Earthquake Report: 2019.02.22
M 7.5 Ecuador (& USGS Seismicity 1919-2019 M ≥ 6.5)

Total Intensity Anomaly (nT)
-200 -150 -100 -50 0 50 100 150 200

CIRES

Jason R. Patton
earthjay.com © 2019

USGS Google Earth

Depth to Slab (km)
0 50 100 150 200 250 300 350 400 450 500 550 600 650 700

Plate Boundaries: Divergent, Transform, Convergent, Other, Plate Motion
*Plate motion vectors relative to South America plate coordinate

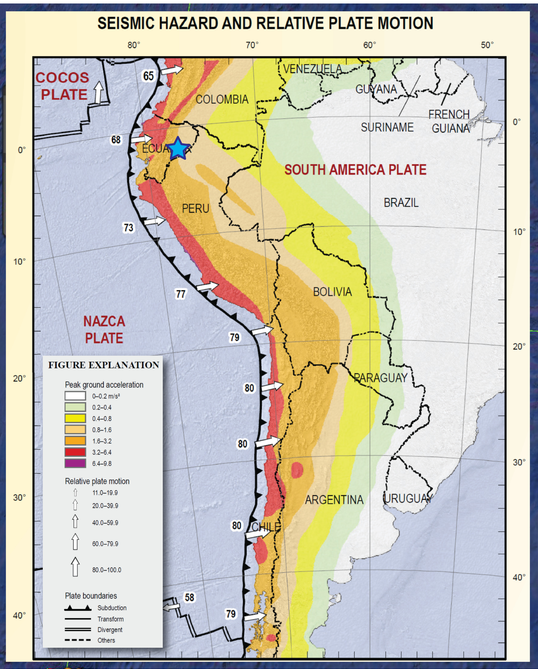
Normal Fault | Thrust Fault | Strike-Slip Fault
Top View
Side View
Side View

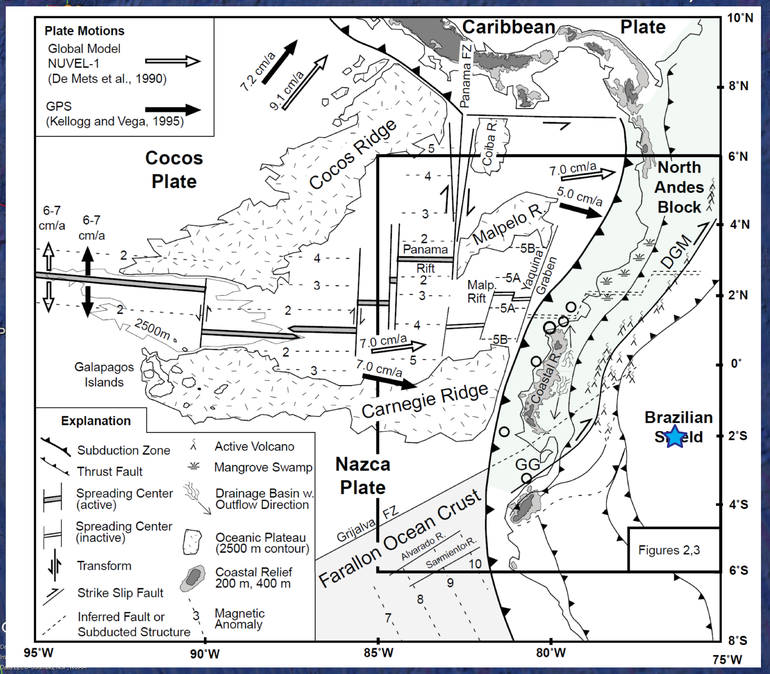
INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
Shaking	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
Damage	None	None	None	Very slight	Light	Moderate	Moderate/ heavy	Heavy	Very heavy
Peak Acc	<0.17	0.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
Peak Vel	<0.1	0.1- 1.1	1.1- 3.4	3.4- 8.1	8.1- 16	16 - 31	31 - 60	60-116	>116

Peak Acc = Peak ground acceleration (g), Peak Vel = Peak ground velocity (cm/s)

