ACTN (34.46, -118.18) : 1Hz

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

Ground Motion (g)

UCERF3 Mean, below [2%in50, 10%in50]

Fault [97%, 96%]

BG [3%, 4%]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [97%, 96%]

BG [3%, 4%]
AC01 (34.42, −118.10) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [ 96%, 95% ]

BG [ 4%, 4% ]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [ 97%, 96% ]

BG [ 3%, 4% ]
Big Sur (36.25, −121.75) : 1Hz

10% in 50 yrs AFE
2% in 50 yrs AFE

Ground Motion (g)

Annual Frequency of Exceedance

UCRF3 Mean, below [2%in50, 10%in50]
Fault [95%, 83%]
BG [5%, 17%]
UCRF2 Mean, below [2%in50, 10%in50]
Fault [86%, 83%]
BG [13%, 17%]
Bakersfield (35.35, -119.00) : 1Hz

- 10% in 50 yrs AFE
- 2% in 50 yrs AFE

Ground Motion (g)

Annual Frequency of Exceedance

UCERF3 Mean, below [2%in50, 10%in50]
Fault [46%, 60%]
BG [53%, 40%]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [58%, 70%]
BG [41%, 30%]
Brawley (33.00, −115.55) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

Annual Frequency of Exceedance

Ground Motion (g)

UCERF3 Mean, below [2%in50, 10%in50]
Fault [ 99% , 98% ]
BG [ 1% , 2% ]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [ 94% , 93% ]
BG [ 6% , 7% ]
BKBU (34.56, −117.73) : 1Hz

**Ground Motion (g)**

**Annual Frequency of Exceedance**

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [93%, 93%]
- BG [7%, 7%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [95%, 94%]
- BG [5%, 6%]
Ground Motion (g)  

Annual Frequency of Exceedance

Brookings (42.05, −124.25) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE
Carson City (39.15, −119.75) : 1Hz

- Annual Frequency of Exceedance
- Ground Motion (g)

- 10% in 50 yrs AFE
- 2% in 50 yrs AFE
Century City (34.05, -118.40) : 1Hz

**Ground Motion (g)**

**Annual Frequency of Exceedance**

- **UCERF3 Mean, below [2%in50, 10%in50]**
- **Fault** [92%, 87%]
- **BG** [8%, 13%]
- **UCERF2 Mean, below [2%in50, 10%in50]**
- **Fault** [97%, 95%]
- **BG** [3%, 5%]

10% in 50 yrs AFE
2% in 50 yrs AFE
annual frequency of exceedance (AFE) for Coalinga (36.15, -120.40) at 1Hz. The chart shows the ground motion (g) in a logarithmic scale, with the annual frequency of exceedance also in a logarithmic scale. Key features include:

- **10% in 50 yrs AFE**
- **2% in 50 yrs AFE**

The chart includes data for two models:

1. **UCERF3 Mean, below [2%in50, 10%in50]**
   - Fault: 69%, 62%
   - BG: 31%, 38%

2. **UCERF2 Mean, below [2%in50, 10%in50]**
   - Fault: 91%, 88%
   - BG: 9%, 12%
Concord (37.95, -122.00) : 1Hz

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [99%, 97%]
- BG [1%, 3%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [98%, 97%]
- BG [2%, 3%]
Cucamonga (34.20, -117.55) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE
2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [98%, 94%]
BG [2%, 6%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [100%, 99%]
BG [0%, 1%]
Diablo Canyon (35.20, −120.85) : 1Hz

\begin{align*}
\text{Annual Frequency of Exceedance} & \quad \text{Ground Motion (g)} \\
\end{align*}

- 10% in 50 yrs AFE
- 2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [95%, 85%]
- BG [5%, 15%]

UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [95%, 88%]
- BG [5%, 12%]
Death Valley (36.35, -116.85) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [96%, 72%]
- BG [4%, 27%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [99%, 94%]
- BG [1%, 5%]
Annual Frequency of Exceedance

Ground Motion (g)

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [98%, 90%]
- BG [2%, 9%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [99%, 96%]
- BG [1%, 4%]

