# Seismic Observation of Colombia

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## 1. National Seismological Network of Colombia (RSNC)

The RSNC is operated by Colombian Institute of Geology and Mining (INGEOMINAS) and was sponsored by several Colombian agencies (National Office for Prevention and Attention of Emergencies and the Colombian Telecommunications Agency) as well as the Canadian Development Agency. RSNC started its operation in June 1993 and consists of 25 seismic stations countrywide connected to a central station by a satellite system (Fig.1). The seismometers are Teledyne Geotech S-13 vertical component with a period of 1s. The data is digitized at 16 bits and 60 sps with a dynamic range of 136db (Nieto et. al 1996).

## 2. National Strong Motion Network of Colombia (RNAC)

INGEOMINAS started in 1993 the deployment of the RNAC, which was entirely sponsored by the Colombian government. The RNAC consists of 120 strong motion digital accelerographs countrywide, including a local network at Bogotá city consisting of 29 instruments (Fig.1). The instruments are KINEMETRICS ranging from 12 to 19 bits of resolution. The local network at Bogotá has been operating since 1999 and was installed following the recommendations of a Seismic Microzonation Project of Bogotá (INGEOMINAS, 1997). The Bogotá network also includes three borehole instruments located at 115m, 126m and 184m of depth (Ojeda et. al, 2002a).

