

GEOLOGIC SHADED RELIEF MAP OF VENEZUELA: SHEET 1 OF 2

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KEY TO MAP DIVISIONS

- 1. Western Zulia
- 2. Maracaibo
- 3. Andes-Lara
- 4. Falcón
- 5. Llanos
- 6. Central
- 7. Eastern
- 8. Islands
- 9. Guayana
- 10. Amazonas

SOURCES OF GEOLOGIC DATA

- Schubert and others, 1976
- Belizilla and others, eds., 1976
- Urban, 1995; Urban and Rodriguez, eds., 2004



EXPLANATION OF MAP SYMBOLS

- contact
- anticline or syncline: dashed where concealed or inferred
- syncline or synform: dashed where concealed or inferred
- fault: dashed where concealed or inferred
- thrust fault, teeth on overthrust plate: dashed where concealed or inferred
- normal fault, bar and ball on downthrown plate: dashed where concealed or inferred
- Klippe, boxes on upper tectonic plate: dashed where concealed or inferred
- strike-slip fault, arrows show direction of movement: dashed where concealed or inferred
- map division
- international boundary

SEE SHEET 2 FOR LIST OF MAP UNITS

DISCUSSION

The geological and hydrological data shown on the geologic shaded relief map of Venezuela were digitized directly from the 1:500,000-scale paper geologic map set of Belizilla and others (1976) for all of Venezuela north of the Orinoco River. These data were integrated with a digital geologic map of the Venezuelan Guayana Shield (Schubert and others, 1977). Geologic polygons were attributed for age, name, and lithologic type following the *Léxico Estratigráfico de Venezuela* (Ministerio de Energía y Minas, 1997; *Petróleos de Venezuela*, 2003), and significant revisions to the geology of the Cordillera de la Costa were incorporated from Urban (1995), and Urban and Rodriguez (2004). Some faults were compiled from Belizilla (1993) and Audemard and others (2000). Geologic polygon data were draped over a shaded relief image produced by processing 90 m (300 ft) radar interferometric data obtained by the shuttle radar topography mission (SRTM) (U.S. Geological Survey, 2003). Values for null-data areas inherent in the SRTM data set were filled by interpolation based on surrounding data cells. The digital elevation model data was hill-shaded using an illumination direction of 315 degrees at an angle of 65 degrees above the horizon to produce the shaded relief image. The map projection used is equidistant conic, with latitudes 4 and 9 degrees north as standard parallels, and longitude 66 degrees west as the central meridian. Users of the digital map are encouraged to contact the authors to report inaccuracies that may be corrected in future versions (phackey@usgs.gov; urbani@centv.ve).

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