

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

2. Roll Call:

Alaska

Dr. Dmitry Nicolsky, University of Alaska, Fairbanks, AK

American Samoa

Ms. Elinor Lutu-McMoore¹, NWS Weather Service Office, Pago Pago, American Samoa

California

Mr. Kevin Miller, California Office of Emergency Services, San Francisco, CA

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

Commonwealth of Northern Mariana Islands

Mr. Jonathan Villagomez², CNMI Office of Homeland Security, Saipan, MP

Mr. Chip Guard¹, NWS Forecast Office, Guam (dual representation with Guam)

East Coast States

Mr. Ed Fratto, Northeast States Earthquake Consortium, Wakefield, MA

Guam

Mr. Leo Espia, Guam Homeland Security, Guam

Mr. Chip Guard¹, NWS Forecast Office, Guam (dual representation with CNMI)

Gulf Coast States

Mr. Brad Baker, Santa Rosa County, FL

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

Hawaii

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

Oregon

Dr. Althea Rizzo, Oregon Emergency Management, Salem, OR

Puerto Rico

Dr. Elizabeth Vanacore, Univ. of Puerto Rico at Mayagüez, Mayagüez, PR

U.S. Virgin Islands

Ms. Denise Lewis, Virgin Islands Territorial Emergency Mgmt Agency, St. Croix, VI

Mr. Roy Watlington, Professor Emeritus, St. Thomas, VI

Washington

Mr. Maximilian Dixon, Washington Emergency Mgmt Division, Camp Murray, WA

Ms. Corina Forson, Washington Dept. of Natural Resources, Olympia, WA

NOAA

Dr. Grant Cooper, NWS Western Region Director, Salt Lake City, UT

Ms. Marie Eblé⁴, NOAA Pacific Marine Environmental Lab, Seattle, WA

Mr. Lewis Kozlosky⁴, Tsunami Program, NOAA/NWS Headquarters, Silver Spring, MD

Dr. Rocky Lopes⁵, NOAA/National Weather Service HQ, Silver Spring, MD

Dr. Chip McCreery⁴, NOAA/NWS Pacific Tsunami Warning Center, Honolulu, HI

Ms. Christa von Hillebrandt, NOAA/NWS Caribbean Tsunami Warning Pgm, Mayagüez, PR

FEMA

Ms. Tamra Biasco, FEMA Region X, Lynnwood, WA

USGS

Ms. Stephanie Ross, U.S. Geological Survey, Menlo Park, CA

Others

Ms. Savanna Holloway-Ledo², Hawaii

Ms. Keily Yemm², Washington

28 present, 9.5 state votes (min 6); 4 Fed votes (min 4). **Quorum met.**

¹ Coord. Comm member, NOAA employee, non-voting

² Guest, non-voting

³ Official Alternate for primary CC member

⁴ Regular guest, non-voting status

⁵ Ex-officio, non-voting member

3. Approval of past minutes.

The Chair called for approval of the minutes of the Coordinating Committee meeting of May 21, 2019.

<https://nws.weather.gov/nthmp/documents/NTHMPCC20190521Minutes.pdf>

The minutes were approved without objection.

4. NTHMP Coordinating Committee membership vacancies

Dr. Cooper welcomed Denise Lewis as the emergency management representative, and reaffirmed appointment of Roy Watlington as the Science representative, for the U. S. Virgin Islands to the NTHMP Coordinating Committee. They were officially appointed by on May 28 by Daryl Jaschen, Director Nominee, Virgin Islands Territorial Emergency Management Agency.

Dr. Cooper announced that there remains a vacancy for the emergency management representative for CNMI. Jonathan Villagomez of CNMI was on the call in an unofficial capacity. Rocky Lopes described the method to make his appointment official by having the Governor's Homeland Security Advisor send an appointment memo.

Dr. Cooper also re-announced that Chip Guard is retiring later this year. Chip has served as the Science Representative for Guam and CNMI. Chip will be attending the NTHMP meeting in August, so we can all bid our farewells. There is someone in line from the University of Guam to fill this position when Chip retires. More information will be announced when the appointment is made.

5. NTHMP Subcommittee and Projects Updates

a. Status of Annual Work Plan progress for Mitigation & Education Subcommittee

Kevin Miller: The MES work plan is largely a continuation and progression of 2018 tasks. MES is having bimonthly business meetings. Tasks are moving forward well.

