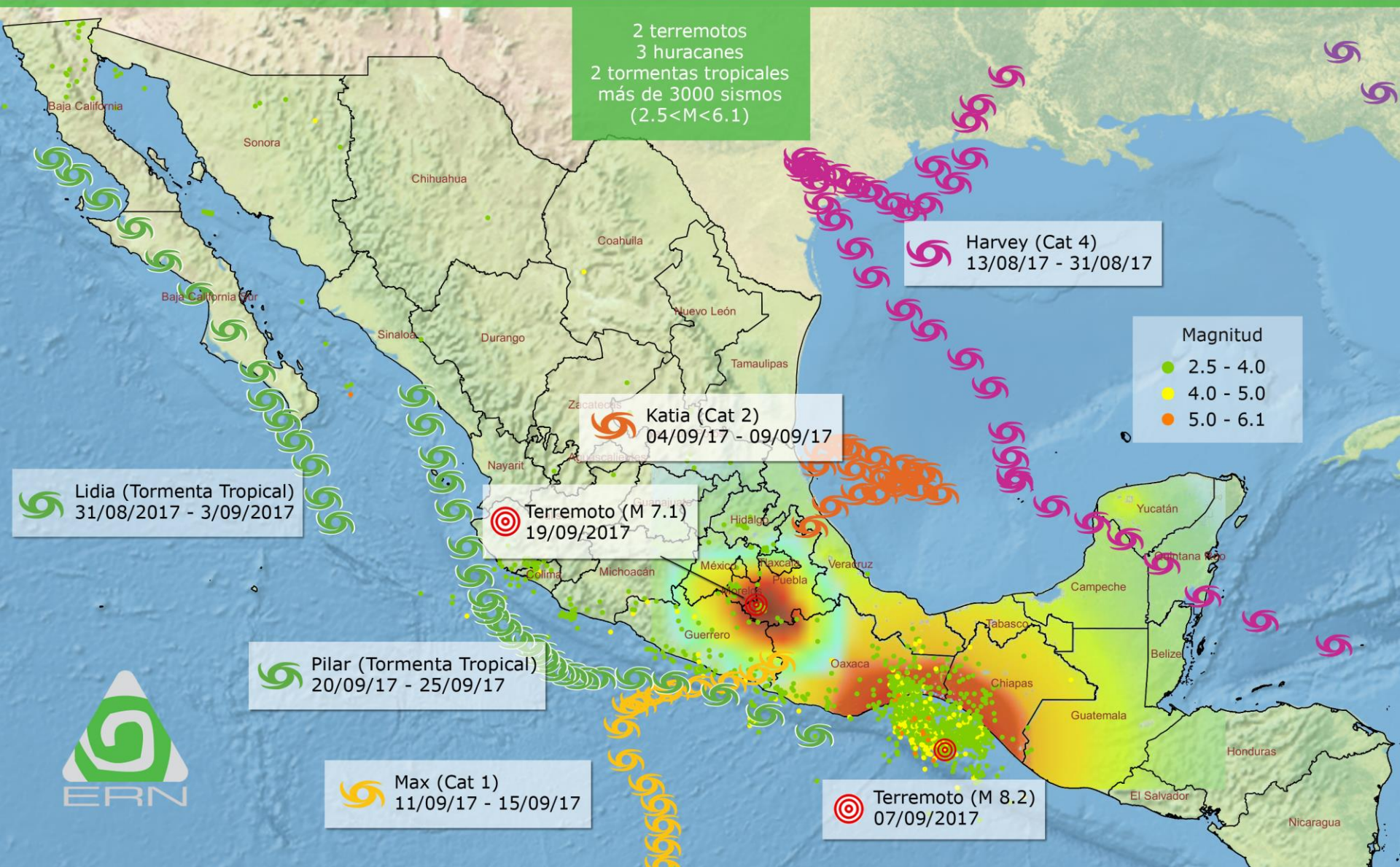


De agosto 13 a septiembre 20

40 días de sismos y huracanes: México puesto a prueba



Shakemaps

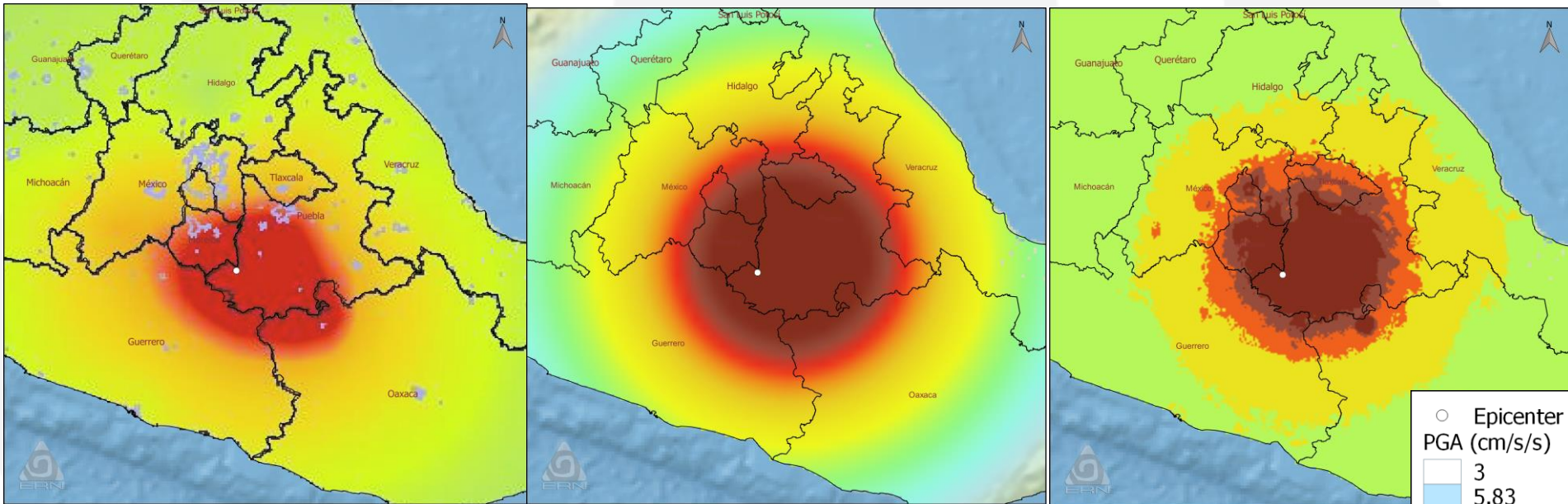


Institute of Engineering (UNAM)

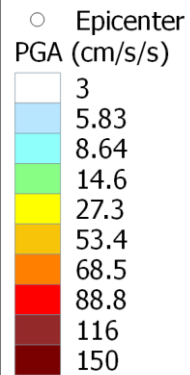
- Automatic information when the earthquake is registered
- Considers the information of the nearest accelerometric stations, interpolation process
- Interpolation considers the attenuation model of *Arroyo et al (2010)*

