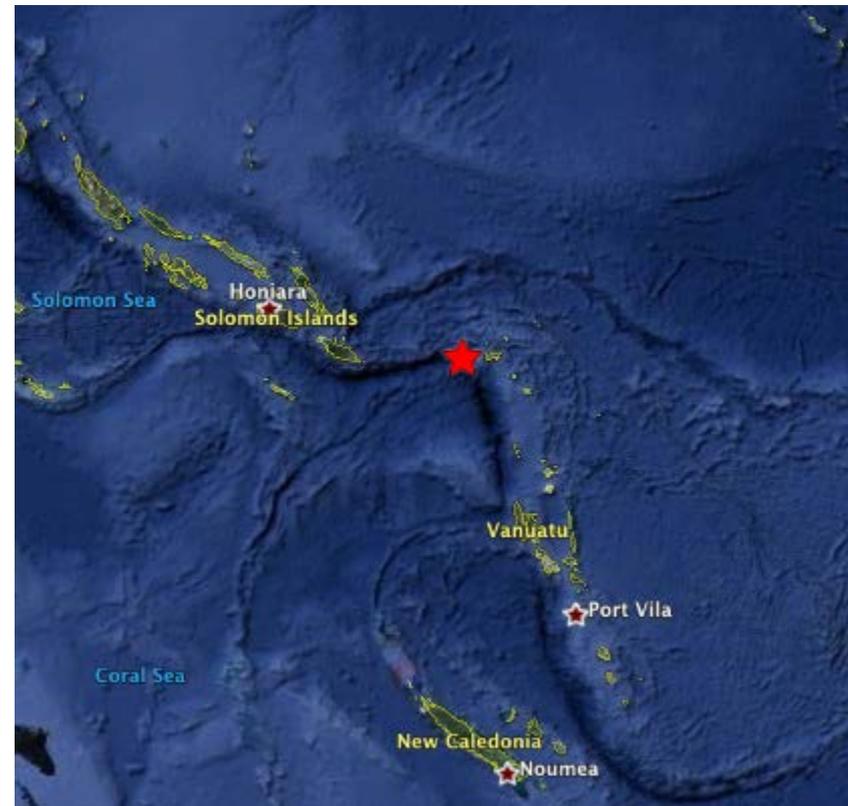




A 8.0 magnitude earthquake struck offshore in the Solomon Islands. The earthquake occurred at a depth of 28.7 km (17.8 miles) and a tsunami warning was issued for the region. This is the second largest earthquake to strike the Solomon Island region in almost 40 years.

There are early reports of major damage to three villages in the Santa Cruz islands.

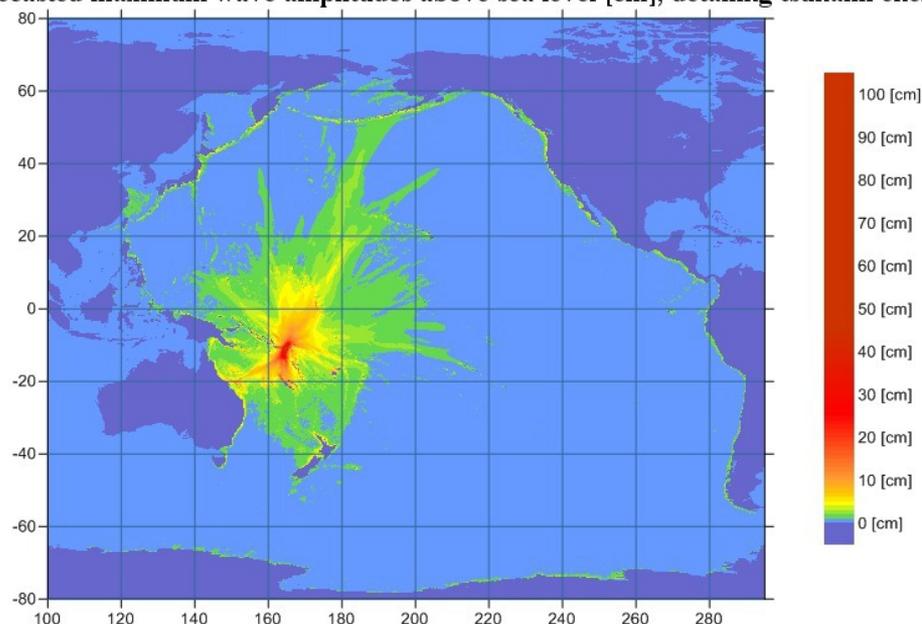


A PTWC tsunami warning was issued for Solomon Islands, Vanuatu, Nauru, Papua New Guinea, Tuvalu, New Caledonia, Kosrae, Fiji, Kiribati, and Wallis and Futuna.

