

Preliminary Statement SAC 19

September 25th, 2014

During the past year Soufriere Hills volcano showed no significant changes in its behaviour. While the major part of the lava dome remains stable and rockfall activity continues to decline, the dome has still the potential to become unstable. Temperatures of volcanic gases that escape through fractures and fumaroles have remained high with the hottest fumaroles maintaining 600°C over the 54 months since the last major activity.

Measurements by the MVO show a steady rate of sulphur dioxide emission of about 300t/day over the 54 months. Seismicity overall has declined to a low level except for occasional short bursts of volcano tectonic events that occur, sometimes accompanied by elevated degassing. Measurements of ground deformation indicate a slow but continuous lengthening trend over the island, interpreted as due to inflation of the volcano. In the past, this has been taken as a sign of continuing replenishment of a deep magma reservoir. When these observations and measurements are taken together we conclude that the volcano remains in a state in which lava extrusion is still possible at short notice; however, there is no indication that this is imminent.

We interpret the absence of pyroclastic flows or major rockfalls in the last year as an indication that the lava dome continues to stabilise. While the hazard from pyroclastic flows and surges into the lower Belham Valley and Plymouth remains we estimate the chance that such an event occurs within the next year is now less likely than one year ago. However, the volcano remains a source of hazards, some of which could occur at any time with little or no warning, and consequently could pose a threat to people working in or visiting Zone V.