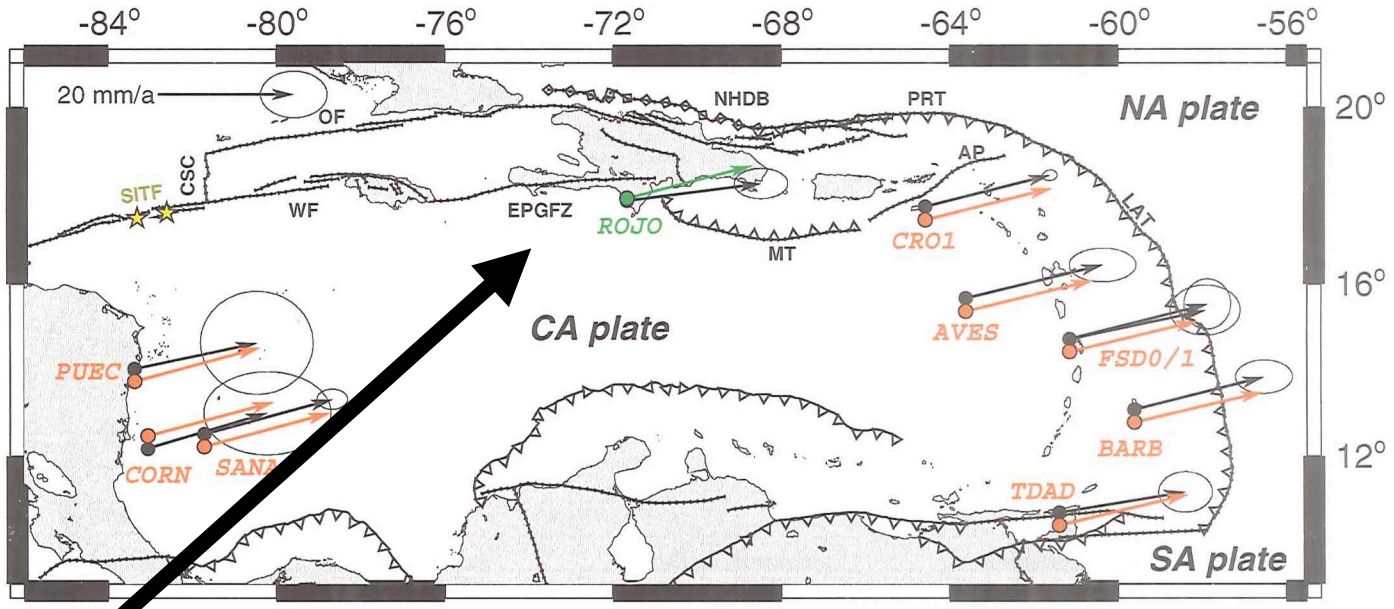
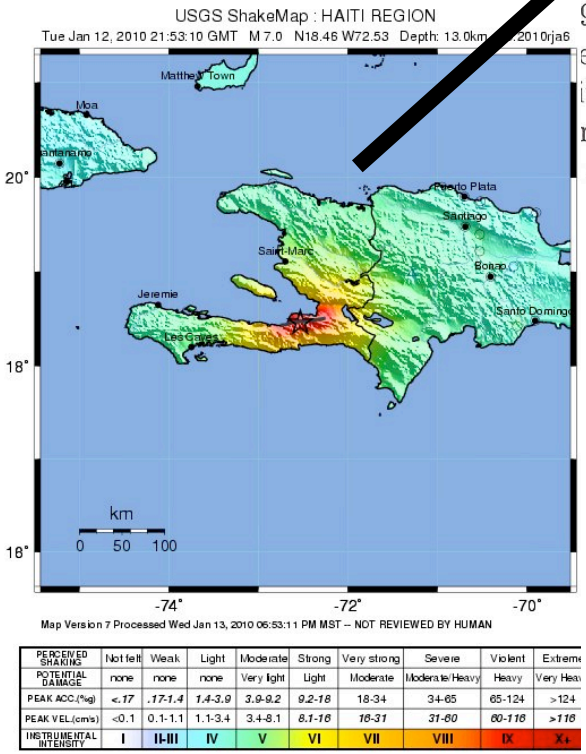
HAITI

