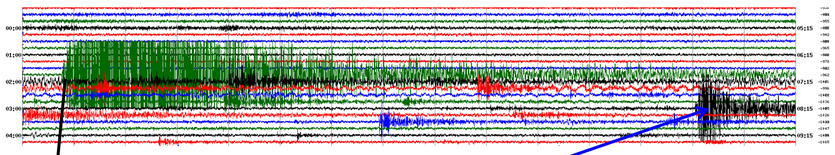
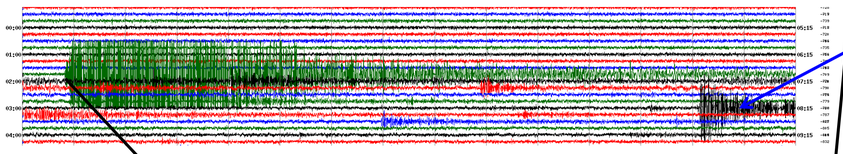
February 27, 2010 Maule Region of Chile earthquake (M 8.8)

University of Kentucky – Kentucky Geological Survey
Kentucky Seismic and Strong-Motion Network

Sonora
SOKY

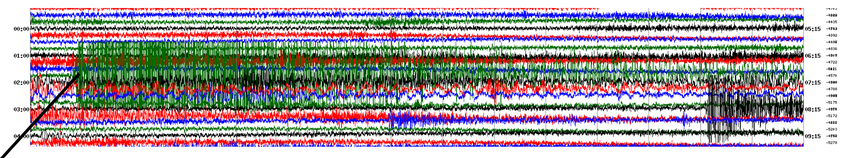


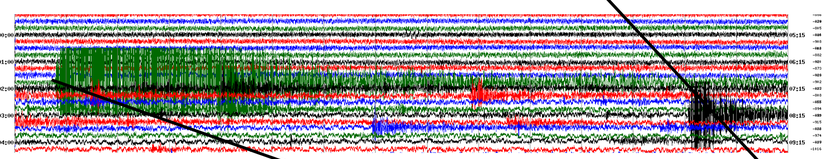
Morganfield
MOKY



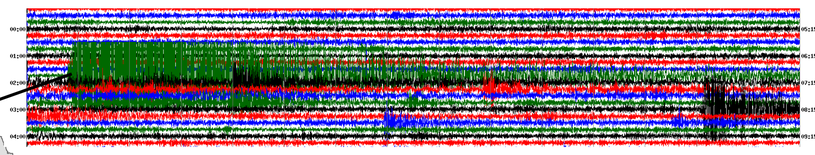
M6.9 aftershock

Lexington
BHKY



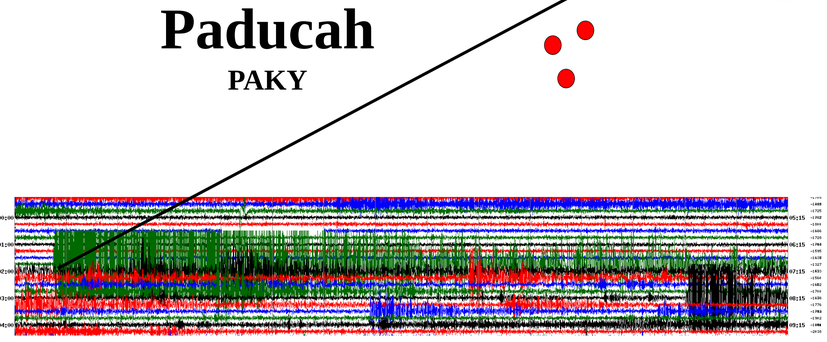


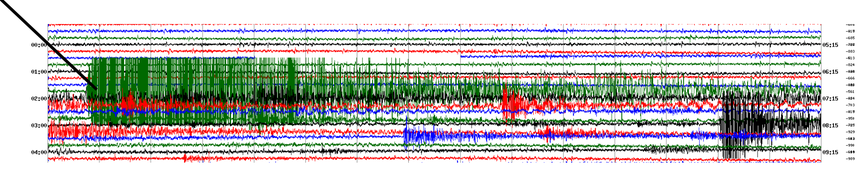
Salem
LOKY



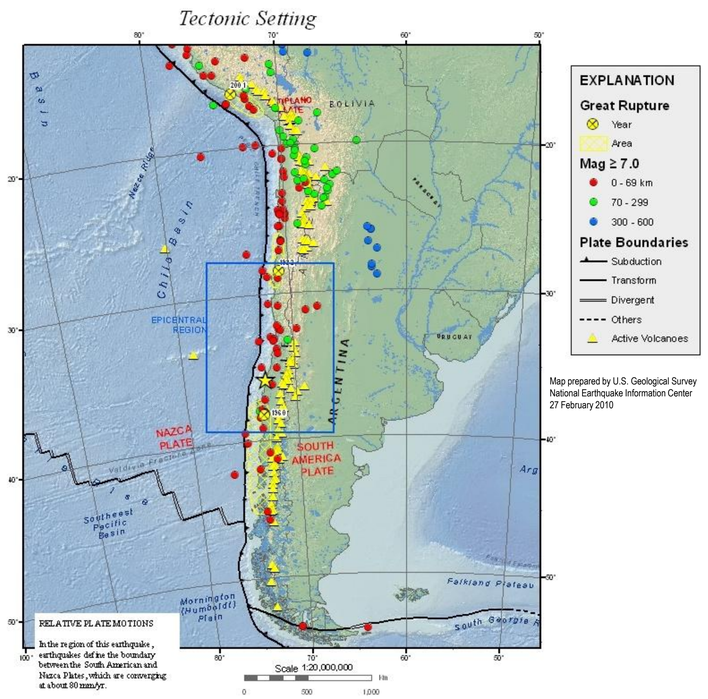
Stanton
ROKY

Paducah
PAKY



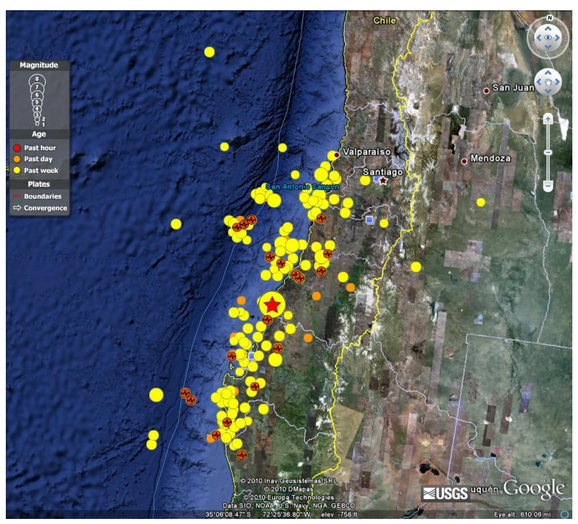


Land Between the Lakes
LLKY



Map prepared by U.S. Geological Survey
National Earthquake Information Center
27 February 2010

Fulgham
FMKY



Aftershock map.
Updated 16:05 UTC

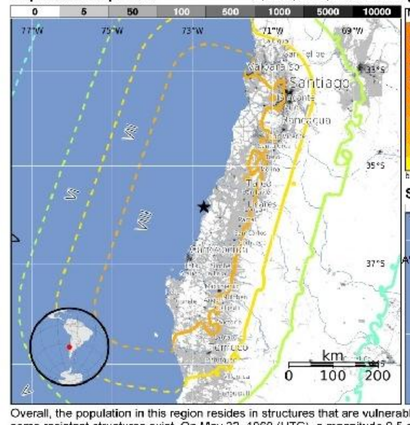
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)		- - *	- - *	454k*	1,667k*	527k*	7,578k	5,124k	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	none	none	none	V. Light	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy
	Vulnerable Structures	none	none	none	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per ~1 sq. km from Landscan

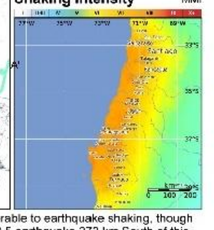


Selected City Exposure

MMI	City	Population
VIII	Arauco	25k
VIII	Lota	50k
VIII	Constitucion	38k
VIII	Concepcion	215k
VIII	Canete	20k
VII	Melipilla	63k
VII	Talca	197k
VII	Rancagua	213k
VII	Temuco	238k
VII	Santiago	4,837k
VI	Valparaiso	282k

bold cities appear on map (k = x1000)

Shaking Intensity MMI



Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though some resistant structures exist. On May 22, 1960 (UTC), a magnitude 9.5 earthquake 273 km South of this one struck Valdivia, Chile, with estimated population exposures of 230,000 at intensity VIII and 216,000 at intensity IX , resulting in a reported 3263 deaths from the earthquake and tsunami. Recent earthquakes in this area have caused tsunamis, landslides, and liquefaction that may have contributed to losses.

This information was automatically generated and has not been reviewed by a seismologist.

http://earthquake.usgs.gov/pager

Event ID: us2010tfan

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