

**Meeting Title** NTHMP Mapping and Modeling Subcommittee

**Purpose** MMS Project updates

**Location:** Winter Meeting, San Diego, CA

**Date** Mon, 28 January 2019

**Participants** J. Allan, D. Bausch, K. Fai Cheung, C. Forson, S. Grilli, , J. Horillo V. Huerfano, J. Kirby, M. Love, T. Moore, D. Nicolsky, E. Suleimani R. Wilson, .

**Agenda** (see page 4)

**Introductions (Attendee list taken at start of meeting)**

**MMS 2018 Annual Workplan UPDATES**

1. Tsunami source database discussion – Rick Wilson provided a review.
  - a. FY 18/19 (complete)
    - Source information captured into spreadsheet
    - Shared and used by USGS Powell Centre work group (finding commonalities) – historical data not a focus for this group.
  - b. FY 19/20 (in progress)
    - Description/definition of source parameters
    - Generate meta data for different model formats
    - Source dimensions with GIS/KML/figures
    - Permanent website for data
  - c. FY 19/20
    - Finalize database formats, definitions metadata, and attachments
    - Finalize and incorporate Powell Centre sources
    - Determine final location for data and assist transfer
- Agreement that the final database produced through this process should be editable, searchable, and with appropriate metadata.
- Powell Center meeting in May to define additional sources. Goal is to produce a research paper in summer 2020 summarizing all the data and findings from the series of workshops.
- Rick sought MMS endorsement for an FY19 task for CA that would involve working with the MMS to finalize the source database (e.g. excel spreadsheet). Seconded by Jon A. Vote passed with no objections.
- General discussion on definition of ‘worst case’ scenario. MMS concluded that because there are inconsistencies in the way this concept is used among the emergency management community, MMS should not define this with each state adopting their own preferred level of risk. Hence, this task was removed from the MMS work plan.

**Action Item(s)** - Ongoing.

2. Maritime Guidance – Rick Wilson provided update
  - a. FY 18/19
    - Guidance report – hazard assessment, response and preparedness/outreach material has been developed by MMS and is out there.
    - Finalize offshore safe (staging area) depths and related guidance for vessel evacuation developed and approved by NTHMP CC.
  - b. FY 19/20
    - Simplify guidance with less-prescriptive products in webpage format

- Links to partners, integrate mitigation and recovery planning products and guidelines both generic and harbor specific
- Website required for use of products by end-users/public
- c. FY 19/20 (requesting MMS endorsement)
  - Develop in-state work group to hold state-wide workshop to initiating/testing products/guidance
  - Discussed a web-based approach for sharing maritime guidance information, targeting different user groups (e.g. USCG, Commercial, Fisheries, Recreational).
  - Develop a maritime product web-site template for the use of other states, if interested.
- Broad discussion about simplifying the maritime guidance document.
- Discussion centered on developing appropriate guidance information and products that addresses the contrasting needs of maritime user groups (e.g. USCG, Commercial, Fisheries, Recreational), which could be provided through the WWW.
- Website review required by MES, MMS and WCS to ensure it fits needs. Perhaps two websites – one for internal (hidden) and one from public.
- CA planning to host a workshop for the maritime community (focused on larger ports) to better understand their needs.
- Liability concerns. Non prescriptive information and links to existing resources so that people can make better decisions, disclaimers and caveats should help as well
- NTHMP Maritime Outreach website may be better served by existing websites? NTHMP should focus on developing the information not linking it to users - that could be done by each state. Further discussion is required to determine best efforts for outreach to different target groups.
- Rick sought MMS endorsement for an FY19 task for CA that would involve developing web-based maritime content that could be integrated into the NTHMP web site, or adopted by NTHMP partners for displaying on their own web-site. The content would be based on the existing MMS maritime guidance document, while also integrating outcomes from various NTHMP partners that have made progress in this area. Vote passed with no objections. NOTE: the MES supported a similar discussion during their meeting and separately endorsed this effort.
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**Action Item(s)** - Ongoing.

3. Currents modeling criteria – MMS.

- Standard criteria for tsunami currents is challenging
- E.g., Users often request greater resolution for model outputs without realizing that there is a dependency on available data
- Model needs to be well-documented and when using multiple-models a sensitivity analysis could be undertaken
- Tsunami current benchmarking workshop identified that different models performed very differently but there is still more work to be done to resolve physics, resolution, etc.

**Action Item(s)** – Ongoing... continue to next year.

4. Update Mapping & Modeling Guidance - MMS.

- Refined text in various sections of the mapping and modeling guidance (e.g. additional factor of safety buffer).

**Action Item(s)** – Ongoing

5. Sediment Transport Guidance – Corina Forson.
- Sediment transport literature review compiled by WA and a word doc shared with the group.
  - Broad discussion on possible next steps. Consensus that the MMS needs to be working towards hosting a formal workshop to evaluate the role of sediment transport during tsunamis, and the accompanying feedback on inundation extents.
  - Challenge is that there are no data known of at this stage that could be used to benchmark sediment transport effects caused by tsunamis.
  - Future workshop would need to focus on better understanding of the causative processes and responses. A long-term goal is to find appropriate datasets that could be used for benchmark testing.
  - MMS to form work group to discuss sediment transport modeling research and begin planning towards a future workshop

**Action Item(s)** – MMS to continue discussions on topic leading to potentially hosting a tsunami sediment transport workshop ~FY20 timeframe.

6. Landslide modelling guidance – Jim Kirby.

- Hoping to have a guidance document completed by August 2019.

**Action Item(s)** - Ongoing.

7. Powell Center travel – MMS.

- Discussed next phase of Powell Center activities (Pacific sources focus).
- NTHMP state partners participating in the next phase to include travel request as part of FY19 funding cycle.
- Discussed schedule for Caribbean/Gulf/East Coast workshop.
- MMS endorsed travel to the Powell Center workshop for the involved state representatives.

**Action Item(s)** - Ongoing.

8. Meteotsunami project FY18 – Juan Horillo.

- In Gulf of Mexico (GOM) about 15-25 meteotsunami (MT) occur each year, 1-3 MT were >0.5m
- Created a web-based tool (tsunami model cloud) to change the meteorological effects based on incoming storm parameters to see about MT potential given a selected transect
- Stephan presented progress on MT work done – presented at AGU on East Coast MT hazard
- Detection- using high frequency radar to detect MT or possibly a landslide tsunami prior to wave arrival. Using this in B.C. now. May be a useful tool for detection across the states and also abroad (look into HF RADAR).

**Action Item(s)** - None taken.

9. DEM update from NCEI – Matthew Love.

- Finished two Alaska projects for NTHMP and Western WA, and Puerto Rico.
- Using new method-tiles which are easier to update and are easier to integrate with other tiles.
- COASTAL Act goal is to get all US coastline mapped (exception of Alaska which is special)
- Providing data to OCM for their web viewer

- Next NTHMP DEM priorities: we will postpone and make a list by the next teleconference (end of Feb.)
- Jon asked about updating existing DEMs- not reflected on new data just funding based.

**Action Item(s)** – MMS still needs to define priorities for next DEM priorities.

**Other Business:** Jon Allan discussed Oregon' ongoing work on application of Hazus to better understand risk assessments and planning. Noted that Oregon is in an ideal position to develop a guidance document on use and application of Hazus and data needs. Suggested this a potential future grant application requested in ~ FY20.

**State Co-Chair Election:**

Rick Wilson nominated Jon Allan

MMS members endorsed nomination.

The group thanked Dmitry for all his hard work and effort in leading the MMS over the past few years.

**Next Meeting:** To be scheduled