

## ERUPTION OF EL RUIZ VOLCANO, COLOMBIA

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The Republic of Colombia is situated in the northern part of South America, with coasts to both the Atlantic and the Pacific Oceans. It has a long history of natural disasters: hurricanes from the Caribbean sea have lashed the eastern seaboard more than once, while the western part of the country belongs to the so called "Pacific Fire Belt." Being in the zone of contact between the Nazca and the South American Tectonic Plates, where the former gets under the latter, it suffers from volcanic eruptions and earthquakes (Figures 1 and 2). The more recent major

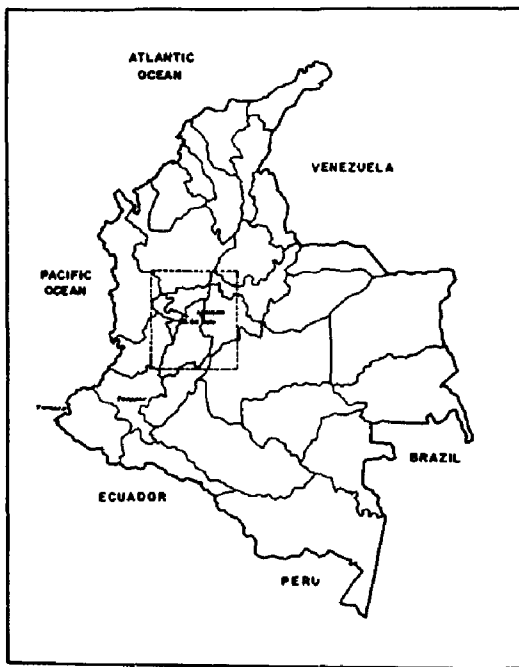


Figure 1—Colombia

earthquakes were those in Tumaco in 1979 and Popayan in 1983. In Tumaco, the combined action of the earth movement (magnitude 7.9 in the Richter

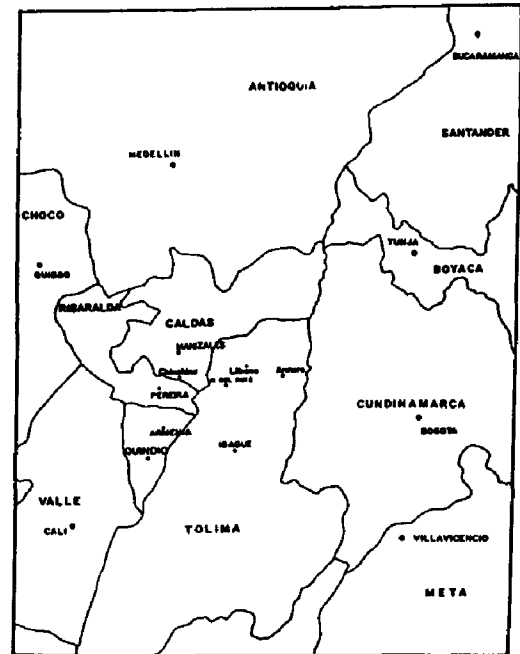


Figure 2—Inset

scale) and the subsequent Tsunami caused an estimated 500 deaths (Gueri et al). Popayan was almost totally destroyed by an earthquake of 5.3 magnitude in which over 100 people died (Gueri and Alzate).

At the moment there are in Colombia nine active volcanoes which have eruptions during historic times; all of them situated along the Andean Mountains which cross the country from north to south (Simkin et al). The "El Nevado del Ruiz" Volcano is a snow covered peak reaching 5,400 mts., whose last major eruption was in 1595. Since then it has given signs of activity on several occasions. In 1845 a mud flow along the eastern flank killed about 1,000 peasants living in the margins of the Lagunilla River (Tomblin). From that occasion it had remained dormant until November 1984 when local, low intensity earthquakes, indicated that "The Giant Could be Waking Up." The quakes were followed in December by a steam blast eruption through the Crater "Arenas" (named after the pilot who discovered it

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