

NTHMP MMS meeting 23 September 2021

Participants:

J. Allan, D. Arcas, K. Carrigan, K.F. Cheung, D. Eungard, J. Fujimoto, K. Gately, N. Graehl, S. Grilli, C. Guard, M. Kaipat, J. Kirby, J. Horillo, V. Huerfano, S. Ohlendorf, S. Ross, I. Sears, D. Snider, R. Wilson.

Topics covered:

1. DEM update (K. Carrigan)
2. Sediment transport update (J.Kirby/S. Grilli)
3. MMS 3rd co-chair – nominations/interested parties (J. Allan/S. Ohlendorf)
4. Feedback from NTHMP on the USGS Slab Models (J. Allan/S. Ohlendorf)
5. Other business:
  - i. TSTAP update (R. Wilson)
  - ii. Powell Center update (S. Ross)
  - iii. Recent Cumbre Vieja eruption and tsunami hysteria (S. Grilli)
6. Planning for MMS Winter meeting in Portland

**1. DEM Update (K. Carrigan)**

Progressing slowly

Coastal Act tiles (East Coast) are expected to be complete by the end of November.

Southern Oregon (Brookings) is close to being completed...

To follow, Cook Inlet/Alaska followed by South San Francisco bay, CA.

**Action item:** None.

**2. Powell Center Update (S. Ross)**

Due to ongoing challenges with hosting in person meetings, there remains some uncertainty about a face-to-face meeting in January. The USGS Powell Center is currently re-evaluating all in person meetings; one of the other Cascadia Powell groups focused on recurrence has already had to move their meeting to March 2022. To that end, the USGS/NTHMP Cascadia Powell meeting will be looking at a possible back-up date ~April/May 2022.

Pacific source meeting is tentatively scheduled for August 3-5 2022

Diego: Question on the status of results from the earlier Powell meetings?

Stephanie: Hong Kie is currently working on the Alaska sources now. Note that there is no funding to actually develop the sources and so funding to do this must come from other funding entities.

Victor: Question on status of Caribbean sources?

Stephanie: plan right now is to develop sources for Puerto Rico and the Caribbean, develop a paper to be submitted to Natural Hazards, and then share with the MMS.

**3. Sediment Transport update (J. Kirby/S. Grilli)**

Sediment transport workshop event and agenda still under development. Hoping to make significant headway in the next quarter.

Currently identifying possible benchmarking data sources.

Will have an initial steering committee meeting soon.

In person meeting tentatively scheduled for summer/fall 2022

**Action item:** Jim will clarify possible dates for the initial sediment transport workshop. He will also share with the MMS his initial list of workshop attendees.

**4. USGS SLAB model discussion (J. Allan/S. Ohlendorf)**

Summer was approached by Kirstie Haynie (USGS) who is interested in learning whether any NTHMP members use the USGS SLAB model. Specific questions included:

- what people use the slab models for?

- how can the USGS improve the slab models for their use case (i.e., would a slab volume be preferred over just the currently supplied slab surface? Should we work to increase resolution?)

- is formally releasing updated USGS slab models every ~6-8 years preferred or would users prefer to have an easy way of creating slab models by supplying their own seismic data and/or by tweaking model parameters?

Diego: they do use the SLAB model. Noted that the current update cycle was fine though 3-4 years would be ideal. However, best case situation is to move to real-time. Diego also indicated that they are interested in learning more about the latest updates.

Stephanie: noted that the USGS will be coming out with a web form that will allow potential users to provide more detailed feedback on the SLAB model.

**Action item:** Jon to forward the questions directly to Diego and have him connect with Kirstie.

#### **5. Nominations for 3<sup>rd</sup> MMS co-chair (J. Allan/S. Ohlendorf)**

Alex Dolcimascolo indicated he would be interested in serving in the capacity of 3<sup>rd</sup> MMS co-chair.