USGS

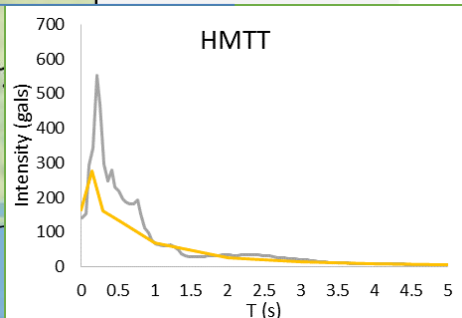
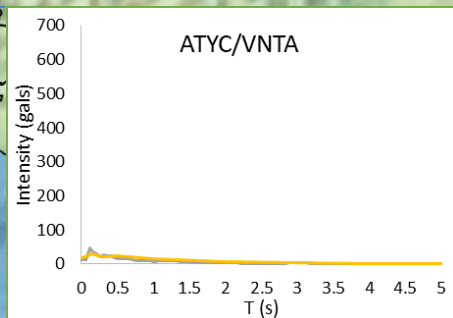
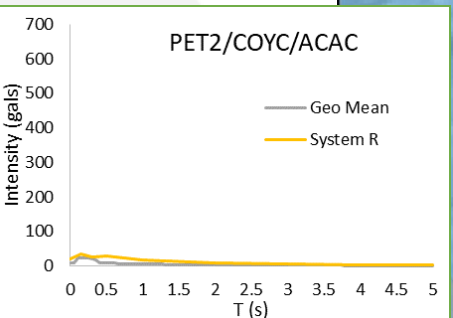
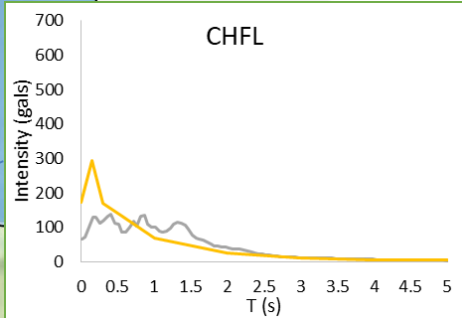
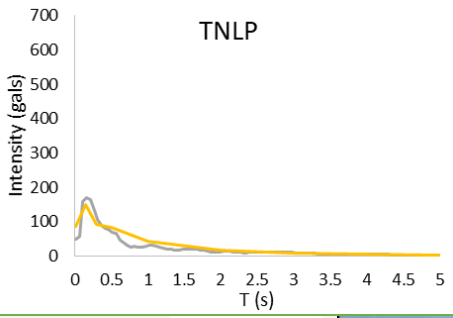
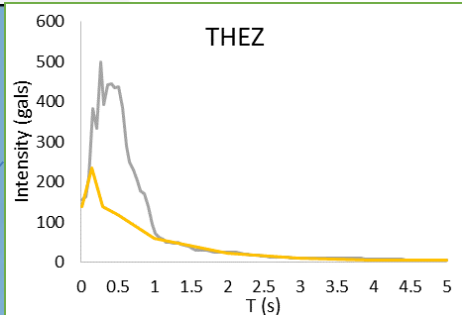
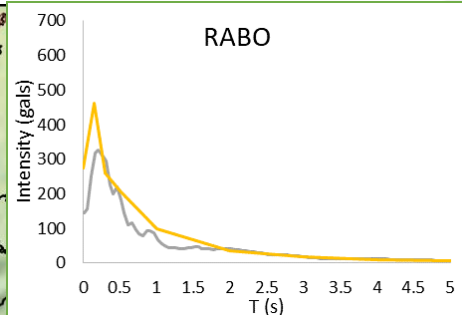
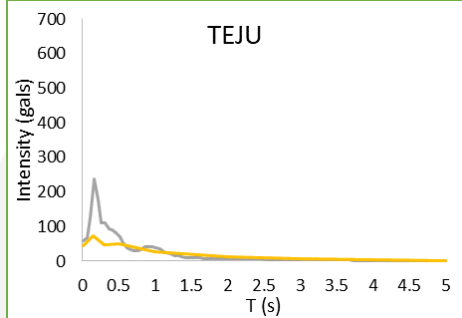
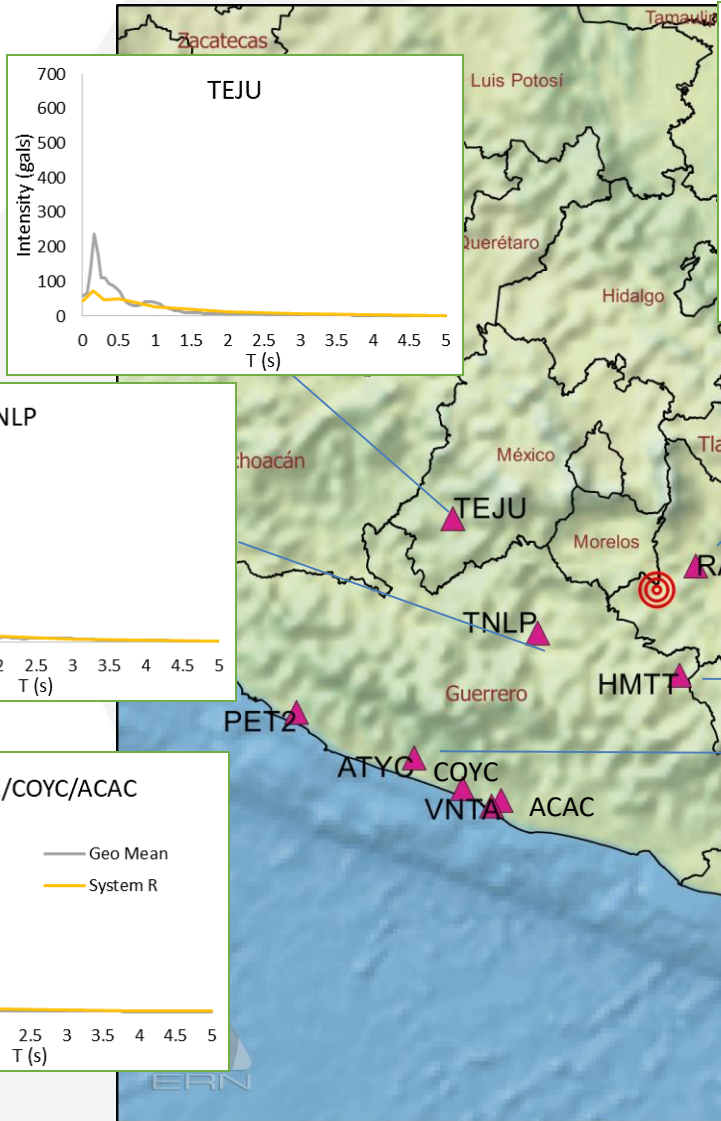
- Takes into account if people felt the shake (DYFI)
- Near seismic stations, the shaking is well constrained by data; far from such stations, the shaking is estimated using standard seismological inferences and geospatial interpolation
- Correct data to 'rock' using Vs30-based amplification terms



