DETECTING VOLCANIC ASH WITH C-BAND WEATHER RADAR (CASE STUDY ERUPTION OF MOUNT LOKON DECEMBER 6, 2012)

Eko Wardoyo

Weather Radar Data Management - Remote Sensing Division Center for Public Weather Services of Indonesia Agency for Meteorology Climatology and Geophysics (BMKG) Jl. Angkasa I No.2, Kemayoran, Jakarta 10720 - INDONESIA Tel. +62-21-4246321 ext. 3400 Fax. +62-21-6546315 Mobile : +62-81369626900, +62816177778176 E-mail : ekowardj@yahoo.com, eko.bmkg@gmail.com, eko.wardoyo@bmkg.go.id

Abstract

Volcanic activity is not only harmful to the safety of life, property and infrastructure located on the mainland, because the eruption activity is always accompanied by a blast of hot clouds containing volcanic ash is very dangerous for flight may cause engine damage. This study aimed to detect volcanic ash using C-band weather radar is done in the case of the eruption of Lokon Mountain on December 6, 2012. Products used in this study is the MAX product and Cross Section tools to analyze characteristics and patterns of volcanic ash Echo-looking compared to the precipitation echo a common sight. of these two products will be known characteristics of the eruption, the height of eruption, intensity and movement so that it can be used as the basis for estimating the direction of movement of the volcanic ash which is very useful for service to the aviation.

Keywords: weather radar, Volcanic Ash, reflectivity, Aviation, cross section

