



Mayon Volcano Bulletin

13 January 2010

7:00 AM

This is a notice for the lowering of the alert status of Mayon Volcano (13.2576 N, 123.6856 E) from **Alert Level 3** to **Alert Level 2**.

Since 02 January 2010 when PHIVOLCS-DOST lowered the alert level to Alert Level 3, a further decline in the overall activity of Mayon Volcano was noted. This trend was reflected by the following observations:

- 1. Seismic Activity:** For the past twenty-four hour observation period, the seismic monitoring network of Mayon Volcano recorded six (6) volcanic earthquakes. The network continues to record a few low frequency-type volcanic earthquakes associated with degassing of residual magma. For the past two weeks, majority of the type of recorded earthquakes were related to rockfalls and rolling down of lava fragments at the volcano's upper slopes. The lack of remarkable seismic events, such as harmonic tremors, suggests no active transport of magma to shallow levels.
- 2. Ground Deformation:** Prior to and during the eruption last December 2009, there was a decrease in water discharge of springs at the lower slopes of Mayon Volcano as a result of the inflation of the volcano. Since 30 December 2009, monitored springs have recovered and increased in discharge. Results of precise leveling surveys (05-10 January) at the northwest and southeast slopes of the volcano showed deflationary trend compared to 27 November - 03 December 2009 survey. The electronic tiltmeter installed at the upper northwest slope of the volcano also indicated deflation. These measurements indicate a return of the volcanic edifice to a deflated state, suggesting that no pressure build-up has taken place and reflect a general static condition of residual magma in the volcanic pipe and beneath the crater.
- 3. Gas Measurements:** Sulfur Dioxide (SO₂) emission rate was measured yesterday at an average of 597 tonnes/day (t/d). Measured SO₂ levels have decreased considerably from a high of 2,621 t/d to a low of 597 t/d. The decrease in concentration of SO₂ gas emission further indicates that no active magma intrusion is occurring beneath the volcanic edifice.
- 4. Visual Observation:** No ash ejections were observed since 29 December 2009. Steam emission was most of the time weak to moderate and white in color indicating considerable decrease in energy. Crater glow remained visible to the naked eye at night possibly due to the still-hot residual magma beneath the crater.

In view of the above observations, PHIVOLCS-DOST is now **lowering the alert status from Alert Level 3 to Alert Level 2**. This means a further reduction in the likelihood of hazardous eruption. However, the lowering of the alert level from 3 to 2 should not be interpreted that the unrest of the volcano has ceased. If there is resurgence in the volcano's activity, the alert level may be raised back to 3 but if there is noticeable downward trend in the monitored parameters, then the alert will be lowered to Alert Level 1. PHIVOLCS-DOST recommends that the public should not enter the six (6) kilometer radius Permanent Danger Zone and the 7-km Extended Danger Zone on the southeast of the volcano due to continuing threat from sudden explosions, rockfalls from the upper slopes and pyroclastic flows due to sudden collapse of unstable lava deposits. Active river channels and those perennially identified as lahar prone in the southern sector should also be avoided especially during bad weather conditions or when there is heavy and prolonged rainfall. PHIVOLCS-DOST is closely monitoring Mayon Volcano's activity and any new development will be immediately posted to all concerned.

PHIVOLCS-DOST