1/12/10

M 7.0

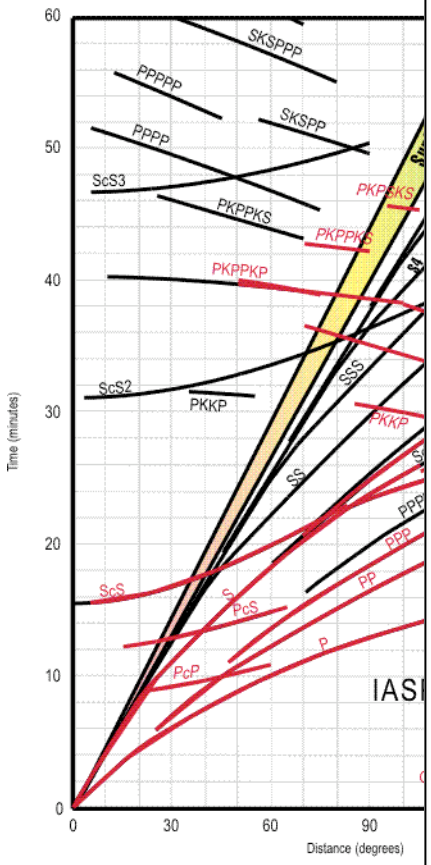


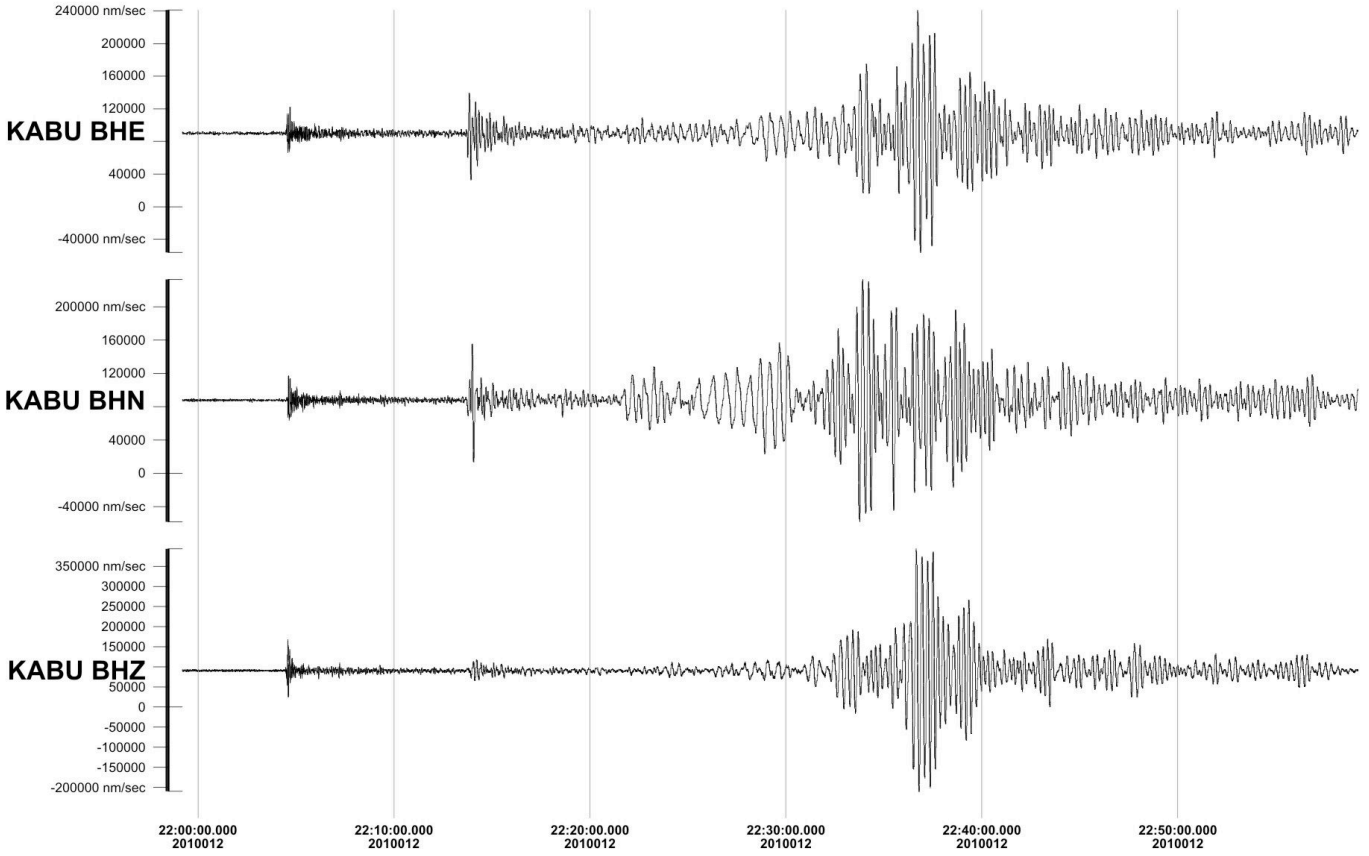
9: Observed and predicted Caribbean site velocities. Black circles and vectors with 2σ error
e velocities of sites in a NA reference frame. Open circles with red vectors (offset for clarity)
ities predicted by the computed 9-site GPS-only CA-NA Euler vector. ROJO (shown here in
reviously considered as a stable CA site, was not used in the inversions. Abbreviations are
as those found in Figure 1.1.



