

Combined NTHMP-USGS Workshop

Location: NOAA Skaggs Research Center, Outreach Classroom (GB124)

February 1-2, 2016

Summary notes:

The workshop between the U.S. Geological Survey (USGS) and NOAA's National Tsunami Hazard Mitigation Program (NTHMP) runs from 8:30am to 4:30pm on Monday February 1 and from 8:30am to 2:30 pm on Tuesday February 2, 2016 (with separate continuations until 4 and 4:30 pm). This workshop is also the meeting for NTHMP's Mapping and Modeling Subcommittee (MMS), which continues on February 2 from 2:45-4:30 pm with MMS business. The USGS participants will move to a different room and meet from 2:45 to 4 pm to discuss the path forward.

The other two NTHMP subcommittees, the Mitigation and Education Subcommittee (MES) and the Warning Coordination Subcommittee (WCS) have sessions on February 2 concurrent with the NTHMP-USGS workshop.

On February 2 from 8:30 am to 9:20 am, The MES will meet jointly with the MMS to discuss USGS collaboration on MES activities. USGS participants are invited to join them. After that, the MES will meet separately from 9:30 am to noon. The WCS meets from 1-5 pm.

The last page of the agenda has guidance for panelists and facilitators, potential outcomes, and questions to consider. Please take a look at it to prepare for the discussions. Thank you!

Monday – Feb 1st

----- **Combined NTHMP - USGS Workshop (Day 1) starts** -----

8:30 – 9:00AM Welcome, introductions, and logistics (MMS co-chairs: Kara Gately and Dmitry Nicolsky, USGS: Stephanie Ross, NTHMP administrator Rocky Lopes). Includes self introductions and introduction of Jill McCarthy (Director of USGS' Geologic Hazards Science Center) and Steve Hickman (Director of USGS' Earthquake Science Center).

Background and Summary Information

9:00 – 9:15AM Overview of NTHMP (Dmitry Nicolsky and Kara Gately)

9:15 – 9:30AM Overview of USGS Tsunami-Related Programs and Responsibilities (Stephanie Ross)

9:30 – 10:00AM NOAA Tsunami Program and USGS Collaborations – Presentation on related projects and outcomes from the Tsunami Research Advisory Council Meeting (Mike Angove, NOAA Tsunami Program Manager)

10:00 – 10:15AM Break

- 10:15 – 11:45AM** **SESSION 1: Tsunami Sources Presentation – Cascadia focus – Overview on the needs from the MMS concerning consistent tsunami sources: (Panelists: T. Walsh, J. Allen, A. Nelson, P. McCrory, A. Frankel).**
Facilitators: Art Frankel and Tim Walsh
- 10:15-10:25 AM Washington needs from Tim Walsh
Oregon needs from Jonathon Allen
- 10:25-10:40 AM brief comments by Alan Nelson, Pat McCrory, Art Frankel
- 10:45 – 11:45AM Discussion – Defining the outcome(s). Panelists stay up in front.
- 11:45 – 1:00 PM Lunch
- 1:00 – 2:00 PM** **SESSION 2: USGS Tsunami Sources Working Group (TSWG) and Slab 1.0 (TSWG Overview: W. Mooney-15min; Panelists: R. Wilson, B. Jaffe, G. Gelfenbaum, G. Hayes).** *Facilitators: Walter Mooney and Rick Wilson*
- 1:00- 1:15 PM TSWG overview by Walter Mooney
- 1:15-1:20 PM California needs from Rick Wilson
- 1:20-1:35 PM brief comments by Bruce Jaffe, Guy Gelfenbaum, Gavin Hayes
- 1:35-2:00 PM Discussion - Utilizing the USGS TSWG or similar USGS Tsunami Work Group
- 2:00 – 2:30PM** **Tsunami Warning Center Needs, Including Source Development Support for National Tsunami Exercises (P. Whitmore and C. McCreery).**
- 2:00-2:15 Overview by Paul Whitmore and Chip McCreery
- 2:15-2:30 PM Discussion led by Paul Whitmore and Chip McCreery
- 2:30 – 2:45PM Break
- 2:45 – 4:15PM** **SESSION 3: Tsunami Sources Presentation – Alaska-Aleutians/Hawaii/N. and S. Pacific focus – Overview on the needs from the MMS concerning consistent tsunami sources (Panelists: D. Nicolsky, K. F. Cheung, C. Guard, E. Lutu-McMoore, B. Richmond, D. Scholl, R. von Heune, M. Petersen, P. Haeussler, R. Witter).**
Facilitators: Dmitry Nicolsky and Rob Witter
- 2:45-3:05 PM Alaska needs from Dmitry Nicolsky
Hawaii needs from Kwok Fai Cheung
North Pacific needs from Elinor Lutu-McMoore (with Kwok Fai Cheung)
South Pacific needs from Chip Guard
- 3:05-3:35 PM brief comments by Bruce Richmond, Dave Scholl, Roland von Heune, Mark Petersen, Peter Haeussler, Rob Witter
- 3:35 – 4:15PM Discussion – Defining the outcome(s)
- 4:15 – 4:30PM Overview of Day One and Wrap Up (MMS co-chairs: K. Gately and D.