A tsunami watch was issued for other areas, including Australia, Indonesia, New Zealand and Samoa. No Pacific-wide tsunami was expected.

Tsunami Propagation Forecast

Contours of forecasted maximum wave amplitudes above sea level [cm], detailing tsunami energy propagation.



Event ID: mhry0j

Earthquake Magnitude: 8.0

Earthquake Location: [-10.90N, 165.10W], near the Santa Cruz Islands

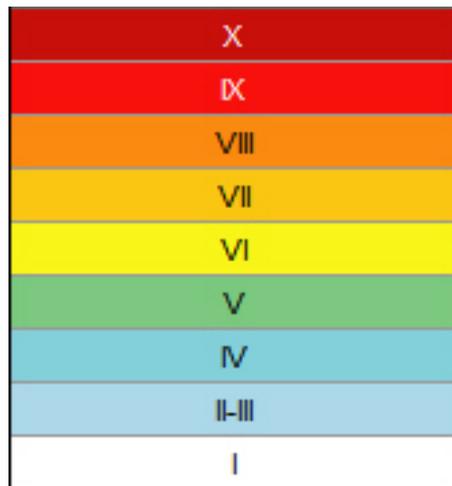
Earthquake Origin Time: 01:12:30 (UTC)

Date: 2/6/2013

Shaking Intensity

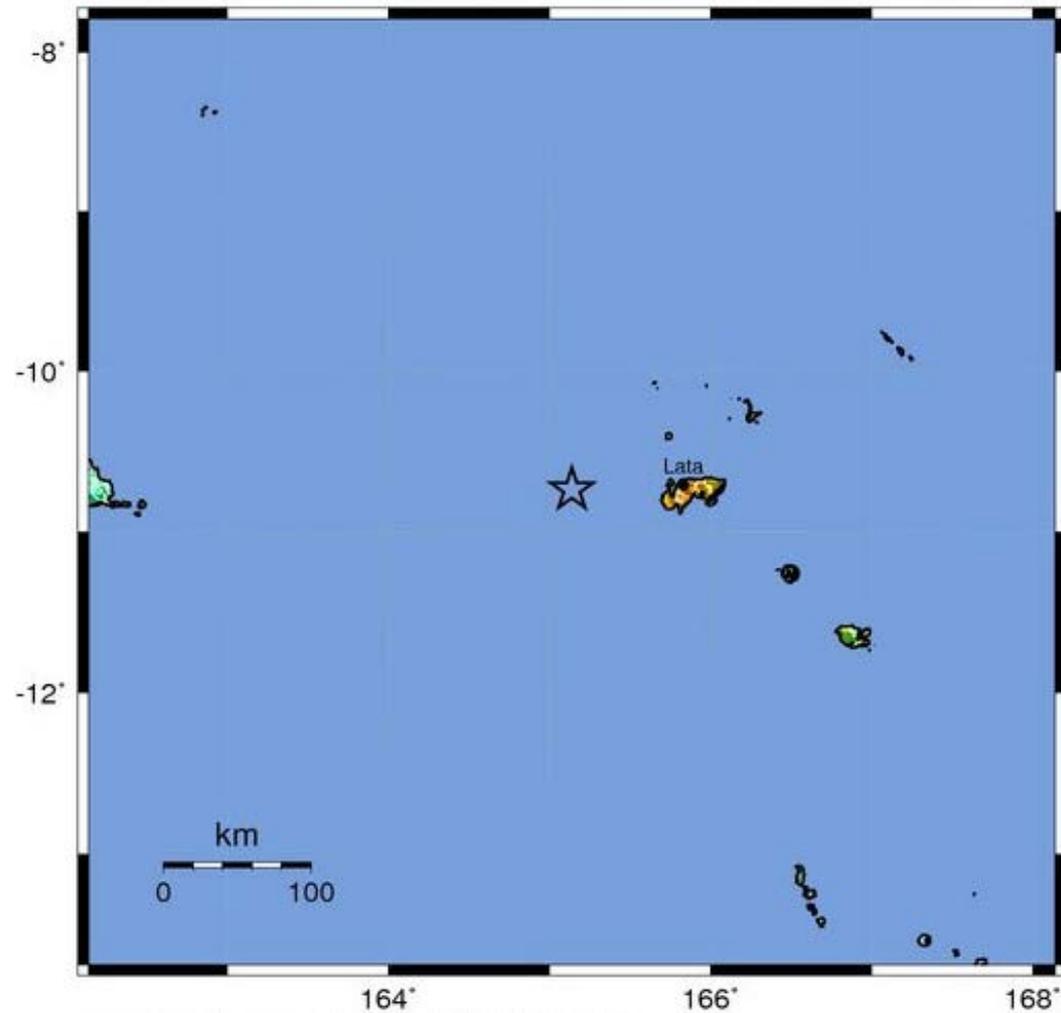
Lata, the island closest to this earthquake experienced strong to very strong shaking. Hundreds of people live in villages on the island.