10% in 50 yrs AFE

2% in 50 yrs AFE

Eureka (40.80, −124.20) : 1Hz
Fresno (36.75, −119.75) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

Annual Frequency of Exceedance vs. Ground Motion (g)

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [40%, 54%]
BG [59%, 46%]
UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [59%, 72%]
BG [39%, 27%]
GLBT (33.96, −117.38) : 1Hz

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

Ground Motion (g)

10^{-2} 10^{-1} 10^{0}

10^{-8} 10^{-6} 10^{-4} 10^{-2} 10^{0}

UCERF3 Mean, below [2%in50, 10%in50]

Fault [80%, 79%]

BG [20%, 21%]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [87%, 88%]

BG [13%, 12%]
Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [77%, 79%]
- BG [23%, 21%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [85%, 87%]
- BG [15%, 13%]
Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

<table>
<thead>
<tr>
<th>Fault</th>
<th>UCERF3 Mean, below [2%in50, 10%in50]</th>
<th>UCERF2 Mean, below [2%in50, 10%in50]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irvine (33.65, −117.80) : 1Hz</td>
<td>Fault [79%, 78%]</td>
<td>Fault [88%, 84%]</td>
</tr>
<tr>
<td></td>
<td>BG [21%, 22%]</td>
<td>BG [12%, 16%]</td>
</tr>
</tbody>
</table>
Ground Motion (g)

Annual Frequency of Exceedance

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [95%, 92%]
BG [5%, 8%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [98%, 96%]
BG [2%, 4%]

10% in 50 yrs AFE
2% in 50 yrs AFE
Ground Motion (g)

Annual Frequency of Exceedance

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [92%, 92%]
BG [8%, 8%]
UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [90%, 89%]
BG [10%, 11%]
Ground Motion (g)

Annual Frequency of Exceedance

UCERF3 Mean, below [2% in 50, 10% in 50]

Fault [93%, 93%]

BG [7%, 7%]

UCERF2 Mean, below [2% in 50, 10% in 50]

Fault [95%, 94%]

BG [5%, 6%]

10% in 50 yrs AFE

2% in 50 yrs AFE

LBUT2 (34.59, -117.81) : 1Hz
Long Beach (33.80, -118.20) : 1Hz

Annual Frequency of Exceedance vs. Ground Motion (g)

- 10% in 50 yrs AFE
- 2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
 Fault [ 91% , 82% ]
 BG [ 9% , 18% ]

UCERF2 Mean, below [2%in50, 10%in50]
 Fault [ 92% , 87% ]
 BG [ 8% , 13% ]
Los Angeles (34.05, -118.25) : 1Hz

<table>
<thead>
<tr>
<th>Fault</th>
<th>UCERF3 Mean, below [2% in 50, 10% in 50]</th>
<th>UCERF2 Mean, below [2% in 50, 10% in 50]</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG</td>
<td>[7%, 12%]</td>
<td>[2%, 5%]</td>
</tr>
<tr>
<td>UCERF3</td>
<td>[93%, 88%]</td>
<td>[98%, 95%]</td>
</tr>
</tbody>
</table>

10% in 50 yrs AFE
2% in 50 yrs AFE
Ground Motion (g)

Annual Frequency of Exceedance

Malibu West (34.05, −118.95) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
Fault [86%, 78%]
BG [14%, 22%]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [98%, 93%]
BG [2%, 6%]
Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE
2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
Fault [94%, 86%]
BG [5%, 13%]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [97%, 95%]
BG [3%, 5%]
Monterey (36.60, -121.90) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE
2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
Fault [94%, 87%]
BG [6%, 13%]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [86%, 81%]
BG [14%, 19%]
MKBD (33.88, -117.39) : 1Hz

Annual Frequency of Exceedance vs. Ground Motion (g)

- 10% in 50 yrs AFE
- 2% in 50 yrs AFE

Fault
  - UCERF3 Mean, below [2%in50, 10%in50] [76%, 81%]
  - UCERF2 Mean, below [2%in50, 10%in50] [83%, 86%]

