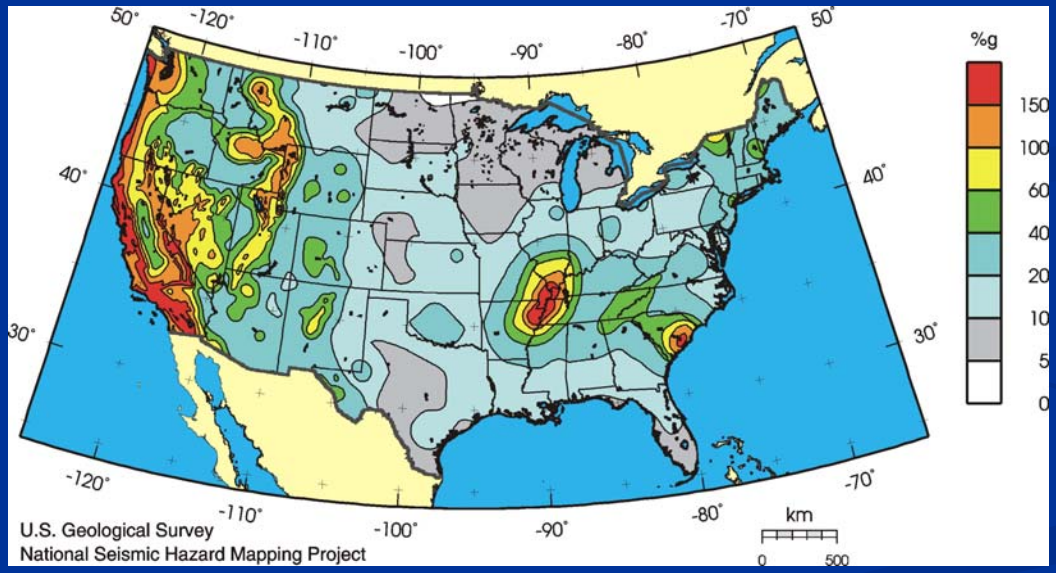
Development of Thailand National Seismic Hazard Maps

Mark D. Petersen, Kathy Haller, Nicolas Luco,
Charles Mueller, and Ivan Wong (URS)



