Quasi-Realtime Contents of the Tephra Fall Simulations against Large-Scale Eruption

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From FY2014, the Meteorological Research Institute (MRI) of the Japan Meteorological Agency (JMA) is working on research of immediate monitoring and accurate prediction of volcanic phenomena caused by large-scale eruption. Target of the large-scale eruption is the domestic volcano with the volume of ejecta on the order of $10^9$ m$^3$, however, such large-scale eruption has not occurred over the past century. Therefore it is important to simulate the tephra fall against a large-scale eruption in day-to-day weather conditions, from the point of view of roughly predicting the affected area, and also checking and improving the numerical model. For these purposes, assuming the large-scale eruption at Fuji volcano in 1707 (VSJ2013, P45) or Sakurajima volcano in 1914 (JpGU2014, SVC50-P01), the Volcanology Research Department of the MRI has made the quasi-realtime Internet contents of the large-scale tephra fall predictions with the JMA Regional Atmospheric Transport Model (RATM) driven by the most recent grid point values of the Mesoscale Analysis.

In this presentation, we will introduce the contents planned to daily update on the MRI website.

Keywords: Atmospheric Transport Model, large-scale eruption, volcanic ash, tephra fall, quasi-realtime, numerical simulation