






- EXPLANATION**
-  **Pyroclastic-flow and lava-flow Hazard Zone**  
Areas that could be affected by pyroclastic flows, pyroclastic surges, lava flows, and ballistic projectiles in future eruptions from Fuego volcano [1]. During any single eruption, some drainages may be affected by some or all phenomena, while others may be completely unaffected.
  -  **Ash-cloud-surge Hazard Zone**  
Areas that could be affected by hot flowing ash clouds at the margins of pyroclastic flows.
  -  **La Democracia and Escuintla Debris Avalanche deposits.**

**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, Chimalmango quadrangle, 2309 IV, Ciudad de Guatemala quadrangle, 029 I, Alotenango quadrangle, 2309 IV, Escuintla quadrangle, 2070 I, digital data courtesy of Instituto Geográfico Nacional, Guatemala, Escuintla, 1985 (2001 P); Guatemala 1:50,000 I from best available sources. Digital Base Maps from Tiras America, Inc. Vertical Datum: Mexican projection, Zone 15. Horizontal Datum: North American 1927, Vertical Datum: Mean Sea Level, Spheroid: Clarke 1866.

Scale 1:50,000  
0 1 2 3 4 5 MILES  
0 1 2 3 4 5 KILOMETERS  
Contour Interval 20 Meters

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Standardizing Code. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

**Volcano 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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