

24 January 2023
NTHMP Winter Meeting
Palm Springs, California
Mitigation and Education Subcommittee meeting

Session 1

- Welcome and Schedule for the Day, by Chair Todd Becker
- MES Partner Lightning Briefs. (See NTHMP website for slides)
The following partners presented: Alaska, California, Commonwealth of Northern Mariana Islands, East Coast Region, Guam, Hawaii, International Tsunami Information Center, Puerto Rico, U.S. Virgin Islands, Washington, FEMA

Session 2

MES Work Plan Activity Discussions

- **Work Plan Activity #2: TsunamiReady Maritime Expansion (presented by California)**
(See NTHMP website for slides)

The purpose of discussion is to consider expanding TsunamiReady Program to have a separate category for Maritime community. This effort would address the gap of involvement by maritime communities. This effort could help strengthen U.N. Ocean Decade efforts. The intent is to accomplish this expansion this year. A first step would be to meet with NWS to understand what it takes to strengthen maritime. (Perhaps, this could include adding a maritime “tier” to TsunamiReady.) Subsequently, a list of future steps should be developed; possibly taking multiple few years. A work team would then review draft TsunamiReady guidelines for ports and harbors; then meet again with NWS to consider these guideline for ports/harbors. Further, it would be recommended to expand presence of TsunamiReady Program on TsunamiZone.org, to help track as well as promote the TsunamiReady Program.

Q- Does international Tsunami Ready program have maritime guidance?

A- Christa VH: ‘community’ is defined by jurisdictions, then maritime needs determined.

K. Nguyen - Weather Ready marine ambassador program maybe could be adjusted to include tsunami.

Y. LaDuke- harbor/marinas have different jurisdictional definitions, so not always included TsunamiReady for surrounding community.

General takeaway from discussion indicated that there was not a need for a new Tier or Category of TsunamiReady specifically for Maritime, but that more could be done to work with the “Maritime Communities” within the existing TsunamiReady Communities or use the TsunamiReady Supporter category.

MES Action: Distribute “TsunamiReady Maritime Related Options/Strategies” for review by the NTHMP. These are guidance and recommendations that were developed by the State of California and are not officially endorsed or required by the National Weather

Service, but provide additional TsunamiReady options with a focus on Maritime Response, Preparedness, Mitigation, and Recovery.

- **Work Plan Activity #3: Hazus Tsunami Expansion (presented by East Coast Region) (See NTHMP website for slides)**

East Coast Region did work on using tsunami component in Hazus but needed programming assistance to have uniform tsunami risk assessment for states on East Coast. However, the modifications to Hazus were only for a single user/system. As a result, a Hazus update overwrote modifications. Ed Fratto willing to engage FEMA on formalizing modifications to allow regions without tsunami component in Hazus to utilize Hazus tsunami component; however, would like formal support from MES to engage FEMA.

Q: In Hazus, Alaska has concerns regarding sparse building database and only ~3 inundation lines. So afraid to use it.

A- E. Fratto- You can add in your own data (i.e., building).

T. Becker- if there are gaps in Hazus not serving users, MES could compile and get this to FEMA for engagement.

W. Shaw- FEMA is willing to engage with MES to discuss possible expansion of Hazus Tsunami for use along the US East Coast.

MES Action:

- 1) **Develop a DRAFT Agenda of Hazus Gaps and send to FEMA in February (Coordinate through Wendy Shaw)**
- 2) **Request March Virtual Meeting Date to Discuss Gaps and possible solutions with FEMA**
- 3) **A formal letter to FEMA from MES or NTHMP is not recommended at this time**

- **Work Plan Activity #4: Hazus Equity and Inclusion (presented by East Coast Region) (See NTHMP website for slides)**

Using Hazus to identify potentially vulnerable population. E. Fratto created a draft manual; can MES provide feedback?

MES Action:

- 1) **DRAFT Manual for MES co-chairs for review**
- 2) **Request distribution to MES members for review and comment in March**
- 3) **Compile MES comments and revise as needed in April**
- 4) **Finalize Manual in May**

- **Work Plan Activity #5 and #6: Tsunami Debris Guidebook and Tsunami Vertical Evacuation Guidebook (presented by Oregon)**

Discussed updates to guidebooks on: Debris, Vertical Evacuation, Tsunami drills.

