

GLOBAL TSUNAMI DATABASE FOR THE WORLD

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The GTDB (formerly HTDB) is a joint IUGG/TC and ICG/PTWS Project under the IOC of UNESCO, with formerly additional funding assistance from the US NOAA National Weather Service, directed at the improvement of the catalogue of historical tsunamis in the world. The database consists of three main parts: the catalog of tsunamigenic events with their basic source parameters, the catalog of the observed run-up heights and a global catalog of historical earthquakes from pre-historic times to the present. The current version of the database covers the period from 2000 B.C. to 13 January 2007 (Kurils earthquake and small tsunami), and contains 2120 entries in the event catalog and more than 7000 run-up heights provided with the exact geographical coordinates of the observational sites. Additionally, the software includes a tsunami travel time calculator, making it a useful tool for tsunami warning centers and for emergency managers wishing to develop scenario events. The software calculates expected tsunami travel times to locations in and around the different oceans and marginal seas, and displays the information graphically at user-selectable map scales.

The tsunami and earthquake catalogs, collected within the GTDB Project, are embedded inside a specially-developed GIS-type graphic shell (WinITDB) for easy data retrieval, visualization and processing. The WinITDB shell operates on Windows PC platforms with no additional co-located software required. The WinITDB graphic shell has been designed with an "easy-to-learn" and "easy-to-use" graphic interface, that encourages a "try and see" approach to its learning. So, the most effective way is simply to run the system and to explore its possibilities. However, the graphic shell has many specific features for constructing and saving background maps as well as several different data retrieval modes (some of them can be not quite clearly understood from the beginning), that is why we recommend to familiarize yourself with the WinITDB user's manual before running the software.

The full version of the database, including the textual descriptions of tsunami manifestation and some additional reference information related to the tsunami problem, is distributed on the CD-ROM. The Web-version of the database is maintained by the NTL/ICMMG on the following Web-site:
<http://tsun.sscc.ru/htdbpac>.

The GTDB data set contains almost all historical data published in the earlier tsunami catalogs and can be considered as a complete and reliable historical tsunami data set available in digital domain; these contain both verified tsunamis and reported observations of unexpected wave interactions which may not be tsunamis. Please note that the process of the data compilation and editing is still far from completion, and a wealth of additional and more accurate data still exists in regional and local sources. These data are scattered in numerous publications (reports of regional conferences, magazines, newspapers, original reports, etc.) and most of them are unavailable outside the region of origin, and quite often published in languages other than English. The further improvement of the database's quality and completeness requires the help of regional or national coordinators who are working in the regions and have an access to local sources of information. The GTDB project welcomes the cooperation and collaboration of everyone interested in contributing new and corrected data to the tsunami database.

Please contact ITIC (itic.tsunami@noaa.gov or laura.kong@noaa.gov) if you have questions or need further information or copies.