

Table 1. Fault Characteristics

| Fault (segment) | M_{char} (M_{max}) (from length) | Slip rate (mm/yr) | Recurrence time ¹ for characteristic earthquake (years) | Characteristic (A) or Hybrid (B) | References |
|-----------------------|--|-------------------|--|----------------------------------|--|
| Queen Charlotte | 8.1 | 58 | 130 | A | Nishenko and Jacob (1990) |
| Fairweather, offshore | 7.9 | 52 | 120 | A | Nishenko and Jacob (1990); Plafker et al. (1993) |
| Fairweather, onshore | 7.8 | 52 | 110 | A | Nishenko and Jacob (1990) |
| Denali, southeast | 8.1 ² | 2 | 1900 | B | Plafker et al. (1993) |
| Denali, central | 8.0 | 10 | 700 | B | Plafker et al. (1993) |
| Totschunda | 7.7 | 11.5 | 400 | B | Plafker et al. (1993) (See text) |
| Castle Mountain | 7.5 ³ | 0.5 | 5000 | B | (See text) |
| Transition | 8.2 | 10 | 200 | A | (See text) |

¹ Recurrence times are estimated from the rate of seismic moment release for earthquakes of the characteristic magnitude required to balance the observed geologic slip rate, and are rounded to two significant figures.

² On the basis of length alone the southeast Denali fault would give a magnitude exceeding 8.1. However, there seems to be no historical precedent for a continental, strike-slip fault generating an earthquake with a moment magnitude, M_w , exceeding 8.1.

³ On the basis of length alone, the Castle Mountain fault would yield a magnitude of 7.8. In view of the uncertainties of the length, slip rate and other seismic characteristics of the fault, a lower value of 7.5 was adopted. Because this lower estimate leads to more frequent earthquakes, and thus higher estimates of hazard, this is considered an appropriately conservative assumption.