Tuesday, Feb 2nd

This day starts with a joint discussion between Mitigation and Education Subcommittee (MES), MMS, and USGS. Location: NOAA Skaggs Research Center PSD Conference Room (1D403)

8:30 – 9:20AM SESSION 4: USGS & NTHMP collaboration & capabilities on MES-related activities (Panelists: Nate Wood, Stephanie Ross, Kevin Richards, John Schelling, Kevin Miller, Dmitry Nicolosky)

Overview of discussion objectives - Nate Wood and Stephanie Ross (3 minutes)

Past and current work (3 minutes each):

- Kevin Richards: Community exposure to tsunami hazards
- John Schelling: Applications of pedestrian evacuation modeling
- Kevin Miller: Community exposure to hazards, scenario impacts, and applications of evacuation modeling
- Dmitry Nicolosky: Training and capacity building for conducting their own evacuation modeling

Open discussion topics (two rounds of 15 minutes each):

- 1) What are some other areas of research within existing types of USGS work?
- 2) Are there new areas of research that the USGS could be helping with?

*****Note** Session 4 was postponed to Thursday Feb. 4 due to inclement weather***

9:20 – 9:30AM Break

*(Note: MMS and USGS move back to **Outreach Classroom (GB124)** for continuation of tsunami source sessions while MES stays in PSD Conference Room **(1D403)** for concurrent MES business meeting.*

9:30 – 9:45AM Summary of USGS-NTHMP Workshop Day One

9:45 – 10:00AM USGS proposed Subduction Zone Initiative: Joan Gomberg

10:00-10:20 AM Landslide Tsunami Modeling Presentation (invited talk by David George)

**10:20 – 12:00 pm
(including break) SESSION 5: Tsunami Sources Presentation – East Coast, Gulf Coast, Caribbean - Overview on the needs from the MMS concerning tsunami sources (landslide modeling, benchmark problems, probabilistic methods and worst case scenarios) (Panelists: V. Huerfano, R. Watlington, J. Horrillo, S. Grilli, U. ten Brink, J. Chaytor).
Facilitators: Stephan Grilli and Jason Chaytor**

10:20 – 10:40 AM Puerto Rico needs by Victor Huerfano
U.S. Virgin Islands needs by Roy Watlington

Gulf Coast needs by Juan Horrillo and Alyssa Manis
East Coast needs by Stephan Grilli

10:40 – 10:50 AM Break

10:50 - 11:00 AM Brief comments by Uri ten Brink and Jason Chaytor

11:00 – 12:00PM Discussion – Defining the outcome(s). Panelists stay up front.