Modified Mercalli Intensity



Perceived Shaking

Extreme
Violent
Severe
Very Strong
Strong
 Moderate
 Light
 Weak
 Not Felt



USGS Estimated shaking Intensity from M 8.0 Earthquake

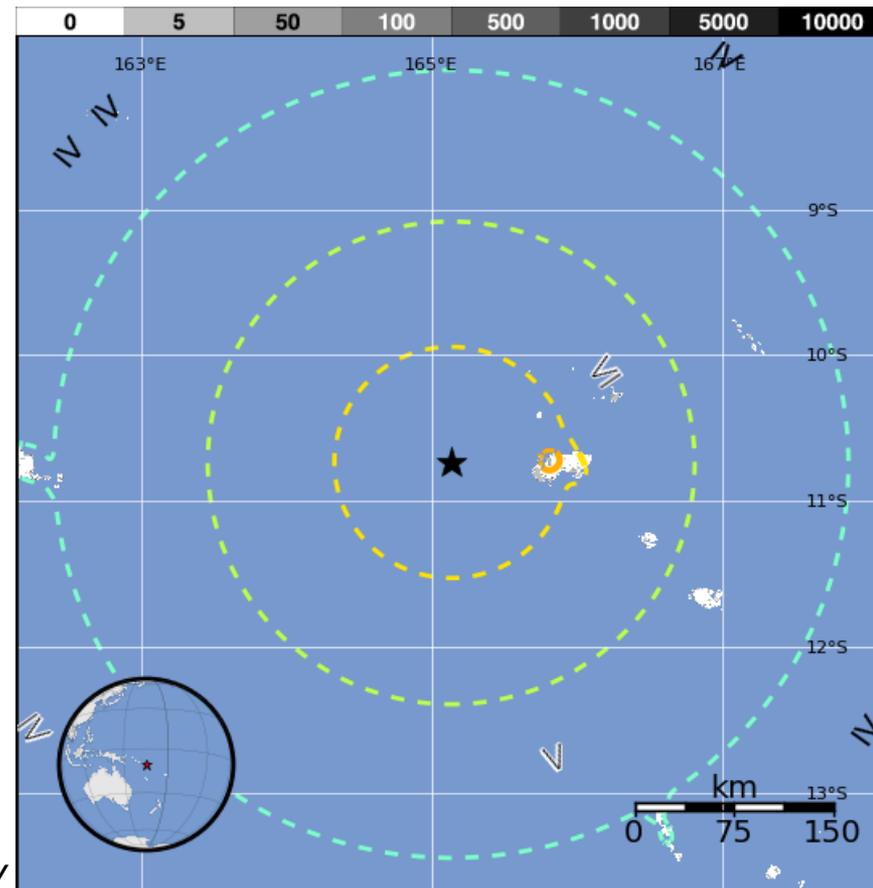
Magnitude 8.0 SOLOMON ISLANDS

Wednesday, February 6, 2013 at 01:12:23 UTC

USGS PAGER

Population Exposed to Earthquake Shaking

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are mud wall and informal (metal, timber, GI etc.) construction.



