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NOAA Technical Memorandum OAR PMEL-136

**SCIENTIFIC AND TECHNICAL ISSUES IN TSUNAMI HAZARD ASSESSMENT
OF NUCLEAR POWER PLANT SITES**

Science Review Working Group

Pacific Marine Environmental Laboratory
Seattle, WA

Pacific Marine Environmental Laboratory
Seattle, WA
May 2007



**UNITED STATES
DEPARTMENT OF COMMERCE**

**Carlos M. Gutierrez
Secretary**

**NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION**

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Also available from the National Technical Information Service (NTIS)
(<http://www.ntis.gov>)

Table 2-1: U.S. tsunami events and runup measurements by State, territory and region, deaths, and dollar damage from the NOAA/NGDC tsunami database from 1690 to the present.

| State/Territory | No. events with any observed runup | No. events with measured max runup | | | No. events with measured max runup | | | No. events with measured max runup | | | Total no. observations | No. deaths | Millions dollars damage |
|---------------------------------------|------------------------------------|------------------------------------|-------------|-------------|------------------------------------|---------|---|------------------------------------|---|----|------------------------|------------|-------------------------|
| | | 0.01 – 0.5 m | 0.5 – 1.0 m | 1.0 – 3.0 m | 3.0 – 5.0 m | 5.0 m > | | | | | | | |
| U.S. Atlantic East Coast | | | | | | | | | | | | | |
| Maine | 1 | | | | | | | | | 3 | | | |
| New Hampshire | 1 | | | | | | | | | 1 | | | |
| Massachusetts | 1 | | | | | | | | | 2 | | | |
| Rhode Island | 2 | 1 | | | | | | | | 3 | | | |
| Connecticut | 1 | | | | | | | | | 1 | | | |
| New York | 2 | 1 | | | | | | | | 7 | | | |
| New Jersey | 6 | 2 | 1 | | | | | | | 8 | | | |
| Pennsylvania | | | | | | | | | | | | | |
| Delaware | | | | | | | | | | | | | |
| Maryland | 1 | 1 | | | | | | | | 1 | | | |
| Virginia | | | | | | | | | | | | | |
| North Carolina | | | | | | | | | | | | | |
| South Carolina | 2 | 1 | | | | | | | | 2 | | | |
| Georgia | | | | | | | | | | | | | |
| Florida | 4 | 1 | | | | | | | | 5 | | | |
| Totals | 21 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | |
| U.S. Gulf Coast | | | | | | | | | | | | | |
| Florida | | | | | | | | | | | | | |
| Alabama | | | | | | | | | | | | | |
| Mississippi | | | | | | | | | | | | | |
| Louisiana | | | | | | | | | | | | | |
| Texas | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| Totals | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| Puerto Rico and Virgin Islands | | | | | | | | | | | | | |
| Puerto Rico | 9 | 3 | 2 | 2 | | | | | | 1 | 142 | 4 | |
| Virgin Islands | 7 | 1 | 1 | 1 | 1 | | | | | 15 | 30 | | |
| Totals | 16 | 4 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 48 | 172 | 4 | |

Table 2-1: (continued).

| State/Territory | No. events with any observed runup | No. events with measured max runup | | | | | No. events with measured max runup >5.0 m | Total no. observations | No. deaths | Millions dollars damage |
|--|------------------------------------|------------------------------------|-------------|-------------|-------------|--------------|---|------------------------|------------|-------------------------|
| | | 0.01 - 0.5 m | 0.5 - 1.0 m | 1.0 - 3.0 m | 3.0 - 5.0 m | 5.0 - 10.0 m | | | | |
| Alaska | 79 | 46 | 3 | 6 | 1 | 15 | 357 | 222 | 122 | |
| U.S. West Coast | | | | | | | | | | |
| Washington* | 18 | 12 | 1 | 2 | 1 | 1 | 68 | 2 | 2 | |
| Oregon* | 21 | 15 | 1 | 2 | 2 | | 76 | 5 | 1 | |
| California* | 74 | 46 | 8 | 9 | 3 | 2 | 423 | 19 | 19 | |
| W Coast Totals | 113 | 73 | 10 | 13 | 6 | 2 | 567 | 24 | 22 | |
| Hawaii | 112 | 74 | 7 | 11 | 9 | 10 | 1580 | 328 | 59 | |
| U.S. Western Pacific island territories | | | | | | | | | | |
| Guam | 16 | 10 | 1 | 1 | 1 | 1 | 24 | 1 | | |
| Northern Marianas | 1 | | | | | | 1 | | | |
| American Samoa | 53 | 37 | 4 | 3 | | | 58 | | | |
| W Pacific Totals | 70 | 47 | 5 | 4 | 0 | 1 | 83 | 1 | 0 | |
| American Totals | 412 | 251 | 29 | 37 | 17 | 30 | 2669 | 747 | 207 | |

*Include Cascadia tsunami deposit sites