

NEES Consortium First Annual Meeting, May 21, 2003

Remarks by Robert Reitherman,¹ Founding President of the NEES Consortium

I'm speaking to you as your ex-president. In the setting up of NEES Consortium, Inc., I was the first to hold the office of President, but was released after 90 days good behavior.

What I was really looking forward to about being the President was holding the office of ex-President. I was looking forward to an early retirement on a comfortable pension, with nothing other to do than pick a city where my presidential library would be located. However, I received no pension, and there will be no library. And I continue to have the responsibility of serving as the principal investigator of the NEES Consortium Development Project, a fact which is easy for me to remember because I have received five reminder notices from NSF that my next Government Performance and Results Act Facilities Performance Reporting System filing is due exactly eleven days from now.

The NEES Consortium Development Project operates under a Cooperative Agreement between CUREE, Consortium of Universities for Research in Earthquake Engineering (CUREE), and the National Science Foundation, and the Project will be actively working on its required tasks for another 18 months. Our project officer is also the NSF program officer with overall responsibility for NEES, Joy Pauschke. There is a large amount of momentum behind NEES at this point in time, with the construction of sophisticated engineering laboratories at fifteen universities around the country and an advanced information technology network well underway, as well as the successful launching of the NEES Consortium. Momentum as you all know consists of only two quantities: mass, and velocity.

I think the NEES Consortium Development Project and the new NEES Consortium, Inc. can take some credit for helping with the velocity portion of that equation, but there was no substitute for the mass provided by NSF, namely \$82 million in Major Research Equipment and Facilities Construction funds to create the NEES infrastructure. NSF also supplied more than just the funding and the political wherewithal to obtain this funding, an MREFC program that required approvals at the highest levels within NSF as well as the approval of Congress, a

¹ Executive Director, Consortium of Universities for Research in Earthquake Engineering

Congress that indicated how important it viewed this initiative by naming it after one of its most honored members, namely the late George E. Brown, Jr. Those of you unfamiliar with Congressman's Brown's contributions to this and other science and engineering fields will find a brief biographical sketch in your proceedings. Besides supply the mass, the money, in my limited view of the history of NEES over the past half dozen years, my opinion is that NSF supplied the creative long-term vision for NEES, a vision that is integrating information technology with civil engineering in a way that is unique in earthquake engineering and will be influential in the other disciplines of engineering as well. One of the many essays of Michel de Montaigne is "On the Power of the Imagination," and he begins it with a quotation of a classical saying that Erasmus collected in his adages: "*Fortis imaginatio generat casum.*" ("A powerful imagination generates the event.") NEES of course is being built with the hard work and dollars being spent every day of this initial development period that extends from 2000 through fall of 2004, but before the first awards were issued to begin the work, NSF had, with its imagination, in essence generated the event. The NEES motto, "If it sounds different, it's because it hasn't been done before," should motivate us to be open to the new aspects of NEES that follow from this imaginative vision.

There are several people at NSF who have played key roles in NEES to date, in addition to Joy Pauschke whom I already mentioned, who should also be acknowledged.

Assistant Director for the Engineering Directorate

Eugene Wong
Esin Gulari
John Brighton

Directors of the Division of Civil and Mechanical Systems

Ron Sack
Priscilla Nelson
Galip Ulsoy

Equipment Site Program Managers

Vilas Mujumdar
Tom Anderson

There are two major deliverables of the Consortium Development Project. One was the establishment of the NEES Consortium, which was incorporated January 22, 2003, and as you know is very much a real organization, having gone through

its initial elections and is here, now, carrying out its first annual meeting. Twenty-one Regional Workshops around the country and a national workshop were held last year to obtain input from the broad earthquake engineering field. Working Groups met and drafted policies and plans for the consortium. The Co-PIs and I had many meetings, and let me acknowledge now who those Co-PI's are:

Steve Mahin
Robert Nigbor
Cherri Pancake
Sharon Wood

They are not the only hardworking people on the Consortium Development Project, and I will name the others later, but these four people deserve special recognition. In fact, not only have these four worked above and beyond the call of duty on the Consortium Development Project and have ongoing project tasks to accomplish, they have all allowed themselves to be elected to either Director or standing committee positions in the new consortium. To these hard-working co-PI's who have such intimate knowledge of the tasks ahead who have volunteered for even more work, I have only one thing to say: My conscience is clear because you should have known better.

