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Hazard mapping at Popocatepetl Volcano, Mexico: the 2016 Map

Ana Lillian Martin del Pozzo¹, Grupo de trabajo para la actualización del mapa de peligros del Volcán Popocatépetl

¹Instituto de Geofísica, UNAM.

²Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México. Circuito exterior S/N zona de institutos, ciudad universitaria. CDMX. México

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The hazard map for Popocatepetl Volcano was prepared at the beginning of the present eruptive period but an updated version including the new geological and archaeological mapping, historical documentation and computer modeling, carried out during the last two decades was integrated into the 2016 map. Popocatepetl began erupting in December 1994 and since then has had over 900 ash emissions over 1km high. The eruptive plume of the largest eruption in 2000-2001 reached 17km above sea level and besides copious amounts of ash and pumice produced pyroclastic flows and lahars; other eruptions have produced mm-thick falls on several large cities including Mexico City and Puebla and small towns with a population of nearly another million people. These small eruptions represent the highest probability scenario. Eruptions with plumes between 10 and 20 km high represent the intermediate scenario and larger Plinian eruptions with plumes over 20km high, the lowest probability but most destructive scenario. These eruptions have produced extensive pumice fall, ash flows and surges and lahars that have impacted populated areas several times in the past. Eight color-coded maps were prepared for ballistics, lahars, density currents, lava flows, debris avalanches and fall deposits in which the topographic features and towns could be easily identifiable. Civil Protection agencies and general public may download it from several sources.