

1. Chair Grant Cooper called the meeting to order at 1:02pm PST.

2. Roll Call

Alaska

Mr. Dan Belanger, Alaska Homeland Security/Emergency Mgmt, Anchorage, AK  
Dr. Dmitry Nicolisky, University of Alaska at Fairbanks, Fairbanks, AK

American Samoa

Ms. Elinor Lutu-McMoore<sup>1</sup>, NWS Forecast Office, American Samoa

California

Mr. Kevin Miller, California Office of Emergency Services, San Francisco, CA  
Mr. Rick Wilson, California Geological Survey, Sacramento, CA

Commonwealth of the Northern Mariana Islands

Mr. Brien (BJ) Nicholas<sup>2</sup>, CNMI Homeland Security, Saipan, MP  
Mr. Chip Guard<sup>1</sup>, NWS Forecast Office, Guam

East Coast States

Mr. Ed Fratto, Northeast States Emergency Consortium, Wakefield, MA  
Dr. Jim Kirby, University of Delaware, Newark, DE

Guam

Mr. Leo Espia, Guam Homeland Security, Pago Pago, Guam  
Mr. Chip Guard<sup>1</sup>, NWS Forecast Office, Guam

Gulf Coast States

Dr. Juan Horrillo, Texas A&M University at Galveston, Galveston, TX

Hawaii

Dr. Kwok Fai Cheung, University of Hawaii, Honolulu, HI  
Mr. Kevin Richards, Hawaii Emergency Management Agency, Honolulu, HI

Oregon

Dr. Jonathan Allan, Dept. of Geology and Mineral Industries, Portland, OR  
Dr. Althea Rizzo, Oregon Office of Emergency Management, Salem, OR

Puerto Rico

Dr. Victor Huerfano, Puerto Rico Seismic Network, Mayagüez, PR

U.S. Virgin Islands

Ms. Mona Barnes, Virgin Islands Territorial Emergency Management, St. Croix, VI

Washington

Mr. Maximilian Dixon, Washington EMD, Camp Murray, WA  
Ms. Corina Forson<sup>3</sup>, Washington Dept. of Natural Resources, Olympia, WA  
Mr. Tim Walsh, Washington Dept. of Natural Resources, Olympia, WA

NOAA

Mr. Mike Angove<sup>4</sup>, NOAA/National Weather Service HQ, Silver Spring, MD  
Dr. Grant Cooper, NWS Western Region Director, Salt Lake City, UT  
Ms. Marie Eblé<sup>5</sup>, NOAA Pacific Marine Environmental Lab, Seattle, WA  
Dr. Rocky Lopes<sup>4</sup>, NOAA/National Weather Service HQ, Silver Spring, MD

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<sup>1</sup> NOAA Employee, non-voting

<sup>2</sup> Designated emergency management alternate

<sup>3</sup> Guest

<sup>4</sup> Ex-Officio, non-voting

<sup>5</sup> Subcommittee Co-Chair, non-voting

Ms. Christa von Hillebrandt-Andrade<sup>5</sup>, Caribbean Tsunami Warning Program,  
Mayagüez, PR

Mr. Paul Whitmore, National Tsunami Warning Center, Palmer, AK  
FEMA

Mr. Mike Mahoney, FEMA Headquarters, Washington, DC  
USGS

Ms. Stephanie Ross, USGS Menlo Park, CA  
Dr. Nate Wood, USGS Science Center, Portland, OR

30 present, 11 state votes (min 7); 4 Fed votes (min 4). Quorum met.

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### 3. Minutes of Coordinating Committee meeting of November 15, 2016.

Dr. Cooper called for approval. Minutes were approved with no objections.

### 4. Recognition and welcome of new Coordinating Committee member

Dr. Cooper welcomed Brien (BJ) Nicholas from Commonwealth of Northern Mariana Islands. BJ is the alternate emergency management representative for the CNMI.