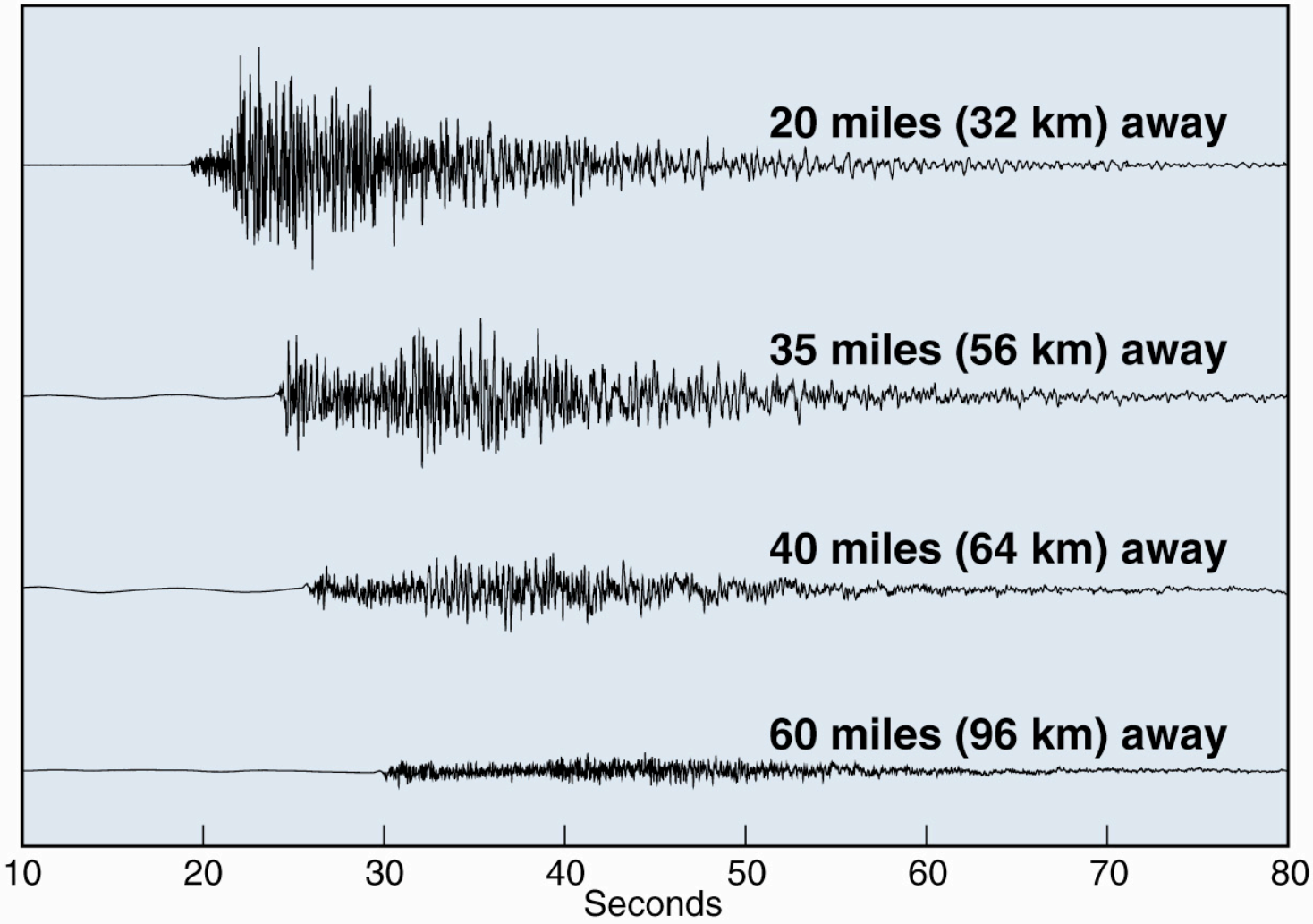
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Major 7.0 Earthquake Near Port-Au-Prince, Haiti
Tuesday, January 12, 2010 at 21:53:09 UTC