The color coded contour lines outline regions of MMI intensity. The total population exposure to a given MMI value is obtained by summing the population between the contour lines. The estimated population exposure to each MMI Intensity is shown in the table below.

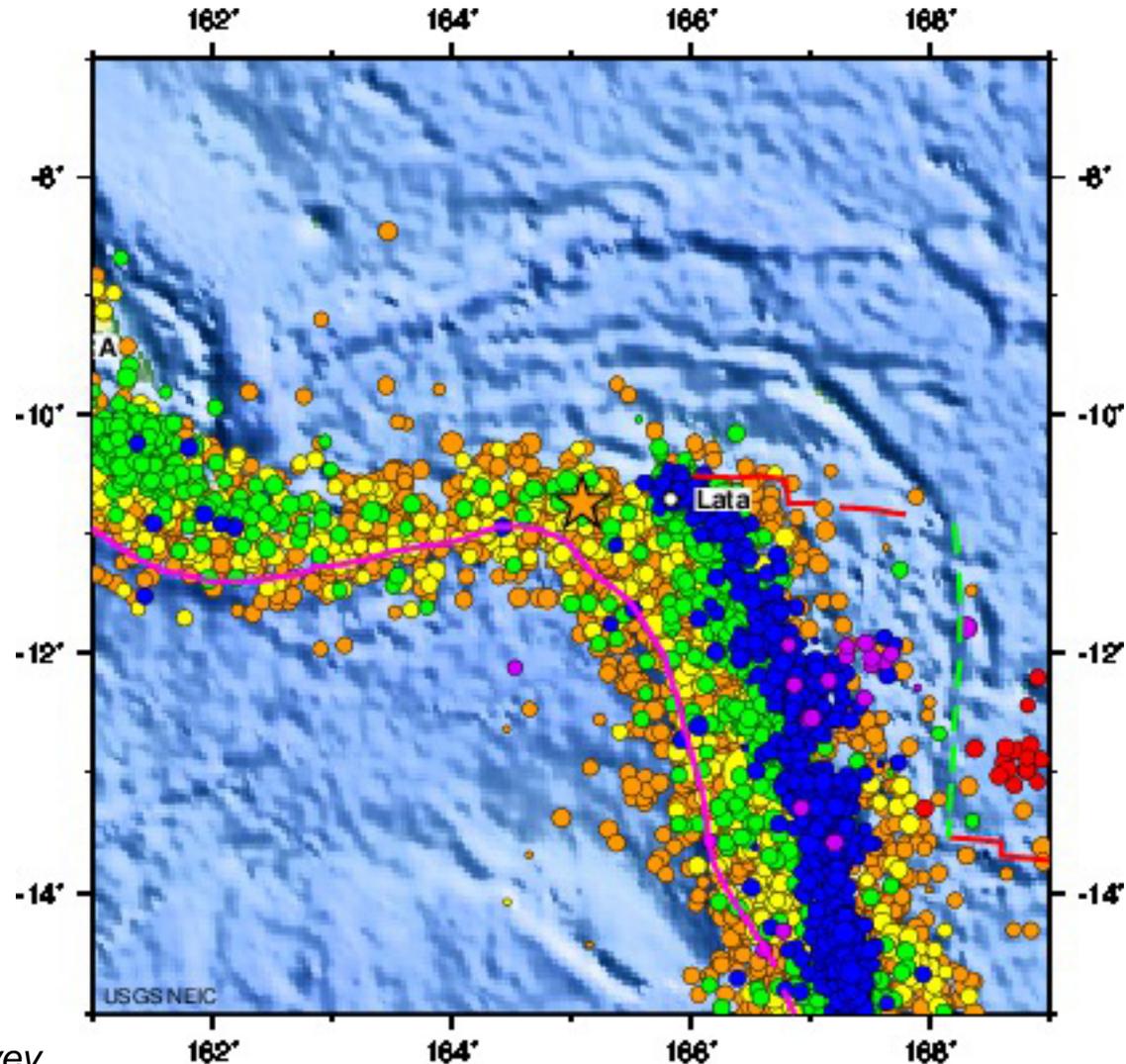
Image courtesy of the US Geological Survey

Estimated Modified Mercalli Intensity	I	II-III	IV	V	VI	VII	VIII	IX	X
Est. Population Exposure	--*	--*	2k*	13k	5k	10k	9k	0k	0k
Perceived Shaking	Not Felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme

