

NHERI Joint Governance Meeting and NHERI Council Meeting No. 1 for FY2
during the NHERI Summer Institute at College of Engineering Building EB3.04.30, UTSA San Antonio, TX

July 25, 2017 4:00 to 6:45 PM CT

Minutes

4:00 pm – 5:00 pm NHERI Joint Governance Meeting.

Attending: Network Independent Advisory Committee (NIAC): William Hansmire, Catherine Petroff, John van de Lindt, Peter Vickery, Richard Woods. User Forum Committee: Elaina Sutley, Nina Stark, Russell Green, Erik Johnson. NHERI Council: Arindam Chowdhury, Patricia Clayton, Tim Cockerill, Dan Cox, Randy Cox, Steve Mahin, Forrest Masters, Julio Ramirez, Ellen Rathje, Ken Stokoe, Joe Wartman, Dan Wilson. NCO: Antonio Bobet, JoAnn Browning, Dan Zehner. Guest: Jiqui Yuan

1. Attendance and Welcome

The meeting opened at 4:10 PM Central. The list of participants and affiliations is attached to these minutes. Each participant was invited to provide a brief introduction. One of the main goals of the joint meeting was to facilitate the interaction between the various groups and give to opportunity to the members of the governance to get to know each other better.

2. Committee roles and interactions

Julio provided a brief overview of the roles and responsibilities of the various Governance groups. Next, the chairs, Dan Cox (Council), Russell Green (User Forum) and John van de Lindt (NIAC) shared their comments on their respective group activities.

3. Floor Agenda Items:

The participants engaged in a free flowing discussion related to items “a” to “d”.

a. Interactions;

b. Building Community: increasing number of users

Discussion revolved around increasing the number users and the funding opportunities. Among the various opportunities were: (i) enhancement of existing/ongoing projects; (ii) payload opportunities; (iii) promoting proposals with multi-users and multi-facilities (big projects); (iv) bring in Industry partners through the mechanism of a NHERI affiliates program; (v) promote data re-use proposals; and organize research campaigns using the NHERI Science Plan as the basis.

c. Increasing collaborative research among established engineering communities (coastal, wind and earthquake engineering)

d. Increasing collaborative research among other disciplines (social science, computer science)

4. Disseminate broadly the impact of NHERI (household name for multi-hazard research to improve the resilience of civil infrastructure)

5:00 pm-6:45 pm NHERI Council Meeting No 1 for FY 2.

Attending: Network Independent Advisory Committee (NIAC), User Forum Committee, NHERI Council

1. (4 min) Review and Approval of Minutes (previously distributed) of Meeting No. 4 FY1 (04-10-2017) (Dan) Forrest moved approval of the minutes as distributed. The minutes were approved as distributed.

2. (10) Annual Council Report to the Community (Dan, Ellen and Julio)

Julio, Dan and Ellen will prepare first draft and distribute for comment. The report should be submitted sometime during this quarter (i.e. before the end of September 2017)

3. (10) NCO Items (Julio):

a. Science Plan: Update

The Science Plan was posted on July 15 in DesignSafe-CI and reviewed at the Summer Institute. The input will be incorporated by the Task Group.

b. NCO Site visit and Response

NCO will share the Y-1 SVRT Report and Response with the Council.

- c. Council Annual Work Plan FY2 (funded by NSF through a supplement to AWP of facilities involved in network-wide activities)
To be reviewed with NSF in August for decisions on the requests.
 - d. REU NHERI program update
It is ongoing and a full report will be available at the end of August.
 - e. International Partnerships: status update E-Defense, NCREE, WindEEE
On July 13 the agreement with NIED/E-Defense was signed and will be posted in DesignSafe-CI. A preliminary meeting on the research collaboration was held on July 13-14 in Tokyo. A report on the meeting outcomes will be posted in DesignSafe-CI. The U.S. participation at the meeting was funded through a supplement to the NCO award. A follow up meeting with broader community participation is planned for October/November of this year. More on this meeting will be announced through DesignSafe-CI in August.
The agreement with NCREE will be finalized during the Grand Opening Forum in August in Tainan, Taiwan.
An possible agreement with the Ports and Airports Research Institute will be pursued in Y-2.
4. (55) Experimental Facility, RAPID, DesignSafe, and SimCenter Updates:
Brief reports were given by representatives of the various facilities describing capabilities, plans and major issues.
- a. Report out by EFs on current and future NSF projects and workshops
 - i. Wall of Wind, FIU (Arindam)- Brief report was presented on ongoing/future projects at the EF: 1635569 (Experimentally Validated Stochastic Numerical Framework to Generate Multi-Dimensional Fragilities for Hurricane Resilience Enhancement of Transmission Systems), 1635378 (Uncovering Potential Risks of Wind-induced Cascading Damages to Construction Projects and Neighboring Communities), 1455709 (Damage and Instability Detection of Civil Large-scale Space Structures under Operational and Multi-hazard Environments based on Change in Macro-geometrical Patterns/Shapes), 1635137 (Quantifying Uncertainties in Computational Fluid Dynamics Predictions for Wind Loads on Buildings), 1443999 (Pervasive Spectrum Sharing for Public Safety Communications). The WOW EF User Workshop in June 2017 was described. This onsite workshop provided faculty members with valuable information about the resources available at the NHERI WOW EF, services provided by the EF staff to the users of the facility and how to increase their success rate in obtaining NSF funding for natural hazards mitigation research. Also, the workshop included a tour of the facility, live test demonstration and two keynote talks by the experts of the field. The first talk, presented by Dr. Ahsan Kareem, targeted the “Computational modeling and simulation of wind effects on built environment at NSF’s NHERI SimCenter and its role in EFs” and the second talk, presented by Dr. Peter Irwin, discussed the “Role of the NHERI WOW EF in Advancing Fundamental and Multidisciplinary Research on Natural Hazards Mitigation.” The new concept for Research Planning Workshops was discussed. Education and Outreach activities were described, including a special emphasis on WOW being selected as the site for all REU presentations in August 2017.
 - ii. Wind Tunnel, UF (Forrest)
 - iii. ATLSS, Lehigh (Jim) – Jim Ricles was unable to attend the meeting because of a computer issue, so there was no report on the ATLSS facility
 - iv. Centrifuge (Ross/Dan)
 - v. Shake Table, UCSD (Joel)
 - vi. Mobile Shaker, UT (Patricia/Ken)
 - vii. Wave Lab, OSU (Dan) – Brief report on recent and ongoing projects, including Phase 1 of tsunami-island interactions (CMMI-1538190 Kaihatu, TAMU; Lynett, USC); hurricane wave loads on elevated structures (CMMI-1301016 Cox; van de Lindt); tsunami wave loads and shielding (CMMI-1536198 Motley, UW); hurricane waves on above ground fuel storage facilities (CMMI-1635784 Padgett, Rice U; Dawson, U Texas). Cox noted the necessity of contacting PIs Kaihatu, Motley and Padgett about the availability of the NHERI EF for existing NSF projects. Future projects include Phase 1 of submarine volcanic eruptions and