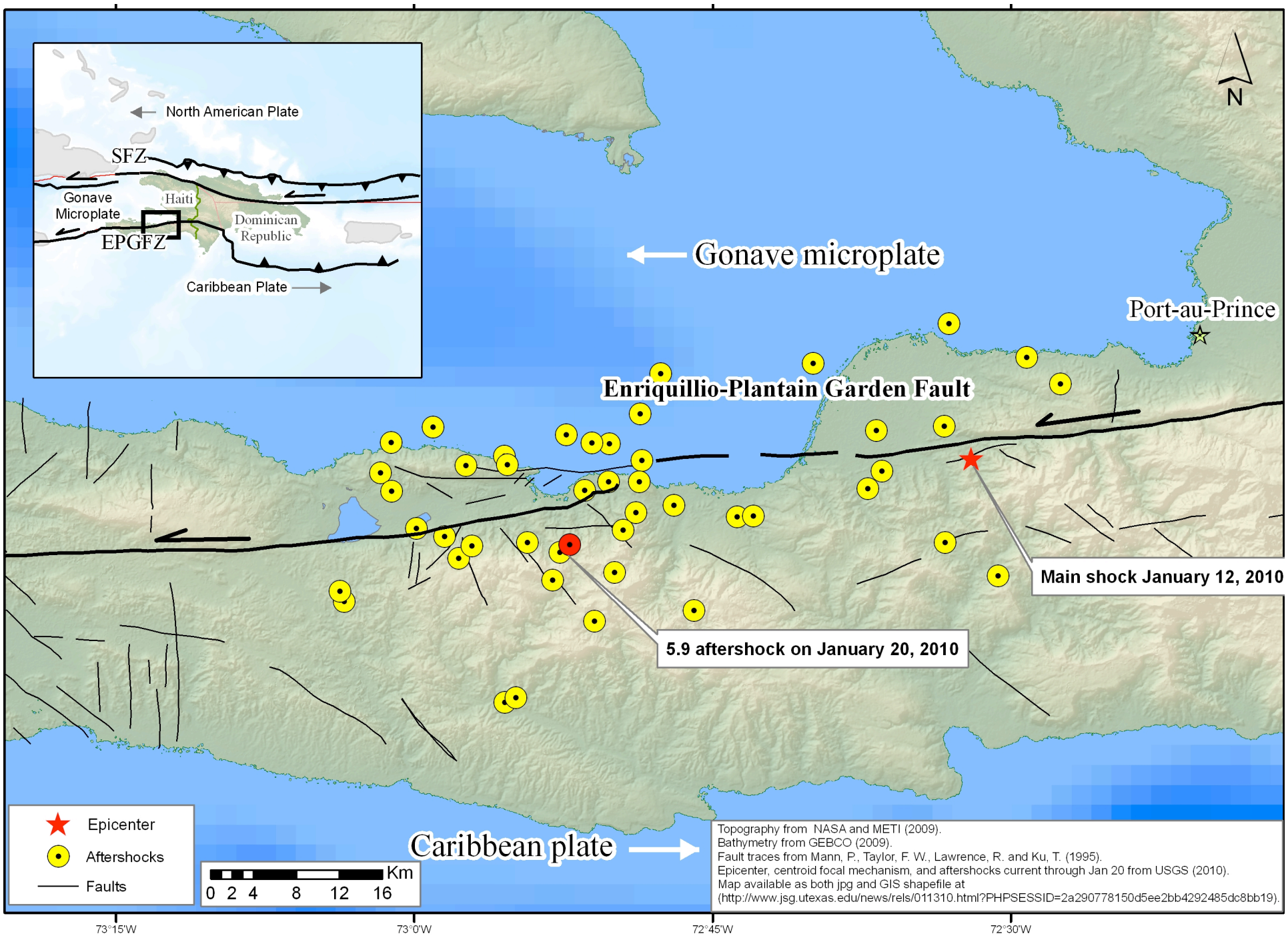




The 12 January 2010 Haiti earthquake showed up very nicely on station KABU at Katmai National Park, Alaska, an angular distance of 68 degrees from the epicenter. One hour of data from three components of motion are shown: east-west (top),

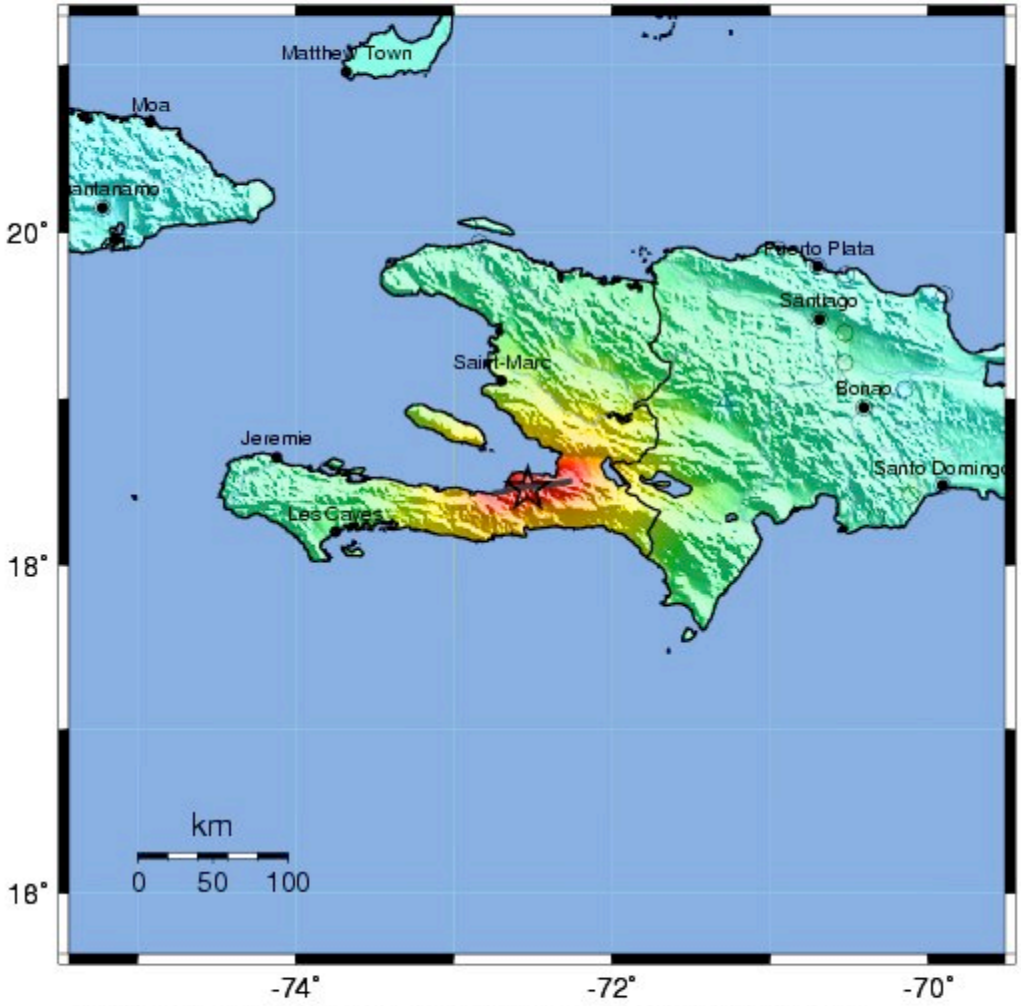


Four seismograms showing waves getting smaller with distance from the earthquake epicenter