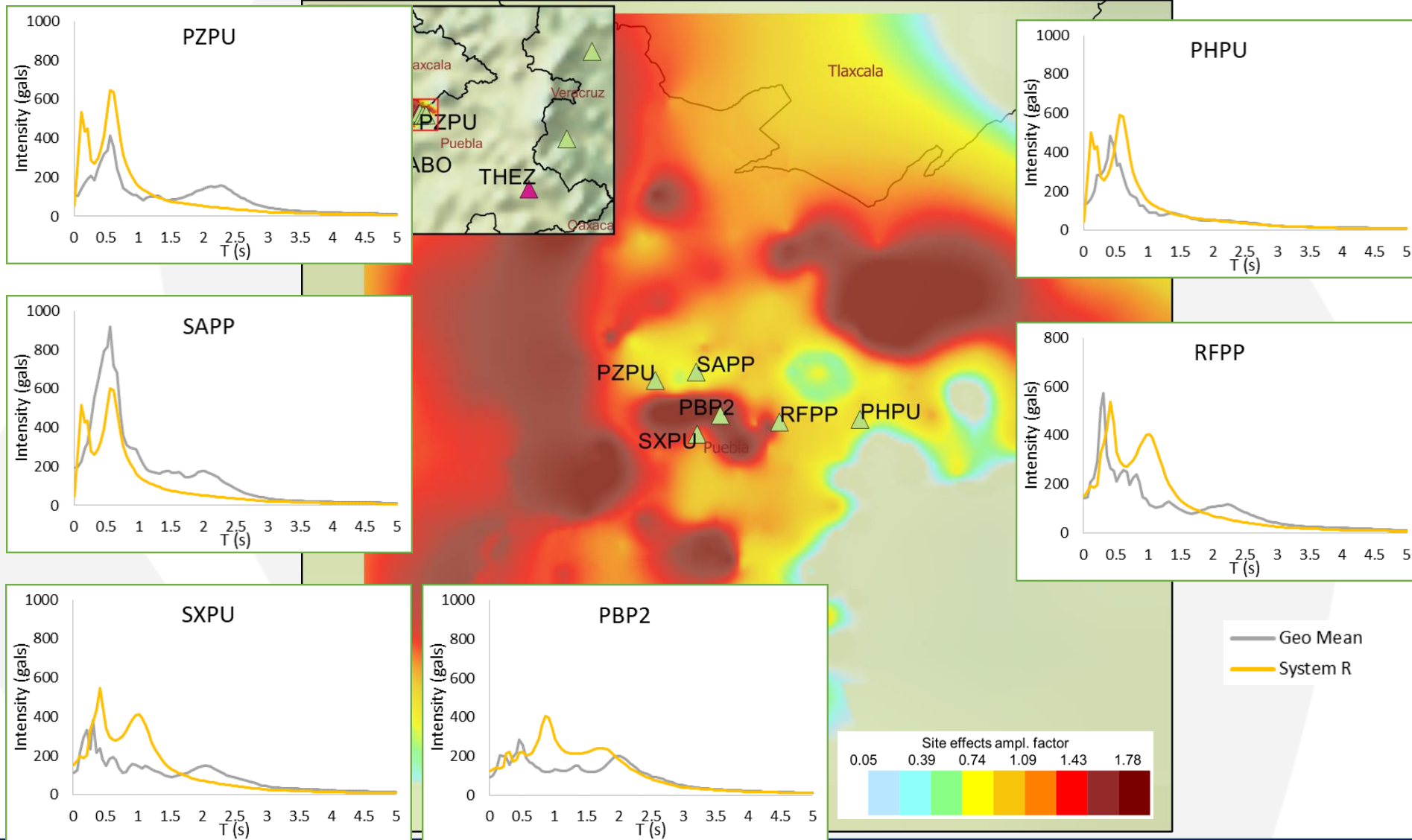
Scenario 9719
Approach in location
Magnitude M7.11



