

# Broad needs of NTHMP partners, from discussion at the USGS-NTHMP 2016 workshop:

(part 1)

- The NTHMP Mapping and Modeling Subcommittee (MMS) would like a **USGS-NTHMP working group on tsunami sources**. Group goals would include development of a plan forward, which would then be considered by the NTHMP and the USGS.
- A **tsunami source database** could be helpful, but no consensus was reached on how to go forward. USGS managers were wary of assuming responsibility for the development and maintenance of such a database. NOAA would look into internal options (e.g., NCEI).
- The NTHMP partners would **like the USGS to assist with identifying, characterizing, and standardizing tsunami sources**. This could be accomplished by regional technical advisory groups made up of USGS, state and other experts working together.

# Broad needs of NTHMP partners, from discussion at the USGS-NTHMP 2016 workshop:

(part 2)

- **Regional workshops on tsunami source characterization** could be **attached to the NSHM** update process by adding an extra day to their current 2-day workshops.
- A **general USGS-NTHMP workshop on tsunami issues** similar to the one in 2016 might be useful every few years. Needs identified in collaborations over the next few years would determine the frequency and content of such workshops.
- **Bathymetry:** USGS and NOAA tsunami program/NTHMP have similar issues acquiring needed bathymetry. Better coordination could help acquire the needed data more efficiently, benefitting both agencies.

# USGS Powell Center for Analysis and Synthesis

*Offering the opportunity for collaborative synthesis and analysis opportunities in Earth system science*



*Located in Fort Collins, CO*

*Working Groups that meet a few times over 2 years.*

*4-5 day Meetings of 15 to 20 people.*

*Some informal interaction (often hiking).*



*Powell Center provides:*

- excellent meeting space and logistical support*
- travel support for up to 15 people per workshop*
- database, GIS, and other computer support*
- support for Powell Center Fellow*



*About 4 new working groups are funded per year but there are many proposals.*

# Powell Center Proposal:

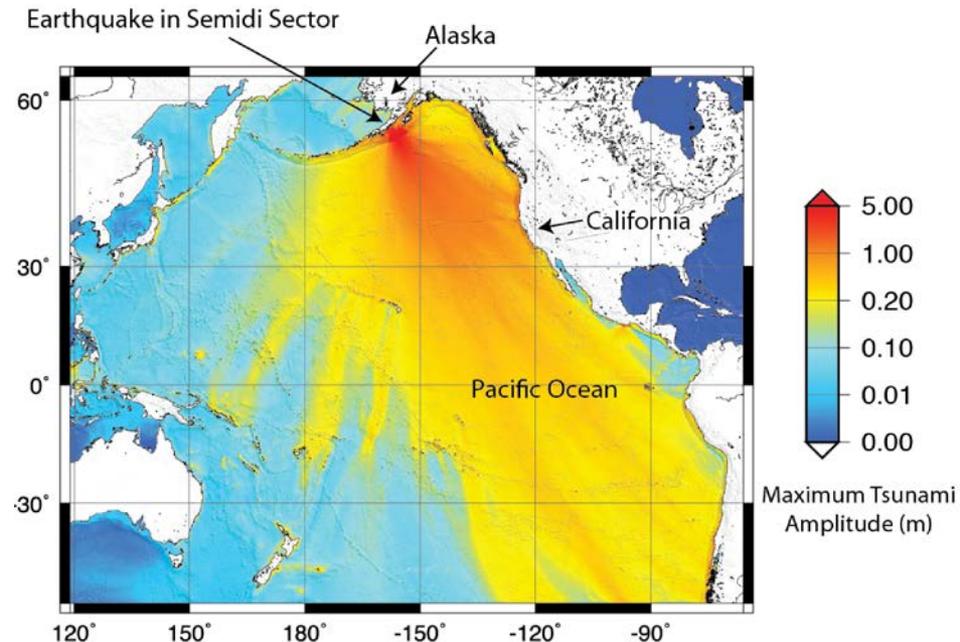
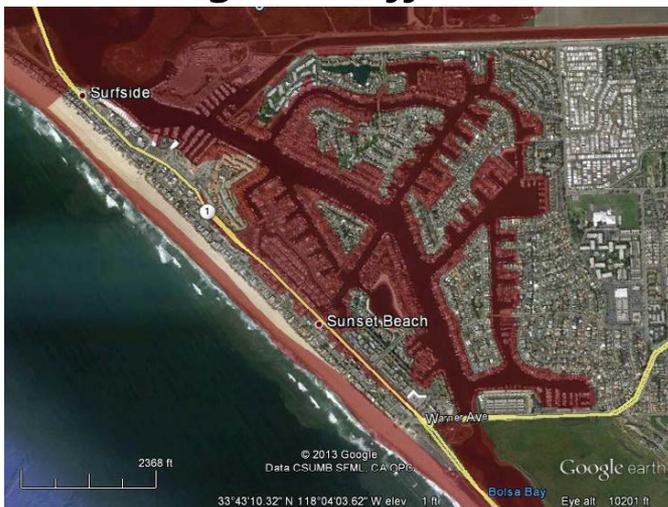
## “Tsunami Source Standardization for Hazards Mitigation in the United States”

