

Taal Eruption, 1965

by W. E. Hale

With modern technology man has been able to achieve a large measure of control over his environment. In Western countries with central heating, air conditioning and underground transportation, it is possible for many of us to function without undue concern for the so-called elements. These advantages and the general crustal stability of those areas in which most North Americans live, tend to lull us into a false sense of mastery over Nature. For Southeast Asians, the earthquakes, volcanic eruptions, typhoons, and tidal waves serve as frequent and dramatic reminders of Nature's authority. Such an event occurred in the Philippines on September 28, 1965, when a volcano on an island in Lake Taal, a convenient Sunday afternoon's drive from Manila, erupted in sudden and tragic violence.

It may be argued scientifically, that, for those qualified to "read the signs", nature gave fair warning of coming violence. However, for those who viewed the lake and its island from the patio of a spacious and well-appointed tourist lodge, the panorama before them was one of serene, tropical beauty. Even the well-arranged display describing the past volcanic history of the island and the disastrous eruption of 1911, in which 1,334 people lost their lives, suggested events of the distant past now of geological and historical interest only. Indeed the farmers peacefully harvesting their crops on the verdant slopes of Volcano Island seemed to be living testimony to the reformed character of Nature in this district.

However, time and present appearance, measured in the framework familiar to most people, are inadequate basis for predicting geological events.

Those less confident concerning the apparent docility of this island with its record of habitual violence, and perhaps more appreciative of the uncertainties beneath that peaceful panorama, were diligently striving to understand its fickle character.

The Philippines Commission on Volcanology has kept a continuous vigil on the island since 1953 in an attempt to anticipate any new phase of violence.

From Barrio Alas-as uninterrupted records of any earth tremors and groundtilt were maintained and temperatures of Crater Lake, on Volcano Island, were measured daily. Magnetic surveys were carried out monthly. Until just three days before the eruption, the single unfavourable portend for continued peacefulness was the change in the water temperature in Crater Lake. During 1964, the temperature



of the water in this lake was an average of 30 degrees centigrade. During the first half of 1965 its average temperature was 33 degrees. In July of that year a very marked change of temperature occurred with the rise culminating in a temperature of 45 degrees on July 21; an increase of roughly 0.8 degrees centigrade per day. From this date, the temperature remained constant until just before the eruption on September 28 when it dropped to 43 degrees.

Arturo Alcazaz, Chief Volcanologist of Philippine Commission on Volcanology has reported in typical scientific and unemotional style the salient features that collectively record this geological event.

1. The eruption took place not from the old main crater but from its southwestern flank
2. A new elongated explosion crater with a conelet at its northeast end was formed. The explosion crater measures 1.5 kms by 0.3 km. in area and has an average depth of about 25 meters.
3. the eruption went through four stages, to wit:
 - a) An initial phase characterized by mild explosions from the head of the new explo-