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REPORT FOR LOCAL EARTHQUAKE DATA ACQUIRED AT ONSHORE STATIONS DURING THE 1994 LOS ANGELES REGION SEISMIC EXPERIMENT (LARSE), CALIFORNIA

By

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ABSTRACT

This report describes the acquisition and reduction of local earthquake data in the Los Angeles region collected in October 1994 as part of the Los Angeles Region Seismic Experiment (LARSE). LARSE is a cooperative study of the crustal structure of southern California involving earth scientists from the U.S. Geological Survey (USGS), California Institute of Technology (Caltech), the University of Southern California (USC), the University of California Los Angeles (UCLA), and other institutions of the Southern California Earthquake Center (SCEC). During LARSE, three linear arrays of portable seismic recorders were deployed to collect offshore air-gun sources from the R/V *Ewing*; the arrays were centered on the Los Angeles basin and passed through or near the epicenters of several damaging earthquakes of this century including the 1933 M 6.3 Long Beach, 1971 M_L 6.4 San Fernando, 1987 M 5.9 Whittier Narrows, 1991 M 5.8 Sierra Madre, and 1994 M 6.7 Northridge earthquakes. Two hundred eighty two earthquakes occurred during the time period in which the portable seismic recorders were collecting data in a continuous mode. Using accurate GPS timing at the stations, seismograms starting at the (catalogued) earthquake origin times were extracted from the continuously recorded data. In this report, we describe the equipment and procedures used to obtain the earthquake seismograms, discuss the reduction of the data, and present displays of the seismograms sorted by event. A more complete description of the field effort to collect the continuous data is available in Okaya et al. (1996). Other components of the LARSE 1994 field experiments are described in Brocher et al. (1995), Murphy et al. (1996), and ten Brink et al. (1996). A related passive-source broadband experiment (LARSE 1993) is described in Kohler et al. (1996).

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INTRODUCTION

The seismic earthquake hazards posed by blind thrust faults in southern California have been reported by a number of investigators [Stein and King, 1984; Stein and Yeats, 1989; Wright, 1991; Crouch and Suppe, 1993; Davis and Namson, 1994; Shaw and Suppe, 1994; Shaw et al., 1994]. Crustal seismic reflection and refraction/wide angle reflection methods are valuable and necessary tools of imaging the structural framework associated with blind thrusts, and can provide constraints for large-scale balanced crustal cross sections used to map thrust ramps in the subsurface. The 1971 M_L 6.4 San Fernando, 1987 M 5.9 Whittier Narrows, and 1994 M 6.7 Northridge earthquakes occurred on blind thrusts (U.S. Geological Survey and the Southern California Earthquake Center, 1994).

This report describes the collection of local earthquake seismic data during air-gun profiling in Continental Borderland offshore of the Los Angeles region during the Los Angeles Region Seismic Experiment (LARSE). LARSE is a cooperative study of the crustal structure of southern California involving scientists from the U.S. Geological Survey (USGS), California Institute of Technology (Caltech), the University of Southern California (USC), the University of California Los Angeles (UCLA), and other institutions of the Southern California Earthquake Center (SCEC). Air-gun profiling by the R/V *Ewing* offshore of Los Angeles, conducted during 13-21 October, 1994, was recorded onshore by IRIS/PASSCAL portable seismic recorders. The 174 land-based stations which were subdivided into three linear arrays during the air-gun profiling. Since the instruments were deployed in continuous recording mode, a byproduct of this experiment is seismograms recorded from 282 local earthquakes which occurred during the time period when the seismometers were deployed.

At the heart of the LARSE air-gun experiment was the collection of three refraction/wide-angle reflection (R/WAR) onshore-offshore transects involving air-gun sources along Lines 1-3, which provided seismic energy for land recorders deployed as inline land arrays (Figure 1). Line 1 involved air-gun sources trending NE-SW from San Clemente Island to near Seal Beach, recorded

onshore from Seal Beach to the northern Mojave Desert. Line 2 involved air-gun sources trending N-S along the western shores of San Clemente and Catalina Islands to offshore Santa Monica, recorded onshore through the 1994 Northridge earthquake epicenter and into the western Mojave Desert. Air-gun sources for Line 3, trending ENE-WSW from northwest of San Nicolas Island to El Segundo was recorded onshore through the center of Los Angeles basin to Riverside (Wright, 1991). These three major R/WAR transects provide a regional reconnaissance of the crustal structure centered in and around the Los Angeles basin; in addition they provide specific information about the crustal structure in the vicinity of several damaging earthquakes of this century in the greater Los Angeles region.

Lines 1-3 included a total of 174 stations. Portable instruments (Refteks) capable of recording continuously were deployed at these stations. Vertical-component (4-1/2 Hz) sensors were attached to the Refteks. The stations were operated and maintained for seven days, although some recorded for as long as ten days. Extraction of the earthquake seismograms during the time window 284-293 (Julian days) of 1994 was conducted at the USC and Caltech after the completion of the field experiment. Subsequent data reduction, sorting, and final archive was performed at USC.

A more complete description of the onshore-offshore R/WAR profiling is available in Okaya et al. (1996). An explanation of the R/V *Ewing* marine acquisition is available in Brocher et al. (1995). Simultaneous ocean bottom seismometer recording of the R/V *Ewing* sources is available in ten Brink et al. (1996). A description of explosion data collected along Line 1 is available in Murphy et al. (1996).A passive source broadband seismic experiment along Line 1 (LARSE 1993) is explained in Kohler et al. (1996).

DATA ACQUISITION

Local Earthquakes During the Deployment Time Window

The USGS/Caltech earthquake catalogue for Southern California provides a list of 282 local events which occurred during the time period in which the portable instruments were deployed (Tables A, B; see also Wald, 1995). Only events having magnitudes larger than 1.0 were used. Figure 2 illustrates the locations of these events.

Land Arrays

Line 1, from San Clemente Island northeastward through the Mojave Desert, had 86 land stations, including two stations each on Santa Catalina and San Clemente Islands. Line 2, between Malibu and the western Mojave Desert had 47 stations, and Line 3, east-west through the central Los Angeles basin, had 41 stations (Figure 1). Accurate station location coordinates (±10 m) were obtained by GPS surveying. Tables C, D, and E provide latitude/longitude and UTM coordinates for land stations on Lines 1, 2, and 3, respectively. Table F describes the station numbering convention for all three lines.

Instrumentation for the Land Arrays

The ability to collect onshore-offshore seismic data using marine air-gun s is predicated on the use of seismic instruments capable of collecting large volumes of data in continuous recording mode. Sufficient PASSCAL Reftek instruments were made available by the Incorporated Research Institutions for Seismology (IRIS). These instruments are capable of collecting several days of continuous data at high sample rates. The LARSE experiment used a total of 215 Reftek instruments assembled from the following organizations: IRIS/PASSCAL (182), Southern California Earthquake Center (18), Los Alamos National Laboratory (5), and the University of Texas at El Paso (UTEP) (10). These instruments had a variety of specifications which are summarized in Table G. The deployment of these instruments is summarized in Table H.

Recording Instrumentation and Timing

The Refteks were deployed with acquisition set in continuous-record mode. In-field instrument data capacity was a major constraining factor given the anticipated seven days of *Ewing* air-gun profiling. For this reason, only the vertical components of the L-28 (4.5 Hz) sensors were recorded. The sampling rate was 10 msec (100 sps), for a Nyquist frequency of 50 Hz. Data compression in the instrument was employed. In this mode, the instruments had sufficient storage capacity to collect the entire set of ship sources.

Power for the instruments was provided by large-capacity car batteries (110 amp-hr), sufficient to last the entire field deployment. Field checking was conducted, and batteries replaced when necessary.

Accurate timing was provided using the Global Positioning System (GPS). Fifty-seven instruments had internal GPS units. Additional instruments had external GPS units attached for the duration of the experiment. The clocks of the remaining instruments were set upon initial deployment, during site visits, and upon instrument retrieval.

Land Array Field Operations

The deployment, maintenance, and retrieval of the three land arrays were conducted by the USGS, USC, UTEP, and Caltech personnel. These activities were performed in coordination with the R/V *Ewing*'s activities; a complete description is provided by Okaya et al. (1996).

Data Archival

Data were transferred from the Reftek instruments to archive 8-mm cartridge tapes using SUN computer workstations located at the field center in Glendora, California. Four workstations were configured with PASSCAL software and 8-mm cartridge tape drives. The data were transferred to the field tapes in Reftek field format for subsequent translation and reduction to be conducted after the completion of the field experiment.

DATA REDUCTION

The 282 local earthquake events were extracted from each portable recorder, then sorted into common-event gathers. The data-reduction steps are illustrated in Figure 3. For each instrument the data were originally collected in continuous mode in consecutive 10 -minute time windows. An amplitude debias was applied to each time window. Instrument timing (clock drift) corrections were applied to each window. Individual seismograms of 60 sec duration were then extracted from the entire set of data windows using the earthquake event origin times provided in the USGS/Caltech Southern California earthquake catalog (see Wald, 1995, for an abbreviated listing of events in this catalog). All seismograms were sorted into common-event gathers; for each event, seismograms representing all 174 land stations are present. SEG-Y trace headers were updated to contain important parameters describing the data or field experiment. The data were then archived in digital form.

Description of Archive Product: Common-Event Gathers

The common-event gathers contain the entire data in its simplest form. The set of 282 local events are indexed in the order presented in Table A. Each common-event gather has 174 seismograms, representing the 174 land stations. Zero-trace seismograms were inserted if no data were available at stations so that the full number of 174 seismograms exist for each event.

The data format is SEG-Y (Table J). Each seismogram is 60 sec in length (6001 samples) at 10 msec sampling. The first data sample represents the origin time of the event as provided in the catalog of the USGS/Caltech Southern California Seismic Network (see Wald, 1995) (Table A). The locations of the earthquake epicenters and land stations in both latitude/longitude and UTM coordinates are saved in the trace headers (see Table J).

The seismograms in each common-event after are numbered in the following sequential order: 1-86 for Line 1 (south to north), 87-133 for Line 2 (south to north), and 134-174 for Line 3 (west to east). Seismograms 1 and 2 were located on San Clemente Island (south to north), and seismograms 3 and 4 were on Santa Catalina Island (south to north) (see Tables C, D, and E).

Due to the deployment of two separate instruments at 2 stations (Line 1, stations 08 and 32), there is an organizational difference between a "common receiver" (CR) seismogram and a "common station" (CS) seismogram. A CR seismogram is related to the instrument (or instrument and its service replacement); the double deployments at station 8 and 32 on Line 1 generates 4 separate CR seismograms. A CS seismogram is one which represents the data collected at that station; the double deployments at stations 8 and 32 generate 2 CS seismograms. Due to the double deployments, there are 174 unique CR seismograms whereas there were 172 station sites in the field and thus 172 CS seismograms. CR and CS are stored in the SEG-Y trace headers as separate values.

Description of SEG-Y Headers in Data Archive

Many of the pertinent parameters which describe the earthquake data or the LARSE field parameters are contained in the SEG-Y trace headers. Table J provides a full list of the SEG-Y trace-header format and identifies which SEG-Y headers contain experiment-related values for the LARSE experiment. Certain SEG-Y header fields were redefined in order to store relevant information.

The SEG-Y trace header definition used by the LARSE experiment was carefully defined after a complete examination of the original SEG-Y standard, the IRIS-PASSCAL modification, and the IASPEI version as used by the Geological Survey of Canada (GSC). The LARSE modifications were made to be compatible with these versions.

USGS catalogue earthquake information in the SEG-Y trace headers include the catalogue event number, event time, hypocentral depth, epicentral location (latitude/longitude and UTM), and the magnitude type and value. LARSE experiment information include information such station

stake number, station location (latitude/longitude and UTM), line number, instrument number, instrument type, and sensor type. Data reduction parameters include clock correction timing shifts and instrument amplitude debias. Data format values include number of samples in the seismogram and the time of the first sample. Data indexing values include which of the 174 events the seismogram belongs to, which land station within the event, which common station (CS) seismogram, which line (or "land array"), and which seismogram within the line (1-86, 1-47, 1-41 for Lines 1, 2, and 3, respectively).

The source and receiver coordinates and elevations, whether in degrees or UTM coordinates are provided relative to the WGS-84 spheroid coordinate system. This spheroid was used in the reduction of the GPS survey information.

DESCRIPTION OF THE DATA

For each event plot in the Appendix, traces 1-86 represent Line 1 (stations 1-86), traces 87-133 represent Line 2 (stations 87-133), and traces 134-174 represent Line 3 (stations 134-174). The seismograms in the plots are trace-normalized and are filtered between 5-15 Hz.

Due to the wide range in epicenter-to-receiver distances, the data in the Appendix are displayed using a reduced travel-time (6 km/s reducing velocity). UTM coordinates were computed from the epicenter and receiver latitude/longitude values; the WGS-84 spheroid and UTM zone 11 were used in the calculations (Tables B, C, D, and E). If the hypocentral depth of an event were at the surface, then for a uniform crust (6.0 km/s) having no topography, the event's first arrivals would be seen at $t_{reduced}$=0.0 sec. Because of finite hypocentral depths, first arrivals are seen earlier than $t_{reduced}$=0.0 in the Appendix.

The earthquake data vary in quality based on the following factors: earthquake magnitude, epicentral distance, time of acquisition (day or night), prevailing weather conditions, proximity to noise sources in the Los Angeles basin (freeways, machinery), near surface conditions, and gross geology under the receiver sites.

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TABLE A: Catalogue of Earthquake Events During the Time Period 1994: Julian Days 284-293

EQ#	CATALOG ID	LATITUDE deg	min	LONGITUDE deg	min	DEPTH (km)	MASK	JULIAN YEAR	DAY	HR/MIN	SEC	NPH	RMS	QUAL	TYPE	MAGN
1	3187948	34	47.29	-116	18.32	-5.22	7	1994	284	1534	17.52	8	0.05	B	MC	1.6
2	3187952	34	25.47	-116	28.74	-2.61	7	1994	284	1635	29.88	15	0.07	A	MC	1.6
3	3187953	34	47.22	-116	18.09	-3.92	7	1994	284	1636	54.56	13	0.29	A	MC	1.8
4	3188094	34	55.07	-116	22.12	-6.00	5	1994	284	1903	59.00	8	0.18	C	MC	2.1
5	3188098	34	46.91	-116	18.27	-3.99	7	1994	284	1920	35.44	16	0.16	A	MC	2.3
6	3188100	34	17.30	-118	37.41	-12.15	7	1994	284	1928	39.54	11	0.15	A	MC	1.8
7	3188101	33	4.20	-114	59.09	0.00	105	1994	284	1936	35.59	5	0.18	A	MC	2.6
8	3188107	32	52.88	-115	29.66	-8.08	7	1994	284	2010	14.83	9	0.25	A	MC	1.5
9	3188113	34	17.52	-118	37.51	-14.84	7	1994	284	2114	33.19	25	0.20	A	MC	1.6
10	3188114	34	46.09	-116	17.40	-0.01	7	1994	284	2121	57.82	13	0.18	B	MC	1.9
11	3188115	34	37.66	-117	7.00	0.00	105	1994	284	2150	28.58	7	0.08	A	MC	1.9
12	3188116	34	25.28	-116	29.72	-0.41	7	1994	284	2153	12.32	6	0.05	C	MC	1.8
13	3188117	35	2.06	-117	40.86	0.00	105	1994	284	2215	03.83	10	0.17	A	MC	1.7
14	3188134	35	29.43	-118	27.08	-7.68	7	1994	284	2216	06.49	24	0.13	A	MC	1.6
15	3188121	36	0.59	-117	49.12	-1.61	7	1994	284	2305	29.32	32	0.18	A	MC	2.7
16	3188122	0	0.00	0	0.00	0.00	207	1994	284	2313	52.92	0	0.00	0	MD	4.2
17	3188146	33	40.41	-116	43.29	-14.85	7	1994	284	2314	41.95	52	0.16	A	MC	2.8
18	3188147	33	40.42	-116	43.00	-13.65	7	1994	284	2315	33.09	30	0.14	A	MC	2.0
19	3188123	33	40.58	-116	43.27	-14.07	7	1994	284	2322	57.90	35	0.14	A	MC	2.1
20	3188126	33	43.45	-116	41.29	-17.41	7	1994	285	0037	49.93	11	0.16	C	MC	1.7
21	3188127	34	19.51	-118	28.36	-4.43	7	1994	285	0102	03.26	26	0.15	A	MC	1.6
22	3188133	34	55.29	-116	21.85	-6.00	5	1994	285	0233	41.36	7	0.08	C	MH	2.2
23	3188138	34	47.46	-116	18.04	-4.45	7	1994	285	0338	28.36	62	0.20	A	ML	3.0
24	3188145	34	37.38	-116	39.95	-5.44	7	1994	285	0500	37.49	18	0.13	A	MC	1.6
25	3188149	35	57.36	-118	17.17	-0.01	7	1994	285	0519	23.16	23	0.17	A	MC	1.6
26	3188150	34	46.49	-116	17.86	-2.96	7	1994	285	0602	11.04	8	0.07	A	MC	1.6
27	3188152	35	1.54	-116	58.04	-5.87	7	1994	285	0816	29.54	17	0.14	B	MC	1.6
28	3188165	33	59.74	-116	16.28	-8.48	7	1994	285	1143	03.64	29	0.17	A	MC	1.8
29	3188166	34	57.52	-116	22.50	-6.00	5	1994	285	1221	29.12	6	0.16	C	MC	1.6
30	3188168	35	40.98	-118	3.25	-13.48	7	1994	285	1322	58.77	28	0.14	A	MC	1.7
31	3188172	34	3.04	-117	31.16	-4.46	7	1994	285	1413	29.09	54	0.19	A	MC	1.9
32	3188173	34	58.33	-116	34.68	-6.00	5	1994	285	1422	38.25	5	0.09	D	MH	2.3
33	3188179	34	20.05	-116	28.16	-4.16	7	1994	285	1539	00.54	20	0.16	A	MC	1.6
34	3188204	34	20.56	-116	52.86	0.00	105	1994	285	1701	46.41	7	0.07	A	MC	1.9
35	3188192	34	20.71	-116	52.81	0.00	105	1994	285	1702	00.12	7	0.12	A	MC	1.8
36	3188201	34	16.43	-118	32.37	-10.94	7	1994	285	1833	33.99	13	0.11	A	MC	2.0
37	3188202	34	45.74	-116	17.47	-0.85	7	1994	285	1839	46.07	5	0.02	D	MC	2.2
38	3188203	32	58.09	-114	37.29	0.00	105	1994	285	1852	12.72	5	0.16	C	MC	1.7
39	3188213	35	26.04	-116	52.24	-5.50	7	1994	285	1952	16.04	22	0.19	C	MC	1.8
40	3188215	34	28.11	-116	30.99	-3.07	7	1994	285	2018	12.99	32	0.15	A	MC	2.0
41	3188217	36	9.79	-120	9.07	-6.00	5	1994	285	2045	06.06	7	0.12	C	MC	2.0
42	3188219	34	28.42	-116	29.92	-2.95	7	1994	285	2113	26.42	10	0.11	A	MH	2.2
43	3188221	34	17.88	-118	25.65	-8.34	7	1994	285	2119	28.86	25	0.28	A	MC	1.6
44	3188222	34	14.74	-118	28.68	-13.76	7	1994	285	2121	58.99	52	0.23	A	MC	1.9
45	3188224	35	1.86	-117	40.66	0.00	105	1994	285	2206	49.48	10	0.14	A	MC	1.6
46	3188226	34	58.31	-116	56.64	-4.72	7	1994	285	2218	27.09	22	0.20	A	MC	1.8
47	3188228	34	58.20	-116	56.66	-4.76	7	1994	285	2224	01.53	30	0.18	A	MC	2.3
48	3188230	33	40.70	-116	42.26	-16.82	7	1994	285	2249	15.88	14	0.06	B	MH	1.5
49	3188232	35	3.80	-116	59.12	-4.04	7	1994	285	2327	06.13	19	0.18	A	MC	1.8
50	3188233	34	11.05	-116	44.76	-6.16	7	1994	285	2357	30.68	26	0.12	C	MC	1.6
51	3188234	35	8.88	-118	24.10	0.00	105	1994	286	0011	18.59	8	0.09	A	MC	1.6
52	3188241	34	18.24	-118	37.70	-10.78	7	1994	286	0240	45.68	38	0.22	A	MC	1.9
53	3188245	34	34.44	-116	34.79	-4.95	7	1994	286	0346	31.61	31	0.17	A	MC	2.0
54	3188246	34	46.74	-116	18.24	-3.40	7	1994	286	0411	26.02	9	0.15	A	MC	1.8
55	3188247	33	40.63	-116	42.79	-14.37	7	1994	286	0415	56.48	26	0.15	A	MC	1.5
56	3188248	33	41.54	-116	47.94	-16.30	7	1994	286	0430	09.35	12	0.09	B	MH	1.5
57	3188249	34	9.33	-116	25.26	-2.85	7	1994	286	0431	10.01	30	0.19	A	MC	1.7
58	3188251	34	9.37	-116	25.18	-2.72	7	1994	286	0531	34.71	31	0.17	A	MC	1.8
59	3188252	34	17.48	-118	27.77	-9.16	7	1994	286	0536	13.94	71	0.28	A	ML	2.4

60	3188254	34	8.76	-116	25.53	-3.14	7	1994	286	0612	36.03	31	0.17	A	MC	1.8
61	3188256	34	30.56	-116	30.84	-4.94	7	1994	286	0617	33.40	54	0.15	A	MC	2.4
62	3188259	34	28.53	-116	30.94	-2.05	7	1994	286	0733	22.95	24	0.16	A	MC	1.6
63	3188260	35	29.74	-120	51.76	-6.00	5	1994	286	0737	55.34	10	0.12	C	MC	2.6
64	3188261	33	58.03	-116	19.47	-4.44	7	1994	286	0746	18.70	27	0.16	A	MC	1.6
65	3188267	33	40.82	-116	42.79	-17.51	7	1994	286	0840	21.74	7	0.06	D	MH	1.6
66	3188270	34	19.30	-116	27.44	-0.01	7	1994	286	0900	02.39	30	0.25	A	MC	1.8
67	3188273	31	54.14	-115	44.04	-6.00	5	1994	286	0916	46.18	10	0.29	D	MC	2.1
68	3188277	34	10.58	-116	49.47	-4.80	7	1994	286	1031	04.67	64	0.20	A	MC	2.1
69	3188278	34	8.77	-116	25.51	-1.14	7	1994	286	1032	23.08	56	0.23	A	MC	2.1
70	3188282	34	17.84	-116	53.11	-5.67	7	1994	286	1309	01.93	38	0.18	B	MC	2.4
71	3188283	36	4.67	-117	52.88	-2.56	7	1994	286	1443	24.74	20	0.18	A	MC	1.7
72	3188286	32	25.46	-114	54.11	-6.00	5	1994	286	1619	46.49	7	0.17	D	MC	2.0
73	3188287	35	19.08	-118	37.19	-5.71	7	1994	286	1626	25.72	22	0.12	C	MC	1.5
74	3188298	35	48.59	-117	32.72	0.00	105	1994	286	1847	59.65	11	0.24	A	MC	1.6
75	3188299	33	1.25	-116	4.60	0.00	105	1994	286	1849	10.41	8	0.29	A	MC	1.6
76	3188301	33	4.02	-114	58.56	0.00	5	1994	286	1910	26.92	9	0.25	C	MC	2.0
77	3188302	33	52.48	-117	34.81	0.00	105	1994	286	1914	24.85	13	0.24	A	MC	1.7
78	3188303	34	20.82	-116	51.48	0.00	105	1994	286	1928	45.65	6	0.12	A	MC	1.7
79	3188306	34	22.15	-116	27.99	-0.41	7	1994	286	2003	52.64	28	0.17	A	MC	1.8
80	3188313	34	20.58	-118	35.06	-11.58	7	1994	286	2039	21.91	27	0.22	A	MC	1.9
81	3188315	34	4.51	-116	22.45	-3.31	7	1994	286	2058	44.31	30	0.17	A	MC	1.9
82	3188316	34	47.30	-116	18.19	-3.46	7	1994	286	2108	59.50	27	0.20	A	MC	2.3
83	3188318	35	40.10	-116	56.51	-6.00	5	1994	286	2151	46.01	12	0.18	C	MC	1.9
84	3188321	35	1.75	-117	41.15	0.00	105	1994	286	2214	27.83	14	0.15	A	MC	1.7
85	3188322	34	50.36	-116	44.07	0.00	105	1994	286	2218	25.63	5	0.28	D	MC	1.7
86	3188328	35	29.93	-120	51.21	-6.00	5	1994	286	2306	55.04	19	0.26	C	MC	2.9
87	3188330	32	57.81	-114	38.22	0.00	105	1994	286	2320	58.71	7	0.15	B	MC	1.7
88	3188331	34	49.29	-116	18.95	-7.71	7	1994	286	2335	23.82	6	0.08	C	MC	1.8
89	3188333	35	29.46	-118	26.86	-7.18	7	1994	286	2359	37.06	23	0.17	A	MC	1.5
90	3188337	0	0.00	0	0.00	0.00	207	1994	287	0058	21.69	0	0.00	0	MD	2.6
91	3188339	34	22.64	-118	36.70	-14.08	7	1994	287	0137	57.26	21	0.16	A	MC	1.7
92	3188344	34	46.85	-116	17.97	-2.99	7	1994	287	0150	43.45	13	0.13	A	MC	1.8
93	3188347	33	59.66	-116	57.92	-9.26	7	1994	287	0216	28.42	36	0.13	A	MC	1.8
94	3188349	34	20.98	-118	35.27	-9.28	7	1994	287	0245	22.00	25	0.19	A	MC	1.6
95	3188352	35	54.51	-117	42.60	-7.91	7	1994	287	0324	20.88	33	0.15	A	MC	2.4
96	3188356	36	4.34	-117	52.84	-1.72	7	1994	287	0500	48.72	24	0.16	A	MC	1.9
97	3188357	34	23.00	-116	27.43	-1.17	7	1994	287	0508	23.77	24	0.09	A	MC	2.0
98	3188358	35	54.50	-117	42.47	-8.32	7	1994	287	0517	21.37	15	0.15	A	MC	1.5
99	3188360	35	54.50	-117	42.57	-7.96	7	1994	287	0525	16.36	24	0.14	A	MC	2.0
100	3188363	34	23.71	-116	27.83	-2.69	7	1994	287	0613	15.18	16	0.09	A	MC	1.5
101	3188364	35	54.44	-117	42.58	-8.32	7	1994	287	0635	49.78	22	0.14	A	MC	1.8
102	3188365	34	33.69	-116	26.32	-1.26	7	1994	287	0645	57.91	38	0.12	A	MC	2.5
103	3188366	35	2.06	-116	58.98	-5.32	7	1994	287	0655	02.29	41	0.21	A	MC	2.1
104	3188367	35	1.96	-116	58.81	-5.44	7	1994	287	0656	21.30	16	0.14	A	MC	2.1
105	3188368	34	22.14	-116	27.13	-3.59	7	1994	287	0702	21.61	8	0.12	A	MC	1.8
106	3188370	34	18.39	-118	26.17	-9.61	7	1994	287	0738	18.21	32	0.19	A	MC	1.6
107	3188378	35	54.66	-117	42.56	-8.23	7	1994	287	0948	46.92	25	0.14	A	MC	1.8
108	3188380	34	49.69	-116	19.06	-8.15	7	1994	287	1007	10.38	6	0.01	D	MC	1.6
109	3188382	34	26.75	-116	30.02	-3.31	7	1994	287	1018	04.57	18	0.10	A	MC	1.6
110	3188386	34	10.47	-116	49.67	-2.44	7	1994	287	1157	42.19	50	0.18	A	MC	1.8
111	3188388	33	59.89	-116	55.33	-6.00	5	1994	287	1258	16.82	6	0.01	D	MH	2.0
112	3188389	34	18.48	-116	26.92	-8.49	7	1994	287	1325	58.59	24	0.10	A	MC	1.8
113	3188392	32	24.30	-114	54.38	-6.00	5	1994	287	1411	46.50	8	0.11	D	MC	1.9
114	3188393	37	21.77	-118	20.92	-6.00	5	1994	287	1419	52.59	6	0.15	C	MC	2.0
115	3188396	34	22.04	-116	28.19	-2.47	7	1994	287	1439	59.30	10	0.04	A	MC	1.5
116	3188403	33	4.06	-114	58.31	0.00	105	1994	287	1856	19.97	4	0.15	A	MC	2.4
117	3188404	35	2.15	-117	40.61	0.00	105	1994	287	1900	26.24	35	0.19	A	MC	1.7
118	3188414	33	17.82	-116	0.81	-4.04	7	1994	287	2121	29.04	37	0.20	A	MC	1.8
119	3188419	35	1.91	-117	40.39	0.00	105	1994	287	2216	35.55	20	0.22	A	MC	1.5
120	3188421	37	37.81	-118	51.10	-6.00	5	1994	287	2239	45.07	7	0.19	C	MC	2.8
121	3188424	34	18.04	-118	27.72	-7.68	7	1994	287	2315	29.08	20	0.26	A	MC	1.6
122	3188428	35	50.36	-116	50.66	-6.00	5	1994	288	0019	04.63	12	0.28	C	MC	1.8
123	3188429	34	20.39	-116	28.29	-4.69	7	1994	288	0025	11.01	20	0.16	A	MC	1.6

124	3188439	33	54.14	-118	54.91	-13.83	7	1994	288	0248	32.91	61	0.28	A	MC	2.5
125	3188446	34	1.00	-116	19.10	-6.76	7	1994	288	0448	31.71	24	0.18	B	MC	1.5
126	3188453	35	0.83	-116	57.86	-0.01	7	1994	288	0846	20.82	65	0.23	A	MC	2.4
127	3188456	34	19.65	-118	29.07	-5.05	7	1994	288	1032	15.07	30	0.14	A	MC	1.8
128	3188457	0	0.00	0	0.00	-6.00	205	1994	288	1058	02.70	14	0.54	C	MC	2.4
129	3188459	34	20.41	-116	28.01	-5.30	7	1994	288	1258	42.49	37	0.11	A	ML	2.7
130	3188461	34	20.70	-116	27.33	-5.78	7	1994	288	1314	18.45	15	0.09	C	MC	1.8
131	3188462	34	37.58	-116	32.35	-2.44	7	1994	288	1354	35.26	12	0.09	B	MC	1.6
132	3188463	34	12.35	-118	30.05	-16.61	7	1994	288	1418	53.65	16	0.08	A	MC	1.6
133	3188467	0	0.00	0	0.00	0.00	207	1994	288	1530	02.92	0	0.00	0	MD	2.5
134	3188491	34	24.56	-116	28.07	-3.14	7	1994	288	1530	48.31	50	0.12	A	MC	2.4
135	3188468	34	2.39	-117	30.91	-4.08	7	1994	288	1543	11.41	44	0.17	A	MC	2.4
136	3188469	34	2.51	-117	30.72	-4.12	7	1994	288	1557	17.09	30	0.16	A	MC	1.8
137	3188472	34	23.81	-116	28.01	-6.00	5	1994	288	1700	50.21	11	0.10	C	MC	1.6
138	3188480	35	9.74	-118	24.24	0.00	105	1994	288	2205	23.76	9	0.13	A	MC	1.7
139	3188483	34	21.21	-118	33.10	-11.27	7	1994	288	2303	14.32	31	0.16	A	MC	1.9
140	3188484	34	10.77	-116	25.84	-6.00	7	1994	288	2318	14.49	16	0.15	C	MC	1.6
141	3188485	34	37.16	-118	37.78	-10.48	7	1994	288	2345	40.39	48	0.33	A	MC	2.3
142	3188486	34	21.51	-118	39.13	-14.00	7	1994	288	2359	56.46	23	0.16	A	MC	1.8
143	3188487	33	45.13	-116	50.40	-20.16	7	1994	289	0023	52.11	10	0.12	B	MC	2.2
144	3188489	37	32.72	-118	50.52	-6.00	5	1994	289	0056	53.39	6	0.06	C	MC	2.8
145	3188492	34	15.87	-118	42.35	-16.06	7	1994	289	0153	52.53	31	0.17	A	MC	1.8
146	3188494	34	30.50	-116	31.23	-10.84	7	1994	289	0325	17.88	22	0.10	B	MC	2.1
147	3188505	0	0.00	0	0.00	0.00	407	1994	289	0520	13.69	0	0.00	0	MD	3.9
148	3188506	34	27.70	-116	30.27	-1.58	7	1994	289	0542	01.11	27	0.11	A	MC	1.9
149	3188510	37	36.48	-118	54.99	-6.00	5	1994	289	0749	38.85	4	0.24	C	MC	2.2
150	3188512	35	0.48	-116	58.59	-8.81	7	1994	289	0755	30.82	15	0.17	A	MC	1.6
151	3188513	32	37.05	-117	7.65	-6.00	5	1994	289	0801	13.61	16	0.19	D	MC	1.9
152	3188515	34	36.69	-116	36.64	-4.19	7	1994	289	0810	15.74	17	0.13	A	MC	1.6
153	3188524	0	0.00	0	0.00	0.00	207	1994	289	0940	47.63	0	0.00	0	MD	1.8
154	3188568	34	18.33	-118	37.30	-9.65	7	1994	289	0941	28.29	26	0.18	A	MC	1.6
155	3188525	0	0.00	0	0.00	0.00	207	1994	289	0948	04.94	0	0.00	0	MD	1.9
156	3188526	34	21.31	-116	28.63	-6.00	5	1994	289	0955	27.20	5	0.11	D	MH	1.8
157	3188538	34	7.05	-117	0.35	-7.97	7	1994	289	1407	29.42	41	0.12	A	MC	2.1
158	3188541	34	45.80	-116	17.75	-2.27	7	1994	289	1500	55.62	6	0.14	D	MC	1.7
159	3188543	34	19.50	-118	28.07	-5.27	7	1994	289	1531	14.05	25	0.13	A	MC	1.6
160	3188582	32	32.13	-115	51.08	-6.00	5	1994	289	1601	58.47	8	0.09	C	MC	1.6
161	3188546	32	32.19	-115	51.81	-6.00	5	1994	289	1602	14.09	15	0.19	C	MC	2.0
162	3188551	34	13.82	-116	45.18	-9.66	7	1994	289	1629	55.92	60	0.14	A	ML	3.0
163	3188554	35	30.69	-117	29.59	-3.42	7	1994	289	1702	02.53	33	0.16	A	MC	2.1
164	3188555	34	47.05	-116	17.94	-3.25	7	1994	289	1729	04.06	30	0.18	A	ML	2.7
165	3188562	34	23.19	-118	37.70	-7.14	7	1994	289	1841	19.71	11	0.13	A	MC	1.5
166	3188571	36	0.85	-117	46.47	-2.38	7	1994	289	1942	42.81	6	0.05	A	MC	1.8
167	3188575	34	2.93	-116	24.14	-4.35	7	1994	289	2103	11.13	15	0.14	A	MC	1.5
168	3188577	34	20.15	-116	28.39	-5.11	7	1994	289	2115	35.55	23	0.13	A	MC	1.9
169	3188578	34	20.09	-116	28.22	-5.35	7	1994	289	2117	12.70	34	0.14	A	MC	2.1
170	3188579	34	20.02	-116	28.39	-5.10	7	1994	289	2118	29.51	14	0.16	A	MC	1.7
171	3188580	35	30.95	-117	29.77	-3.62	7	1994	289	2122	15.44	15	0.17	A	MC	2.2
172	3188586	35	2.08	-117	40.48	0.00	105	1994	289	2218	23.65	21	0.15	A	MC	1.9
173	3188595	32	27.58	-116	15.68	-6.00	5	1994	290	0005	57.18	10	0.38	C	MC	1.7
174	3188602	34	36.81	-118	38.37	-10.62	7	1994	290	0155	04.01	25	0.28	A	MC	1.6
175	3188605	34	11.53	-116	49.67	-9.12	7	1994	290	0310	56.50	44	0.15	A	MC	2.2
176	3188620	34	11.49	-116	49.69	-7.37	7	1994	290	0311	13.45	13	0.17	C	MH	1.7
177	3188608	0	0.00	0	0.00	0.00	207	1994	290	0441	46.64	0	0.00	0	MD	1.5
178	3188610	33	54.91	-116	57.60	-19.39	7	1994	290	0529	05.17	11	0.07	B	MH	2.0
179	3188623	34	19.52	-116	28.66	-4.63	7	1994	290	0915	51.24	19	0.25	A	MC	1.6
180	3188627	35	2.61	-119	0.61	-15.24	7	1994	290	0956	13.62	12	0.20	B	MC	1.7
181	3188628	34	14.94	-119	36.47	-6.00	5	1994	290	1027	31.81	8	0.26	C	MC	1.5
182	3188631	34	16.60	-118	26.94	-10.08	7	1994	290	1246	15.10	50	0.27	A	MC	1.8
183	3188636	34	21.66	-118	39.41	-13.61	7	1994	290	1507	14.87	39	0.18	A	MC	1.8
184	3188638	34	37.62	-116	40.20	-5.36	7	1994	290	1518	05.24	61	0.20	A	MC	2.3
185	3188640	34	21.40	-118	36.01	-10.58	7	1994	290	1617	23.38	37	0.21	A	MC	1.7
186	3188648	34	10.20	-116	26.24	-2.67	7	1994	290	1722	40.98	32	0.20	A	MC	1.7
187	3188654	32	59.33	-114	41.34	0.00	105	1994	290	1914	46.35	5	0.11	D	MC	1.7

188	3188669	33	4.50	-114	58.91	0.00	105	1994	290	2013	06.44	4	0.17	A	MC	2.3
189	3188672	34	21.20	-118	27.08	-4.89	7	1994	290	2040	14.86	61	0.23	A	MC	2.2
190	3188673	33	51.57	-115	36.47	-4.12	7	1994	290	2043	52.04	13	0.21	A	MC	1.6
191	3188684	35	1.90	-117	40.93	0.00	105	1994	290	2211	08.29	10	0.13	A	MC	1.7
192	3188685	34	21.26	-116	27.96	-3.40	7	1994	290	2218	39.22	20	0.13	A	MC	1.6
193	3188689	34	24.24	-116	27.51	-1.69	7	1994	291	0045	38.88	13	0.15	A	MC	1.6
194	3188693	34	20.13	-116	28.20	-5.71	7	1994	291	0155	29.27	17	0.19	C	MC	1.5
195	3188697	34	22.90	-116	28.46	-5.11	7	1994	291	0356	51.66	24	0.20	A	MC	1.5
196	3188701	34	13.36	-116	46.24	-1.93	7	1994	291	0537	32.51	69	0.18	A	MC	2.2
197	3188704	0	0.00	0	0.00	0.00	207	1994	291	0632	22.73	0	0.00	0	MD	2.3
198	3188707	35	53.50	-117	40.5	-7.70	7	1994	291	0734	25.81	9	0.06	B	MH	2.0
199	3188776	35	40.24	-118	58.94	-3.00	7	1994	291	0734	51.88	33	0.28	C	MC	2.2
200	3188709	34	20.12	-116	28.20	-5.16	7	1994	291	0747	21.95	49	0.19	A	MC	2.0
201	3188713	34	23.75	-118	37.28	-4.29	7	1994	291	1040	14.98	42	0.25	A	MC	1.7
202	3188714	32	43.45	-118	21.44	-6.00	5	1994	291	1042	46.10	18	0.30	D	MC	2.0
203	3188737	34	24.61	-116	27.67	-3.60	7	1994	291	1439	23.58	13	0.19	A	MC	1.6
204	3188740	34	19.25	-118	30.04	-6.09	7	1994	291	1446	14.17	44	0.25	A	MC	1.8
205	3188754	34	12.95	-116	45.31	-2.41	7	1994	291	1600	24.61	9	0.12	C	MC	1.5
206	3188755	34	27.62	-116	30.70	-11.24	7	1994	291	1617	02.98	10	0.19	C	MC	1.6
207	3188759	33	19.68	-116	20.78	-11.84	7	1994	291	1649	02.80	30	0.20	A	MC	1.8
208	3188767	35	2.53	-117	40.39	-6.00	105	1994	291	1901	32.00	13	0.24	A	MC	1.6
209	3188802	34	18.07	-116	29.77	-5.15	7	1994	291	2042	00.66	7	0.05	A	MH	2.2
210	3188782	33	3.34	-114	58.57	-6.00	105	1994	291	2059	46.59	6	0.27	A	MC	2.0
211	3188787	34	35.99	-116	36.69	-5.25	7	1994	291	2211	16.84	23	0.14	A	MC	2.2
212	3188789	35	2.35	-117	40.11	-6.00	105	1994	291	2217	10.40	16	0.21	A	MC	1.7
213	3188793	32	39.84	-115	54.26	-4.01	7	1994	291	2322	42.86	18	0.14	B	MC	2.0
214	3188800	34	5.77	-116	26.58	-6.00	7	1994	292	0037	21.98	51	0.17	C	MC	2.4
215	3188801	35	2.47	-116	23.20	-12.52	7	1994	292	0045	54.68	8	0.19	C	MC	1.8
216	3188803	35	30.61	-117	29.65	-3.31	7	1994	292	0047	05.86	29	0.16	A	MC	1.7
217	3188805	35	30.71	-117	29.62	-3.43	7	1994	292	0049	58.80	78	0.16	A	ML	4.2
218	3188806	33	47.17	-117	48.30	-6.00	5	1994	292	0124	27.08	9	0.08	C	MC	1.8
219	3188814	34	26.95	-116	29.81	-2.58	7	1994	292	0218	12.46	8	0.08	A	MC	1.6
220	3188824	32	44.88	-115	26.19	-17.69	7	1994	292	0249	38.38	22	0.25	A	MC	2.2
221	3188825	32	46.31	-115	26.33	-16.62	7	1994	292	0303	08.03	9	0.22	B	MC	1.5
222	3188827	35	30.74	-117	29.65	-3.39	7	1994	292	0315	37.21	25	0.16	A	MC	1.9
223	3188828	35	30.73	-117	29.49	-3.49	7	1994	292	0334	22.40	60	0.16	A	ML	3.5
224	3188830	0	0.00	0	0.00	0.00	207	1994	292	0413	18.05	0	0.00	0	MD	2.9
225	3188832	34	10.06	-116	26.32	-3.25	7	1994	292	0455	41.95	38	0.15	A	MC	2.1
226	3188833	35	30.56	-117	29.42	-3.64	7	1994	292	0503	30.00	28	0.15	A	MC	2.0
227	3188834	35	30.54	-117	29.64	-3.55	7	1994	292	0520	05.57	27	0.14	A	MC	1.8
228	3188899	35	30.63	-117	29.83	-3.73	7	1994	292	0520	25.78	18	0.19	A	MC	1.6
229	3188840	35	28.98	-119	26.81	-31.83	7	1994	292	0626	38.42	17	0.14	B	MC	2.1
230	3188862	35	50.62	-117	38.47	-8.78	7	1994	292	1020	47.37	30	0.14	A	MC	2.1
231	3188866	34	2.22	-117	13.86	-6.00	5	1994	292	1128	10.97	11	0.26	C	MC	2.0
232	3188868	34	47.07	-116	18.26	-3.69	7	1994	292	1131	31.96	10	0.13	A	MC	1.7
233	3188870	35	31.85	-117	29.71	-1.66	7	1994	292	1135	48.15	20	0.25	B	MC	2.1
234	3188872	34	7.38	-116	23.93	-0.17	7	1994	292	1149	42.78	47	0.19	A	MC	2.0
235	3188874	34	9.10	-116	25.76	-6.00	5	1994	292	1213	48.16	18	0.15	C	MC	1.5
236	3188878	34	17.08	-118	27.31	-8.43	7	1994	292	1314	38.19	60	0.24	A	ML	2.1
237	3188879	35	3.59	-119	1.24	-22.20	7	1994	292	1327	55.47	25	0.21	A	MC	1.9
238	3188920	34	16.20	-118	27.82	-10.72	7	1994	292	1328	26.37	32	0.20	A	MC	2.0
239	3188881	33	10.23	-115	38.59	-4.97	7	1994	292	1403	18.48	10	0.24	A	MC	1.7
240	3188884	34	17.43	-116	27.02	-3.50	7	1994	292	1437	43.92	19	0.11	A	MC	1.9
241	3188890	34	22.28	-116	28.17	-1.10	7	1994	292	1524	59.73	22	0.11	A	MC	1.8
242	3188898	34	20.10	-116	28.21	-6.42	7	1994	292	1624	30.92	8	0.07	C	MC	1.8
243	3188908	34	8.94	-116	25.85	-2.68	7	1994	292	1726	48.66	15	0.14	A	MC	1.6
244	3188910	32	25.00	-116	30.20	-6.00	5	1994	292	1824	07.15	8	0.21	D	MC	1.5
245	3188911	32	48.79	-115	35.97	-12.75	7	1994	292	1834	22.10	20	0.29	A	MC	1.8
246	3188912	34	6.51	-119	34.17	-22.76	7	1994	292	1838	38.57	31	0.29	A	MC	2.0
247	3188915	33	50.17	-117	29.70	-6.00	105	1994	292	1853	48.67	13	0.18	A	MC	1.6
248	3188917	34	47.10	-116	17.23	-3.79	7	1994	292	1911	09.02	9	0.15	A	MC	1.7
249	3188923	33	3.50	-114	58.38	-6.00	105	1994	292	1955	25.23	5	0.28	A	MC	2.2
250	3188924	34	26.96	-116	29.94	-2.96	7	1994	292	2004	50.91	85	0.17	A	ML	3.1
251	3188927	35	30.71	-117	29.48	-3.36	7	1994	292	2051	31.66	39	0.16	A	MC	2.2

252	3188930	35	9.50	-118	23.64	-6.00	105	1994	292	2205	39.02	11	0.16	A	MC	1.9
253	3188932	35	2.79	-118	19.11	-6.00	105	1994	292	2210	49.81	8	0.24	A	MC	1.7
254	3188933	35	2.38	-117	40.50	-6.00	105	1994	292	2217	45.12	9	0.15	A	MC	1.6
255	3188942	32	55.68	-114	40.93	-6.00	105	1994	292	2326	04.91	4	0.11	D	MC	1.8
256	3188944	36	10.85	-120	3.68	-6.00	5	1994	292	2359	37.39	13	0.26	C	MC	2.2
257	3188948	34	38.50	-116	14.84	-3.26	7	1994	293	0059	14.62	14	0.17	B	MC	1.7
258	3188951	35	17.53	-118	34.41	-2.44	7	1994	293	0237	23.61	75	0.21	A	ML	2.9
259	3188952	32	43.44	-115	55.73	-2.99	7	1994	293	0256	39.27	47	0.34	A	ML	3.3
260	3188954	35	23.35	-118	13.84	-8.59	7	1994	293	0508	08.98	39	0.14	B	MC	1.7
261	3188955	32	43.37	-115	55.62	-2.81	7	1994	293	0534	30.10	35	0.28	A	MH	2.5
262	3188960	0	0.00	0	0.00	0.00	207	1994	293	0644	56.74	0	0.00	0	MD	2.6
263	3188966	34	18.38	-118	28.63	-5.78	7	1994	293	0832	25.56	29	0.15	A	MC	1.6
264	3188967	33	46.53	-116	9.08	-5.23	7	1994	293	0927	25.15	24	0.16	A	MC	1.7
265	3188970	33	46.38	-116	9.34	-5.39	7	1994	293	1001	59.95	17	0.11	A	MC	1.6
266	3188972	33	44.62	-118	24.61	-4.76	7	1994	293	1022	27.12	13	0.10	A	MC	1.9
267	3188980	34	17.00	-116	23.39	-5.21	7	1994	293	1205	08.83	21	0.15	A	MC	2.4
268	3189016	34	15.03	-118	29.41	-14.33	7	1994	293	1205	51.61	33	0.18	A	MC	1.8
269	3188981	32	40.40	-115	54.56	-3.89	7	1994	293	1228	31.76	26	0.25	A	MC	2.1
270	3188982	32	29.73	-115	41.76	-6.00	5	1994	293	1230	26.91	13	0.30	C	MC	1.6
271	3188985	36	4.67	-117	52.48	-3.21	7	1994	293	1303	02.81	13	0.16	A	MC	1.9
272	3188986	0	0.00	0	0.00	0.00	207	1994	293	1306	45.85	0	0.00	0	MD	3.1
273	3188997	33	40.53	-116	42.18	-17.12	7	1994	293	1445	52.13	8	0.05	D	MH	1.7
274	3189001	35	57.81	-117	60.00	-7.33	7	1994	293	1454	17.05	18	0.10	C	MH	1.7
275	3189006	33	46.42	-116	9.39	-6.48	7	1994	293	1532	33.21	12	0.06	A	MC	1.5
276	3189029	33	46.18	-116	9.24	-6.00	7	1994	293	1532	48.48	12	0.12	A	MC	1.8
277	3189035	33	46.41	-116	9.40	-5.43	7	1994	293	1602	00.59	14	0.10	A	MC	1.7
278	3189020	33	45.20	-118	23.57	-5.22	7	1994	293	1710	37.71	20	0.22	A	MC	2.0
279	3189023	34	13.62	-118	28.98	-14.43	7	1994	293	1732	39.26	39	0.26	A	MC	1.9
280	3189024	34	27.60	-116	30.88	-6.00	5	1994	293	1742	49.55	17	0.09	C	MC	1.7
281	3189026	34	15.73	-117	58.45	-9.72	7	1994	293	1824	53.45	45	0.10	A	MC	1.9
282	3189027	34	59.71	-116	57.48	-5.37	7	1994	293	1835	59.50	10	0.10	A	MC	1.6

