

Crustal deformation of Iwo-tou detected by InSAR

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An increase of volcanic activity of Iwo-tou was observed in August of 2006. We applied InSAR to PALSAR data for detection of crustal deformation in Iwo-tou. A slant-range change representing subsidence of several centimeters throughout Motoyama was detected on the interferogram showing crustal deformation until August of 2006. Shortening of the slant-range throughout the island was found in the period between August and November, and it indicates the inflation of the deep source. In the period between November and February of 2007 that volcanic activity was highest, the blockwise uplift of Motoyama was found. It suggests that the magma which had pooled in shallow depth was pushed up by the magma that ascended from deep magma chamber, and its magma would intrude along the outside of the magma which had pooled in shallow depth. It seems that progress of its intrusion has been complicated temporally and spatially