

October 1998 Tsunami Inundation Mapping Progress Report

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ALASKA

I. SUMMARY OF MAPPING STATUS

[23-24 March 1998 Kodiak Site Visit and Meeting Minutes](#)

[Summary of Critical Tasks](#)

Alaska DES awarded the tsunami runup modeling contract to the University of Alaska at Fairbanks Geophysical Institute (UAF GI) in mid-September. The UAF GI team, Dr. Roger Hansen and Dr. Elena Troshina, have also secured additional funding from the University of Alaska and Alaska Science and Technology Foundation (ASTF) for additional communities in upcoming years. The priorities for this year's work were laid out as:

- **Kodiak City** - topography digitized; available bathymetry and topography data is being located. Previous study reviewed.
- **USCG Base** - topography digitized; available bathymetry and topography data is being located.
- **Women s Bay** - topography digitized; available bathymetry and topography data is being located.

II. ADDITIONAL INFORMATION

UAF GI Report (Roger Hansen and Elena Troshina)

1. Consultations were held with Prof. Zymunt Kowalik
2. Office space and workstation secured for modeling
3. Troshina is currently half time and will begin full time on this project in January 99.

CALIFORNIA

I. SUMMARY OF MAPPING STATUS

[17 February 1998 Oakland Site Visit and Meeting Minutes](#)

[Summary of Critical Tasks](#)

California OES awarded the tsunami runup modeling contract to the University of Southern California (USC) on 7 Aug 98. The USC team, led by Professor Costas Synolakis, is awaiting internal spending authorization; however, they have been proceeding on good faith and began

modeling work. The priorities for the work were laid out as:

- **San Francisco Area** - gathering of available bathymetry and topography data is in progress. Meeting with seismologists in early November will identify potential tsunamigenic earthquake sources for modeling.
- **Santa Barbara Area** - preliminary course grid constructed. Four potential tsunamigenic fault system identified; preliminary runs for three of the source have been completed. Finer resolution grid construction is in progress.

Three other priority areas were identified for modeling, *time and resources permitting*.

1. **San Diego Area**
2. **Eureka and Crescent City** (comparison of finite element and finite difference modeling techniques)
3. **Los Angeles Area**

II. ADDITIONAL INFORMATION

CALIFORNIA -- USC Report (Costas Synolakis and Jose Borrero)

1. Consulted Southern California Earthquake Center (SCEC) for current offshore seismic information. Four potential tsunamigenic faults for Santa Barbara identified.
2. Organizing meeting of seismologists with expertise in the southern California area. Meeting in early November. Will identify potential tsunamigenic faults system, and source parameters.
3. Awaiting bathymetric/topographic grid from NOAA/TIME

OREGON

I. SUMMARY OF MAPPING STATUS

1. **Siletz Bay** - Note that this work was done pre-NTHMP support, completed in 1995 by Priest et al. and published as GMS-99 by DOGAMI. It is included in this list simply for completeness.
2. **Yaquina Bay** (Newport) - Completed December 1997 and published as DOGAMI Report **IMS-2** and Open-file report **O-97-34**.
3. **Seaside** - Completed July 1998 and published as DOGAMI Report **IMS-3**.
4. **Gold Beach** - Newly acquired data from ACOE added to numerical grid. Preliminary model runs complete. Additional model runs in progress.
5. **Warrenton-Astoria**- Digitizing of topography completed. Numerical grid complete. Newly acquired data for Astoria added. Model runs in progress. This area will be completed in the same model runs as Gray's Harbor and Willapa Bay / Long Beach, WA.

II. ADDITIONAL INFORMATION

OGI Report (Ed Myers, Garnet Erdakos, and António Baptista)

1. Gray's Harbor, Willapa Bay, and Long Beach Peninsula, WA and Warrenton-Astoria, OR will all be run together in a model run. Three source scenarios will be run: Entire CSZ rupture, North segment break rupture, and entire CSZ plus asperity.
2. Two new DEC Alpha workstations have been acquired to meet the computational demands of the model runs. One by Priest at DOGAMI, and one by TIME.
3. Warrenton-Astoria Advisory Committee met 2 Sep 98. Requested three scenarios be completed.

WASHINGTON

I. SUMMARY OF MAPPING STATUS

1. **Gray's Harbor** - Numerical grid complete. Model runs in progress. This area will be completed in the same model runs as Warrenton-Astoria, OR and Willapa Bay / Long Beach, WA.
2. **Willapa Bay / Long Beach Peninsula** - Numerical grid complete. Model runs in progress. This area will be completed in the same model runs as Warrenton-Astoria, OR and Gray's Harbor, WA.

II. ADDITIONAL INFORMATION

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