TABLE B: Location of Earthquake Events Latitude/Longitude and UTM

Event Num	Catalogue ID	LONGITUDE (deg)	LATITUDE (deg)	UTM X (m)	UTM Y (m)	MAGNITUDE type	mag
1	3187948	-116.30534	34.78817	563553	3849772	MC	1.6
2	3187952	-116.47900	34.42450	547873	3809348	MC	1.6
3	3187953	-116.30150	34.78700	563905	3849645	MC	1.8
4	3188094	-116.36867	34.91783	557668	3864113	MC	2.1
5	3188098	-116.30450	34.78183	563634	3849070	MC	2.3
6	3188100	-118.62350	34.28833	350575	3795320	MC	1.8
7	3188101	-114.98483	33.07000	688116	3660853	MC	2.6
8	3188107	-115.49433	32.88133	640848	3639136	MC	1.5
9	3188113	-118.62517	34.29200	350427	3795728	MC	1.6
10	3188114	-116.29000	34.76817	564971	3847564	MC	1.9
11	3188115	-117.11667	34.62767	489306	3831760	MC	1.9
12	3188116	-116.49533	34.42133	546374	3808990	MC	1.8
13	3188117	-117.68100	35.03433	437883	3877062	MC	1.7
14	3188134	-118.45133	35.49050	368354	3928408	MC	1.6
15	3188121	-117.81866	36.00983	426224	3985349	MC	2.7
16	3188122	0.00000	0.00000	0	0	MD	4.2
17	3188146	-116.72150	33.67350	525817	3725990	MC	2.8
18	3188147	-116.71667	33.67367	526265	3726010	MC	2.0
19	3188123	-116.72117	33.67633	525847	3726304	MC	2.1
20	3188126	-116.68816	33.72417	528890	3731616	MC	1.7
21	3188127	-118.47266	34.32516	364518	3799192	MC	1.6
22	3188133	-116.36417	34.92150	558077	3864522	MH	2.2
23	3188138	-116.30067	34.79100	563978	3850089	ML	3.0
24	3188145	-116.66583	34.62300	530633	3831287	MC	1.6
25	3188149	-118.28616	35.95600	384014	3979833	MC	1.6
26	3188150	-116.29767	34.77483	564265	3848298	MC	1.6
27	3188152	-116.96733	35.02567	502980	3875890	MC	1.6
28	3188165	-116.27133	33.99567	567295	3761915	MC	1.8
29	3188166	-116.37500	34.95867	557061	3868638	MC	1.6
30	3188168	-118.05417	35.68300	404610	3949301	MC	1.7
31	3188172	-117.51933	34.05067	452069	3767896	MC	1.9
32	3188173	-116.57800	34.97217	538521	3870038	MH	2.3
33	3188179	-116.46933	34.33417	548814	3799336	MC	1.6
34	3188204	-116.88100	34.34267	510945	3800158	MC	1.9
35	3188192	-116.88017	34.34517	511022	3800435	MC	1.8
36	3188201	-118.53950	34.27383	358282	3793591	MC	2.0
37	3188202	-116.29117	34.76233	564869	3846916	MC	2.2
38	3188203	-114.62150	32.96817	722296	3650270	MC	1.7
39	3188213	-116.87067	35.43400	511739	3921181	MC	1.8
40	3188215	-116.51650	34.46850	544404	3814210	MC	2.0
41	3188217	-120.15117	36.16317	216535	4006649	MC	2.0
42	3188219	-116.49866	34.47367	546039	3814791	MH	2.2
43	3188221	-118.42750	34.29800	368631	3796121	MC	1.6
44	3188222	-118.47800	34.24567	363899	3790384	MC	1.9
45	3188224	-117.67767	35.03100	438185	3876690	MC	1.6
46	3188226	-116.94400	34.97183	505112	3869921	MC	1.8
47	3188228	-116.94434	34.97000	505081	3869718	MC	2.3
48	3188230	-116.70433	33.67833	527407	3726530	MH	1.5
49	3188232	-116.98534	35.06333	501337	3880066	MC	1.8
50	3188233	-116.74600	34.18417	523405	3782606	MC	1.6
51	3188234	-118.40166	35.14800	372322	3890355	MC	1.6
52	3188241	-118.62833	34.30400	350157	3797064	MC	1.9
53	3188245	-116.57983	34.57400	538539	3825883	MC	2.0

54	3188246	-116.30400	34.77900	563682	3848756	MC 1.8
55	3188247	-116.71317	33.67717	526588	3726399	MC 1.5
56	3188248	-116.79900	33.69233	518628	3728062	MH 1.5
57	3188249	-116.42100	34.15550	553372	3779549	MC 1.7
58	3188251	-116.41967	34.15617	553494	3779624	MC 1.8
59	3188252	-118.46283	34.29133	365368	3795428	ML 2.4
60	3188254	-116.42550	34.14600	552963	3778494	MC 1.8
61	3188256	-116.51400	34.50933	544612	3818740	MC 2.4
62	3188259	-116.51566	34.47550	544477	3814987	MC 1.6
63	3188260	-120.86266	35.49567	149577	3934878	MC 2.6
64	3188261	-116.32450	33.96717	562405	3758721	MC 1.6
65	3188267	-116.71317	33.68033	526587	3726750	MH 1.6
66	3188270	-116.45734	34.32167	549924	3797956	MC 1.8
67	3188273	-115.73400	31.90233	619711	3530309	MC 2.1
68	3188277	-116.82450	34.17633	516173	3781722	MC 2.1
69	3188278	-116.42516	34.14617	552994	3778512	MC 2.1
70	3188282	-116.88517	34.29733	510567	3795130	MC 2.4
71	3188283	-117.88133	36.07784	420645	3992941	MC 1.7
72	3188286	-114.90183	32.42433	697284	3589408	MC 2.0
73	3188287	-118.61983	35.31800	352755	3909512	MC 1.5
74	3188298	-117.54533	35.80983	450732	3962994	MC 1.6
75	3188299	-116.07667	33.02083	586235	3653975	MC 1.6
76	3188301	-114.97600	33.06700	688947	3660536	MC 2.0
77	3188302	-117.58017	33.87467	446344	3748411	MC 1.7
78	3188303	-116.85800	34.34700	513060	3800641	MC 1.7
79	3188306	-116.46650	34.36917	549054	3803219	MC 1.8
80	3188313	-118.58434	34.34300	354274	3801325	MC 1.9
81	3188315	-116.37417	34.07516	557744	3770667	MC 1.9
82	3188316	-116.30317	34.78833	563751	3849792	MC 2.3
83	3188318	-116.94183	35.66833	505264	3947164	MC 1.9
84	3188321	-117.68584	35.02917	437438	3876492	MC 1.7
85	3188322	-116.73450	34.83933	524275	3855258	MC 1.7
86	3188328	-120.85350	35.49883	150423	3935196	MC 2.9
87	3188330	-114.63700	32.96350	720858	3649720	MC 1.7
88	3188331	-116.31583	34.82150	562567	3853462	MC 1.8
89	3188333	-118.44767	35.49100	368687	3928459	MC 1.5
90	3188337	0.00000	0.00000	0	0	MD 2.6
91	3188339	-118.61166	34.37733	351821	3805172	MC 1.7
92	3188344	-116.29950	34.78083	564092	3848962	MC 1.8
93	3188347	-116.96533	33.99434	503202	3761528	MC 1.8
94	3188349	-118.58783	34.34967	353964	3802069	MC 1.6
95	3188352	-117.71000	35.90850	435935	3974033	MC 2.4
96	3188356	-117.88067	36.07233	420699	3992330	MC 1.9
97	3188357	-116.45717	34.38334	549903	3804794	MC 2.0
98	3188358	-117.70783	35.90833	436130	3974013	MC 1.5
99	3188360	-117.70950	35.90833	435980	3974014	MC 2.0
100	3188363	-116.46384	34.39517	549283	3806103	MC 1.5
101	3188364	-117.70966	35.90733	435964	3973903	MC 1.8
102	3188365	-116.43867	34.56150	551495	3824560	MC 2.5
103	3188366	-116.98300	35.03433	501550	3876850	MC 2.1
104	3188367	-116.98016	35.03267	501809	3876666	MC 2.1
105	3188368	-116.45216	34.36900	550372	3803207	MC 1.8
106	3188370	-118.43616	34.30650	367846	3797074	MC 1.6
107	3188378	-117.70934	35.91100	435997	3974310	MC 1.8
108	3188380	-116.31767	34.82817	562395	3854200	MC 1.6
109	3188382	-116.50034	34.44584	545901	3811704	MC 1.6
110	3188386	-116.82784	34.17450	515866	3781518	MC 1.8
111	3188388	-116.92216	33.99817	507188	3761955	MH 2.0

112	3188389	-116.44867	34.30800	550730	3796445	MC 1.8
113	3188392	-114.90633	32.40500	696903	3587257	MC 1.9
114	3188393	-118.34866	37.36283	380571	4135977	MC 2.0
115	3188396	-116.46983	34.36733	548748	3803014	MC 1.5
116	3188403	-114.97183	33.06767	689334	3660617	MC 2.4
117	3188404	-117.67683	35.03583	438264	3877226	MC 1.7
118	3188414	-116.01350	33.29700	591847	3684648	MC 1.8
119	3188419	-117.67316	35.03183	438596	3876780	MC 1.5
120	3188421	-118.85167	37.63017	336608	4166395	MC 2.8
121	3188424	-118.46200	34.30067	365460	3796462	MC 1.6
122	3188428	-116.84433	35.83933	514059	3966140	MC 1.8
123	3188429	-116.47150	34.33983	548611	3799964	MC 1.6
124	3188439	-118.91517	33.90233	322924	3752978	MC 2.5
125	3188446	-116.31834	34.01667	562938	3764214	MC 1.5
126	3188453	-116.96433	35.01383	503254	3874578	MC 2.4
127	3188456	-118.48450	34.32750	363433	3799467	MC 1.8
128	3188457	0.00000	0.00000	0	0	MC 2.4
129	3188459	-116.46684	34.34017	549040	3800003	ML 2.7
130	3188461	-116.45550	34.34500	550080	3800544	MC 1.8
131	3188462	-116.53917	34.62634	542242	3831703	MC 1.6
132	3188463	-118.50083	34.20583	361731	3785997	MC 1.6
133	3188467	0.00000	0.00000	0	0	MD 2.5
134	3188491	-116.46783	34.40933	548908	3807672	MC 2.4
135	3188468	-117.51517	34.03983	452447	3766692	MC 2.4
136	3188469	-117.51200	34.04183	452741	3766912	MC 1.8
137	3188472	-116.46684	34.39683	549007	3806286	MC 1.6
138	3188480	-118.40400	35.16233	372132	3891948	MC 1.7
139	3188483	-118.55167	34.35350	357297	3802443	MC 1.9
140	3188484	-116.43066	34.17950	552466	3782206	MC 1.6
141	3188485	-118.62967	34.61934	350597	3832038	MC 2.3
142	3188486	-118.65217	34.35850	348062	3803144	MC 1.8
143	3188487	-116.84000	33.75217	514819	3734689	MC 2.2
144	3188489	-118.84200	37.54533	337276	4156965	MC 2.8
145	3188492	-118.70583	34.26450	342951	3792800	MC 1.8
146	3188494	-116.52050	34.50834	544015	3818626	MC 2.1
147	3188505	0.00000	0.00000	0	0	MD 3.9
148	3188506	-116.50450	34.46167	545509	3813458	MC 1.9
149	3188510	-118.91650	37.60800	330837	4164050	MC 2.2
150	3188512	-116.97650	35.00800	502144	3873930	MC 1.6
151	3188513	-117.12750	32.61750	488038	3608892	MC 1.9
152	3188515	-116.61066	34.61150	535695	3830030	MC 1.6
153	3188524	0.00000	0.00000	0	0	MD 1.8
154	3188568	-118.62167	34.30550	350774	3797220	MC 1.6
155	3188525	0.00000	0.00000	0	0	MD 1.9
156	3188526	-116.47717	34.35517	548081	3801661	MH 1.8
157	3188538	-117.00584	34.11750	499462	3775184	MC 2.1
158	3188541	-116.29583	34.76333	564442	3847024	MC 1.7
159	3188543	-118.46783	34.32500	364962	3799168	MC 1.6
160	3188582	-115.85133	32.53550	607865	3600376	MC 1.6
161	3188546	-115.86350	32.53650	606721	3600474	MC 2.0
162	3188551	-116.75300	34.23033	522748	3787723	ML 3.0
163	3188554	-117.49316	35.51150	455280	3929881	MC 2.1
164	3188555	-116.29900	34.78417	564135	3849332	ML 2.7
165	3188562	-118.62833	34.38650	350304	3806214	MC 1.5
166	3188571	-117.77450	36.01417	430208	3985797	MC 1.8
167	3188575	-116.40234	34.04883	555162	3767732	MC 1.5
168	3188577	-116.47317	34.33583	548460	3799519	MC 1.9
169	3188578	-116.47034	34.33484	548721	3799410	MC 2.1

170	3188579	-116.47317	34.33367	548461	3799279	MC	1.7
171	3188580	-117.49617	35.51583	455009	3930363	MC	2.2
172	3188586	-117.67467	35.03467	438461	3877096	MC	1.9
173	3188595	-116.26133	32.45967	569422	3591628	MC	1.7
174	3188602	-118.63950	34.61350	349685	3831405	MC	1.6
175	3188605	-116.82784	34.19217	515863	3783476	MC	2.2
176	3188620	-116.82816	34.19150	515833	3783403	MH	1.7
177	3188608	0.00000	0.00000	0	0	MD	1.5
178	3188610	-116.96000	33.91516	503698	3752750	MH	2.0
179	3188623	-116.47767	34.32533	548052	3798353	MC	1.6
180	3188627	-119.01017	35.04350	316653	3879714	MC	1.7
181	3188628	-119.60783	34.24900	259847	3792842	MC	1.5
182	3188631	-118.44900	34.27667	366618	3793783	MC	1.8
183	3188636	-118.65683	34.36100	347638	3803428	MC	1.8
184	3188638	-116.67000	34.62700	530249	3831730	MC	2.3
185	3188640	-118.60017	34.35667	352842	3802864	MC	1.7
186	3188648	-116.43733	34.17000	551858	3781148	MC	1.7
187	3188654	-114.68900	32.98883	715935	3652421	MC	1.7
188	3188669	-114.98183	33.07500	688385	3661413	MC	2.3
189	3188672	-118.45133	34.35333	366525	3802288	MC	2.2
190	3188673	-115.60783	33.85950	628780	3747450	MC	1.6
191	3188684	-117.68217	35.03167	437775	3876767	MC	1.7
192	3188685	-116.46600	34.35433	549108	3801574	MC	1.6
193	3188689	-116.45850	34.40400	549768	3807085	MC	1.6
194	3188693	-116.47000	34.33550	548751	3799484	MC	1.5
195	3188697	-116.47433	34.38167	548326	3804601	MC	1.5
196	3188701	-116.77067	34.22267	521123	3786869	MC	2.2
197	3188704	0.00000	0.00000	0	0	MD	2.3
198	3188707	-117.67500	35.89167	439080	3972143	MH	2.0
199	3188776	-118.98233	35.67067	320586	3949232	MC	2.2
200	3188709	-116.47000	34.33533	548751	3799466	MC	2.0
201	3188713	-118.62133	34.39583	350964	3807238	MC	1.7
202	3188714	-118.35733	32.72417	372806	3621523	MC	2.0
203	3188737	-116.46117	34.41017	549520	3807768	MC	1.6
204	3188740	-118.50066	34.32084	361934	3798750	MC	1.8
205	3188754	-116.75517	34.21583	522553	3786114	MC	1.5
206	3188755	-116.51167	34.46033	544852	3813307	MC	1.6
207	3188759	-116.34634	33.32800	560836	3687840	MC	1.8
208	3188767	-117.67316	35.04217	438604	3877926	MC	1.6
209	3188802	-116.49617	34.30117	546363	3795664	MH	2.2
210	3188782	-114.97617	33.05567	688955	3659279	MC	2.0
211	3188787	-116.61150	34.59983	535623	3828736	MC	2.2
212	3188789	-117.66850	35.03917	439027	3877590	MC	1.7
213	3188793	-115.90434	32.66400	602741	3614569	MC	2.0
214	3188800	-116.44300	34.09617	551380	3772959	MC	2.4
215	3188801	-116.38667	35.04117	555940	3877780	MC	1.8
216	3188803	-117.49416	35.51017	455188	3929733	MC	1.7
217	3188805	-117.49367	35.51183	455234	3929918	ML	4.2
218	3188806	-117.80500	33.78617	425473	3738738	MC	1.8
219	3188814	-116.49683	34.44917	546220	3812075	MC	1.6
220	3188824	-115.43650	32.74800	646477	3624432	MC	2.2
221	3188825	-115.43884	32.77183	646219	3627071	MC	1.5
222	3188827	-117.49416	35.51233	455189	3929974	MC	1.9
223	3188828	-117.49150	35.51217	455431	3929954	ML	3.5
224	3188830	0.00000	0.00000	0	0	MD	2.9
225	3188832	-116.43867	34.16767	551736	3780889	MC	2.1
226	3188833	-117.49033	35.50933	455535	3929639	MC	2.0
227	3188834	-117.49400	35.50900	455202	3929604	MC	1.8

228	3188899	-117.49717	35.51050	454916	3929772	MC 1.6
229	3188840	-119.44683	35.48300	278020	3929360	MC 2.1
230	3188862	-117.64117	35.84367	442099	3966799	MC 2.1
231	3188866	-117.23100	34.03700	478677	3766282	MC 2.0
232	3188868	-116.30434	34.78450	563647	3849366	MC 1.7
233	3188870	-117.49516	35.53083	455109	3932026	MC 2.1
234	3188872	-116.39883	34.12300	555437	3775958	MC 2.0
235	3188874	-116.42934	34.15167	552606	3779120	MC 1.5
236	3188878	-118.45517	34.28467	366063	3794678	ML 2.1
237	3188879	-119.02067	35.05983	315732	3881546	MC 1.9
238	3188920	-118.46367	34.27000	365257	3793063	MC 2.0
239	3188881	-115.64317	33.17050	626510	3671009	MC 1.7
240	3188884	-116.45033	34.29050	550587	3794504	MC 1.9
241	3188890	-116.46950	34.37133	548777	3803458	MC 1.8
242	3188898	-116.47017	34.33500	548736	3799428	MC 1.8
243	3188908	-116.43083	34.14900	552470	3778823	MC 1.6
244	3188910	-116.50333	32.41667	546700	3586730	MC 1.5
245	3188911	-115.59950	32.81317	631109	3631444	MC 1.8
246	3188912	-119.56950	34.10850	262984	3777168	MC 2.0
247	3188915	-117.49500	33.83617	454200	3744101	MC 1.6
248	3188917	-116.28717	34.78500	565217	3849432	MC 1.7
249	3188923	-114.97300	33.05833	689245	3659580	MC 2.2
250	3188924	-116.49900	34.44933	546021	3812093	ML 3.1
251	3188927	-117.49133	35.51183	455446	3929917	MC 2.2
252	3188930	-118.39400	35.15833	373037	3891491	MC 1.9
253	3188932	-118.31850	35.04650	379749	3878994	MC 1.7
254	3188933	-117.67500	35.03967	438434	3877650	MC 1.6
255	3188942	-114.68217	32.92800	716722	3645689	MC 1.8
256	3188944	-120.06133	36.18083	224681	4008350	MC 2.2
257	3188948	-116.24733	34.64167	568981	3833564	MC 1.7
258	3188951	-118.57350	35.29217	356922	3906580	ML 2.9
259	3188952	-115.92883	32.72400	600377	3621198	ML 3.3
260	3188954	-118.23067	35.38917	388231	3916897	MC 1.7
261	3188955	-115.92700	32.72283	600550	3621070	MH 2.5
262	3188960	0.00000	0.00000	0	0	MD 2.6
263	3188966	-118.47717	34.30633	364073	3797110	MC 1.6
264	3188967	-116.15134	33.77550	578579	3737588	MC 1.7
265	3188970	-116.15567	33.77300	578180	3737307	MC 1.6
266	3188972	-118.41016	33.74367	369379	3734628	MC 1.9
267	3188980	-116.38983	34.28333	556160	3793740	MC 2.4
268	3189016	-118.49017	34.25050	362786	3790936	MC 1.8
269	3188981	-115.90933	32.67333	602262	3615599	MC 2.1
270	3188982	-115.69600	32.49550	622507	3596109	MC 1.6
271	3188985	-117.87466	36.07784	421245	3992936	MC 1.9
272	3188986	0.00000	0.00000	0	0	MD 3.1
273	3188997	-116.70300	33.67550	527531	3726216	MH 1.7
274	3189001	-118.00000	35.96350	409829	3980362	MH 1.7
275	3189006	-116.15650	33.77367	578102	3737381	MC 1.5
276	3189029	-116.15400	33.76967	578338	3736939	MC 1.8
277	3189035	-116.15667	33.77350	578087	3737362	MC 1.7
278	3189020	-118.39283	33.75333	371000	3735678	MC 2.0
279	3189023	-118.48300	34.22700	363408	3788320	MC 1.9
280	3189024	-116.51466	34.46000	544577	3813268	MC 1.7
281	3189026	-117.97417	34.26217	410314	3791654	MC 1.9
282	3189027	-116.95800	34.99517	503833	3872508	MC 1.6

TABLE C: Line1 Station Locations: Seal Beach - Mojave Desert; Lat/Long and UTM

Station Locations
World Geodetic Survey 1984 Reference Geoid

Station# in Line1	Cumulative Station# in all 3 lines	Station Name	Lat(°N)	Long(°W)	UTM X (m)	UTM Y (m)	Altitude (m)
1	1	4004	33.4482	-118.5475	356167.	3702044.	498
2	2	4003	33.3184	-118.3197	377159.	3687360.	432
3	3	4002	33.0087	-118.5675	353582.	3653340.	159
4	4	4001	32.8777	-118.4506	364298.	3638657.	528
5	5	2455	33.7452	-118.0851	399494.	3734435.	-32
6	6	2445	33.7533	-118.0805	399933.	3735325.	-31
7	7	2435	33.7611	-118.0731	400626.	3736184.	-32
8	8	2400	33.7936	-118.0675	401178.	3739781.	-25
9	9	2400	33.7936	-118.0675	401178.	3739781.	-25
10	10	2370	33.8225	-118.0663	401320.	3742988.	-22
11	11	2355	33.8358	-118.0615	401785.	3744459.	-19
12	12	2340	33.8496	-118.0565	402261.	3745985.	-19
13	13	2315	33.8659	-118.0357	404207.	3747772.	-16
14	14	2300	33.8800	-118.0334	404435.	3749333.	-18
15	15	2275	33.9081	-118.0414	403727.	3752452.	-5
16	16	2275	33.9081	-118.0414	403727.	3752452.	-5
17	17	2255	33.9260	-118.0361	404231.	3754437.	2
18	18	2255	33.9260	-118.0361	404231.	3754437.	2
19	19	2240	33.9377	-118.0285	404949.	3755720.	15
20	20	2210	33.9614	-118.0114	406556.	3758336.	71
21	21	2200	33.9695	-118.0048	407175.	3759229.	127
22	22	2185	33.9839	-118.0068	407001.	3760830.	277
23	23	2160	34.0112	-118.0105	406690.	3763853.	297
24	24	2150	34.0182	-118.0113	406630.	3764635.	285
25	25	2130	34.0353	-117.9981	407861.	3766518.	86
26	26	2109	34.0508	-117.9836	409219.	3768229.	67
27	27	2080	34.0724	-117.9656	410905.	3770609.	72
28	28	2065	34.0831	-117.9542	411962.	3771782.	84
29	29	2039	34.1097	-117.9550	411923.	3774736.	105
30	30	2020	34.1256	-117.9471	412669.	3776485.	131
31	31	2000	34.1400	-117.9334	413941.	3778078.	158
32	32	20	34.1543	-117.9189	415293.	3779648.	184
33	33	42	34.1661	-117.8923	417759.	3780931.	256
34	34	60	34.1802	-117.8817	418750.	3782484.	359
35	35	80	34.1934	-117.8652	420281.	3783934.	340
36	36	100	34.2126	-117.8638	420425.	3786063.	468
37	37	118	34.2248	-117.8496	421745.	3787409.	436
38	38	141	34.2515	-117.8602	420798.	3790380.	539
39	39	156	34.2624	-117.8448	422223.	3791573.	676
40	40	177	34.2830	-117.8440	422318.	3793856.	917
41	41	198	34.3018	-117.8385	422839.	3795936.	1173
42	42	219	34.3228	-117.8380	422908.	3798264.	1690
43	43	235	34.3356	-117.8327	423404.	3799679.	1922
44	44	259	34.3508	-117.8089	425605.	3801353.	2278
45	45	277	34.3616	-117.7906	427295.	3802532.	2273
46	46	297	34.3749	-117.7725	428978.	3803991.	2095
47	47	323	34.3915	-117.7475	431291.	3805822.	1905
48	48	342	34.4011	-117.7244	433414.	3806867.	1879

49	49	360	34.4166	-117.7171	434099.	3808578.	1501
50	50	378	34.4328	-117.7123	434552.	3810372.	1378
51	51	400	34.4532	-117.7107	434715.	3812637.	0
52	52	420	34.4753	-117.7129	434538.	3815093.	1092
53	53	445	34.4957	-117.7037	435390.	3817349.	1013
54	54	460	34.5092	-117.6954	436170.	3818838.	978
55	55	480	34.5276	-117.6905	436629.	3820874.	941
56	56	500	34.5421	-117.6809	437518.	3822474.	916
57	57	515	34.5534	-117.6603	439424.	3823719.	913
58	58	540	34.5730	-117.6537	440039.	3825889.	889
59	59	560	34.5917	-117.6485	440528.	3827959.	865
60	60	580	34.6045	-117.6411	441222.	3829376.	856
61	61	600	34.6225	-117.6335	441930.	3831358.	865
62	62	620	34.6387	-117.6185	443311.	3833148.	833
63	63	650	34.6661	-117.6145	443700.	3836192.	834
64	64	660	34.6759	-117.6140	443750.	3837277.	843
65	65	680	34.6901	-117.5966	445351.	3838838.	900
66	66	700	34.7101	-117.5965	445373.	3841053.	987
67	67	720	34.7234	-117.5804	446856.	3842529.	1037
68	68	740	34.7373	-117.5660	448184.	3844061.	1224
69	69	770	34.7626	-117.5430	450310.	3846854.	915
70	70	820	34.7957	-117.5169	452713.	3850506.	826
72	72	840	34.8166	-117.5154	452866.	3852824.	806
73	73	860	34.8305	-117.5005	454232.	3854362.	800
74	74	880	34.8522	-117.5065	453696.	3856773.	813
75	75	900	34.8687	-117.4918	455052.	3858595.	840
76	76	920	34.8888	-117.4870	455504.	3860820.	894
77	77	940	34.9040	-117.4841	455774.	3862506.	866
78	78	960	34.9177	-117.4692	457141.	3864014.	811
79	79	980	34.9368	-117.4544	458501.	3866131.	749
80	80	1000	34.9478	-117.4433	459527.	3867340.	718
81	81	1020	34.9627	-117.4270	461020.	3868995.	699
82	82	1040	34.9746	-117.4111	462479.	3870301.	682
83	83	1060	34.9877	-117.3911	464308.	3871744.	668
84	84	1080	34.9986	-117.3743	465844.	3872953.	0
85	85	1100	35.0146	-117.3656	466644.	3874720.	625
86	86	1120	35.0252	-117.3344	469499.	3875889.	594
87	87	1140	35.0433	-117.3306	469847.	3877898.	585

TABLE D: Line2 Station Locations: Northridge; Lat/Long and UTM

Station Locations
World Geodetic Survey 1984 Reference Geoid

Station# in Line2	Cumulative Station# in all 3 lines	Station Name	Lat(°N)	Long(°W)	UTM X (m)	UTM Y (m)	Altitude (m)
1	88	7001	34.0420	-118.5742	354688.	3767934.	19
2	89	7002	34.0595	-118.5739	354751.	3769867.	435
3	90	7003	34.0789	-118.5803	354190.	3772033.	446
4	91	7004	34.0983	-118.5807	354183.	3774180.	462
5	92	7005	34.1095	-118.5635	355797.	3775397.	599
6	93	7006	34.1324	-118.5649	355700.	3777941.	452
7	94	7007	34.1471	-118.5574	356422.	3779562.	274
8	95	7008	34.1628	-118.5609	356123.	3781311.	266
9	96	7009	34.1800	-118.5589	356337.	3783208.	205
10	97	7010	34.1967	-118.5559	356642.	3785061.	199
11	98	7011	34.2149	-118.5503	357191.	3787069.	197
12	99	7012	34.2387	-118.5484	357407.	3789708.	230
13	100	7013	34.2602	-118.5432	357923.	3792082.	274
14	101	7014	34.2759	-118.5434	357931.	3793823.	343
15	102	7015	34.2966	-118.5421	358084.	3796118.	441
16	103	7016	34.3170	-118.5349	358782.	3798373.	775
17	104	7017	34.3283	-118.5373	358573.	3799624.	733
18	105	7018	34.3503	-118.5295	359330.	3802063.	538
19	106	7019	34.3675	-118.5287	359436.	3803969.	443
20	107	7020	34.3818	-118.5231	359968.	3805539.	373
21	108	7021	34.4060	-118.5245	359882.	3808226.	397
22	109	7022	34.4312	-118.5194	360393.	3811019.	356
23	110	7023	34.4604	-118.5127	361056.	3814246.	402
24	111	7024	34.4732	-118.5099	361333.	3815664.	406
25	112	7025	34.4964	-118.5195	360495.	3818242.	552
26	113	7026	34.5207	-118.5174	360726.	3820940.	621
27	114	7027	34.5447	-118.4946	362857.	3823568.	684
28	115	7028	34.5638	-118.4836	363895.	3825675.	535
29	116	7029	34.5928	-118.4922	363155.	3828900.	914
30	117	7030	34.6050	-118.4852	363817.	3830241.	1084
31	118	7031	34.6266	-118.4592	366237.	3832604.	1181
32	119	7032	34.6543	-118.4758	364762.	3835695.	882
33	120	7033	34.6731	-118.4789	364513.	3837790.	1288
34	121	7034	34.6899	-118.4821	364239.	3839652.	1046
35	122	7035	34.7221	-118.4819	364312.	3843223.	1050
36	123	7036	34.7462	-118.4780	364711.	3845893.	860
37	124	7037	34.7642	-118.4668	365763.	3847875.	828
38	125	7038	34.7895	-118.4667	365817.	3850679.	802
39	126	7039	34.8107	-118.4674	365785.	3853032.	782
40	127	7040	34.8342	-118.4669	365868.	3855640.	800
41	128	7041	34.8518	-118.4457	367837.	3857559.	801
42	129	7042	34.8797	-118.4505	367440.	3860658.	902
43	130	7043	34.9003	-118.4551	367050.	3862952.	920
44	131	7044	34.9221	-118.4535	367239.	3865365.	1008
45	132	7045	34.9432	-118.4451	368038.	3867697.	1133
46	133	7046	34.9623	-118.4412	368420.	3869815.	1307
47	134	7050	34.6967	-118.4816	364299.	3840407.	1227

TABLE E: Line3 Station locations: El Segundo Cross Line; Lat/Long and UTM

Station Locations
World Geodetic Survey 1984 Reference Geoid

Station# in Line3	Cumulative Station# in all 3 lines	Station Name	Lat(°N)	Long(°W)	UTM X (m)	UTM Y (m)	Altitude (m)
1	135	6001	33.8378	-118.3894	371445.	3745041.	-16
2	136	6002	33.8428	-118.3634	373855.	3745559.	-8
3	137	6003	33.8473	-118.3267	377264.	3746018.	-10
4	138	6004	33.8545	-118.2993	379803.	3746779.	-12
5	139	6005	33.8571	-118.2800	381595.	3747053.	-27
6	140	6006	33.8617	-118.2608	383377.	3747540.	-10
7	141	6007	33.8677	-118.2259	386616.	3748168.	-4
8	142	6008	33.8746	-118.2022	388815.	3748902.	-13
9	143	6009	33.8808	-118.1779	391071.	3749563.	-17
10	144	6010	33.8920	-118.1512	393556.	3750773.	-10
11	145	6011	33.8936	-118.1279	395709.	3750935.	-12
12	146	6012	33.8944	-118.0998	398305.	3750993.	-5
13	147	6013	33.8940	-118.0679	401261.	3750912.	-8
14	148	6014	33.9076	-118.0473	403179.	3752407.	-3
15	149	6015	33.9092	-118.0175	405930.	3752559.	16
16	150	6016	33.9158	-117.9962	407906.	3753262.	44
17	151	6017	33.9231	-117.9732	410046.	3754061.	55
18	152	6018	33.9282	-117.9413	412996.	3754595.	54
19	153	6019	33.9299	-117.9124	415676.	3754757.	75
20	154	6020	33.9408	-117.8893	417815.	3755946.	87
21	155	6021	33.9454	-117.8646	420106.	3756433.	273
22	156	6022	33.9520	-117.8376	422602.	3757151.	172
23	157	6023	33.9560	-117.8140	424788.	3757575.	385
24	158	6024	33.9637	-117.7878	427218.	3758411.	371
25	159	6025	33.9673	-117.7622	429584.	3758796.	346
26	160	6026	33.9748	-117.7302	432546.	3759602.	225
27	161	6027	33.9740	-117.7080	434594.	3759499.	176
28	162	6028	33.9829	-117.6893	436331.	3760473.	150
29	163	6029	33.9902	-117.6587	439162.	3761259.	168
30	164	6030	33.9941	-117.6282	441984.	3761682.	175
31	165	6031	33.9975	-117.6059	444041.	3762039.	180
32	166	6032	34.0063	-117.5759	446824.	3763007.	197
33	167	6033	34.0114	-117.5550	448753.	3763556.	203
34	168	6034	34.0147	-117.5249	451535.	3763915.	204
35	169	6035	34.0242	-117.5033	453533.	3764951.	282
36	170	6036	34.0265	-117.4637	457188.	3765186.	277
37	171	6037	34.0371	-117.4338	459956.	3766355.	345
38	172	6038	34.0400	-117.4094	462211.	3766668.	274
39	173	6039	34.0435	-117.3878	464210.	3767050.	254
40	174	6040	34.0474	-117.3677	466063.	3767468.	260
41	175	6041	34.0537	-117.3372	468878.	3768157.	247

TABLE F. Land Array Station Naming Scheme

0000's	Line 1 (Seal-Beach to Barstow)
1000's	" "
2000's	" "
3000's	Line 1 doubled up stations (add 3000 to original station)
4000's	" "
5000's	" "
6000's	Line 3 (East-west Los Angeles basin)
7000's	Line 2 (Northridge)

TABLE G: Instrument Inventory and Specifications

Reftek Type	# of Refteks	Internal GPS?	Owner[1]	CPU Bits	Internal Disk Size
72A-02	8	no GPS	SCEC	16	external
	3	no GPS	LANL	16	external
72A-06	64	no GPS	PASSCAL	16	230 MB
	1	no GPS	UTEP	16	230 MB
72A-07	61	no GPS	PASSCAL	24	230 MB
	9	no GPS	UTEP	24	230 MB
72A-07/G	28	GPS int	PASSCAL	24	1 GB
72A-07G	29	GPS int	PASSCAL	24	540 MB
72A-08	10	no GPS	SCEC	24	external
	2	no GPS	LANL	24	external
TOTAL:	215				

[1]
LANL Los Alamos National Laboratory
PASSCAL Incorporated Research Institutes for Seismology (IRIS) Program for Array Seismic Studies of the Crust and Lithosphere (PASSCAL)
SCEC Southern California Earthquake Center
UTEP University of Texas at El Paso

TABLE H: Instrument Deployment History

*Instrument did not produce seismograms.

Receiv trace # in event	Station trace # in event	Stake number	Line number	Receiv in line	Statn in line	Instrument Number During: Install	Visit one	Visit two	Pickup
1	1	4004	1	1	1	7291	7291	7291	7291
2	2	4003	1	2	2	7290	7290	7290	7290
3	3	4002	1	3	3	7287	7287	7287	7287
4	4	4001	1	4	4	7286	7286	7286	7286
5	5	2455	1	5	5	0695	0695	0695	0695
6	6	2445	1	6	6	0696	0696	0696	0696
7	7	2435	1	7	7	0631	0631	0631	0631
8	8	2400	1	8	8	7045	7045	7045	7045
9	8	2400	1	9	8	0629	0629	0629	0629
10	9	2370	1	10	9	7057	7057	7057	7057
11	10	2355	1	11	10	7280*	7280*	7280*	7280*
12	11	2340	1	12	11	7282	7282	7282	7282
13	12	2315	1	13	12	7283	7283	7283	7283
14	13	2300	1	14	13	7285	7285	7285	7285
15	14	2275	1	15	14	7292	0	0	0
15	14	2275	1	15	14	0	7296*	7296*	7296*
16	15	2255	1	16	15	7293*	7293*	0	0
16	15	2255	1	16	15	0	0	7089	7089
17	16	2240	1	17	16	7295	7295	7295	7295
18	17	2210	1	18	17	7297	7297	7297	7297
19	18	2200	1	19	18	7299	7299	7299	7299
20	19	2185	1	20	19	7303	7303	7303	7303
21	20	2160	1	21	20	7304	7304	7304	7304
22	21	2150	1	22	21	7316	7316	7316	7316
23	22	2130	1	23	22	7278	7278	7278	7278
24	23	2109	1	24	23	7352*	7352*	7352*	7352*
25	24	2080	1	25	24	7354	7354	7354	7354
26	25	2065	1	26	25	7356	7356	7356	7356
27	26	2039	1	27	26	6065	6065	6065	6065
28	27	2020	1	28	27	7065	7065	7065	7065
29	28	2000	1	29	28	7093	7093	7093	7093
30	29	20	1	30	29	7094	7094	0	0
30	29	20	1	30	29	0	0	7103	7103
31	30	42	1	31	30	7099	7099	7099	7099
32	31	60	1	32	31	7305	7305	7305	7305
33	32	80	1	33	32	7306	7306	7306	7306
34	32	80	1	34	32	0		500	500
35	33	100	1	35	33	7318	7318	7318	7318
36	34	118	1	36	34	7320	7320	7320	7320
37	35	141	1	37	35	7325	7325	7325	7325
38	36	156	1	38	36	7332	7332	7332	7332
39	37	177	1	39	37	7333	7333	7333	7333
40	38	198	1	40	38	7348	7348	7348	7348
41	39	219	1	41	39	7336	7336	7336	7336
42	40	235	1	42	40	7341	7341	7341	7341

Receiv trace # in event	Station trace # in event	Stake number	Array number	Receiv in array	Statn in array	Instrument Number During: Install	Visit one	Visit two	Pickup
43	41	259	1	43	41	7343	7343	7343	7343
44	42	277	1	44	42	7344	7344	7344	7344
45	43	297	1	45	43	7346	7346	7346	7346
46	44	323	1	46	44	7347	7347	7347	7347
47	45	342	1	47	45	7349	7349	7349	7349
48	46	360	1	48	46	7350	7350	7350	7350
49	47	378	1	49	47	7351	7351	7351	7351
50	48	400	1	50	48	6003	6003	6003	6003
51	49	420	1	51	49	6020	6020	6020	6020
52	50	445	1	52	50	6021	6021	6021	6021
53	51	460	1	53	51	6022	6022	6022	6022
54	52	480	1	54	52	6024	6024	6024	6024
55	53	500	1	55	53	6025	6025	6025	6025
56	54	515	1	56	54	6026	6026	6026	6026
57	55	540	1	57	55	6027	6027	6027	6027
58	56	560	1	58	56	6028	6028	6028	6028
59	57	580	1	59	57	6031	6031	6031	6031
60	58	600	1	60	58	6032	6032	6032	6032
61	59	620	1	61	59	6035	6035	6035	6035
62	60	650	1	62	60	6037	6037	6037	6037
63	61	660	1	63	61	6038	6038	6038	6038
64	62	680	1	64	62	6039	6039	6039	6039
65	63	700	1	65	63	6040	6040	6040	6040
66	64	720	1	66	64	6042*	6042*	6042*	6042*
67	65	740	1	67	65	6045	6045	6045	6045
68	66	770	1	68	66	6046	6046	6046	6046
69	67	800	1	69	67	6048	6048	6048	6048
70	68	820	1	70	68	6049	6049	6049	6049
71	69	840	1	71	69	6050	6050	6050	6050
72	70	860	1	72	70	6051	6051	6051	6051
73	71	880	1	73	71	6111	6111	6111	6111
74	72	900	1	74	72	6112	6112	6112	6112
75	73	920	1	75	73	6056	6056	0	0
75	73	920	1	75	73	0	0	6060	6060
76	74	940	1	76	74	6057	6057	6057	6057
77	75	960	1	77	75	7108	7108	7108	7108
78	76	980	1	78	76	7110	7110	7110	7110
79	77	1000	1	79	77	7091	7091	7091	7091
80	78	1020	1	80	78	6071	6071	6071	6071
81	79	1040	1	81	79	6081	6081	6081	6081
82	80	1060	1	82	80	6083	6083	6083	6083
83	81	1080	1	83	81	6084	6084	6084	6084
84	82	1100	1	84	82	7355	7355	7355	7355
85	83	1120	1	85	83	7364	7364	7364	7364
86	84	1140	1	86	84	6088	6088	6088	6088
87	85	7001	2	1	1	7298	7298	7298	7295
88	86	7002	2	2	2	7357	7357	7357	7357
89	87	7003	2	3	3	7358	7358	7358	7358
90	88	7004	2	4	4	7362	7362	7362	7362
91	89	7005	2	5	5	7365	7365	7365	7365

Receiv trace # in event	Station trace # in event	Stake number	Array number	Receiv in array	Statn in array	Instrument Number During: Install	Visit one	Visit two	Pickup
92	90	7006	2	6	6	7112	7112	7112	7112
93	91	7007	2	7	7	7113	7113	7113	7113
94	92	7008	2	8	8	7114	7114	7114	7114
95	93	7009	2	9	9	7116	7116	7116	7116
96	94	7010	2	10	10	7079	7079	7079	7079
97	95	7011	2	11	11	7080	7080	7080	7080
98	96	7012	2	12	12	7081	7081	7081	7081
99	97	7013	2	13	13	7084	7084	7084	7084
100	98	7014	2	14	14	7107	7107	7107	7107
101	99	7015	2	15	15	7100	7100	7100	7100
102	100	7016	2	16	16	7277*	7277*	7277*	7277*
103	101	7017	2	17	17	7279	7279	7279	7279
104	102	7018	2	18	18	7281	7281	7281	7281
105	103	7019	2	19	19	7289	7289	7289	7289
106	104	7020	2	20	20	7101	7101	7101	7101
107	105	7021	2	21	21	7087	7087	7087	7087
108	106	7022	2	22	22	7296*	0	0	0
108	106	7022	2	22	22	0	7038	7038	7038
109	107	7023	2	23	23	7300	7300	7300	7300
110	108	7024	2	24	24	7301	7301	7301	7301
111	109	7025	2	25	25	7302	7302	7302	7302
112	110	7026	2	26	26	7042	7042	7042	7042
113	111	7027	2	27	27	7321	7321	7321	7321
114	112	7028	2	28	28	7088	7088	7088	7088
115	113	7029	2	29	29	7106	7106	0	0
115	113	7029	2	29	29	0	7078	7078	7078
116	114	7030	2	30	30	7294	7294	7294	7294
117	115	7031	2	31	31	7322	7322	7322	7322
118	116	7032	2	32	32	7095	7095	7095	7095
119	117	7033	2	33	33	7102	7102	7102	7102
120	118	7034	2	34	34	7104	7104	7104	7104
121	119	7035	2	35	35	6092	6092	6092	6092
122	120	7036	2	36	36	6091	6091	6091	6091
123	121	7037	2	37	37	6095	6095	6095	6095
124	122	7038	2	38	38	6096	6096	6096	6094
125	123	7039	2	39	39	6097	6097	6097	6097
126	124	7040	2	40	40	6099	6099	6099	6099
127	125	7041	2	41	41	6100	6100	6100	6100
128	126	7042	2	42	42	6101	6101	6101	6101
129	127	7043	2	43	43	6102	6102	6102	6102
130	128	7044	2	44	44	6107	6107	6107	6107
131	129	7045	2	45	45	6108	6108	6108	6108
132	130	7046	2	46	46	6109	6109	6109	6109
133	131	7050	2	47	47	0	7077	7077	7077
134	132	6001	3	1	1	7039	7039	7039	7039
135	133	6002	3	2	2	7040	7040	7040	7040
136	134	6003	3	3	3	7041	7041	7041	7041
137	135	6004	3	4	4	7046	7046	7046	7046
138	136	6005	3	5	5	7047	7047	7047	7047
139	137	6006	3	6	6	7048	7048	7048	7048
140	138	6007	3	7	7	7049	7049	7049	7049

Receiv trace # in event	Station trace # in event	Stake number	Array number	Receiv in array	Statn in array	Instrument Number During: Install	Visit one	Visit two	Pickup
141	139	6008	3	8	8	7085	7085	7085	7085
142	140	6009	3	9	9	7050	7050	7050	7054
143	141	6010	3	10	10	7051	7051	7051	7050
144	142	6011	3	11	11	7052	7052	7052	7052
145	143	6012	3	12	12	7053	7053	7053	7053
146	144	6013	3	13	13	7054	7054	7054	7056
147	145	6014	3	14	14	7056	7056	7056	7056
148	146	6015	3	15	15	7059	7059	7059	7059
149	147	6016	3	16	16	7061	7061	7061	7061
150	148	6017	3	17	17	7064	7064	7064	7064
151	149	6018	3	18	18	7076	7076	7076	7076
152	150	6019	3	19	19	7066	7066	7066	7066
153	151	6020	3	20	20	7068	7068	7068	7068
154	152	6021	3	21	21	7072	7072	7072	7072
155	153	6022	3	22	22	7073	7073	7073	7073
156	154	6023	3	23	23	7074	7074	7074	7074
157	155	6024	3	24	24	7075	7075	7075	7075
158	156	6025	3	25	25	6114	6114	6114	6114
159	157	6026	3	26	26	6115	6115	6115	6115
160	158	6027	3	27	27	6116	6116	6116	6116
161	159	6028	3	28	28	6118	6118	6118	6118
162	160	6029	3	29	29	6120	6120	6120	6120
163	161	6030	3	30	30	6124	6124	6124	6124
164	162	6031	3	31	31	6125	6125	6125	6125
165	163	6032	3	32	32	6127*	6127*	6127*	6127*
166	164	6033	3	33	33	6128	6128	6128	6128
167	165	6034	3	34	34	6129	6129	6129	6129
168	166	6035	3	35	35	6130	6130	6130	6130
169	167	6036	3	36	36	6131	6131	6131	6131
170	168	6037	3	37	37	6132	6132	6132	6132
171	169	6038	3	38	38	6134	6134	6134	6134
172	170	6039	3	39	39	6121	6121	6121	6121
173	171	6040	3	40	40	630	630	630	630
174	172	6041	3	41	41	593	593	593	593

* Notes:

Exabyte tapes for box 7280 (stn. 2355, Line 1) not available.

Box 7293 (stn. 2255, Line 1) was stolen from the golf course and was replaced by box 7089.

Box 6042 (stn. 0720, Line 1) was dead, no data available.

Box 7277 (stn. 7016, Line 2) was dead, no data available.

Box 7296 (stn. 7022, Line 2) was moved to stn. 2275 (Line 1) later.

Box 6127 (stn. 6032, Line 3) was dead, no data available.

TABLE I: Description of Archive Product

PRODUCT 1: ARCHIVE TAPE

Each event gather includes all 174 stations from the 3 Lines: i.e.,

174 seismograms @ 60 sec, 100 sps = 4.2 MB.

282 events @ 174 seismograms/event = 49,068 seismograms = 1.19 Gbytes

Each seismogram is in unreduced travel time where the first data sample is at the event origin time as provided by the USGS/Caltech event catalogue.

