

EXPLANATION

Proximal Lahar-Hazard Zone
Areas that could be affected by slope failures, avalanches, and lahars from Fuego volcano. During any single rainfall event or earthquake, some drainages may be affected by slope failures and lahars, while others may be completely unaffected. Debris avalanches and lahars originate within the proximal hazard zone, but are likely to move farther down stream beyond the flanks of the volcano and beyond the limit of this zone.

Distal Lahar-Hazard Zones
Channels that head on Fuego volcano are subject to lahars generated by debris avalanches, torrential rains, earthquakes. Distal hazard zones are subdivided into five zones on the basis of a range of hypothetical lahar volumes [4].

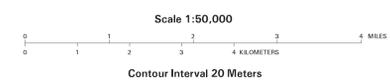
- Area that could be inundated by a lahar having a volume of 1 million cubic meters. Highest probability.
- Area that could be inundated by a lahar having a volume of 2 million cubic meters.
- Area that could be inundated by a lahar having a volume of 4 million cubic meters.
- Area that could be inundated by a lahar having a volume of 8 million cubic meters.
- Area that could be inundated by a lahar having a volume of 16 million cubic meters. Lowest probability.
- Other areas that could be inundated by lahars and floods, or be affected by aggradation and channel changes.



NOTE: Although the map shows sharp boundaries for hazard zones, the degree of hazard does not change abruptly at these boundaries. Rather, the hazard decreases gradually as distance from the volcano increases (small volume events are more common than large volume events). In addition, for lahars, the hazard decreases rapidly as elevation above the valley floor increases. Areas immediately beyond outer hazard zones should not be regarded as hazard-free, because the boundaries of hazard zones can be located only approximately, especially in areas of low relief. Many uncertainties about the source, size, and mobility of future events preclude locating the boundaries of zero-hazard zones precisely.

Numerals in brackets refer to end notes in the report.

Base maps from Guatemala 1:50,000 scale series, Chimaltenango quadrangle, 2309 IV, Ciudad de Guatemala quadrangle, 0209 I, Alotenango quadrangle, 2309 II, Escuintla quadrangle, 2070 I, digital data courtesy of Instituto Geográfico Nacional, Guatemala, Escuintla, 1985 (2008 IV), Guatemala 1982 (2008 II) from best available sources. Digital Base Maps from T-100 Avenue, Inc. Vertical Datum: Mexican projection, Zone 15. Horizontal Datum: North American 1973, Vertical Datum: Mean Sea Level, Spheroid: Clarke 1866.



Lahar Hazards of Fuego Volcano, Guatemala
by
J.W. Vallance, S.P. Schilling, O. Matías, W.I. Rose, and M.M. Howell
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