

Study of volcanic ash research using synthetic aperture radar satellite

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In the example of Sakurajima and Unzen eruption, etc., after a lot of volcanic ash was deposited around the volcano, has been known that the debris flow occurs frequently in a little rain. Therefore, knowing the volcanic ash area and thickness deposited is very important in order to execute the measures of debris flow. However, in addition to expanding the evacuation area upgrade the volcanic alert level by the eruption, in order to prevent the aircraft trouble, it is difficult to survey the deposition conditions of volcanic ash from the ground and aircraft. Therefore, in order to know whether it is possible to the deposition area and the deposition thickness of the survey of the volcanic ash, we were surveyed using a satellite that can be observed in a safe and scheduled. Survey is a Mount Aso, the survey period was from November 28, 2014 to December 3, 2015. In this period, from 25 November 2014 to May 21, 2015, and September 14 to October 23, 2015, continuous eruption has occurred. As a result of analyzing the color composite image, it was possible to confirm the ash deposition area and volcanic bombs arrival areas. If the volcanic ash deposit thickness is more than several cm, the result that it is possible to judgment by the NDSI was suggested. However, since the survey site is very limited, there is a need for data accumulation and data analysis.

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