

## **SAC18 Preliminary Statement      1 November 2013**

Over the past year there has been almost no new activity at the surface of the volcano. The dome has remained stable, apart from a large slab of rock that collapsed into the Tar River valley in March 2013 and occasional smaller rockfalls. The dome retains the potential to become unstable. Hot gases from depth, escaping from long-lived fumaroles, have maintained temperatures of about 600°C.

It is now 45 months since the last phase of lava eruption, the longest pause since the eruption began in 1995. Measurements made by MVO of ground movement show a continuing trend of low level inflation of the island. Sulphur dioxide emission rates have remained steady over the past three years. The seismicity has declined during the pause to a low level. Together, these indicate continued activity in the magma deep beneath the volcano. From all these measurements we conclude that the volcano remains able to erupt lava at short notice, but shows no signs that this is imminent.

In order to better understand how the volcano might behave over the coming years we have made a specific study of volcanoes around the world that are similar in character to Soufriere Hills and which are well monitored. While none of these volcanoes show an exact match of behaviour. Soufriere Hills is closest in behaviour to those volcanoes that show persisting activity.

The hazard from pyroclastic flows and surges in the lower Belham Valley that might occur over the next year remains at a similar level to that of one year ago. Pyroclastic flows can occur at any time without warning and consequently a lethal threat to people working in or visiting Plymouth remains.