



## **Pyroclastic flow hazard assessment at Soufriere Hills Volcano, Montserrat**

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For 16 years the ongoing eruption at Soufriere Hills Volcano has produced periods of lava dome growth leading to the formation of pyroclastic flows. These flows have destroyed much of the island's infrastructure and led to evacuation of the formerly occupied parts of the volcano. Management of the risks lies with the Montserrat Volcano Observatory (MVO) at an operational level with oversight and periodic input from a Scientific Advisory Committee (SAC). The northwestern margin of the volcano is still inhabited and has required careful assessment of the pyroclastic flow hazard. The main components of the problem are: What dome mass is available to reach the inhabited area? What are the likely boundaries of the resultant pyroclastic flows? How frequent are hazardous flows likely to be in future? I describe how the SAC/MVO has carried out this assessment process since 2007 using a variety of flow simulation codes, coupled with knowledge elicitation. The way in which the results of this assessment have been communicated via maps, statistical measures and public outreach has proven to be a vital but difficult task.