The Active Volcanoes in Japan as Viewed from ALOS PALSAR Interferometry (2)

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ALOS has L-band SAR (PALSAR), which is not affected by the vegetation, and the interference is good even in the mountainous area. These methods are effective for the crustal deformation observation of the volcano areas.

In the previous study, we reported the analysis result about domestic active volcano areas, using InSAR of ALOS 'Daichi'. However, the pair which we chose was limited to the data in the short term because the observation period was not long since ALOS launching. Fortunately, ALOS 'Daichi' has continued operating smoothly afterwards, and a lot of data have been accumulated. Therefore we tried to analyze interference processing with a pair in the long term. The interference processing in long-term pairs more than one year comparatively, have good correlation and is effective for the detection of the crustal deformation. In the results, we were able to detect crustal deformation related to volcanic activity in some active volcanoes such as Mt. Azuma, Mt. Tokachi and Mt. Kujyu. In addition, we confirmed the continuation of the crustal deformation in Iwo-tou and Mt. Unzen, which we already found the change of the crustal deformation in a pair in the short term.

Some of PALSAR level 1.0 data using this report were prepared by Volcano WG (coordinated by CCPVE) of ALOS 'Daichi' Domestic Demonstration on Disaster Management Application. Also, some of the PALSAR data were prepared by PIXEL (PALSAR Interferometry Consortium to Study our Evolving Land surface). The ownership of PALSAR data belongs to METI (Ministry of Economy Trade and Industry) and JAXA (Japan Aerospace Exploration agency). We would like to thank Dr. Shimada (JAXA) for the use of his SIGMA-SAR software. In the process of the InSAR, we used 'the digital elevation map 50m mesh' provided by GSI (Geological Survey Institute) and some figures were made using GMT (P.Wessel and W.H.F.Smith, 1999). We are also grateful to Dr. Okuyama (AIST) for his advice on the drawing method by GMT.