Cooperation on Platforms for Sakurajima Eruption Clouds Monitoring

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This paper proposed cooperation among universities, research institutes, local authorities, private companies, etc. to construct platforms for Sakurajima eruption clouds monitoring. So far, eruption clouds observations have been carryied out by different organizations with various instruments to accomplish their respective purposes. Examples are observations of eruption columns with X-band multi-parameter radars (DPRI[1]/Kyoto Univ., MRI/JMA[2], MLIT[3]), Ka-band Doppler radar (NIED[4]), and X-band marine radars (Kagoshima Univ., Koden Electronics Co., Ltd., Hokkaido Univ., FRS Corporation, Kochi Univ.); observations of eruption clouds with Ku-band rapid scanning radar (Kagoshima Univ. and Osaka Univ.), and lidar (DPRI/Kyoto Univ.); detections of volcanic bombs with high speed cameras (Yamagata Univ.); measurements of ash particles and vertical profiles of meteorological conditions with drone (DPRI/Kyoto Univ., JWA[5]); measurements of ash particle size distributions with optical disdrometers (DPRI/Kyoto Univ., MRI/JMA); sampling of ash fall deposits on the ground (MLIT, Kagoshima Pref., Kagoshima City). These observations are basically planned and carried out independently by each organization. One can implement eruption cloud studies more effectively and efficiently if these observations are mutually cooperated from their early planning stages to the running phases. We propose the idea of ‘platform’ as one of mechanisms to achieve the cooperation. We will discuss at the JpGU meeting its definition, range, and how to construct and operate.

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