TABLE J: SEG-Y Trace Header Table

Bold descriptions are specific to LARSE

Size	Bytes	Original SEG-Y	LARSE SEG-Y
long	1- 4	Sequence number within line	Sequence number within line
long	5- 8	Sequence number within reel	Sequence number within reel
long	9- 12	Original field record number	**Event Gather index# [1-282]**
long	13- 16	Original trace record number	**Event Trace index# [1-174]**
long	17- 20	Energy source point number	**Catalogue event number**
long	21- 24	CDP ensemble number	CDP number [empty]
long	25- 28	Trace number in CDP ensemble	CDP trace number [empty]
short	29- 30	Trace identification code:	SEG-Y Trace identification code **=1**
short	31- 32	No. vertically summed traces	No. vertically summed traces
short	33- 34	No. horizontally summed traces	No. horizontally summed traces
short	35- 36	flag: 1 = production, 2 = test"	flag: 1 = production, 2 = test **[set to 1]**
long	37- 40	Source to receiver distance	**Source-receiver offset (m)**
long	41- 44	Receiver group elevation	**Receiver elevation [WGS-84]**
long	45- 48	Source surface elevation	**Event elevation [set to 0]**
long	49- 52	Source depth	**Hypocentral depth (m)**
long	53- 56	Datum elevation at receiver	Datum elevation at receiver [empty]
long	57- 60	Datum elevation at source	Datum elevation at source [empty]
long	61- 64	Water depth at source	Water depth at source [empty]
long	65- 68	Water depth at receiver group	Water depth at receiver [empty]
short	69- 70	Elevation value scaler	Elevation value scaler **[set to 1]**
short	71- 72	Coordinate value scaler	Coordinate value scaler **[set to -10]**
long	73- 76	Source X-coordinate	**Source long deci-sec of arc** (/36000.)
long	77- 80	Source Y-coordinate	**Source lat deci-sec of arc** (/36000.)
long	81- 84	Receiver X-coordinate	**Receiver long deci-sec of arc** (/36000.)
long	85- 88	Receiver Y-coordinate	**Receiver lat deci-sec of arc** (/36000.)
short	89- 90	Coordinate units (1-m/ft 2-sec-arc)	Coordinate units [constant at **2=deg**]
short	91- 92	Weathering vel at CDP (unit/sec)	Weathering velocity [empty]
short	93- 94	Sub-weathering vel.	Sub-weathering vel.
short	95- 96	Uphole time at source in microsec	**Polarity flag [set to 1]**
short	97- 98	Uphole time at rec. in microsec	**Orientation flag [set to 1]**
short	99-100	Shotpoint static in msec	Source static (msec)
short	101-102	Receiver static at CDP in msec	Receiver static (msec)
short	103-104	"Total static applied *10,000"	**Total static applied *10,000**
short	105-106	Lag time A (msec)	Lag time A (msec)
short	107-108	Lag time B	Lag time B
short	109-110	Delay recording time	**Relative time first sample (msec) [0]**
short	111-112	Front mute time in sec	**Polarity (see below)**
short	113-114	Tail mute in sec	**Orientation (see below)**
short	115-116	Number of samples in this trace	**#Samples if <2^15; else=32767 (see 229-232)**
short	117-118	Sampling interval in microsec	**Sampling interval in microsec**
short	119-120	Gain type: 1=fixed 2=binary...	**PASSCAL:Gain type**
short	121-122	Instrument gain constant	**PASSCAL:instrument gain constant**
short	123-124	Instrument inital gain in dB	**instrument inital gain in dB**
short	125-126	Correlated trace? 1=no 2=yes	**\ UTM source X**
short	127-128	Sweep start frequency	**/ "**
short	129-130	Sweep end frequency	**\ UTM source Y**
short	131-132	Sweep length in milliseconds	**/ "**

short	133-134	"Sweep type 1=lin, 2=parab..	**\ UTM receiver X**
short	135-136	Sweep taper at start of trace	**/ "**
short	137-138	Sweep taper at end of trace	**\ UTM receiver Y**
short	139-140	Taper type	**/ "**
short	141-142	Alias filter frequency	**Colocation station (0=NO, 1=YES)**
short	143-144	Alias filter slope	alias filter slope
short	145-146	Notch filter frequency	notch filter frequency
short	147-148	Notch filter slope	notch filter slope
short	149-150	Low-cutoff frequency	low-cutoff frequency
short	151-152	Hi-cutoff frequency	**Deployment # (1, 2, or 3) not used**
short	153-154	Low-cutoff slope	**Magnitude quality (0-4 for 0,A-D)**
short	155-156	Hi-cutoff slope	**Magnitude type (1-4=Mc,Md,Mh,Ml)**
short	157-158	Year data was recorded	**Year of first data sample**
short	159-160	Day of year	**Day of first data sample**
short	161-162	Hour of day (24 hour clock)	**Hour of first data sample**
short	163-164	Minute of hour	**Minute of first data sample**
short	165-166	Second of minute	**Second of first data sample**
short	167-168	Time code: 1=local 2=GMT...	**Time code [GMT=2]**
short	169-170	Trace weighting factor	**Common station trace # [1-172]**
short	171-172	Geophone group # roll switch	**Land array # [1,2,3]**
short	173-174	Group # of 1st trace in field data	**Field stake #**
short	175-176	Group # of last trace in field	**C.S. trace this array [1-84,47,41]**
short	177-178	Gap size	**C.R. trace this array [1-86,47,41]**
short	179-180	Over travel of line taper	**Component (Z=1, N-S=2, E-W=3)**
short	181-182		**\ Microsec of first data sample**
short	183-184		**/ "**
short	185-186		**EQ magnitude (deci-units)**
short	187-188		**Event time - year**
short	189-190		**Event time- Julian day**
short	191-192		**Event time - hour**
short	193-194		**Event time - minute**
short	195-196		**Event time - second**
short	197-198		**\ Event time - microsec**
short	199-200		**/ "**
long	201-204		**Override sample interval (IASPEI)**
short	205-206		**Azimuth of sensor orient axis**
short	207-208		**Geophone inclination**
short	209-210		**\ LMO static (x/v) (ms)**
short	211-212		**/ "**
short	213-214		**LMO has been used (0=Y, 1=N)**
short	215-216		**Recording instrument type (coded)**
short	217-218		**correction to be applied: (SET=0)**
short	219-220		**Azimuth of source-receiver (min of arc)**
short	221-222		**Geophone type (coded)**
short	223-224		**Geophone number**
short	225-226		**DAS #**
short	227-228		not to be used
long	229-232		**Number of samples (see 115-116)**
short	233-234		**\ Reftek amplitude bias removed**
short	235-236		**/ "**
short	237-238		**Timing correction from clockcorr**
short	239-240		blank

Size	Bytes	LARSE SEG-Y	
long	9- 12	**Event Gather index#. [1-282]**	***see Table A***
long	13- 16	**Event Trace index#. [1-174]**	***see Table C,D,E***
long	17- 20	**Catalogue event number**	***see Table A***
long	41- 44	**Receiver elevation [WGS-84]**	***see Table C,D,E***
long	49- 52	**Hypocentral depth (m)**	***see Table A***
short	171-172	**Land array # [1,2,3]** (***LA#*** below)	
short	177-178	**C.R trace this array [1-86,47,41]** (1-***n_CR*** below)	

	CR#	***LA#***	***n_CR***
Traces	1- 86 =	1- Seal Beach array	(86 Traces)
Traces	87-133 =	2- Northridge array	(47 Traces)
Traces	134-174 =	3- LA Basin array	(41 Traces)

short	111-112	**Polarity**	
short	113-114	**Orientation**	
short	141-142	**Colocation station (0=NO, 1=YES)**	(see Table H).
short	173-174	**PASSCAL: Field stake #**	see Tables C, D, E, or H
short	205-206	**Azimuth of sensor orient axis**	
short	207-208	**Geophone inclination**	
short	215-216	**Recording instrument type (coded)**	
short	221-222	**Geophone type (coded)**	
short	223-224	**Geophone number**	
short	225-226	**DAS #**	(see Table H).

long	73- 76	**Source long deci-sec of arc** (/36000.)	see Tables A, B
long	77- 80	**Source lat deci-sec of arc** (/36000.)	" "
long	81- 84	**Receiver long deci-sec of arc** (/36000.)	see Tables C, D, E
long	85- 88	**Receiver lat deci-sec of arc** (/36000.)	" "
short	125-126	**\ UTM source X**	see Table B
short	127-128	/ "	"
short	129-130	**\ UTM source Y**	"
short	131-132	/ "	"
short	133-134	**\ UTM receiver X**	see Tables C, D, E
short	135-136	/ "	" "
short	137-138	**\ UTM receiver Y**	" "
short	139-140	/ "	" "
short	157-158	**Year of first data sample**	
short	159-160	**Day of first data sample**	see Table A
short	161-162	**Hour of first data sample**	
short	163-164	**Minute of first data sample**	
short	165-166	**Second of first data sample**	
short	187-188	**Event time - year**	
short	189-190	**Event time- Julian day**	
short	191-192	**Event time - hour**	see Table A
short	193-194	**Event time - minute**	
short	195-196	**Event time - second**	
short	197-198	**\ Event time - microsec**	
short	199-200	/ "	

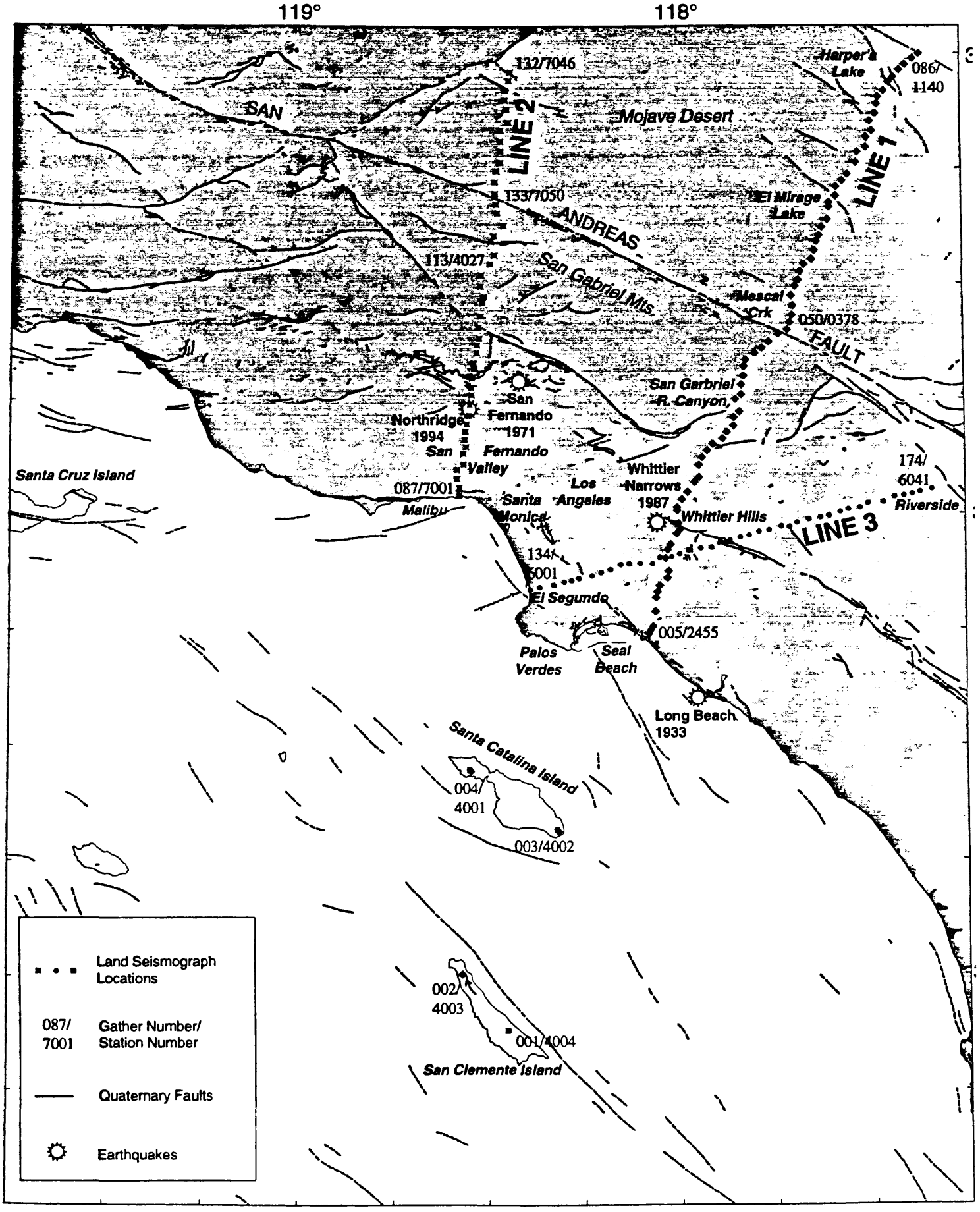


Figure 1. Fault map showing LARSE land arrays during the air-gun experiment.

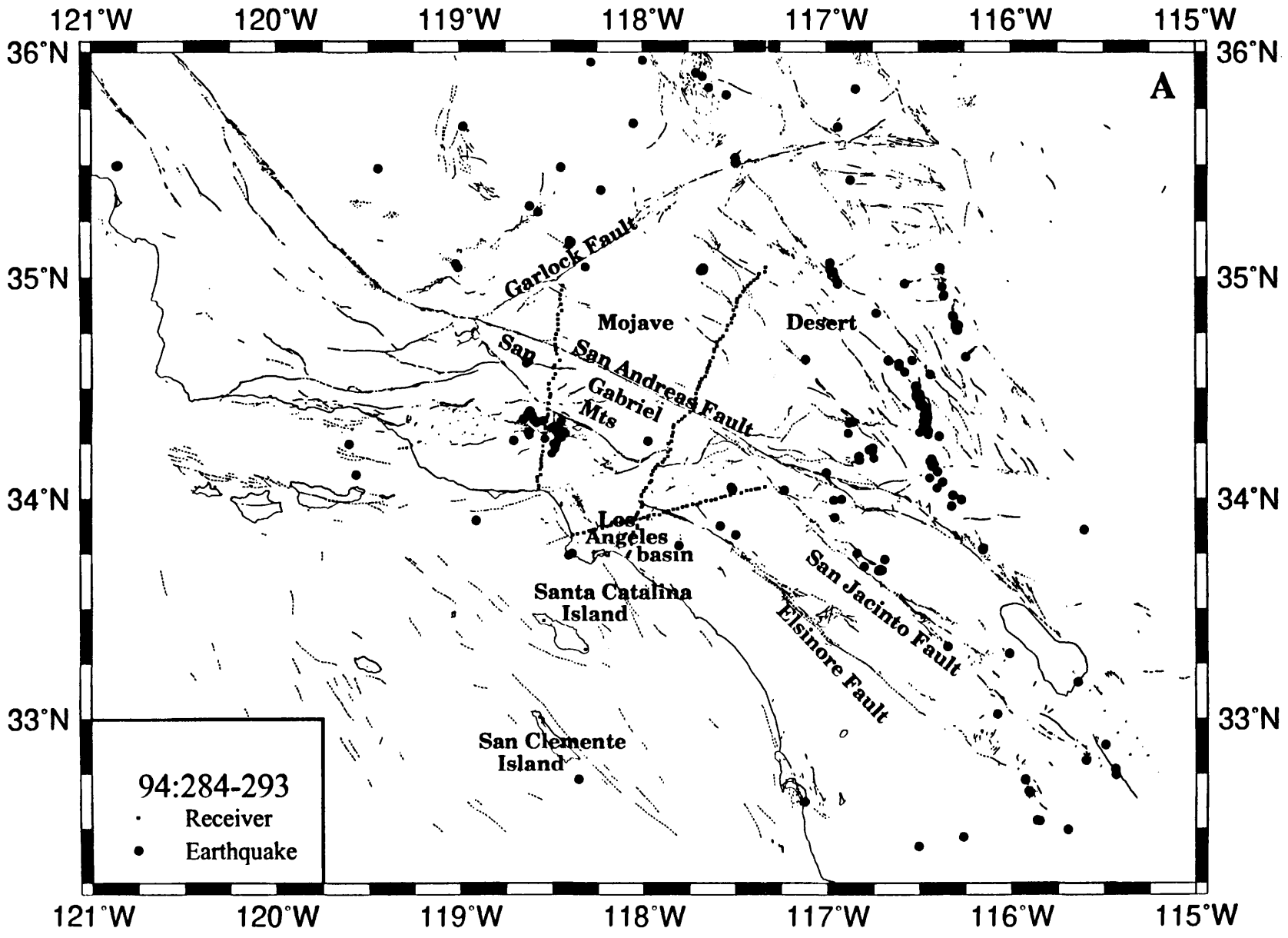
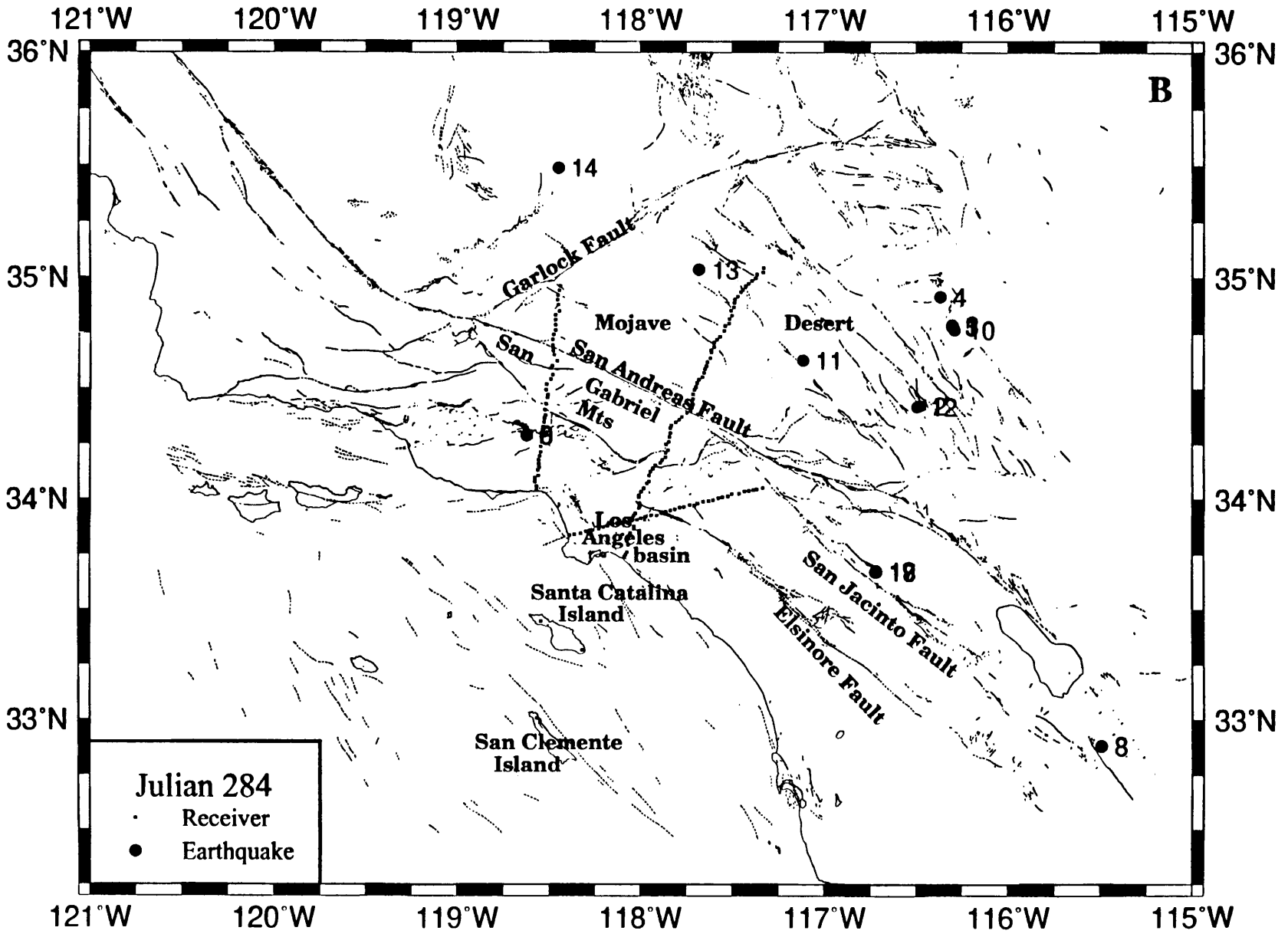
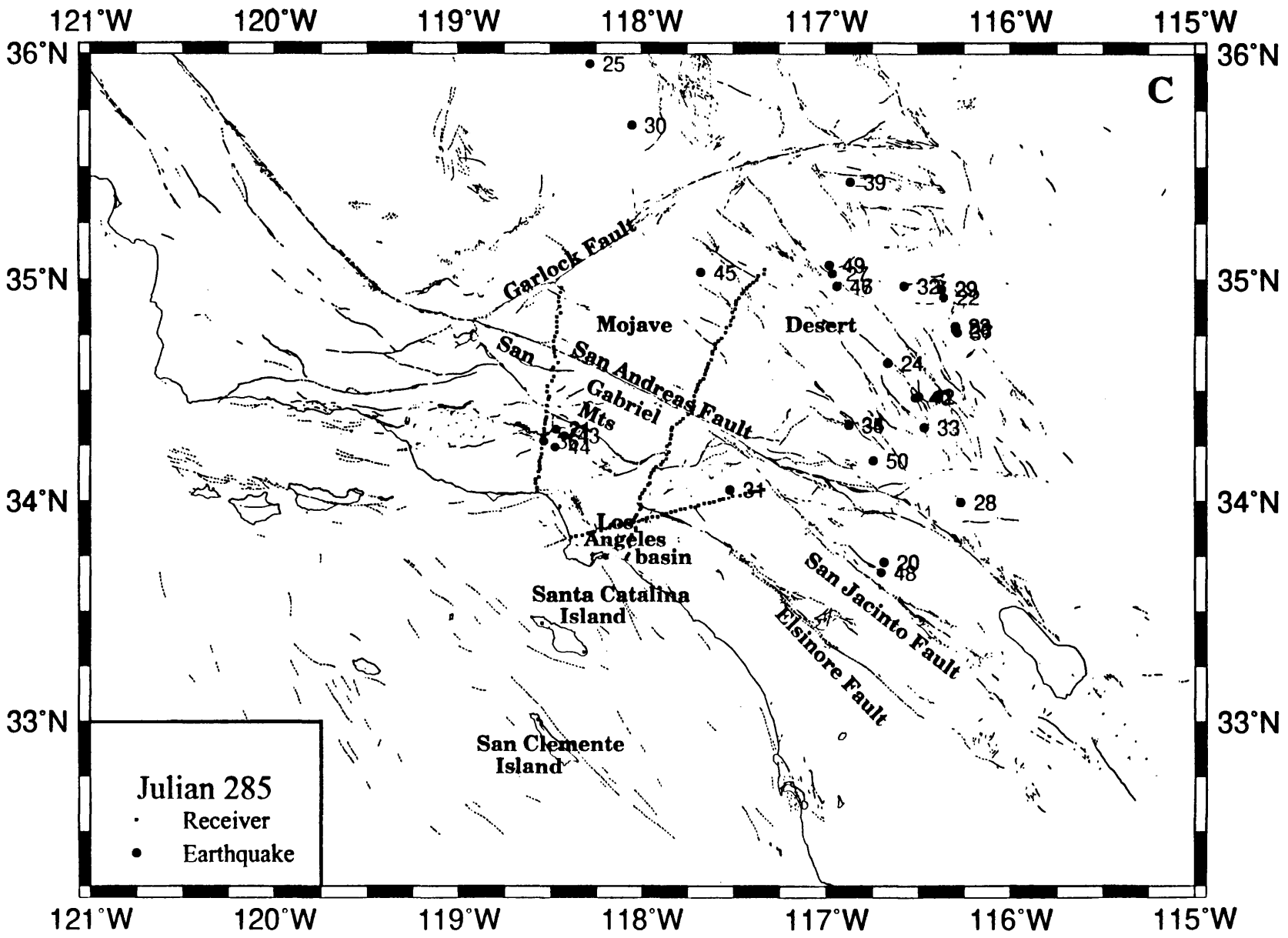
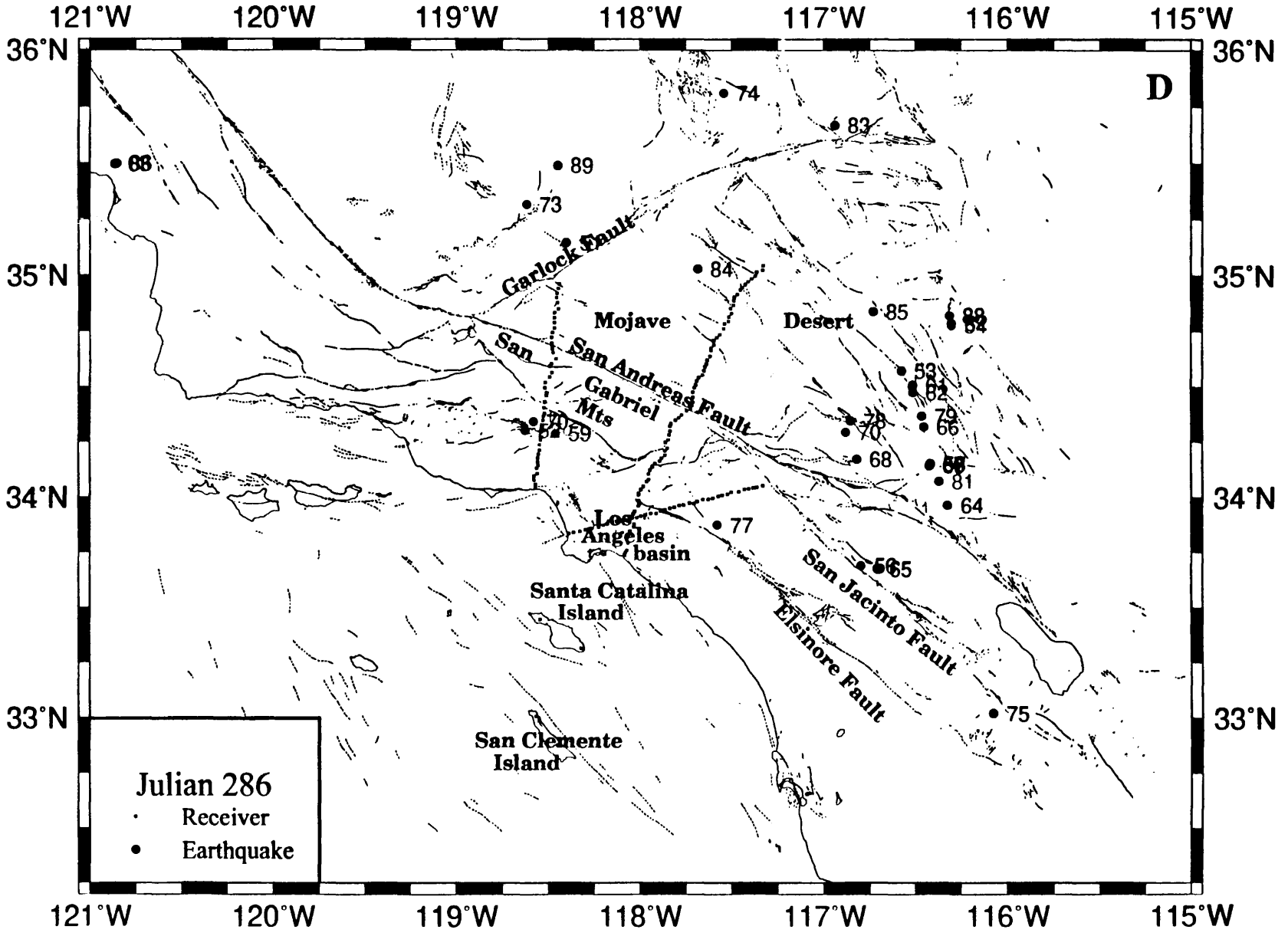
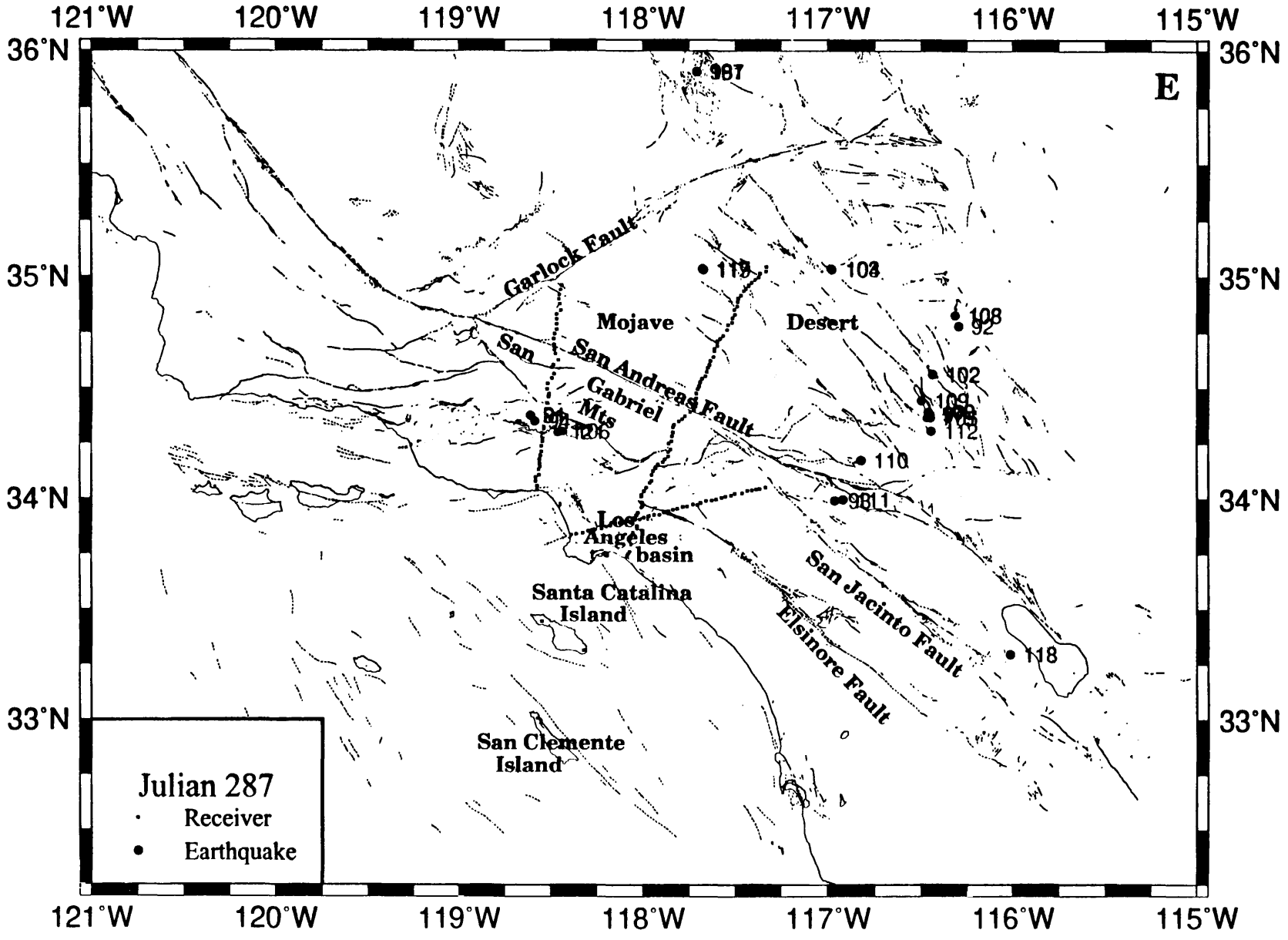


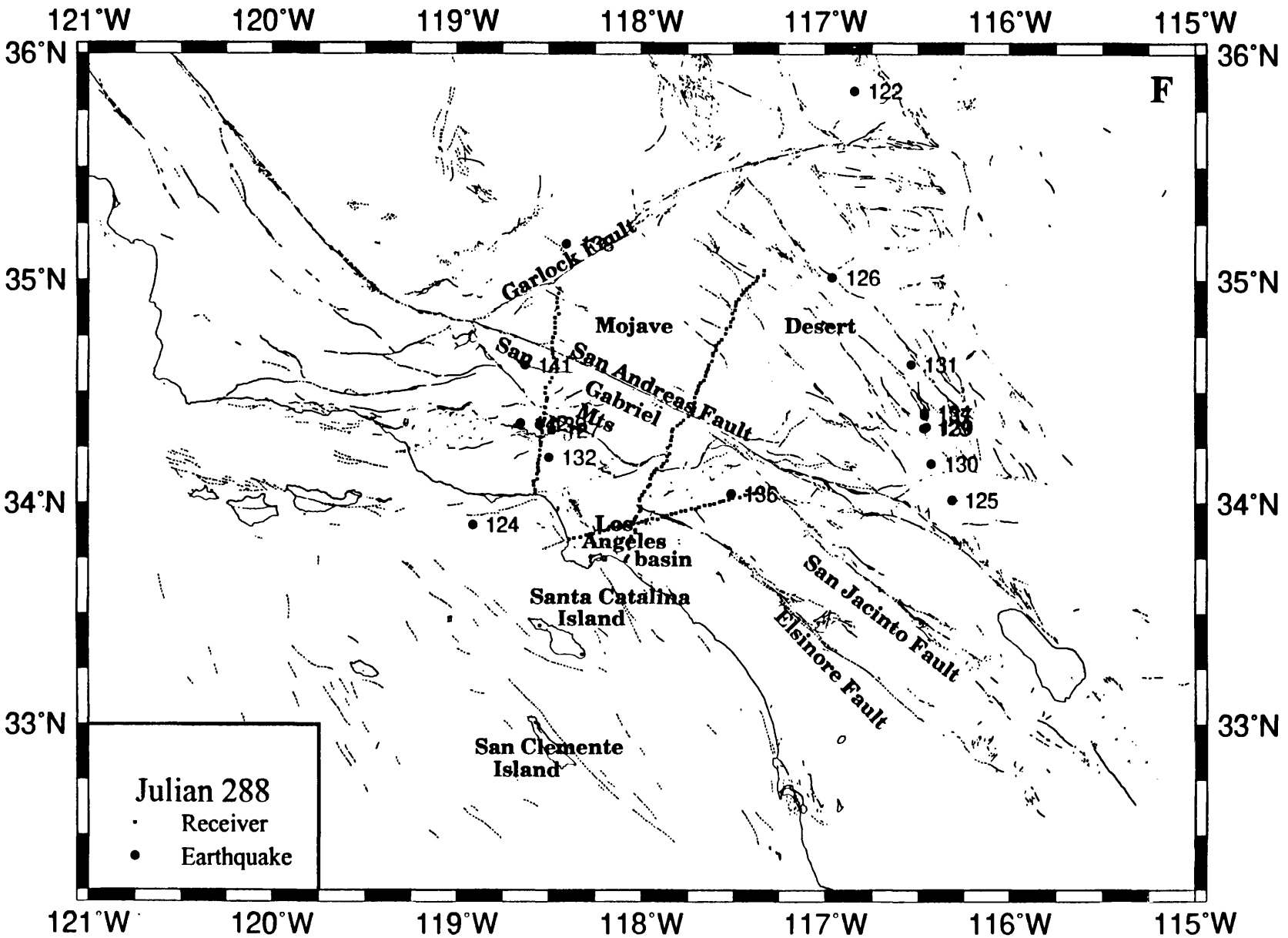
Figure 2. Locations of local earthquakes collected during the LARSE air-gun experiment.
(A) Events during the time period 94:284 through 94:293 (Julian days).
(B-K) Events during each day from Julian day 284 to 293, 1994. Number associated with each event is the event number (1-282) recorded during the LARSE experiment and listed in this report (Tables A,B).

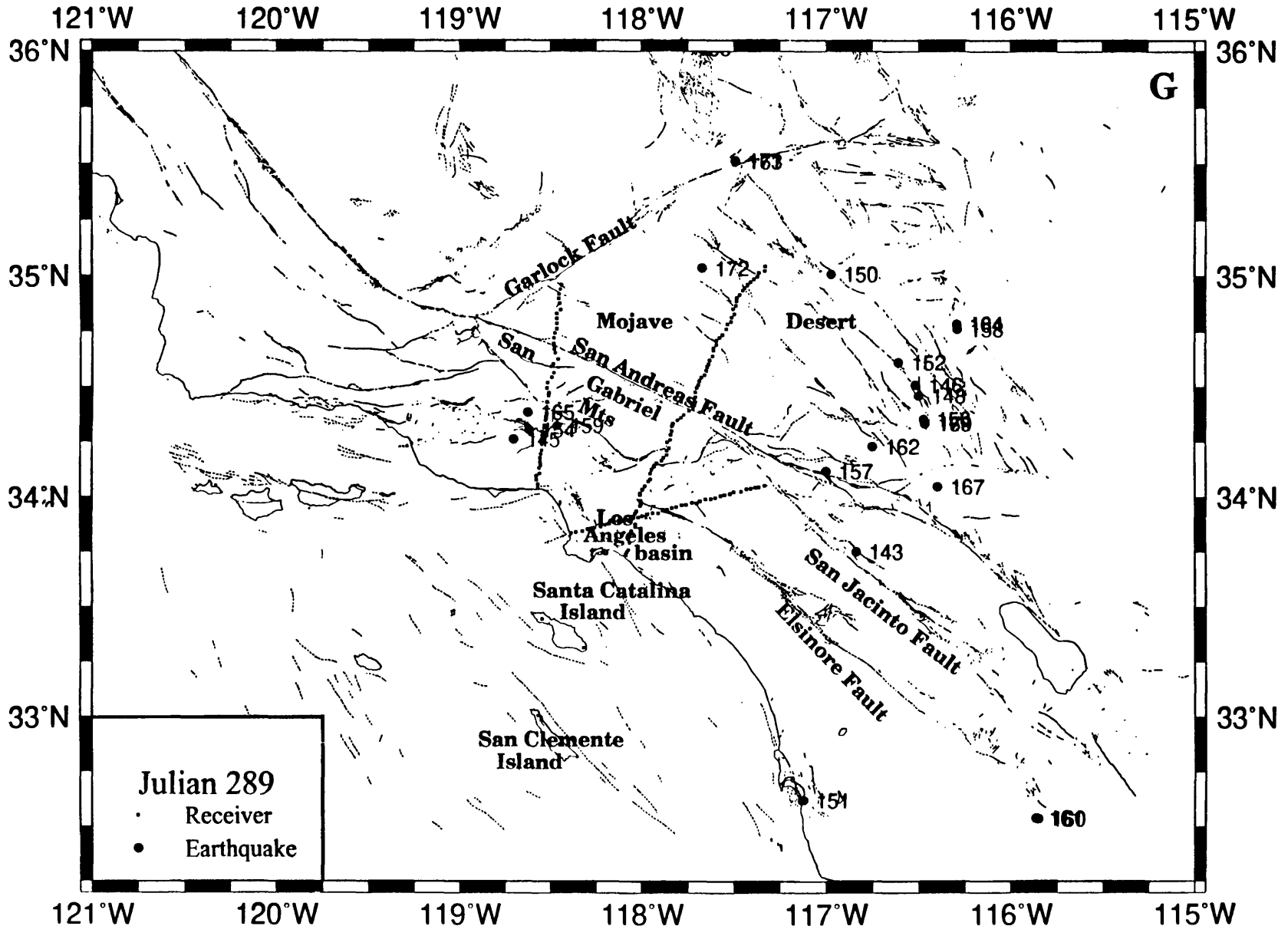

121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
B
14
13
4
10
11
22
8
18
Garlock Fault
Mojave
Desert
San
San Andreas Fault
Gabriel
Mts
Los
Angeles
basin
Santa Catalina
Island
San Jacinto Fault
Elsinore Fault
San Clemente
Island
Julian 284
Receiver
Earthquake

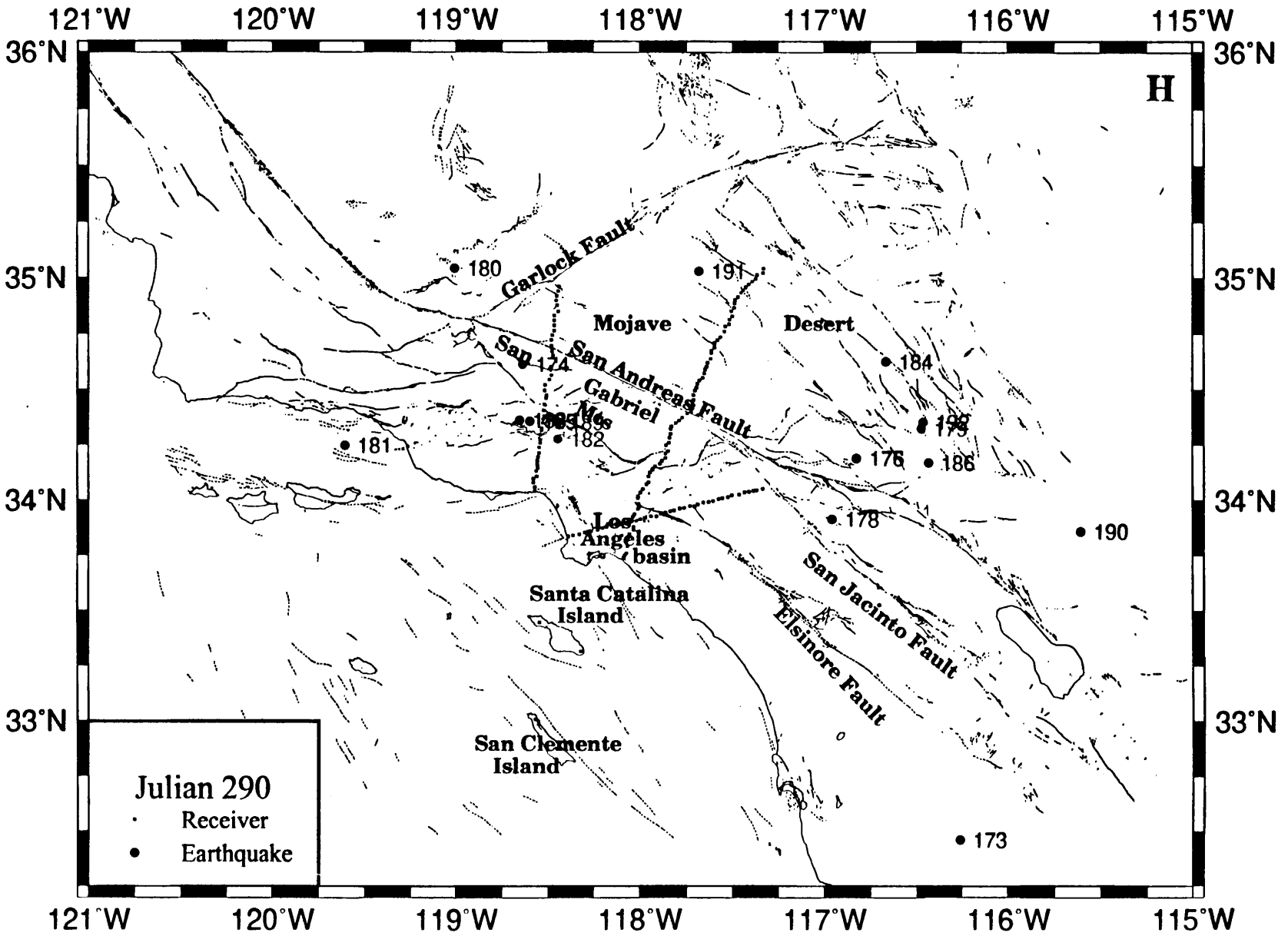

121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
C
Garlock Fault
Mojave
Desert
San
San Andreas Fault
Gabriel
Mts
Los
Angeles
basin
Santa Catalina
Island
San Clemente
Island
San Jacinto Fault
Elsinore Fault
Julian 285
Receiver
Earthquake

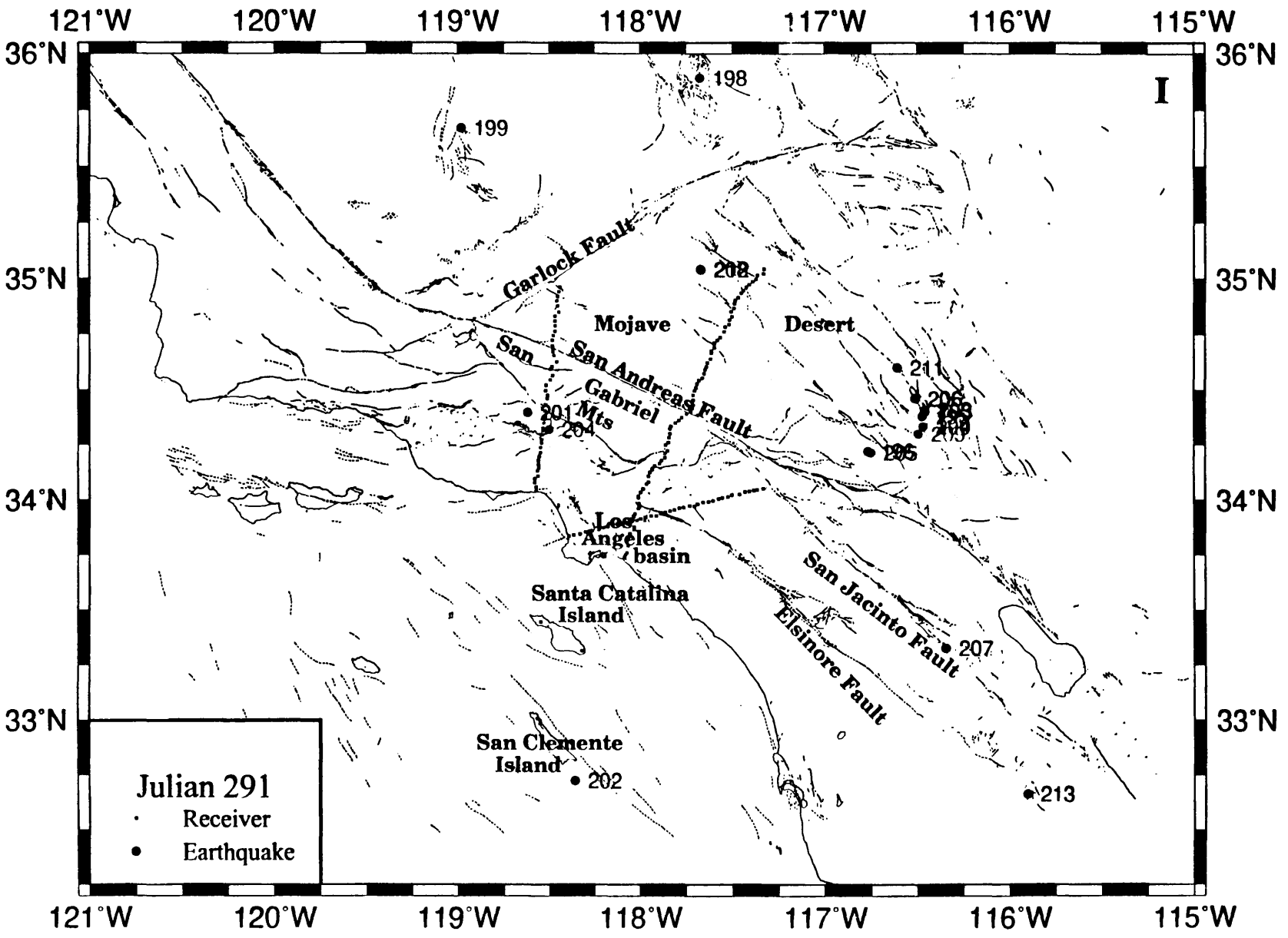

121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
D
74
83
89
73
84
85
59
68
64
77
75
Garlock Fault
Mojave
Desert
San Gabriel Mts
San Andreas Fault
Los Angeles basin
Santa Catalina Island
San Clemente Island
San Jacinto Fault
Elsinore Fault
Julian 286
Receiver
Earthquake

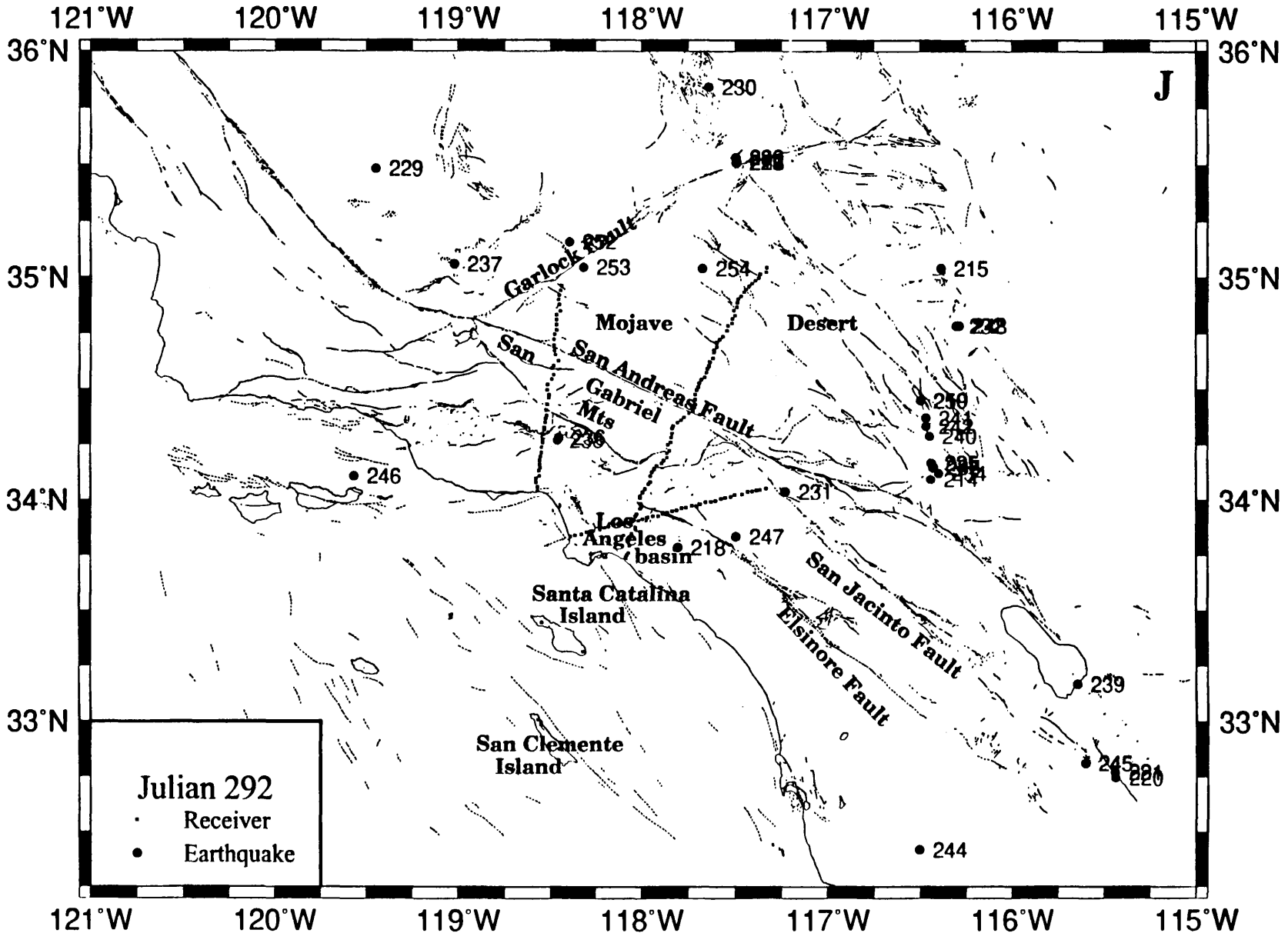

121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
E
Garlock Fault
Mojave
Desert
San
Gabriel
Mts
San Andreas Fault
Los
Angeles
basin
Santa Catalina
Island
San Clemente
Island
San Jacinto Fault
Elsinore Fault
987
113
103
108
92
102
109
112
110
118
Julian 287
Receiver
Earthquake