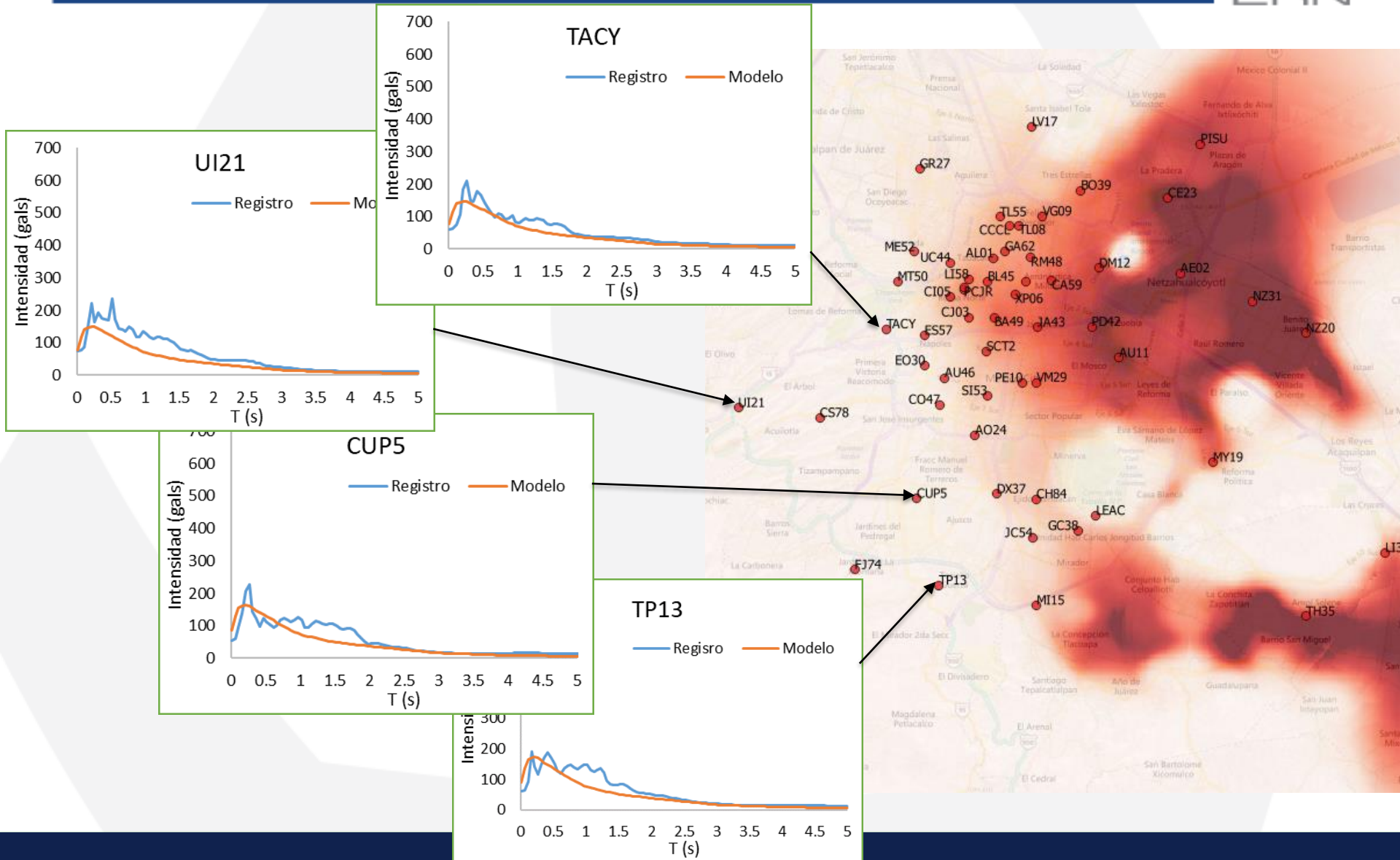
Accelerometric stations in rock



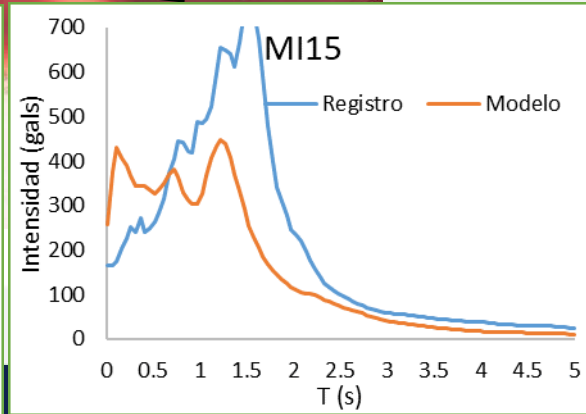
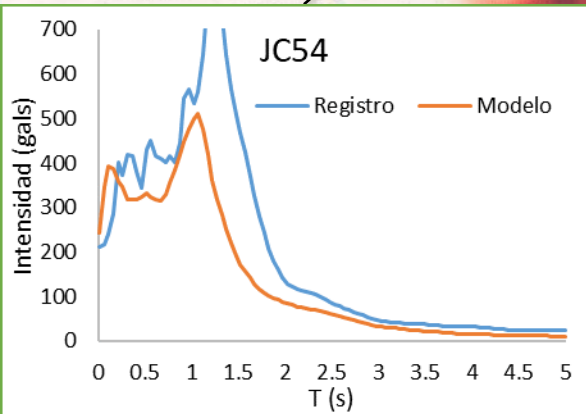