Debris planning guidebook is for local communities. Questions addressed include: What kind of debris?; Where debris might show up?; How to plan for and fund mitigation?; What could be the impact on communities? This efforts links to MMS tsunami debris modeling. Vertical Evacuation guidebook is an adaptation of the Washington State vertical evacuation structure guidebook. It guides users on how to achieve community buy-in and funding, as well as land use planning, team development, etc. Other states can adapt this guidebook for their own needs.

Drill guidebook is for local communities. Oregon originally developed guidebook in 2015, this is an update. This is a good resource for new emergency managers.

Q: How is the Debris planning guidebook linked with NOAA Marine Debris program? Caribe Wave is an annual exercise, and they have guide that may help update the Drill guidebook.

A. Rizzo : NOAA Marine Debris has been part of the discussion, though focus is on serving the local emergency managers.

MES Action: Oregon to inform MES co-chairs if/when draft manual to be distributed to MES members for review/comment

- **MES Activity #7: TsulInfo Alert (presented by Washington)**

A reminder for all States and Territories to contribute to the TsulInfo Alert Newsletter. It provides a valuable opportunity to share information and best practices. Email Stephanie.Earls@dnr.wa.gov for questions and/or contributions.

MES Action: MES continued support of TsulInfo Alert newsletter (ongoing)

- **Work Plan Activity #8: Tsunami Canned Messaging (presented by Washington) (See NTHMP website for slides)**

Canned messaging supports consistent messaging during tsunami events, includes graphics: (e.g., closure of beach), tsunami 101 graphics, pre-written alt text, social media messaging. As much as possible is translated into other languages.

An extensive discussion and explanation about alt text for messaging on social media was presented. A key point was to be brief for alerts. However, day to day messaging can be much more descriptive. Request MES to review/edit canned text.

MES Action: Washington State to inform MES co-chairs when draft “canned messaging” products to be distributed to MES members for review/comment (est. spring 2023)

Session 3

- **Tsunami Wave Arrival and Education and Outreach (presented by Washington) (See NTHMP website for slides)**

Tsunami Wave Arrival Workshop conducted in December 2022 with NTHMP partners. All workshop participants using the term “wave arrival” differently. Recognized that coseismic deformation impacts wave arrival. Long term goal is to have same definition for the term “wave arrival”. Historically, there is lots of variation in the use of the term. For instance, users in hydrodynamic modeling versus real-time application differ in their usage of the term. Ultimately, the public just wants to know when to evacuate. Workshop next steps, include: development of wave arrival team; and draft arrival time guidelines. Partners invited to complete follow-up survey: <https://forms.gle/juLhXmFk5umkuC8Q6>

Q: Frequently asked when wave arrive and when safe to go back? We don't have a product shortest wave arrival for wave of specific height.

-WAEMD: Washington provides walk estimation and when wave arrives

-Y. LaDuke: Would like product to include answer to question of “when could impacts occur to my State?” Like strong currents

-R. Wilson: concerned about errors in models if we are using these terms.

-N. Wood: need a “Tiger Team” as we are conflating use cases. There are different use cases, there will never be one term.

MES Action: MES co-chairs to encourage MES members to complete follow-up survey: <https://forms.gle/juLhXmFk5umkuC8Q6>

- **MES Partner gaps, needs, and challenges discussion (presented by MES Co-chairs)**

MES Partner gaps, needs, and challenges collected based on presentations from Partner Lightning Briefs in Session 1. MES co-chairs will send list for review to MES members to ensure accuracy and provide further details (e.g., points of contact). If common themes emerge, potential MES workplan activities can be developed. Alternatively, could leverage existing work/efforts of MES partners to address identified gaps, needs, and challenges.

MES Action: MES co-chairs to distribute gaps, needs, and challenges list to MES members. Subsequently, engage MES members on prioritization and engagement towards next steps.

Closing

- 2023 TWC Exercise dates-

- CARIBE WAVE: March 23, Gulf of Honduras and volcanic eruption of Mt Pelée, Martinique scenarios
- LANTEX: March 2, Puerto Rico Trench scenario
- PACIFEX: April 13, Scenario TBD
 - **Send feedback and scenario ideas to summer.ohlendorf@noaa.gov**
- Notes and presentations will be available on the NTHMP website
- Next MES meeting Wednesday, April 12th