North American Plate
SFZ
Gonave Microplate
Haiti
Dominican Republic
EPGFZ
Caribbean Plate
N
Gonave microplate
Port-au-Prince
Enriquillio-Plantain Garden Fault
Main shock January 12, 2010
5.9 aftershock on January 20, 2010
Caribbean plate
Epicenter
Aftershocks
Faults
0 2 4 8 12 16 Km
Topography from NASA and METI (2009).
Bathymetry from GEBCO (2009).
Fault traces from Mann, P., Taylor, F. W., Lawrence, R. and Ku, T. (1995).
Epicenter, centroid focal mechanism, and aftershocks current through Jan 20 from USGS (2010).
Map available as both jpg and GIS shapefile at
(http://www.jsg.utexas.edu/news/rels/011310.html?PHPSESSID=2a290778150d5ee2bb4292485dc8bb19).
73°15'W
73°0'W
72°45'W
72°30'W

USGS ShakeMap : HAITI REGION

Tue Jan 12, 2010 21:53:10 GMT M 7.0 N18.46 W72.53 Depth: 13.0km ID:2010rja6



Map Version 7 Processed Wed Jan 13, 2010 06:53:11 PM MST -- NOT REVIEWED BY HUMAN

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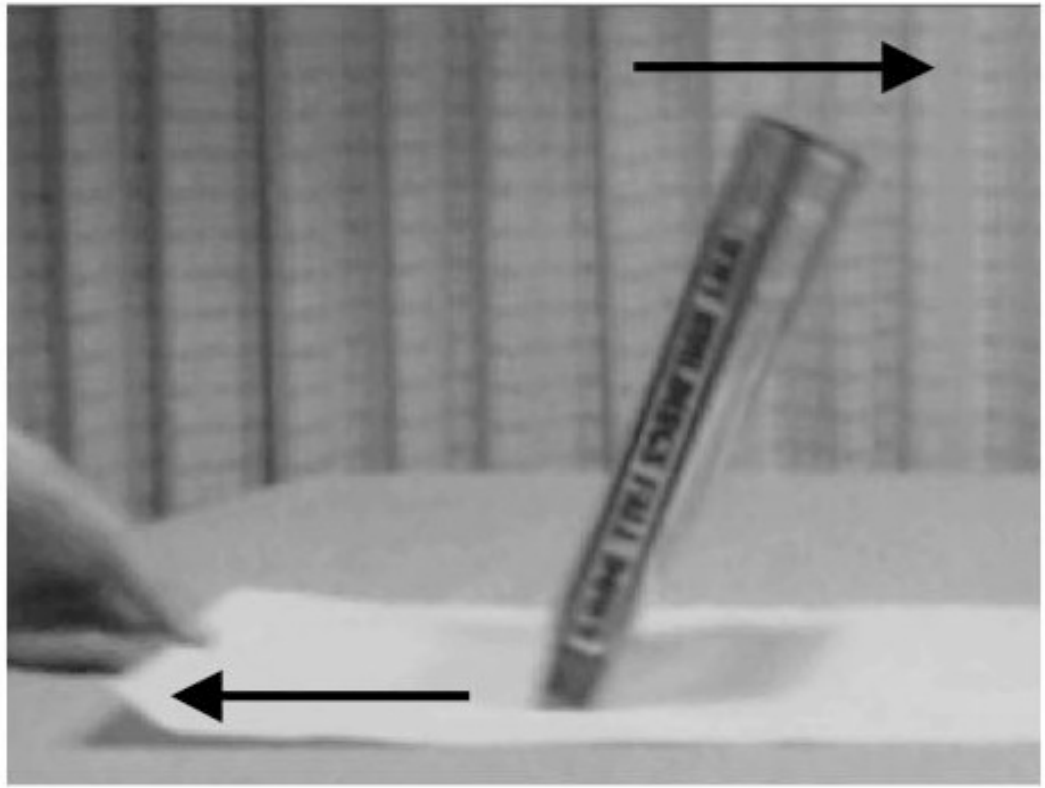
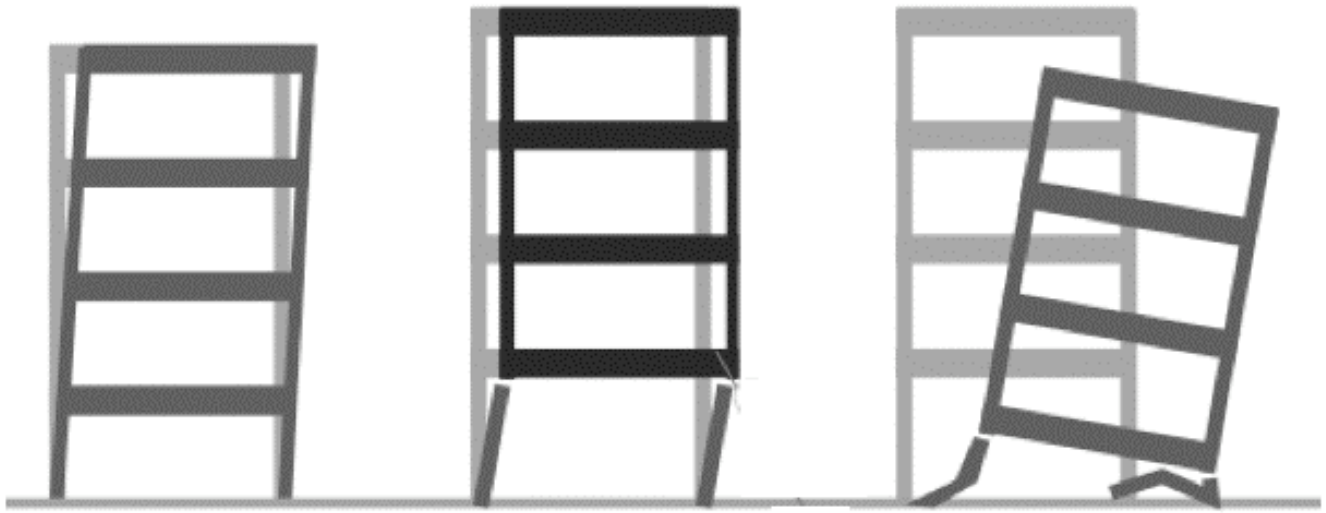
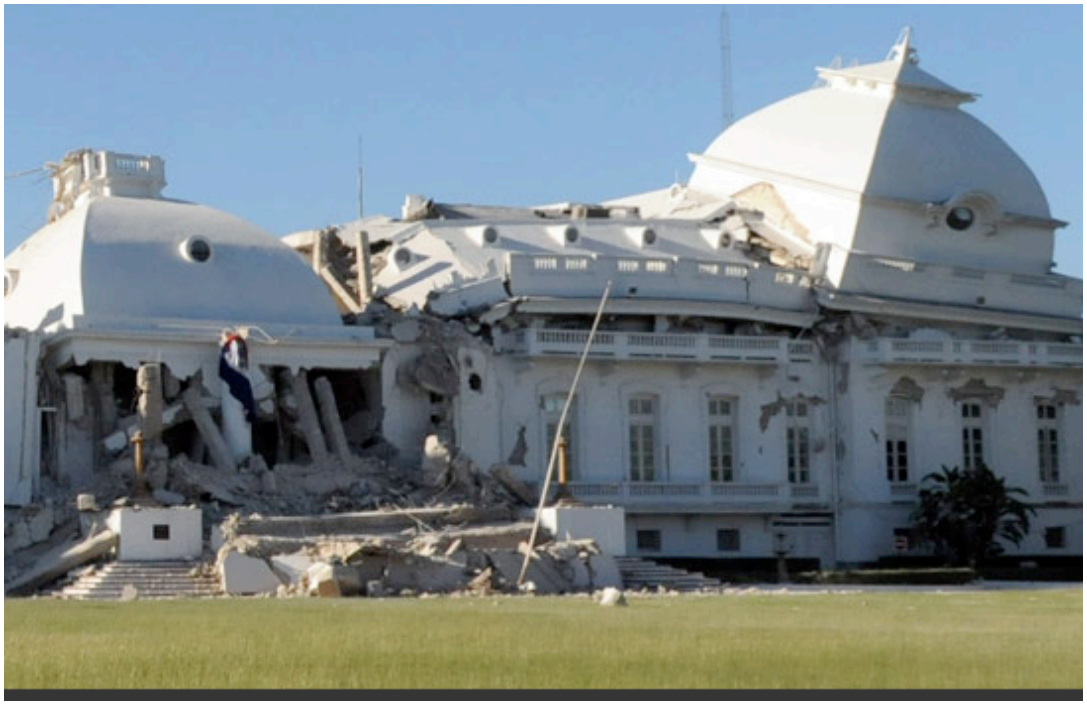
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