### 5. Recognition and thank-you to Tim Walsh, State of Washington Department of Natural Resources

Dr. Cooper thanked the longest-serving member of the NTHMP, Tim Walsh, for his 21 years of service to the NTHMP.

### 6. Subcommittee Meetings

Rocky Lopes asked each NTHMP Subcommittee to hold ongoing webinar/ conference calls throughout the year on a periodic basis to maintain momentum for ongoing work.

After discussion, the leaders of the MES and MMS stated that they wanted to hold their respective summer meetings jointly, with two days separate and one day combined. The week of July 31-August 4 was suggested. Locations of Santa Cruz, California, or Golden, Colorado, were suggested by the MMS for the convenience of participation by USGS staff. However, both of these locations are logistically difficult because they are not accessible by public transportation. Rocky will look into prospective locations and report back to the subcommittee Co-Chairs and the Coordinating Committee on the results.

7. Frequency and schedule of NTHMP Coordinating Committee meetings for 2017: After discussion, the Coordinating Committee agreed to meet via conference call on the third Tuesday of odd-numbered months at 3pm ET. The 2017 meeting dates will be: March 21, May 16, July 18, September 19, and November 21.

8. NTHMP Subcommittee Co-Chair confirmations

- a. Mapping & Modeling Subcommittee – Dmitry Nicolsky was nominated to serve as the State Co-Chair for a second 2-year term
- b. Mitigation & Education Subcommittee – Kevin Miller was nominated to serve as the State Co-Chair for a second 2-year term  
Christa VonHillebrandt-Andrade was confirmed to serve as the NOAA Co-Chair for a two-year term
- c. Warning Coordination Subcommittee – Dr. Althea Rizzo was nominated to serve as the State Co-Chair for a third 2-year term

The Coordinating Committee voted unanimously to confirm each of these Co-Chair terms of service on the respective subcommittees.

9. Rules of Procedure required annual meeting business

The Rules of Procedure requires that the Coordinating Committee reconfirm the NTHMP Chair every two years. Dr. Grant Cooper was reconfirmed by unanimous vote of the Coordinating Committee to serve as Chair of the NTHMP.

10. Appoint Strategic Plan Revision Work Group.

Dr. Cooper appointed Tim Walsh, Paul Whitmore, Kevin Richards, Althea Rizzo, Corina Forson, Tamra Biasco, Christa von Hillebrandt-Andrade, Kevin Miller, Juan Horrillo, and Rick Wilson to serve on the 2018-2022 NTHMP Strategic Plan Development Work Group. This group will be led by NTHMP Administrator Rocky Lopes.

11. Procedures on acceptance of any products designated as an "NTHMP Publication"

Rocky Lopes led a discussion about procedures to approve any product, publication, procedure, or policy developed by or for an NTHMP subcommittee or the NTHMP itself.

The results of the discussion were that the full Coordinating Committee will approve all such items. Subcommittees will do the technical or peer review and recommend approval to the Coordinating Committee.

Any "NTHMP-approved" item prepared as a PDF or in print must contain:

- NTHMP logo (triangle)
- Disclaimer language
- If prepared by an NTHMP grant, attribution to grant funding is required, "This item was funded by Award #NAxxxxxxx by a National Tsunami Hazard Mitigation Program grant to [name of agency] from the Department of Commerce/National Oceanic and Atmospheric Administration. This does not constitute an endorsement by NOAA."

A vote on this procedure was deferred until the March Coordinating Committee meeting so the members could review proposed disclaimer language. Rocky will work through Mike Angove to obtain NOAA General Counsel advice on disclaimer language and bring it to the March meeting of the Coordinating Committee.

## 12. Business meetings and work meetings of each subcommittee

The Coordinating Committee members discussed scheduling of business meetings during the Annual Meetings week and suggested that no subcommittee meetings overlap any other meeting. All subcommittees requested four full hours of meeting time. Additionally, two hours for the Island Caucus and a separate two-hour meeting for NTHMP grantees was requested. Also, a four-hour meeting time between MES & MMS to coordinate their work was also requested.