BG
  - UCERF3 Mean, below [2%in50, 10%in50] [24%, 19%]
  - UCERF2 Mean, below [2%in50, 10%in50] [17%, 14%]
Morgan Hill (37.15, −121.65) : 1Hz

Annual Frequency of Exceedance

<table>
<thead>
<tr>
<th>Ground Motion (g)</th>
<th>2% in 50 yrs AFE</th>
<th>10% in 50 yrs AFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>10^{-2}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10^{-1}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10^{0}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

UCERF3 Mean, below [2%in50, 10%in50]

- Fault [99%, 97%]
- BG [1% , 3%]

UCERF2 Mean, below [2%in50, 10%in50]

- Fault [96%, 95%]
- BG [4% , 5%]
**MRVY (33.93, -117.17) : 1Hz**

- **10% in 50 yrs AFE**
- **2% in 50 yrs AFE**

**Ground Motion (g)**

Annual Frequency of Exceedance

**UCERF3 Mean, below [2%in50, 10%in50]**
- Fault: [98%, 90%]
- BG: [2%, 10%]

**UCERF2 Mean, below [2%in50, 10%in50]**
- Fault: [98%, 97%]
- BG: [1%, 3%]
Northridge (34.20, -118.55) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [ 80%, 78% ]

BG [ 20%, 22% ]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [ 93%, 94% ]

BG [ 7%, 6% ]
NUEVO (33.78, -117.15) : 1Hz

- 10% in 50 yrs AFE
- 2% in 50 yrs AFE

Annual Frequency of Exceedance

Ground Motion (g)

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [83%, 81%]
BG [17%, 19%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [90%, 89%]
BG [10%, 11%]
Ground Motion (g)  

Annual Frequency of Exceedance  

10% in 50 yrs AFE  
2% in 50 yrs AFE  

Oakland (37.80, -122.25) : 1Hz
PACI2 (34.39, −118.05) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]

Fault [96%, 95%]

BG [4%, 5%]

UCERF2 Mean, below [2% in 50, 10% in 50]

Fault [96%, 95%]

BG [4%, 5%]
Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [100%, 100%]
BG [0%, 0%]
UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [100%, 100%]
BG [0%, 0%]
Palm Springs (33.85, -116.55) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [ 93% , 88% ]

BG [ 7% , 12% ]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [ 85% , 79% ]

BG [ 15% , 20% ]
Pasadena (34.15, -118.15) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE
Annual Frequency of Exceedance

Ground Motion (g)

PBWL (34.41, −117.86) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
Fault [ 100% , 100% ]
BG [ 0% , 0% ]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [ 100% , 99% ]
BG [ 0% , 1% ]
PEDLEY1 (33.99, -117.46) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

Ground Motion (g)

Annual Frequency of Exceedance

UCERF3 Mean, below [2%in50, 10%in50]

Fault [ 80%, 81% ]

BG [ 20%, 19% ]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [ 84%, 87% ]

BG [ 16%, 13% ]
Ground Motion (g)

Annual Frequency of Exceedance

UCERF3 Mean, below [2% in 50 yrs AFE, 10% in 50 yrs AFE]
Fault [79%, 82%]
BG [21%, 18%]

UCERF2 Mean, below [2% in 50 yrs AFE, 10% in 50 yrs AFE]
Fault [86%, 87%]
BG [14%, 13%]

PERR2 (33.79, -117.24) : 1Hz
PERRM (33.80, -117.25) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [78%, 81%]

BG [22%, 19%]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [85%, 87%]

BG [15%, 13%]
Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE
2% in 50 yrs AFE

PIBU (34.65, −117.85) : 1Hz

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [90%, 91%]
BG [10%, 9%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [93%, 93%]
BG [7%, 7%]

Reno (39.55, -119.80) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [ 12%, 19% ]

BG [ 87%, 81% ]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [ 1%, 5% ]

BG [ 99%, 95% ]
Redding (40.60, −122.40) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE
2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [7%, 24%]
BG [93%, 75%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [51%, 62%]
BG [49%, 38%]

Redding (40.60, −122.40): 1Hz
Ground Motion (g)