Professors Mahin, Nigbor, and Wood will be at the rostrum later in the program, so let me just single out Professor Pancake for a moment. From reliable sources I know that the last time she gave blood and they gave her a cup of juice and told her she could go, one of the nurses caught her sneaking back into line trying to donate another pint.

Three days ago marks exactly two years since I presented to the CUREE Board of Directors the first draft of the proposal that was to become successful in the competitive NSF review process and which created the Consortium Development Project. Since it is obvious we have achieved some measure of success now, perhaps I can be permitted to relax for a moment and turn to a light-hearted aspect of the consortium development process, namely.....Bylaws.

Several of us spent many long hours working on the Bylaws of NEES Consortium, Inc. You ask how can an hour be long when all hours are the same length, exactly 60 minutes? Believe me, an hour spent working on Bylaws is longer than an ordinary hour. It turns out that the conversion factor is the same as the way dog years convert to people years: One year of a person's life is like seven years of a

dog's, and one hour working on Bylaws drains one of at least seven hours' worth of vitality. One story gives you an idea of carrying out the task of developing the NEES Consortium, Inc. Bylaws. On one particular Sunday earlier this year--it happened to be January 26--Bob Nigbor and I traded emailed drafts and spoke over the phone, until it was early afternoon and I timidly asked Bob if was OK if I took a brief break and, along with the rest of the world, watched the Super Bowl Game that was about to start. He said he wouldn't hold that against me and that in fact he and his wife Pat were already a little overdue at a neighbor's party to watch the game. We agreed to get back on the line hashing over the Bylaws after the game was over. However, he outdid me by sneaking out of his neighbor's party during the fourth quarter—this is a true story—and going back to drafting material and emailing it to me, so by the time the game was over and I left the living room to go back into my home office to get back to work, I saw from my email I was already behind again.

Those of you who have never worked on the development of a new organization's bylawsdeserve some equally unpleasant misfortune to strike you just to even things out, such as having the IRS audit you and quote some obscure regulation that says you have to produce all your grocery receipts for the past three years. There were many hours of detailed discussion and debate, many Bylaws drafts—labeled with file names that numbered up into the 30's—and many legal memoranda from the attorney, Don Tamaki, filled with references to Corporation Code Section 5238 (e) and the statutory indemnification requirements thereto appertaining.

But I won't bore you with those Bylaws details now,....because I will focus exclusively on the subject of Bylaws in the second hour of my talk.

A great deal of worthwhile thought and discussion went into the Bylaws and the associated Standing Committee Policies. These discussions included negotiating discussions with a wide range of people—people associated with Equipment Sites, people who were not; structural engineers as well as tsunami researchers, geotechnical engineers as well as IT experts, and so on. These weren't just idle discussion, I would call them negotiations because something valuable was at stake—how the NEES Consortium would be structured and how it would be run. While we may say we are all members of the same earthquake engineering community, in fact each of us has a slightly different interest, and there's nothing wrong with that. Recognizing the reality that there is a diversity of self-interests represented within the broad NEES community is the only rational way to devise effective ways to collaborate.

The first task for the Consortium Development project was to set up the NEES Consortium, which has been successfully done, and which included the related task of supporting its operations, which CUREE is still doing until NEES Consortium, Inc. has been able to hire its own Executive Director and other staff.