As it looks now—

Monday: MES (4 hours 8am to 12n); WCS (4 hours 12:30pm to 4:30pm)

Tuesday: MMS (4 hours 8am to 12n); Combined MES/MMS (4 hours)

Wednesday: Full day, NTHMP Annual Meeting

Thursday: Full day, NTHMP Partners Day

Friday: Coordinating Committee meeting, hard stop at 12:00 noon.

No meetings after noon on Friday.

Issue is where to squeeze in 2 hours for Island Caucus, 2 hours for NTHMP grantees. With 8-hour long days of meetings (not including 30-minute lunch breaks if possible), an extra two hours at the beginning or end of a day is deadly and not recommended. What time can "give" to accommodate the additional four hours requested for the Island Caucus and NTHMP grantees?

This was deferred for more discussion at the next Coordinating Committee meeting. Rocky welcomes ideas before then.

Meanwhile, Rocky reminds all Co-Chairs to schedule periodic meetings of their respective subcommittees throughout the year to take the pressure off meeting time during the annual meeting.

### 13. World Tsunami Awareness Day

Mike Angove described activities for the first WTAD of November 5, 2016. He thanked Christa Rabenold for taking a strong lead with many activities, including social media, for this event.

It appears that there is indeed strong interest in continuing to support WTAD and include a tsunami exercise or a NOAA press conference. Mike said that he would speak further with Christa Rabenold and report back at a future Coordinating Committee meeting. Further, the Chair will appoint volunteers to a WTAD Work Group at the March Coordinating Committee meeting.

### 14. Old Business

During the first meeting of the Island Caucus on Tuesday January 31, Kevin Richards was elected to Chair the Caucus, and Victor Huerfano was elected as Vice Chair. However, the Island Caucus was not ready for consideration to be established as an official NTHMP entity yet. Kevin Richards will consult with NTHMP members on islands to develop a recommendation for a path forward for the Island Caucus and report to the Coordinating Committee at a future meeting.

### 15. New Business

Talking points on controversial topics: there was a suggestion that the NTHMP should develop talking points on topics like "tsunami pods," "acoustic waves," and "ASCE mapping," among other topics. Generally, Coordinating Committee members thought that this was a good idea and assigned it to the Mitigation & Education Subcommittee to think through and propose a recommendation on how to do this.

### 16. Adjourn

There was no further business. The meeting was adjourned at 2:43pm by the Chair.

1. Call to order: Chair Grant Cooper called the meeting to order at 3:01pm EDST.

2. Roll Call

NOAA

Mr. Mike Angove<sup>1</sup>, NOAA/National Weather Service HQ, Silver Spring, MD  
Dr. Diego Arcas, NOAA/Pacific Marine Environmental Lab, Seattle, WA  
Dr. Grant Cooper, NWS Western Region Director, Salt Lake City, UT  
Ms. Marie Eblé<sup>2</sup>, NOAA/Pacific Marine Environmental Lab, Seattle, WA  
Mr. Lewis Kozlosky<sup>3</sup>, NOAA/National Weather Service HQ, Silver Spring, MD  
Dr. Rocky Lopes<sup>1</sup>, NOAA/National Weather Service HQ, Silver Spring, MD  
Ms. Christa Rabenold<sup>3</sup>, Tsunami Program, NWS HQ, Silver Spring, MD  
Ms. Christa VonHillebrandt<sup>3</sup>, Caribbean Tsunami Warning Program, Mayagüez, PR  
Mr. Paul Whitmore, National Tsunami Warning Center, Palmer, AK

FEMA

Ms. Tamra Biasco, FEMA Region 10, Lynnwood, WA  
Ms. Gala Gulacsik<sup>2</sup>, FEMA Region 10, Lynnwood, WA

USGS

Ms. Stephanie Ross, U.S. Geological Survey, Menlo Park, CA  
Dr. Nate Wood, U.S. Geological Survey, Portland, OR

