

Alaska Seismic Hazards Safety Commission



Statutory Mission (AS 44.37.067)

- Recommend goals and priorities for seismic hazard mitigation to the public and private sectors
- Recommend policies to the governor and the legislature, including needed research, mapping, and monitoring program
- *(additional advisory roles for reducing casualties and losses from future earthquakes)*

Membership (11 members appointed by the Governor to three-year terms)

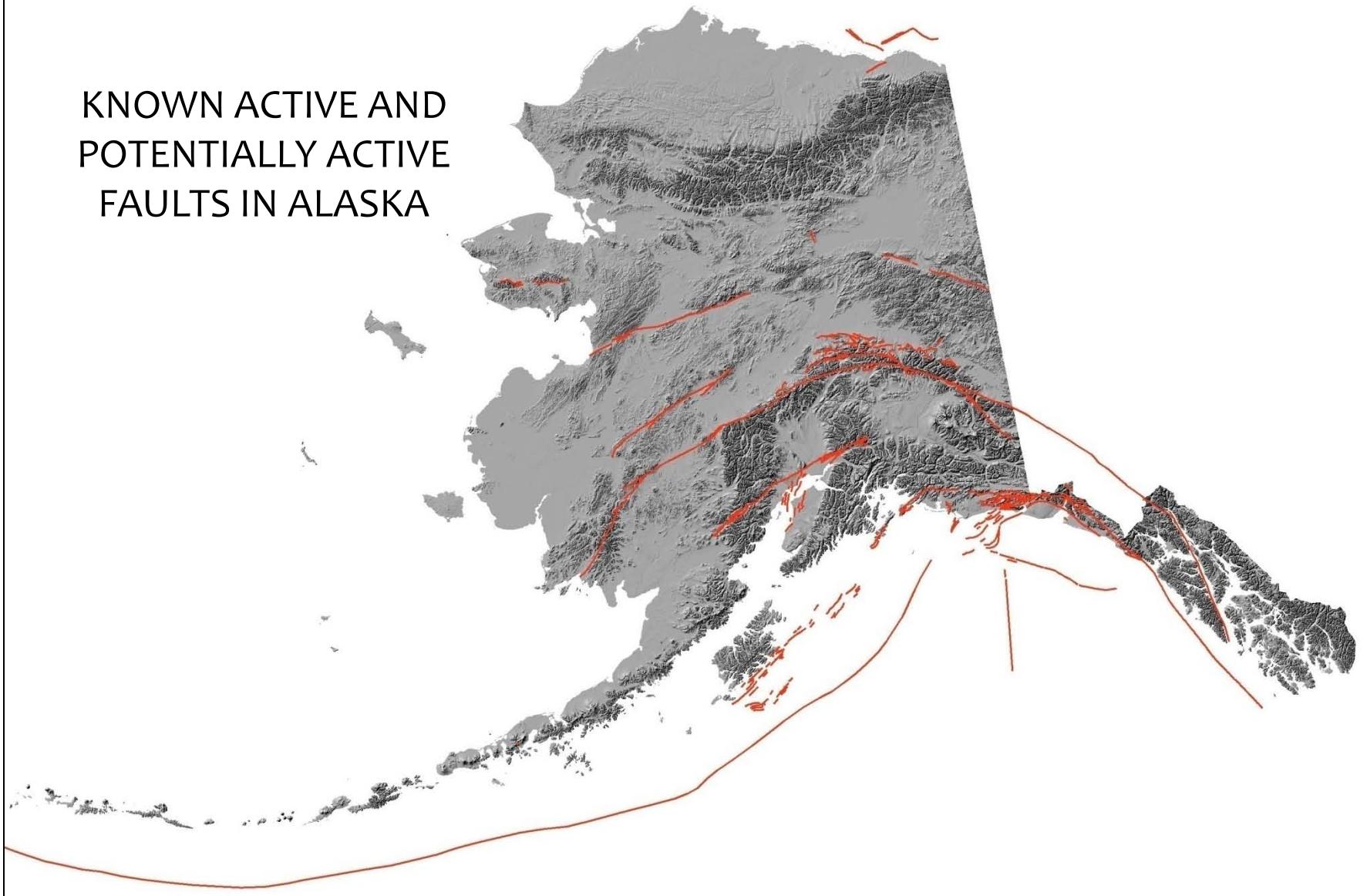
- University of Alaska (1)
- Local government (3 from separate seismically active regions)
- Department of Natural Resources (1)
- Department of Military and Veterans' Affairs (1)
- Federal government (1)
- Insurance industry (1)
- Public members with appropriate earthquake expertise (3)