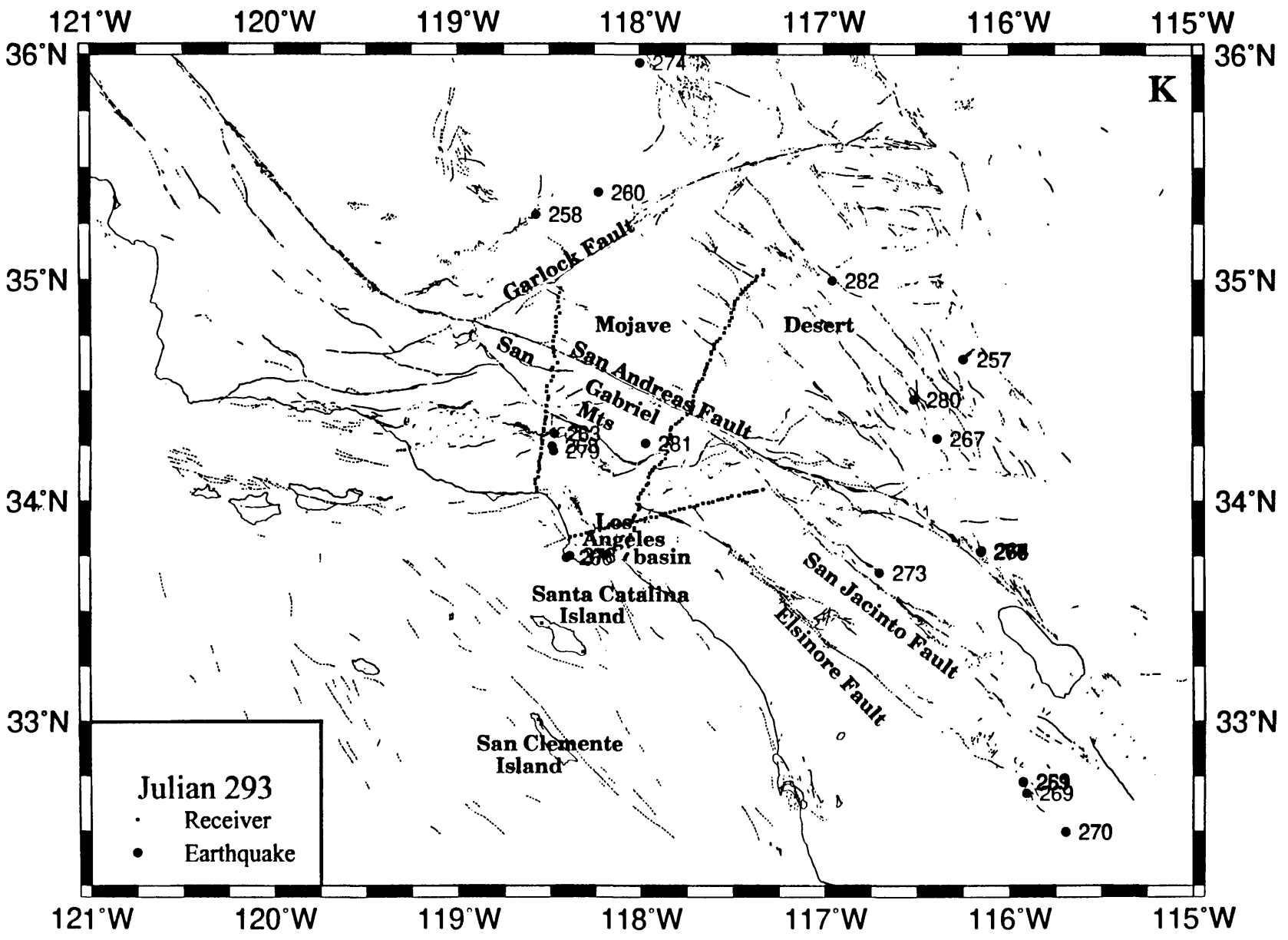

121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
F
122
126
131
130
125
124
132
136
Garlock Fault
Mojave
Desert
San Andreas Fault
Gabriel
Mts
Los
Angeles
basin
Santa Catalina
Island
San Jacinto Fault
Elsinore Fault
San Clemente
Island
Julian 288
Receiver
Earthquake


G
121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
Garlock Fault
San Andreas Fault
San Gabriel Mts
Mojave Desert
Los Angeles basin
Santa Catalina Island
San Clemente Island
San Jacinto Fault
Elsinore Fault
163
172
150
152
162
157
167
143
151
160
Julian 289
Receiver
Earthquake

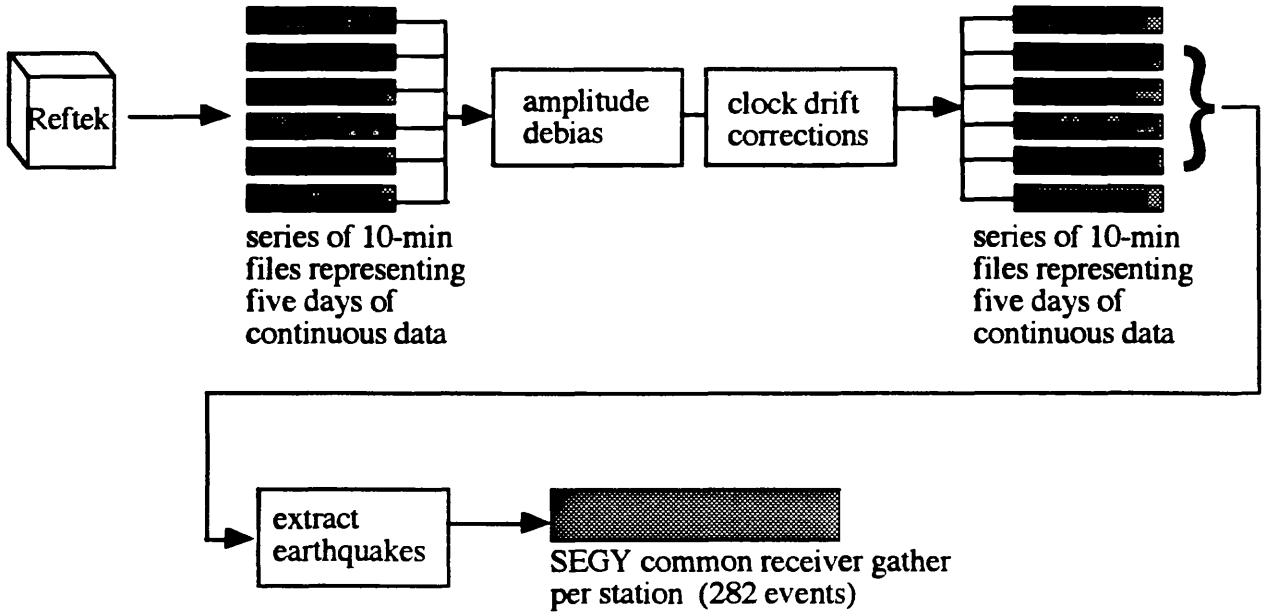

H
121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
Garlock Fault
San Andreas Fault
Mojave
Desert
San Gabriel Mts
Los Angeles basin
Santa Catalina Island
San Clemente Island
San Jacinto Fault
Elsinore Fault
180
191
174
184
182
181
176
186
178
190
173
Julian 290
Receiver
Earthquake


121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
I
198
199
208
211
206
201
204
205
207
213
202
Garlock Fault
Mojave
Desert
San
Gabriel
Mts
San Andreas Fault
Los
Angeles
basin
Santa Catalina
Island
San Jacinto Fault
Elsinore Fault
San Clemente
Island
Julian 291
Receiver
Earthquake


121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
J
229
230
237
253
254
215
246
231
247
218
239
244
Garlock Fault
Mojave
Desert
San Andreas Fault
San Gabriel Mts
Los Angeles basin
Santa Catalina Island
San Clemente Island
San Jacinto Fault
Elsinore Fault
Julian 292
Receiver
Earthquake


121°W
120°W
119°W
118°W
117°W
116°W
115°W
36°N
35°N
34°N
33°N
K
274
260
258
282
257
280
267
281
279
273
269
270
Garlock Fault
San Andreas Fault
San Gabriel Mts
Mojave Desert
Los Angeles basin
Santa Catalina Island
San Clemente Island
San Jacinto Fault
Elsinore Fault
Julian 293
Receiver
Earthquake

DATA REDUCTION FLOW



SORT INTO COMMON EVENT GATHERS

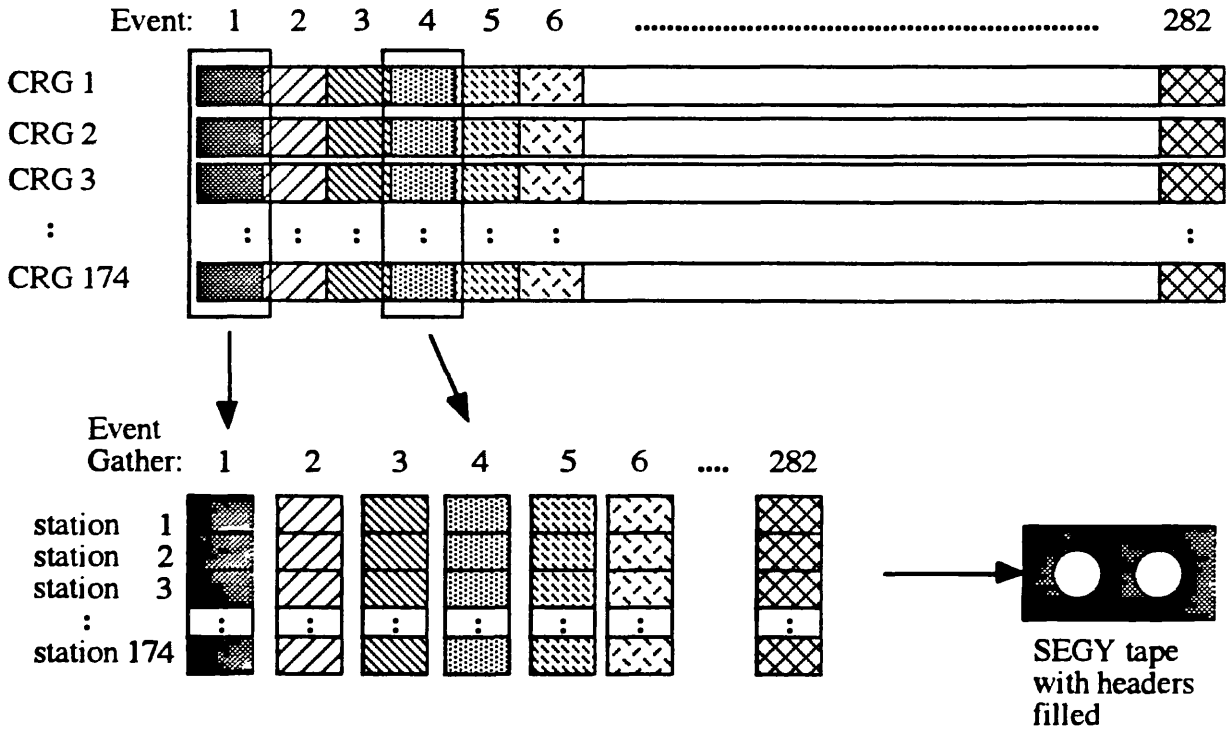


Figure 3. Schematic diagram of data reduction flow.

APPENDIX

A001-A282. Event gathers. Reduced travel time is plotted (t-x/6 km/s). Seismograms are trace normalized.

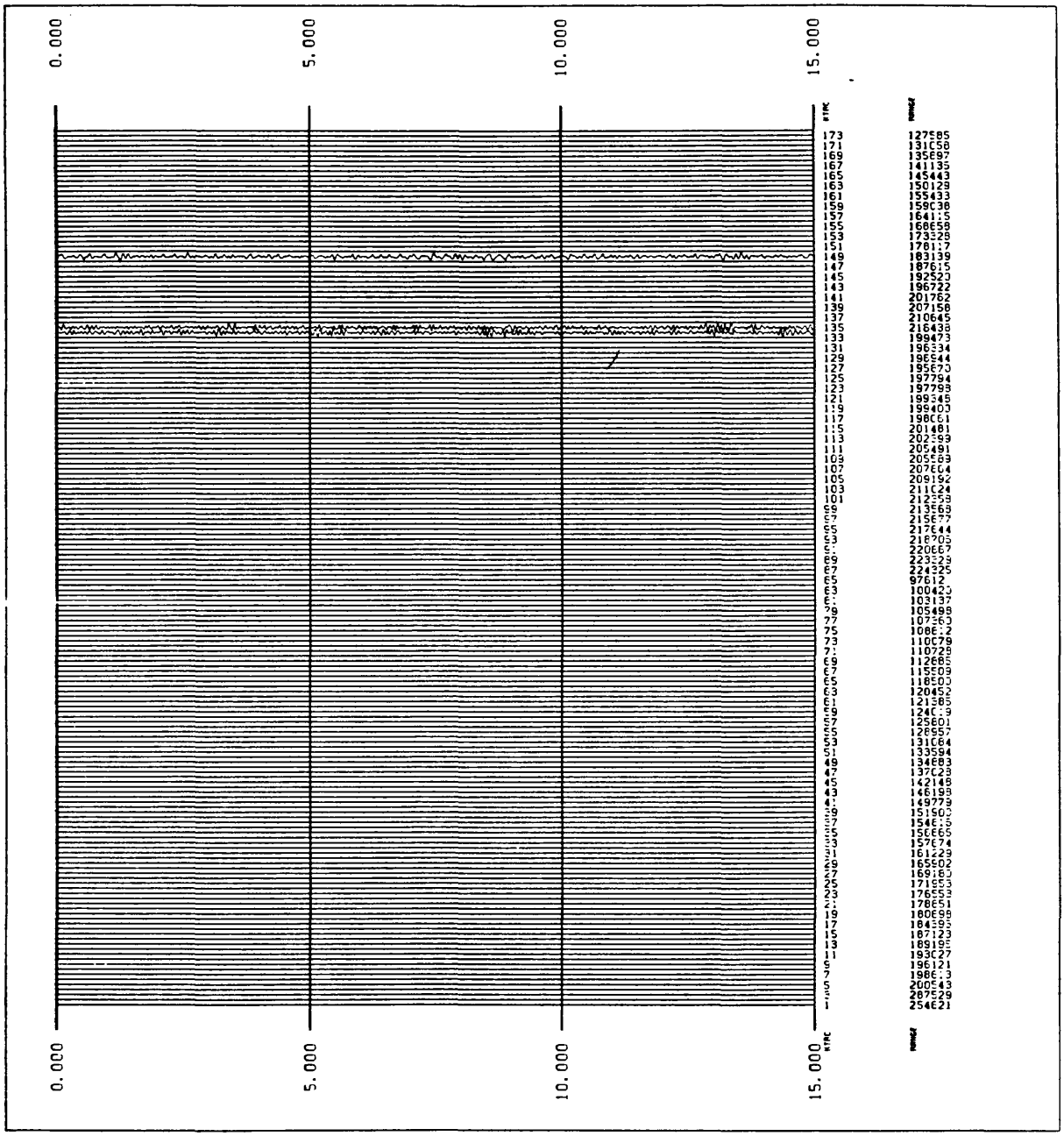


FIGURE A001) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #001 CAT 3187948 94:284:15:34 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

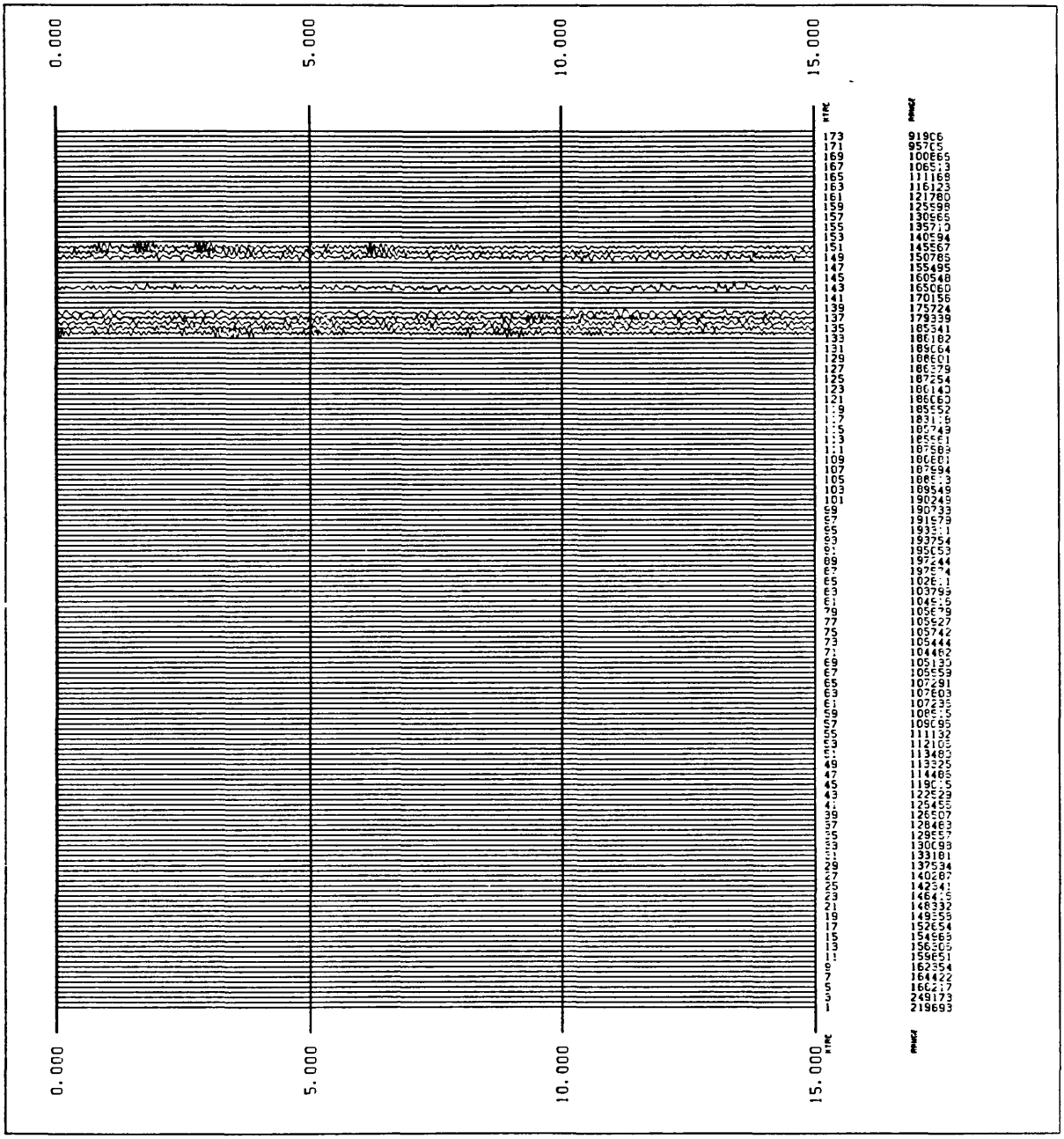


FIGURE A002) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #002 CAT 3187952 94:284:16:35 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

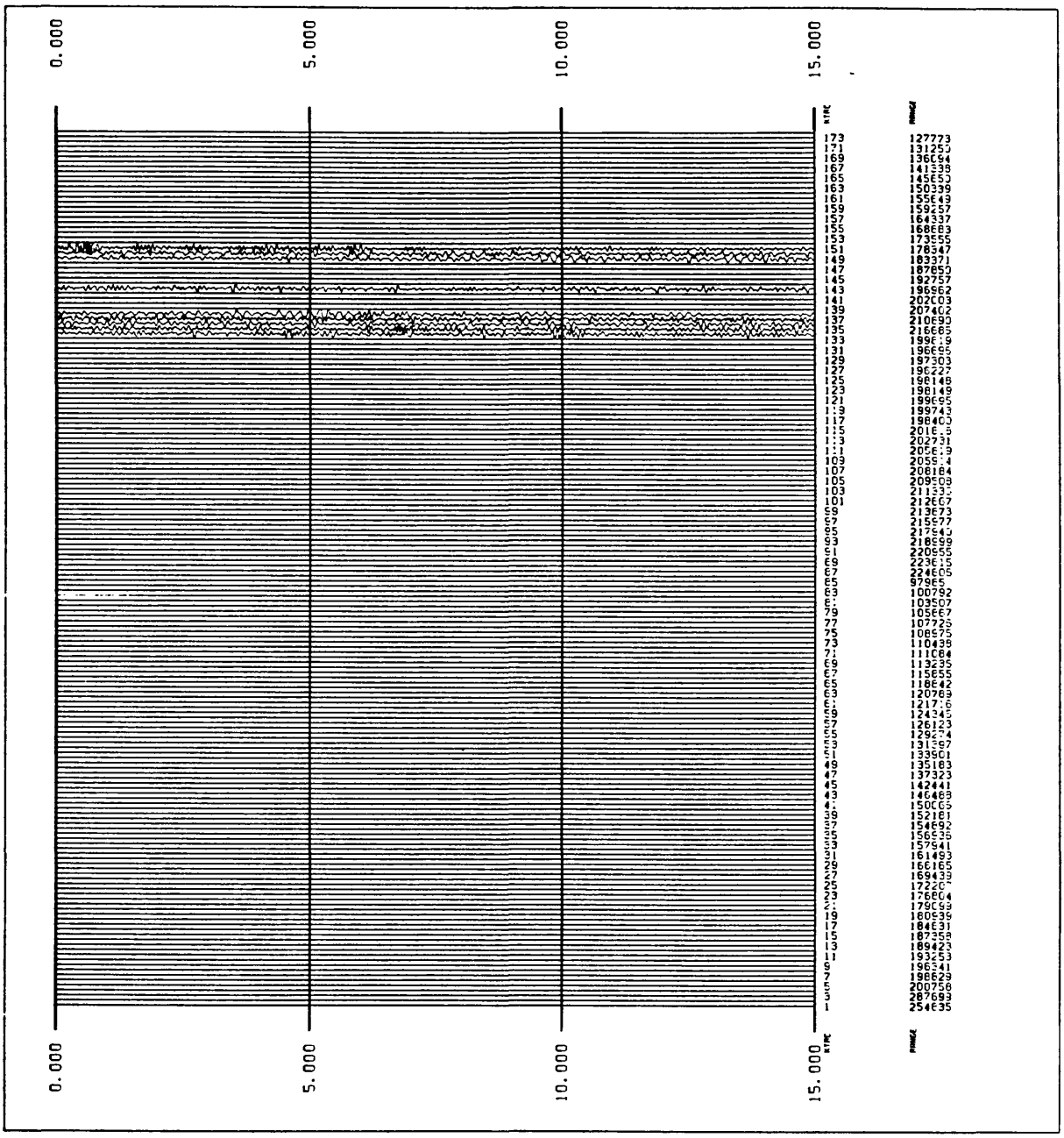


FIGURE A003) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #003 CAT 3187953 94:284:16:36 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

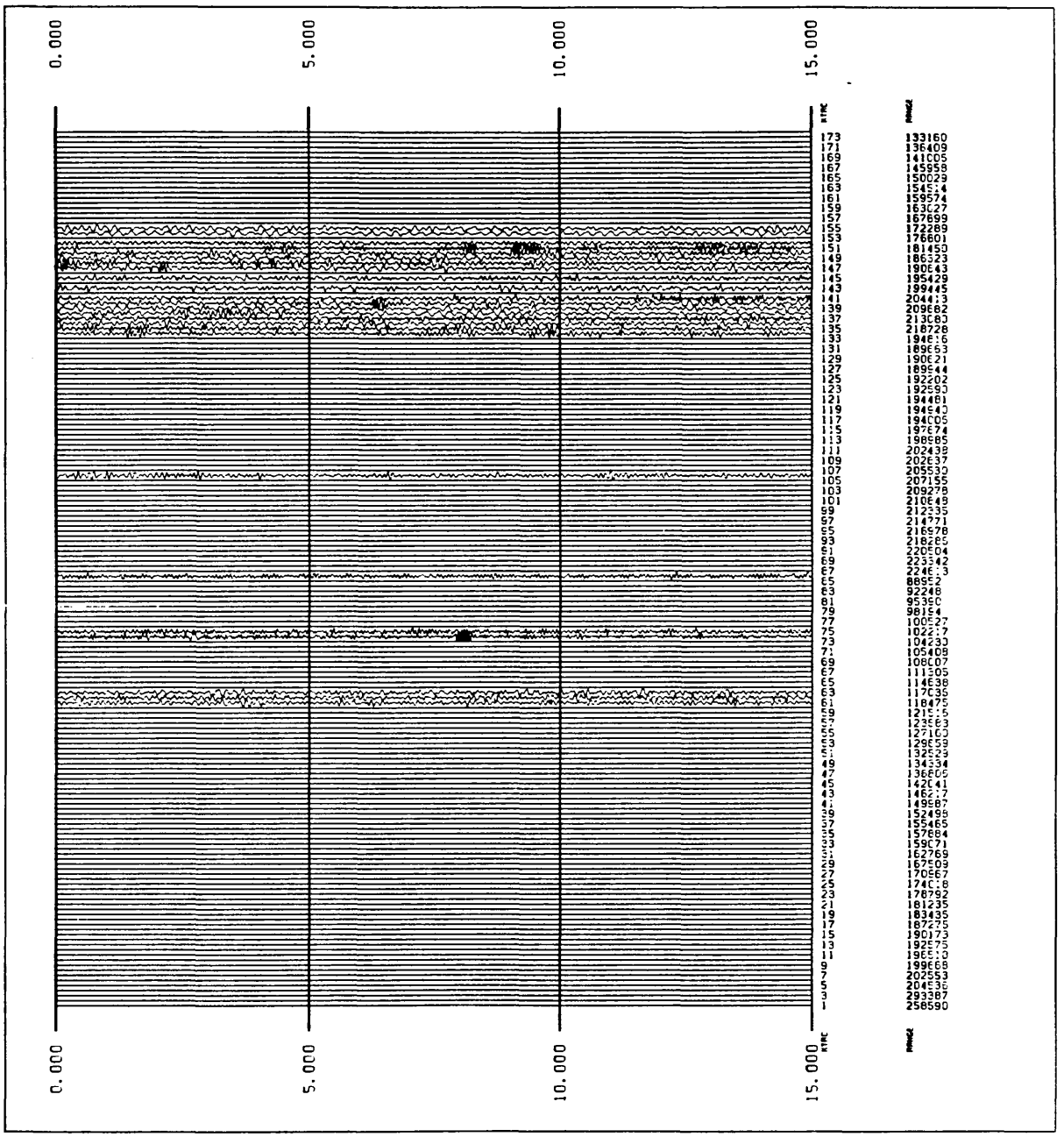


FIGURE A004) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #004 CAT 3188094 94:284:19:03 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

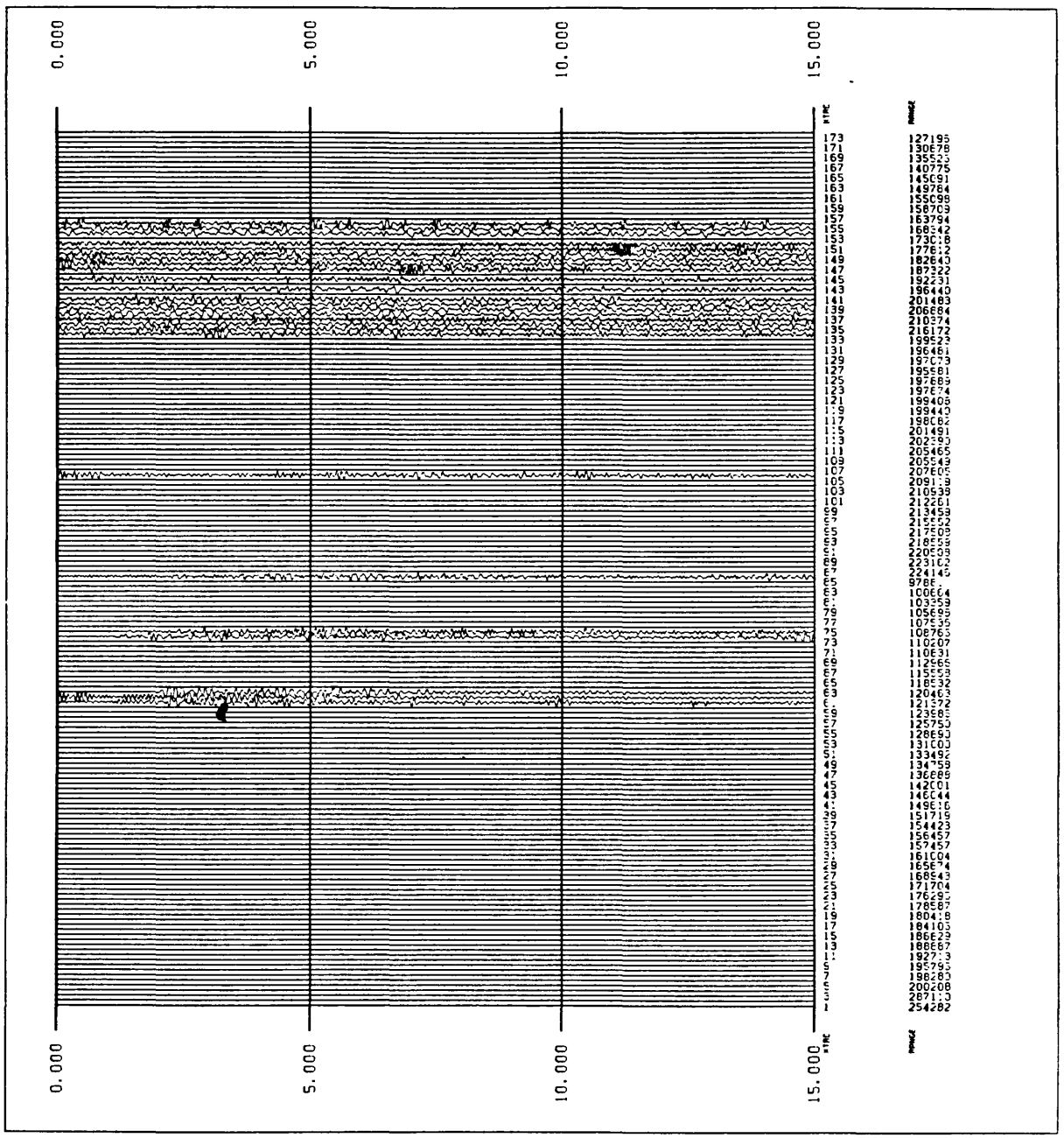


FIGURE A005) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #005 CAT 3188098 94:284:19:20 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

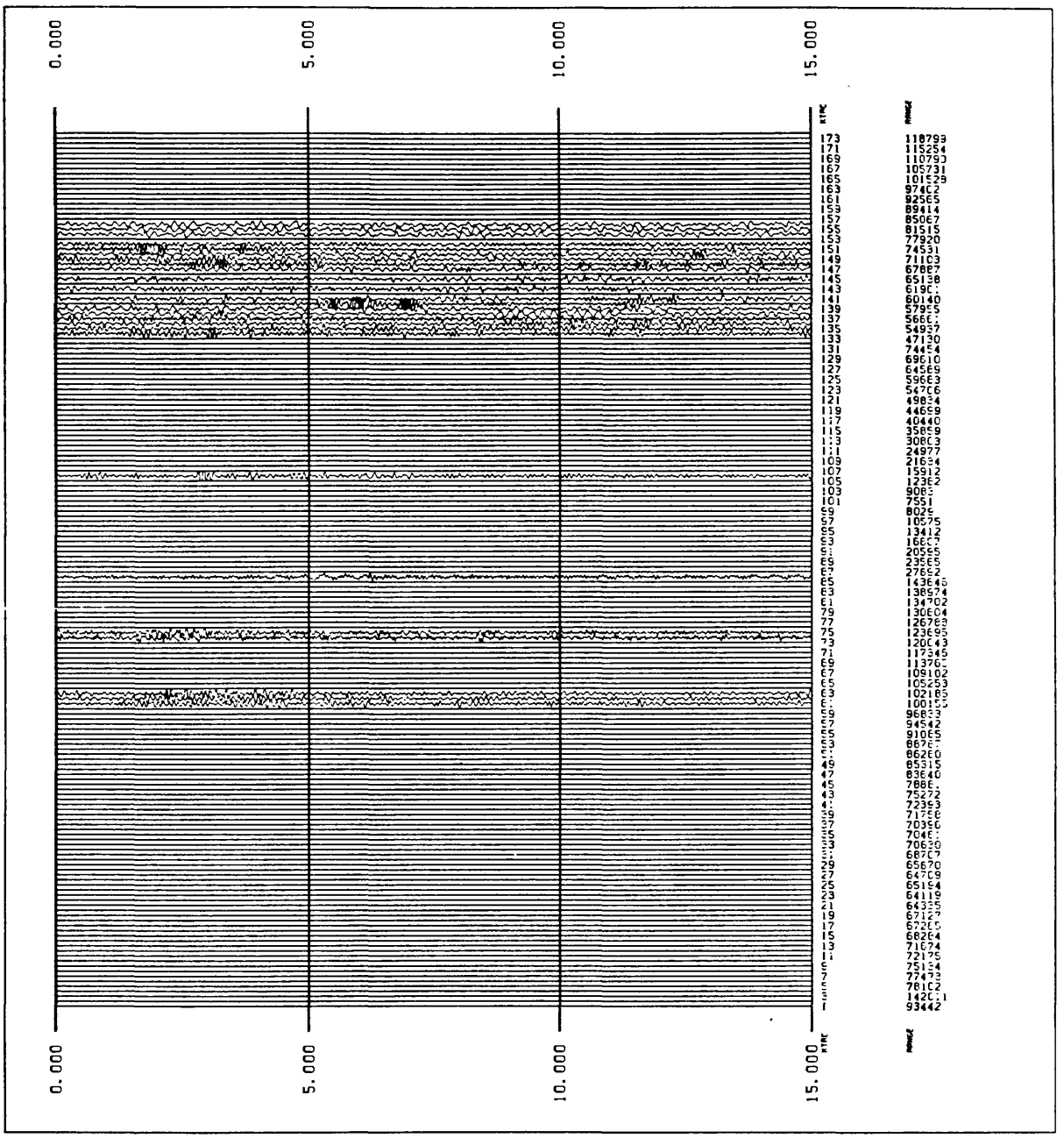


FIGURE A006) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #006 CAT 3188100 94:284:19:28 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

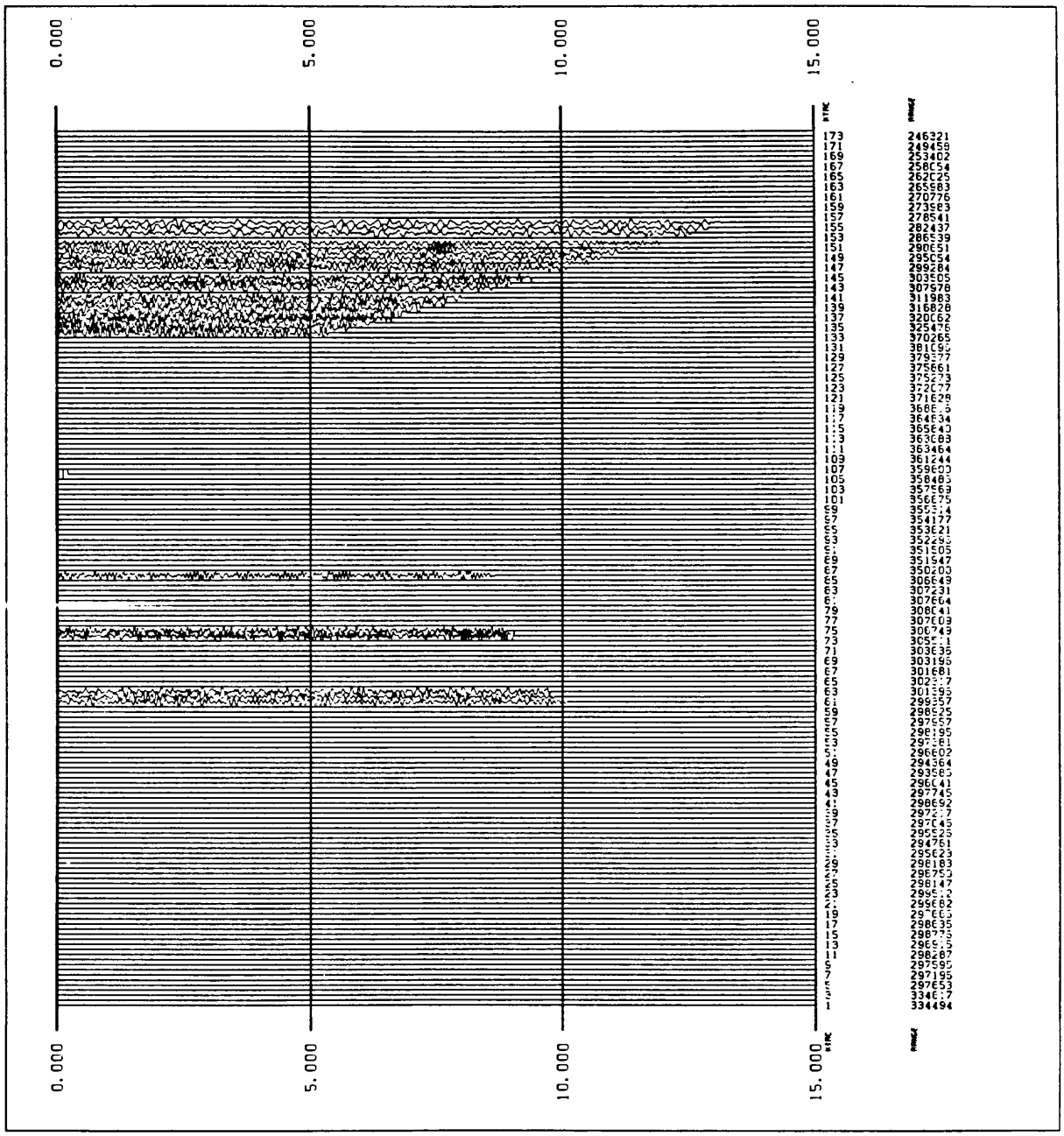


FIGURE A007) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #007 CAT 3188101 94:284:19:36 MAG 2.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

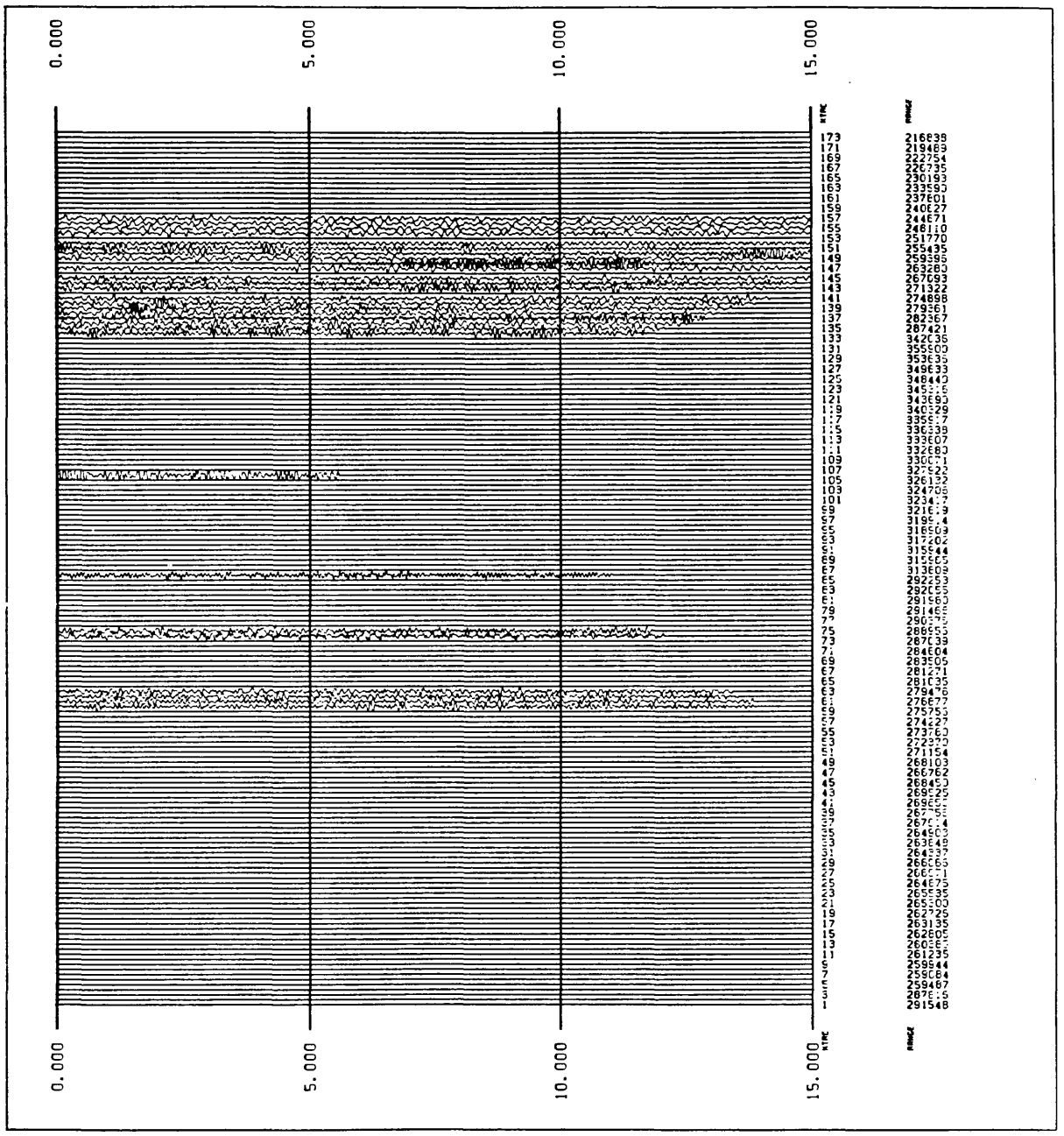


FIGURE A008) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #008 CAT 3188107 94:284:20:10 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

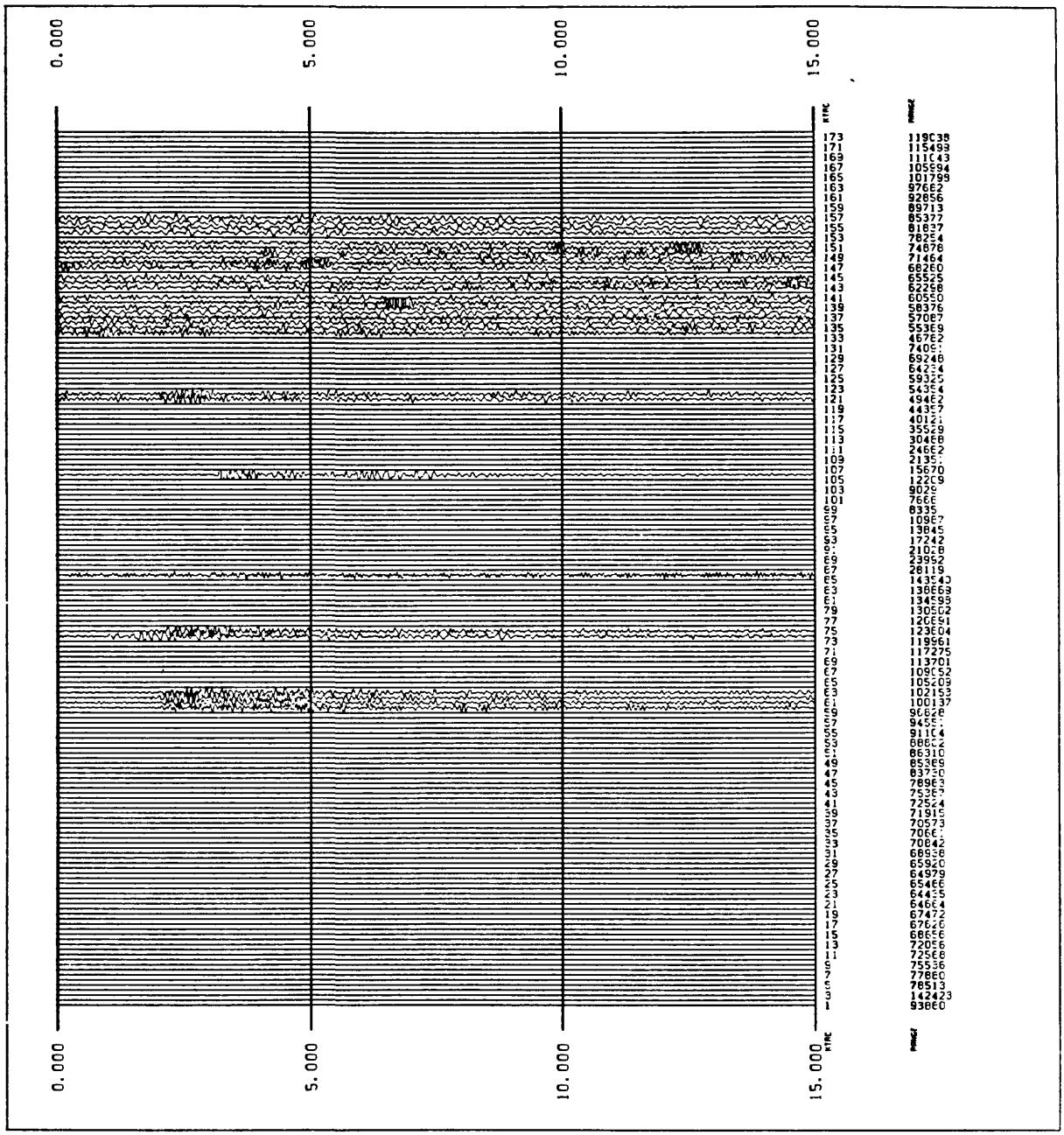


FIGURE A009) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #009 CAT 3188113 94:284:21:14 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

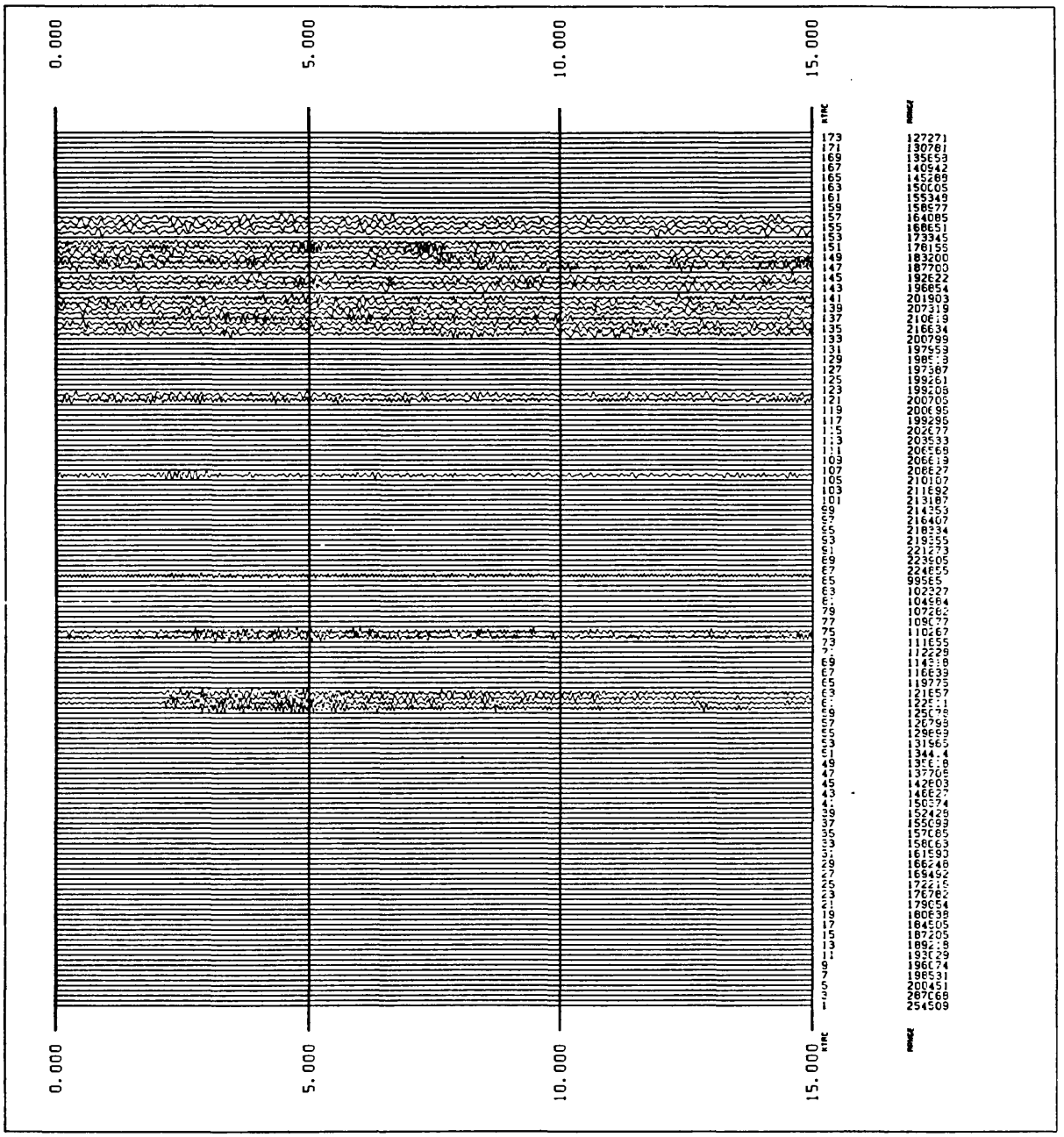


FIGURE A010) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #010 CAT 3188114 94:284:21:21 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