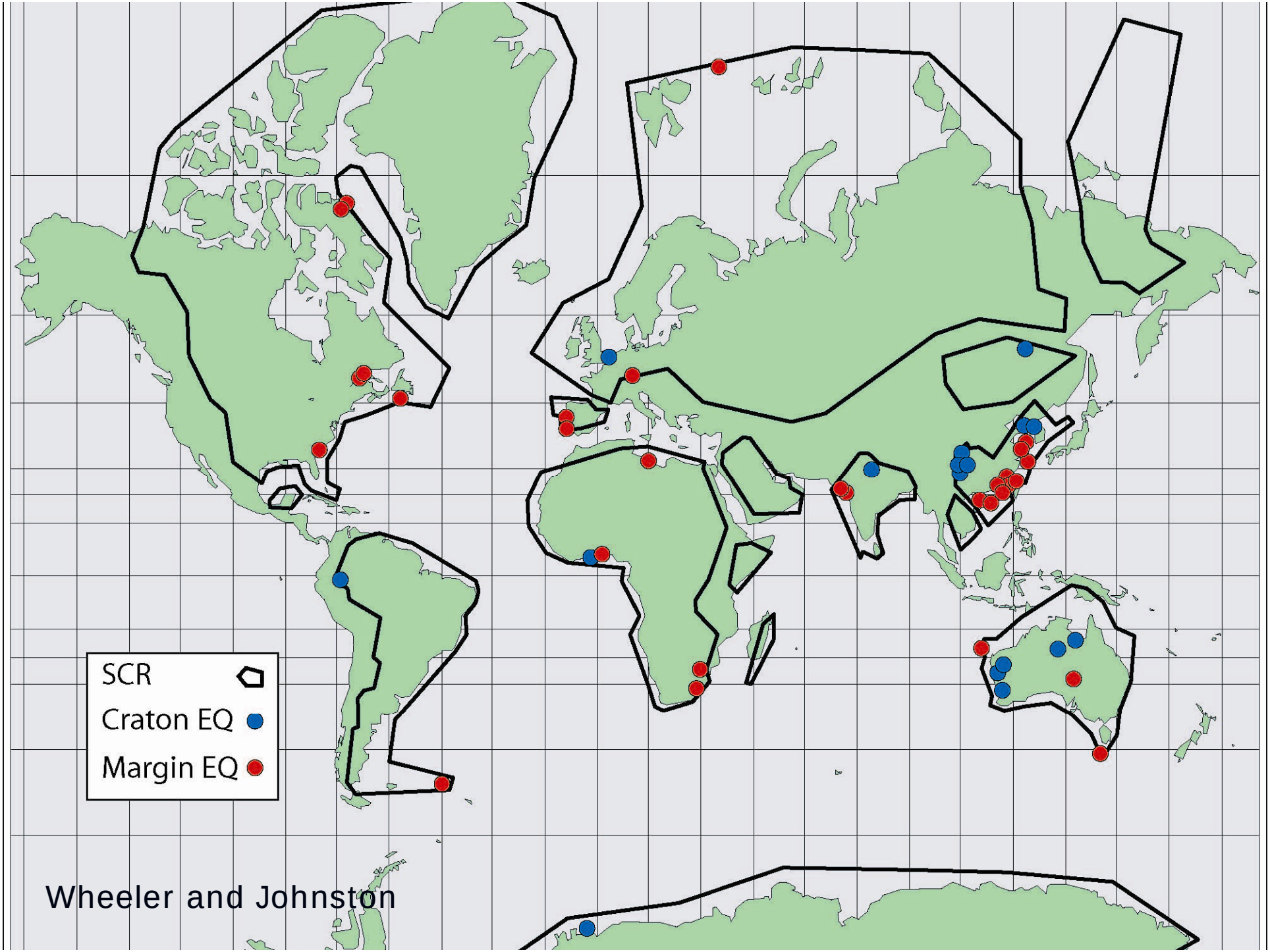
USGS
science for a changing world

Development of Hazard Maps for Thailand sponsored by USAID

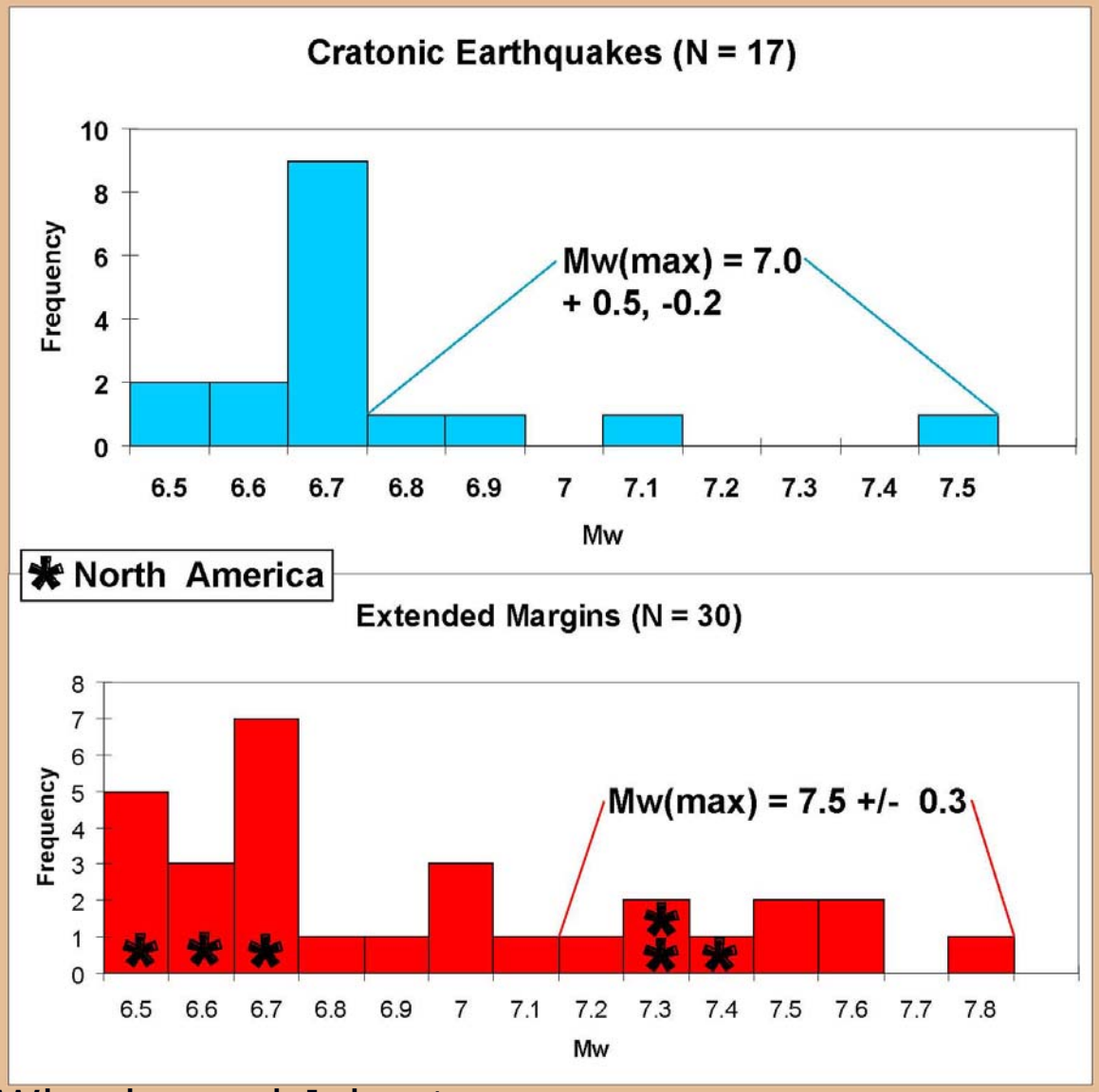
- Importance of communities being built to withstand the effect of earthquakes (tsunamis and ground shaking)
- Indian Ocean Tsunami Warning System
- Thailand Ground Shaking Warning System: Someday earthquake prediction – today hazard maps
- Need to continue process (Worldwide Seismic Safety Initiative)

Why do we need to assess seismic hazard in regions of low seismic activity?

- When earthquakes occur they can cause great catastrophies (e.g., 2004 Sumatra earthquake)
- Knowing risks allows policy makers to plan
- Simple engineering techniques can save lives and cost relatively little for homeowners
- Need to prevent failure of critical facilities (e.g., dams, levees, hospitals, schools, electrical facilities, etc. - Hurricane Katrina)


SCR
Craton EQ
Margin EQ
Wheeler and Johnston

Mw(max) for Tectonic Analogs of Central and Eastern U.S.



Wheeler and Johnston

Earthquakes and Thailand

- Earthquakes will continue to affect Thailand, hazard and risk vary across the country
- Knowing these hazards and risks makes good public policy (building codes)
- Opportunity to generate new consensus hazard maps that can be used for seismic safety and are based on the best available science

Seismic Hazard