Rocky Lopes reminded Kevin that a 2019 MES work plan is still needed for posting on the NTHMP website. Kevin acknowledged the request and promised to send it.

b. Status of Annual Work Plan progress for Mapping & Modeling Subcommittee

Marie Eblé: The MMS is preparing for the August annual meeting. We just concluded a bimonthly teleconference meeting in the last hour where we discussed the MMS agenda for the summer meeting.

The items on the MMS Work Plan as posted on the NTHMP website will be discussed. Our work plan also is a continuation of the 2018 activities with some follow-on activities. We are now working on the next Powell Center workshop for Pacific sources other than Cascadia. We also will be discussing data archives on partner costs, needs and resources.

Sources database work is progressing. Rick Wilson added: we had developed an initial spreadsheet on tsunami sources that all states/territories are using. We are exploring how to use it, or if a database format may be needed. We are developing a list of sources

and what has been discussed at previous workshops and if updates of sources are needed for certain regions, we are determining how progress can be measured for source region improvements.

Marie continued: The MMS is working on additional activities. Updates will be provided this summer.

c. Update from Warning Coordination Subcommittee

Chip McCreery: The WCS has not had a meeting since February 28.

TWC updates: there have not been any tsunami events impacting the U.S. since the last meeting. However, results from the earthquakes in Southern California in early July have been interesting. We are continuing to look at incorporating GNSS (called GPS in the U.S.) data into the earthquake analysis done at the TWCs which is key to getting out more accurate tsunami messages quickly.

We all are spinning up for the U.N. Decade for Ocean Science (2021). This will involve the entire global community with donors funding more work on ocean science. There are workshops being held world-wide leading up to the Decade Meeting.

Chip said that they would like to see more dense (real-time GPS recording) networks like we have in California and Japan to apply new methodologies for all seismic zones.

Undersea cable sensing – the scientific and tsunami community is exploring how submarine fiber optic cables can include ocean sensors. There is some traction on this by private companies. They can put pressure sensors on these cables to substitute for a DART buoy. We can't specify where these pressure sensors would be placed, but wherever they are, they will be useful.

Grant Cooper: What are training requirements at TWCs for GNSS?

Chip McCreery: Training eventually would be needed by duty scientists (watchstanders) on a GNSS tool at the TWCs, but we haven't developed the type of tool that may be needed. There may be training required at the TWCs for this, but we don't know yet. It is difficult to get the data to know how plates move in real time.

Stephanie Ross: would you like to see dense networks of what type?

Chip McCreery: real time recording GPS stations.

d. Update on Powell Center Tsunami Sources project

Stephanie Ross: we have not issued invitations for the next Powell Center workshop yet because we haven't found a time that will work. We are still figuring out what sources we will have time to work on. Hoping to have it in the Fall, but not sure. This will be discussed further at the MMS meeting in August.

6. MES Work Group on Mitigation & Recovery

This Work Group was authorized by the Coordinating Committee as a subgroup under the Mitigation & Education Subcommittee on July 25, 2018.

Kevin Miller provided a status report from the MES: a read-ahead update was circulated (and is appended to these meeting notes.) A Work Group was formed to support strategic plan elements on mitigation and recovery. Some of the goals of this Work Group include reviewing and discussing existing products.

We need to bring in outside expertise to support the NTHMP membership. We may develop two levels of guidance – basic and advanced.

We have leveraged work that has gone on in California. We want to bring it back to the NTHMP to discuss it and review it.

Rick Wilson added: the first thing we decided what to do was to develop a maritime workgroup. We had a meeting on this on May 15 and have another one planned for next week.

We plan to develop generic guidance. We have engaged many outside partners and has asked NTHMP partners for feedback. This Work Group can add to other types of mitigation & recovery in the future, such as the tsunami building code in five coastal states. The State of Oregon had a debris planning workshop last month – inspired debris planning for this group in the future. With that in mind, Rick requested an indefinite term of authorization for continuance of this Work Group.

Rocky Lopes: We need to keep in perspective that an NTHMP Subcommittee Structure Analysis paper was developed by an NTHMP Work Group that was also formed during the discussion by the Coordinating Committee on July 25, 2018, when this M&R Work Group was authorized. We were supposed to discuss the subcommittee structure at the NTHMP meeting in San Diego, but because of the government shutdown and no Federal agency partners were able to attend, this discussion was deferred until the in-person meeting in August.