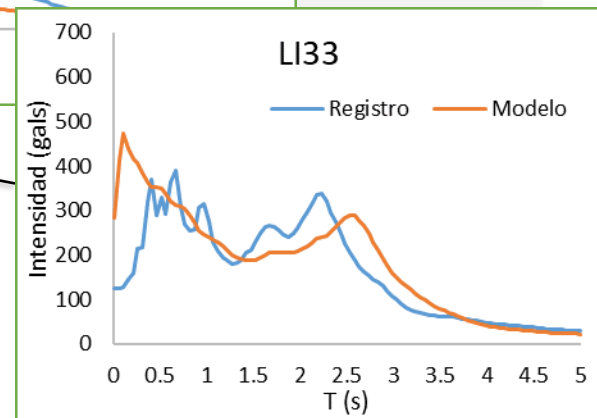
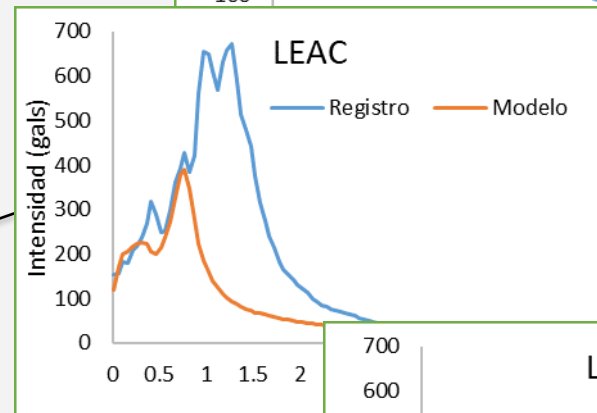
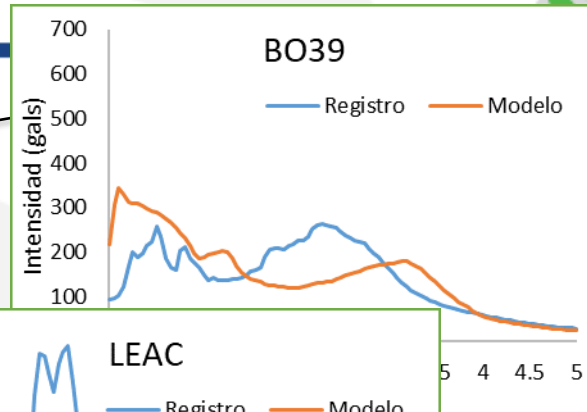
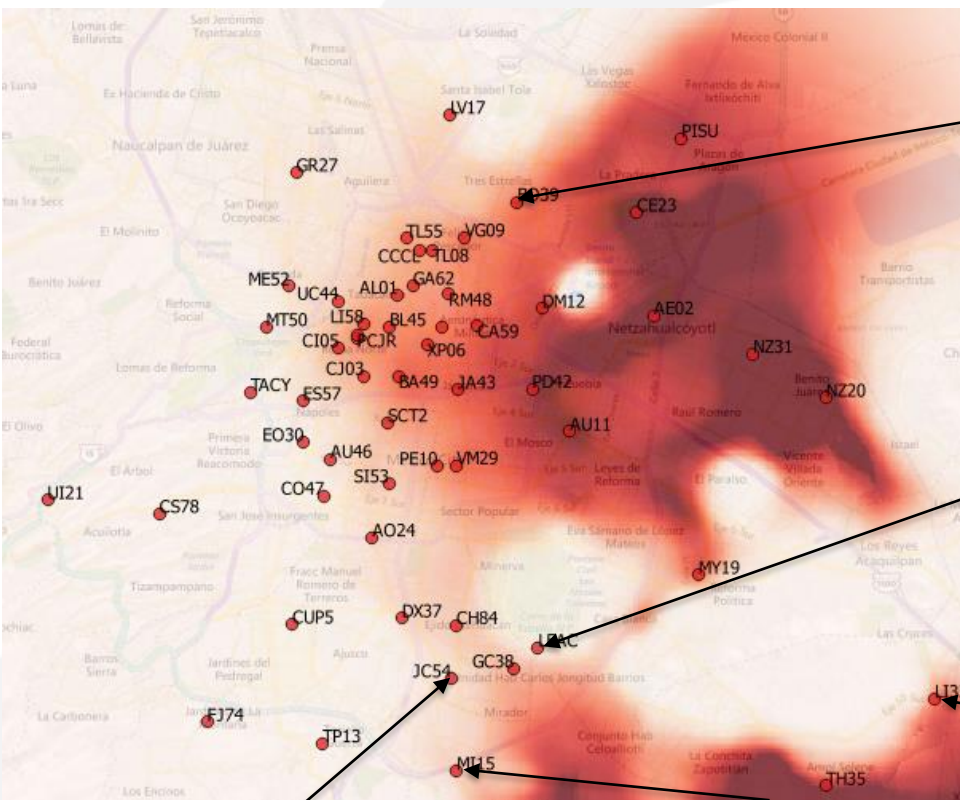
Stations in Puebla (soil)

