Oral | Symbol S (Solid Earth Sciences) | S-TT Technology & Techniques

[S-TT57_30PM2]Seismometry and monitoring system

Convener:*Yuji Yagi(Graduate School of Life and Environmental Sciences, University of Tsukuba, Tsukuba), Chair:Masaki Kanao(National Institute of Polar Research), Genti Toyokuni(Research Center for Prediction of Earthquakes and Volcanic Eruptions, Graduate School of Science, Tohoku University)
Wed. Apr 30, 2014 4:15 PM - 6:00 PM 423 (4F)
This session aims to bring together geoscientists working on observational techniques and systems for geophysical processes in the Earth and geophysical explorations. Contributions on improvement and development of monitoring networks, new techniques on sensors and monitoring techniques, as well as systems for early disaster warning are highly welcomed.

5:45 PM - 6:00 PM

[STT57-P09_PG]Construction of the seismic observation network around Shimokita Peninsula

3-min talk in an oral session

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Keywords:seismic observation network, Shimokita Peninsula

IntroductionSeismic activity in the Shimokita region is not well grasped, because the distribution of the seismic stations is not dense compared with that of Southern Tohoku region. So, it is not enough to estimate the depth of the seismogenic zone. Accordingly, the Association for the Development of Earthquake Prediction (ADEP), determined to newly construct a high-density seismic observation network (AS-net) in the region in question, as a part of its investigation and research into seismic activity in the Shimokita Peninsula. An outline of the observation network is presented below.Outline of the network The AS-net consist 36 seismic observation stations. 20 stations were made before the end of 2013. And the other stations will make in 2014.The sensors of each station are installed in boreholes at a depth of about 20m. We set the short period three dimensional velocity sensors by Lennartz, and accelerometers by Japan Aviation Electronics Industry ltd. And A/D converter is LS-7000XT made by Hakusan Co. The data of the each station send to ADEP using with Internet, and relay to other facility for research. Future worksIt is anticipated that useful data will be obtained regarding detailed velocity and attenuation structures in the area surrounding the seismic observation network, as well as micro earthquake activity in the regions. The number of the earthquakes we estimate in January, is twice as that of JMA.

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