There is a four-hour meeting scheduled to discuss the Subcommittee Structure Analysis on Thursday, August 22, from 1 to 5pm. For the NTHMP's overall wrangling with its workload, priorities, and strategic decisions, we should discuss mitigation & recovery (Work Group or otherwise) within the context of the overall NTHMP structure discussion that will be held. It is anticipated that this discussion will lead to recommendations for consideration by the Coordinating Committee at some point in the future.

Grant Cooper: agreed. Asked Rick what he thought?

Rick Wilson: I would like to see this Work Group continued.

Grant Cooper: asked any other Coordinating Committee members on the call for input on review of the one-pager provided as a read-ahead about this Work Group. Representatives from Alaska, Oregon, and Washington were specifically asked for their opinions. No one had a comment (some said they had not read the one-pager).

Grant Cooper: considering that, go ahead and have the meeting you planned next week and then let's discuss it at the NTHMP meeting in August during the NTHMP structure discussion.

7. National Geographic film in development about the potential for an East Coast megatsunami

Ed Fratto described information he learned about this from an email:

Blink Films is a television production company based in the UK. Blink Films is currently producing a new, blue chip, geology series for the National Geographic Channel. It will combine experts and expeditions around the world with state of the art graphics to explore important geological sites across the planet.

Each episode will focus on a single area, speaking to specialists in the field and looking at the latest research to understand what is happening in the Earth beneath our feet. We will explore the potential impact of geological changes in these areas and the potential natural disasters that could result.

In one episode we are looking at the island of La Palma, which has been hypothesised to have the potential for a large landslide into the Atlantic and produce a tsunami, which could impact the US East Coast. We would like to look at the New Jersey coast, and what the effects of such a natural disaster would be, and the resilience of the East Coast States.

Ed asked the group: should we develop talking points similar to how these were done for past sensational earthquake movies?

Ed mentioned that since National Geographic has some scientific credibility, it could potentially create confusion. Further concern is that National Geographic Channel was bought by Disney in 2017, so there is a potential for sensationalizing the issue.

Ed was asked by the film's producer about potential megatsunami impacts on New Jersey. Ed referred them to New Jersey state emergency management (which is a department within the State Police).

Ed noted that prior to the movie *San Andreas*, there were talking points developed so we can speak with a similar voice to try to prevent oversensationalization and bring out factual info. He is looking for a set of talking points or to have them developed.

Grant Cooper: will this be coordinated with NOAA Public Affairs?

Rocky Lopes: Generally, talking points make factual statements about science and do not take positions or make statements about specific films or film production activities or attempt to speak for any agency or state. Discussed this in general with Susan Buchanan who said that the NTHMP partners can do what they want (as long as they don't quote NOAA or anyone from NOAA without written permission). She agreed to review anything on request.

Maximilian Dixon: The same film group is doing a one-hour special on Cascadia and another one on Yellowstone. They have a very restrictive non-disclosure agreement that he refused to sign. He warned anyone in contact with this film company to be very clear with them on timing and what they want you to sign before agreeing to anything.

Ed mentioned that a film production crew will be going to Stephan Grilli's lab at the University of Rhode Island to meet with him about the science on this event and its probability.

Stephanie Ross: USGS was involved in developing talking points for previous films; The USGS science adviser was ignored.

Liz Vanacore: California groups developed talking points that they shared with other networks. With this fact sheet, would you make it available to other networks, such as the Puerto Rico Seismic Network? Have you thought about reaching out to them?

Ed Fratto: this fact sheet would have a wide distribution, like the fact sheet for *San Andreas*.

Christa von Hillebrandt: Let me clarify what this is about. This megatsunami film is based on the collapse of Cumbre Vieja (dormant volcanic ridge on the island of La Palma in the Canary Islands) and resulting in a megatsunami on the East Coast?

Ed: yes, New Jersey in particular.

Christa von Hillebrandt: creating a fact sheet would be important. PTWC and PRSN and NTWC should also be involved.

Rick Wilson: California can provide examples of past talking points and FAQs for other films. He offered to send them to Ed.

Ed: We need something to help diffuse concern about a very low probability event.

No further action, assignments, or discussion.

8. NTHMP Updates

Rocky Lopes provided an Annual Meeting update -- August 19 – 23, 2019, Salt Lake City. He mentioned that the web page has been updated frequently with additional attendees – now to 56. Agendas for MMS and MES have been posted. The “hot topics” session will be a discussion on the tsunami advisory product, and incorporated into the Warning Coordination Subcommittee meeting on Tuesday. Please check the website frequently for updates:
<https://nws.weather.gov/nthmp/meetings/2019annualmeeting/index.html>

9. NOAA/NWS Grants

a. FY19 grant application process status.