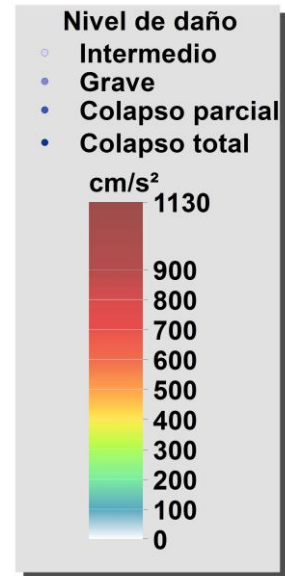
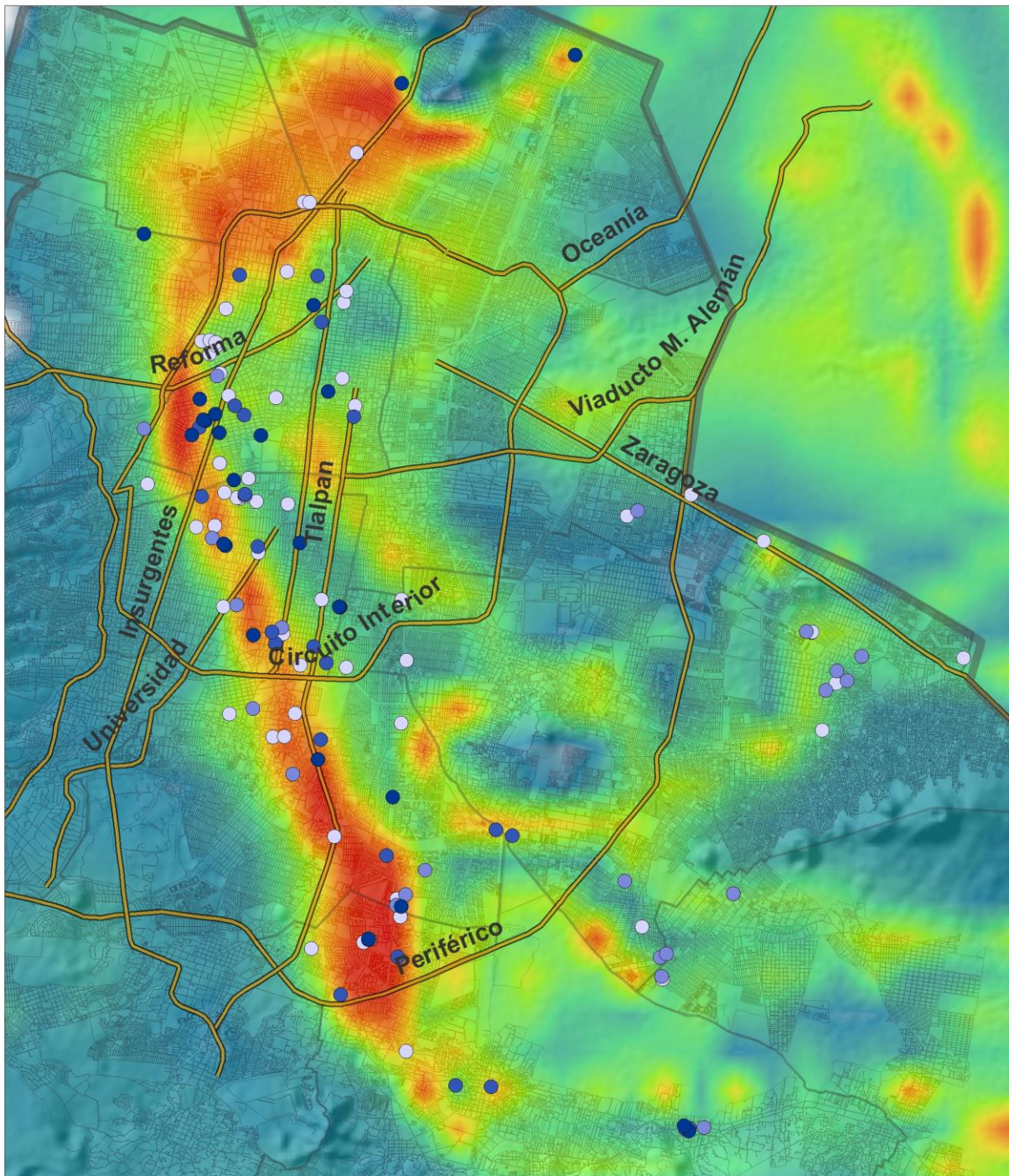


