

MMS Projects Prioritization

2013 - MMS TASKS

2013 – Tsunami inundation mapping for evacuation planning

- HI, OR, WA, CA, and PR – Finish inundation mapping for high hazard areas
- AK, VI – Continue inundation mapping

2013 – Assistance for update of National Hazard Assessment

- NGDC – Develop plan to request assistance
- MMS members – Provide support to NGDC in development of update

2013 – Discuss needs of MES for MMS work (prior to 09/2013 meeting)

2013 – Maritime work

- All MMS – Review preliminary current benchmarking and plan for demonstration project in CA; seeking NTHMP affirmation/approval to move forward (review by 10/01/2013)
- Grilli et al. - Formal NTHMP current benchmarking for using NTHMP funds (seek funds: NSF, NTHMP in 2014)
 - CA – Benchmarks used in demonstration project
 - Other laboratory, analytical, and field benchmarks
- CA, OR, others - Work on guidance for in-harbor and offshore marine evacuation mapping (draft 01/2014 NHTMP meeting)
- Other states - Use existing model data to verify the potential offshore safety guidance of 30 fathoms (01/2014)
- All – Work with WC and PMEL evaluating forecast products and keeping them consistent

2013 – Tsunami evacuation playbooks and FASTER tsunami hazard analysis

- All MMS – Review plan for demonstration project in CA (review by 10/01/2013)
- CA – Initiate project with recommendations from NTHMP review
- CA – Develop draft guidance for NTHMP (draft 01/2014 NTHMP meeting)

2013 – PTHA work

- MMS through CA-PTHA Work Group – Review report (review by 09/01/2013)
- CA – Integrate Phase 1 recommendations and initiate Phase 2

Mandatory Strategic Plan Activities (directed funding in parentheses; “MMS review” includes funding for work time, travel to special meetings and invited experts):

- 1) National Tsunami Hazard Assessment update from Strategic Plan (USGS, all states/territories involved)
- 2) Meeting inundation modeling/mapping goals from Strategic Plan
 - a. All code used for NTHMP freely available by 2013 (no cost)
 - b. Update inundation modeling standards to include new advancements in modeling technology; develop repository for benchmark models by 2014 (**\$10,000 for MMS in 2014**)
 - c. Test new information for high-hazard communities by 2014 (state program funding)
 - d. Determine inundation zone for non-mapped areas by 2014 (state program funding)
 - e. Complete 50% of high hazard areas in Alaska by 2017 (state program funding)
- 3) Maritime products from Strategic Plan [demonstration project areas - DPA: CA, OR, PR]
 - a. Review tsunami currents demonstration project in CA and develop guidance by 2014 (**\$5,000 for MMS review in 2014**)
 - b. Benchmark numerical models tsunami currents for use in maritime product development and evacuation planning guidance by 2015 (**\$50,000 for MMS benchmark assimilation and workshop in 2014**)
 - c. Develop prototype products for one high-hazard area by 2015 (state program funding)
 - d. Produce maritime products for 25% of communities by 2017 (state program funding)
- 4) Other NTHMP Customer Products from Strategic Plan
 - a. Evacuation time/route analyses; vertical evacuation siting - guidance (DPA: OR, WA, CA) (**\$5,000 for MMS review in 2014**)
 - b. Evacuation playbooks - guidance (DPA: CA, OR, HI) (**\$5,000 for MMS review in 2014**)
 - c. Land-use planning
 - i. Probabilistic tsunami hazard analysis (PTHA) – west coast (DPA: CA, HI) (demonstration project funded by 2012 NTHMP; **\$20,000 for MMS review in 2015**)
 - ii. PTHA – EC/GOM (DPA: EC, GOM, USGS) (**\$20,000 for MMS review in 2016**)
 - d. Product production (program funding – TBD by MES/MMS)
 - e. (Suggested addition) Benchmark numerical models for landslide-source modeling by 2016 (**\$50,000 for MMS benchmark assimilation and workshop by 2015**)

Other Databases/Data Priorities

- 1) DEM development (program funding)
- 2) Tsunami source databases (seismic and landslide) (**\$15,000 for MMS review by 2016**)
- 3) Paleotsunami/Paleoseismic deposit database (MMS coordination with NGDC) (**\$15,000 for MMS review by 2015**)

MMS Funding Request for 2014 activities (workshops, meetings, benchmarking, guidance):

- \$50,000 – Plan development and travel to Fall2014 tsunami currents benchmark workshop of MMS members and select experts for model current velocity and possibly force validation as it relates to velocity and amplitude, and develop proceedings
- Semi-annual MMS meeting can be held in conjunction with benchmark workshop to reduce travel costs:
 - \$10,000 - Update inundation modeling standards to include new advancements in modeling technology; funding for core group to develop repository for benchmark models
 - \$5,000 – Travel for MMS to review maritime product development and evacuation planning guidance
 - \$5,000 – Travel for MMS to review evacuation time/route analysis techniques and develop guidance
 - \$5,000 – Travel for MMS to review evacuation playbooks products and develop guidance

MMS TASKS BASED ON JAN/2013 AND AUGUST/2013 PLANNING AND STRATEGIC PLAN
 (? = date unspecified in Strategic Plan, and/or dependent on MES priorities for MMS)

MMS Task/Guidance/Workshop	2013	2014	2015	2016	2017
Develop plans for post-tsunami protocol					?
Update inundation modeling technologies (benchmarks)		X			
Develop archive for benchmarks		X			
Add current benchmarks		X			
Update inundation map guidelines		X			
Update of national tsunami hazard assessment			?		
Complete inundation maps for high hazard areas (done)	X				
Test new inundation map tools in previously mapped areas		X			
Complete 50% maps in AK and Pacific territories					X
Develop inundation zone for non-mapped areas (EC, GOM)		X			
All model codes for NTHMP-funded maps available	X				
Review demonstration projects for maritime work	X				
Produce guidelines for maritime work (see below)	X				
Benchmark models for maritime work			X		
Develop maritime products for one community per state			X		
Develop maritime products for 25%					X
Benchmark models for landslide source analysis			?		
Develop prototypes/guidance for other products					
Guidance – Vertical evacuation planning methods		?			
Vertical evacuation – Planning and design				?	
Guidance – Evacuation modeling		?			
Evacuation modeling				?	
Maritime in-harbor maps				?	
Maritime offshore maps			?		
Maritime guidance – Creation of products for EMs	X				
“ “ – Emergency response	X				
“ “ – Mitigation		?			
“ “ – Recovery		?			
Guidance – PTHA map production			?		
PTHA map production – Land-use products/multi-use					?
“ “ “ – ASCE/Building code (2500 yr ARP)					?
Guidance – Vulnerability modeling/assessment		?			
Vulnerability modeling/assessment				?	
Guidance – Evacuation playbooks		?			
Creation - Evacuation playbooks (multi-events)				?	
Guidance – Response teams/webcam network			?		
Development - Response teams/web-camera network				?	
Guidance – Tide gauge/ADCP deployment			?		
Deployment - Additional tide gauge/ADCP				?	