DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN-FILE REPORT 87-408

Seismicity of the Southern Great Basin
August 1, 1978 through December 31, 1983

118° 00′ 117° 00′ 116° 00′ 115° 00′

38° 00′ 37° 00′ 36° 00′

TONOPAH
CANDIDATE AREA
CALIENTE
Pahrump Valley
ALAMO
Pahranagat Shear Zone
SITE
BEATTY
Furnace Creek Fault
Death Valley Fault
Panamint Valley Fault
DARWIN
PAHRUMP
LAS VEGAS
NEV.
CAL.

Scale 1:500,000

10 0 10 20 30 40 Miles

10 0 10 20 30 40 50 Kilometers

Explanation:

Preliminary map of epicenters, focal mechanisms, and faults in candidate area. The faults represent late Pliocene and Quaternary movement (approximately 3 million years). The base map is from Carr (1984). Well-known Quaternary faults are shown within a 100km radius of Yucca Mountain (map is incomplete in some areas).

Hachured region is an arbitrary zone chosen as a preliminary identification of potentially induced seismicity from nuclear tests.

Fault known or suspected to have had surface movement 2-3 million years B.P.

Unusually linear mountain front where persistent fault activity has maintained a prominent scarp in bedrock or a steep linear mountain segment where young deposits are not obviously offset. The direction of hachures indicates downthrown block.

Line of volcanic vents of Quaternary age.

Wood-Anderson equivalent magnitude

- • $M_L < 1$
- ∘ $2 \leq M_L < 3$
- ∘ $1 \leq M_L < 2$
- ∘ $3 \leq M_L$

▽ Seismograph station

Earthquake focal mechanism