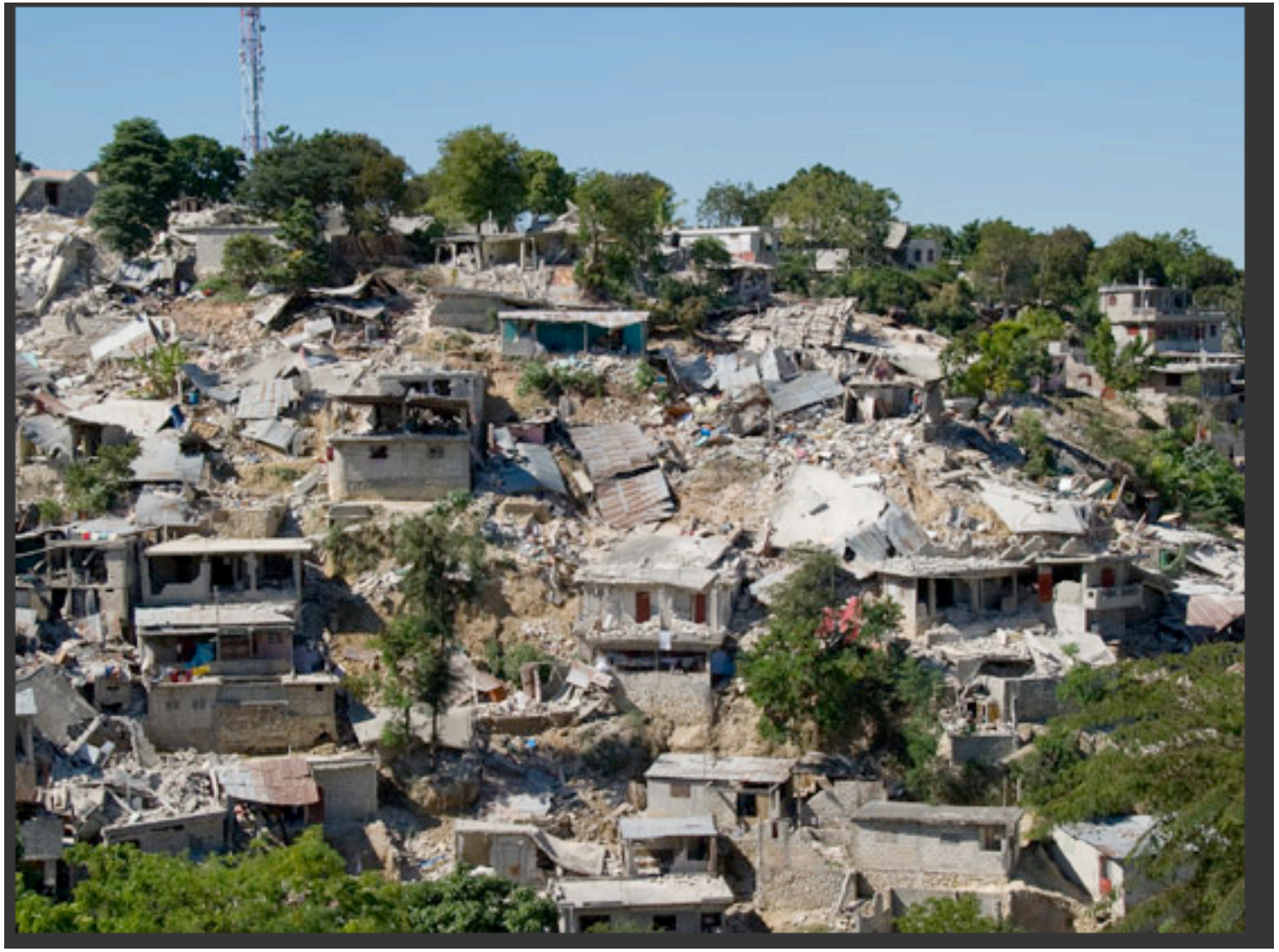


When a book's bottom is moved in one direction,
inertia makes it fall in the opposite direction.

