

EXPLANATION

Proximal Volcanic Hazard Zone
Areas that could be affected by pyroclastic flows, pyroclastic surges, lava flows, and ballistic projectiles in future eruptions from San Vicente volcano [6]. During any single eruption, some drainages may be affected by some or all phenomena, while others may be completely unaffected. Debris avalanches and lahars originate within the proximal hazard zone, but depending upon their size may move farther down stream beyond the limit of this zone.

Lahar Hazard Zones
Channels that head on San Vicente volcano are subject to lahars generated by debris avalanches, torrential rains, earthquakes, etc. Lahar hazard zones are subdivided into five zones on the basis of a range of hypothetical lahar volumes [7].

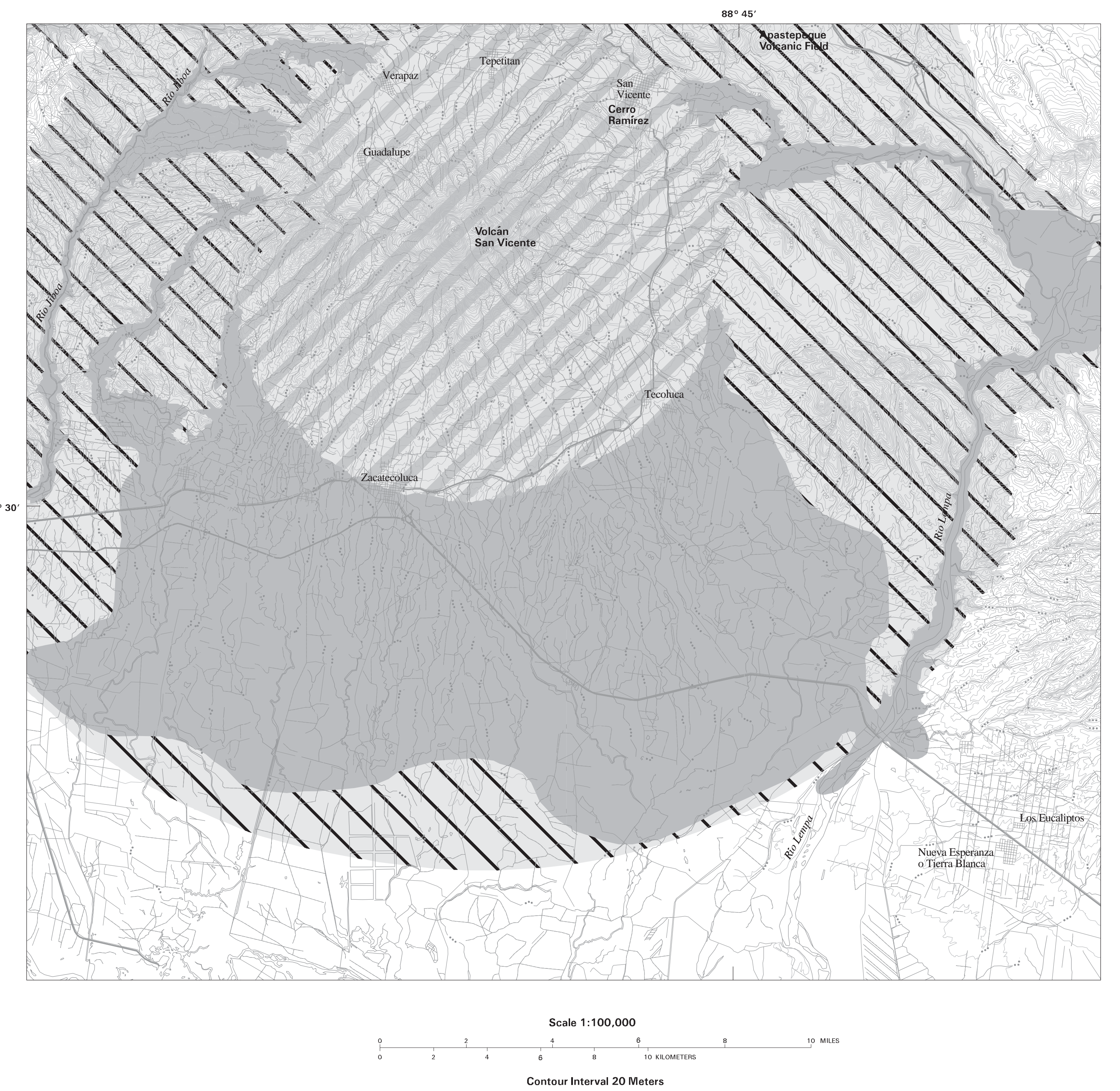
- Area that could be inundated by a lahar having a volume of 100,000 cubic meters. Highest probability.
- Area that could be inundated by a lahar having a volume of 300,000 cubic meters.
- Area that could be inundated by a lahar having a volume of 500,000 cubic meters.
- Area that could be inundated by a lahar having a volume of 1 million cubic meters.
- Area that could be inundated by a lahar having a volume of 100 million cubic meters. Lowest probability.

Blast Hazard Zone
Area that could be affected by a potential directed blast, a type of highly mobile pyroclastic flow [9]. Note that the potential extent of a directed blast extends beyond the limits of the topographical data. Low probability.



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 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 El Salvador 1:50,000 scale series: Puerto Concubio quadrangle, 1985 (modified); 2450 II, Berlin quadrangle, 1985 (2450 II); La Hermosa quadrangle, 1985 (2450 III); San Vicente quadrangle, 1985 (2450 IV); detail not available; source: Digital Base Maps from Trimble, Inc., University of Tennessee, Mountain View, CA; U.S. Geological Survey, North American 1983; Vertical Datum Mean Sea Level; Spheroid Clarke 1866.

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

