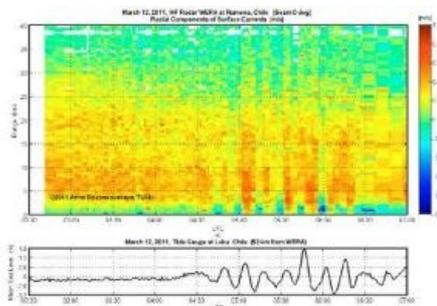


# Chilean Ocean Radar Detected Tsunami



The research group lead by Prof. Dante Figueroa from the University of Concepcion in Chile, has reported that their WERA radar system was able to capture the signal of the tsunami that struck northeast Japan in March 2011. This is the first time ever that an ocean radar detected an approaching tsunami.

After the strong earthquake occurred in Japan on 11th March 2011, the tsunami generated travelled across the Pacific Ocean and reached the coast of Chile within 22 hours.

Following the earthquake and tsunami news, and due to lack of internet access, Prof. Dante Figueroa drove to the remote WERA ocean radar site and manually switched his

WERA system into a fastest operation mode, which allows the collection of real-time data every 30 seconds.

The theoretical basis for this approach is that tsunami waves generate a characteristic periodic ocean surface current pattern that can be used as the tsunami "signature". This tsunami signature was detected in the signal recorded by the WERA system in Chile. A comparison of the measured radar signatures with nearby sea level measurements showed a high correlation between the two signals confirming that the WERA system was successful in capturing the tsunami signal.

This radar measurement of a real tsunami is the proof of concept the ocean radar community has been waiting for.

In addition, the significance of this finding required the rigorous review of the acquired data and confirmation of the results by three independent scientific groups (University of Concepcion, Chile, University of Hamburg, and Hamburg University of Technology, Germany). The final and detailed results of the analysis will be presented by these groups in upcoming conferences and in the peer-reviewed literature.

[More information](#)

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<https://www.hydro-international.com/content/news/chilean-ocean-radar-detected-tsunami>

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