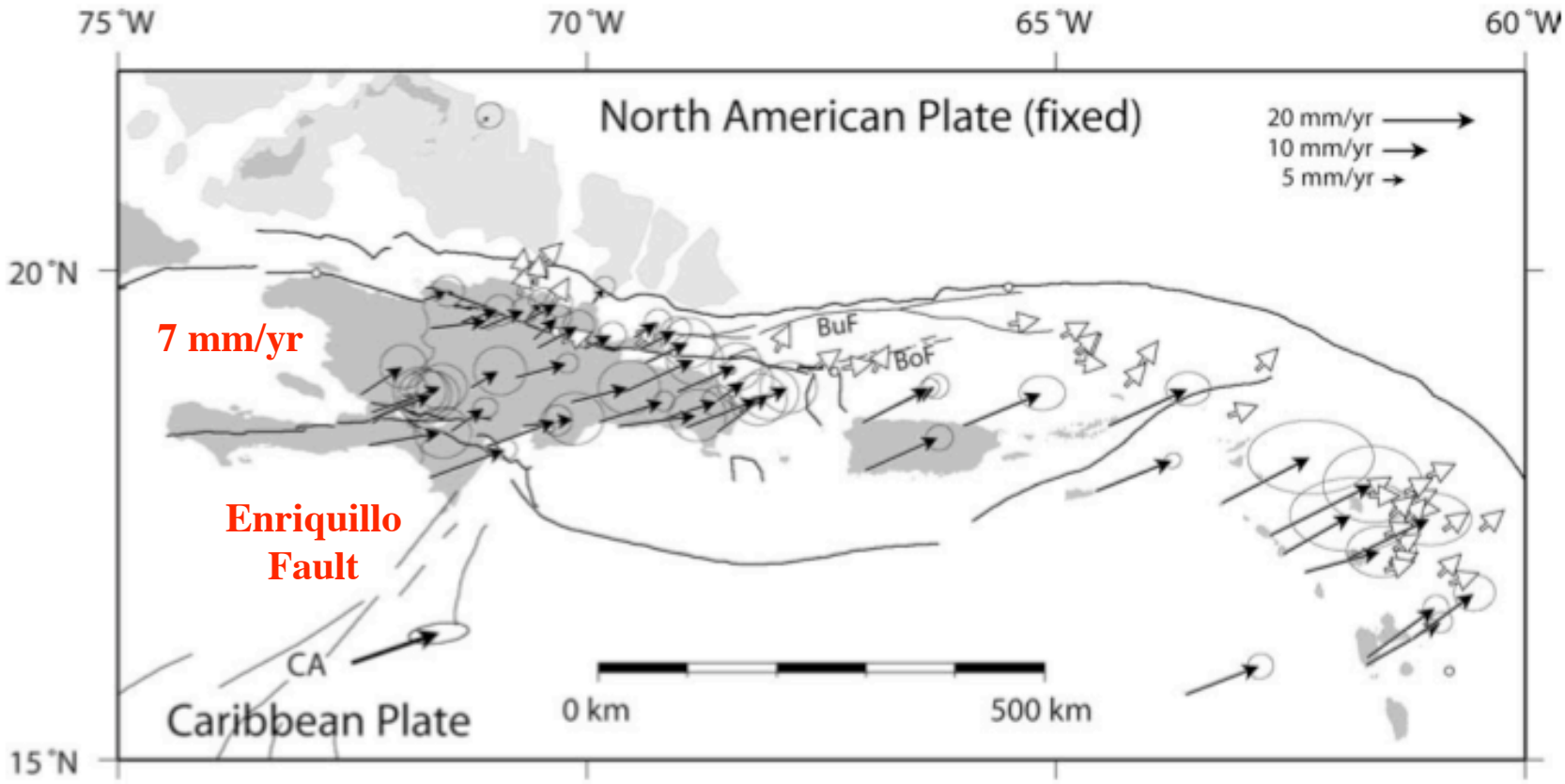




http://news.discovery.com/earth/haiti-earthquake-damage.html



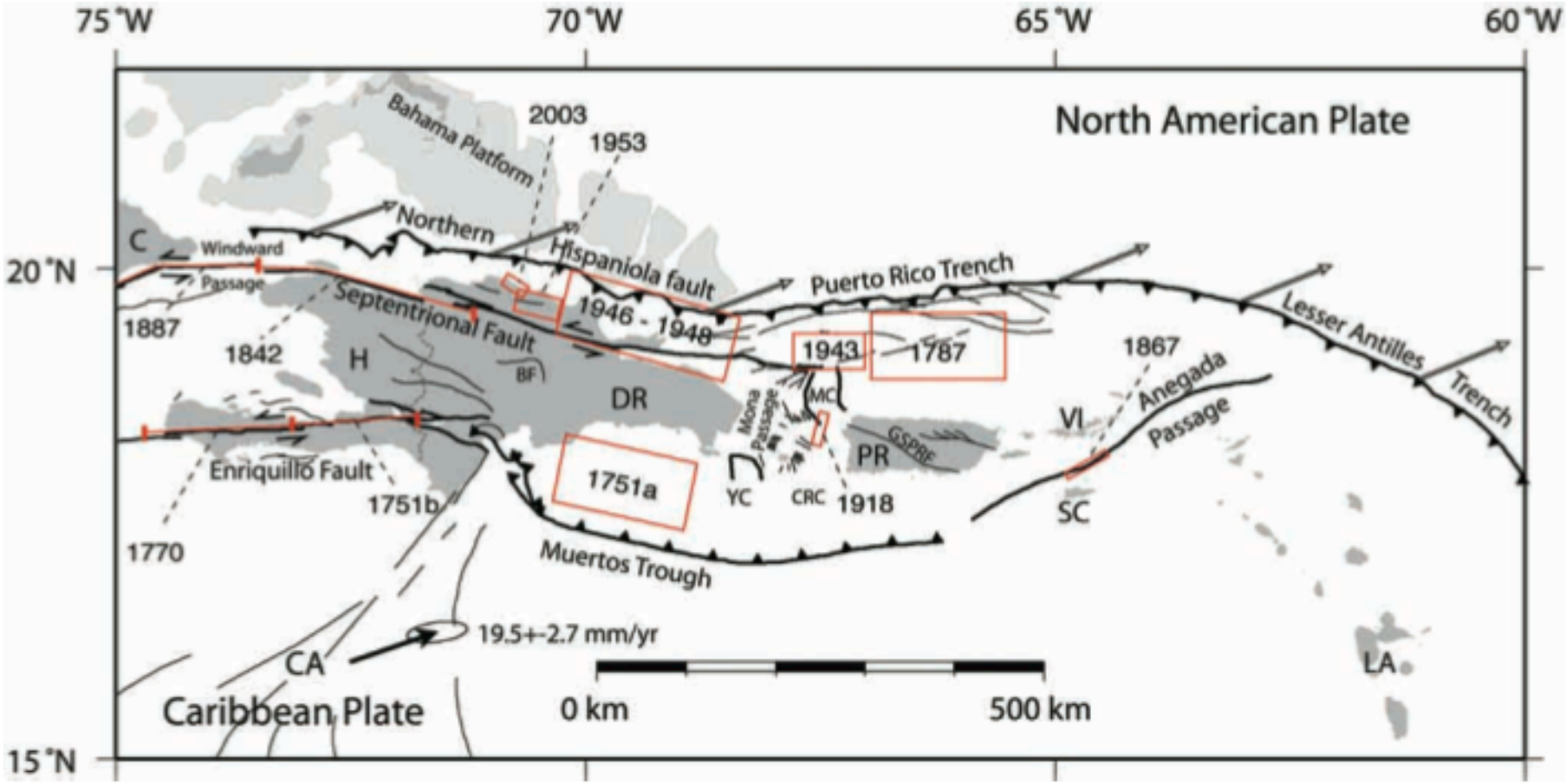
http://news.discovery.com/earth/haiti-earthquake-damage.html



(2010-1751) x 7 mm/yr = 1813 mm accumulated

Could give magnitude 7.2

Manaker et al, 2008



What's next?

Manaker et al, 2008