Earthquake and Historic Seismicity

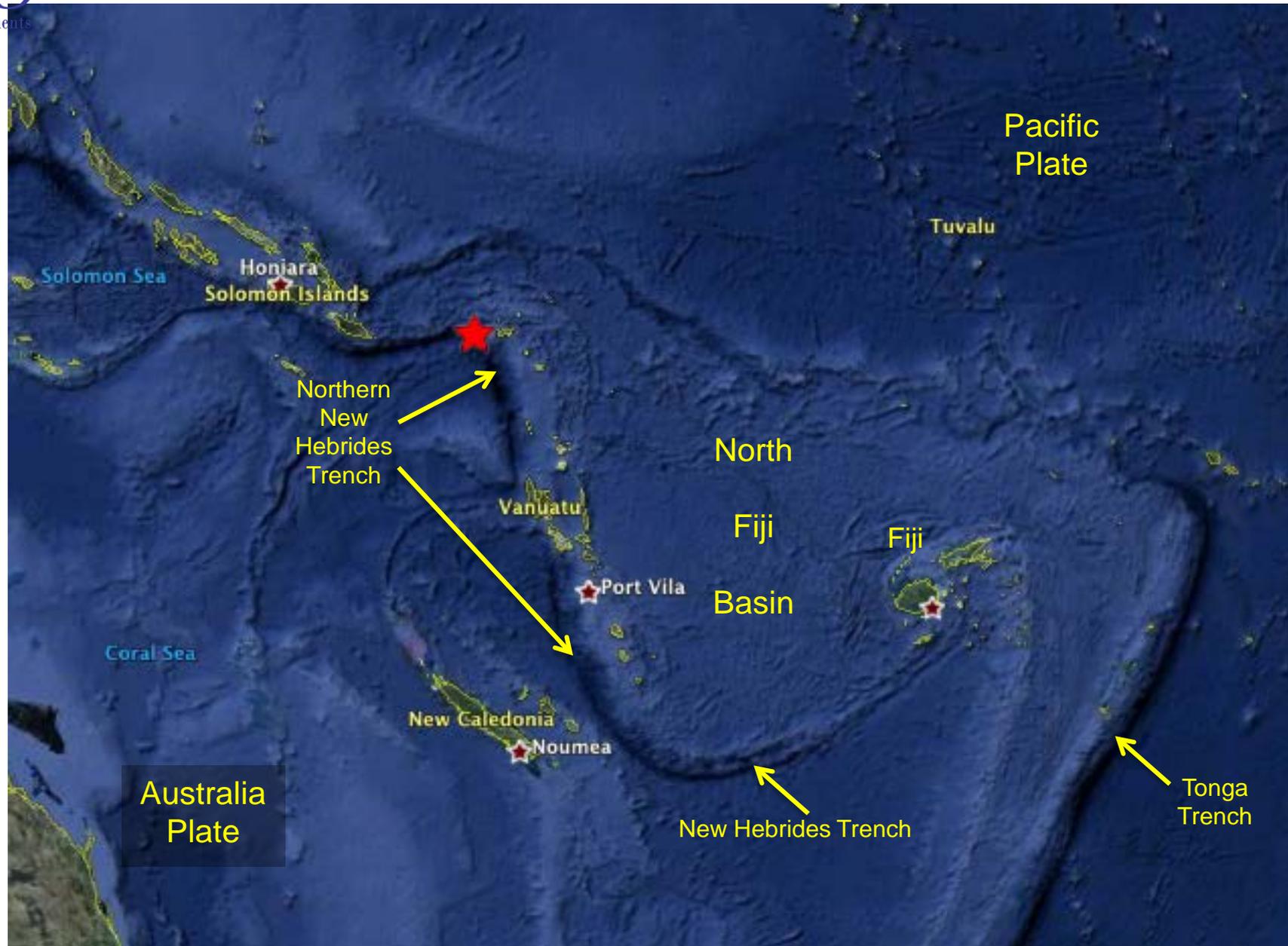
This earthquake epicenter (orange star), is plotted on the map with regional seismicity since 1990.

A series of M7.4 to M8.1 shallow thrust earthquakes have occurred along this portion of the plate boundary in recent years.