The second longspan task of the Consortium Development Project that has extended across many months is something we are at work on now in collaboration with your new Board of Directors, and that is to submit a top quality, extremely comprehensive proposal to NSF by September 30 this year that will contain nothing less than the 10-year plan and budget for the funding and operation of the NEES IT services and the operations and maintenance of the Equipment Sites, as well as the plan for the consortium organization itself, such as annual meetings like this one, committee functions, staffing, the activities of the Board of Directors, and so on. The funding to the Equipment Sites from the Consortium will be in the form of Operations and Maintenance (O & M) subawards. Bob Nigbor has coined the acronym MOM for this proposal, because it will include the overall Management of the consortium, and Operations and Maintenance. A prize will be given to the person here who can come up with the words that fit the rest of the acronym: A-N-D A-P-P-L-E P-I-E.² We figure that if we have a proposal called M-O-M A-N-D A-P-P-L-I-E P-I-E, the Director of NSF and the National Science Board can't possibly be against it.

This proposal from NEES Consortium, Inc. will not include research funds in its budget, as will be explained later by Steven McCabe of NSF, because the role of the Consortium is not to conduct research projects. Once a research proposal has been awarded by NSF through its merit review process, scheduling of usage at Equipment Sites and many other activities will be administered by the Consortium, but research proposals will be submitted directly to NSF for its usual review process.

“Earthquake engineering community” has been often referred to in the establishment of NEES. The word “community” has the connotation of altruism, and there has been a good deal of that present in the work of many people. We should also recognize as I just mentioned that each of us has a different self-interest. The earthquake community is also an earthquake industry, an industry

² Later in the Annual Meeting, such a contest was held. The winning entry, produced by Professor Michael O'Rourke of Rensselaer Polytechnic Institute, was: Amazing NSF Dollars Allowing Professors, Post-docs, & Lesser life forms to Expand Publications in Earthquakes.

with a desire to advance its interests just like any other. There's nothing wrong with that, especially in the case of earthquake engineering, which confers such broad public benefits with regard to the construction we live and work in. The more we openly put those interests on the table and talk about them, the better we can work out a collaborative way of running the NEES Consortium and of carrying out NEES research projects. Personally, I have found the process of dealing with competing interests in the formation of the NEES Consortium a surprisingly pleasant one, because there really is a strong sense that we belong to and owe some loyalty to something larger than just the university, or company, or organization, or agency where we are employed. The fact that NSF has presented the earthquake engineering field with a historic opportunity for advancement has brought out the best in us.

In the life of any organization that will last at least a decade, inevitably some unforeseen contingency will arise, some bad news will be delivered. None of us in this room can exactly predict what that challenge might be. None of us has ever even seen a NEES research project, for example, so we are all in a sense novices. But when some kind of bad news arrives, I am confident the leadership of the Consortium will react confidently, as they should, because this is a strong organization.

I was driving with my teenage son into town to do a few errands recently in the car he drives to school, in other words *his* car, which is the same one that the department of motor vehicles mistakenly thinks belongs to my wife and me. I didn't notice when he reached over and turned on the CD player. There was a horribly loud noise, a grating combination of grinding and screeching. I exclaimed "What the heck is that!?" and he replied it was his favorite rock group. You might think that I found that answer disconcerting. However, I was greatly relieved, because I thought it was the transmission.

Similarly, there may come a time when NEES Consortium, Inc. has to deal with some unintended adversity, some distressing news of one kind or another, and I'm sure the leadership will be able to react with calmness in finding an elegant solution to what might seem to be a complex problem, just as I did when I reached over and clicked off the CD player and the noise instantly went away.

The CUREE-led Consortium Development Project has given the NEES Consortium and NEES as a whole a boost, something like a first-stage rocket. We accelerated from zero and now have reached quite a significant velocity. We are on the trajectory that we needed to attain or even a bit above that minimum, but

soon we need to fire the second stage to get into orbit, to wit, to begin to operate for a decade under post FY 2004 funding and awards. We should be optimistic about our prospects, because it's like the difference between static and kinetic friction: It takes a larger force to overcome the static friction that keeps an object at rest than it does to overcome kinetic friction and keep it moving once it has begun to move.

