

NTHMP Model Benchmarking –  
Actions from the NTHMP M&MSC Meeting Boulder September 2008

The NTHMP Mapping and Modeling Subcommittee, recognizes the requirements for standards contained in the language of the Public Law, specifically that NTHMP shall “use inundation models that meet a standard of accuracy defined by the Administration to improve the quality and extent of inundation mapping, including assessment of vulnerable inner coastal and nearshore areas, in a coordinated and standardized fashion to maximize resources and the utility of data collected;”. NOAA / PMEL published the standards and criteria for evaluation of tsunami numerical models (NOAA Technical Memorandum OAR PMEL-135, May 2007). At the NTHMP M&M Subcommittee meeting in Boulder (September 2008) NTHMP partners agreed on the following actions to enable benchmarking of models to meet the requirements of the Public Law and criteria contained in PMEL-135.

NTHMP participants:

- 1) Agreed to use the benchmarking process described in NOAA Standards, Criteria, and Procedures for NOAA Evaluation of Tsunami Numerical Models (TM OAR PMEL-135) as the starting point for the process to enable NTHMP modelers to benchmark models.
- 2) Establish a web site containing benchmarking events and data (provided by PMEL) to enable M&M Modelers to benchmark models. (**Due date: 1 October, 2008 – Draft site for comment posted: <http://nctr.pmel.noaa.gov/benchmark>**)
- 3) M&M Subcommittee will communicate to the Coordinating Committee the agreement and additional actions described in the Report to the Coordinating Committee (language agreed at the meeting) and time frame to enable NTHMP model validation. (September 19, 2008)
- 4) Develop a process to validate models against NTHMP benchmarking criteria. Consider the following for future (post-Boulder meeting) discussion:
  - a. Evaluation criteria for validation contained in OAR-PMEL 135
  - b. Initial validation effort by modeler (time-consuming),
  - c. Review of output and report results to M&M, possibly through independent committee composed of tsunami and other modelers TBD (e.g. NOAA environmental modeling group)
  - d. Publish model in peer-reviewed publication (need to identify acceptable journals)
- 5) Develop model application procedures & guidelines to generate final inundation map – details to be refined and time is of the essence
  - Note: NTHMP Review indicated there should be some consistency and guidelines for inundation products and draft strategic plan indicates that benchmarked models will be required for NTHMP inundation products