### **NHERI Council Meeting**

## Meeting No. 5 Y-2 Date: 12/01/2017, Noon ET

Attending: Joel Conte (UCSD), Jim Ricles (Lehigh), Ellen Rathje (UTA-DesignSafe), Dan Wilson (UC Davis), Ioannis Zisis (FIU), Forrest Masters (UF), Joe Wartman (UW), Matt Schoettler and Sanjay Govindjee (UC Berkley), Brady Cox (UTA), Dan Cox (OSU) and Julio Ramirez (NCO).

#### Minutes

1. Attendance, Review and Approval of Minutes (previously distributed) of Meeting No. 4 (Nov. 3, 2017) in Y-2 (Dan)

Minutes from meeting #4 were approved as distributed.

- 2. Update on RAPID: Coordinated Structural Engineering Reconnaissance for 2017 Hurricane Irma (Tracy L. Kijewski-Correa)- Tracy gave an update on the status of the RAPIDs funded.
  - a. Two awards for three storm reconnaissance missions actually funded for Hurricanes Harvey and Irma, but then with Maria's arrival, we ended up covering 3 storms all on US territory at various levels of intensity. Efforts started Sept 8 in Texas and just concluded Nov 20 in PR.
  - b. Investigations include unmanned aerial surveys, coastal surveys, door to door structural assessments, terrestrial laser scanning of individual structures, and mobile LiDAR scanning of larger inventories and coastlines

#### BENEFICIAL FEATURES

Notre Dame served as central coordinating node WITHOUT pre-defining team members. For the second award, we restructured this further to establish coordinating nodes to serve as hubs for regional efforts since the storm was hitting where much capacity naturally resided:

- i. University of Florida -- node for Florida Gulf Coast (Gurley)
- ii. Florida Institute of Technology -- node for Florida Atlantic Coast (Pinelli)
- iii. Florida International University -- node for Miami-Dade County and the Keys (Zisis)
- iv. University of Puerto Rico at Mayguez -- node for Caribbean (Aponte-Bermudez)
- v. Though not formalized, University of the Virgin Islands node for USVI (Greg Guannel)

### And a Data Curation Lead -- David Rouche of Auburn

- Established a process to petition applications for community wide reconnaissance.
- Established standard policies for assembling and deploying teams, as well as common toolsets for data acquisition, curation standards, dissemination products.
- Introduced a set of customized Fulcrum application for both continental US and Caribbean construction typologies eventually expanded to a multilevel survey that supported reporting of other information such as measures of hazard intensity, geotechnical impacts.
- Transitioned into a pro-bono Fulcrum community site that crowd-sources damage assessments so anyone can install and use the app -- helped a lot to coordinate with other teams like NIST, FEMA, Private Sector, ASCE/SEI Technical Committees.
- Still effective when connectivity is limited (big help in islands).
- Also allows anyone to view the data in real time through the Fulcrum community website as submissions are synchronized.
- Standardized a QA/QC process for structural assessments with dedicated Data Librarians at each regional node (paid participants) that significantly improves dataset quality.
- All data will be curated in a standard directory structure with a standard data report in DesignSafe (process already undertaken for Hurricane Matthew dataset from Haiti in 2016).

**HARVEY:** Rockport and wider Copano Bay area, Port Aransas, Aransas Pass in three waves ASSESSMENTS: Coastal, door to door structural, UAS, laser scan, mobile LiDAR

DATES AND TEAM LEADS:

September 8-10, 2017: Wind Team 1 (Tracy Kijewski-Correa) and Coastal Team (Andrew Kennedy) with faculty from Notre Dame, LSU, UMass Amherst, Nebraska-Lincoln, Texas A&M CC. September 11-13, 2017: Mobile LiDAR Team (Jie Gong) with team from Rutgers, Princeton and UT Austin.

September 15-17, 2017: Wind Team 2 (Arn Womble) with faculty from Texas Tech, Alabama and LSU and team from Simpson Strong Tie.

Fulcrum File count: 1759 records in Texas

**HURRICANE IRMA:** Immediate assessment by three teams in Atlantic Coast, Gulf Coast and Miami/Kevs, followed by second dedicated mission to Kevs.

ASSESSMENTS: Door to door structural, UAS

DATES AND TEAM LEADS:

Three regions Atlantic Coast (Jean-Paul Pinelli), Gulf Coast (Kurt Gurley), Miami and the keys (Ioannis Zisis) with representation from FIU, UF, FIT, Miami and coordinating with RWDI Sept 15 to Sept 20.