Alaska

Mr. Dan Belanger, Alaska Dept. of Homeland Security & Emer. Mgmt, Anchorage, AK  
Dr. Dmitry Nicolsky, University of Alaska at Fairbanks, Fairbanks, AK

American Samoa

Ms. Jacinta Brown, American Samoa HS/EM, Pago Pago, American Samoa  
Mr. Lancaster Allen<sup>3</sup>, American Samoa HS/EM, Pago Pago, American Samoa  
Ms. Elinor Lutu-McMoore, American Samoa NWSO, Pago Pago, American Samoa

California

Mr. Rick Wilson, California Geological Survey, Sacramento, CA

Commonwealth of the Northern Mariana Islands

No representatives

East Coast States

Dr. Ed Fratto, Northeast States Emergency Consortium, Boston, MA  
Dr. Jim Kirby, University of Delaware, Newark, DE

Guam

Mr. Leo Espia, Guam Homeland Security, Agana Heights, Guam

Gulf Coast States

Dr. Juan Horrillo, Texas A&M University at Galveston, Galveston, TX

Hawaii

Mr. Kevin Richards, Hawaii Emergency Management Agency, Honolulu, HI

Oregon

Dr. Jonathan Allan, Dept. of Geology and Mineral Industries, Portland, OR  
Dr. Althea Rizzo, Oregon Emergency Management, Salem, OR

Puerto Rico

Dr. Victor Huérfano, Puerto Rico Seismic Network, Mayagüez, PR  
Mr. Wilfredo Ramos, Puerto Rico Emergency Management Agency, San Juan, PR

U.S. Virgin Islands

Ms. Kieran Isidore<sup>3</sup>, Virgin Islands Territorial Emer. Mgmt. Agency, St. Croix, VI  
Mr. Roy Watlington, Professor Emeritus, St. Thomas, VI

Washington

Ms. Corina Forson, Washington Division of Natural Resources, Olympia, WA  
Mr. Maximilian Dixon, Washington EMD, Camp Murray, WA  
Mr. Tim Walsh<sup>3</sup>, Washington Division of Natural Resources, Olympia, WA

33 present, 11 state votes (min 7); 7 Fed votes (min 4). Quorum requirement was met.

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<sup>1</sup> Ex-Officio, non-voting

<sup>2</sup> Subcommittee Co-Chair, non-voting

<sup>3</sup> Guest, non-voting

### 3. Minutes of Coordinating Committee meeting of February 3, 2017

Chair Grant Cooper called for approval of the minutes. With no objections, the minutes of the February 3 meeting were approved.

4. Recognition and welcome of new Coordinating Committee member: Corina Forson, State of Washington Department of Natural Resources, has been appointed to serve as the State of Washington Science member in place of Tim Walsh.

Dr. Cooper welcomed Corina. She introduced herself to the group.

### 5. Subcommittee Meetings

- Rocky Lopes announced that after a lot of investigation of potential meeting locations, the MES Summer Meeting & MMS Science Exchange Meeting will be held in Salt Lake City, Utah, August 1 – 3, 2017, at the NWS Western Region Headquarters (where Grant Cooper works.) An additional meeting day for the members of the Strategic Planning Work Group will occur on August 4.

Grant-funded members are expected to use FY16 NTHMP grant funds to cover travel expenses to this meeting. Non-grant funded CC members and Co-Chairs will be issued invitational travel by the National Weather Service (to the degree that funds are available). Good news is that hotel per diem rate is \$115/night + 12.6% taxes. A block of rooms has been reserved at the Marriott City Center Hotel. More information will follow.

- Periodic subcommittee conference calls – The MES and the WCS have scheduled periodic conference calls. Schedule of these calls is on each subcommittee's page on the NTHMP website:  
MES: [http://nws.weather.gov/nthmp/mitigation\\_subcommittee.html](http://nws.weather.gov/nthmp/mitigation_subcommittee.html)  
WCS: [http://nws.weather.gov/nthmp/warning\\_guidance\\_subcommittee.html](http://nws.weather.gov/nthmp/warning_guidance_subcommittee.html)  
The MMS has not scheduled any periodic conference call meetings. We hope they will as requested.

