



INSTITUTE FOR CRUSTAL STUDIES

December 29 1989

Dr. Andrew Murphy
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
5650 Nicholson Lane
Rockville, MD 20852

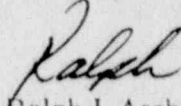
Dear Andy :

Enclosed please find the October 1989 data set for the Garner Valley Downhole Array (GVDA) which contains the following: (1) a spread sheet listing earthquakes with magnitudes greater than 1.2 recorded from October 12 to October 25 1989; (2) a fault map depicting the location of the GVDA, the location of the earthquakes recorded by the GVDA, and the major faults in the region; (3) a fault map depicting the location of the GVDA, the major faults in the area, and the location of earthquakes recorded by the USGS/Pasadena in the Garner Valley area for the entire month of October with magnitudes greater than 0.0.

Operation of the GVDA during October was shortened to 14 days (Oct 12 to Oct 25) due to an equipment failure in the MicroVax computer power supply and the Tustin sample and hold amplifier board. Fortunately, most of the earthquakes that occurred during October have magnitudes 2.5 or less and were far from the GVDA. A map of earthquakes recorded by the USGS/Pasadena during October is enclosed for reference. The only earthquake of interest was a M 3.1 that occurred about 30 km south of the GVDA which we did not record due to these equipment failures.

The five largest earthquakes ($M > 1.2$) recorded by the GVDA during October are listed on the spread sheet. These earthquakes are all small and not very interesting. Thus no data tape has been sent to you for the month of October. The fault map indicates only four earthquakes because a M1.9 is hidden behind the M2.3.