INGEOMINAS also operates three Volcanicanological and Seismological Observatories that monitoring the activity of the three volcanic regions in Colombia called volcanic provinces (Figure 2).
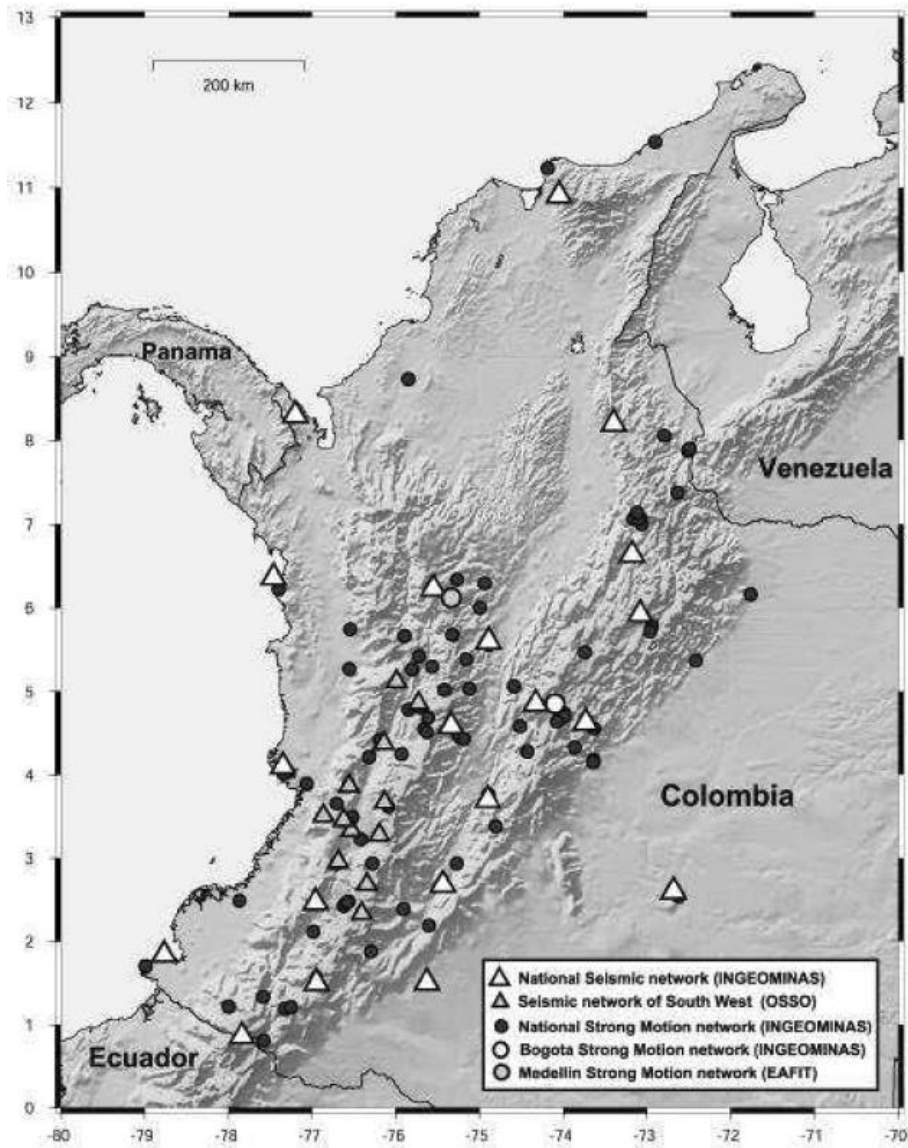
**Figure 1.** Location of Seismic Network and Strong Motion stations of
Colombia observatories.
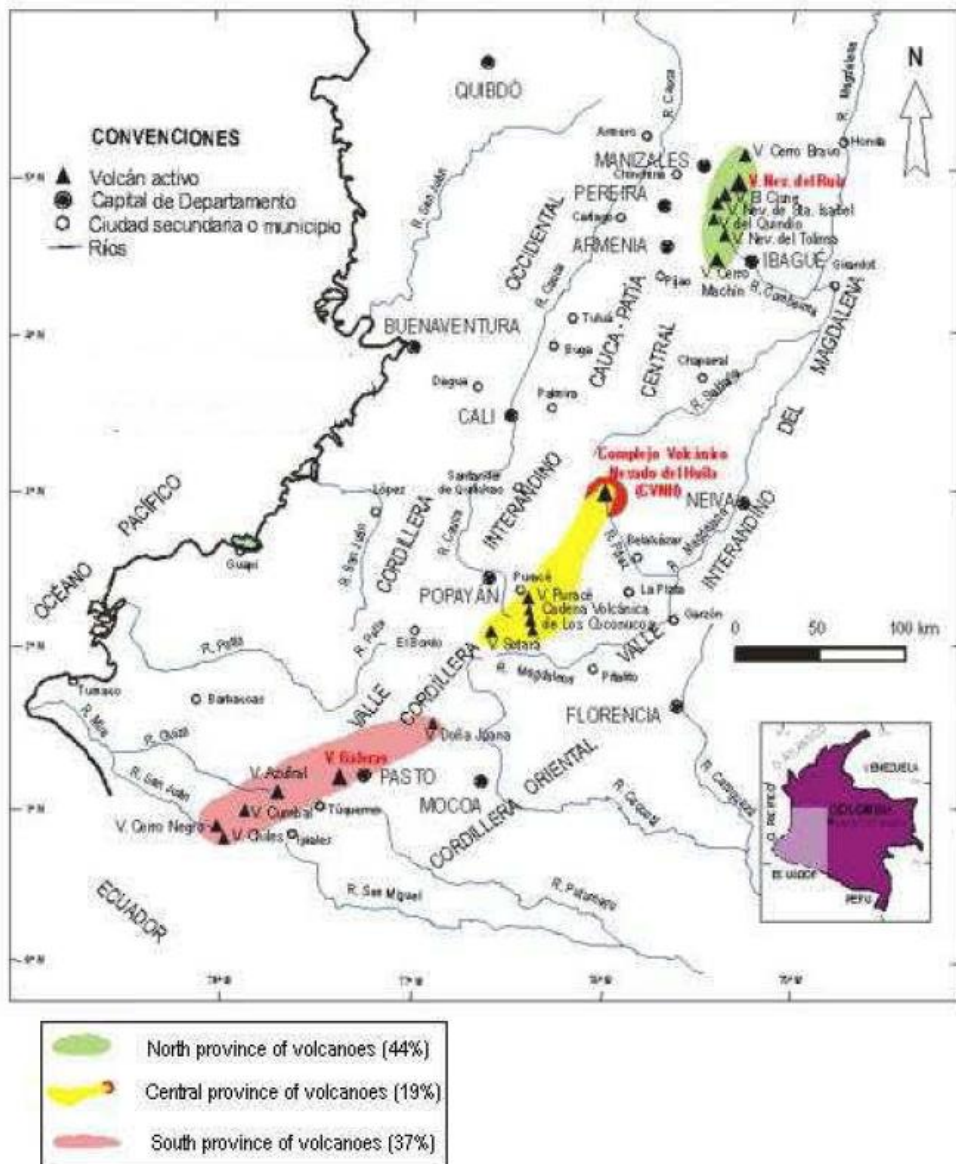Bigger white triangle: RSNC stations
Black circle: RANC stations

**Figure 2.** Volcanic provinces defined according to logistics of location of the volcanological and seismological observatories.