Magnitude
8 7 6 5 4 3 2 1

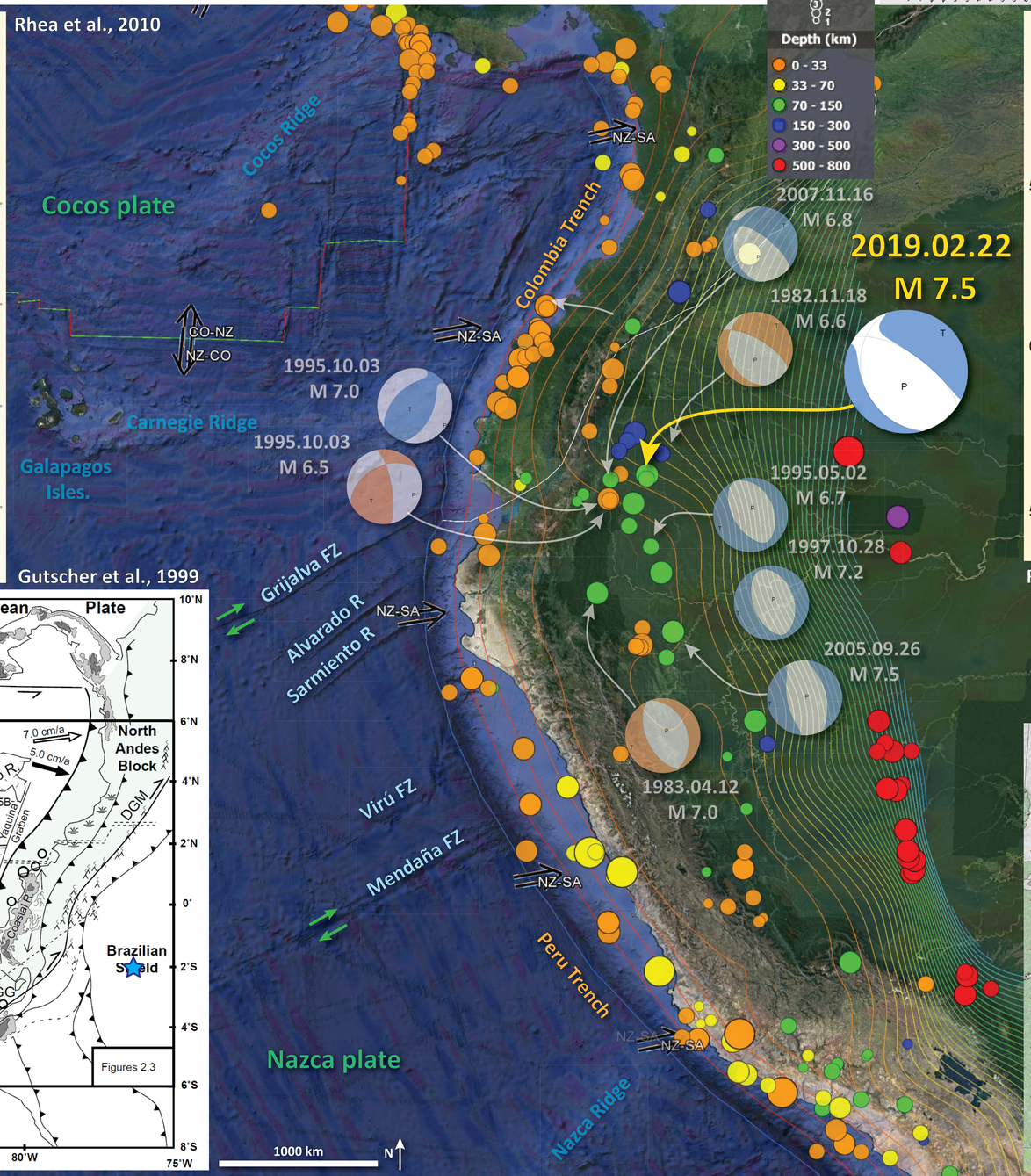
Depth (km)
- 0 - 33
- 33 - 70
- 70 - 150
- 150 - 300
- 300 - 500
- 500 - 800

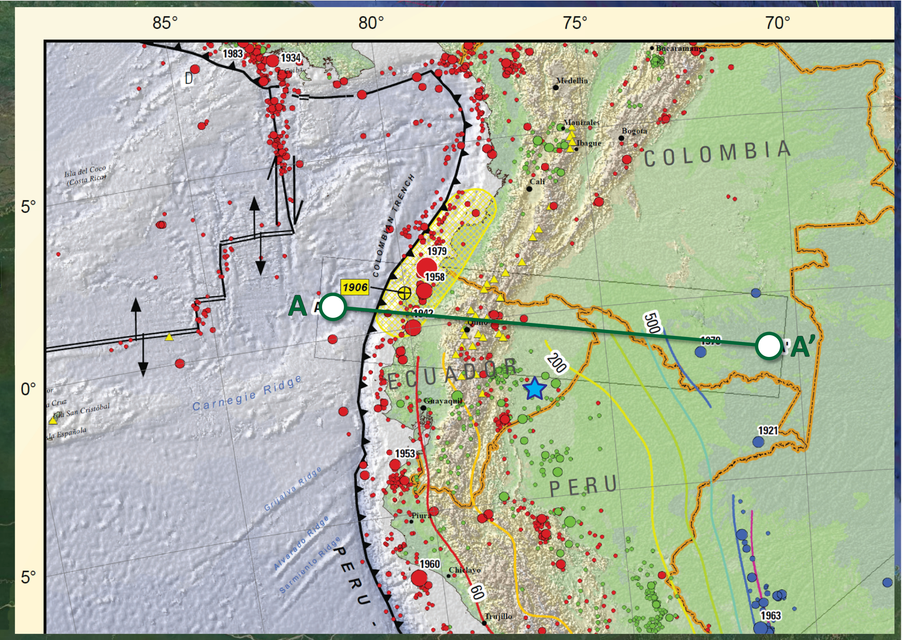




Rhea et al., 2010

Gutscher et al., 1999





Rhea et al., 2010

South America plate

