

# Role of Satellite Synthetic Aperture Radar Data for Typhoon 19 Damage in September 2019

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Typhoons 15 and 19, which occurred in September 2019, caused a very large storm and flood damage mainly in the eastern Japan. The Remote Sensing Society of Japan is examining various methods, such as hardware and software, for an instantaneous grasp of the damage situation mainly using satellite data in the event of a disaster. On the other hand, I have focused on the immediate release of all-weather satellite synthetic aperture radar (SAR) data, using the experience of experiencing the heavy rains in western Japan in July 2018. In recent years, the use of satellite SAR has become very active because satellite data called Sentinel-1 with a resolution of 10 m can be obtained free of charge on a 12-day cycle (6-day cycle with 2 sensors). The satellite SAR is very suitable for grasping the damage at the time of disaster because there is no loss of data because it transmits the clouds and observes the ground from space. Furthermore, with the advent of the free software "SNAP", anyone can easily perform difficult SAR data preprocessing. In this presentation, I introduce the current status and issues of satellite SAR, taking as an example the processing and distribution of satellite SAR during Typhoon 19 in 2019.

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