Numerical Simulation of Tephra Fall Deposition from Mt. Usu 1977 Eruption and Mt. Fuji 1707 Eruption

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   We developed a numerical transport model of tephra for assessing hazards of volcanic eruptions. 3-dimensional wind fields were calculated using a multi-nested meteorological model that the minimum horizontal resolution is about 1 kilometer. A simple model for tephra plume was introduced. We calculated the tephra transport for Mt. Usu 1977 eruption using this model. The sedimentation area was represented quite well to several hundred kilometers. We also studied the tephra of Mt. Fuji 1707 eruption using this model. The observed characteristic of scoria beds (Miyaji, 1984) is compared to the results of model.   We found it is necessary to improve the model for block and lapilli in tephra plume.