

Seismic Observation and Seismicity of Solomon Islands

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1. National Seismic Observation Network

There are two running stations in Solomon Islands, Honiara Seismological Station on Guadalcanal Island and Savo Station on Savo Island (Figure 1).

The Honiara Seismological station is one of the units within the Geological Division of the Ministry of Mines, Energy and Rural Electrification. It was established in October 1960 by the British Solomon Islands Government. It currently operates 4-analog seismographs. One portable seismograph is used to record local events from a vertical geophone and a drum recorder placed in the office. Two other seismometers are connected to the global network (CTBTO console and USGS digital IRIS Quanterra), where earthquake parameters are analyzed using DIMAS software provided by the CTBTO.

Savo Island is a volcanic island; a seismic station with one Guralp seismometer was installed on Savo Island in 2011 to help monitor either the local or regional earthquake than the volcanic activity of the island.

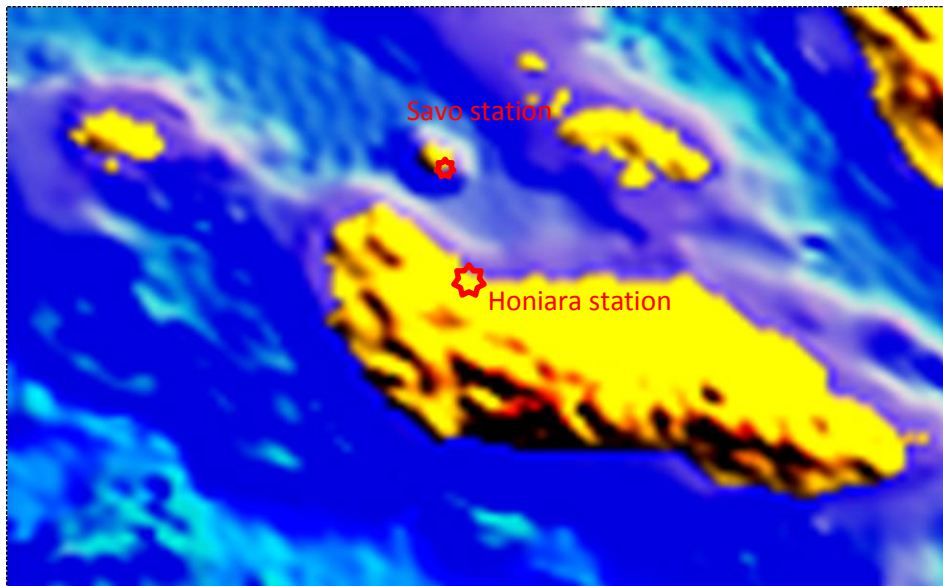


Figure 1. Seismological Stations in Solomon Islands.

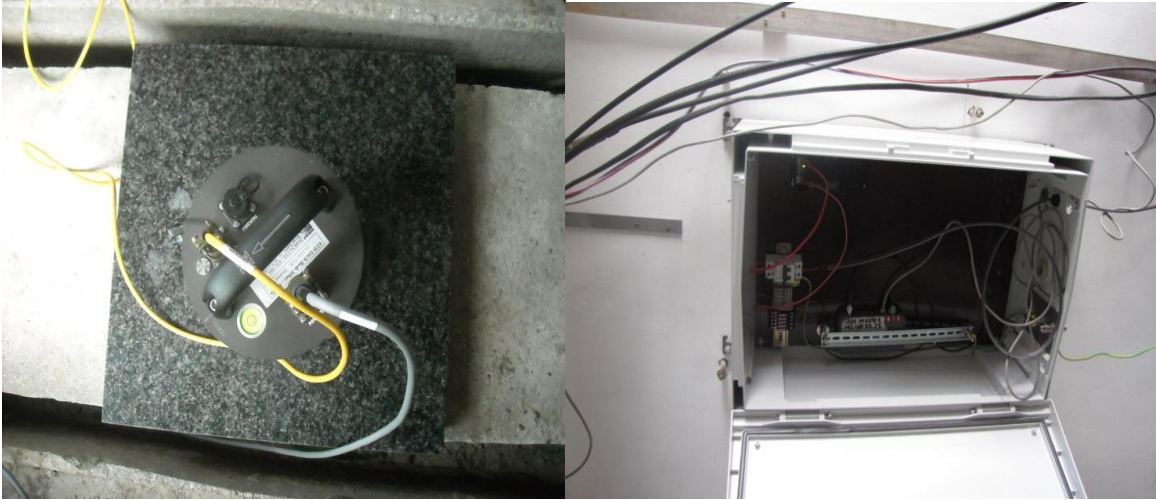


Figure 2. Instruments used at Savo Seismic Station
(Radio transmitter).



