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Quasi-real time pyroclastic flow hazard mapping system at Mt. Merapi

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Pyroclastic flow is one of the most destructive events associated with volcanic eruption. And the magnitude would be variable largely and it causes uncertainty of disastrous area. At 2010 Mt. Merapi eruption, the affected area by the pyroclastic flow was largely different from previous ones. To forecast, to evaluate such affected area, it is necessary not only to monitor current volcanic activity to evaluate magnitude of possible pyroclastic flow but also extent of the flow. Now we are developing a system to evaluate possible disastrous area by combining monitoring with a database of pyroclastic flow simulation results. This system can prepare timely a suitable hazard map. We will show several hazard maps prepared by the system at Mt. Merapi, and demonstrate quasi-real time hazard maps for Merapi 2010 pyroclastic flow.