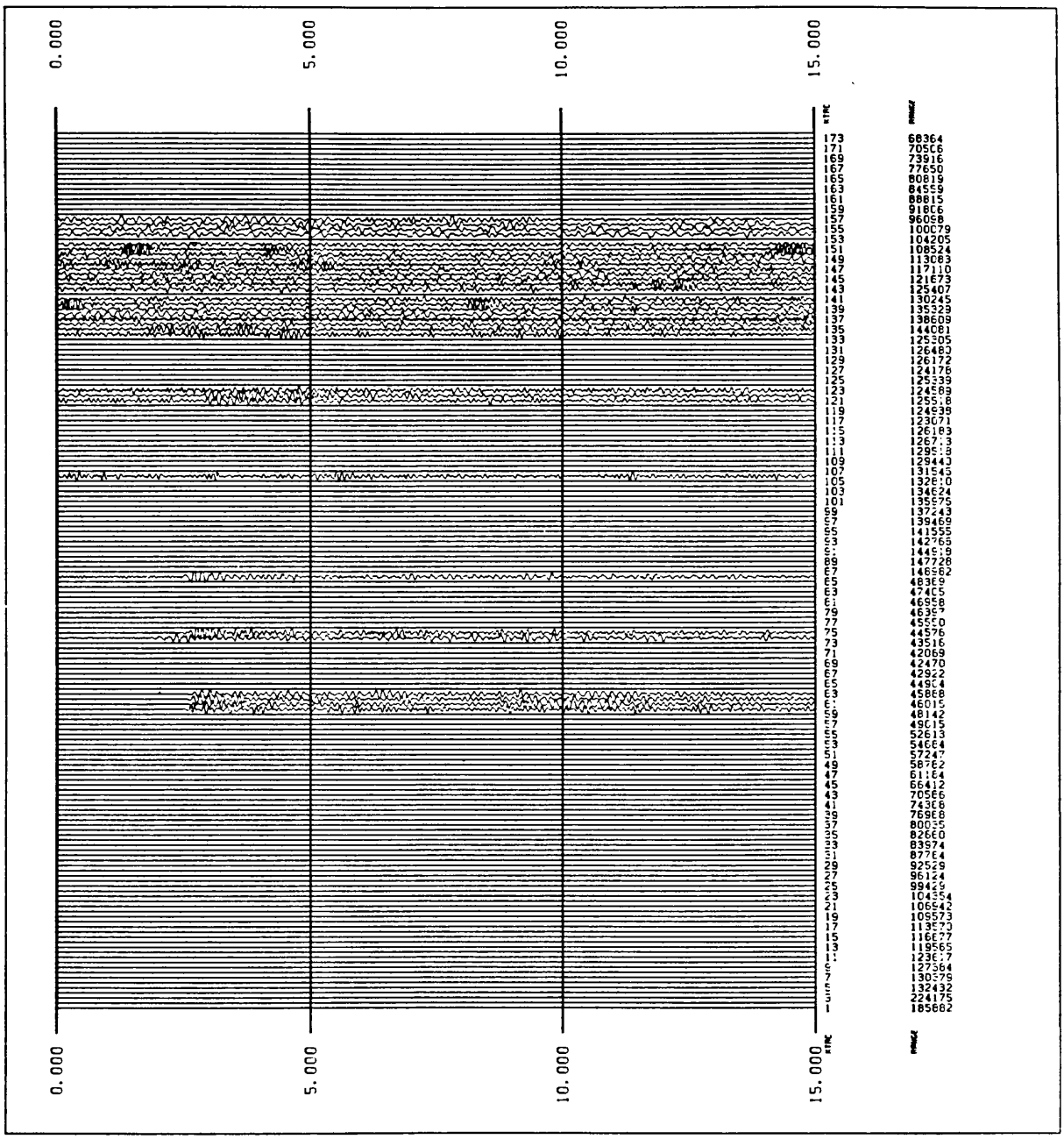


FIGURE A011) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #011 CAT 3188115 94:284:21:50 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

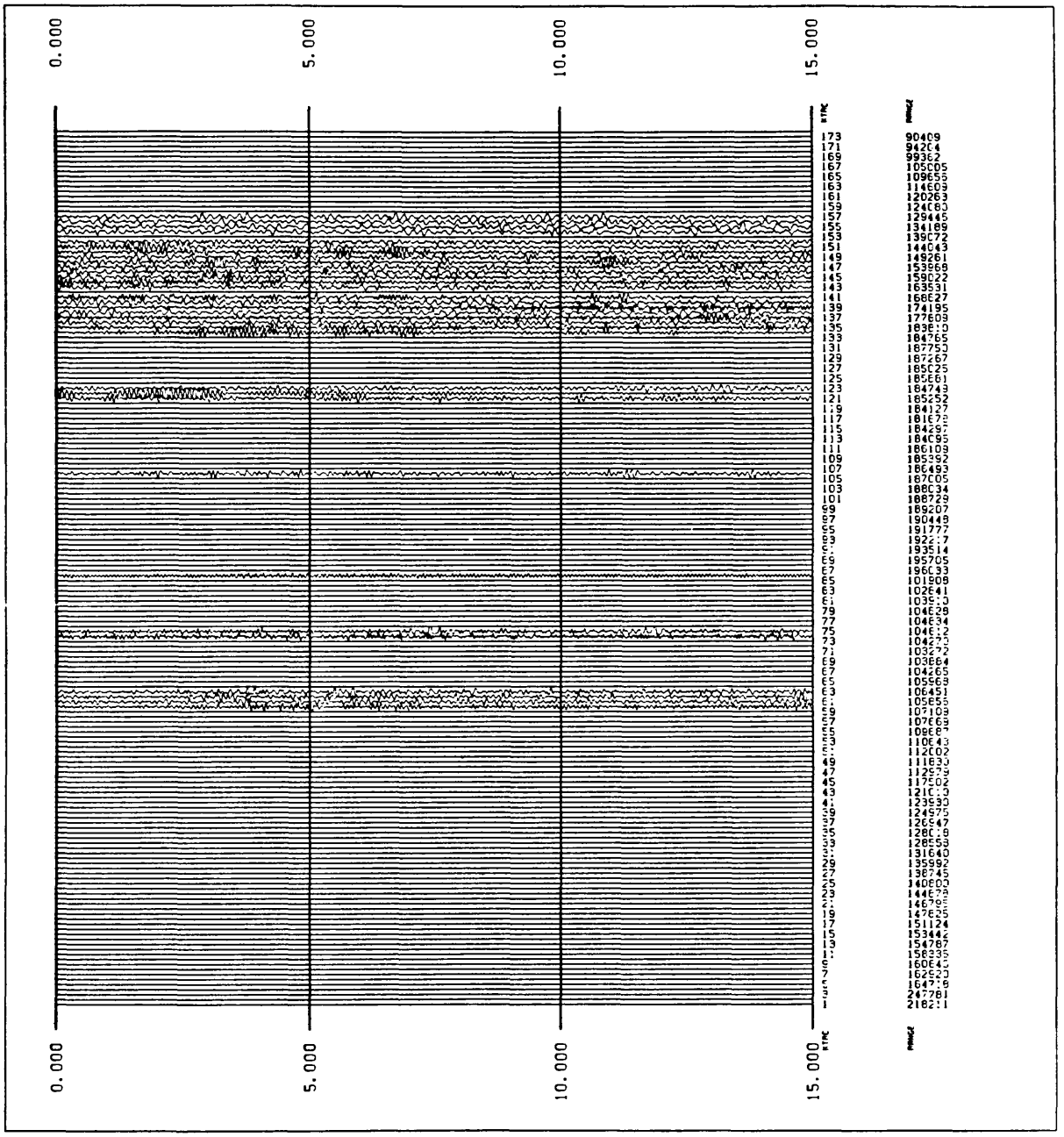


FIGURE A012) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #012 CAT 3188116 94:284:21:53 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

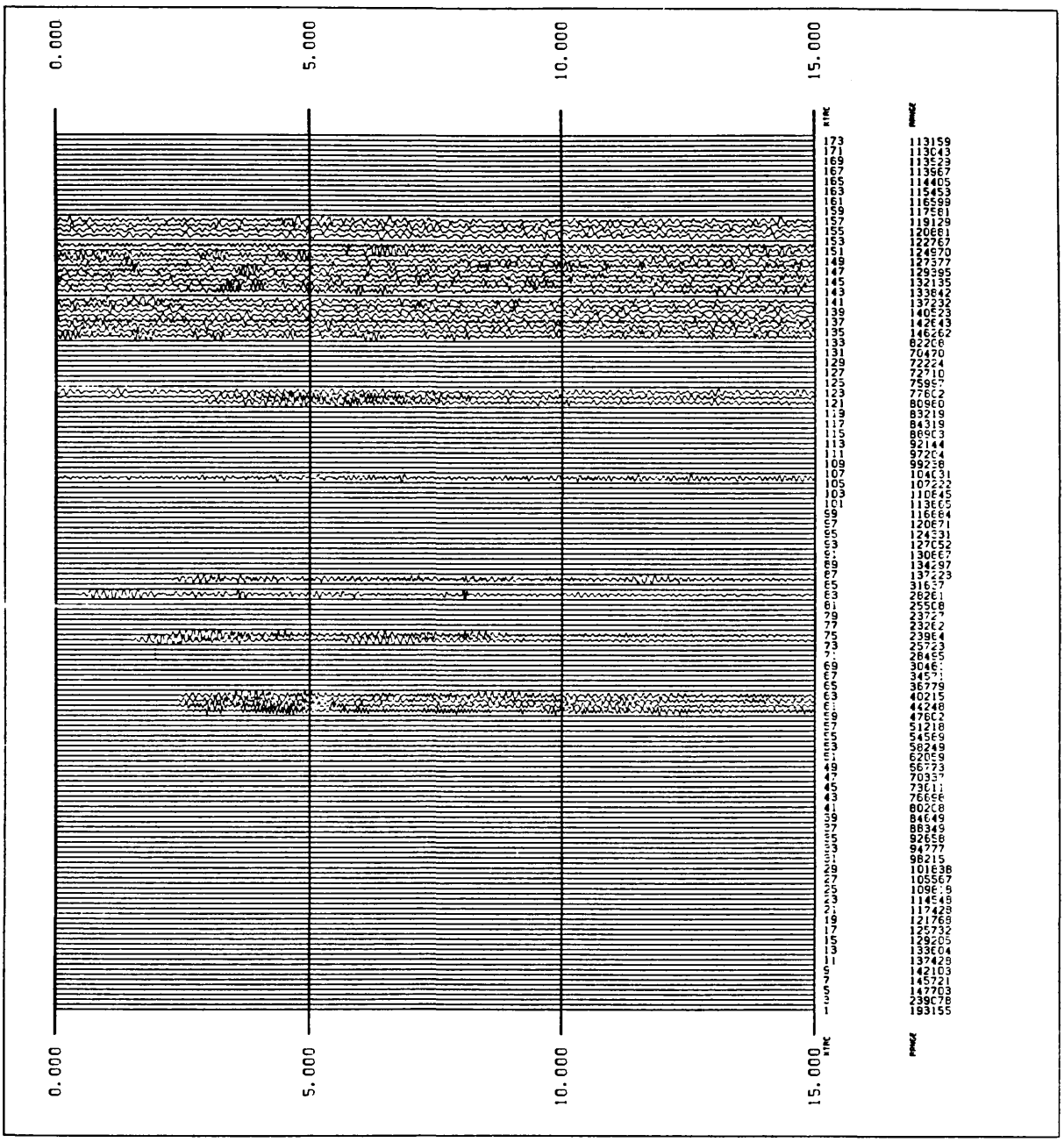


FIGURE A013) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #013 CAT 3188117 94:284:22:15 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

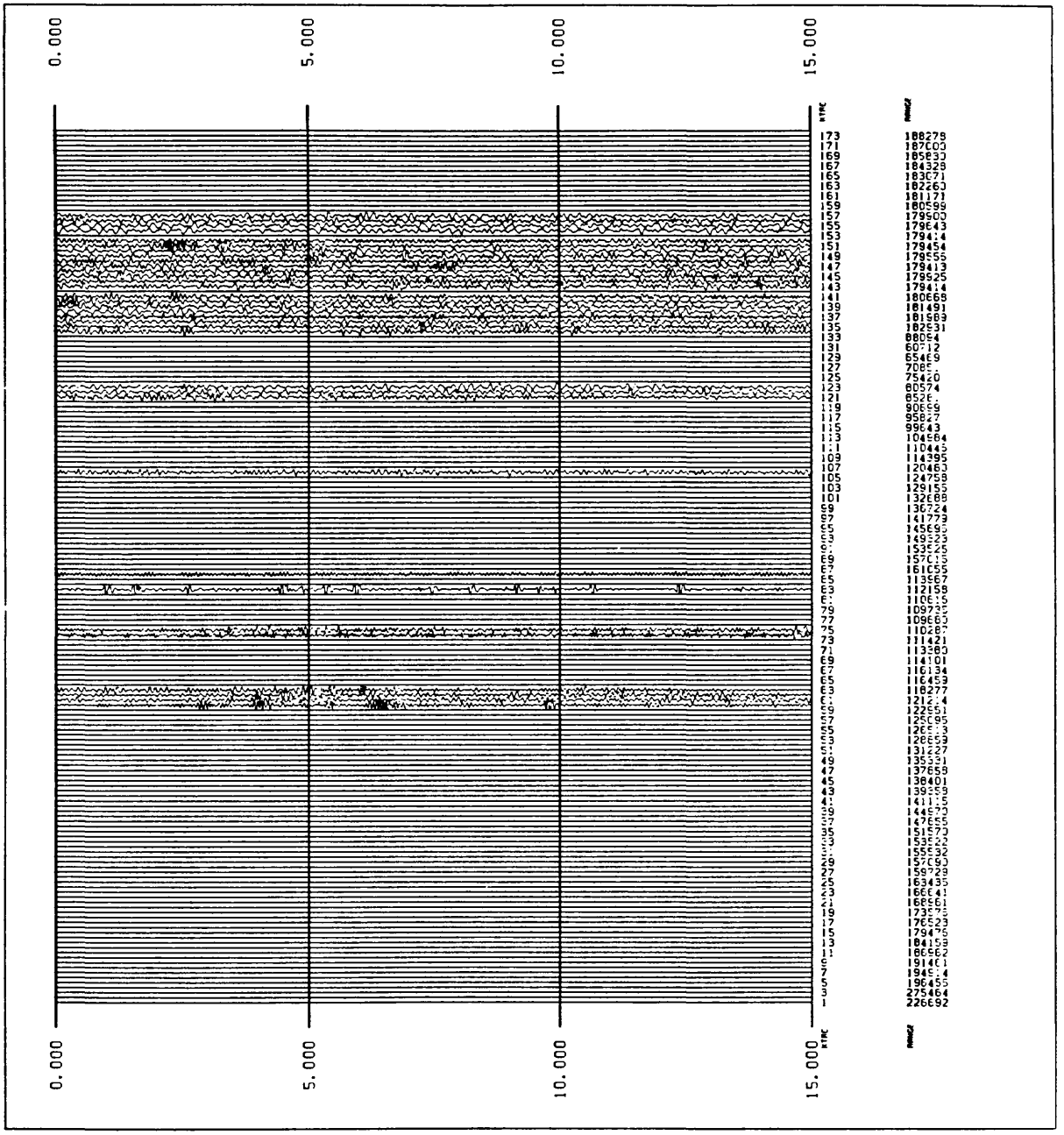


FIGURE A014) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #014 CAT 3188134 94:284:22:16 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

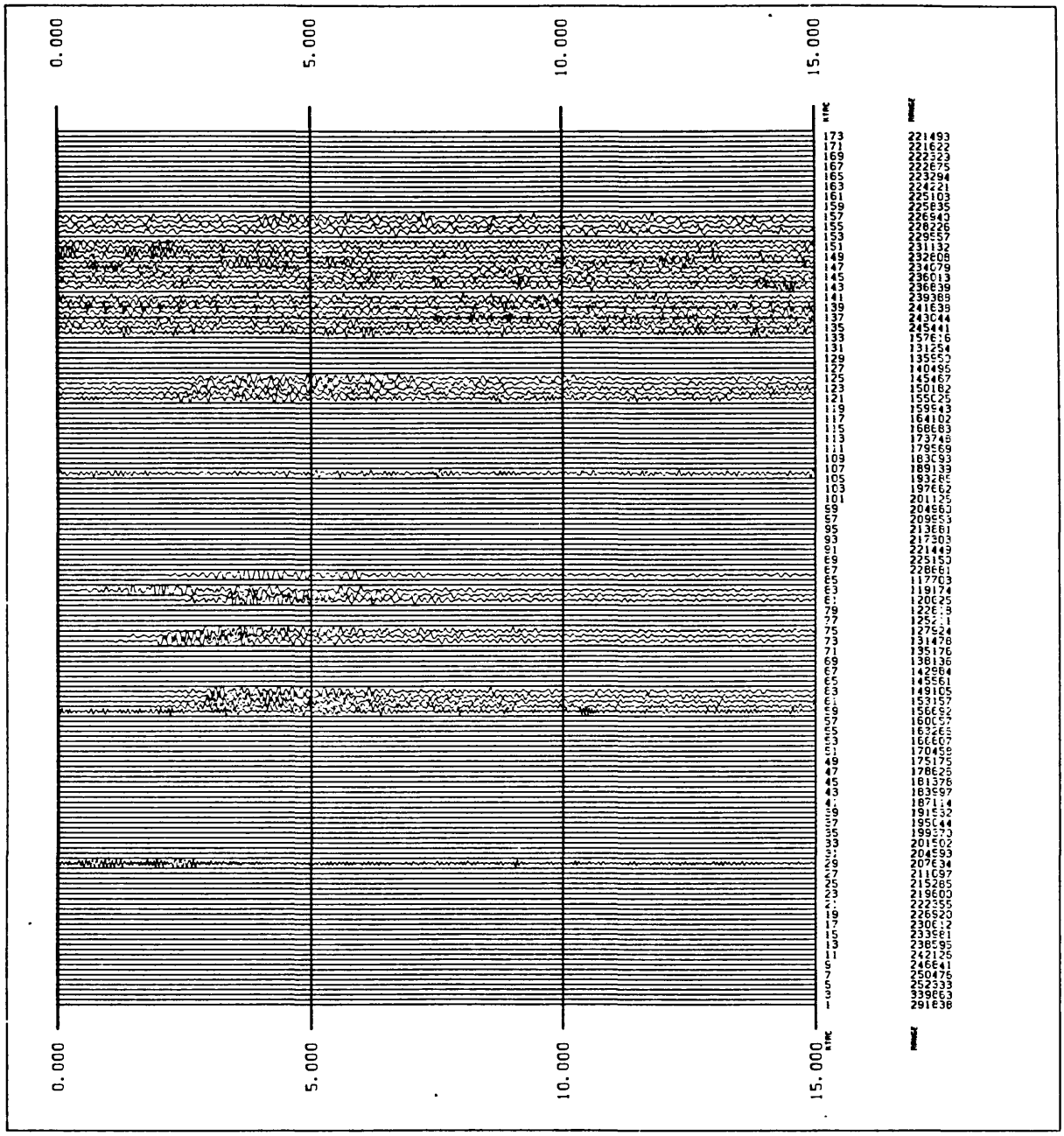


FIGURE A015) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #015 CAT 3188121 94:284:23:05 MAG 2.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

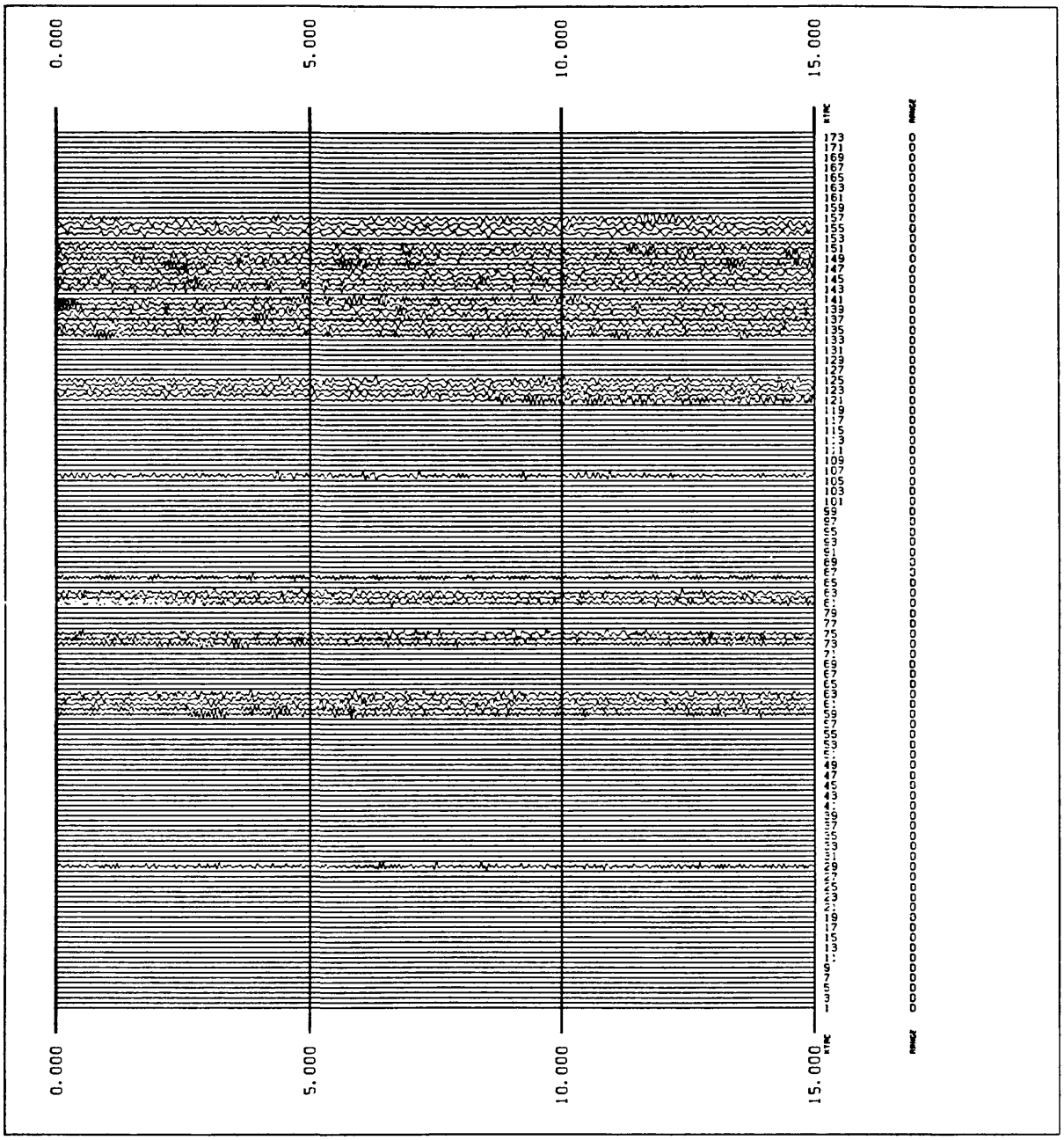


FIGURE A016) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #016 CAT 3188122 94:284:23:13 MAG 4.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

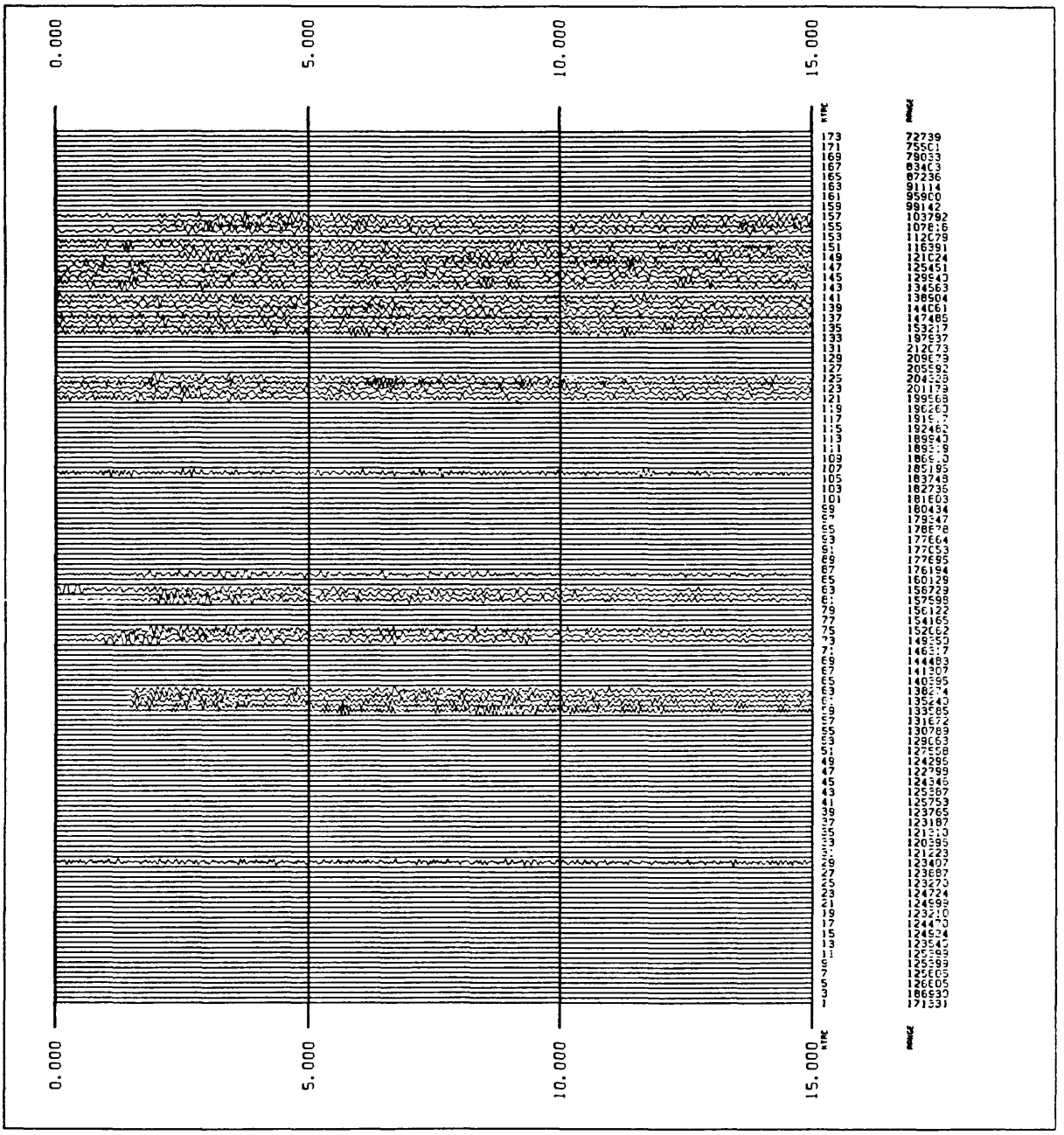


FIGURE A017) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #017 CAT 3188146 94:284:23:14 MAG 2.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

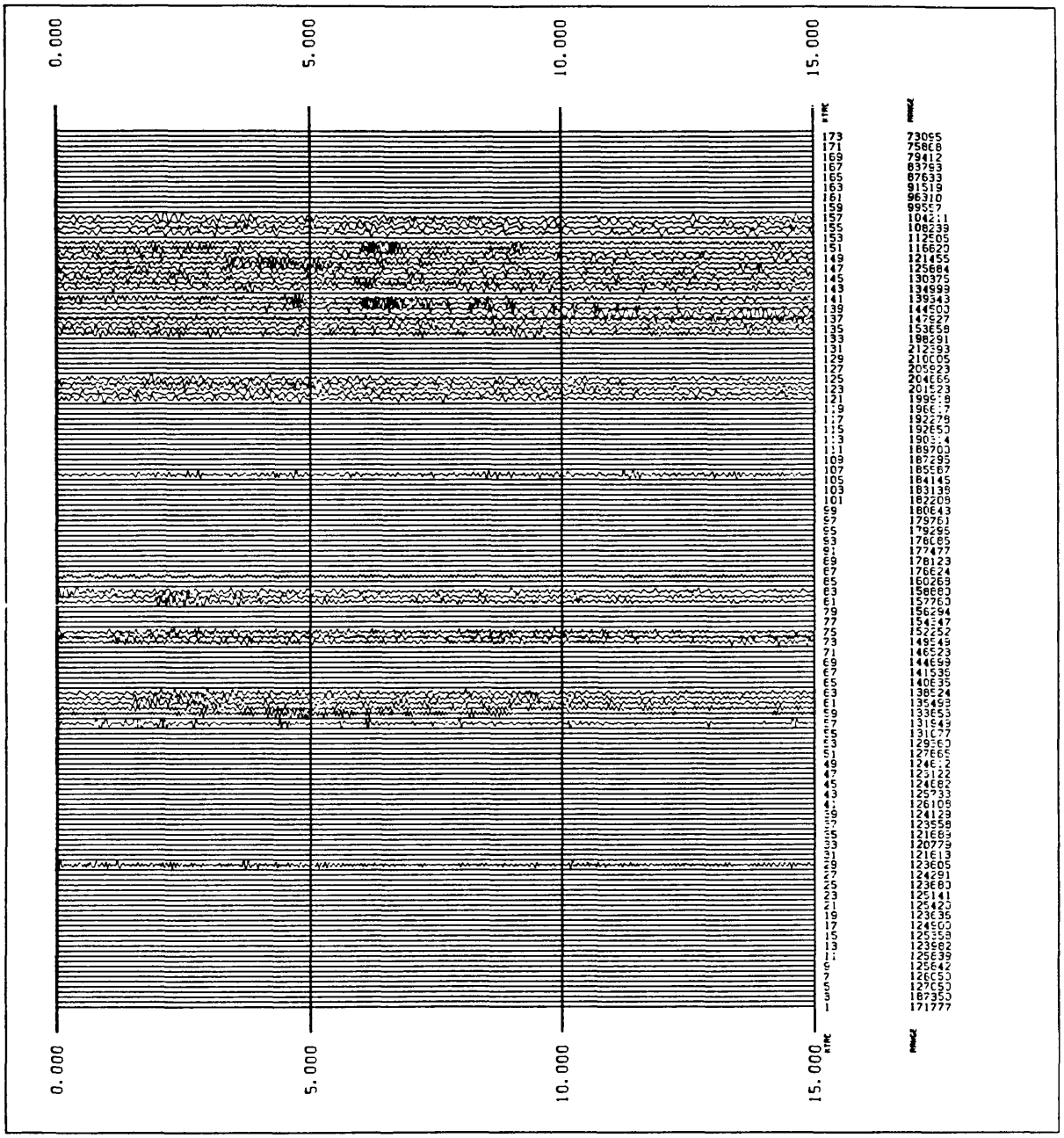


FIGURE A018) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #018 CAT 3188147 94:284:23:15 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

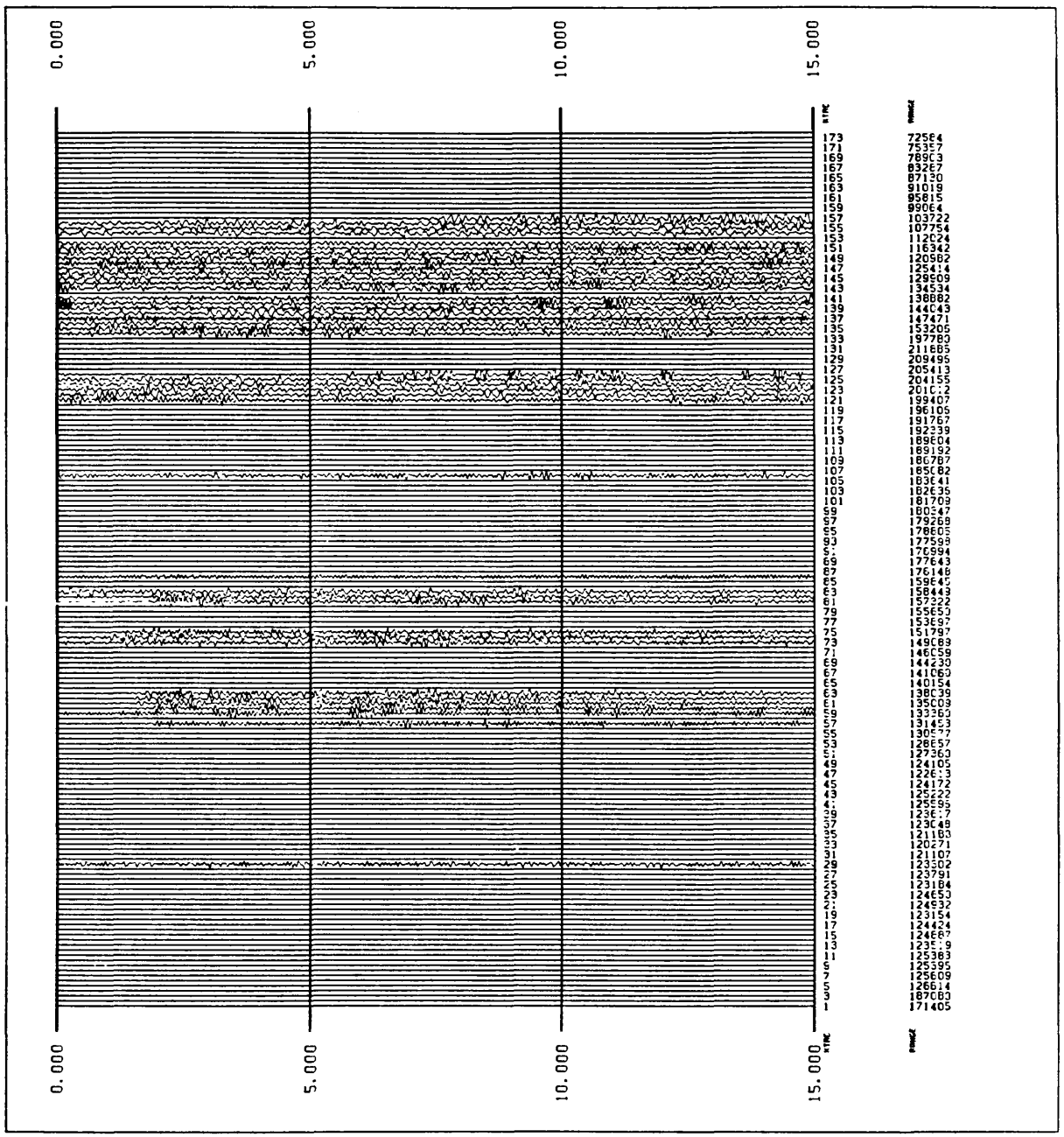


FIGURE A019) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #019 CAT 3188123 94:284:23:22 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

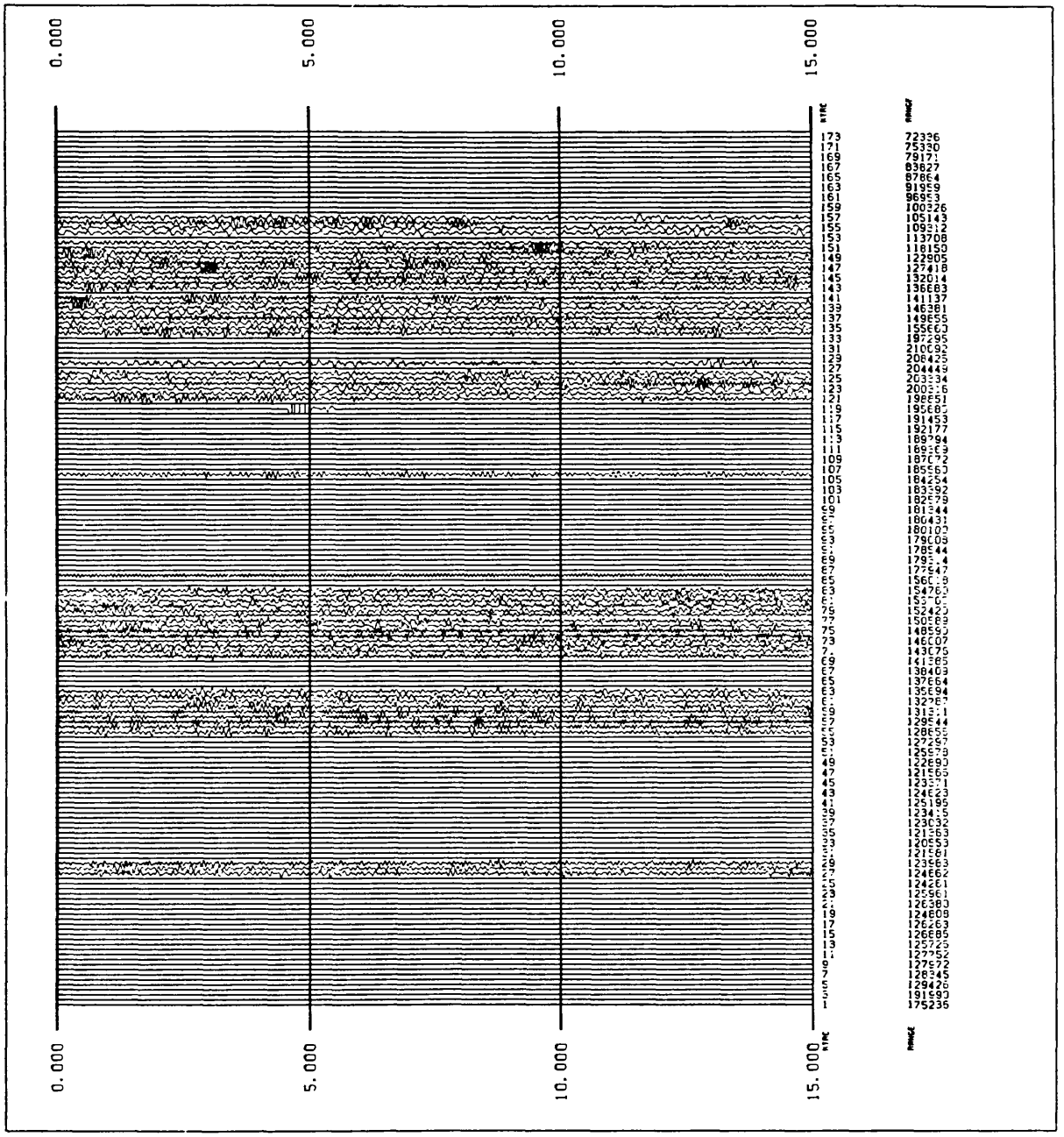


FIGURE A020) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #020 CAT 3188126 94:285:00:37 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

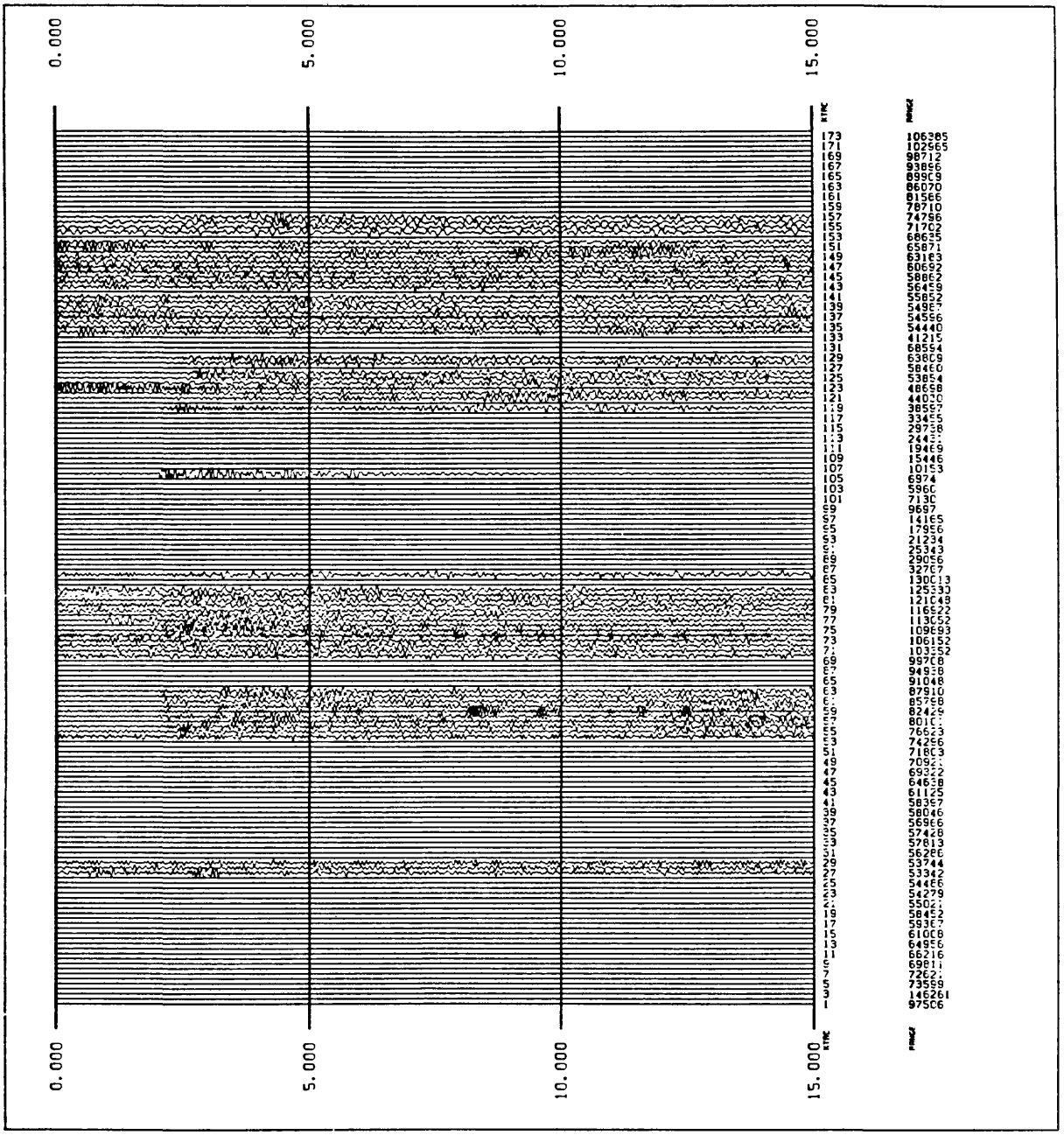


FIGURE A021) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #021 CAT 3188127 94:285:01:02 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

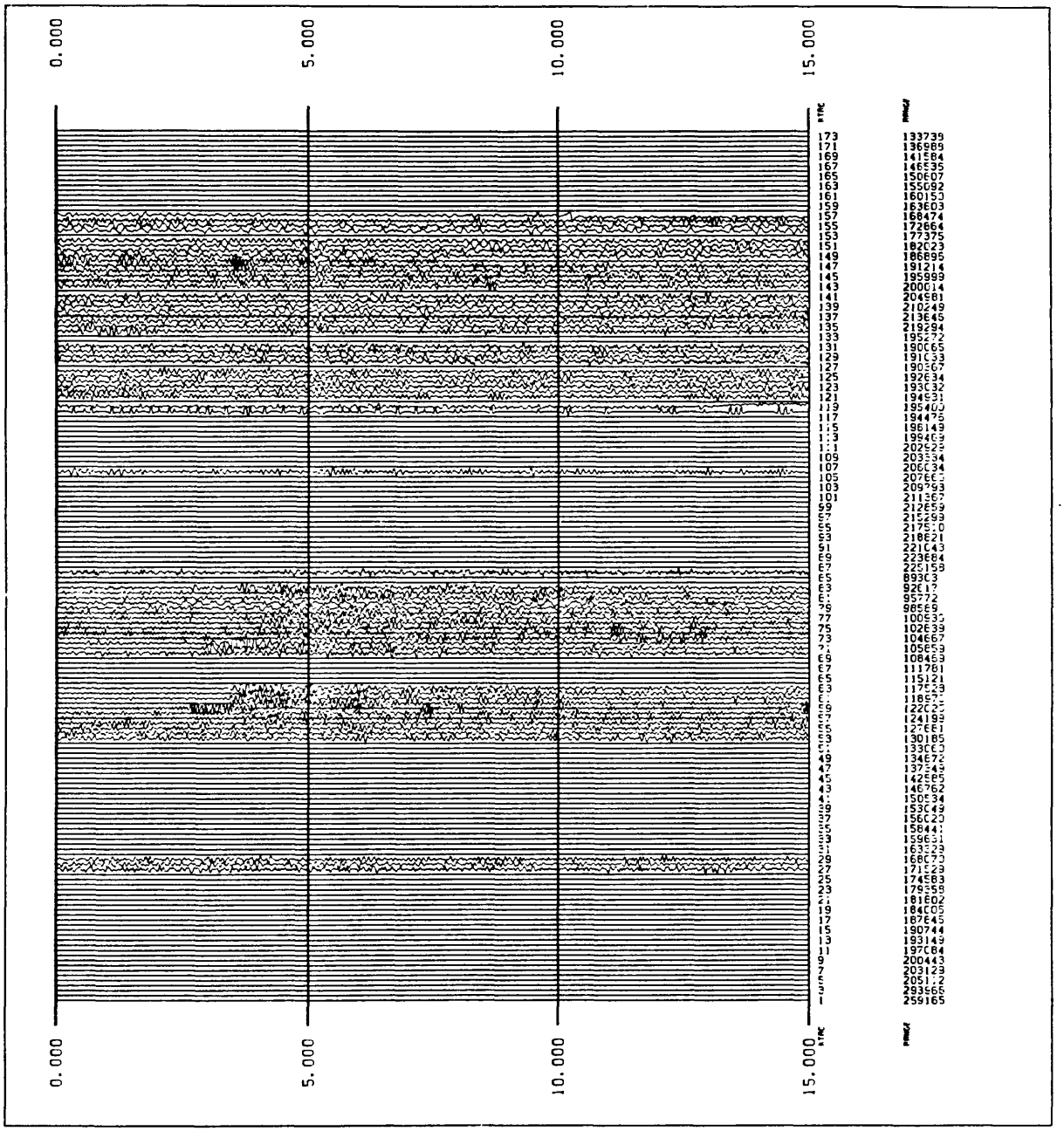


FIGURE A022) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #022 CAT 3188133 94:285:02:33 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

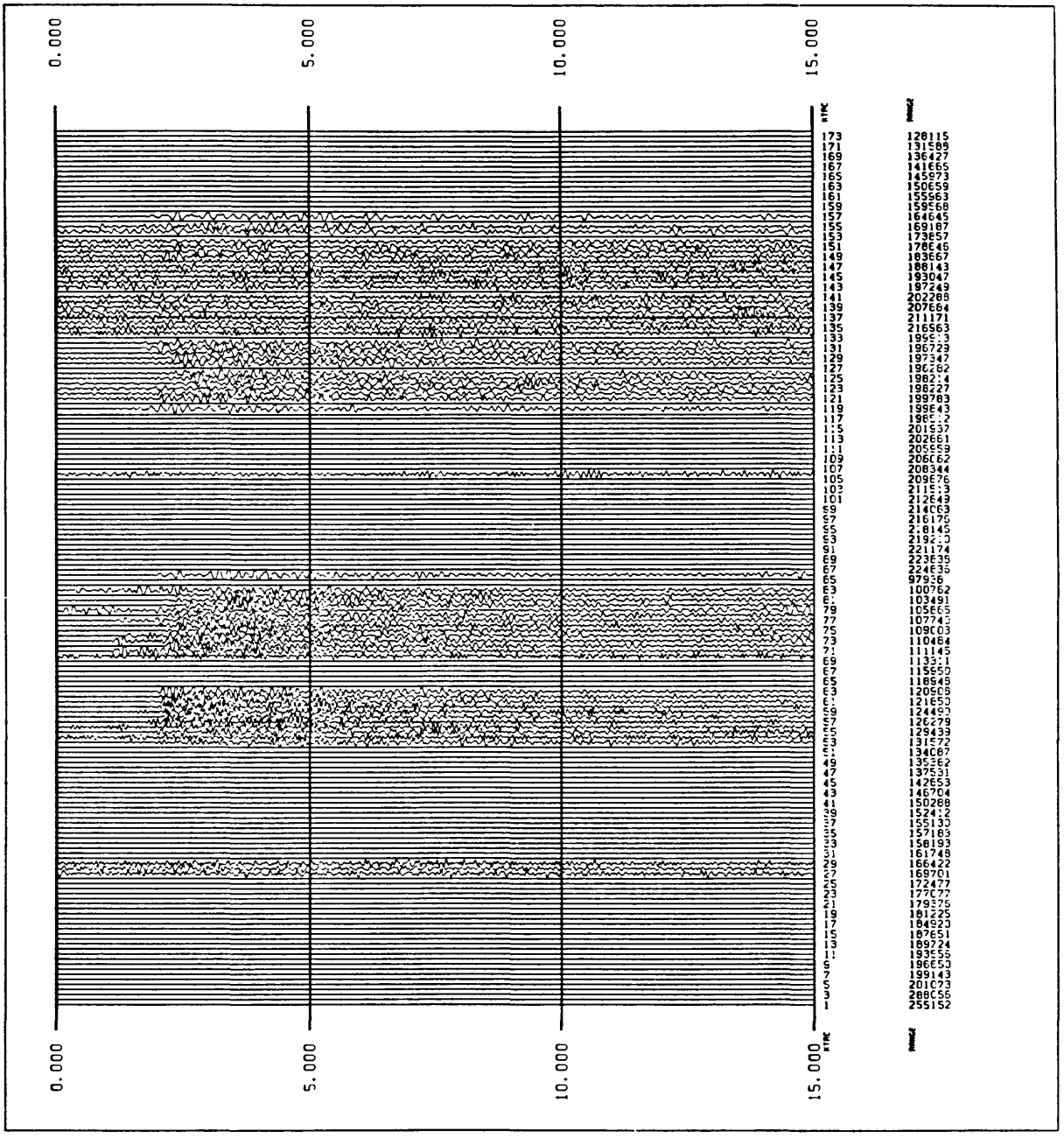


FIGURE A023) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #023 CAT 3188138 94:285:03:38 MAG 3.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

