understood to people (interested but non-specialized) outside of the strong motion community.
Parrish liked #6 better than the others because it's more succinct.
Shakal felt #6 was better as a vision statement.
Davis advocated #3. He thinks that the term "primary voice" resonates well. In the discussion, other directors thought this statement was more like a vision statement
Iwan believed that #6 has too many adjectives and stressed that he thought it needed to be simple. None of the current suggestions have reached the level of something a lay person can understand on a coffee mug.

Davis said that purpose should be first: to improve earthquake-resistant structures. Steidl said that #1 could be modified to put the purpose first: Increase public safety from earthquakes through …, for example. Borcherdt said that we need to distinguish COSMOS from other organizations. Anderson said that we need to include science as well as engineering Bachman said that there should be more than just emphasis on safety, performance is critical. Parrish said that we need to think about the statement's appeal on a global scale. Wright said that the role of advocacy needs to be clear in the mission.

Davis observed that we need to form an ad-hoc committee. The COSMOS Vision should include some of #4 and some of 6, with purpose first. He suggests that we try to put this together and adopt a final version via email. Parrish questions how to adopt? Iwan believes we can't adopt it by email because it will take too much time. He believes this is one of the most fundamental things we can do. Power likes #6 because it captures idea that we don't just want to acquire data, that we have a purpose. Purpose could be a little broader.

Bachman – Can we get rules / principles that the mission statement needs to achieve?
Iwan – 1. Purpose is first.
2. Include both "understanding of" as well as "application of".
3. Short (Nigbor – 20 words)
4. Language understood by non-professional
5. Also need a vision statement

Borcherdt: Do organizations ever have two versions of their mission statement – one for the lay person and the other more technical?
Iwan – Vision can flesh things out better. Eg #4 could be a good start on a vision.
Davis – Recommended an action item to adopt these guidelines. He suggested that we create a committee with the charge to develop a draft mission statement following the principles Iwan suggested above. He suggested the following members: Iwan, Anderson, Parrish, Nigbor, Borcherdt. he committee should report back with progress report in approximately 8 weeks.
Parish moved, Iwan seconded that we create a committee, constituted as above, with the charge to develop a draft mission statement following the five principles suggested by Bill Iwan approved.

DISCUSSION OF SHORT-TERM PROJECTS: Outreach

International Workshop.
Borcherdt: In some way this could be a follow up to Vision2005 workshop.

I Vision 2015: An Action Plan For Strong-Motion Programs To Provide Critical Data Needed For A Safer Earthquake Resistant Built Environment.

II Integration of Web-Based Strong-Motion and Geotechnical Data Dissemination Technologies.

III Implementation of Advancements in Performance Based Design For Improvements In Building Codes And Earthquake Resistant Design.

Much discussion followed.
Stepp expanded on II. – Progress towards integrating virtual data centers on the technical level (needs infrastructure/coordination as well). Workshop could explore human aspect. How to get people to participate? Stepp suggested coordination with European strong-motion program (e.g., VDC at Imperial College). Stepp is pessimistic about NSF being able to fund from the geotechnical program, but NSF does have other sources. NEES consortium would have a strong interest for this sort of web-based system.
Bachman: Concern that there had just been some very big earthquakes and no quality measured instrumentation. There is a need to get instruments in place throughout the world, identify specific locations, and assure quality installation and maintenance. Abrahamson added that we needed to assess what currently exists and move on from there.
Abrahamson: There is always the question of who will pay for instruments and their long-term maintenance. A survey of how are people get funds and what are likely sources would be helpful. It is critical that any program have long-term organizational plan. Until this is established, it will be difficult to operate and maintain systems. An analysis for utilities and prove to them how useful this is could be used as a boilerplate for other organizations.

Stepp: Everyone is up against same problem of how to fund. At the San Diego workshop the general impression was that funding will have to come from a public organization. There is a need to coordinate/encourage agencies to incorporate. He does not see a way to get private sector companies to get involved, although this could be explored more fully.

Davis: In earlier thrust, the goal was to acquire data centrally. What is also necessary is reliable acquisition of strong-motion data from international sources, then there is the issue of new data. Can both thrusts be dealt with in a single workshop? Perhaps we should have a sequence of workshops, with integration of geotechnical side. Shakal does not believe issue is about formats.

Stepp: He suggests focusing on basic problem, which is long-term funding. Geotech is different from strong-motion monitoring. Geotech is generally one-time site investigations with common-format focus. Private companies are adopting DIGGS format and eager to participate. By getting this format adopted, it puts it on a common exchange bases , thus it can become routine into the future. On the infrastructure level there is the issue of maintenance of the databases themselves once acquired. In England, an oversight committee keeps database current. In the future in the United States, individual groups will conform to the standard format. Each needs to maintain individual databases or contribute to a central system. This is also an example of what could be done with strong motion, however, the problem remains of who will maintain basic monitoring.

Bachman: That's the impetus behind this workshop.