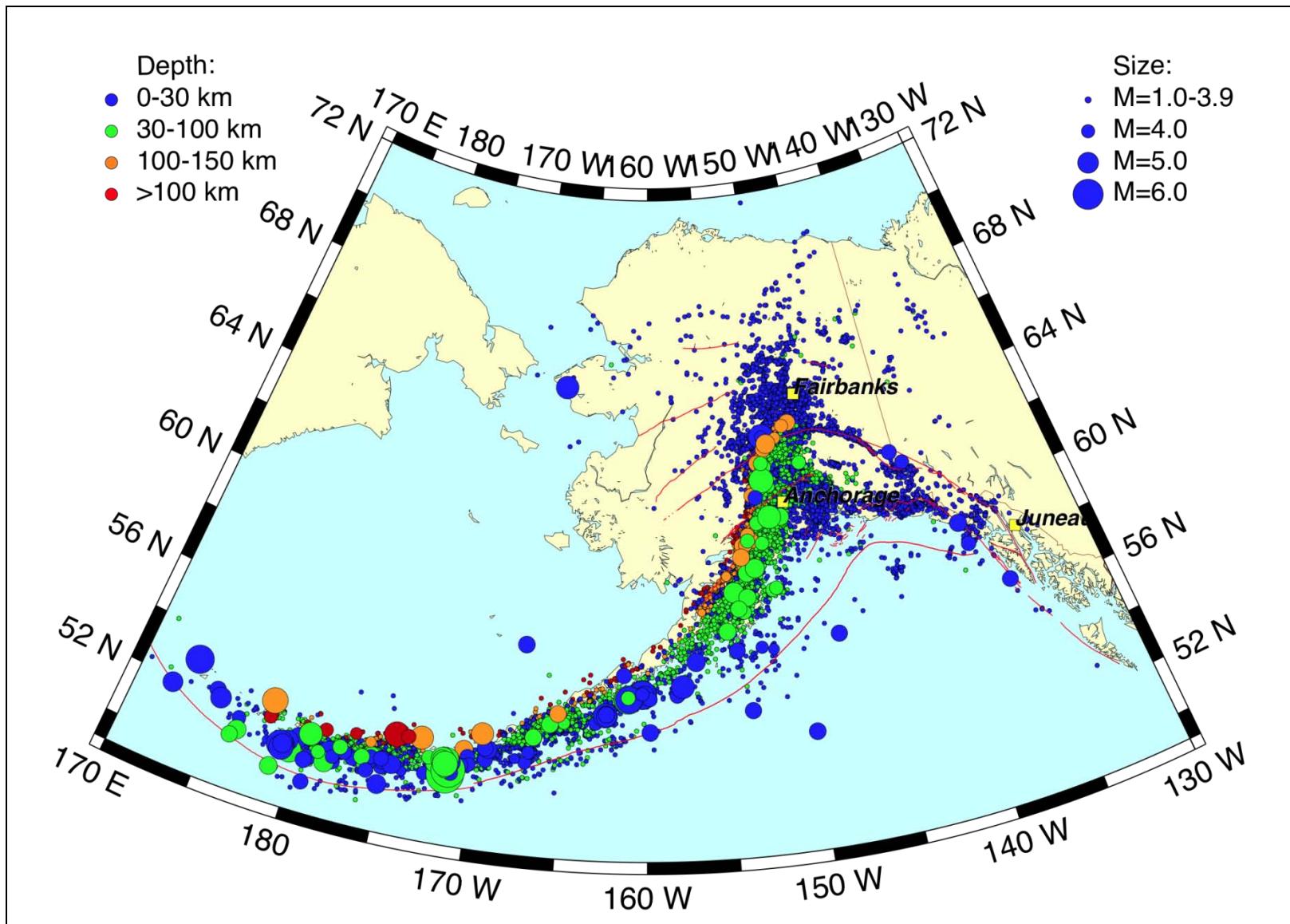
*Administered by the Department of Natural Resources
Division of Geological & Geophysical Surveys*



KNOWN ACTIVE AND POTENTIALLY ACTIVE FAULTS IN ALASKA



Alaska has 65 known surface faults comprising about 1,200 individual splays that have been active during the recent geologic past and are considered potentially active in the near future. Many seismically active areas have not been geologically mapped in the field and are expected to contain many additional active faults.



Earthquakes recorded in Alaska in 2011 through November 16 (22,096).
Data from UAF/AEIC

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ALASKA EARTHQUAKE FACTS

- Eleven percent of the world's recorded earthquakes occur in Alaska.
- Alaska has more frequent earthquakes than the entire rest of the United States.
- Three of the ten largest earthquakes in the world since 1900 have been in Alaska.
- All ten largest earthquakes in the United States since 1900 have been in Alaska.

Since 1900, Alaska has had an average of:

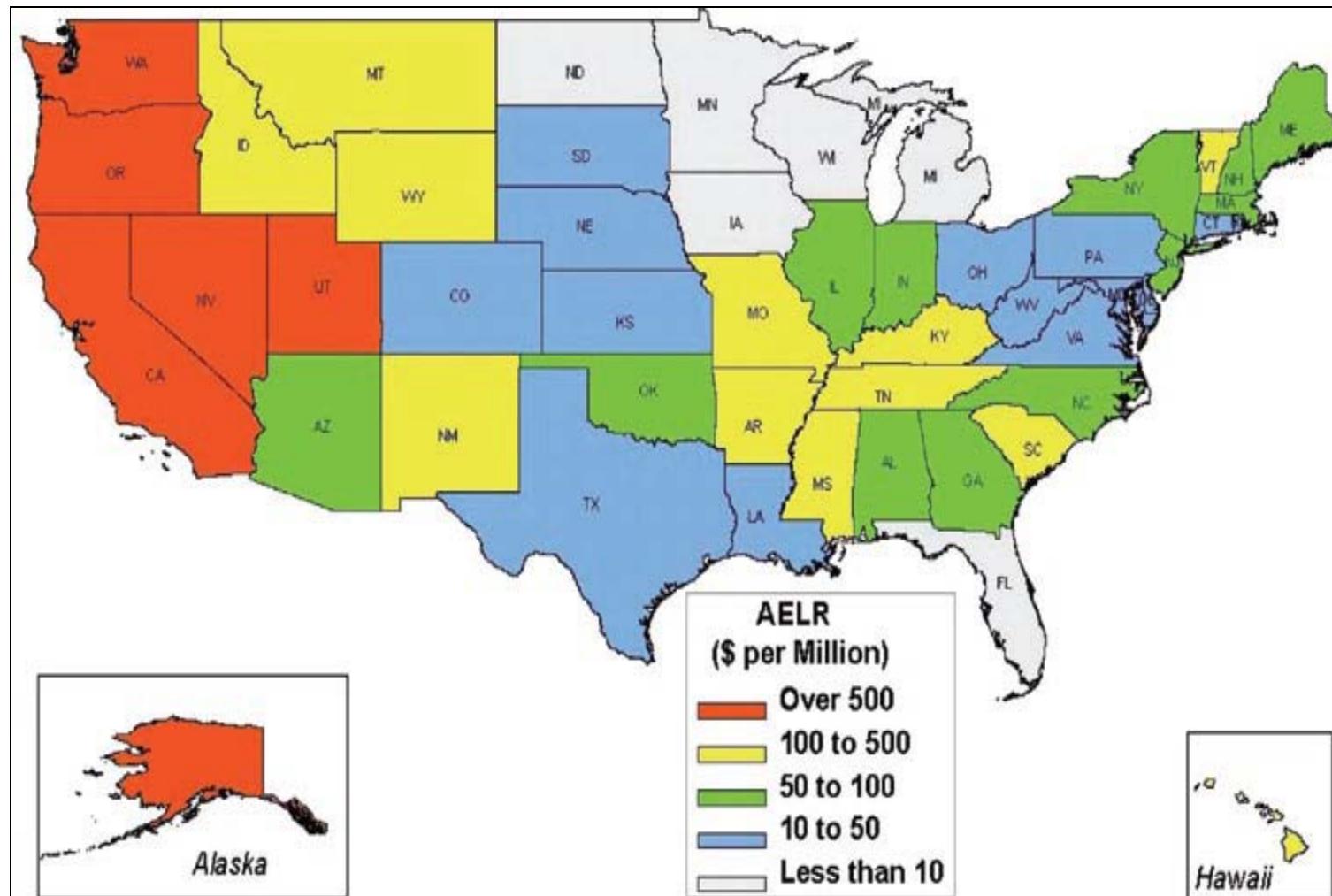
- One “great” (magnitude 8 or larger) earthquake every 13 years.
- One magnitude 7 to 8 earthquake every two years.
- Six magnitude 6 to 7 earthquakes per year.
- Fifty magnitude 5 to 6 earthquakes per year.
- Three hundred magnitude 4 to 5 earthquakes per year.
- Approximately 2,000 earthquakes recorded in Alaska each month.

Fortunately, most of Alaska's large earthquakes have occurred in remote areas with relatively minor consequences, but eventually one will again strike a populated area.

“Earthquakes are inevitable. Disruption is inevitable. But devastation does not have to be.”

—Lucy Jones, USGS (quote from Smithsonian magazine)

Predicted Average Annual Earthquake Loss Ratio



FEMA Report 366b (2008) – Alaska ranks second nationally only to California in predicted average Annual Earthquake Loss Ratio (estimated long-term annual cost of earthquake losses to infrastructure as a proportion of the total infrastructure value)

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Significant commission accomplishments since 2006 reauthorization

- Collaborated with the Department of Education and Early Development to develop new procedures allowing and encouraging school districts to apply their capital improvement funds to the safety evaluation, prioritization, and rehabilitation of school facilities with highest earthquake risks
- Developed eight policy recommendations for consideration by the state administration and legislature to improve seismic safety in future design, construction, and major renovation of public school facilities
- Partnered with the Kodiak Island Borough to initiate an earthquake planning scenario of the area, including coordination of involvement by FEMA, U.S. Coast Guard, City of Kodiak, and the private sector. Results of the scenario, which is currently in progress, will be used as a tool for developing local seismic risk mitigation policies and response plans.
- To promote public education on seismic-risk mitigation, members developed a two-day public training course on Post-Earthquake Safety Assessment of Facilities. Approximately 100 people were trained in 2011 and the Commission will continue to offer at least two classes per year.
- Assisted the Division of Homeland Security & Emergency Management in revising the seismic hazard section of the State Hazard Mitigation Plan for 2010.