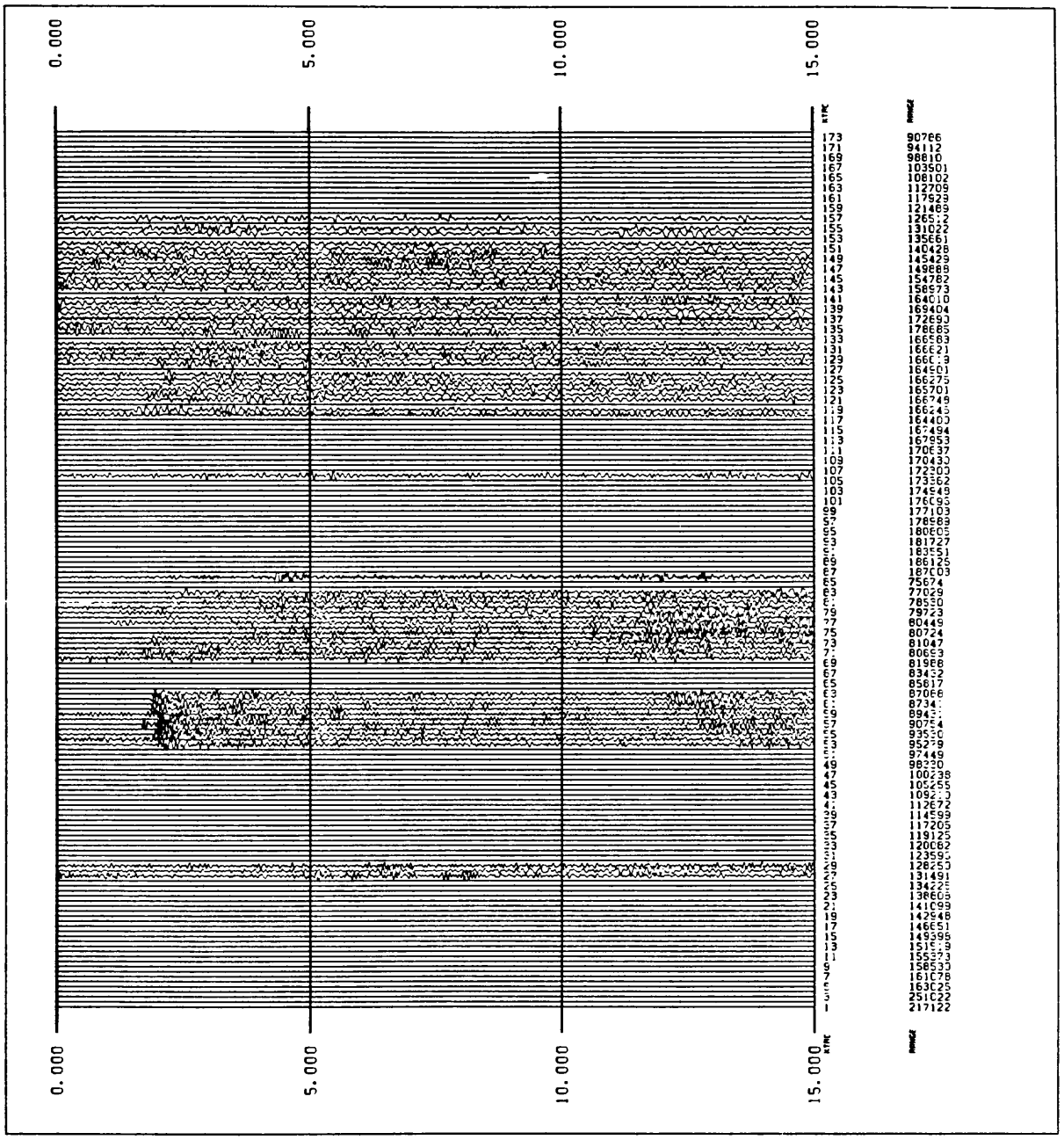


FIGURE A024) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #024 CAT 3188145 94:285:05:00 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

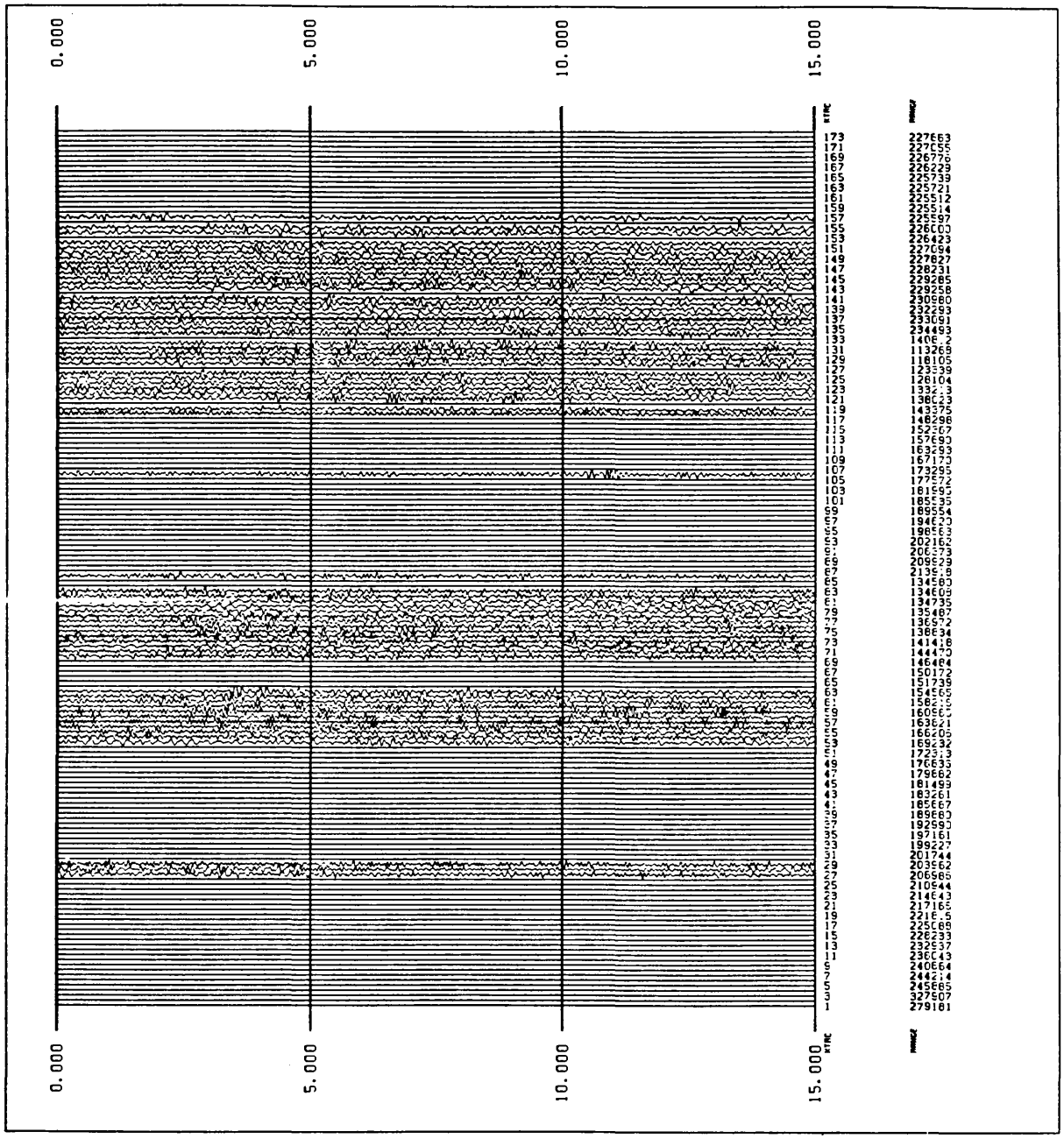


FIGURE A025) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #025 CAT 3188149 94:285:05:19 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

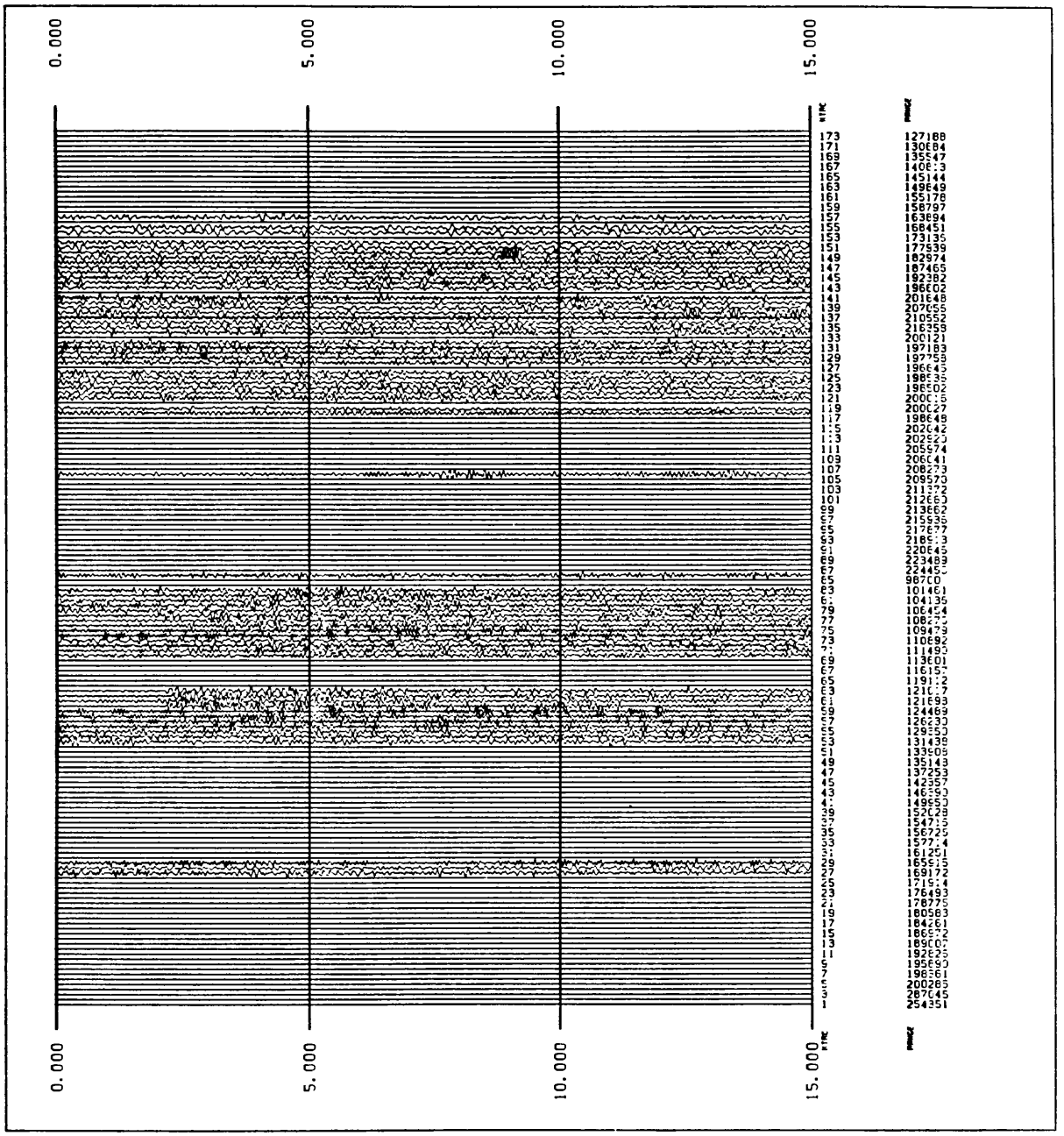


FIGURE A026) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #026 CAT 3188150 94:285:06:02 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

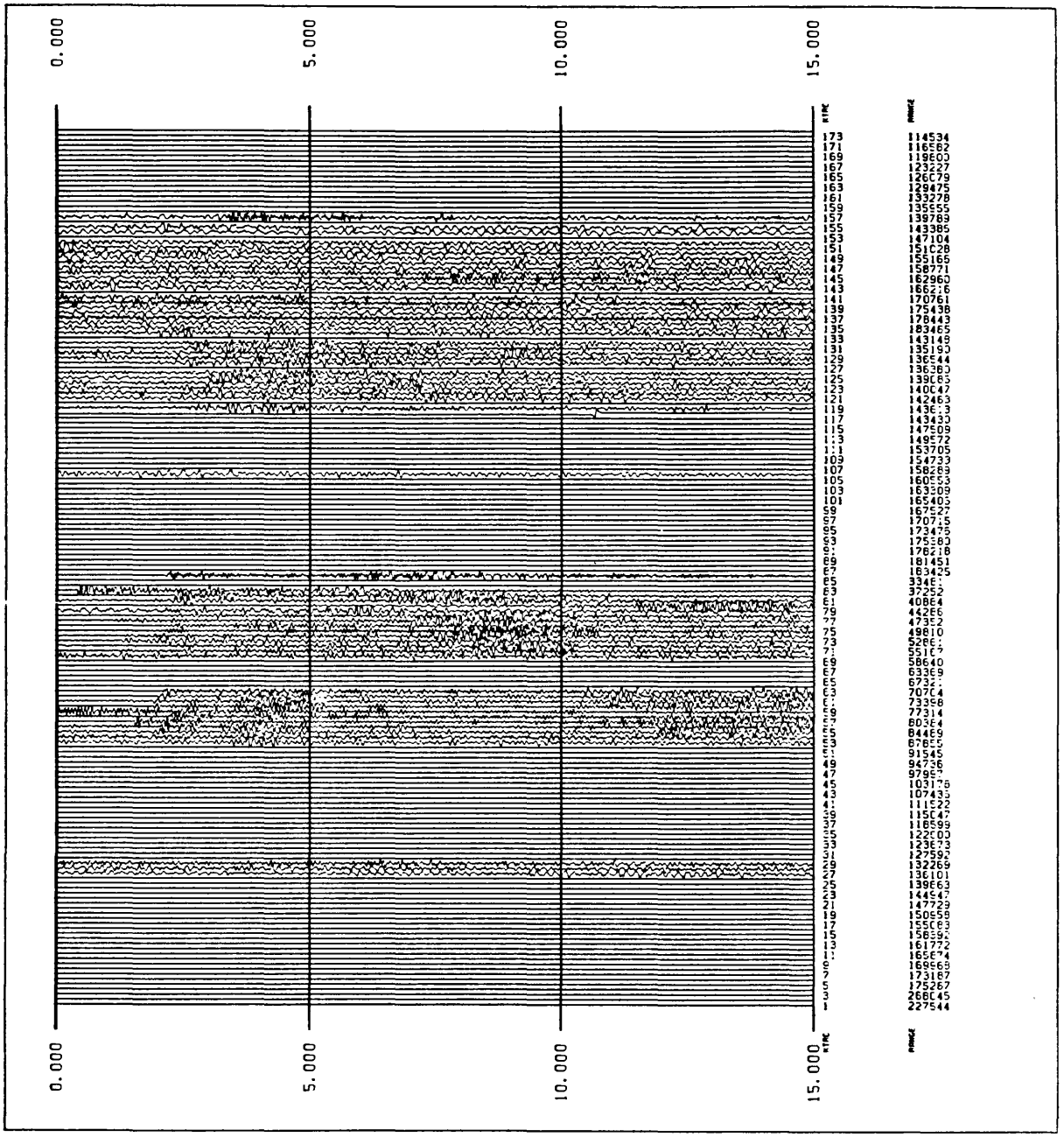


FIGURE A027) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #027 CAT 3188152 94:285:08:16 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

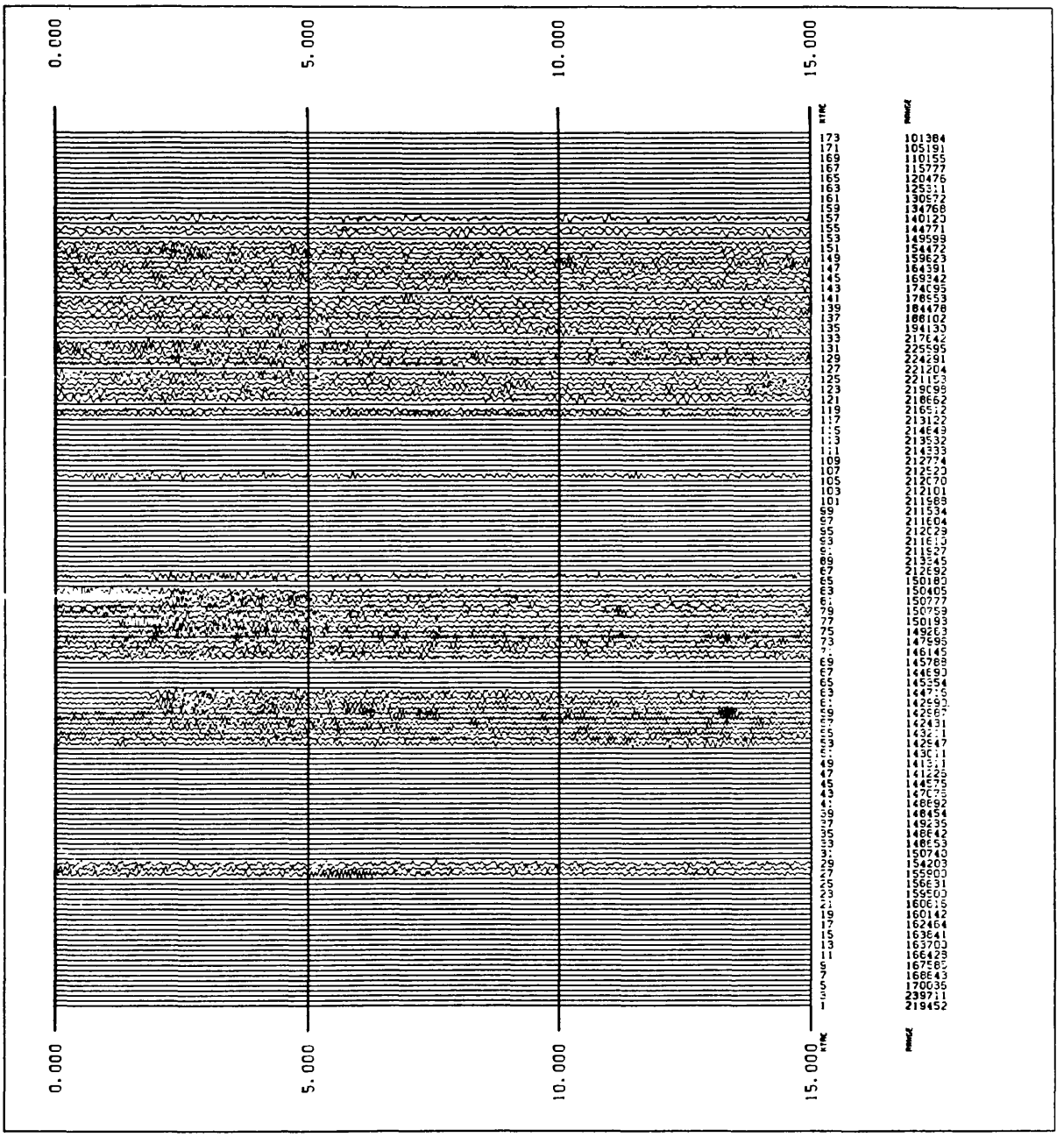


FIGURE A028) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #028 CAT 3188165 94:285:11:43 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

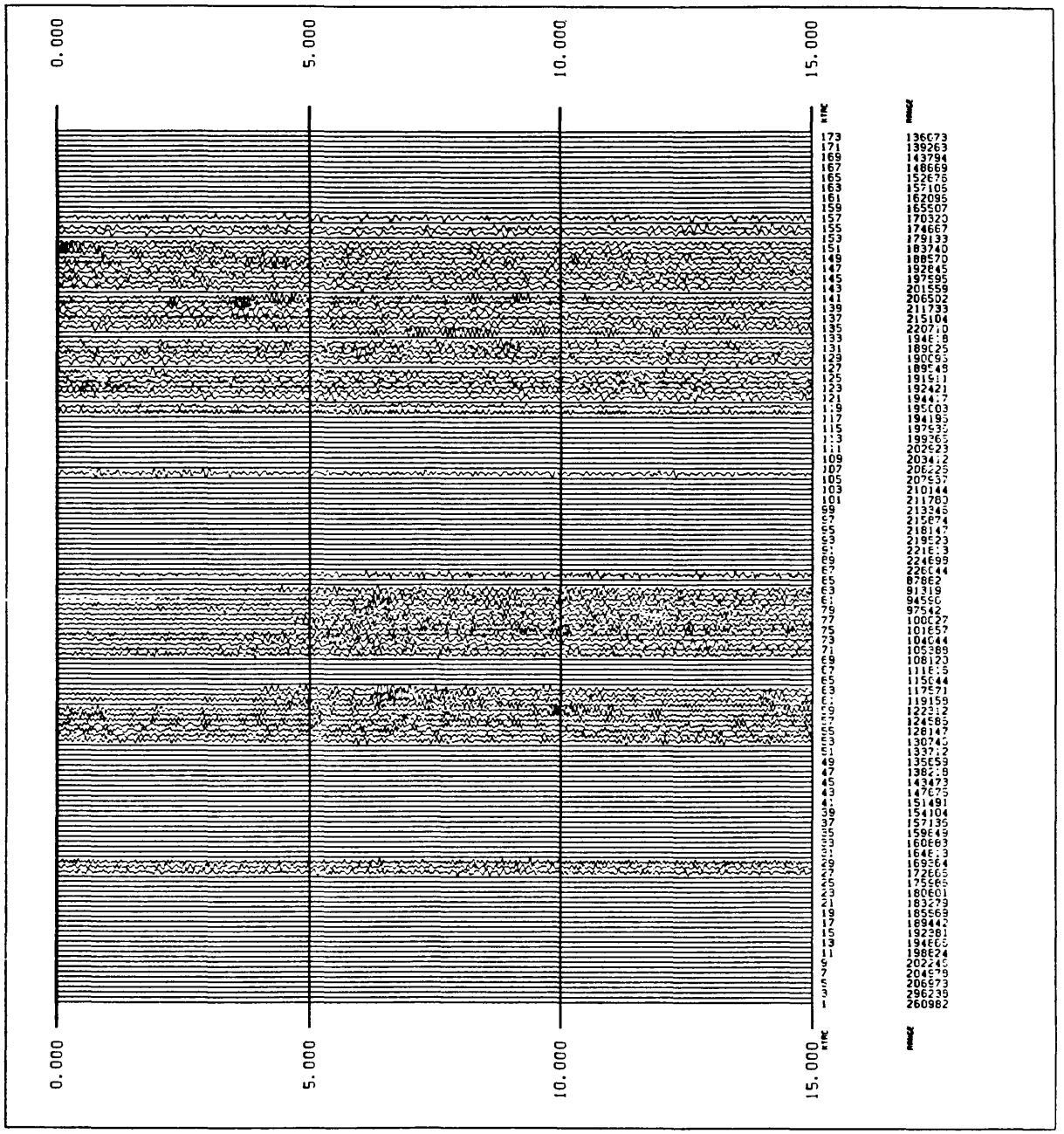


FIGURE A029) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #029 CAT 3188166 94:285:12:21 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

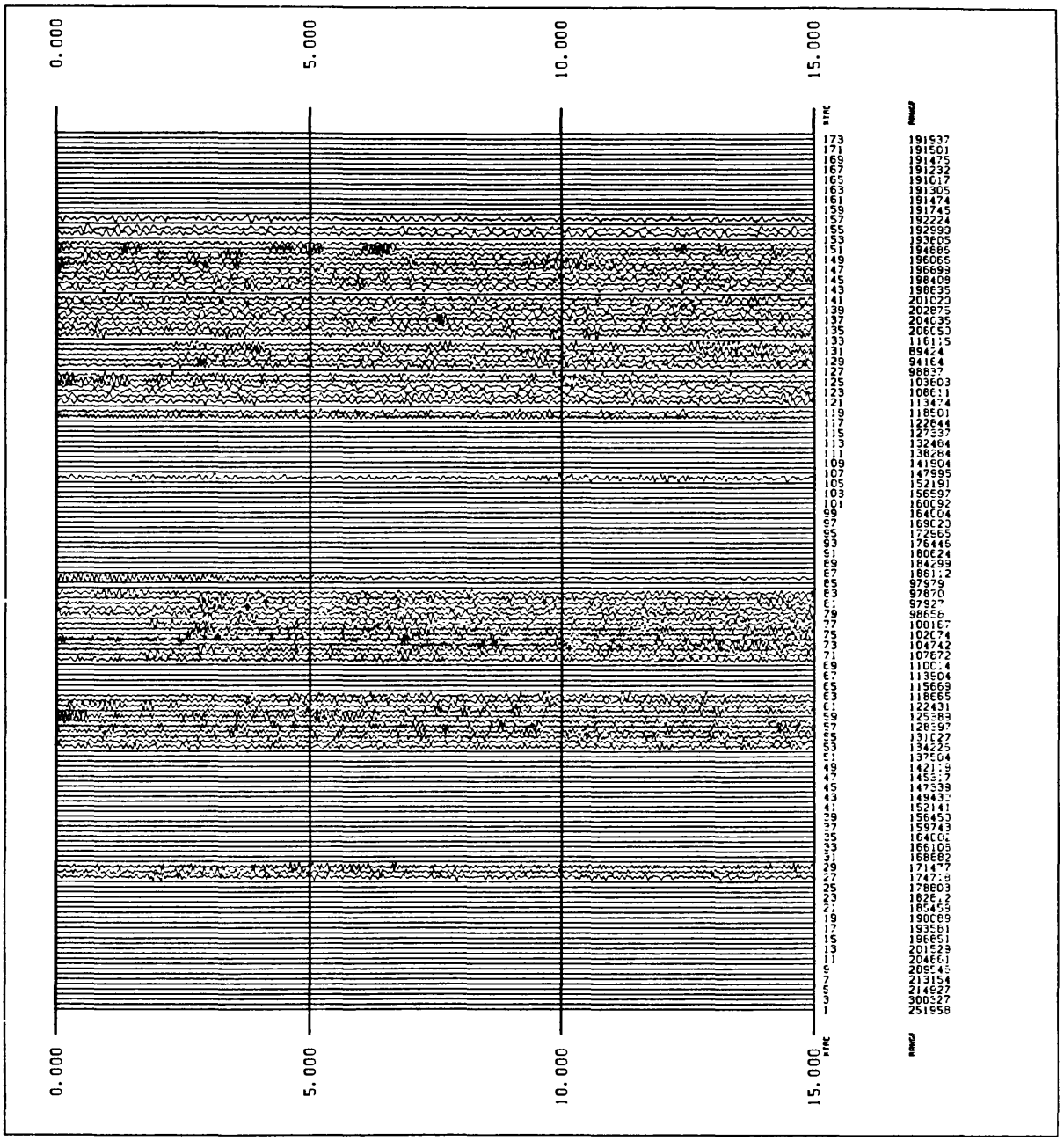


FIGURE A030) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #030 CAT 3188168 94:285:13:22 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

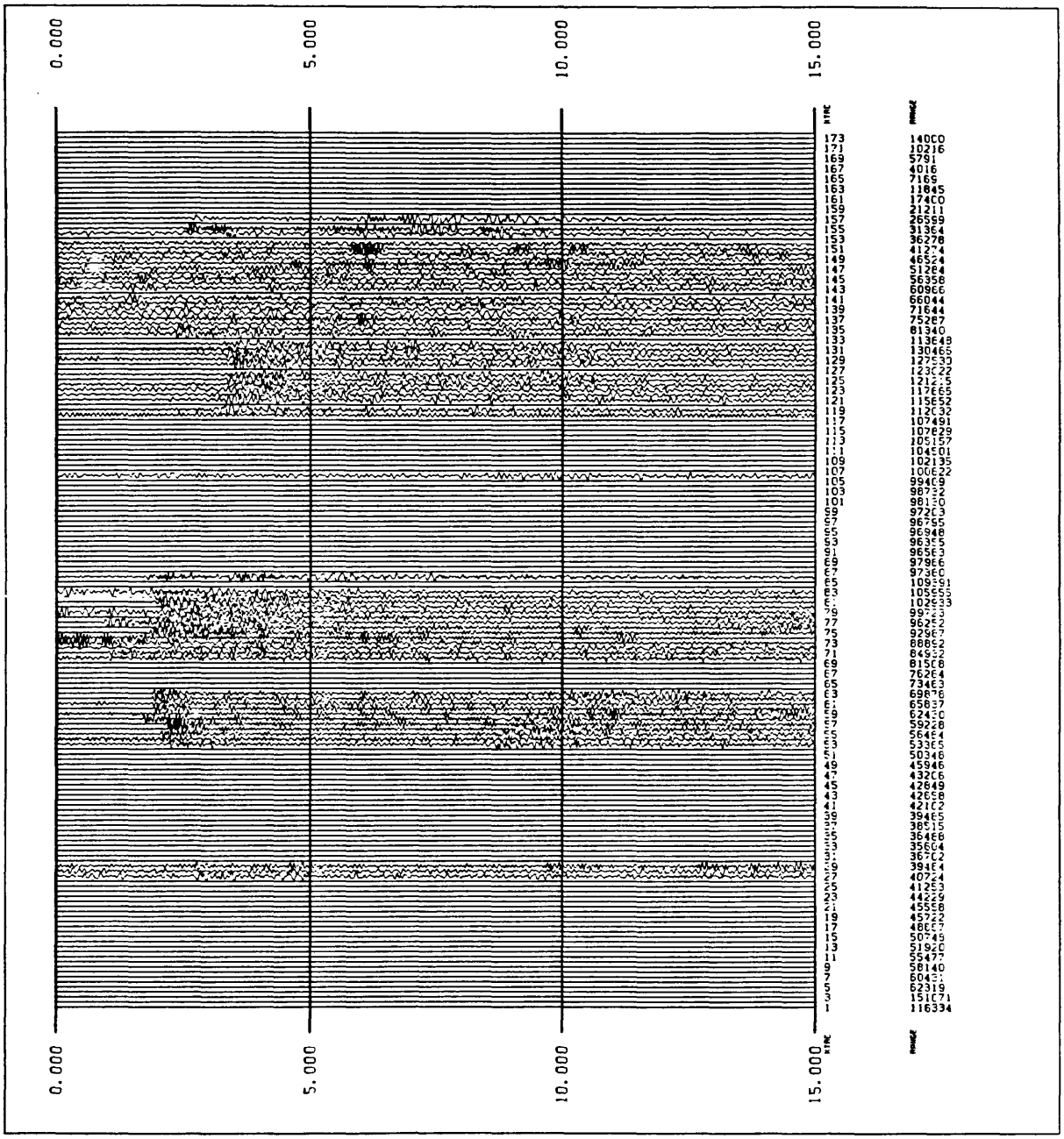


FIGURE A031) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #031 CAT 3188172 94:285:14:13 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

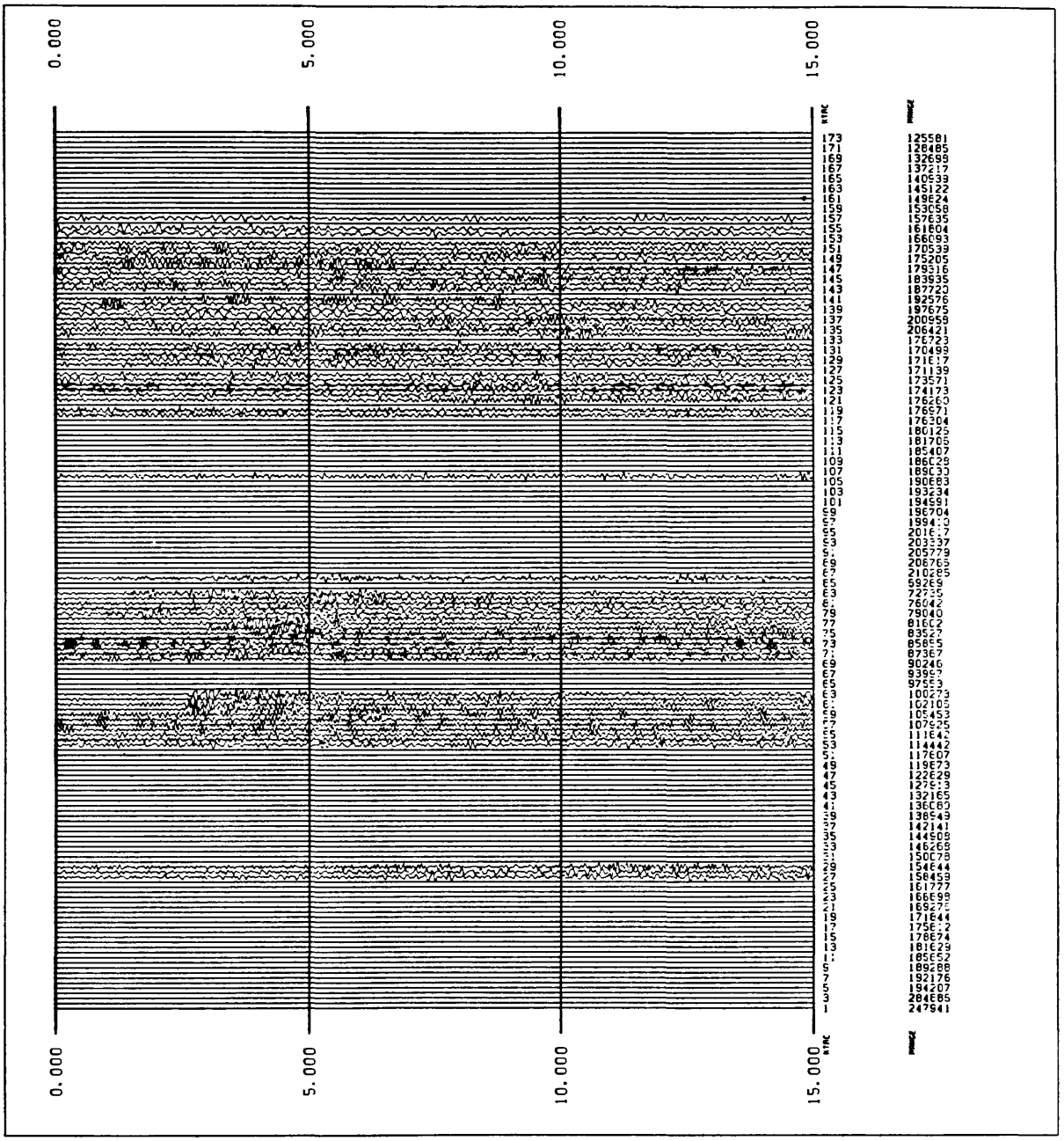


FIGURE A032) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #032 CAT 3188173 94:285:14:22 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

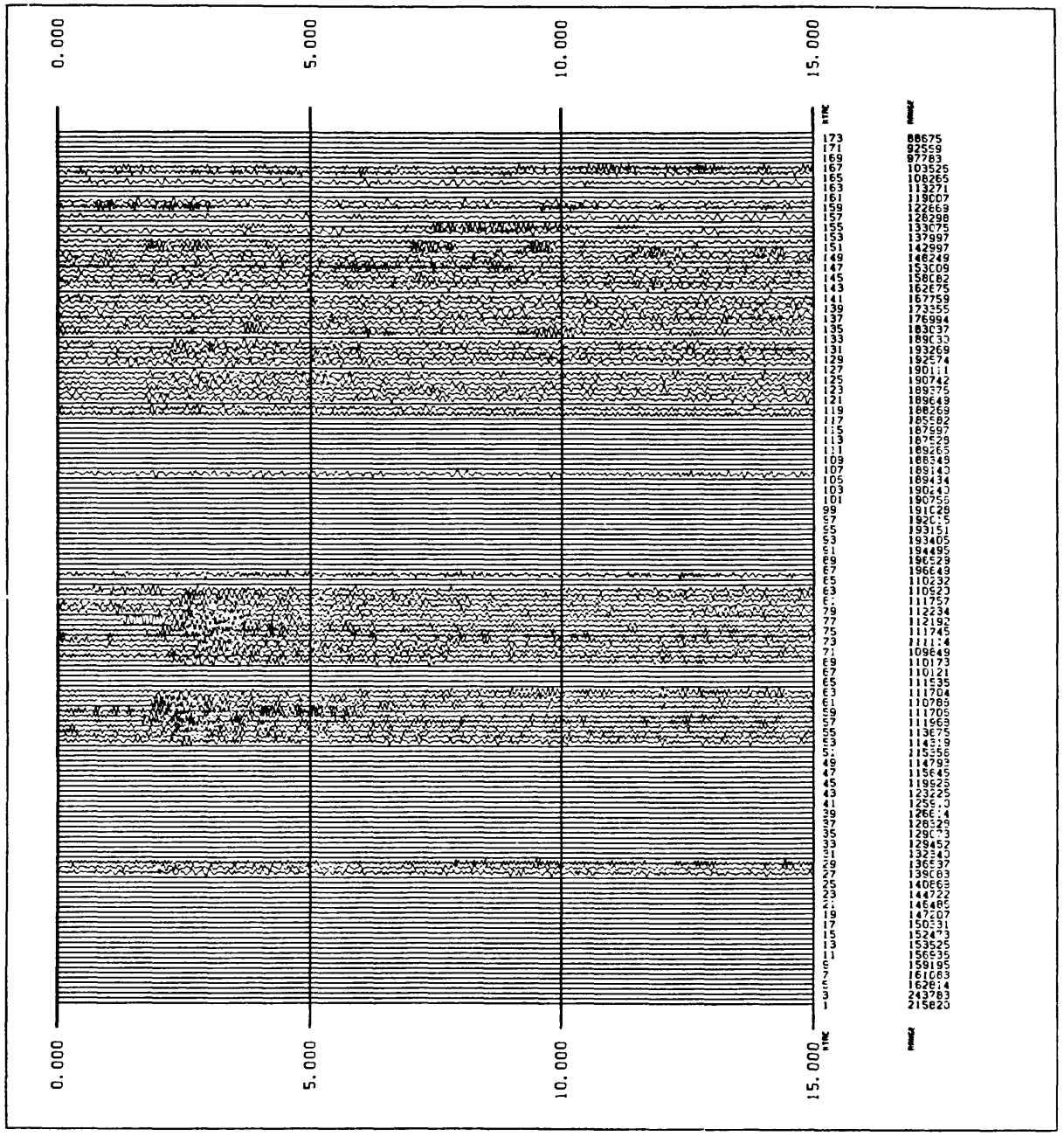


FIGURE A033) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #033 CAT 3188179 94:285:15:39 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

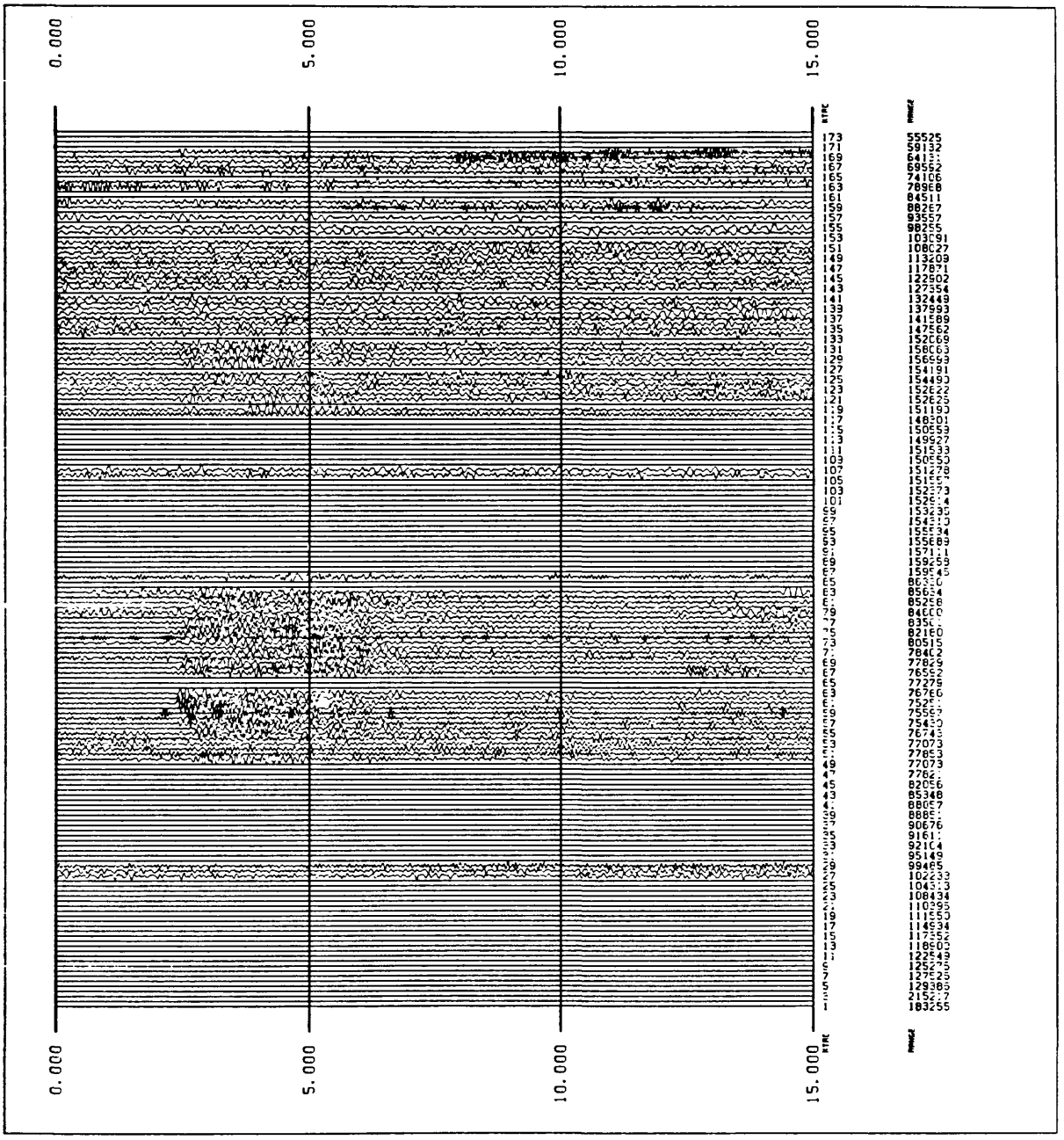


FIGURE A034) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #034 CAT 3188204 94:285:17:01 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

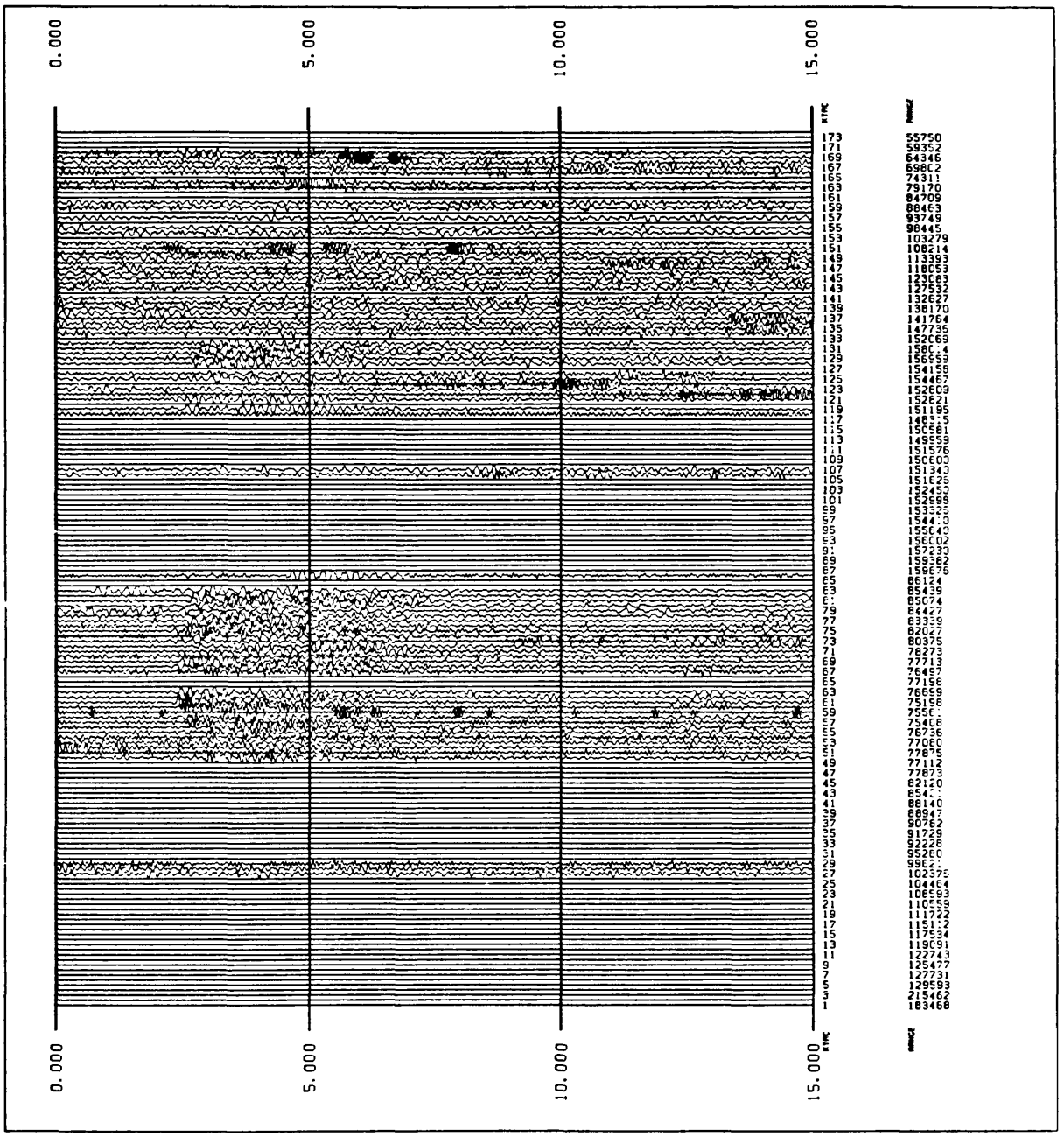


FIGURE A035) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #035 CAT 3188192 94:285:17:02 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

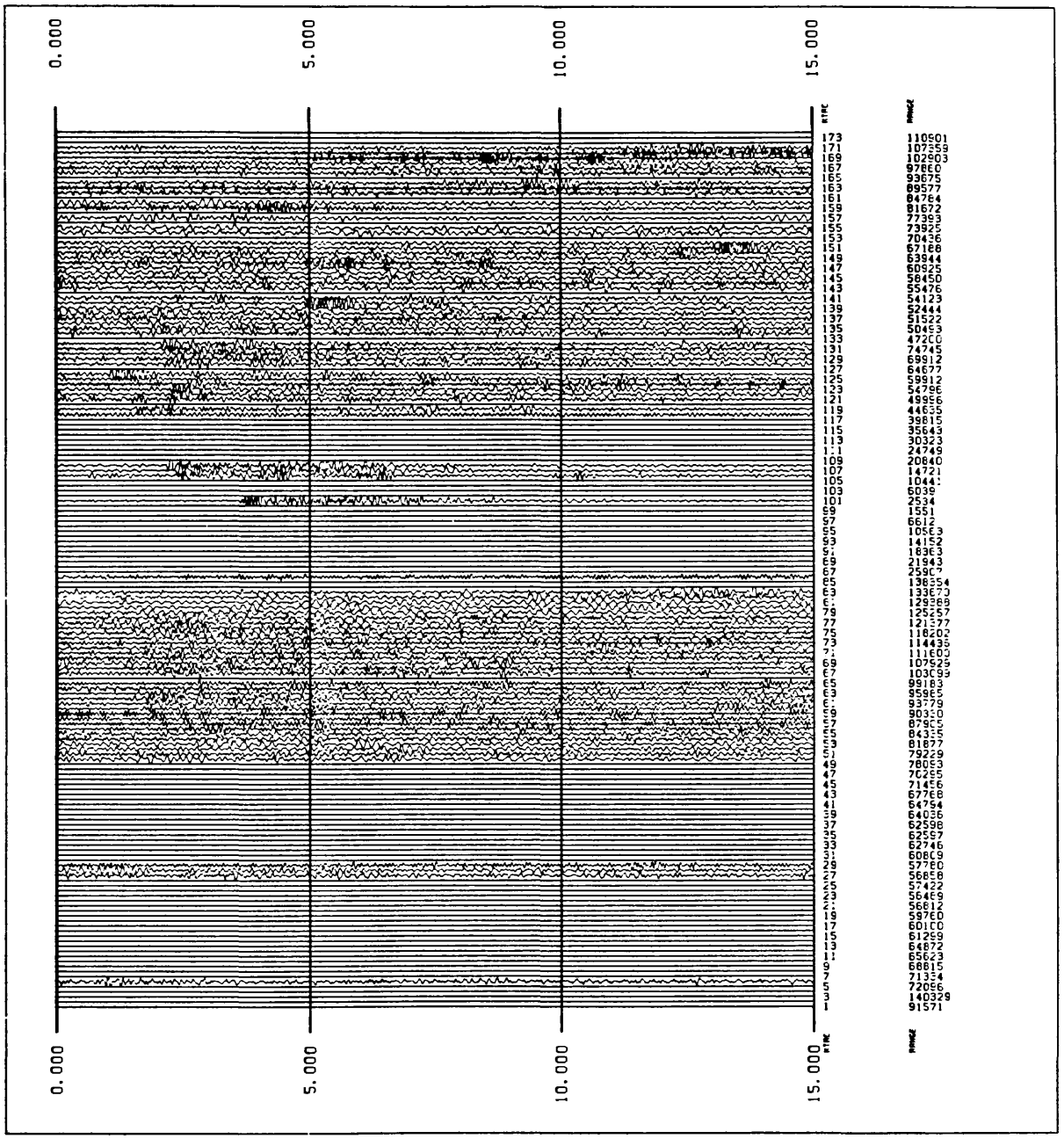


FIGURE A036) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #036 CAT 3188201 94:285:18:33 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