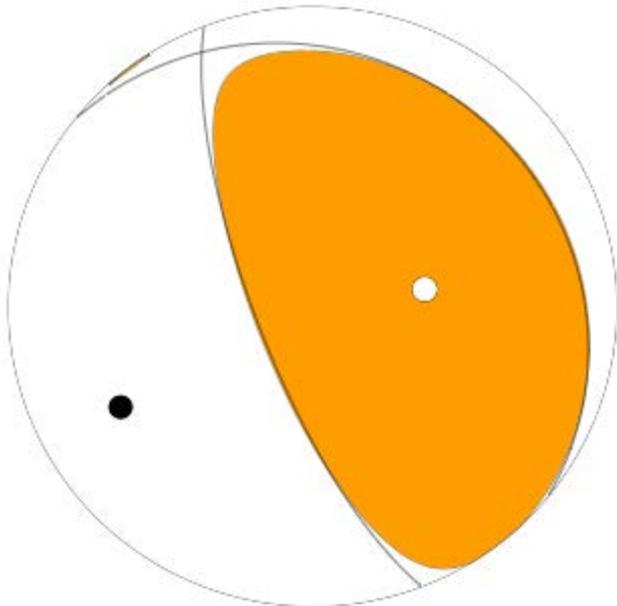
Magnitude 8.0 SOLOMON ISLANDS

Wednesday, February 6, 2013 at 01:12:23 UTC



This earthquake occurred as a result of shallow thrust faulting on or near the plate boundary interface between the Australia and Pacific plates.

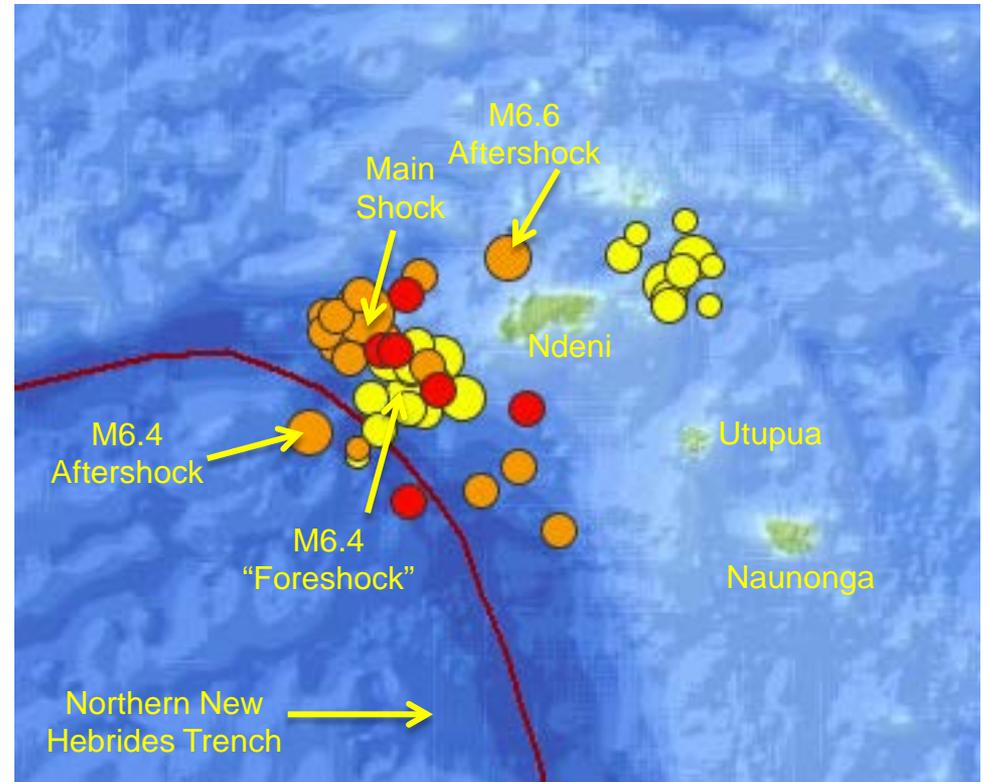
In the region of this earthquake, the Australia plate converges with and subducts beneath the Pacific plate, moving towards the east-northeast at a rate of approximately 94 mm/yr.