Jon: requested discussion and hearing none, called for a vote. The MMS unanimously voted in Alex as 3<sup>rd</sup> co-chair.

Ian: noted that Alex could not formally adopt the position until the NTMHP CC had formally voted. For now, Alex could serve as an interim/acting MMS co-chair.

#### **6. Other Business (J. Allan/S. Ohlendorf)**

Rick: mentioned that the Tsunami Science and Technology Advisory Panel (TSTAP) report has been presented to the NOAA SAB and will be finalized over the next few months. You can find it here:

[https://sab.noaa.gov/wp-content/uploads/2021/08/TSTAP-Draft-Report\\_8-19-2021\\_Final.pdf](https://sab.noaa.gov/wp-content/uploads/2021/08/TSTAP-Draft-Report_8-19-2021_Final.pdf)

They are moving forward on an annual work plan.

**Action item:** MMS members to review the report and provide any comments back to Rick.

Stephan: led a discussion on the La Palma (Cumbre Vieja) Volcano in the Canary Islands, which recently erupted. Noted that many houses have been destroyed and that seismic activity continues to increase. There has been much media speculation about a potential collapse of the volcano flank, driven largely by the Ward and Day (2001) study of the volcano.

Also noted that recent tsunami modeling undertaken by Stephan and Jim of a potential Cumbre Vieja flank failure indicates significantly (~50%) reduced inundation along the US East Coast.

Victor: suggested that the TWC could provide some heads-up information to Puerto Rico and US Virgin Islands emergency managers about the volcanoes status.

Dave: questioned this approach, since it was not clear what information could be provided, as the TWC responds primarily to immediate threats.

Kara: Noted that the TWC has seen a tremendous amount of interest. TWC posted on social media that there was no known immediate threat and that all parties are monitoring the situation very carefully. Of concern the TWC had received lots of requests on what to do should and how they would receive alerting information, which is troubling. Also having to combat disinformation that is also circulating.

Rick: noted that the MMS had helped draft a one-pager. This was an opportunity to re-visit and update the document.

Jon: seconded Rick's suggestion.

**Action item:** Ian to dust off the original Cumbre Vieja briefing, work with Ed Fratto, Stephan Grilli and Jim Kirby to update its contents. Once an updated draft is complete, Ian to circulate the revised briefing to the MMS for final review.

Carrie: Noted that Oregon State University and its partners recently received significant NSF funding for a new Cascadia Coastlines and People Hazards Research Hub, which will involve numerous researchers throughout the PNW region. Part of this effort will be directed at Cascadia tsunami sources.

Jon: suggested that the Cascadia CoPes hub could be presented in more detail at our next MMS meeting.

NTHMP MMS meeting 27 May 2021

Participants:

J. Allan, C. Allen; K. Carrigan, K.F. Cheung, M. Eble, D. Eungard, K. Gately, S. Grilli, J. Kirby, L. Kozlosky, J. Horillo, D. Nicolsky; S. Ohlendorf, S. Ross, I. Sears, R. Wilson, R. Watlington, A. Williamson.

Topics covered:

1. DEM updates (NCEI)
2. Powell Center Update (S. Ross)
3. Sediment transport update (J.Kirby/S. Grilli)
4. Tsunami Debris Modeling (R. Wilson)
5. Tsunami landslide modeling (P. Lynett/R.Wilson)
6. MMS Co-chairs discussion (All)
7. Other business
  - i. Update to NTHMP product list (current version is from 2010)
  - ii. Updated MMS modeling and Meteotsunami guidance documents posted to [https://nws.weather.gov/nthmp/mapping\\_subcommittee.html](https://nws.weather.gov/nthmp/mapping_subcommittee.html)

Summer introduced Dr. Amy Williamson to the MMS. Amy is the new duty geoscientist with the NTWC.

**1. DEM Updates (K. Carrigan)**

Juan de Fuca, WA – Completed and provided to WA folks

Working on southern Oregon (Brookings)... ~50% complete

To follow, Alaska followed by South San Francisco bay, CA.

