

NOAA's HISTORICAL TSUNAMI DATABASE

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ABSTRACT

The NOAA/National Geophysical Data Center (NGDC) and co-located World Data Center tsunami database is a listing of historical tsunami source events and runup locations throughout the world that range in date from 2000 B.C. to the present. The events were gathered from scientific and scholarly sources, regional and worldwide catalogs, tide gauge reports, individual event reports, and unpublished works. There are currently over 1,900 source events in the database with event validities >0 (0=erroneous entry). The global distribution of these events is 72% Pacific Ocean, 11% Atlantic Ocean and Caribbean Sea, 10% Mediterranean Sea, 4% Indian Ocean, and 3% Black Sea. There are over 7,400 runup locations where tsunami effects occurred. The global distribution of these locations is 82% Pacific Ocean, 6% Atlantic Ocean and Caribbean Sea, 3% Mediterranean, 9% Indian Ocean, and $<1\%$ in the Red and Black Seas. NGDC is currently involved in an intensive collaborative effort with Humboldt State University to improve the database. This process involves verifying the existing entries in the database using the original source material and expanding the database with new sources. The data records are also being expanded to include more information on the tsunami effects (e.g. number of injuries and buildings destroyed), addition of Papadopolous-Imamura Intensities to the events and runups, and a comments section that includes additional details about the events and runups. The NGDC event damage photo archive, significant earthquake, and significant volcano events databases are also being improved and expanded. These databases are stored in a relational database management system, which facilitates the integration and access to all of these related databases.