Stepp: He believes that a combined workshop might grow ideas.

Bachman: The goal is to have data and how to make it happen.

Davis: What elements should a planning committee discuss?

Bachman: The overall goal is to have global instrumentation in place to capture next large earthquakes, even if people are not there. Prioritize locations, standards for instruments, how to fund, how to coordinate, how to maintain, how to collect data, get into COSMOS VDC, get geotechnical data as all necessary.

Stepp: This is, essentially, an update of 1978 Hawaii workshop.

Naeim: Iwan's recent workshop was for strong-motion focused on these topics.

Iwan: He said there were significant differences. The current workshop as envisioned would involve enormous planning.

Bachman: He suggested creation of less costly instruments to change paradigm of cost and maintenance.

Borcherdt: He says the big problem is to get the instruments out there and infrastructure established to maintain them for 30 years. We need a global master plan and plans on how to fund it. The other alternative is II. He believes that several organizations might be interested in funding this. It would not achieve other objectives mentioned but would still be valuable. III also would be valuable.

Davis: He appointed a committee (Iwan, Abrahamson, Borcherdt, Stepp, Anderson) to further consider the viability of a focused workshop to take place in the next year or two.

Stepp: He suggested adding Loren Turner of Caltrans as a resource.

Iwan: He asked how do you fund a one theme workshop?

Abrahamson: He suggested we need to plan two workshops.

Davis: He suggested making funds available to committee for some prototype planning in the next year and aggressively bring it forward. He believes this matter requires some urgency.

Bachman: He suggested adding an international member and suggested Julian Bommer. The workshop does not necessarily need a U.S. location.
Stepp: He believes that an international location would be preferable.
Anderson: He pointed out that 2008 is 75th anniversary of strong-motion seismology. The first significant strong-motion record came from 1933 Long Beach earthquake. COSMOS could organize sessions at EERI and SSA meetings, that would describe the anniversary and accomplishments so far, and announce the COSMOS role in looking forward.
Bachman: He pointed out that EERI in New Orleans is in advanced planning stage. He will look into seeing if this can get onto the program.

BREAK.

Technical Session
Bachman: He asks for flexibility to price the session appropriately.
Continuation of Short Course Efforts
Bachman said that planning for this item has stalled due to Eduardo Miranda's personal issues. He asked whether transitioning this concept to an electronic forum might be viable?
Nigbor: He agrees with this idea and thinks COSMOS should consider preparing modules. He suggests hiring someone like Farzad Naeim to develop items like this.
Naeim: He says that the mechanisms are simple and content is central issue. Currently, the VDC is not suited to practicing engineers. They need add-on to help pick a set of records, scale, match, etc.
Bachman: He suggests that selection and scaling, and using the Geotechnical Database might be a potential module.
Naeim: He stressed that it needs to be engaging and streamlined for web use.
Bachman: He asks if the Board interested in pursing this idea.
Nigbor: He offers two other examples: electronic encyclopedia of earthquakes or a short course from commercial vendor. Users would pay for online access or for the DVD.
Naeim: He stressed that we need to tie it to COSMOS, which will bring COSMOS to attention of the engineers.
Nigbor: He suggests populatomg Wikipedia with strong-motion information and link to COSMOS from the pages.

[C B Crouse is online at 1:51 pm]

COSMOS Tool Kit

Davis: There is a proposal by Crouse for a toolkit that would enhance the value of the VDC. Crouse then reviewed the suggestions.
Stepp: He believes that these might be implemented as a connection linked from the National Center.
Nigbor: COSMOS would need to support the software, which could be expensive.
Bachman: He says that we need to look into feasibility, cost, and other issues.
Abrahamson: He suggests that a start would be to improve the search capabilities. Other things: spectral matching, etc., is a different category. Another idea it to assist the user get appropriate

records. We want better users – not misusers. We could also put options up, but not endorse them.
Stepp: He said that there is a need to scope out the conceptual requirements, which would require specialty programming.
Power: He points out that CGS and PEER Lifelines are building a tool like this to interact with the PEER NGA database.
Naeim: He agrees: PEER has a program that does a lot of this.
Davis: He identified a committee that will explore the feasibility (Abrahamson, Power, Crouse, Naeim, and Bachman) and come back to the board with an idea of the feasibility of the general concept, linkage to the national center, priority of items, and cost to implement it, revenue recovery. He asked for a progress report at September 1.

Merger of VDC and GVDC Geotechnical Data Center
Stepp: He says that it could be merged within COSMOS by putting in links, and that Mindy Squibb and Jennifer Swift are working on it now.
Steidl: He points out there's a grad student at UCSB working on putting the GVDC stations on Google map. It's already on VDC.
Crouse: He would like option to look for geotechnical data that is available for the station in the strong-motion VDC: linked to geotechnical VDC, with option to specify the information that he wants or find nearby station.
Stepp: That is what is being done.
Davis: He asks that Stepp and Steidl scope out further the current activities and identify the role COSMOS may play to stimulate, implement, and gather money. He suggested September 1 for a target date. If not possible by then, aim for a time well in advance of the November meeting.