By chance it happened to be in a casual conversation with your new President, Ian Buckle, at this year's EERI Annual Meeting, that he congratulated me on the establishment the week before of NEES Consortium, Inc. I had no way of knowing then that Ian would be elected a Director and that furthermore his fellow Directors would elect him President.. When Ian gave his congratulations on the creation of the NEES organization I replied off the top of my head that what had been created was a building permit, not a building. We had incorporation papers, Bylaws, initial Directors, but that was far from a functioning organization. I would now like to retract that statement, my statement that what has been created is a building permit and not a building, because a great deal of tangible progress has already been made in four short months since then through the work of many people. We've at least poured the foundation for an organization, an organization that will last more than a decade.

A comprehensive set of elections for the Board of Directors and for Member-elected Committee seats has been successfully held. This First Annual Meeting in Park City, Utah is being held. These are just two indicators of a real, rather than just a paper, organization. If you look in your Proceedings and count the names, you will find the list of Members totals almost exactly 500, and almost exactly half of that large membership is here in person. The NEES Consortium membership should be proud of those numbers: Don't be modest, give yourselves a round of applause.

We truly have a viable and vigorous organization capable of the governing *of* the NEES community, that can ensure that this governing is done *by* the community, and that can also make sure this governing be done *for* the community.

Some of you no doubt realize that is a paraphrasing of a portion of the last sentence of Abraham Lincoln's Gettysburg address. So it would be darn foolish of me to try to recite that whole sentence of Lincoln's now because some of you would quickly know if I didn't get it right.

So instead, I will recite from memory an obscure quotation by Abraham Lincoln that I hope none of you know, so that you won't be able to tell if I'm recalling it correctly or not.

Abraham Lincoln once said: "Better to remain silent and be thought a fool than to speak out and remove all doubt."

I've probably spoken enough to purge your minds of any lingering doubt. Therefore I will hasten to conclude my comments by crediting the work of the fifteen Founding Directors of the NEES Consortium and to pass on to your President a resolution of support and a memento of this changing of the guard.

Before reading off the names of those fifteen individuals, I need to introduce some of the CUREE staff who have worked very hard and very efficiently on the Consortium Development Project since its inception: In addition, Sonya Hollenbeck in particular and also Susan Tubbesing and Valerie Austin of EERI have worked on these annual meeting arrangements. Two of the CUREE staff aren't here or will be here later: Leah Radke and John-Michael Wong. Two of them are here. Because you may think I am biased in favor of the employees who work for me I will merely cite two completely objective statistical measures of how hard these two people have worked on this week's events, by citing the number of hours on their time sheets for the last two weeks, normally an 80-hour total. First, with a time sheet total of 122 hours, Darryl Wong. And, weighing in at 148.5 hours, our current champion is Reed Helgens. The nees.org website is run by Darryl, and I hope you found the process of applying for membership and registering for this member a smooth one because of his skill in that area. He also handled all the graphics for the event. As for Reed, I know from experience that she is unflappable under fire. Speaking of fire, it was only a small fire in the kitchen of the hotel where CUREE was co-sponsoring the banquet for the Ray Clough-Joseph Penzien Symposium last year, but it was enough of a fire for the building to be evacuated by the fire department. When I was able to walk into the deserted dining room, I saw Reed sternly lecturing the brawny firefighter, who was outfitted in complete protective gear and self-contained breathing apparatus, that if he and his colleagues didn't get the situation under control very quickly it was going to spoil the careful plans for the banquet she had made. And they did get the situation under control very quickly.

I also need to introduce two people who are part and parcel of the NEES Consortium Development Project who were not voting members of the original Board. Tom Finholt of the University of Michigan has given us advice on how

collaboratories should work and provided IT knowhow that was invaluable, as well as serving a project assessment role. I know at times he thought some of us were Luddites when it came to becoming familiar with various kinds of telecommunication, such as AccessGrid, videoteleconferencing, the CHEF tool developed at Michigan, and other fancy computer technologies that support collaboration. I tried to fool Tom into thinking that I had an excuse for not being expert with these kinds of sophisticated technologies by leading him to believe that I was Amish, but that cover was blown when he found out I had been raised as a Presbyterian.