Sincerely,


Ralph J. Archuleta

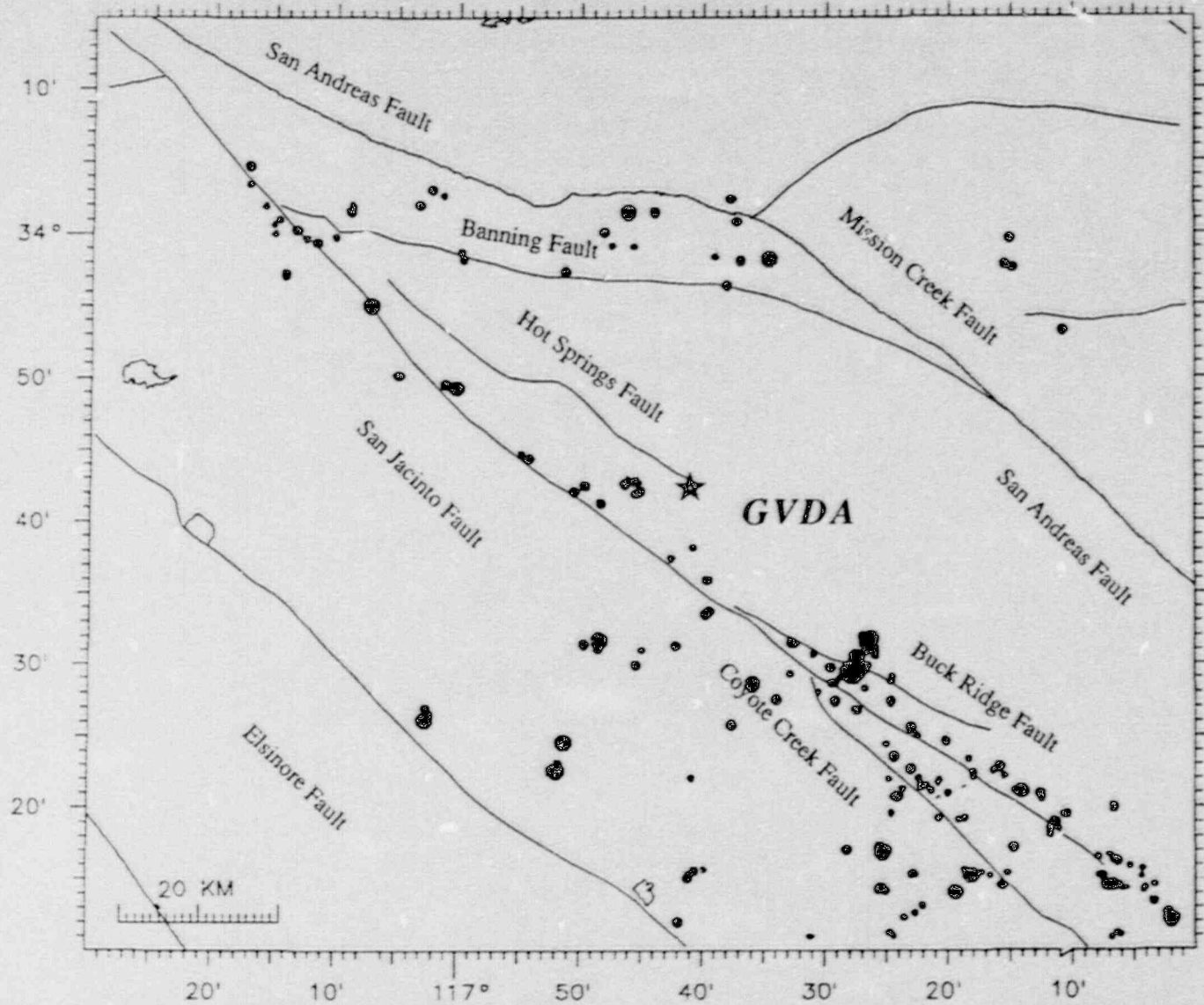
Enclosures: 1 spreadsheet, 2 maps

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PDR ORG NREA
PDR

	A	B	C	D	E	F	G	H	I	J
1										
2	GARNER VALLEY DOWNHOLE ARRAY : DATA LISTING FOR OCT89, M > 1.2									
3										
4										
5	GVDA at 33° 41.60' N 116° 40.20' W, Earthquake locations, origin times, and magnitudes from USGS/Pasadena									
6										
7	Peak Acceleration units are CM/S/S, Epicentral Distance and Depth units are KM									
8										
9										
10										
11										
12	<i>ORIGIN TIME</i>	<i>TRIGGER TIME</i>	<i>MAG.</i>	<i>PEAK ACC.</i>	<i>LAT. (N)</i>	<i>LONG. (W)</i>	<i>DISTANCE</i>	<i>DEPTH</i>	<i>S-P (sec)</i>	<i>DATA SENT</i>
13	891017 220636	89290 220641	1.2	0.4	33 33.57	116 39.31	14.75	1.39	2.0	No
14	891020 112052	89293 112100	2.3	0.4	33 31.51	116 26.14	28.34	8.89	- - -	No
15	891021 201347	89294 201355	1.9	0.3	33 31.60	116 26.16	28.24	9.06	- - -	No
16	891021 203448	89294 203453	1.5	0.5	33 42.66	116 45.83	8.80	7.20	2.2	No
17	891022 031500	89295 031503	1.8	1.5	33 41.93	116 44.93	7.29	5.42	2.0	No

GARNER VALLEY DOWNHOLE ARRAY

USGS/Pasadena Catalog October 1989 $M > 0.0$



Magnitudes

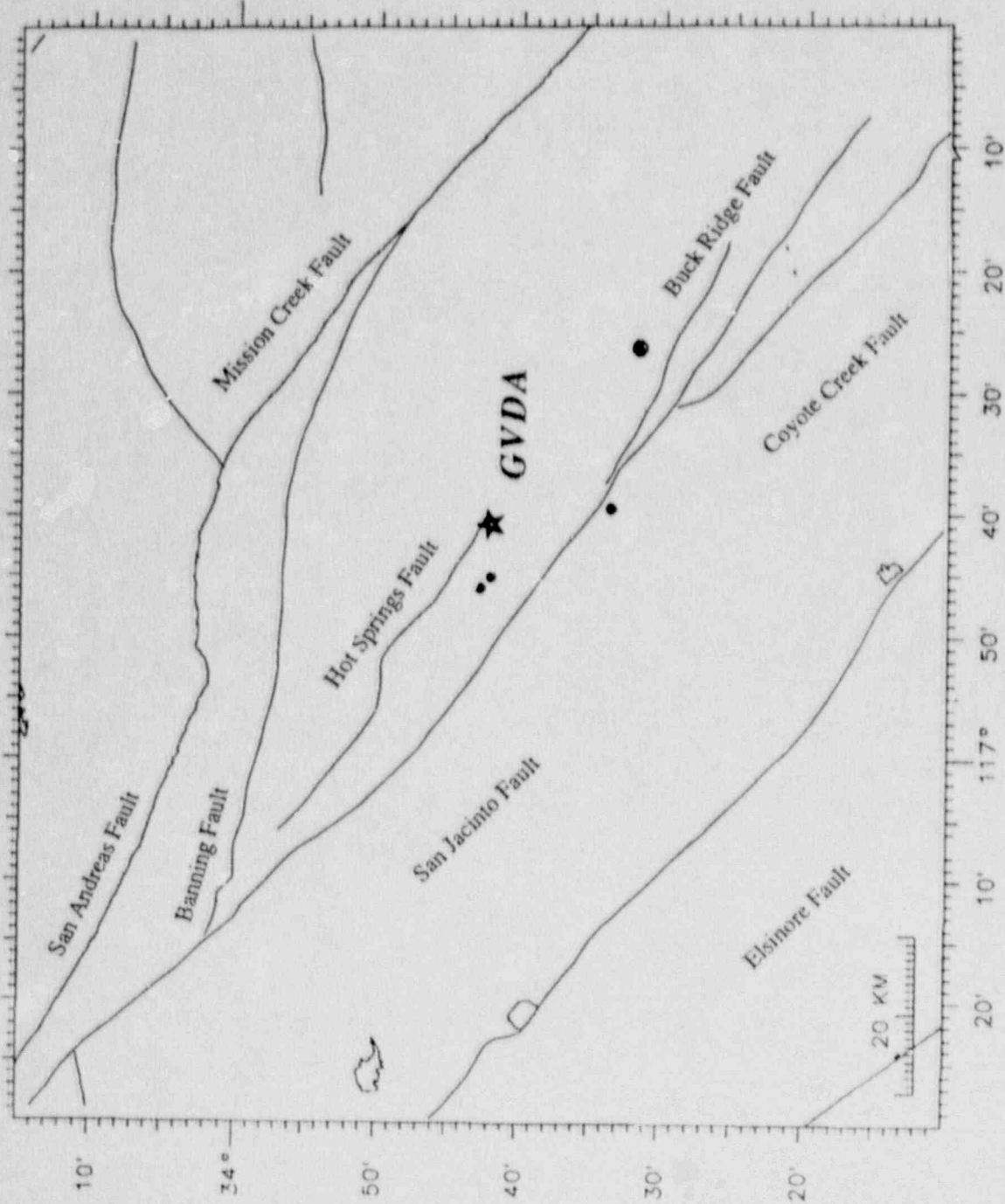
- 0.0+
- 1.0+
- 2.0+
- 3.0+
- 4.0+

California

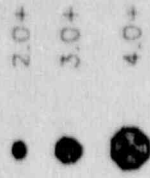


GARNER VALLEY DOWNHOLE ARRAY

Selected Earthquakes October 1989 $M > 1.2$



Magnitudes



California

