

The 29 September 2009 Tsunami and Earthquake

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Section: Ocean Sciences

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The 29 September 2009 tsunami caused 181 fatalities and displaced more than 5000 people on the islands of Samoa, American Samoa, and Tonga. This is the first tsunami to cause significant damage and fatalities on U.S. soil in more than 40 years. Scientists from around the world quickly mobilized to document the tsunami before this ephemeral data was forever lost as recovery activity and natural processes overtook the effected area. The tsunami was large, reaching elevations of greater than 15 m and flooding more than 700 m inland. Measurements of the wave heights, flow depths, inundation distances, sediment deposits, and other physical and ecological impacts will be used to improve the understanding of tsunamis in the Pacific and elsewhere in the world.

For this late-breaking session, we invite papers on all aspects of the Samoa tsunami including field observations documenting its characteristics and sediment transport; modeling of its generation, propagation and inundation; and the role of coral reefs in protecting coastal areas. Papers addressing why the earthquake generated such a large tsunami are also invited