Kelly mentioned that tiled DEMs have now been completed for all the GoM and most of East Coast (product of CoastalAct).

**2. Powell Center Updates (S. Ross)**

Lot's going on...

Cascadia meeting still on for January 10-14<sup>th</sup>, 2021.

Coordinating with other groups such as the Southern Cascadia SZ working group (meeting June 3rd and June 9th), National Seismic Hazard Map, and the separate Powell Center group on Cascadia recurrence to make sure they are all working together

Working on setting dates for a Pacific sources workshop scheduled for ~summer/fall 2022 (possibly August).

Work on the AK tsunami sources logic tree continues (funding from NTHMP and NEHRP). The NSHM group at the USGS is starting its update of AK (hasn't been done since ~2007) and are using findings from the AK Powell Center meeting. At the most recent meeting of the NSHM group, several folks from original Alaska Powell Center workshop presented including Rob Witter, Hong Kie Theo, Jeff Freymueller. Hong Kie is currently working on tying all the branches of the AK tsunami sources logic tree together.

Following on from the US East Coast, Gulf Coast and Caribbean Territories, workshop on tsunami sources, S. Grilli, J. Horillo and P. Lynett will be working on a new PTHA logic tree for tsunami landslide sources.

**Action item:** None.

### 3. Sediment Transport update (J. Kirby/S. Grilli)

Planning to have a meeting this summer. Would like to include Japanese experts, but major challenge is due to the time difference... punting on the idea.

Goal is to have the meeting spread over 2 days targeting the following:

- Initial meeting focused on categories of modeling that should be covered.
- Second day directed at identifying potential benchmarks that could be used in a modeling workshop.

Working on a draft. Would like to do it before the end of the July but haven't lined up participants yet (~half dozen people have expressed an interest). Format of meeting should make it flexible. Working on sending out invitations ASAP.

Jon: be good to include Japanese scientists.

Jim/Stephen: time zone challenges makes this difficult. Thinking is to stick with US scientists for this initial meeting, but include Japanese experts in a 2022 benchmarking workshop.

Stephan: maybe we should look at debris also (e.g. work by Dan Cox).

Jim: one is more morphological change, while the other is structural, not sure want to pile both together.

**Action item:** Jim will notify interested folks with dates for the initial sediment transport workshop.

### 4. Tsunami Debris Modeling (R. Wilson)

Rick confirmed that CA is requesting funding for a Tsunami Debris workshop as part of their FY21 proposal. Goal is to evaluate different tsunami debris models, that will feed into a benchmarking workshop. D. Cox and P. Lynett will be co-leaders of the group. With P. Lynett likely to be involved in the sediment transport modeling workshop allowing for some crossover between disciplines.

An important goal of this effort will be to get a better handle on what products would be useful to emergency managers, community leaders and state agencies.

Timeline – ~summer 2022.

Dmitry: noted that it would be important to evaluate effects from the Tohoku EQ... only recent one with a lot of debris and significant data. Not much data in US.

Rick: great point, and yes that will be a focus. Noted that the presentation by D. Cox on debris modeling emphasized the role of the earthquake in causing initial damage, from which the tsunami contributes further, with all that material being deposited well on shore. Evaluating land-based debris movement and waterborne debris in and around harbors important.

Jon: Aren't the fragility curves Dan and others are using fed by data from Tohoku?

Rick: To a certain extent. From the ASCE work, I've learned that there's not a lot of sharing. Hard to get debris information from the Japanese (base level information), so there's a bit of a gap there. But we should be learning from that experience. Debris was a big issue in their recovery.

Corina: tell ASCE how frustrating it is when YOU don't share your data!

**Action item:** None.

## 5. Landslide Modeling (R. Wilson)

Jon: Asked about the status of the landslide modeling group.