Noon – 1:00PM Lunch

(Note: Concurrent WCS Meeting starts at 1PM and runs until 5PM)

1:00 – 1:45 PM Recommendations for the USGS Work Group – Defining a path for achieving the outcomes defined (Breakout/Working Groups)

1:45 – 2:15 PM Action Items from breakout groups and the way forward (MMS co-chairs)

2:15 – 2:30PM Summary, Closing Remarks and Adjourn (MMS co-chairs)

2:30 – 2:45PM Break

----- **Combined portion of NTHMP - USGS Workshop (Day 2) ends** -----

2:45-4:00 PM USGS participants convene in a different room to discuss the path forward while MMS members stay in the same room to have their subcommittee business meeting.

-----**Mapping and Modeling Subcommittee Meeting Starts**-----

2:45 – 3:05PM NTHMP/NOAA priorities and MMS work for FY16-17, travel budget cuts and discussion about future MMS meetings

3:05 – 3:15PM Updates on the Tsunami Current Modeling Workshop (Rick Wilson)

3:15 – 3:35PM Discussion of the Maritime Guidance Document, minimum distance from reefs, and other issues (Charles Guard, others)

3:35 – 3:50PM Summer 2016 Landslide benchmarking workshop – discussion and planning (Jim and Stephan)

3:50 – 4:30PM MMS Housekeeping (website maintenance, completing final draft documents, new co-chair vote)

-----**Mapping and Modeling Subcommittee Meeting Ends**-----

Feb. 1-2, 2016 - NTHMP-USGS Workshop

Guidance for Facilitators and Panelists, Potential Outcomes, and Discussion Questions

Background on Workshop: Improved collaboration between the USGS and the NTHMP has been desired by the NTHMP and was a recommendation in the 2011 National Academy of Science report on “Tsunami Warning and Preparedness: An Assessment of the U.S. Tsunami Program and the Nation's Preparedness Efforts.” The NTHMP-USGS workshop will review existing activities, identify needs, and discuss how to meet them. Outcomes from this workshop will focus on identifying existing collaborations and needs, improving collaborations, building consensus on work, and setting an agenda for future work, without dictating work for any group or individual.

Panelists: Each Session will have a theme and set of panelists from the NTHMP and USGS who are doing work regionally or related to a specific theme. Presentations by panelists should be no more than 5 minutes long (unless specified in the agenda) and include no more than a few slides.

- NTHMP partners should tailor brief presentations to their existing work related to tsunami sources and related preparedness/mitigation activities, as well as the potential needs for future work related to USGS capabilities.
- USGS panelists should briefly describe their existing work and potential future work (including their perspective on the big science questions) that may be of interest to NTHMP partners.

Discussion Periods: After the brief presentations by the panelists, the Session facilitators should help guide a discussion(including the audience as well as the panelists) that focuses on:

- Building consensus for tsunami source characteristics per region that can be incorporated into a national source database; consider impact of these source models on other regions that may be impacted by tsunamis.
- Identifying cross-over work which helps the NTHMP partners develop better tsunami planning tools (hazard maps, evacuation plans, response, mitigation, etc.).
- Determining how to fill needs/gaps in tsunami source characterization and other NTHMP/USGS partner needs.
- Establishing a plan for improving collaborations and long-term work plans for both the NTHMP and USGS members.
- Discussing timelines for future work and what resources may be needed to maintain those schedules

Potential Outcomes and Questions: The workshop organizers anticipate a number of potential outcomes from the discussions and questions to consider about the path forward.

- An understanding of existing NTHMP-USGS collaborations and needs.
- Should we develop a NTHMP-USGS Work Group that continues long-term planning for collaborations?
- Should we develop regional NTHMP-USGS Work Groups that address regional scientific and related preparedness issues?

- Should we work to support additional regional or subject-related workshops to improve planning and collaborations?
- Recommendations for improving future NTHMP Strategic Plans and USGS long-term work plans.