### 6. Disclaimer language for "NTHMP approved" publications

Standard disclaimer language for "NTHMP approved documents" was discussed. The following edited language was approved by unanimous consent.

*Disclaimer: The members of the National Tsunami Hazard Mitigation Program (NTHMP) make no representation or warranties regarding the accuracy of the information provided nor the data from which this information was derived. The NTHMP nor any Federal Agency, state, or territory shall be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this information. The user takes full responsibilities for their decisions and actions.*

## 7. NTHMP Document Approval

The Chair called for a vote by the voting CC members to approve the following documents to be accepted as "NTHMP Publications."

### a. *Proceedings and Results of the National Tsunami Hazard Mitigation Program 2015 Tsunami Current Modeling Workshop*

Discussion: none. Vote to approve: unanimous consent.

### b. *Guidance for safe Minimum Offshore Depth for Vessel Movement for Tsunamis*

Discussion: Nicolsky asked, "How can changes to this document be made?" Lopes answered: if anyone wants to make a change, they propose it to the MMS and if approved, the MMS brings it to the Coordinating Committee for approval of the update.

Forson asked, "Will the disclaimer go into these documents?" Lopes answered: yes.

von Hillebrandt had some technical questions about the content of the document. Rick Wilson answered them to Christa's satisfaction.

Wilson stated that this document was developed to serve as a quick reference and easy-to-use table for US Coast Guard reference. It would not apply to cruise ships; applies to recreational boaters.

von Hillebrandt: are there internal contradictions?

Wilson: we can't tell people not to take their boats off shore. We don't recommend that you do, but IF you do, this is what we recommend.

Fratto: is this intended to give to recreational boaters directly?

Wilson: it is meant to be given to the U.S. Coast Guard, not directly to recreational boaters, but information from it may appear in public education materials developed by NTHMP partners.

von Hillebrandt: could the USCG add themselves to disclaimer language?

Lopes: yes

NTHMP Chair Cooper called for a vote. The document was accepted by unanimous consent.



## 8. Meetings at NTHMP Annual Meeting – Work Group?

Rocky Lopes described that there are a number of competing requests for meeting time during NTHMP Annual Meeting week and requested volunteers for appointment to a work group to plan next year's meeting week. Kevin Richards, Marie Eble, and Corina Forson volunteered. One additional volunteer is needed from the MES and WCS. Please email Rocky if you wish to volunteer to plan next year's NTHMP Annual Meeting week.

## 9. World Tsunami Awareness Day (WTAD)

Mike Angove stated that Japan is trying to get other countries to do some activities to recognize WTAD and he would like to see some U.S. commitment to honor this day. Mike would like to see if NTHMP member states/territories would also do some WTAD activities.

Christa Rabenold said that she is making a list of activities by NTHMP partners and is looking at how other UN Days are being recognized.

Angove: has anyone given any thought about WTAD recognition?

von Hillebrandt: theme for 2017 WTAD is "reduction in number of affected people." Annual WTAD themes are based on the Sendai platform for disaster reduction. General themes for next six years have already been determined.

Dan Belanger: This year, November 5<sup>th</sup> is on a Sunday, and is the same day as DST conversion.

von Hillebrandt: the 5<sup>th</sup> is the date, but it broadens to a week or more.

Cooper: should we put this on the agenda again and will you have more information at the next meeting?

Angove: probably. We will run a comprehensive social media campaign.

Discussion ended.

## 10. NTHMP Island Caucus

Kevin Richards said that we haven't met since the annual meeting, but plan to have a conference call before the summer meeting. Planning for that meeting is under way. Meanwhile, there will be an informal meeting among the members of the island caucus for those who are in Hawaii this week for the PRiMO Conference.

## 11. ASCE 7 Chapter 6 Tsunami Load Code

Corina Forson stated that she wanted to bring this up to make members aware that something is happening. The new ASCE 7 Chapter 6 Tsunami Load Code presents challenges to each state involved.