Rick indicated that Pat Lynett intends to start holding landslide modeling meetings on a regular basis – not yet started... very soon. Maybe meetings every couple of weeks or monthly, ramping up to a larger workshop in 2022.

Stephan: noted that the task was included as part of their NTHMP FY21 proposal, which supports time to work with Pat on the methodology. Haven't made a schedule yet. Hoping to host a series of meetings to discuss the methodology.

Corina: in thinking about debris modeling (see presentation by Dan Cox), the modeling is still using bare earth topography. Adding buildings is future area of research. Could NCEI assist with developing DEM models that incorporate the building landscape?

Kelly: it's possible. Lidar is often processed to remove it. Would require re-analyzing the raw lidar files. I don't know how easy it would be.

Stephan: Jim and I and our groups did some work on it. Makes a significant difference on the resultant velocities and forces. If you view movies from Tohoku – buildings get destroyed and becomes debris. What Dan Cox demonstrated in his modeling work is a great step, but need more ways to improve on and validate the modeling.

Jon: Noted that many state programs have been developing building footprints as part of statewide risk assessments. Suggested that these data could be assimilated into DEM models.

Jim: I'd caution about dumping new work on NCEI to develop DEMs with building footprints. These data involve so much local information. Example – a resort community might have lots of buildings with multiple floors.

Stephan: could do coarse grid to ID high risk (first generation maps). Second generation maps could include some of those simulations of high risk areas.

**Action item:** None.

## 6. Modification to MMS Terms of Reference – addition of a 2nd state co-chair \* nomination & vote if consensus is to propose 2nd state co-chair to CC

J.Allan introduced the notion of modifying the MMS terms of reference to include a third co-chair to the MMS. The suggestion is that the third co-chair would be a state representative though the language is expressed in such a way that it could be anyone from the MMS.

Daniel (WA): change to second state partner to at large, opens up to university or special interest group.

Marie: it's implied.

Corina: I thought that at first, but ..

Marie: strike "be selected from"

Jon: made various minor adjustments to the language surrounding co-chairs. Final version reads:

*“Chairpersons are voted on by MMS Members at the Annual NTHMP meeting and are then approved by a majority of the NTHMP Coordinating Committee. MMS chairs shall have at least two but no more than three equal Co-Chairs selected from the body of the MMS. One Co-Chair*

*shall be a representative from a Federal agency (eq. NOAA, USGS, FEMA) and the second representative shall be from one of the member states. A third co-chair may be proposed for approval of the CC and should be selected from member states. Co-Chairs will serve for two years with rotation staggered to maintain continuity in leadership. The federal Co-Chair is elected in even years, and the State Co-Chair is elected in odd years. Integral, is ensuring there is overlap in tenure to ensure continuity of operations, while allowing for ease of transition as new co-chairs are appointed.”*

Motion put forward by D. Nicolsky to adopt. Motion seconded by C. Allen.

MMS voted to adopt without any objections.

Follow-up discussion... Dmitry recommended including in a footnote definitions for should/shall/must.

**Action item:** CC will vote to adopt amendment at the next meeting in July

## **7. Other business**

Marie Eble announced her retirement. Will remain engaged with Powell Center group.

Jon: Noted that the mapping and modeling guidance updates are now posted to the MMS website along with the new Meteotsunami guidance.

Corina: Noted that ground-breaking has begun on a second tsunami vertical evacuation structure at Tokeland, WA and organized by the Shoalwater Bay tribe. Will be a tower.