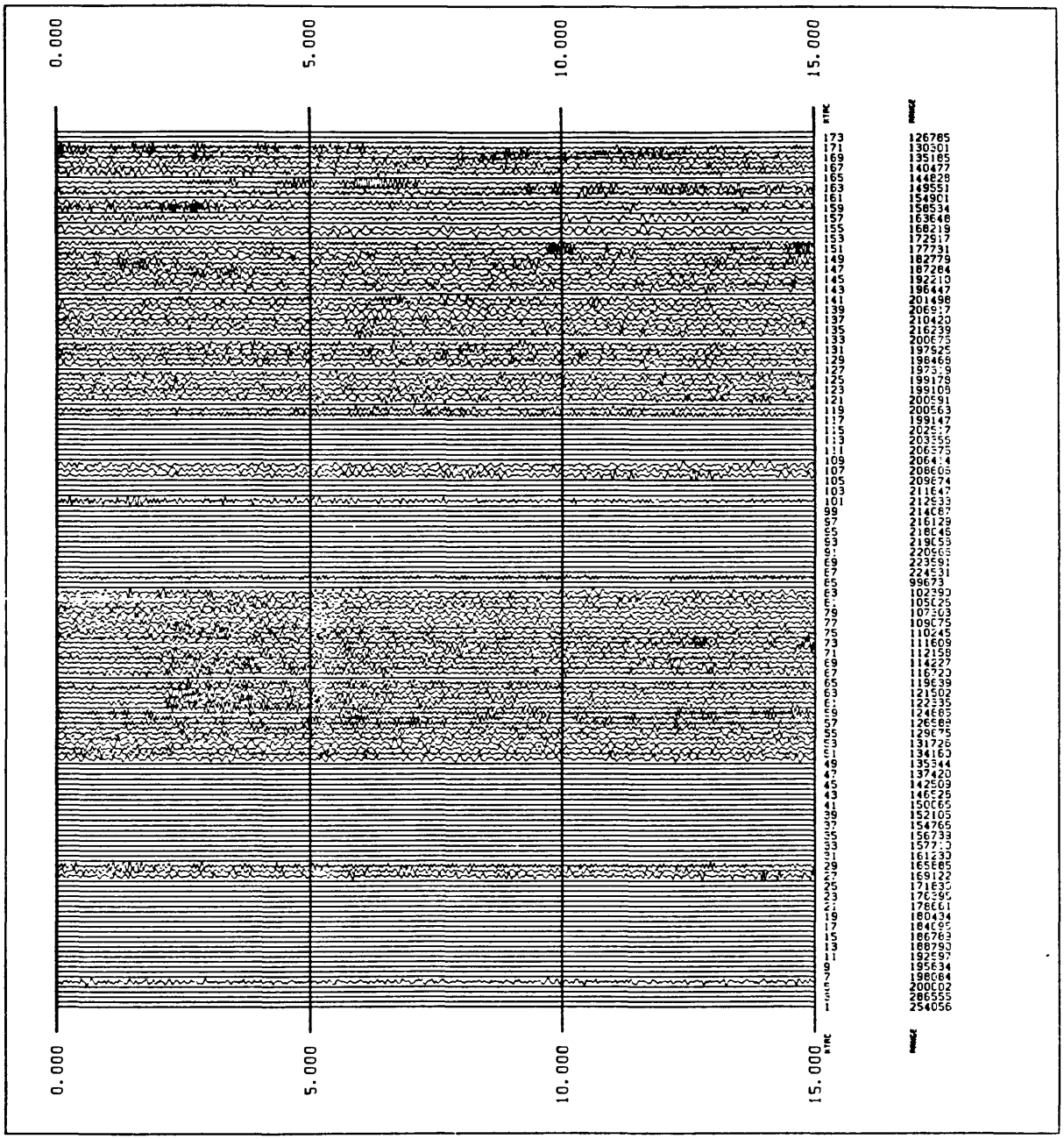


FIGURE A037) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #037 CAT 3188202 94:285:18:39 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

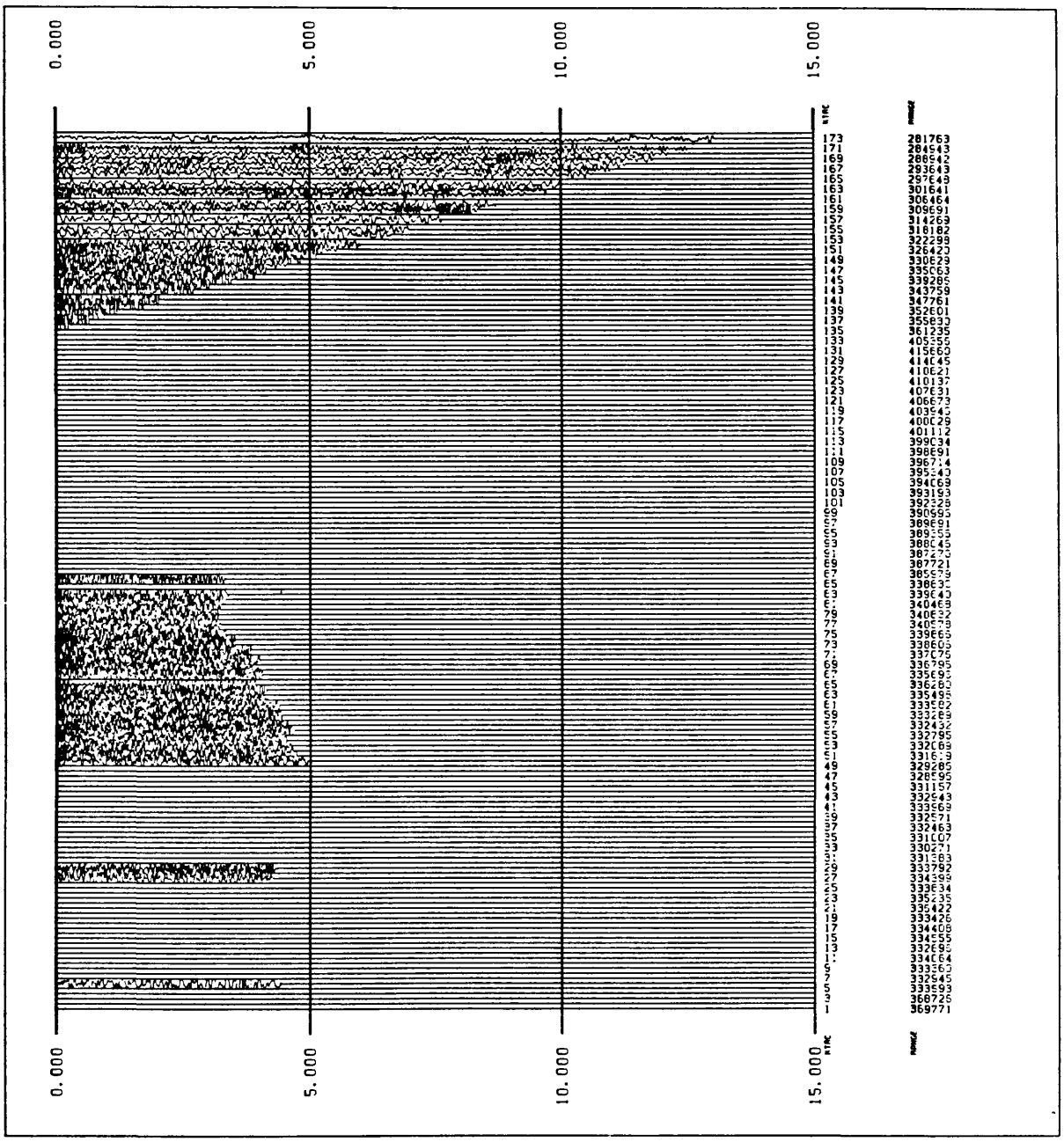


FIGURE A038) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #038 CAT 3188203 94:285:18:52 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

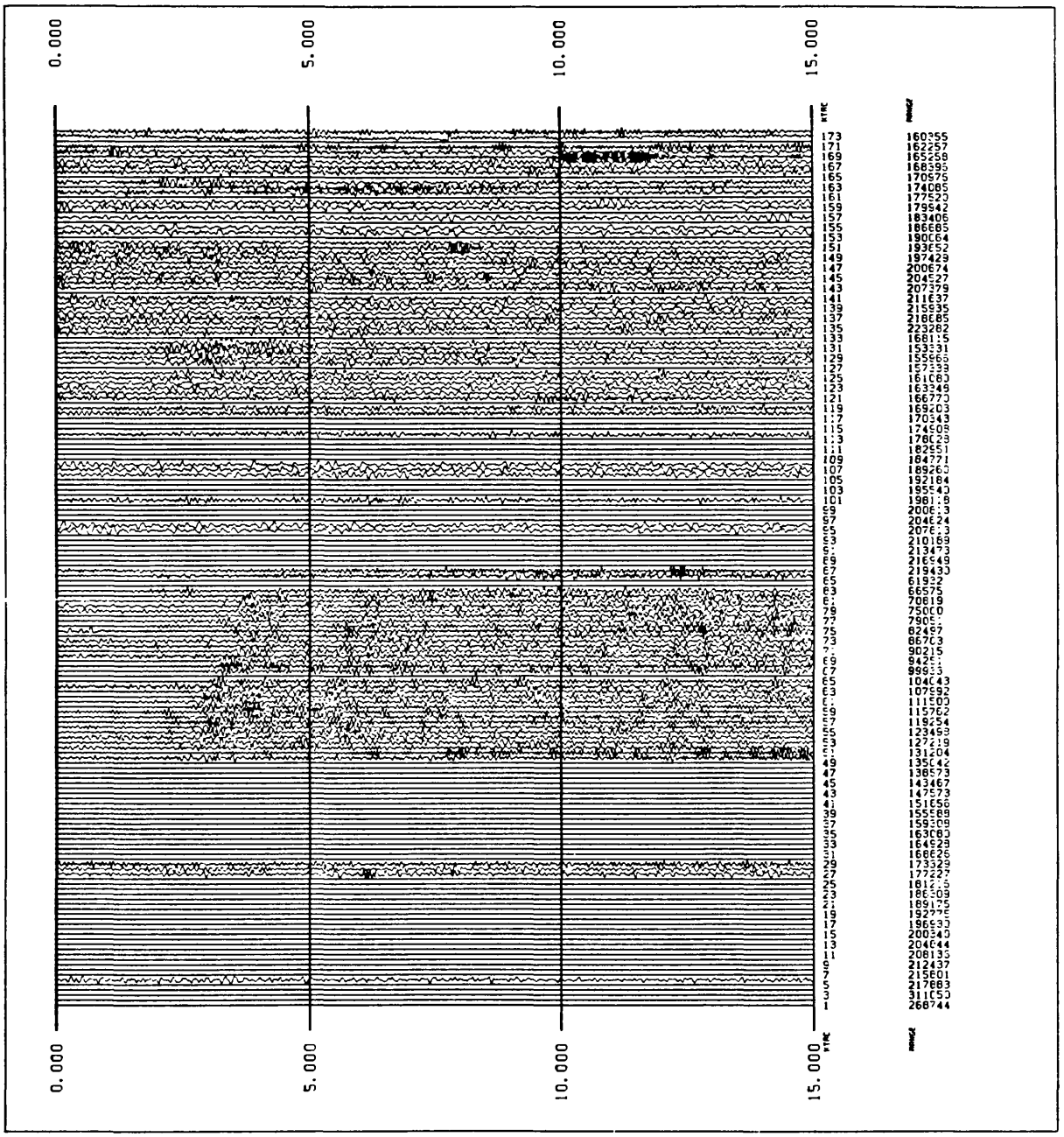


FIGURE A039) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #039 CAT 3188213 94:285:19:52 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

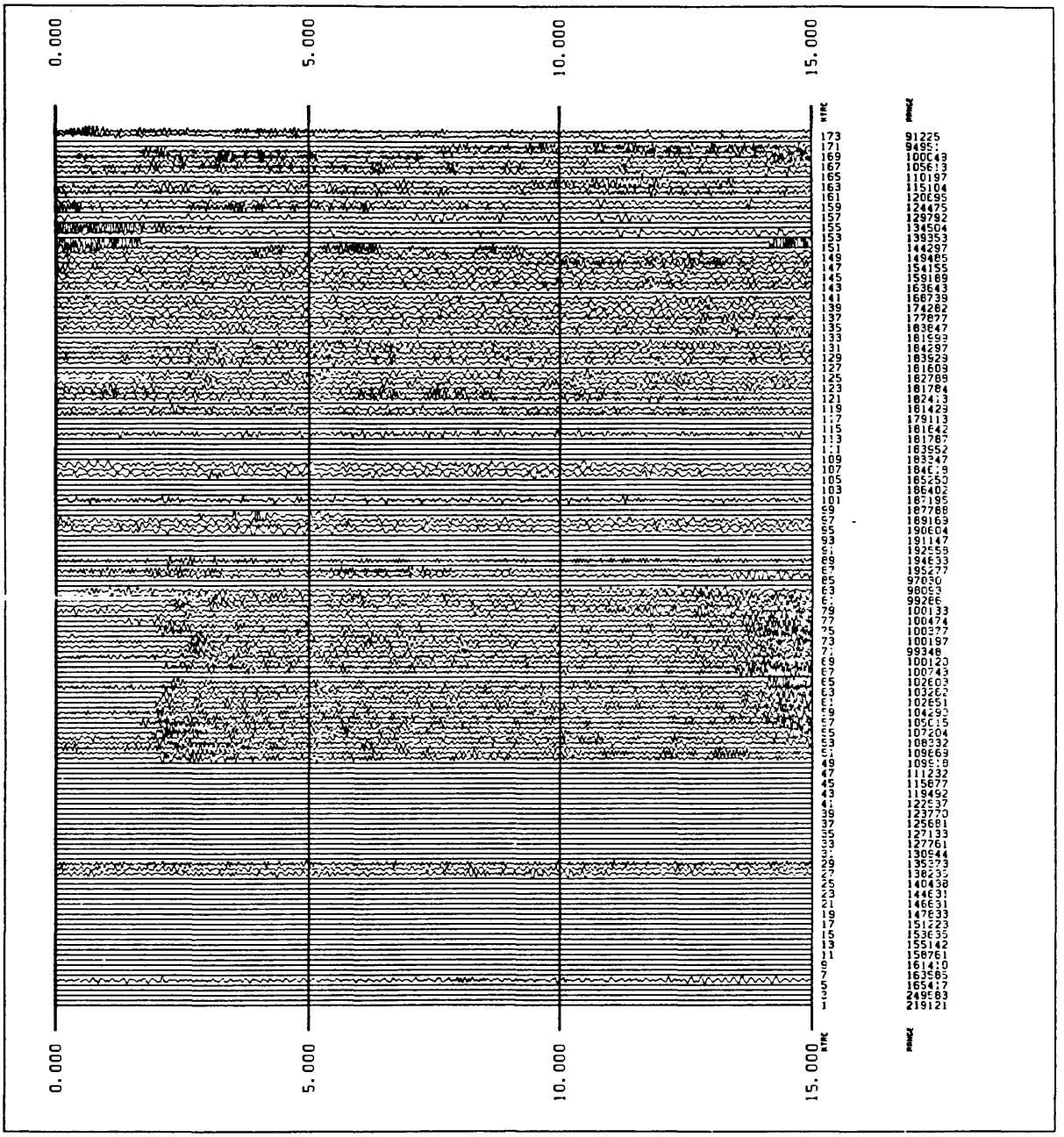


FIGURE A040) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #040 CAT 3188215 94:285:20:18 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

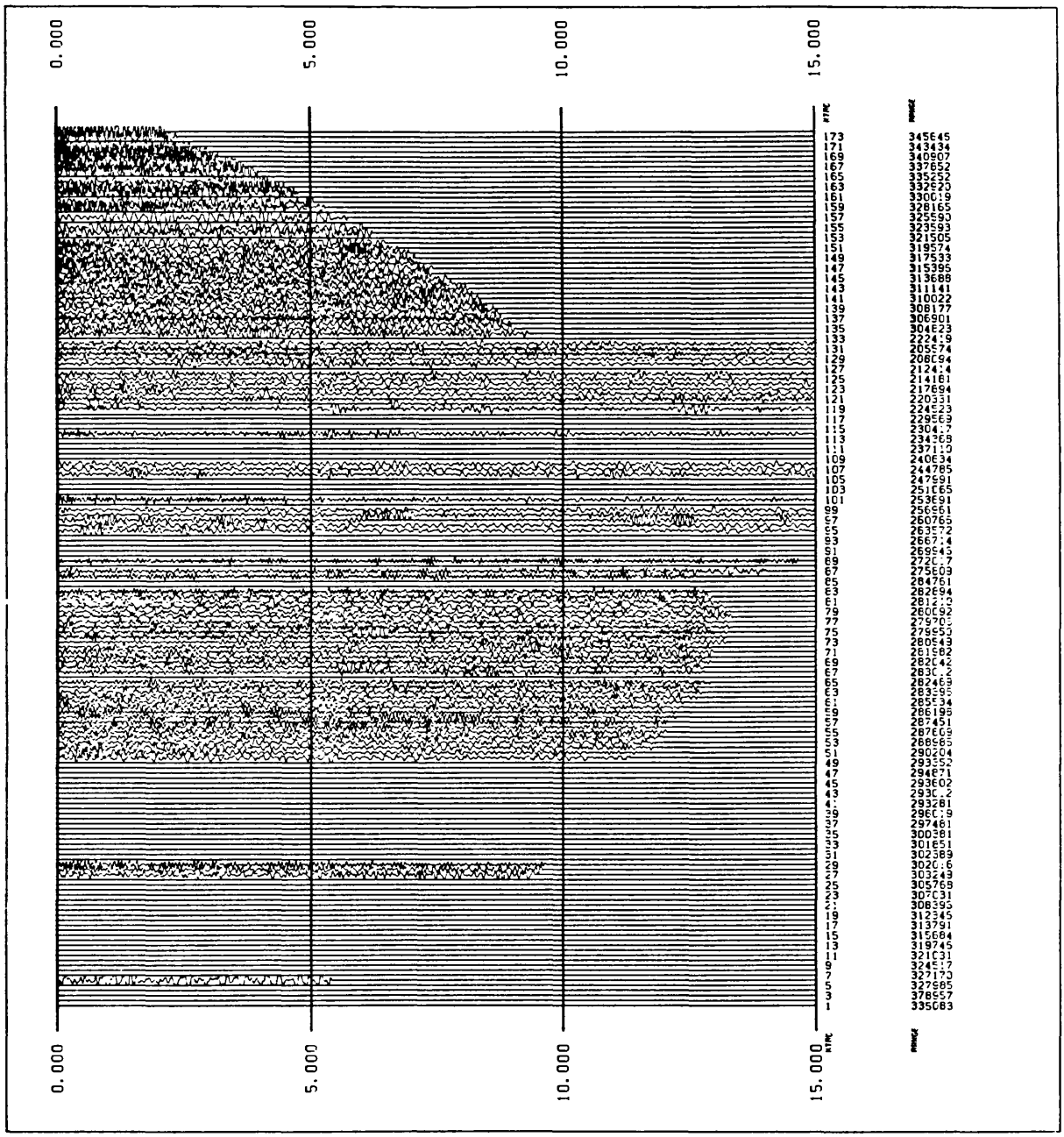


FIGURE A041) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #041 CAT 3188217 94:285:20:45 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

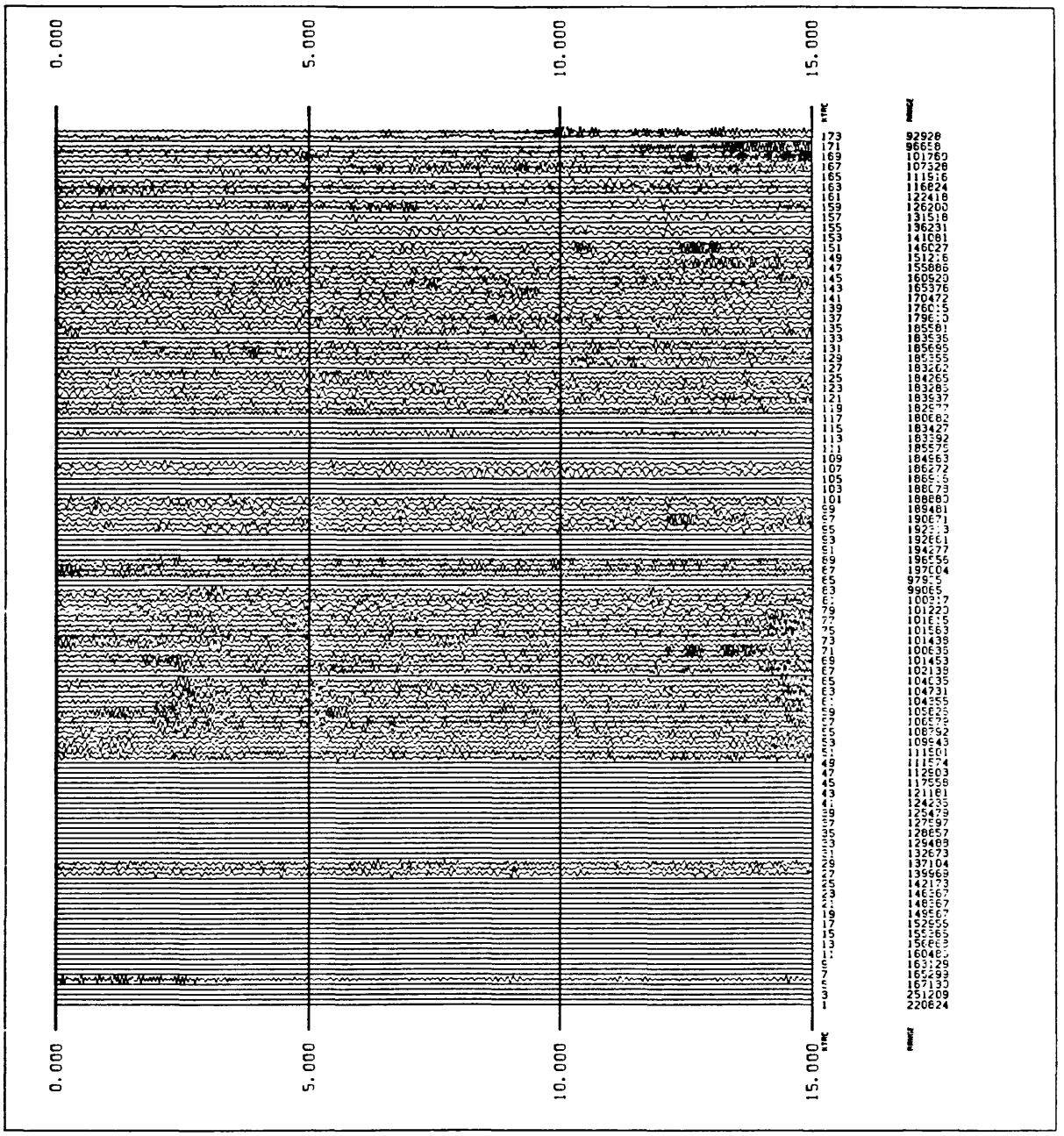


FIGURE A042) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #042 CAT 3188219 94:285:21:13 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

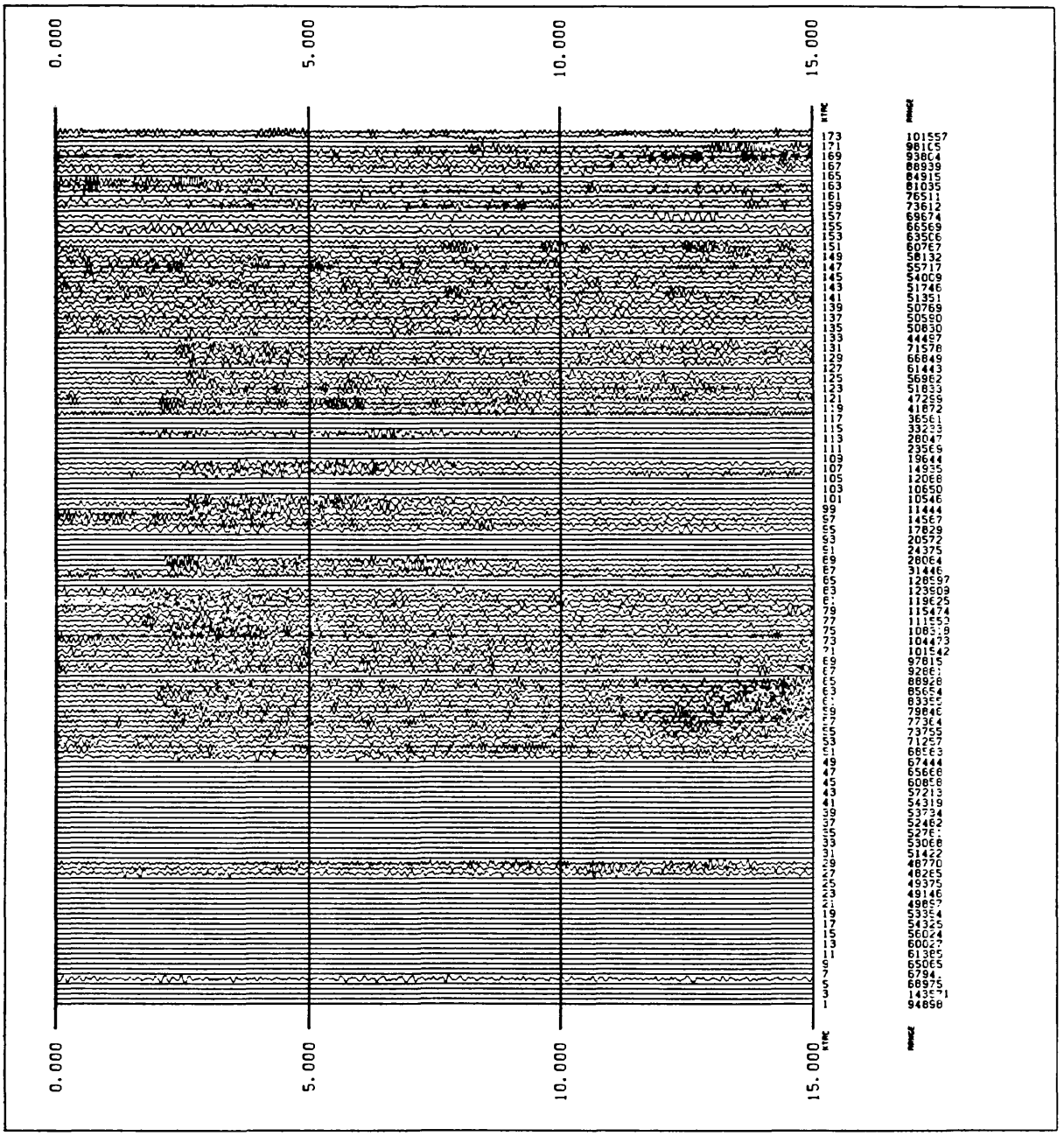


FIGURE A043) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #043 CAT 3188221 94:285:21:19 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

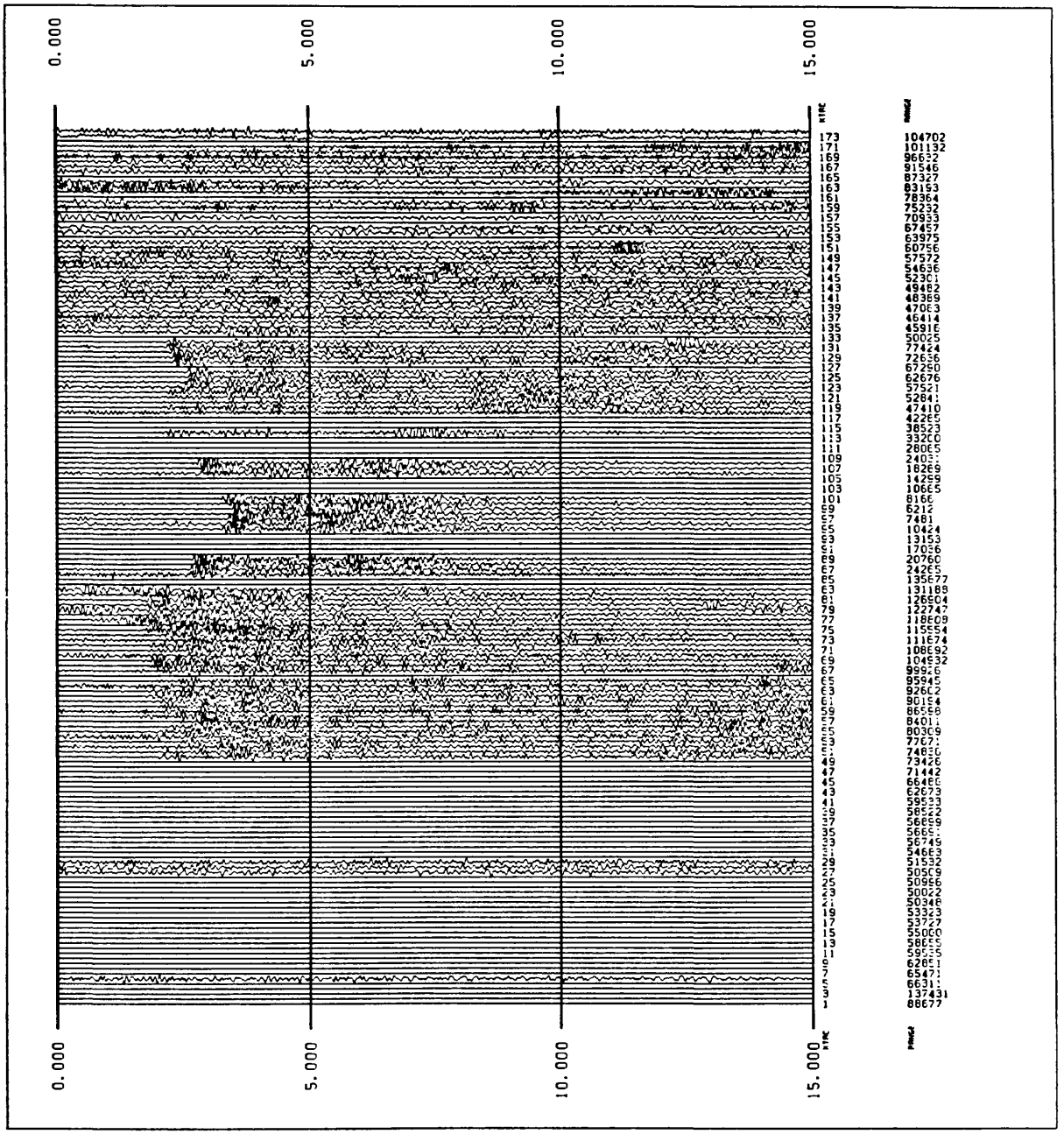


FIGURE A044) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #044 CAT 3188222 94:285:21:21 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

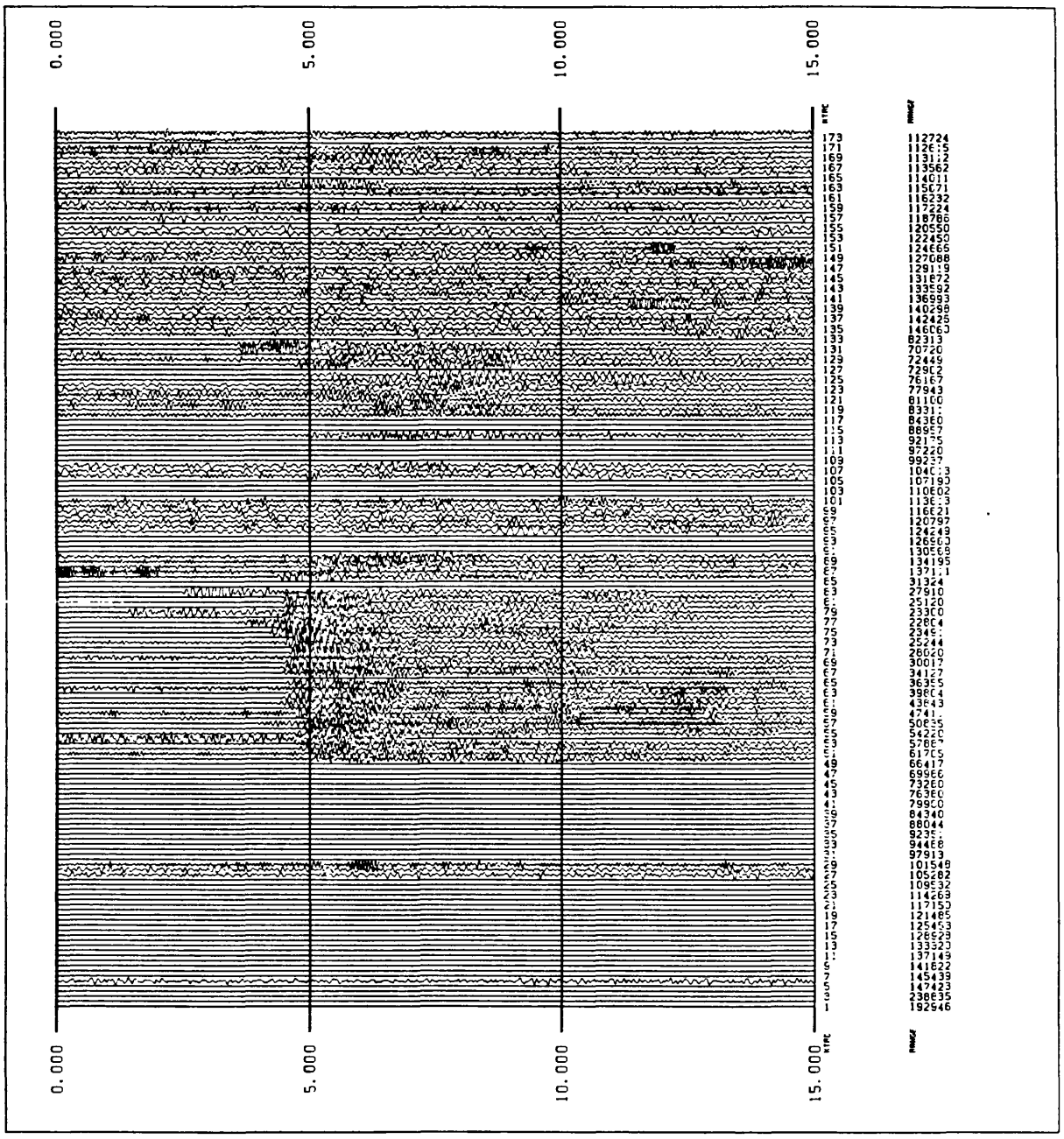


FIGURE A045) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #045 CAT 3188224 94:285:22:06 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

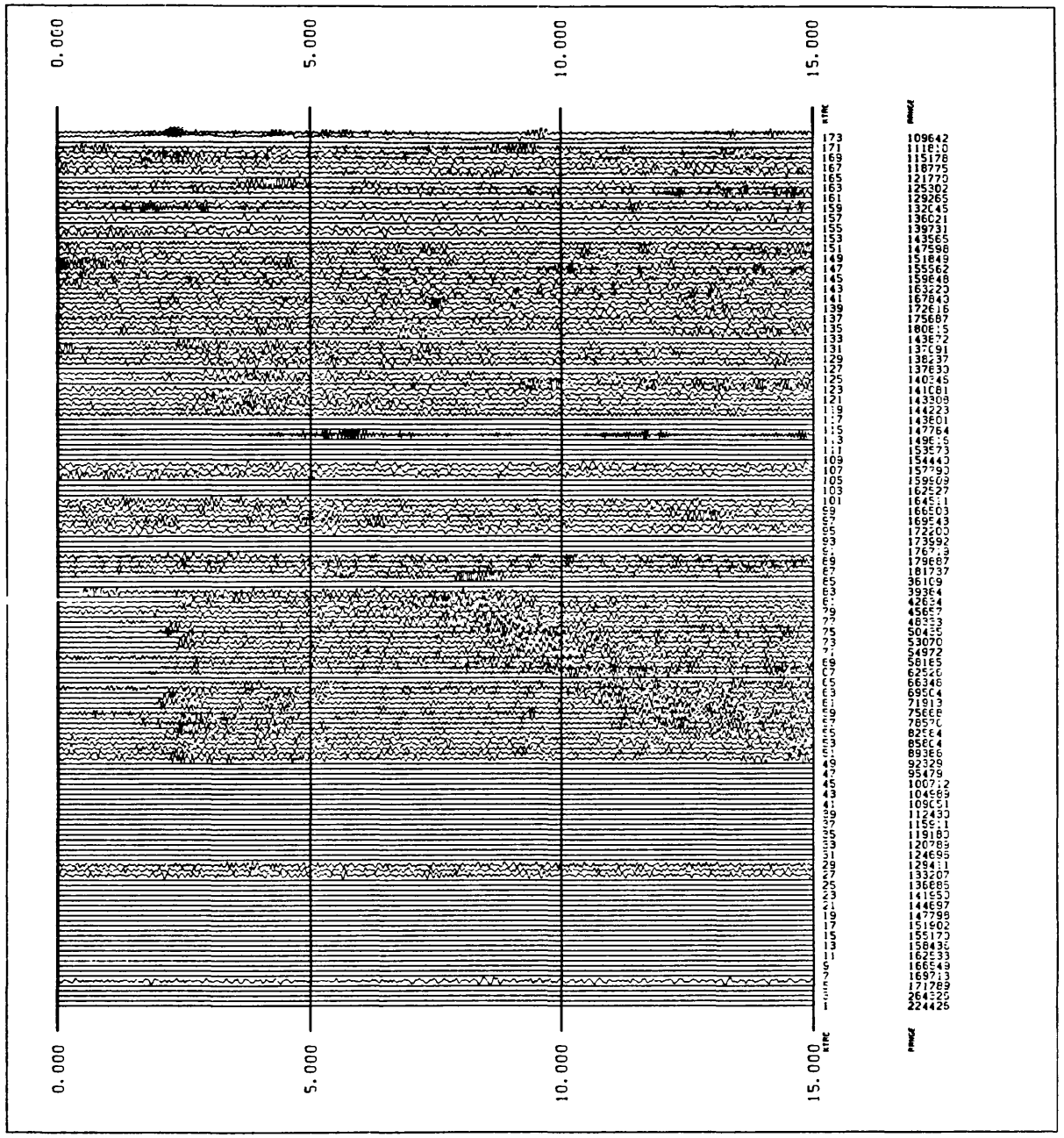


FIGURE A046) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #046 CAT 3188226 94:285:22:18 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

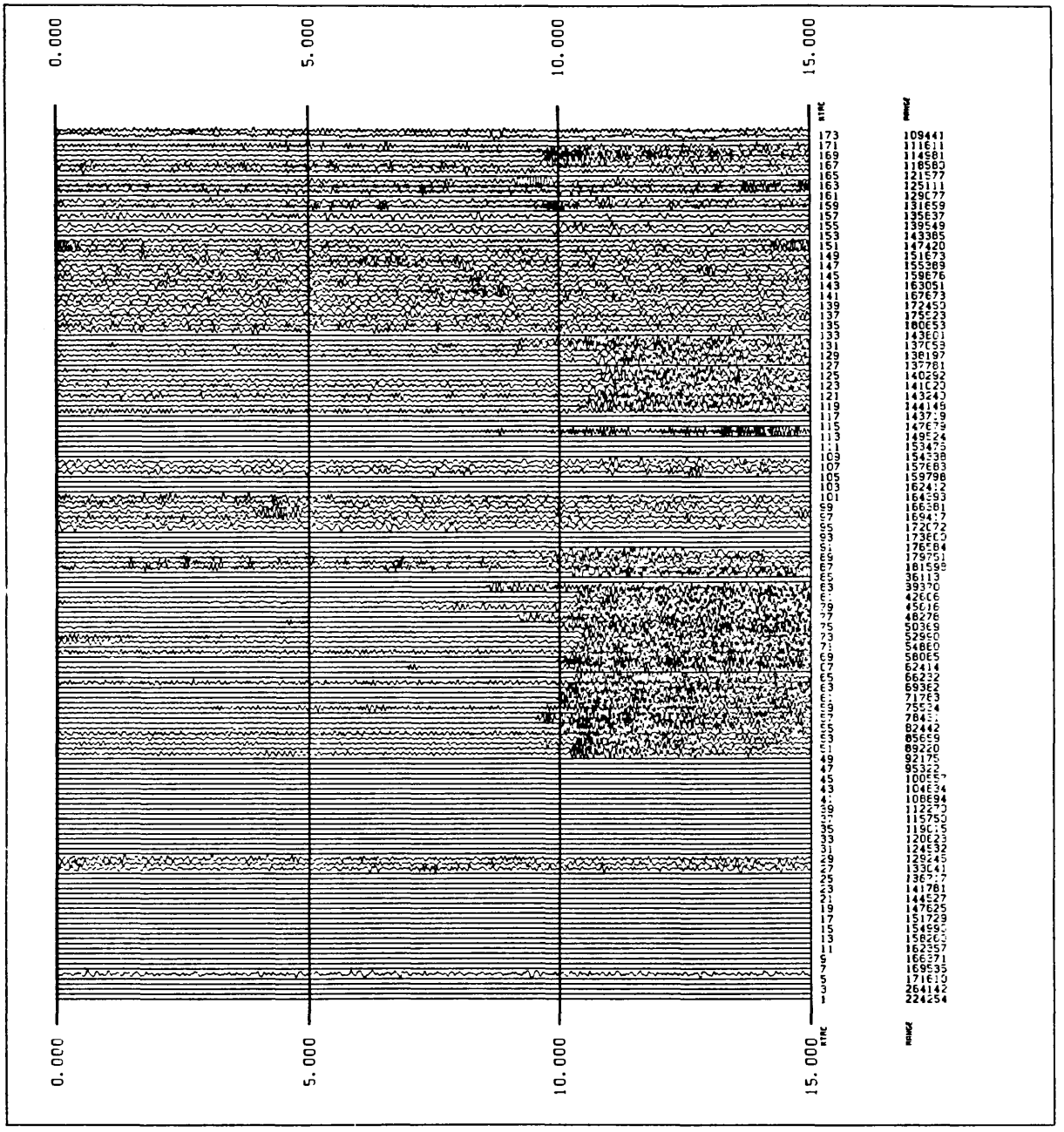


FIGURE A047) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #047 CAT 3188228 94:285:22:24 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

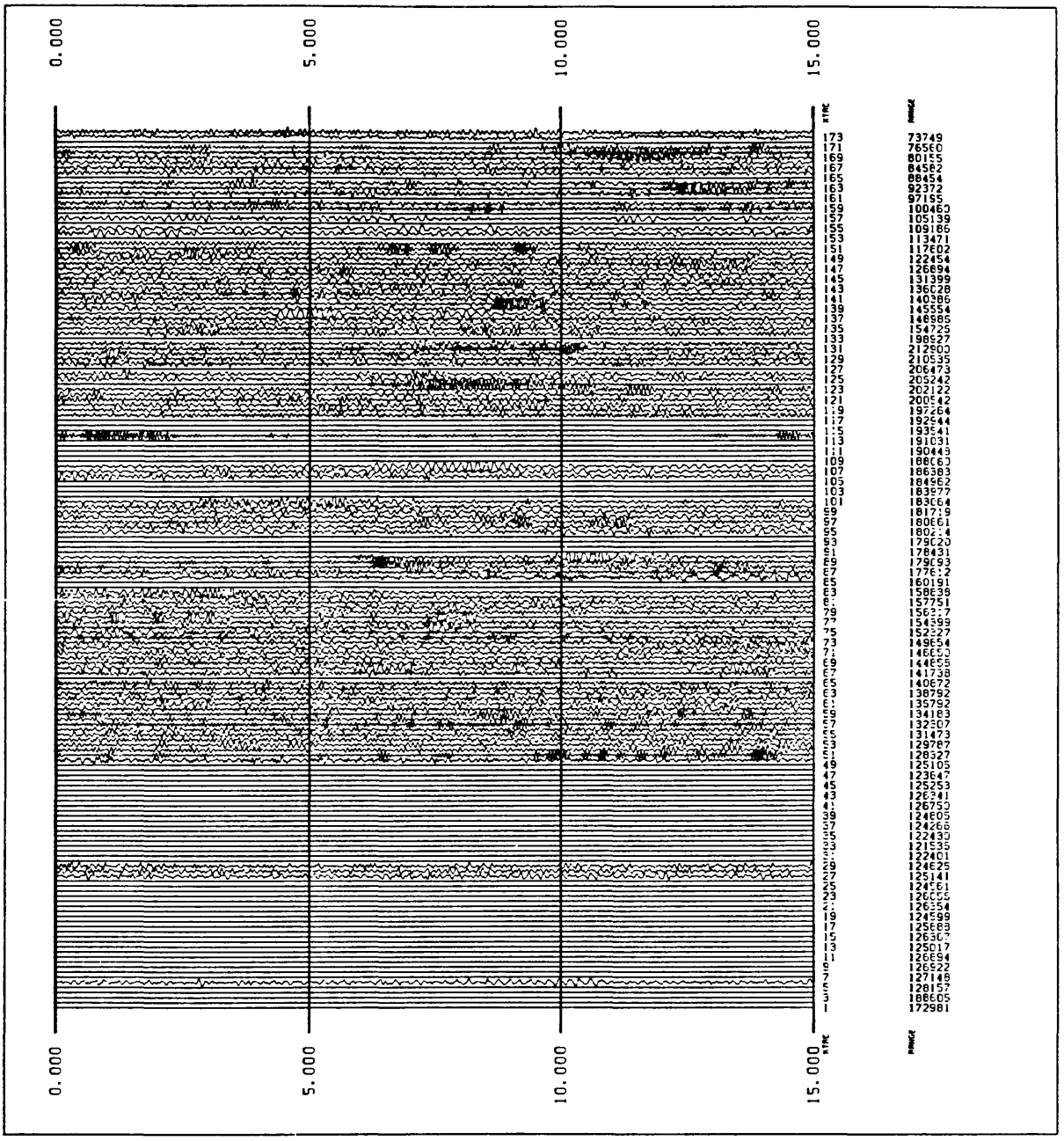


FIGURE A048) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #048 CAT 3188230 94:285:22:49 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

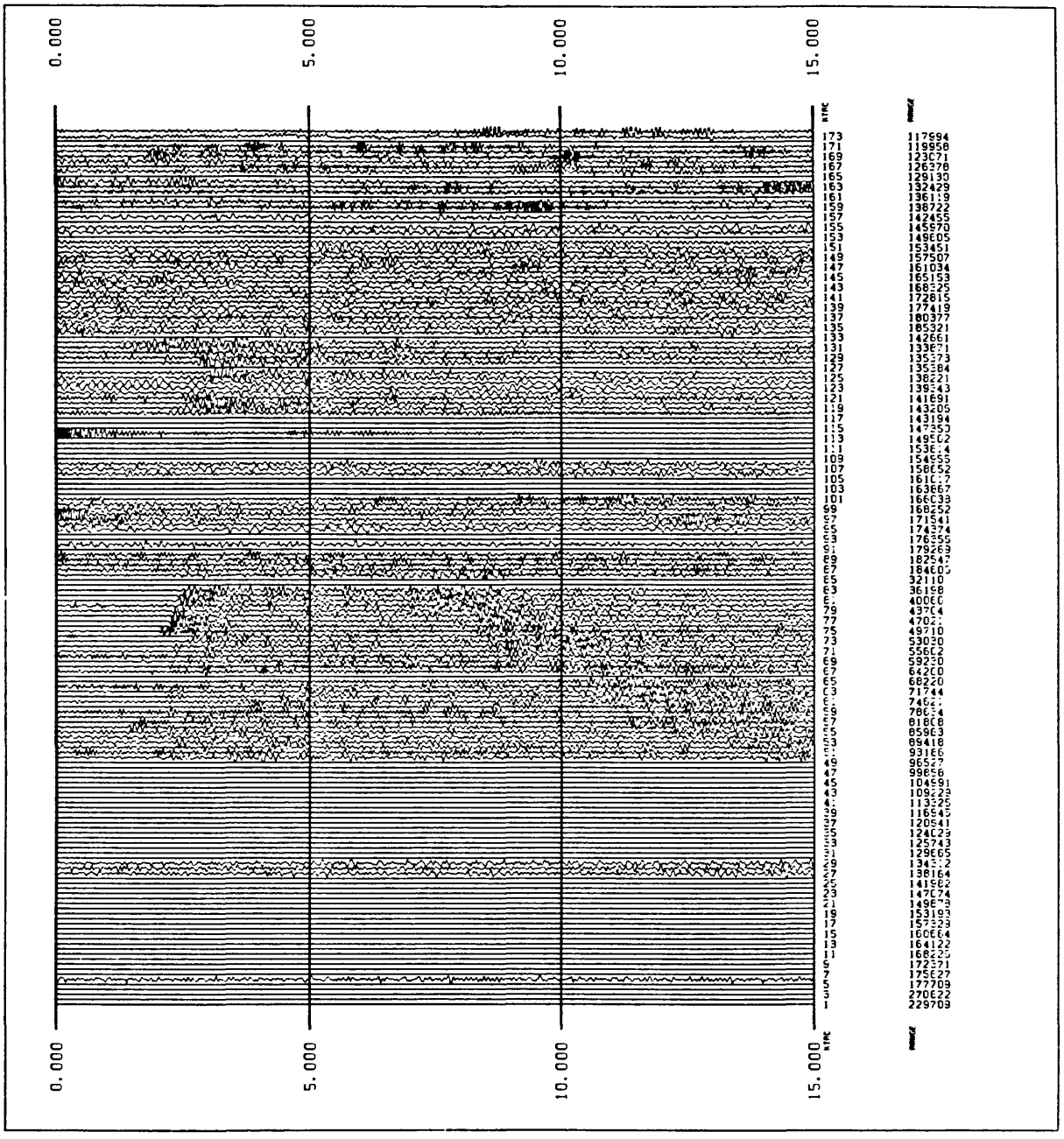


FIGURE A049) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #049 CAT 3188232 94:285:23:27 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

