

## Observations of the seismic dynamo effect using aftershocks of the Noto Hanto Earthquake in 2007

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On March 25, 2007, the Noto Hanto Earthquake in 2007(M6.9) occurred at off Noto Prefecture. We had a campaign for electromagnetic (audio-magnetotelluric, Audio-MT) and seismic observations in the aftershock areas from March 31 to April 25. Our objective was to verify the existence of the seismic dynamo effect from the observations. We could measure electromagnetic and seismic variations associated with the aftershocks. The electromagnetic signals (three-magnetic and two electric components) were recorded by Phoenix-MTU5A equipment with the sampling rate of 150Hz. The three-component seismic signals were recorded by 24 bit data logger (Hakusan LS7000XT) with 200Hz sampling. Since the data logger had spare channels, the two horizontal electric field components were also recorded by same data logger. Thus the telluric and seismic data were recorded by the same data logger and will have no such problem as different timing of the GPS time stamping of the different loggers. Only the two horizontal electric field components and three-component seismic signals have been recorded between April 7 and 25.

We expected at the beginning that the first arrival of seismic waves in some events were P-waves of various horizontal directions due to the different seismic centers, because some aftershocks of shallow depth were expected from the shallow depth of the mainshock (11km). Beginning of P-wave vibration is expected to turn toward the line. If first arrivals of horizontal P-waves from various seismic centers were observed, we could compare the observed direction of beginning of the electric field variations associated with the waves and the expected direction of electro motive force generated by seismic dynamo effect. The magnitude of the largest aftershock we got is M4.3. Actually the electric field variations and seismic wave of vertical component were arrived first, and the seismic wave of horizontal components next.

In the presentation, further investigation and processing of the data will be given.