Tim Walsh said that this code will affect WA, OR, CA, AK, and HI in the 2018 National Building Code. WA has already built a tsunami vertical evacuation structure and is 70% toward design stage for another structure. It is hard to be compliant with building code when we don't know what they are.

Rick Wilson said that there have been two conference calls about this matter already among the 5 states involved. Should there be more calls?

Forson: yes continue, but also invite any others who may wish to participate.

Wilson: should we continue the established format and just add others?

Forson: yes.

Arcas: I want to participate.

Watlington: wants to participate as well.

Lopes: please inform him when calls are scheduled.

## 12. Old Business

None

## 13. New Business

Watlington: requested an update from Christa von Hillebrandt on how the CaribeWave exercise (March 21) went.

vonHillebrandt: 48 countries participated. 457,990 people registered participation via tsunamizone.org, including many smaller island states with as much as 25% of their population. The PTWC issued simulated domestic and international products. Communications went well with a few glitches. No false alarms. Follow-up surveys and a report will be issued.

Other new business: The HAZUS 4.0 with the tsunami module has been released! The Tsunami Module represents the first new disaster module for the Hazus software in almost 15 years and is the culmination of work completed on the Hazus Tsunami Methodology Development (FEMA, 2013) by a team of tsunami experts, engineers, modelers, emergency planners, economists, social scientists, geographic information system (GIS) analysts, and software developers. A Tsunami Oversight

Committee provided technical direction and review of the methodology development.

The software can be downloaded for free on the FEMA Flood Map Service Center (MSC) here: <http://msc.fema.gov/portal/resources/hazus>

14. Subcommittee reports:

a. Mapping and Modeling Subcommittee:

- Three models: Cliffs, HySEA, and NHWAVE are considered to be benchmarked
- A spreadsheet with models which are currently in use is being updated
- Explore possibilities to gather bathymetry data with the NOAA's Office of Hydrographic Surveys

b. Mitigation and Education Subcommittee:

- MES Meeting (webinar) held on February 22.
- The MES has reviewed the current strategic plan and categorized the activities as completed, recommend modifying, and carry forward thru 2018. This information will be used along with the results of the NTHMP review, which are due in June/July, as input to the next strategic plan.
- The subcommittee was to vote on the following change to the MES Terms of Reference (the By-Laws of the MES), but we did not have quorum. Voting members will be asked to vote over email.
- Task Updates:
  - TsunamiReady – Rocky Lopes would like to discuss the TsunamiReady Tier 2 guidelines at the summer MES meeting. He would like to have a conference call prior to the meeting to reorient the group to these guidelines, identify communities to target, and define what it would mean to be a Tier 2 community.
  - MES Input to Maritime Guidance – Discussed at annual meeting. Kevin Miller is adding more preparedness language to the document. Once added, he will circulate it with the tiger team and convene a call to discuss. Part 3 on mitigation and recovery is still pending the completion of other work in California.
- New Task:
  - Beginning work on task 14-13 of the education and outreach plan: Create materials that describe how FEMA's Community Rating System can enhance tsunami mitigation and support efforts to achieve TsunamiReady recognition.
- Completed tasks:

- Common Media and social media outreach (Boiler plate social media messages for World Tsunami Awareness Day; Calendar with tsunami events and anniversaries)
- MES/MMS Guidelines (mapping and modeling guidelines streamlined and combined into series)

- Next MES Meeting (webinar) is on April 18 at 12pm PDT

c. Warning Coordination Subcommittee:

- Conference call to finish annual meeting agenda held on February 28.
- Quarterly call are schedule for the rest of 2017.
- Two Tsunami warning breakpoints have been added for northern California and are now operational.

15. Adjourn

The Chair adjourned the meeting at 3:54pm EDST.

The next meeting of the Coordinating Committee is scheduled for May 16 at 3pm EDST.

Respectfully submitted,

Rocky Lopes  
NTHMP Administrator