Other Suggestions from BOD at this Meeting
Savage: There are important roles for COSMOS in support of the National Center. International linkages are something really crucial, and with M. Squibb leaving there is not natural person to fill the role. Government funding is biased towards there being a separation between national and international data. COSMOS could find someone to help with that. Would COSMOS be interested?
Davis: Yes. How would it be achieved?
Steidl: We need a non-government representative who maintain list of links. Board members should deal with those international entities. There's a natural role for implementation by the person running the database and liasoning may not take much time. International data doesn't reside on international servers but on the COSMOS server. This would be difficult when VDC is on a government server.
Bachman: We need someone highly conversant with international data.
Borcherdt: H believes that is a key aspect of the mission of COSMOS. Does merger with GVDC help?
Steidl: He asks where will the server reside? In the COSMOS office at U.C. Berkeley or at Santa Barbara.
Abrahamson: COSMOS is a node that hosts the international data.
Steidl: He notes that Japan is the biggest contributor and ask if the USGS handle international data?
Borcherdt: He says it has not been discussed.

Johnson: There is potential to run it out of U.C. Berkeley but there are large security issues. She suggests that someone from Caltrans (Loren Turner's office) manage it.
Davis: He says that there is a need to scope things out, find cost, and funding avenues. He assigned a committee to do do (Steidl, Savage and/or Borcherdt, Parrish). What are the specifications for the international sources? Davis asked for a report by Sept. 1.
Borcherdt: He points out the need for higher level management as the USGS level.
Shakal: He points out that linking VDC and GVDC complicates the issue.
Steidl: He says that linking is the right word for VDC and GVDC. It is not a merger.

DISCUSSION OF SHORT-TERM PROJECTS:

Strong Motion Data Standards And Uses

Bachman: COSMOS primary purpose was to create standards. We could create data module and a standards committee. It would be optimal to have standards in place at time of the international workshop.
Savage: He asked if we need a standing committee?
Steidl: He points out that ANSS is setting standards. We could recommend that people use some sort of a standard.
Power: He points out that there are a lot of guidelines, can we use them?
Davis: Can we propose an existing guideline?
Nigbor: He says that it's better to be promoting guidelines than standards.
Anderson: He says that quality assurance may be more important than standards. Should COSMOS be reviewing or compiling QA data?
Abrahamson: He says that COSMOS is like everyone – we just throw the data out there. Can we add a comment on whether our data meets a certain standard?
Bachman: He appoints a committee of (Norm, Woody, Tony, Bachman) designated to think about standards and QA.

Discussion of Short-term Projects: Advocacy

Savage notes that C.B. Crouse is a member of National Steering Committee and would be in a good position to advocate to ANSS. Savage and Nigbor will put together a draft presentation for Crouse to communicate COSMOS activities to NSC. Davis notes that the National Hazards Caucus meeting will be held in May. Davis has tapped Hugo Morelli to represent COSMOS. We have broad latitude for advocacy without compromising nonprofit status. Davis noted AGI concerns on the USGS budget.

Anderson asked for clarification of the role of Board members in advocacy. Should the Board have a policy? Davis replied that for the time being, if a Board member sees an idea and an opportunity for advocacy, he should work through Davis before pursuing it. Davis will work with the Board as a whole if needed to avoid shotgun approach and any conflict of interest. Davis will devise a more formal response about what is appropriate and disseminate that to the Board.

COSMOS Organizational Actions Necessary to Accomplish Missions and Goals: Bylaws Changes and Status of Charter

Davis circulated a document on COSMOS Bylaws. Iwan moved and Parrish seconded the resolution on Page 2, except that bullet 2 reads “current Bylaws to the extent possible."

Davis said that any review will include legal review. He expects a 12-month period to conclude results of the Bylaws committee. Motion was approved. Iwan suggested a two-phase process. First the committee should come to Board with general principles, and then later come back with the detailed wording. Davis agreed. Davis will ask people to indicate their interest in email to Davis first.

Overview of Previous Discussion and Action Items
Savage asked the Board to endorse roles of COSMOS for VDC
Bachman moved and Anderson seconded: the Board endorses the roles of COSMOS as listed on page 31 of minutes from November board meeting. The group endorsed in principal (Davis' exact words), page 31 of the meeting package. There were unanimous ayes.

The final item on the Agenda was the issue of the discrepancy of the Bylaws and the Charter. Davis will assign members to this committee for a final resolution to put before the Board at the 11 November 2007 board meeting.

David thanked all participants and Board members, with special thanks to M. Power and C. Johnson for their efforts in putting together the financial information. Davis also thanked N. Abrahamson for his participation and leadership in service of the Technical Session in November 2006, and also thanked D. Dreger for being the liaison between COSMOS and the University of California, Berkeley.