Andrew Neitlich was our organizational development and management consultant who provided us guidance that has helped us from the very beginning of our project. Andrew will be at the podium later today, so by way of advance introduction let me point out that he is the author of the book titled *Elegant Leadership* and has used his MBA from Harvard to accumulate a variety of useful management experience, none of which to my knowledge has violated any state or federal securities transactions laws.

When we began this project for NSF to set up the NEES Consortium, we explained to Andrew at our first project meeting that our task was to begin a brand new organization that had to smoothly mesh with a \$10-million-plus IT project and \$70 million worth of different university laboratory construction projects that were already underway. We had to create an organization that would, to quote the Cooperative Agreement, “lead, coordinate, and serve as the focal point for NEES,...create the organization that would operate under ten-year strategic, business, and critical self-assessment plans,...develop connectivity and interactions with other relevant experimentation, computational and visualization programs and networks,...and engage the earthquake engineering community to gain community-generated input and broad consensus for the organizational structure and governance of a single community-based and community-led NEES Consortium....” When we finished describing the scope of work from the NSF Cooperative Agreement, we paused and proudly said, “*This* is what we are going to accomplish.”

Andrew politely replied: “Based on my management experience, *this* is what you’ve gotten yourselves into.”

Because he is an experienced and skillful management consultant, he knew that the best strategy in dealing with a client is to be completely honest with what they’re up against....unless of course that would make them panic. If you make the client

panic then you have a real mess on your hands. So he tried an alternate strategy....duplicity.

He beguiled us with a metaphor. He told us that the task we faced was like the iceberg: 87% of it is below the surface.

He deliberately withheld from us the fact that there was another 87% of our task above the surface.

By the time we figured out that 0.87 plus 0.87 equals one and three-quarters times as much project as we had bargained for, it was too late to back out.

We went the only direction we could, forward, primarily because Joy Pauschke was politely but firmly pushing us from behind. The Consortium Development Project proceeded to rack up some impressive successes, holding 21 Regional Workshops and a National Workshop, along with the less publicized but equally important smaller meetings of people inside our project and in the other NEES projects and from the broad earthquake engineering community to discuss, debate, and plan what the NEES Consortium should be.

NEES Consortium, Inc. was begun one day short of four months ago by 15 Founding Directors, the same 15 key members of the NEES Consortium Development Project operating under the CUREE-NSF Cooperative Award. One of my last acts as the first President was to draft for approval of the first Board a resolution of support for the people who would soon come into office as the new members of the Board as determined by the electoral process we had underway.

First let me introduce to you your new Directors, duly elected as per the Bylaws:

Thalia Anagnos	(elected by the Institutional Members)
Ian Buckle, President	(elected by the Equipment Site Members)
Craig Comartin, Treasurer	(elected by the Board of Directors)
Ricardo Dobry	(elected by the Equipment Site Members)
Gregory Deierlein	(Executive Committee member, elected by the Individual Members)
Helmut Krawinkler	(elected by the Institutional Members)
Bruce Kutter, Vice-President	(elected by the Equipment Site Members)
Kim Mish	(elected by the Board of Directors)
Robert Nigbor, Secretary	(elected by the Individual Members)
Andrei Reinhorn	(elected by the Equipment Site Members)

Carl Stepp	(elected by the Board of Directors)
Kenneth Stokoe II	(elected by the Equipment Site Members)
James Wight	(elected by the Institutional Members)
Sharon Wood	(elected by the Individual Members)
Solomon Yim	(elected by the Equipment Site Members)

As I say, I introduced the following resolution to my fellow Founding Directors for their vote so that it would be adopted and ready in plenty of time when the newly elected Directors came into office May 1. The vote on the resolution was done on April 23, 2003. The election results for the new Directors were finalized on April 28, 2003. I cite these dates merely for the historical record, but it is interesting to note that because of the sequence of these two events, we will never know if the Founding Directors would have voted for the following resolution had they known exactly who they were promising to so enthusiastically support. However, the fact that we have a good turnout of the original Directors here today at this meeting--we have perfect attendance, all fifteen are here—would indicate that they probably would have voted for the following resolution even had they known who was going to be elected.

