



Real time assessment of the 15 July 2009 New Zealand tsunami

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On the 15th July 2009 a Mw 7.6 earthquake occurred off the coast of Fiordland in the South Island of New Zealand, about 1200 km from Auckland, New Zealand, 1500 km from Hobart, Tasmania and 1800 km from Sydney, Australia. A tsunami was generated and an initial warning issued by the PTWC. The Centre for Australian Weather and Climate issued its first tsunami warning for coastal regions of eastern Australia and New Zealand 24 minutes after the earthquake.

By serendipitous coincidence, the earthquake struck while the International Tsunami Symposium was in session in Novosibirsk Russia. This provided the opportunity to test, in real-time, several tsunami warning systems in front of attending scientists (Schiermeier, 2009). NOAA Center for Tsunami Research, Pacific Tsunami Warning Center, GNS Science, and Centre for Australian Weather and Climate scientists were present at the symposium and worked together. Vasily Titov showed "live" NOAA's methodology (Bernard et al, 2006) to assess the tsunami potential and, in consultation with colleagues, provided warning guidance, and the warning was eventually canceled. We discuss how the forecast was done and how accurate the initial determination was.

References

Bernard E.N. et al., 2006, Tsunami: scientific frontiers, mitigation, forecasting and policy implications, Phil. Trans. R. Soc. A, 364:1989-2007; doi:10.1098/rsta.2006.1809

Schiermeier, Q., 2009, Tsunami forecast in real time, Published online 16 July 2009 | Nature | doi:10.1038/news.2009.702