tsunamis (CMMI-1563217, Fritz, Ga Tech), extreme wave runup (OCE-1459049 Ozkan-Haller, OSU), and wave/surge and tsunami overland flow (CMMI-1661015, Kennedy, Notre Dame; Lynett and Ghanem, USC; Cox and Barbosa OSU). Cox also reported on their coastal hazards engineering new user workshop held July 19+20. 65 participants. 24 travel stipends of \$650 given to early career participants and new users. 2-Day workshop format: Day 1 were a series of “alumni” presentations from researchers who had used the facility previously. Day 2 included wave lab tour, presentation of several NHERI components including NCO (Robertson, U Hawaii), DesignSafe (Padgett), RAPID (Olsen, OSU), WOW (Chowdhury), Wind Tunnel (Masters), Shake Table (Barbosa), Centrifuge (Khosravi, UC Davis), and discussion of Science Plan and funding opportunities at NSF (Cox). Payload projects were emphasized as a mechanism to jump start research projects. Also discussed having joint workshops with Wind Engineering facilities. Details: <http://cce.oregonstate.edu/NSF-NHERI>

b. RAPID project update (Joe)

RAPID PI and Director Joe Wartman provided a summary of the facility time line and major activities over the first nine months of operations. The new facility is proceeding in three main phases: (1) Year 1 - solicitation of community input and development and justification of a proposed list of equipment, (2) Year 2 - acquisition and commissioning of equipment, along with building of facility user base via training and outreach activities, and (3) Years 3-5 [starting September 2018] field operations and deployments in support of natural hazards engineering and science. Major activities during the first nine months of operations include: (i) organizing and hosting of a ~70-person community input workshop to inform the facility equipment list and identify key reconnaissance-related research needs, (ii) development of a mobile app to support field data acquisition and coordination and meeting with Designsafe to host collected data, and (iii) development of a specification list for equipment, including meetings with equipment manufacturers and hardware specialty experts.

c. DesignSafe project update (Ellen)

d. SimCenter project update (Steve)

5. (10) NHERI Roles and Responsibilities document (Dan)

Because of time constraints, this item was pushed to the next meeting. The NCO has been encouraged by Joy to take the lead on developing a roles and responsibilities matrix among the NCO, CI, SimCenter and EFs. Purpose is to clarify who is responsible for specific activities and communication.

6. (5) Joint Site Visit Reviews for 2018 (Dan)

Because of time constraints, this item was pushed to the next meeting. Joy encourages us to consider possible joint site visit reviews in May or June 2018 among NCO, CI, SimCenter and a few EFs.

7. (5) Status of NHERI policies:

a. Cybersecurity (Ellen/Tim)

8. (5) Council meeting calendar for FY 2 and in-person meeting for FY 3

a. Monthly telecons (Dan)

It was agreed to meet monthly during Year 2 beginning in August. Julio to poll Council on possible dates and times. It was agreed that an annual in-person meeting would be beneficial. Possible dates/times to be discussed at next meeting.

9. (5) NHERI Council Leadership after Nov 1, 2017. (See Operating Procedures approved on 11-7-16) (Dan)
Current officers will continue for one more year, Aug 2017 to July 2018: Cox (chair), Rathje (vice-chair), Ramirez, (secretary).

10. Adjourn

The NHERI Council Leadership would like to thank JoAnn Browning and her staff at U Texas, San Antonio for hosting the meeting. The meeting adjourned at 6:45 PM.