26 January 2021 NTHMP MMS 11:00 virtual meeting

## Agenda

1. MMS 2021 annual workplan review
  2. Powell Center update
  3. DEM update
  4. Fed co-chair discussion (alternates as co-chairs)
  5. MMS Fed Co-chair vote
  6. MMS State Co-chair vote
  7. Other
- 
1. MMS annual 2021 work plan review  
Workplan was reviewed and updates made on Google-shared document during meeting.  
Specific status updates:
    - 1.1 2021 - Maritime guidance → Noted to follow-up with MES
    - 1.2 2020 – Complete current modeling criteria → No Progress; ONGOING
    - 1.3 2021 – Travel to Powell Center workshop → Pandemic postponement
    - 1.4 2021 – NCEI DEM development → N. Coast WA; S. Oregon, S. San Fran Bay; AK  
\*Funding outside of NTHMP -> NE, N. of Cape Code; PR
    - 1.5 2021 – Guidance document on Landslide PTHA → NEW MMS-sponsored proposal  
by Grilli, Horrillo, Lynett
    - 1.6 2021 – Tsunami Debris modeling → NEW MMS-sponsored proposal by Wilson
    - 1.7 Summarize meteotsunami modeling results → Post to MMS/NTHMP website
  2. Powell center update (S. Ross)
    - 2.1 The ongoing pandemic has resulted in postponement of in-person workshop schedule
    - 2.2 The below email was sent to MMS:  
  

Dear MMS members,

Planning for in-person meetings and workshops continues to pose challenges to us all. Please, then, note the new schedule for the Powell Center tsunami sources as you plan for your NTHMP FY21 grant proposals (and extension requests). The workshop on Cascadia Subduction Zone tsunami sources is now planned for January 2022 and the workshop on Pacific tsunami sources (other than Alaska and Cascadia) may be as early as summer 2022. Specifically, the Cascadia workshop is currently penciled in for January 10-14, 2022.

The dates of the workshop on Pacific tsunami sources will be decided closer to the workshop, with input from participants.

Thank you for your patience and understanding of these pandemic-related postponements.

Sincerely,  
Stephanie Ross, Marie Eble, Rick Wilson, Dmitry Nicolsky and the rest of the Powell Center tsunami sources working group core (Pat Lynett, Hong Kie Thio, Kenny Ryan, Christos Kyriakopoulos)
    - 2.3 A report of the Alaska workshop is in development
    - 2.4 S. Ross drafted a 1-pager in support of MMS endorsement for work on Probabilistic LS tsunami methodology, as follow-on to the East Coast/Gulf Coast workshop held at Powell Center



2.5 P. Lynett & R. Wilson will brief MMS, on next call, on California LS tsunami hazard efforts.  
2.6 Action: Marie to circulate the Powell Center group's white paper, at the request of J. Allan

3. SED transport modeling guidance (J. Kirby)

Distinction made between 2020 funded task and 2021 request:

2020 task was to have a meeting among interested parties, to discuss Benchmark Workshop.

2021 request is for support is to hold the workshop and benchmark the models.

Thought is to hold a 1-day virtual meeting in summer 2021.

J. Allan: plan to evaluate what data are available for benchmarking?

J. Kirby: many clear candidates, most benchmarks will come from field investigations, USGS expertise will be leveraged (B. Jaffe, G. Gelfenbaum)

S. Ross: requested to be kept informed to ensure that right USGS people are engaged

J. Kirby: agreed and added that Japan may provide information.

C. Garrison-Laney: could contact a colleague in Japan

J. Horrillo: Explained the 1-pager proposal with S. Grilli that incorporates ideas of P. Lynett.

Includes what has been developed for East Coast and Gulf Coast, expert knowledge on probabilistic approach. M. Eble: is this envisioned as MMS-sponsored proposal?

J. Horrillo: Yes, a task to work on methodology in East Coast/Gulf Coast. P. Lynett is supported by CA.

J. Allan: clarified that this proposal was discussed and endorsed in the November 2021 MMS meeting. Idea is to have a debris modeling WS to look at debris modeling.