Annual Frequency of Exceedance

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [78%, 80%]
- BG [22%, 20%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [86%, 88%]
- BG [14%, 12%]

Riverside (33.95, -117.40) : 1Hz
<table>
<thead>
<tr>
<th>Location</th>
<th>Annual Frequency of Exceedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fault</td>
<td>[64%, 78%]</td>
</tr>
<tr>
<td>BG</td>
<td>[35%, 22%]</td>
</tr>
<tr>
<td>UCERF2 Mean, below [2% in 50, 10% in 50]</td>
<td>[73%, 83%]</td>
</tr>
<tr>
<td>UCERF3 Mean, below [2% in 50, 10% in 50]</td>
<td>[26%, 17%]</td>
</tr>
</tbody>
</table>

Sacramento (38.60, -121.50) : 1Hz
San Bernardino (34.10, −117.30) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [98%, 93%]
Fault [97%, 96%]
BG [2%, 7%]
BG [3%, 4%]
San Diego (32.70, −117.15) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
 Fault [99%, 93%]
 BG [1%, 7%]

UCERF2 Mean, below [2%in50, 10%in50]
 Fault [96%, 87%]
 BG [3%, 13%]
San Francisco (37.75, −122.40) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

Annual Frequency of Exceedance

Ground Motion (g)

UCERF3 Mean, below [2%in50, 10%in50]
Fault [ 93% , 93% ]
BG [ 7% , 7% ]
UCERF2 Mean, below [2%in50, 10%in50]
Fault [ 97% , 96% ]
BG [ 3% , 4% ]
San Jose (37.35, −121.90) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]

Fault [97%, 96%]

BG [3%, 4%]

UCERF2 Mean, below [2% in 50, 10% in 50]

Fault [89%, 91%]

BG [11%, 9%]
San Luis Obispo (35.30, −120.65) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [93%, 88%]
BG [7%, 11%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [86%, 84%]
BG [14%, 16%]
San Mateo (37.55, -122.30) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50, 10% in 50]
Fault [99%, 97%]
BG [1%, 3%]

UCERF2 Mean, below [2% in 50, 10% in 50]
Fault [98%, 96%]
BG [2%, 4%]
Santa Barbara (34.45, −119.70) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE
San Onofre (33.40, -117.55) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [ 80%, 79% ]

BG [ 20%, 21% ]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [ 81%, 83% ]

BG [ 19%, 17% ]
Annual Frequency of Exceedance

- UCERF3 Mean, below [2% in 50, 10% in 50]
- Fault [99%, 98%]
- BG [0%, 2%]
- UCERF2 Mean, below [2% in 50, 10% in 50]
- Fault [100%, 99%]
- BG [0%, 1%]

Ground Motion (g)

Santa Rosa (38.45, −122.70) : 1Hz
Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

SW01 (34.30, -117.34) : 1Hz

UCERF3 Mean, below [2%in50, 10%in50]
Fault [98%, 95%]
BG [2%, 5%]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [99%, 98%]
BG [1%, 2%]
Ground Motion (g)

Annual Frequency of Exceedance

UCR (33.96, −117.32) : 1Hz

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]
Fault [ 86% , 81% ]
BG [ 14% , 19% ]

UCERF2 Mean, below [2%in50, 10%in50]
Fault [ 93% , 92% ]
BG [ 7% , 8% ]
Vallejo (38.10, −122.25) : 1Hz

Annual Frequency of Exceedance

Ground Motion (g)

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2%in50, 10%in50]

Fault [99%, 97%]

BG [1%, 3%]

UCERF2 Mean, below [2%in50, 10%in50]

Fault [92%, 94%]

BG [7%, 6%]
Ventura (34.30, -119.30) : 1Hz

Ground Motion (g)

Annual Frequency of Exceedance

10% in 50 yrs AFE

2% in 50 yrs AFE

UCERF3 Mean, below [2% in 50y, 10% in 50y]
Fault [98%, 94%]
BG [2%, 6%]

UCERF2 Mean, below [2% in 50y, 10% in 50y]
Fault [99%, 96%]
BG [1%, 4%]