

Hazard Model for Alaska

$$5.0 \leq M \leq 7.0^*$$

Spatially Smoothed Seismicity

Shallow Earthquakes (0-50 km)
 $5.0 \leq M \leq 7.3$

Deeper Earthquakes (50-80 km)
 $5.0 \leq M \leq 7.0$

Deepest Earthquakes (80-120 km)
 $5.0 \leq M \leq 7.0$

Megathrust source zones
 $5.0 \leq M \leq 7.0$

$$M \geq 7.0$$

Megathrust Zone

Equal weights on two segmentation models with recurrence rates for truncated Gutenberg-Richter determined from historical seismicity and recurrence rate for Characteristic Model in 1964 zone determined from geologic studies

Faults with "known" segmentation (A)

Characteristic Model using slip rates to obtain recurrence of maximum earthquake

Faults with "unknown" segmentation (B)

Equal weights on Characteristic Model and truncated Gutenberg-Richter for 7.0 to maximum magnitude, and using slip rates for recurrence

*An upper limit of magnitude 7.3 was adopted for the shallow earthquakes to accommodate the possible occurrence of a background earthquake of that magnitude.

