Mayon Volcano Bulletin
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The occurrence of a lava pile on the summit crater of Mayon on 12 and 13 February 2000 was confirmed yesterday by direct observation of the crater from the Lignon Hill Observatory. In addition several noticeable changes in the emission of Sulfur Dioxide (SO_2) was noted. Previously, Sulfur Dioxide (SO_2) emission generally ranged from 1,500 to 4,000 tonnes per day (t/d) but jumped to nearly 9,000 t/d on 12 February. Since then, there has been a remarkable decline in the SO_2 emission to about 5,200 t/d on 13 February and then to 1,500 t/d yesterday. This rapid decrease in gaseous emission is likely being caused by the accumulation of lava that is partially blocking or sealing the conduit. This also explains why steam emission has weakened but does not indicate a slowdown in activity.

Another perceivable change in the volcano's activity seems to be the occurrence of larger earthquakes of the type associated with movement of magma within the volcano. Although the total number of earthquakes may not seem alarming, today's record of six (6) low frequency-type earthquakes were larger than previous events and may be interpreted to be an indication that more active transport of magma to very shallow levels and pushing previously solidified lava towards the surface.

The above observations consistently and strongly suggest that slow but active lava ascent is taking place beneath the crater. At this early stage, the lava pile is still confined within the summit vent but PHIVOLCS expects that continued lava ascent would eventually cause part of the lava pile to overflow the summit towards the southeastern and eastern flanks. This likely scenario will produce any or all of the following phenomena: 1) rockfalls with or without ash puffs and explosions, 2) lava flows of variable lengths depending on the rate of supply from the crater, and 3) pyroclastic flows. However, this scenario may not be obtained if lava ascent ceases. Note that steam-driven explosions may still occur anytime because of contact of water with the still-hot crater deposits

PHIVOLCS further expects that the aforementioned occurrences will be contained within the existing danger zones during the initial stages of Mayon's activity. However, more specific and more precise scenarios can only be defined when these initial activities have occurred. PHIVOLCS emphasizes that initial volcanic activity will most likely affect the southeastern and eastern sectors if rockfalls, lava flows and pyroclastic flows are the primary manifestations. If the onset of activity is accompanied by strong explosions leading to an eruption column, areas in other sectors will be also affected by ashfall and pyroclastic flows.

In view of the apparent build-up of activity at Mayon and the probable scenarios that may affect the public around the volcano, PHIVOLCS now declares that Alert Level 03 is now in effect over the volcano. This means that fresh magma is close to the crater but note that an eruption is likely only if the present trend of relatively high volcanic unrest is sustained. If the status of the volcano continues to deteriorate then PHIVOLCS will recommend the appropriate extension of danger zones. Note, however, that at this point, NO FURTHER AREAS ARE RECOMMENDED FOR EVACUATION OTHER THAN IN THE PREVIOUSLY DELINEATED DANGER ZONES. PHIVOLCS reminds residents beyond but near the danger zones, especially near or fronting the Bonga and Basud Gullies, to be extra alert and aware of loose debris that may be dislodged from the summit and upper slopes. During this stage of unrest the existing danger zones should be evacuated at all times and no visits should be made in these areas until further notice.

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