The resolution we approved is included in your Annual Meeting Proceedings

Resolution of Support for Incoming Directors of the NEES Consortium
Adopted Unanimously April 23, 2003
by the Founding Directors of NEES Consortium, Inc.

[cites community and NSF involvement]

Whereas considerable earthquake engineering community involvement and National Science Foundation support for the consortium formation process has been forthcoming since the beginning of the NEES Consortium Development Project in October, 2001, and

[cites the successful establishment of the corporation and initial Board]

Whereas NEES Consortium, Inc. was established as a non-profit public benefit corporation in January 2003, with the members of the NEES Consortium Development project team becoming the interim members of the Board of Directors of the NEES Consortium, and

[cites the underway electoral process]

Whereas elections for the Board of Directors have now been successfully held, with the terms of the new Directors beginning May 1, 2003, and

Whereas the continued support of the NEES Consortium Development Project is needed to facilitate the start-up of the Consortium and the successful submission of a proposal to NSF for the 2004-2014 operation of the Consortium,

Therefore, we outgoing Directors express our commitment of continued support for NEES Consortium, Inc. and our confidence in the ability of the new Board to meet the challenges and high expectations placed on this historic new organization.

A hard hat is an appropriate memento to pass on, rather than a gavel, because we're not judges and lawyers, we're people in the earthquake engineering field. Many of you have seen Ian Buckle's structures laboratory at the University of Nevada at Reno, filled with huge brute force apparatus of a very sophisticated nature that, using the classic model of structural engineering experimentation, can turn a perfectly good reinforced concrete column into worthless rubble in no time. Ian would be laughed out of his own lab if he were to be seen walking around carrying a wimpy little wooden hammer. Therefore, this hard hat is more appropriate, which, I would like to note for the record, meets ANSI Z-89.1-1997, and on which are the names of the 15 original Directors of the NEES Consortium. As per a contractual requirement of Section H (5) (b) of our Cooperative Agreement, there is a label affixed to the hard hat that reads:

"This hard hat has been partially supported by NSF Cooperative Agreement 0126366, but the opinions expressed by the wearer do not necessarily reflect the views of the National Science Foundation, which offers no warranty, neither expressed or implied, with regard to such opinions, which may be total nonsense even though the nice logos on the hard hat make the wearer seem to be an authority."

A hard hat is also appropriate as a reminder that all of us in this room and everybody in this country are affected by what gets built, and we're all affected by the extent to which that construction is seismically protected. We are all people who live in, work in, go to school in, and use the utility services of, the construction that NEES will help make seismically safer and more reliable.

When I read the names of the fifteen Founding Directors of the NEES Consortium, please stand up and remain standing until you're all standing, at which time the audience can give you a round of applause. And if the idea of clapping their hands

hasn't crossed their minds and the audience is deathly quiet, then at that point I suggest you just sit down quickly and make yourself inconspicuous.

Thalia Anagnos, San Jose State University

Harvey Bernstein, Civil Engineering Research Foundation (CERF) - ASCE

Dante Fratta, Louisiana State University

Cathy French, University of Minnesota

Bill Holmes, Rutherford & Chekene

Anke Kamrath, San Diego Supercomputing Center

Jeremy Isenberg, Weidlinger Associates

Philip Liu, Cornell University

Stephen Mahin, University of California at Berkeley

Robert Nigbor, University of Southern California

Cherri Pancake, Oregon State University

Robert Reitherman, Consortium of Universities for Research in Earthquake
Engineering

Kim Roddis, University of Kansas

Susan Tubbesing, Earthquake Engineering Research Institute

Sharon Wood, University of Texas at Austin.