M. Eble: mentions a NOAA debris modeling group that may be a resource

J. Allan: highlights a presentation by D. Cox on his work in Oregon on the NTHMP call

4. DEM update

From workplan review update:

2021 – NCEI DEM development → N. Coast WA; S. Oregon, S. San Fran Bay; AK

\*Funding outside of NTHMP -> NE, N. of Cape Code; PR

5. Fed co-chair discussion (alternates as co-chairs?)

M. Eble was due to rotate out Jan 2020. Rotation was postponed to summer 2021 due to swap of annual meeting with subcommittee meetings. Pandemic-caused cancellation of travel further postponed rotation

J. Allan is now due to rotate out of MMS co-chair position

Question was raised about alternates serving for Federal co-chairs.

Discussion about what is meant by 'Federal'

K. Stroker: could an affiliate serve in the role of Federal co-chair or serve as an alternate to a Federal co-chair? Ex: K. Stroker / K. Carignan

M. Eble: original terms of reference said NOAA only. MMS approved a proposal to modify wording to replace 'NOAA' with 'Federal' to allow non-NOAA members to serve. Change was approved by CC membership.

How would an affiliate be defined?

S. Ross: Advocated for sharing of one co-chair position

M. Eble: would have to change terms of reference and get NOAA legal interpretation

D. Nikolsky: Expressed openness to having more than 2 co-chairs, as MES has.

M. Eble: main question is: must Federal representative be a Federal employee?

Marie: does fed rep have to be federal employee. Overall feeling is that an affiliate, if approved, would take travel funding away from Federal members, who now cannot always secure funding to attend NTHMP in-person meetings.

I.Sears: Has waffled on interpretation and cited R. Lopes as example. Will seek NOAA legal counsel.

J. Allan: expressed an interest in moving to two (2) state Co-chairs as there is continued challenge in finding volunteers to step into co-chair roles.

I.Sears: Supports a 3<sup>rd</sup> MMS co-chair, regardless of additional cost. Approved terms of ref in MES – they get 2 state/1 fed rep. it makes sense in this setting.

\*\*Meeting time ended before further discussion or action

NTHMP MMS meeting 30 March 2021

Participants:

J. Allan, C. Allen; K. Carrigan, A. Dolcimascolo, M. Eble, D. Eungard, C. Garrison-Laney, K. Gately, J. Gridley, V. Heurifano, J. Kirby, L. Kozlosky, E. Lutu-McMoore, D. Nicolsky; S. Ohlendorf, S. Ross, I. Sears, K. Stroker, R. Wilson, R. Watlington.

Topics covered:

1. DEM updates (NCEI)
2. Powell Center Update (S. Ross)
3. MMS Co-chairs discussion (All)
4. Tsunami landslide modeling, CA (P. Lynett/R. Wilson)
5. Other business

### **1. DEM Updates (K. Carrigan)**

Juan de Fuca, WA - nearing completion,

To be followed by...

Brookings, OR,

Alaska,

South San Francisco bay, CA.

### **2. Powell Center Updates (S. Ross)**

Cascadia meeting still on for January 10-14<sup>th</sup>, 2021.

Tracking various other meetings related to earthquake sources, including:

- National Seismic Hazard meeting on Cascadia (held 23<sup>rd</sup> February, 2021),
- Alaska National Seismic Hazard meeting scheduled for 25<sup>th</sup> May, 2021.
- Cascadia earthquake sources and recurrence (various ongoing meetings).

### **3. MMS Co-chair discussion**

Nominations for the federal Co-chair position.

Discussion on a 3<sup>rd</sup> co-chair position.

M. Eble indicated she is stepping down as the federal co-chair representative.

Previous email exchanges with NWS leadership established that the federal co-chair position must be a federal employee (not a consultant).

S. Ross nominated Summer Ohlendorf to the position. Second ?

MMS voted unanimously in support of Summer's nomination. The nomination was forwarded to the full NTHMP CC for formal voting and approved unanimously on 30<sup>th</sup> March, 2021.

General discussion followed about the third co-chair option.

R. Wilson suggested that the 3<sup>rd</sup> co-chair could be an 'at large' position (i.e. filled by any member of the MMS).

