

Application of Weather Radar Data for Volcanic Ash Dispersion of Anak Krakatau Eruption on 27 December 2018

Operational weather radar data from eruption of Mt. Krakatoa in Sunda strait located between Sumatra and Java Island Indonesia in 27 December 2018 is analysed to identify mount Krakatoa eruption and its dispersion by using a direct product in the form of CAPPI-MAX (Constant Altitude Plan Position Indicator – Maximum) retrieved from reflectivity factor (dBz). The radar can capture the reflectivity of mount Krakatoa eruption and its dispersion. Larger material size named lapilli with 45 – 50 dBz tends to locate in the nearby volcanic area. The medium size of the material like coarse volcanic ash with 30 – 35 dBz of reflectivity detected surrounding the center of the volcanic area and carried away by the wind to the south direction. Volcano eruption patterns begin suddenly as a high reflectivity factor appears in the middle and the spreads around it with lower value as increasing distance.

Primary author: HUTAPEA, Thahir Daniel (Indonesian Agency for Meteorology, Climatology, and Geophysics)

Presenter: HUTAPEA, Thahir Daniel (Indonesian Agency for Meteorology, Climatology, and Geophysics)

Track Classification: Theme 3. Verification Technologies and Technique Application