Dedicated study of the Keys was run Sept 22 to Sept 25 (Jean-Paul Pinelli) with faculty from Calvin College, Colorado School of Mines, FIT, and FIU

Fulcrum File Count: 1089 records in Florida

**MARIA:** Delayed deployment due to impacts and connectivity to islands.

ASSESSMENTS: Door to door structural, UAS and Coastal

DATES AND TEAM LEADS:

Puerto Rican local engineering teams coordinated by Luis Aponte-Bermudez of UPRM began working as soon as we had established basic connectivity. They ran missions from Oct 6 through Nov. 18 across the entire island using faculty and students from local universities.

November 8-12 (St Thomas and then St. Croix) with coastal team (Dan Cox) and WInd Team (David Prevatt); wind team went on to Puerto Rico Nov 15-17 -- coverage across the island. Coordinating with local capacity at U. of Virgin Islands and in collaboration with team of Japanese Researchers led by Nobuhito Mori of Kyoto University doing detailed coastal surveys.

Fulcrum File Count: 298 records in US VI, 337 in Puerto Rico

**Action item:** Tracy and the NCO ECO team will maintain communication to coordinate dissemination of the impact. One story on the coordination activities and a follow-up later story on the data collected.

#### 3. Cybersecurity update (Ellen Rathje)

Ellen provided update on the audit. It has been completed with most of the areas addressed and those needing attention will be followed up via individual contacts with the facilities.

# 4. NCO Update (Julio)

- Julio reported on the recent research collaboration meeting with NIED/E-Defense. Final report and presentations will be available on designsafe-ci in a week or so. Possible ideas for research collaboration can be found in the information for those interested in submitting proposals to ECI in the January 2018 deadline. It will be made available also via the NHERI Quarterly Newsletter.
- No feedback received on the outline of the Annual Community Council Report to be submitted at the end of January 2018. NCO to draft first version to distribute to Council for comment.

• Items for Y-3 Council Annual Work Plan of Network-wide activities to request funding supplements need to be submitted to the NCO by interested facilities. This item will be added to the Agenda for the next meeting of the Council.

### 5. NSF Items (Joy)

Remind the Council of the December 6 webinar on the Engineering for Civil Infrastructure program – one can still register past November 30 but should do it in the next day or so.

https://www.nsf.gov/events/event\_summ.jsp?cntn\_id=243644&org=NSF

Action Item: Continue to work on Council Work Plan with Julio.

All: facilities and components should submit requests to Julio. NCO will submit the Council Annual Work Plan with its annual report at the end of April 2018. Discuss timeline at next Council Meeting.

## 6. Other Items from Sites (All)

• Joe Wartman reported on joint training exercises being planned.

### 7. Ongoing Action Items

- a. 10/6/17 Meeting
  - i. Action Item: raise awareness about the availability of the Science Plan via a news item in designsafe-ci for RAPID proposals and in late November for proposals aimed at the unsolicited proposals of the Engineering for Civil Infrastructure (formerly Engineering for Natural Hazards program) with January 10-24, 2018 deadline. NCO will also approach Dr. Pauschke about the importance of raising awareness of the Science Plan (posted in designsafe-ci) in NSF dear colleague letters aimed at funding opportunities relevant to NHERI.

### 8. Next meeting

January 12, 2018 at 11:30 AM Eastern, and thereafter bi-weekly on the first Friday of each month at 11:30 AM Eastern. Discussion of the in-person Council meeting in Y-2 will be placed on the agenda for the Jan. 12 meeting.

Zoom meeting information for Spring 2018 meetings:

Topic: NHERI Council Meetings - Spring Semester 2018 Time: Jan 12, 2018 11:30 AM Eastern Time (US and Canada)

Jan 12, 2018 11:30 AM

Feb 2, 2018 11:30 AM

Mar 2, 2018 11:30 AM

Apr 6, 2018 11:30 AM

May 4, 2018 11:30 AM

Please download and import the following iCalendar (.ics) files to your calendar system.

Monthly: https://DesignSafe-

<u>ci.zoom.us/meeting/551192259/ics?icsToken=d943ced328569f4198445de90fe130ff36b06f1f931ab1da2b63bd2</u> ab36ea726

Join from PC, Mac, Linux, iOS or Android: https://DesignSafe-ci.zoom.us/j/551192259

Or iPhone one-tap:

US: +16699006833,,551192259# or +16465588656,,551192259#

Or Telephone:

Dial(for higher quality, dial a number based on your current location): US: +1 669 900 6833 or +1 646 558 8656 Meeting ID: 551 192 259

International numbers available: <a href="https://DesignSafe-ci.zoom.us/zoomconference?m=LQPyYMGTTTv4k7jML-KhHBBaHW96doM3">https://DesignSafe-ci.zoom.us/zoomconference?m=LQPyYMGTTTv4k7jML-KhHBBaHW96doM3</a>

## 9. Adjourn

Meeting ended at 1:00 PM ET.