Figure 3. Instruments used at Savo Seismic Station
(Guralp Seismometer).

2. Seismicity of Solomon Islands

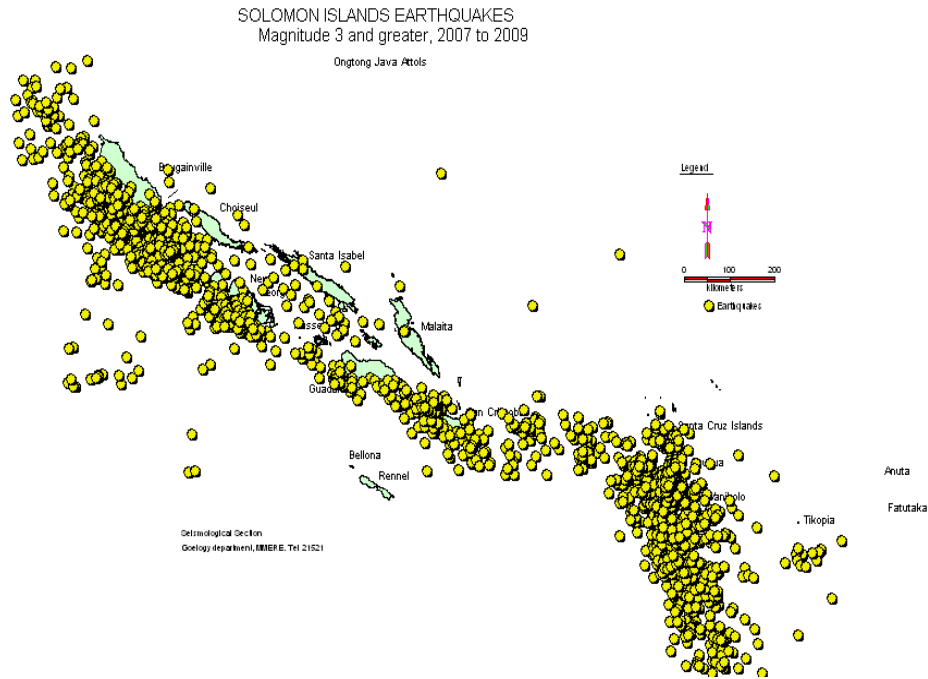


Figure 4. Seismicity in Solomon Islands.

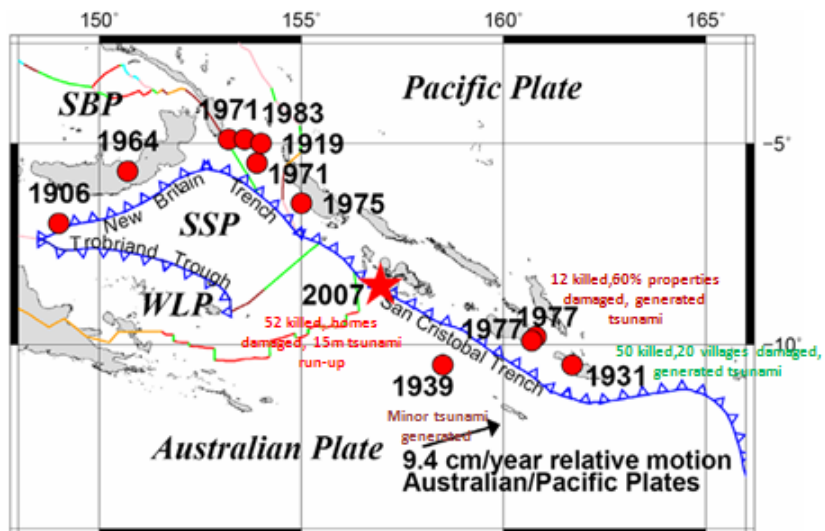


Figure 5. Major Earthquakes in Solomon Islands.