*Principal Investigators:* Stephanie Ross, Marie Eble (NOAA PMEL), Dmitry Nicolsky (AK NTHMP science rep), Rick Wilson (CA NTHMP science rep)

Powell Center Fellow: Kenny Ryan (USGS)

*Working Group Members:* NTHMP science representatives, many USGS scientists and others (including Hong Kie Thio to tie to the Global Tsunami Model)

***A significant anticipated result is a suite of tsunami sources for use in evacuation and mitigation efforts.***



## **Powell Center Proposal:**

### **“Tsunami Source Standardization for Hazards Mitigation in the United States”**

#### ***Workshop 1: April 9-13, 2018***

Decide what information is needed for a suite of sources

- complexity of slip pattern, function of time as well as space?
- If start with NSHM/Slab1.0-2.0, what else is needed? (slip patterns in addition to rupture dimensions; slow slip near the surface is more important for tsunami generation than for ground shaking)
- Sensitivity of inundation to slip pattern and other parameters

#### ***Application of workshop 1:***

***Workshop 2:*** Alaska sources: Fall 2018: (FY18 grants needed: MMS reps from OR, WA, HI)

***Workshop 3:*** Caribbean sources, East and Gulf Coast sources: Spring 2019. (FY18 grants needed: MMS reps from East Coast, Gulf Coast, Puerto Rico, USVI)

***Workshop 4:*** Pacific sources other than Alaska: Fall 2019 (FY19 grants)

Outcomes: journal paper, overall report, source database(s)

# Expected Attendees at Workshop 1: April 9-13, 2018

- Proposal PIs: Marie Eble (NOAA), Dmitry Nicolsky (U. of AK, Fairbanks),
- Stephanie Ross (USGS), Rick Wilson (CGS), Fellow: Kenny Ryan (USGS)
  
- Kara Gately (NOAA-NTWC)
- James Goff (U. New South Wales)
- Ruth Harris (USGS)
- Gavin Hayes (USGS)
- Juan Horillo (Texas A&M, Galveston)
- Jim Kirby (U. Delaware)
- Pat Lynett (USC)
- Kevin Miller (Cal OES)
- Walter Mooney (USGS)
- Mark Petersen (USGS)
- Kelly Stroker and/or Nick Arcas (NCEI)
- Hong Kie Thio (AECOM)
- Christa von Hildebrandt (NOAA)
- Rob Witter (USGS)
- Kelin Wang (GSC)
- (Potential: Guy Gelfenbaum, Eric Geist (USGS))

# Discussion

- Powell Center supports up to 15 people per workshop (maximum attendance 20 people)
- MMS reps: what did you use for your state/territory/region's sources (source lists and processes used to determine them)?
- Timeline: need states and territories to provide your sources by February 28 (please provide them to Rick Wilson)