Comparación estaciones DF (Roca)



Comparación estaciones (Suelo)







Edificio en calle Enrique Rébsamen, Delegación Benito Juárez



Antes del sismo



Después del sismo



2013



2017



AYER





Metro Línea 12



Deterioro, Alteraciones y *Daño acumulado*





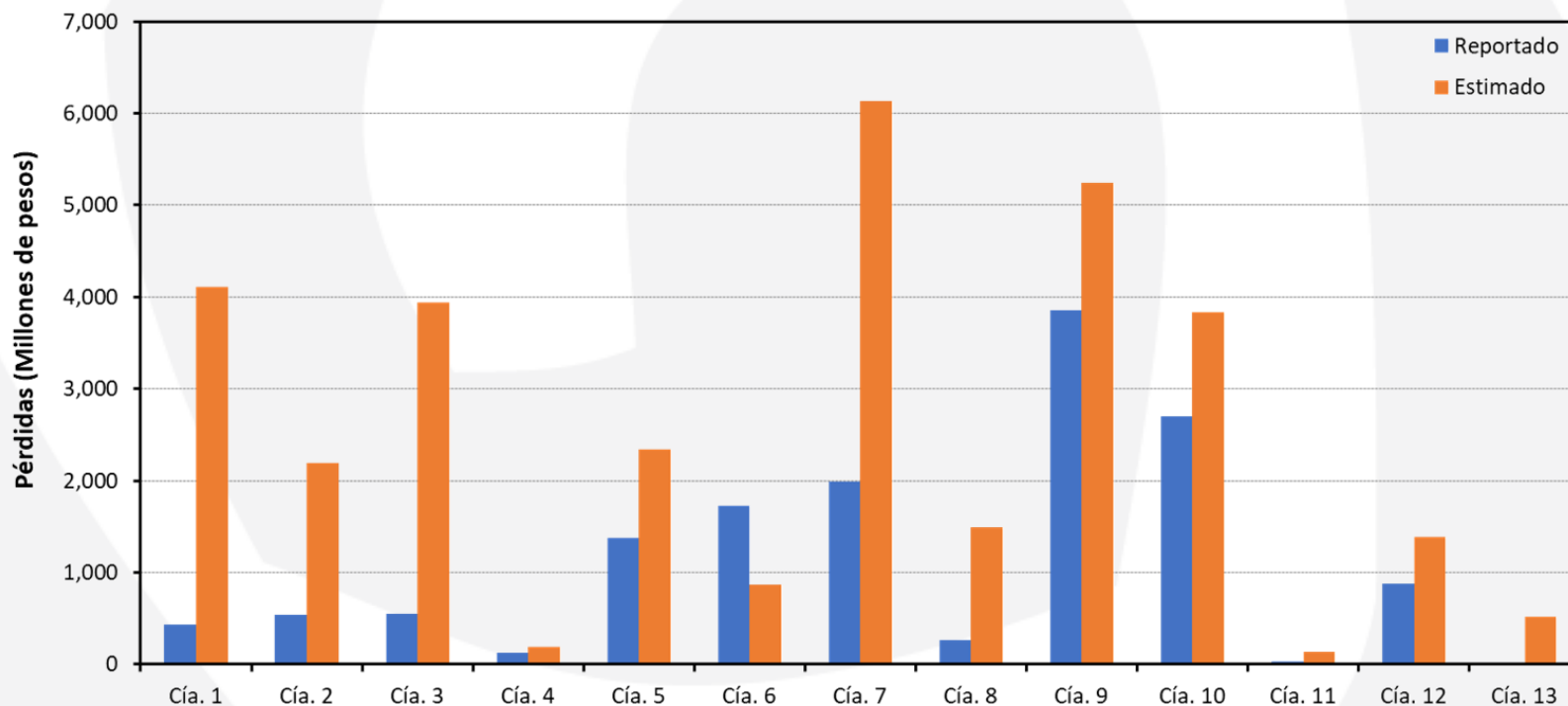
Pérdidas reportadas vs estimadas Sistema R