M. Eble noted that the adopted structure in the MES consists of 1 federal co-chair, and 2 state co-chairs.

I. Sears indicated that it would be good to maintain consistency across the committees.

C. Allen asked whether MMS state alternates could fill the 3<sup>rd</sup> co-chair role?

M. Eble indicated that the problem is that co-chairs need to attend the annual and winter meetings to oversee MMS in-person meetings. This would require additional travel funding for alternates (currently not allowed).

I. Sears indicated that he would look into the travel issue further.

K. Gately noted that the MMS terms of reference would need to be updated.

**Action item:** MMS co-chairs will work I. Sears to develop language for adopting a 3<sup>rd</sup> co-chair in the MMS terms of Reference and will circulate the proposed changes to the MMS prior to the next scheduled meeting. The goal is to call for nominations for a 3<sup>rd</sup> co-chair prior to the next meeting, which would allow for that person to be voted on by the MMS and CC at the next meeting.

#### **4. Landslide PTHA Modeling discussion (P.Lynett/R.Wilson)**

P.Lynett provided an overview of a new study being spearheaded in CA to undertake a landslide PTHA. Goal is to develop a landslide tsunami approach that is consistent with the existing PTHA for CA seismic sources. Looking to establish a methodology/framework that works for CA, with input and guidance from MMS members and other experts.

Approach would effectively reflect a “global” logic tree – style description of the parameters and models needed to characterize the hazard.

Input is needed to quantify the parameters / models and understand gaps. Would like to build the framework.

Proposing to establish an informal landslide working group. Meetings to be held ~biweekly. Short presentations. Interest in participating was expressed by J. Kirby, D. Nicolsky, J. Horillo, J. Allan.

**Action item:** MMS co-chairs and NWS leadership to provide a mechanism for initial meeting solicitations and announcements.

#### **5. Other business**

J.Allan queried the group about future MMS meetings. Is the current structure focused on the annual work plan fine? Is there interest in perhaps broadening our scope to include opportunities to present on work being done by the group?

C.Allen supportive of this approach.

D. Nicolsky noted that should use the time to address the annual work plan first.

S. Ross noted that if agenda items are thin, the MMS co-chairs could explore other options including presentations by MMS members.

NTHMP MMS meeting 18 November 2021

Participants:

J. Allan, C. Allen, D. Arcas, K. Carrigan, A. Dolcimascolo, D. Eungard, J. Fujimoto, C. Garrison-Laney, N. Graehl, S. Grilli, C. Guard, C. Hincapie-Cardenas, S. Holloway-Ledo, J. Horillo, V. Huerfano, M. Kaipat, E. Lutu-McMoore, S. Ohlendorf, S. Ross, I. Sears, R. Wilson.

Topics covered:

1. DEM update (K. Carrigan)
2. Sediment transport update (J.Kirby/S. Grilli)
3. Planning for MMS Winter meeting in Portland (J. Allan/S. Ohlendorf)
4. Other business:
  - i. Recent Cumbre Vieja eruption and tsunami hysteria (S. Grilli)

**1. DEM Update (K. Carrigan)**

Progressing well

- Central OR – *completed*
- Strait of Juan de Fuca – *completed*
- Southern OR - (draft sent to Oregon)
- Cook Inlet, AK communities - *in process*
  - o Dmitry to check on his data needs
- South San Francisco Bay - *est. Jan. '22*

Completed under non-NTHMP funded project:

- U.S. Northeast coast
- Hawaii (now available via Digital Coast)
  - o 1/9th <https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=8483>
  - o 1/3rd <https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=8580>
- Guam (in process) - *est. early '22*

Fai: which part of Guam is NCEI working on?

Kelly: all of Guam + CNMI (will email a shapefile of extents to Fai)

Rick: what is the extent of the San Francisco Bay coverage?

Kelly: NCEI was expecting an extent to be defined by CA and sent to her.

Discussion followed on new DEM requests for CY 2022.

