

Numerical Simulations of Volcanic Explosion and Disaster Prediction at Iwate Volcano

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The explosive volcanism sometimes yields serious damage due to volcanic blast, ballistic fragments and pyroclastic surge to the district which surround the volcano. The disasters, however, have never been predicted quantitatively on scientific grounds. So we constructed the method of preparing the hazard map due to volcanic explosion based on the code developed in the field of shock wave technology and on some information based on the field explosion experiments. The hazard maps showed that the recent explosive activity occurred at Iwate Volcano could affect a slight damage to the near surrounding district and the strongest explosion probably occurred in Nishi-Iwate Caldera is able to yield a serious damage not only to the near surrounding district but also to Morioka City.