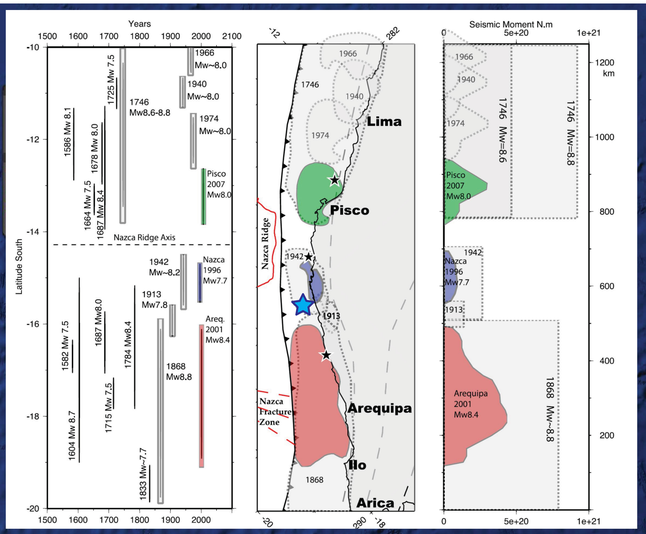
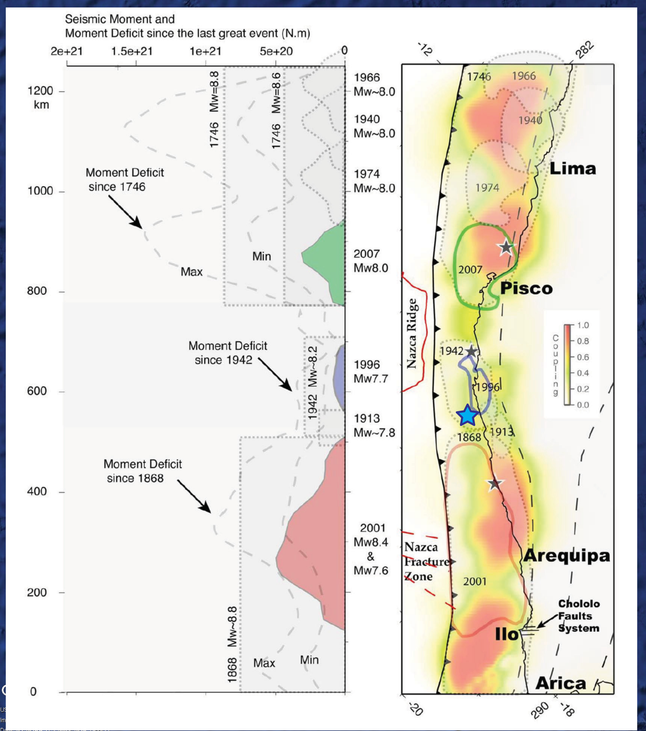
Earthquake Report: 2018.01.14

M 7.1 Peru (& USGS Seismicity 1918-2018 M ≥ 5.5)



Chlieh et al., 2011



Nazca plate

South America plate

Peru

1966.10.17
M 8.1

1940.05.24
M 8.2

M 8.1

1974.10.03
M 7.6

2007.08.15
M 8.0

M 7.6

1996.11.12
M 7.7

1942.08.24
M 8.1

M 8.0

M 7.7

M 7.1

2018.01.14
M 7.1

2013.09.25
M 7.1

M 8.4

Nazca Ridge

Nazca fracture zone

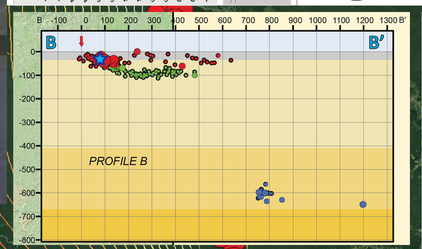
M 8.2

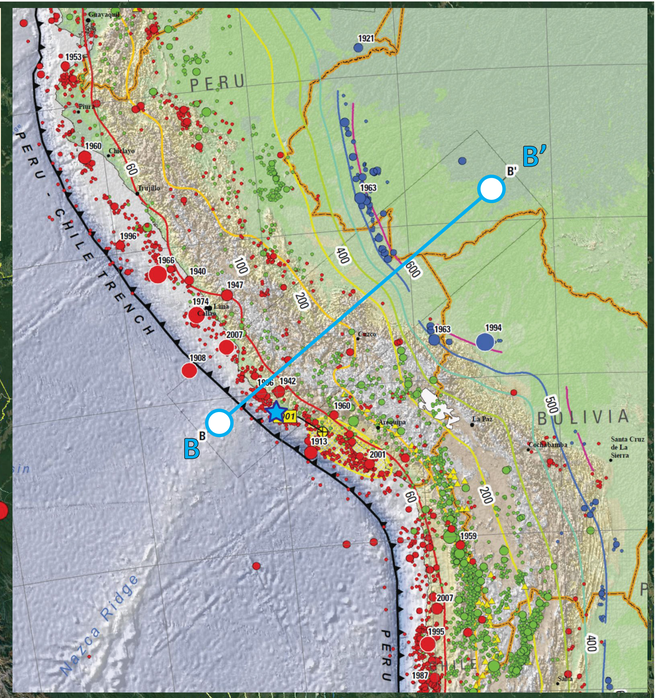
2014.04.01
M 8.2

2001.06.23
M 8.4

300 km

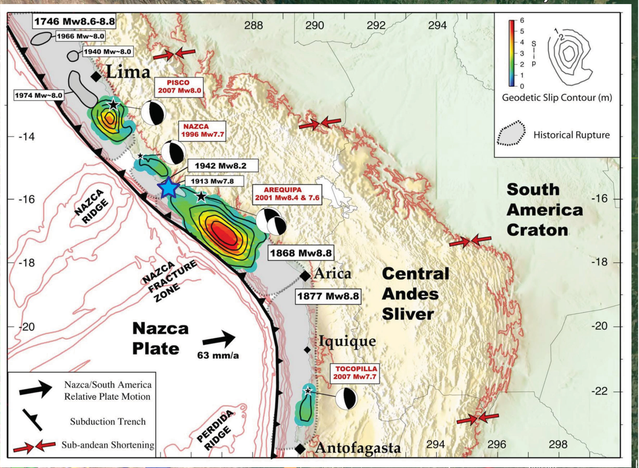
N





Rhea et al., 2010

Chlieh et al., 2011



Magnitude

8 7 6 5 4 3 2 1

Depth (km)

- 0 - 33
- 33 - 70
- 70 - 150
- 150 - 300
- 300 - 500
- 500 - 800

Jason R. Patton
earthjay.com © 2018

USGS Google Earth

Depth to Slab (km)

Plate Boundaries
Divergent
Transform
Convergent
Other
Plate Motion
*Plate motion vectors viewed in direction of local plate movement

Normal Fault
Thrust Fault
Strike-Slip Fault
Top 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)