Rocky Lopes stated that all FY19 grant applications have been sent to NOAA Grants Management for their review. He advised that applicants may be sent questions from a reviewing Grants Specialist, and if you receive questions, please respond to them quickly. Kindly copy Lewis Kozlosky and Rocky Lopes on an email correspondence if not already copied on the inquiries.

b. No-cost extension requests for FY18 grants.

The NWS Tsunami Program Office has received, reviewed, and approved grant no-cost extension requests for 12 NTHMP partners. Many of them required changes or additional clarifying content in the request memo. Much work went into the reviews, including budget information requested now by Grants Management.

However, American Samoa and Guam have not submitted their respective no-cost extension requests (or properly initiated action for an Award Action Request) in NOAA GrantsOnLine, so for all intents and purposes, it is as if a no-cost extension request was not made and therefore will not be considered or provided.

10.Old Business

None

11.New Business

Kevin Miller: World Tsunami Awareness Day is on election day in the U.S. Would the U.N. be willing to change the date?

Christa von Hillebrandt: No, the date is fixed. This is a world-wide event. But individual countries can do whatever they want within a two-month period. This year, the theme of WTAD is critical infrastructure, including schools.

Rocky Lopes: Mike Angove was approached by a representative of the U.N. Office of Disaster Risk Reduction to see if the United States would be willing to have an event on that day, and perhaps have feature video footage created of tsunami vertical evacuation structures built or under construction. Also the video or WTAD presentation could feature other physical mitigation activities going on such as in Northern California for TsunamiReady Tier II communities.

Some exploratory discussions were held with Washington Emergency Management and Washington Geological Survey, as well as with the NWS WFO in Eureka, California. We are looking at considering holding an event at the NOAA Pacific Marine Environmental Lab in Seattle that day.

More details will be provided if an event actually will occur.

12. Adjourn

There was no further business. The Chair adjourned the meeting at 3:58pm.

Respectfully submitted,

Rocky Lopes
NTHMP Administrator

APPENDIX: Mitigation & Recovery Work Group read-ahead referred to in item #6

Written by: Rick Wilson and Kevin Miller

MES Mitigation and Recovery (M&R) Work Group Recommendation: Continue a formal M&R Working Group based on topics and initiatives of interest to NTHMP members, leveraging existing programs and expertise within and outside the NTHMP structure based on the initiative.

The 2017 *Tsunami Warning, Education, and Research Act* (TWERA) identified the need for additional M&R work by the NTHMP, and the 2017 *NTHMP External Review* report suggested that this area should be considered for incorporation into the NTHMP. The 2018-2023 *NTHMP Strategic Plan* includes a theme to address M&R issues over the next five years through development of products and implementation of guidance for NTHMP members and communities to use. Formed in July of 2018, the formal MES M&R Working Group which works with both subcommittees provides a venue for MES (and MMS) to address M&R issues without taking away time from its normal education, outreach, preparedness, and response planning activities.

Goals of M&R Working Group have been to:

- Address M&R Strategic Plan elements.
- Review/Provide feedback to existing state products.
- Bring in outside expertise, as needed, to help address technical solutions to the strategic planning elements and state needs.
- Develop 2-tier product guidance which addresses M&R issues through both low-cost, general products ("recommended" level) and more advanced, site-specific products ("advanced" level).
- Assist states and communities in implementing guidance and creating products.
- Limit the impact on the MES by reducing its workload regarding M&R projects.
- Limit the impact on the NTHMP members time and funding by working with volunteers and leveraging outside funded projects.

Focus and work to date: Maritime M&R Work Group

- Discussed and developed work plan tasks via teleconference calls.
- Created draft generic guidance for harbors and ports to integrate into their LHMP and apply for HMPG funding.
- Developed set of PPT slides for presentations to communities and harbors.
- Requested list of existing maritime M&R strategies from NTHMP partners.
- Engaged outside maritime partners and product users on needs.
- Progress and future work will be discussed at summer MES and MMS meetings.

Other potential future M&R work topic areas:

- ASCE/Building Code/state-level mitigation strategies and PTHA work
- TsunamiReady Tier 2 product guidance
- Debris plan guidance (inspired by recent workshop in Oregon)

Request: Continuation of the volunteer-based MES M&R Work Group. Consider allowing longer term (more than one year) renewal cycle so that Work Group can develop and implement an Annual Work Plan which might take multiple years to complete.