

Seismic Observation in Anatahan Island, Northern Mariana Islands

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Anatahan island is an active volcano belong to Northern Mariana Islands. There was no historic record of eruption before 2003.

After sudden eruption in May, 2003, it often erupts. In Anatahan island, USGS and EMO (Emergency Management Office, Saipan) have three seismic stations telemetering by FM radio. But it is not usual that all three stations work well, they can monitor event number and amplitude but determine hypocenters.

We planned long term (half to whole year) continuous seismic observation in Anatahan island in order to know the transition of seismicity associate with volcanic activity. We selected and used observation materials as follows; Keisokugiken Corp. HKS-9500 data logger, Lennartz electronic GmbH LE-3Dlite seismometer and GS Yuasa Power Supply Ltd. YAA350-12 air-alkaline battery. After devising connector type, Box, etc., we installed five temporally offline seismic stations in Anatahan Volcano in end of June 2008.

About seven months after, we visited Anatahan Volcano again and exchanged Compact Flash memory cards. In all stations, system has kept on working normally, almost all continuous data were retrieved successfully. The collection rate of data was 99.9998 %. A few earthquakes and many volcanic tremors are recorded during our observation, the details of those events will be explained in other presentation (Morita, et al.).