Evento del 19 de septiembre de 2017



Cartera a diciembre 2015- inflación 7%

Sismo del 19 de septiembre de 2017



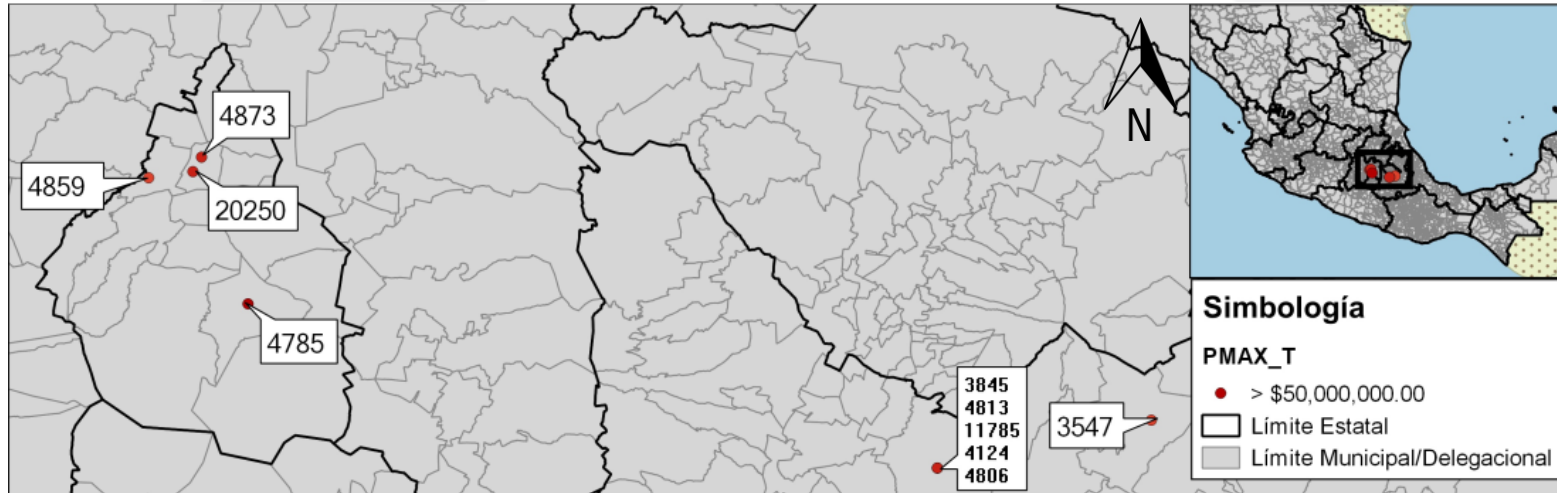
Reportado: \$14,475.42 (45%)

Estimado: \$32,370.02



Sobreestimación esperada,
salvo para una compañía

Datos - Concentrados



10 Ubicaciones con mayores pérdidas

No. Reg.	No. Póliza	V. Asegurable	PMAX Total	PMAX Rel. (%)	Tipo de Construcción	No. de pisos	Uso
4785	20710E00001564	\$8,957,807,225.00	\$658,009,879.83	7.35%	SMex_Industrial_09	1	29
4873	20710E34000095	\$12,071,782,283.00	\$453,611,725.07	3.76%	SMex_Industrial_09	2	29
20250	20710E01001050	\$3,711,492,000.00	\$198,349,922.67	5.34%	SMex_Industrial_09	1	29
4124	20705T03000559	\$1,343,143,130.00	\$194,928,075.27	14.51%	SMex_LosaPlana_01	5	22
4859	20710E34000089	\$15,704,049,197.00	\$169,994,295.06	1.08%	SMex_Industrial_09	1	5
4806	20710E30000070	\$986,593,456.00	\$111,687,085.08	11.32%	SMex_Industrial_09	1	29
3845	20705P00009320	\$1,082,929,443.00	\$89,641,183.98	8.28%	SMex_Industrial_03	1	18
3547	10710D00004580	\$1,573,199,849.00	\$59,496,220.11	3.78%	SMex_Industrial_09	1	29
4813	20710E30000070	\$438,875,158.00	\$57,171,002.42	13.03%	SMex_Industrial_09	1	29
11785	10705P00009961	\$201,090,509.00	\$54,873,482.60	27.29%	SMex_LosaPlana_01	8	17

Hasta 15 mil millones de pesos en un solo inmueble



5. Álvaro Obregón 286



4. Ámsterdam 27



2. Sonora 148



3. Sonora 149



1. Av. México 11



6. Popocatépetl 30



8. Ámsterdam 15



7. Ámsterdam 21



R < 300m:
17 edificios

30% daños
12 % grave
6% colapsó