Shaded areas show quadrants of the focal sphere in which the P-wave first-motions are away from the source, and unshaded areas show quadrants in which the P-wave first-motions are toward the source. The dots represent the axis of maximum compressional strain (in black, called the "P-axis") and the axis of maximum extensional strain (in white, called the "T-axis") resulting from the earthquake.

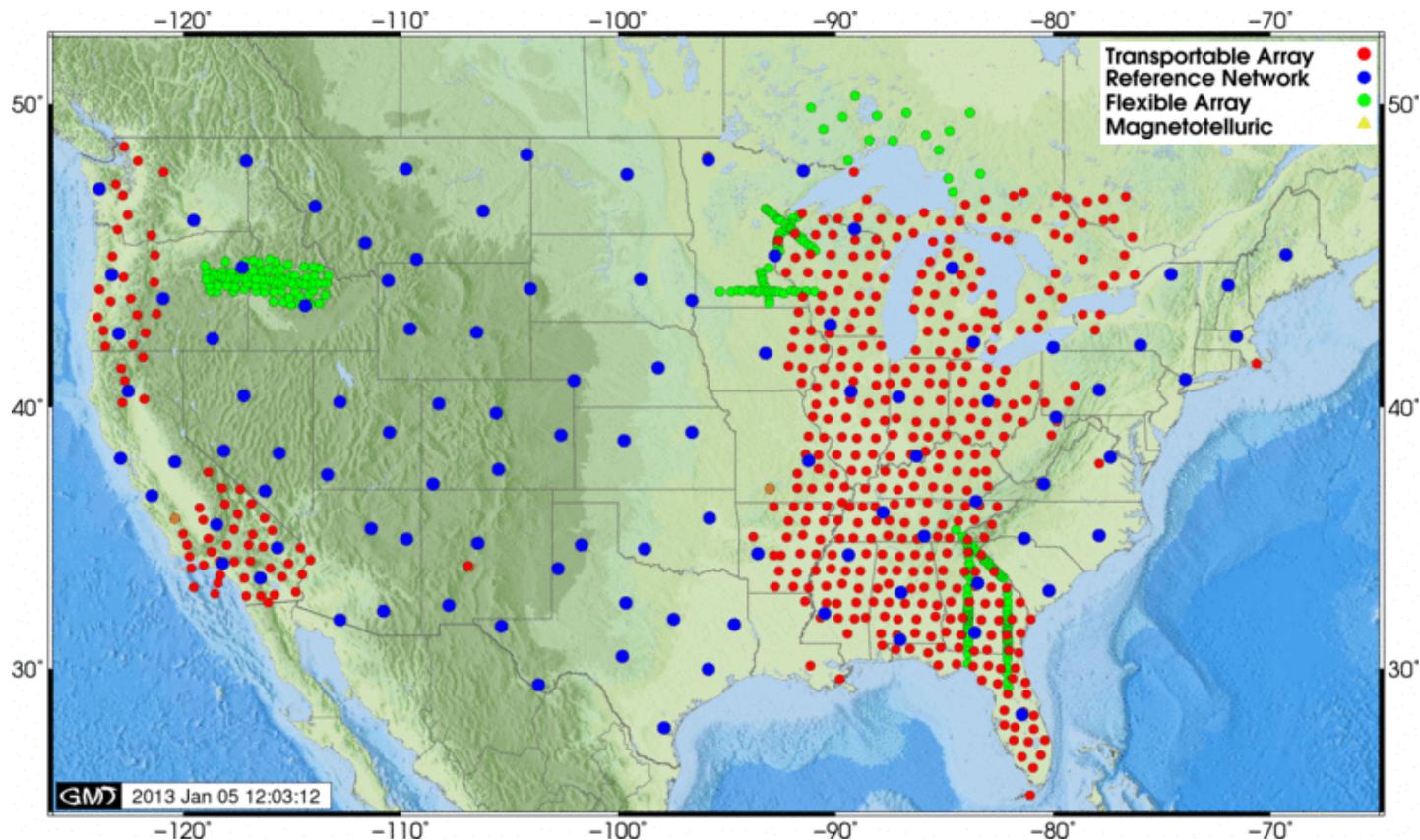
Foreshocks and Aftershocks

As of UTC 2013-02-06 3:49, 2 hours and 37 minutes after the main shock, there had been 20 aftershocks of magnitude 4.9 or larger. Aftershocks are shown as orange and red circles on this map. The largest aftershock was a magnitude 6.6 that occurred 42 minutes after the main shock.



