

# Relocation of Largest Aftershocks on March 11 of February 27, 2010 Offshore Maule, Chile Earthquake

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**Data:** 'Latest Earthquakes M5.0+ in the World - Past 7 days'  
by the US Geological Survey

**Events Relocated:** Mainshock on Feb. 27 and aftershocks until Feb. 27 12h00m  
Largest aftershocks on March 11 and their aftershocks on March 11

**Method:** Modified Joint Hypocenter Determination (MJHD) by Hukurawa and Imoto

**Results and Comments:** These two normal faulting largest aftershocks are located near northeastern edge of the mainshock's fault plane and are off fault earthquakes above the mainshock's fault plane. The location is consistent with mechanisms of these aftershocks.

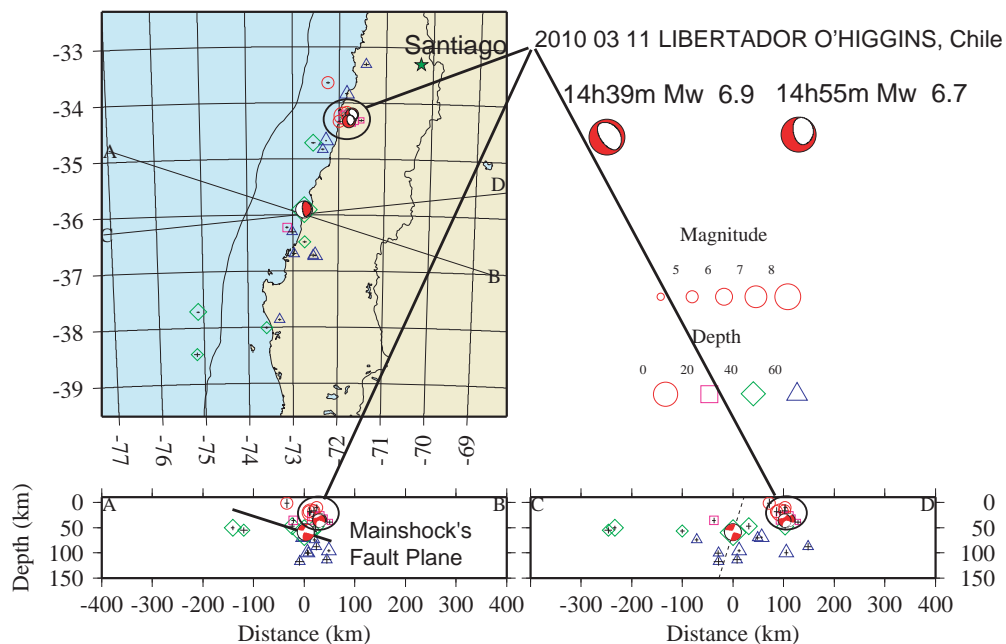


Figure 1. Hypocenters relocated by the MJHD method. Global CMT solution for the mainshock and USGS WPhase Moment Tensor Solutions for the aftershocks are also shown. Epicentral distribution and two vertical cross sections along A-B and C-D lines, which are perpendicular to strikes of the two nodal planes of the mainshock, are shown. Two nodal planes are shown by lines in cross sections. The nodal plane corresponding to the fault plane is shown by a thick solid line in the A-B cross section.

## References

- Hurukawa, N., Quick aftershock relocation of the 1994 Shikotan earthquake and its fault planes, *Geophys. Res. Lett.*, 22, 3159-3162, 1995.
- Hurukawa, N. and M. Imoto, Subducting oceanic crusts of the Philippine Sea and Pacific plates and weak-zone-normal compression in the Kanto district, Japan, *Geophys. J. Int.*, 109, 639-652, 1992.