Corina: WA is interested in DEM updates along the Southwest WA coast, as well as Puget Sound

Victor: Requesting updated DEMs for Puerto Rico following recent earthquakes (this has been an ongoing request for some time but has been on hold due to data availability)

Kelly: noted that the Coastal Act may be funding this work. She will look into this further.

**Action items:**

- 1) Rick to provide extent of interest for San Francisco Bay update to Kelly
- 2) Corina to provide extents of interest for southwest WA coast and within Puget Sound
- 3) Kelly to evaluate status of DEM updates in Puerto Rico and email the status to Victor
- 4) ALL – evaluate additional DEM needs for CY 2022 (to be finalized at the 2022 Portland winter meeting)

**2. Sediment Transport Update (J.Kirby/S. Grilli)**

No Update to report.

### **3. MMS Winter Meeting Agenda Discussion (All)**

Jon: provided brief overview of previous format and topics. Time available is ~4.5 hours, although we do have ~1-1.5 hours back-up time available should we need it on Thursday (Feb 4<sup>th</sup>, afternoon). We also have two sessions, where we will have joint meetings with the MES and WCS.

Initial goal will be to review MMS annual workplan task status and then define our work plan activities for CY 2022. For CY2021, the MMS work plan reflects the following:

- Tsunami source database (CA lead);
- Maritime guidance status (CA lead);
- Complete Maritime Current Modeling Criteria (ALL);
- Powell Center activities (USGS lead);
- NCEI DEM Development (NCEI lead);
- Sediment transport modeling guidance (East Coast lead);
- Landslide PTHA guidance (East Coast lead);
- Tsunami debris modeling (CA lead);

Jon: suggested for the remaining time available to us, we could allocate ~5-10 minutes to allow for MMS members to present a series of lightning talks, describing a recent activity. Alternatively, we could do a poster session.

General consensus was a preference for lightning talks, time permitting.

### **4. Other Business (All)**

#### Post-earthquake/tsunami investigations

Diego: noted that he is participating as part of a team developing guidance for post-earthquake investigations (circular 1242). His role is specific to the tsunami hazard. Wanting to know status of post-disaster tsunami investigation studies and data clearinghouses.

Stephanie: Glad to hear Diego is participating on this. Noted that Laura Kong, Bruce Jaffe and Stephanie Ross have been working on developing guidance for post-disaster tsunami investigation studies and data clearinghouses.

The MMS received an initial briefing on this 2-3 years ago. However, it has been slow going since then. They meet weekly

Jon: suggested that this could be a topic for conversation at the 2022 winter meeting, and potentially we could flag this as part of the MMS work plan, which may help share the burden of developing such guidance.

Corina: mentioned that WA has developed an 'All Hazards' clearinghouse plan for Washington. Could be present on the topic if needed.

Rick: Offered up Jay Payton to give a presentation on what CA has been doing for post-disaster mapping and the tools they have developed to assist with the process.

Jon: Will try to incorporate these suggestions into the winter meeting agenda.

#### Cumbre Vieja Follow-up Discussion

Stephan: requested an update from NOAA NWS on the status of the Cumbre Vieja tsunami overview document and FAQ. Expressed his concern over some of the revisions that were originally provided on wave heights and inundation extents that were the product of recent east coast tsunami modeling, which were subsequently removed.

Ian & Summer provided an overview as to why the changes were made. The main concern was that NWS wanted the document to reflect more information on the warning aspect and less on any latest model result.

Stephan: noted that the latest east coast modeling of this event reflected the best available science and corrects information that had been circulating in early 2000, that reflected crude modeling performed by Ward and Day at the time; the latter study continues to feature in various media and social media discussions. He has been referring people to the latest scientific modeling results.

Stephan: Requested that the modified FAQ include a link to the latest scientific results that were published in 2015.

Ian: noted that the NWS would explore this further after further discussions in the CC meeting.