Over the preceding 7 days, there have been 34 earthquakes in the mapped region that may now be considered “foreshocks” of this magnitude 8.0 main shock. The largest foreshock was a magnitude 6.4 event on February 1 at 22:18 UTC, a little over 4 days before the main shock.

USArray: A Continental-Scale Seismic Observatory

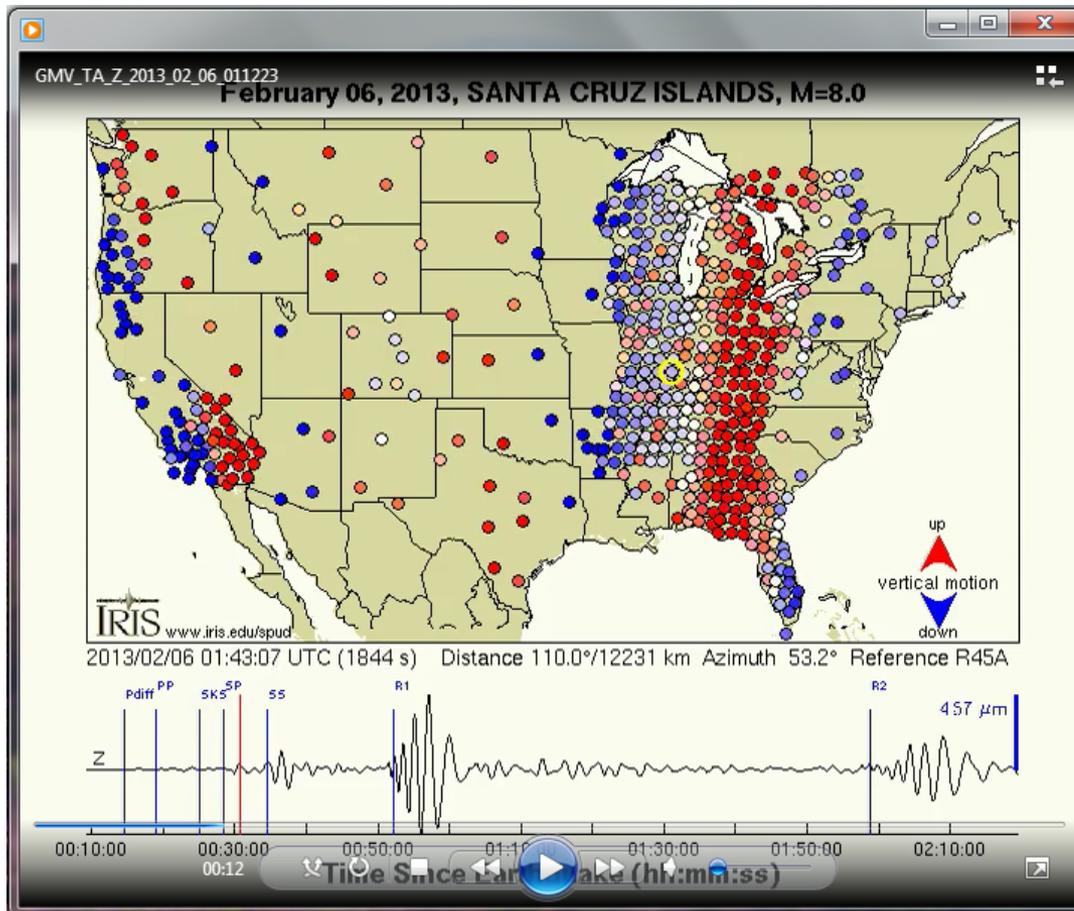


Operating USArray Stations. The 400 active transportable array stations are plotted in red. Permanent stations are plotted in blue.

Magnitude 8.0 SOLOMON ISLANDS

Wednesday, February 6, 2013 at 01:12:23 UTC

As earthquake waves travel along the surface of the Earth, they cause the ground to move. With the 400 earthquake recording stations in EarthScope's Transportable Array, the ground motions can be captured and displayed as a movie, using the actual data recorded from the earthquake.



Seismic waves crossing the US recorded by the USArray.