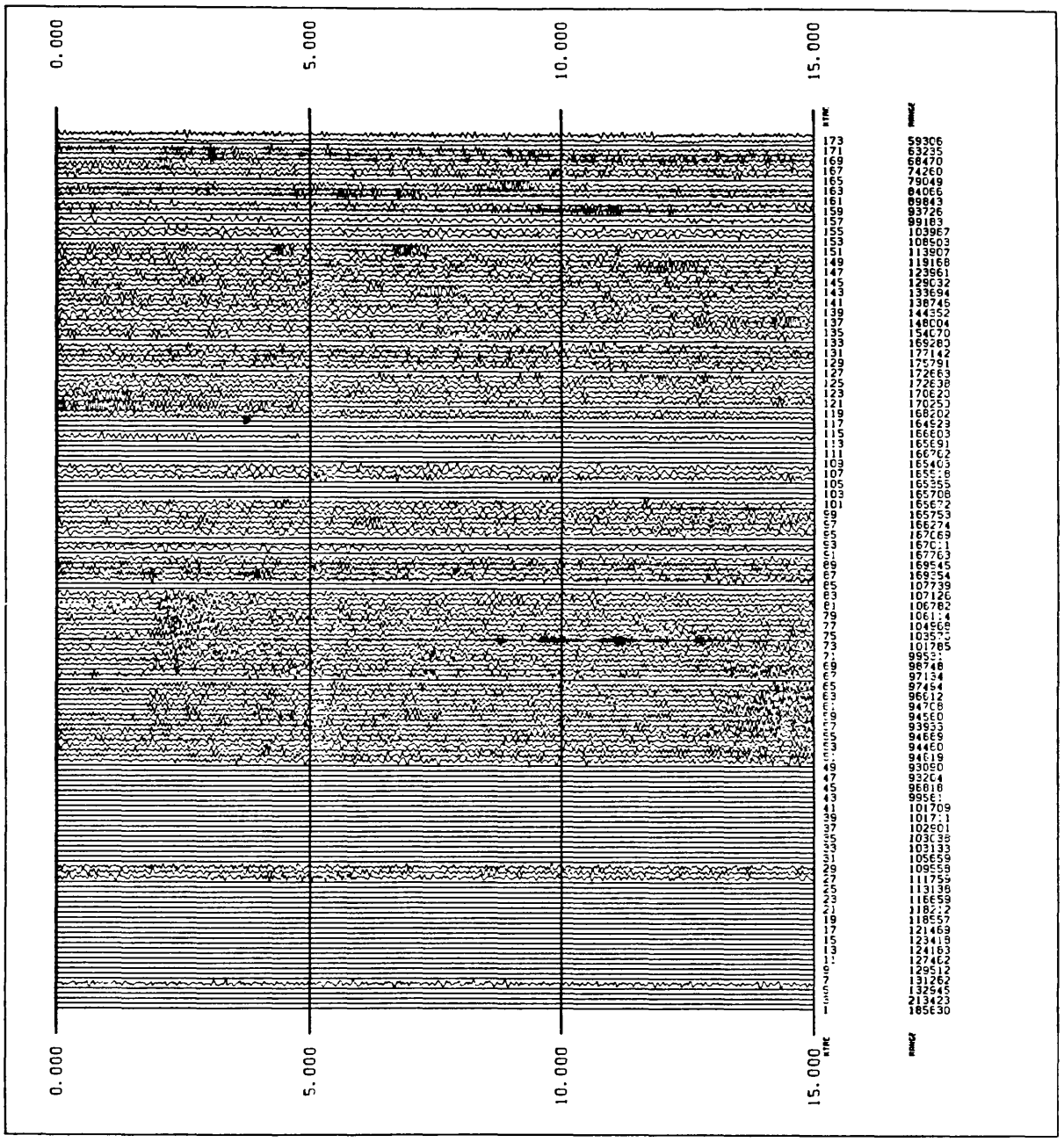


FIGURE A050) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #050 CAT 3188233 94:285:23:57 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

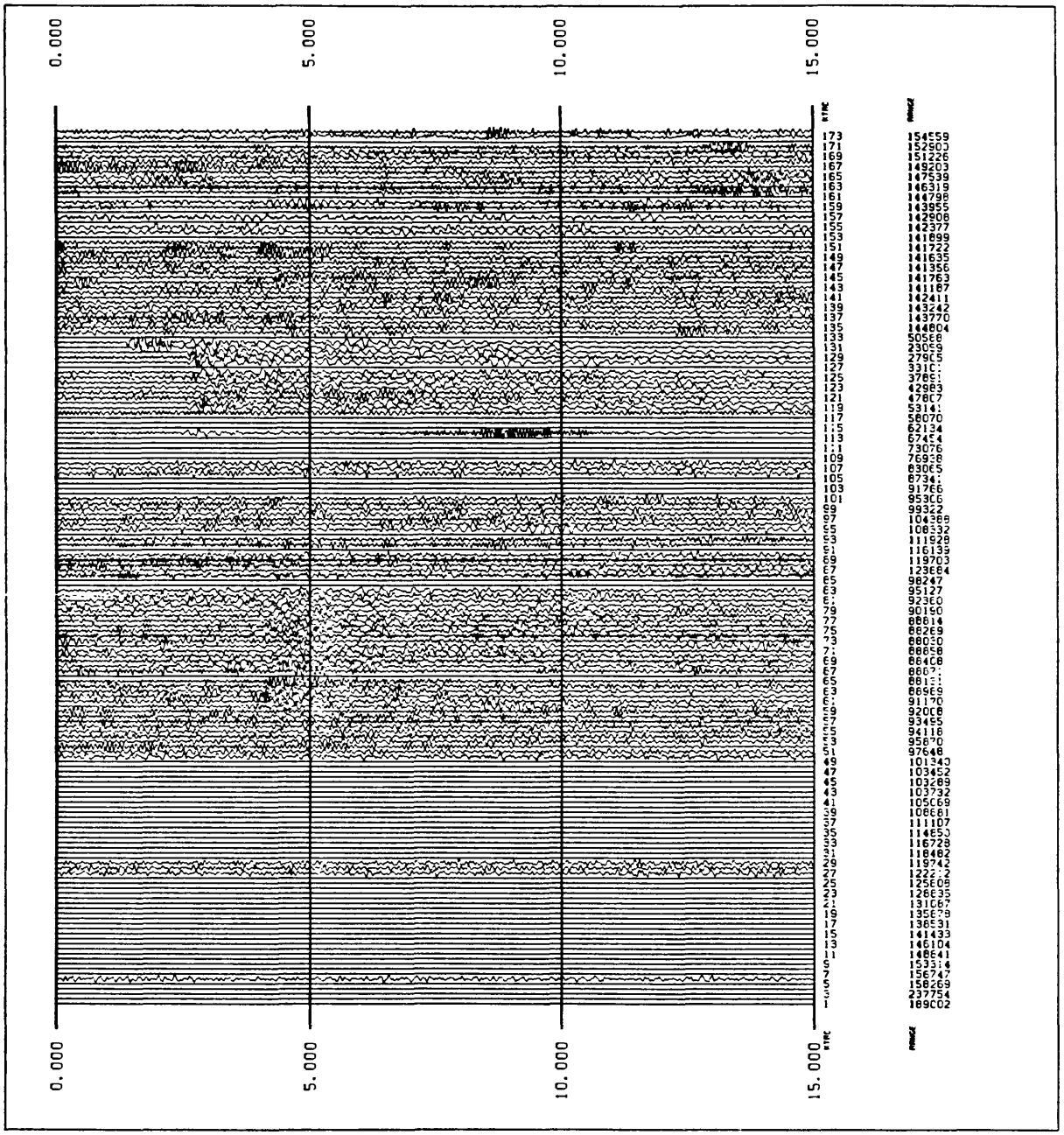


FIGURE A051) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #051 CAT 3188234 94:286:00:11 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

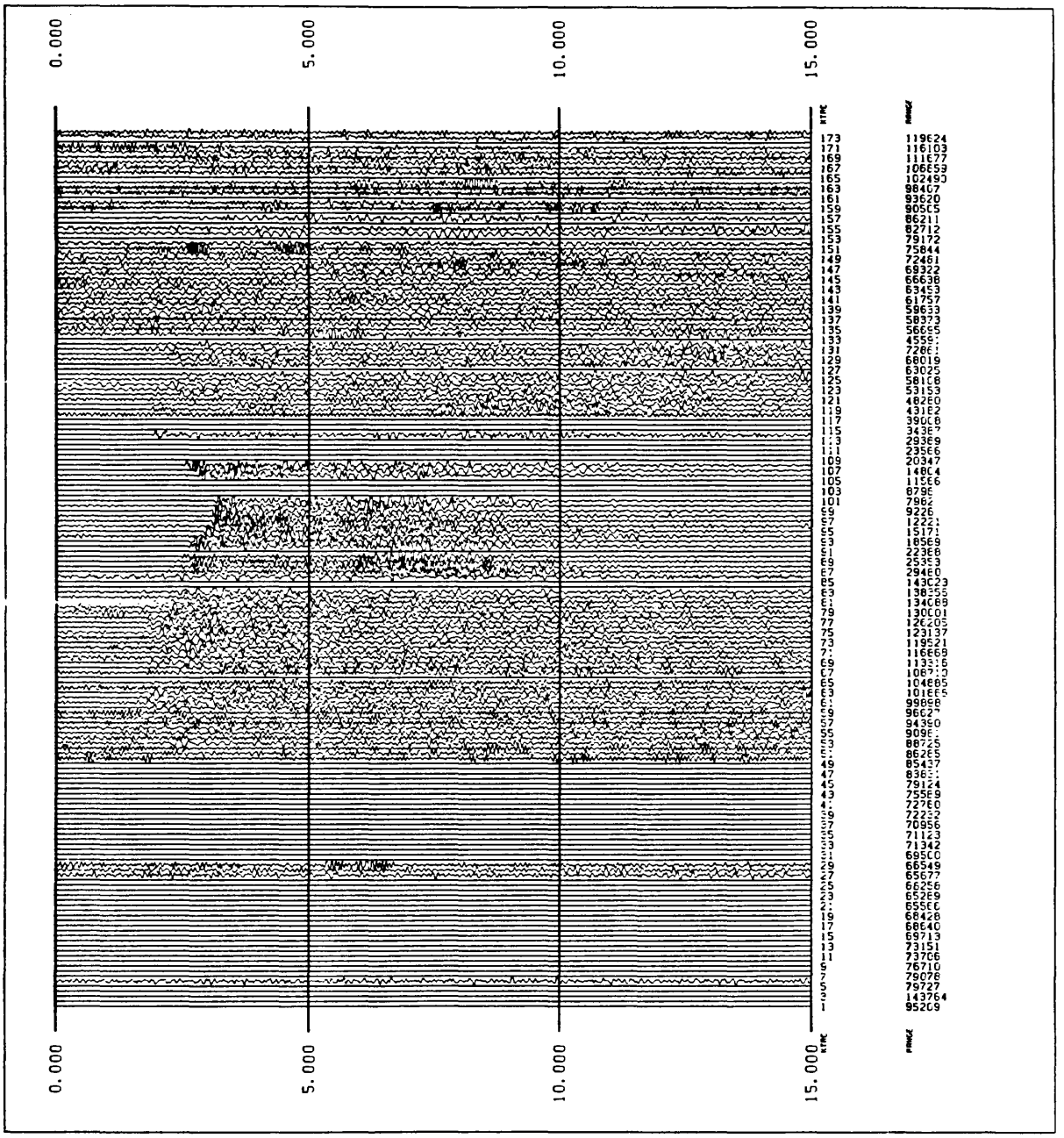


FIGURE A052) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #052 CAT 3188241 94:286:02:40 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

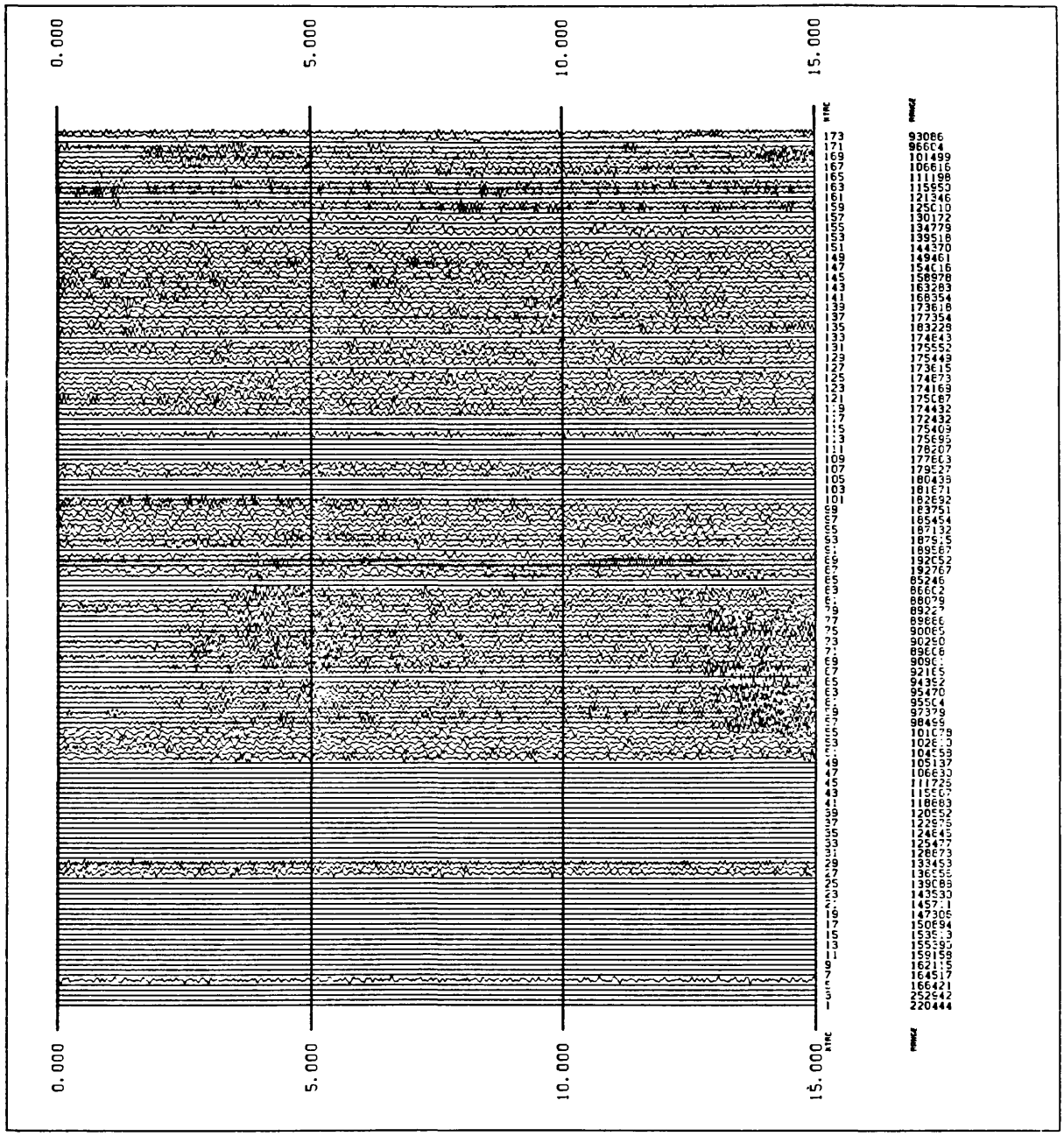


FIGURE A053) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #053 CAT 3188245 94:286:03:46 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

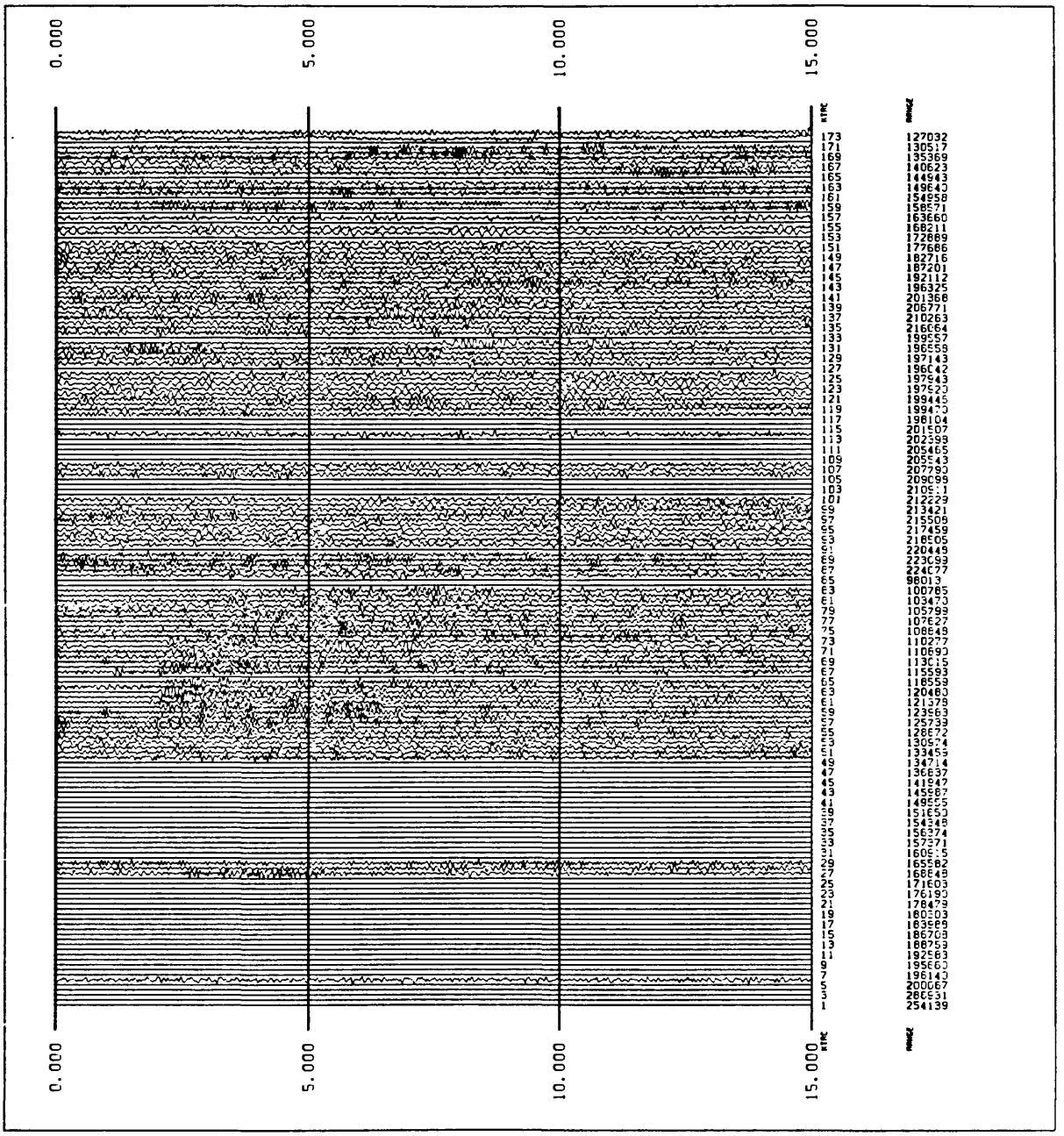


FIGURE A054) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #054 CAT 3188246 94:286:04:11 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

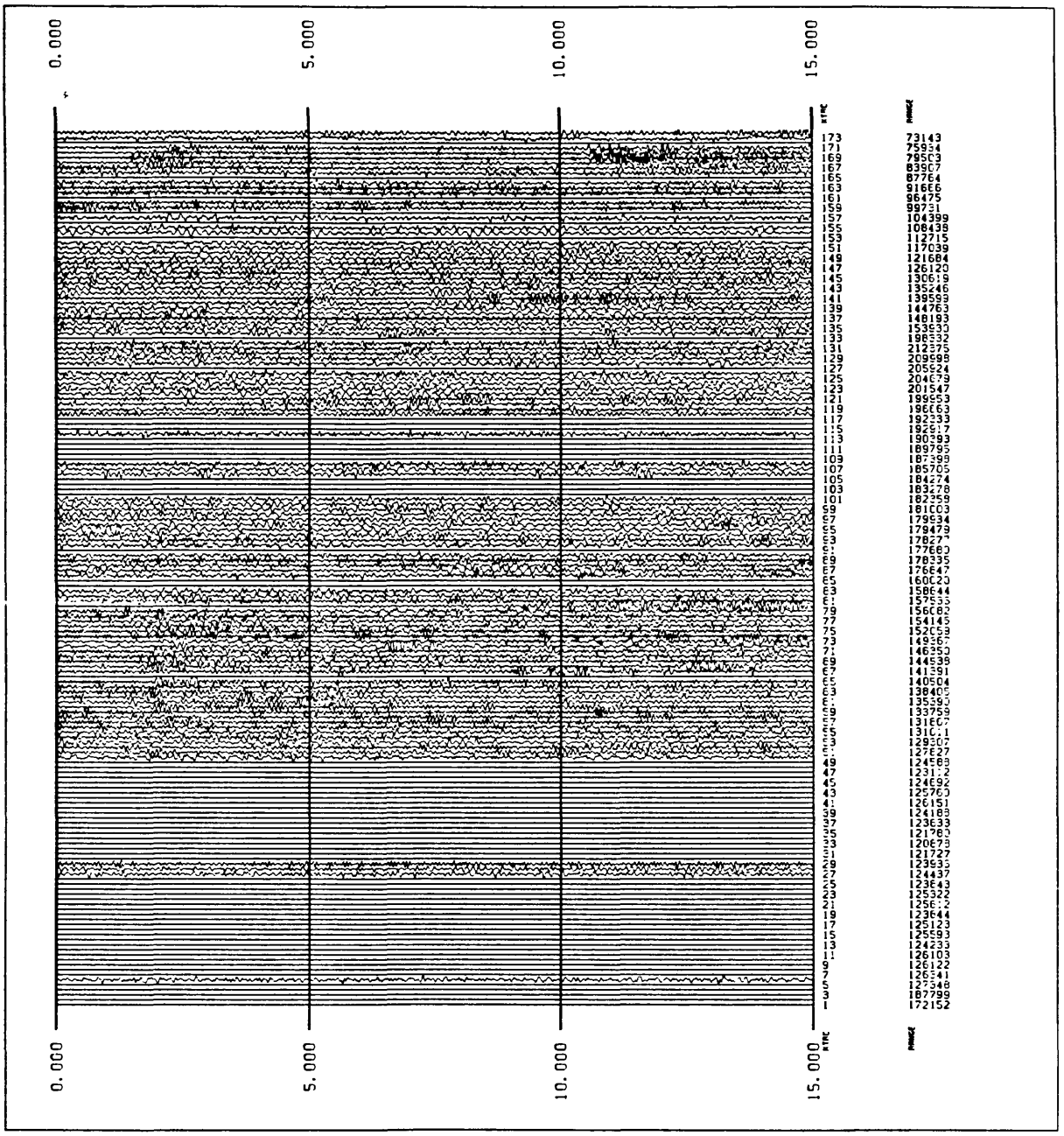


FIGURE A055) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #055 CAT 3188247 94:286:04:15 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

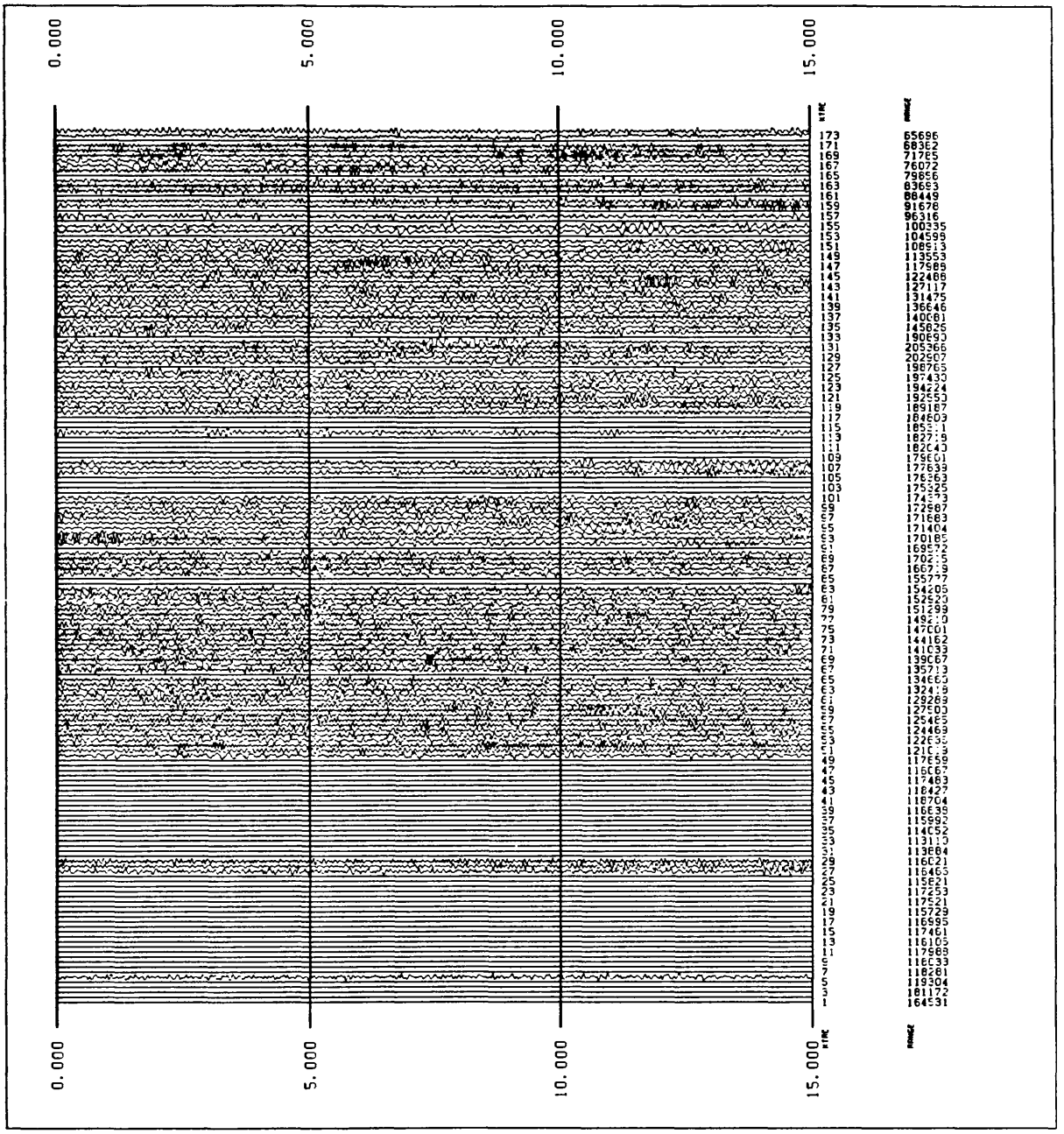


FIGURE A056) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #056 CAT 3188248 94:286:04:30 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

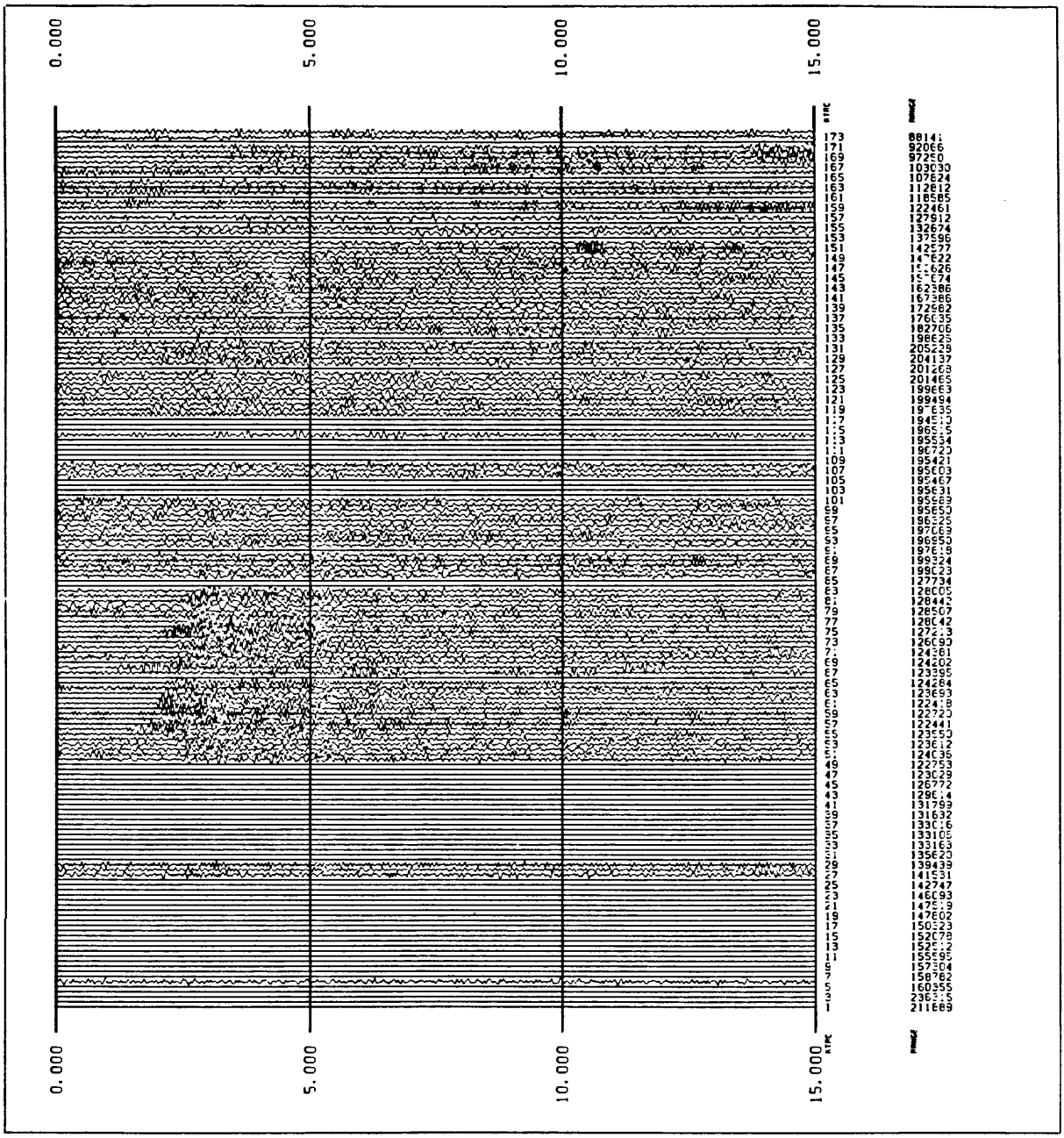


FIGURE A057) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #057 CAT 3188249 94:286:04:31 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

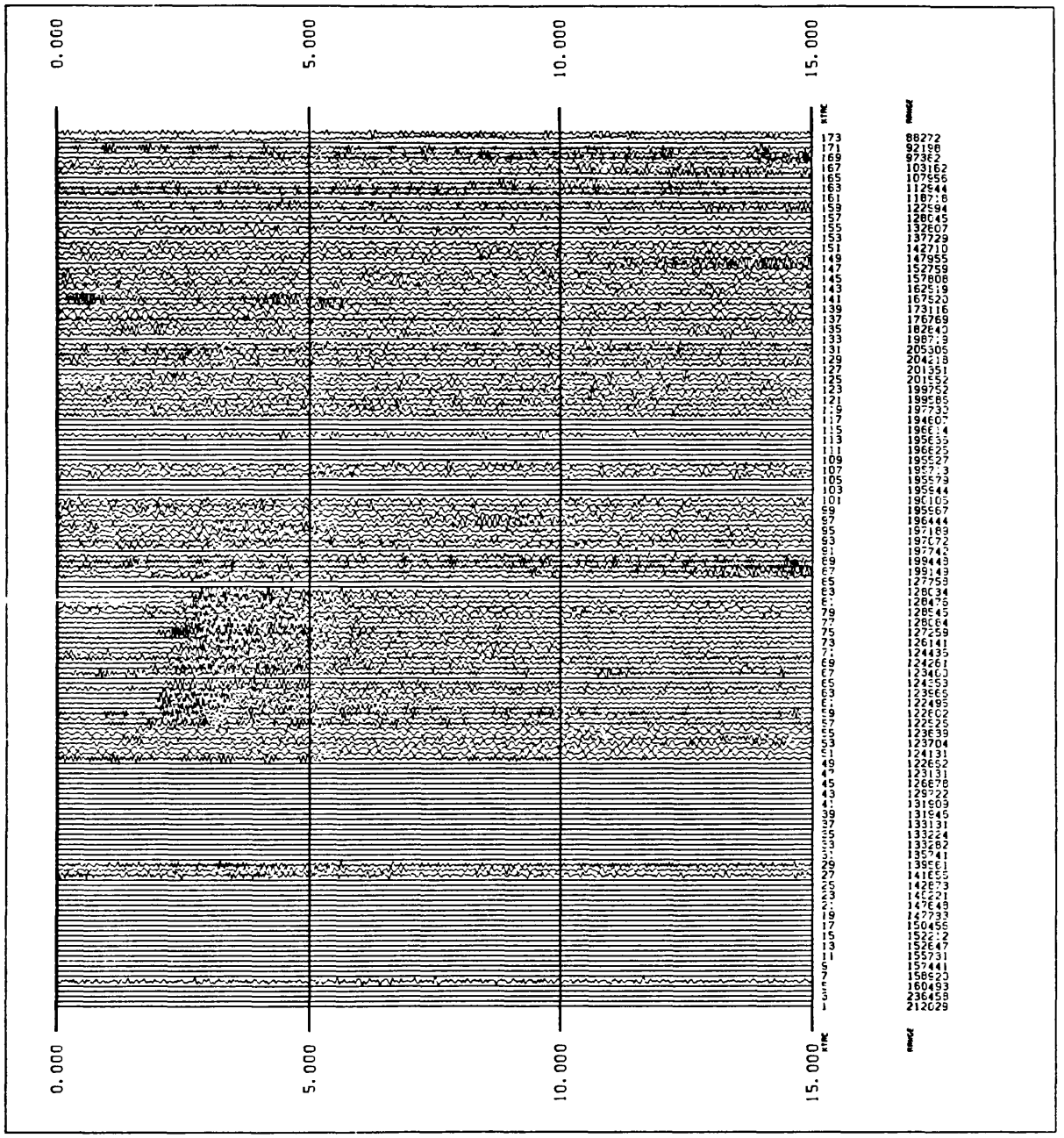


FIGURE A058) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #058 CAT 3188251 94:286:05:31 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

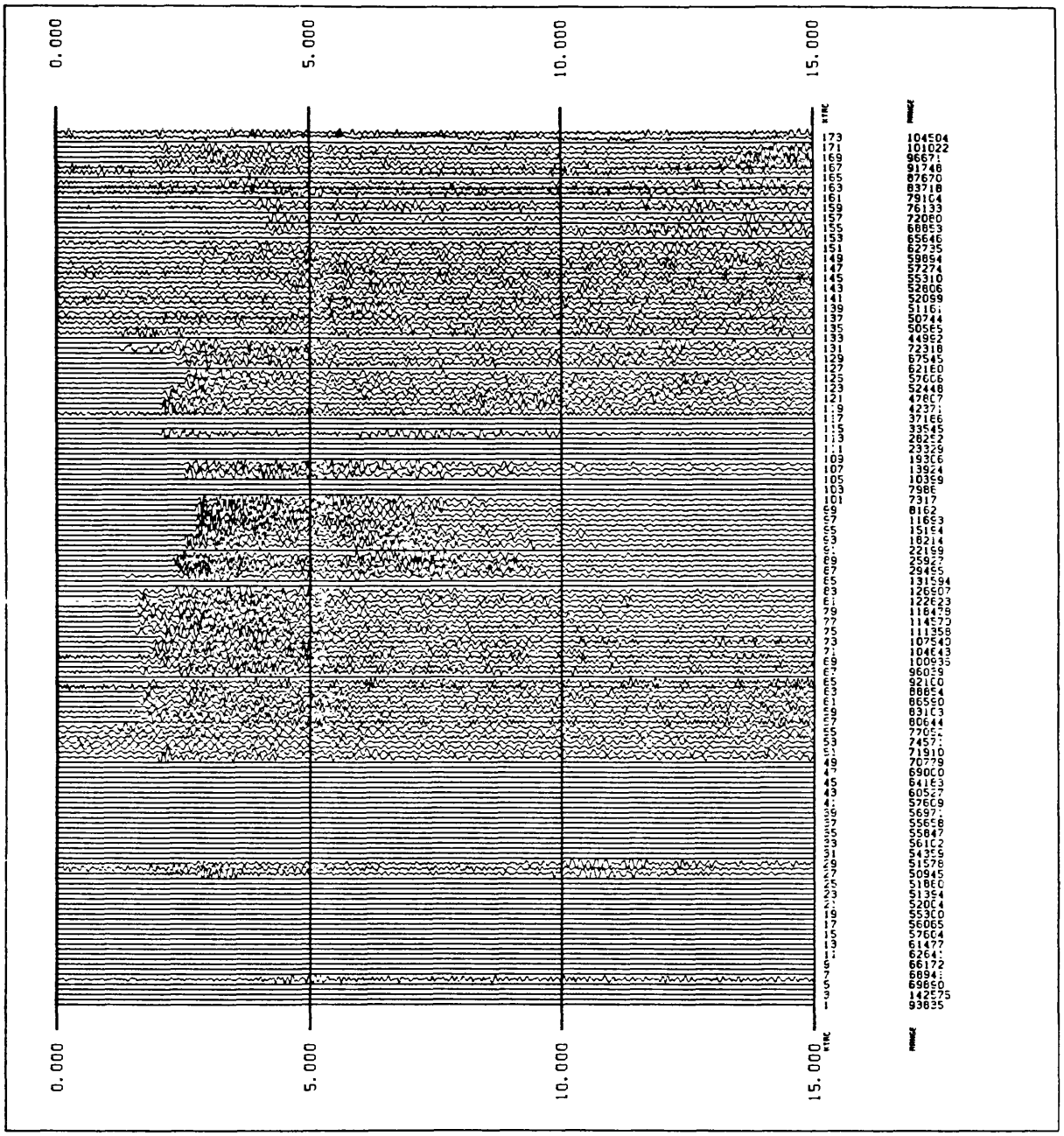


FIGURE A059) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #059 CAT 3188252 94:286:05:36 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

NP

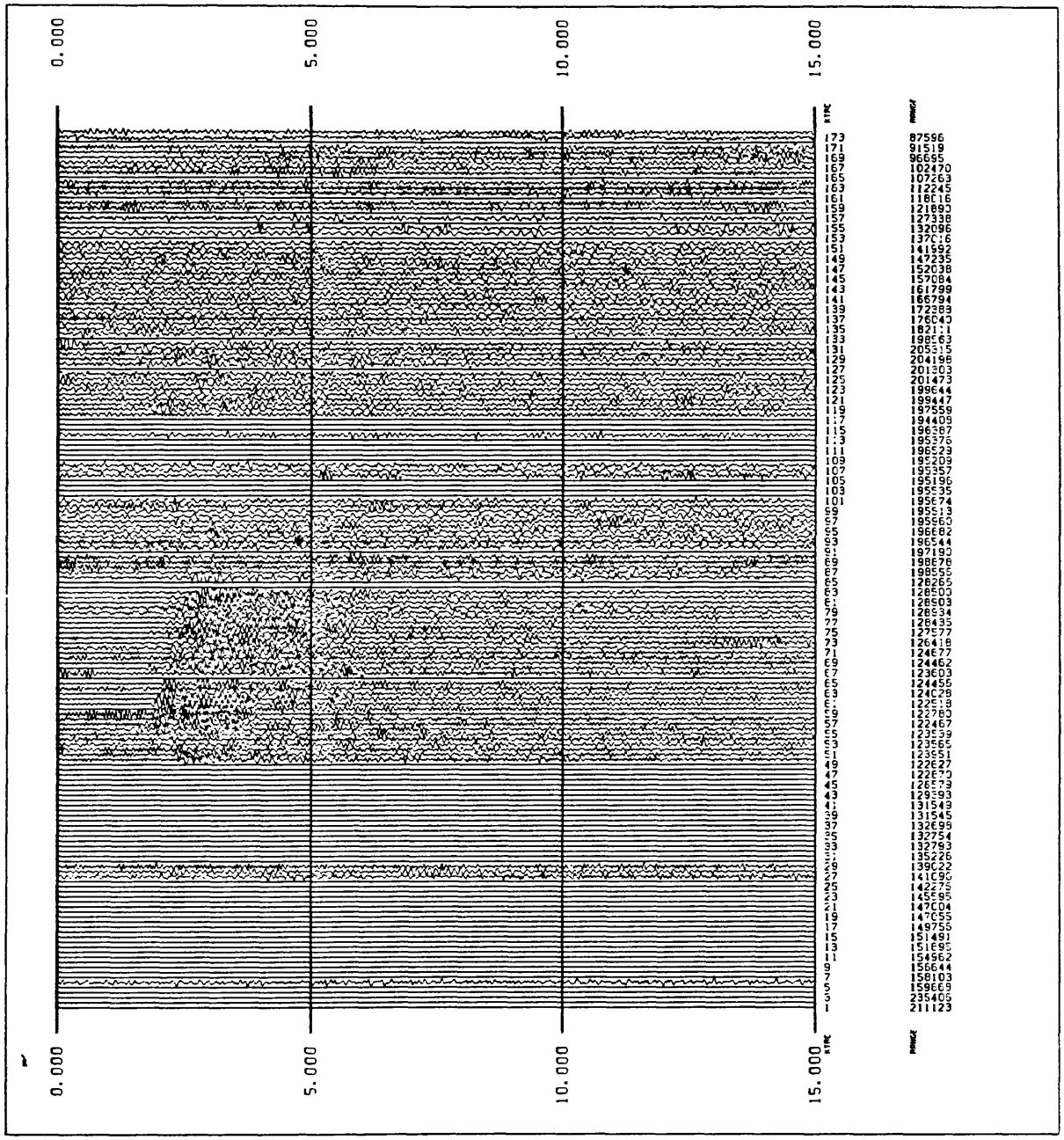


FIGURE A060) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #060 CAT 3188254 94:286:06:12 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

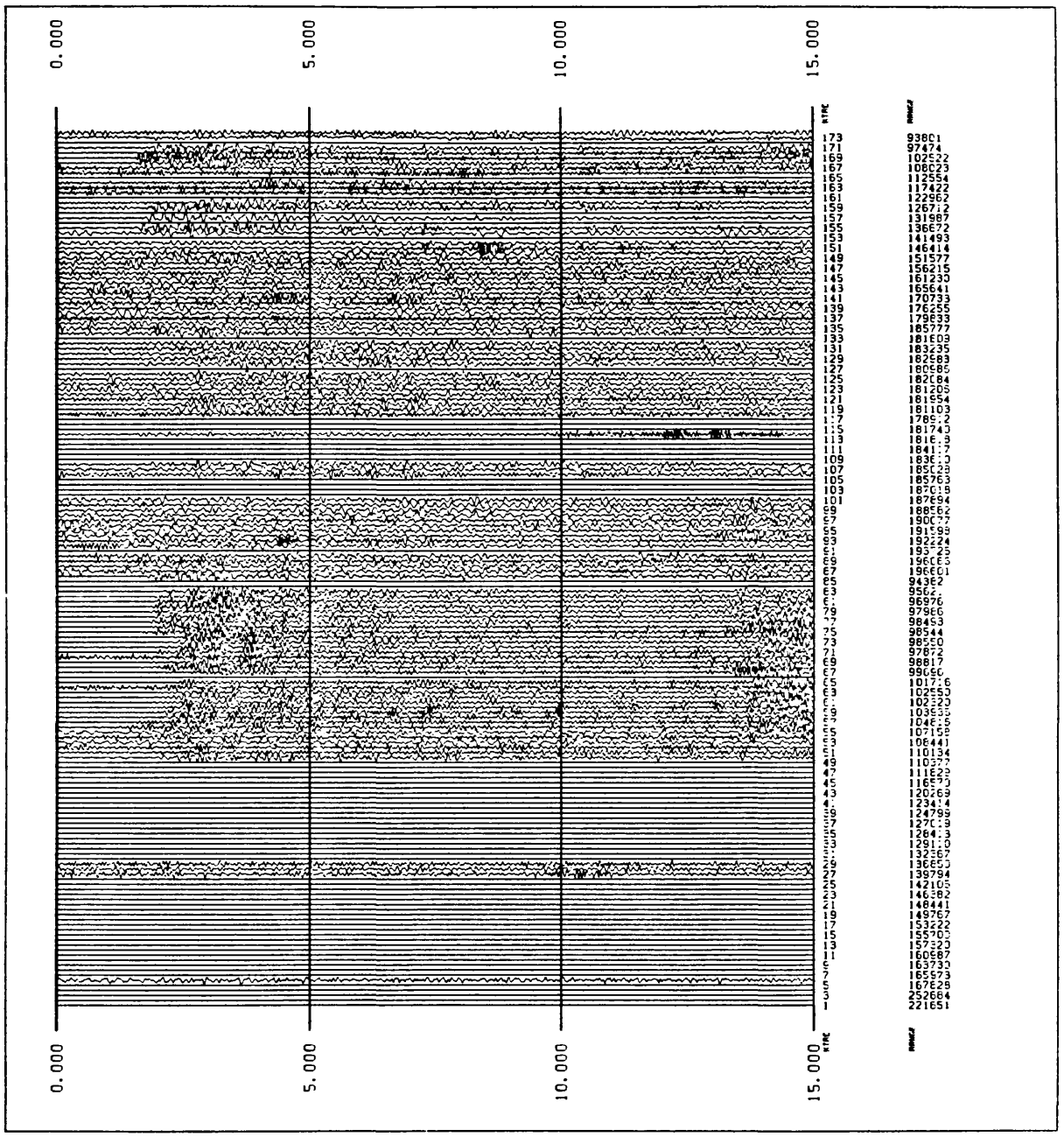


FIGURE A061) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #061 CAT 3188256 94:286:06:17 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

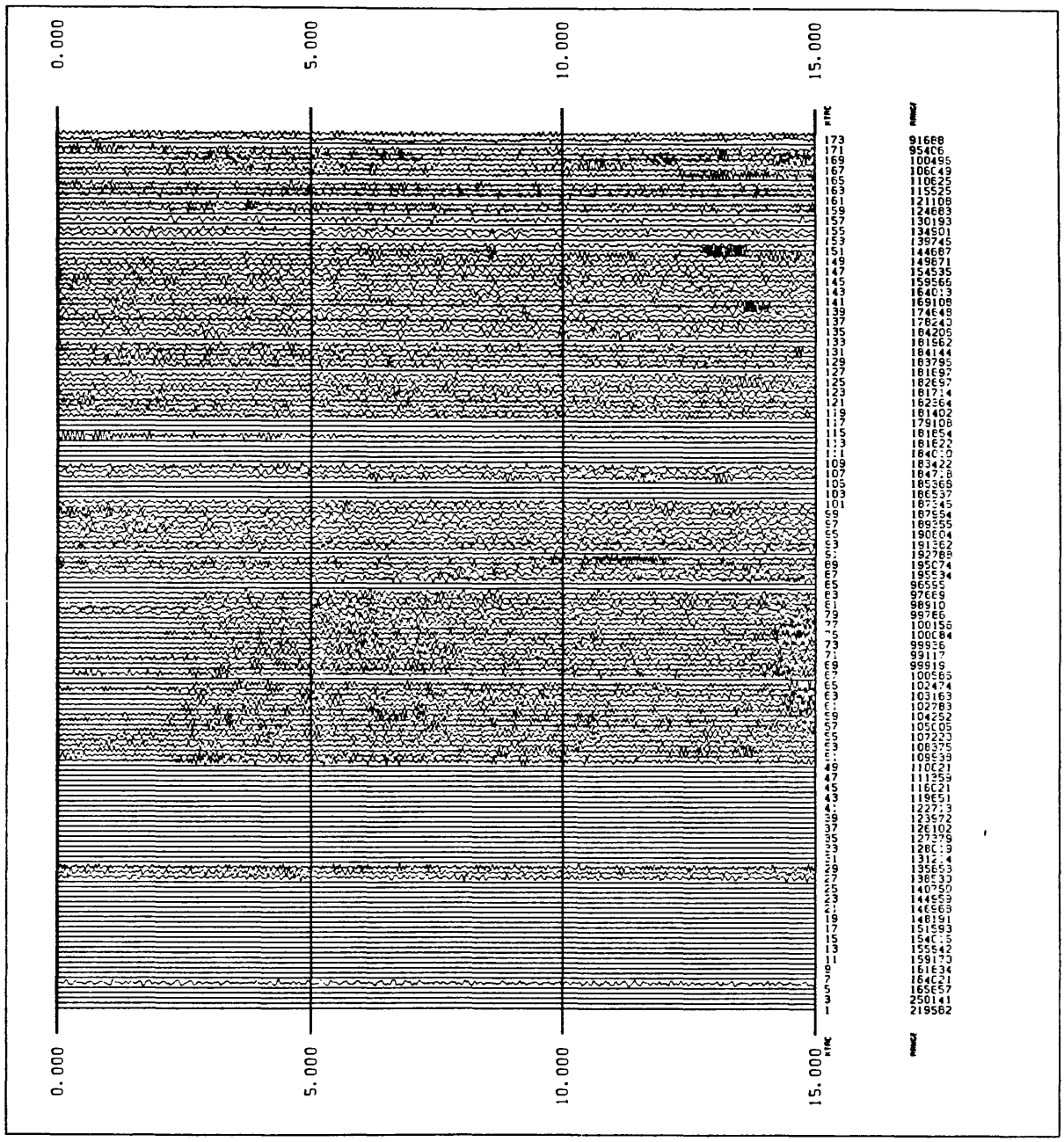


FIGURE A062) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #062 CAT 3188259 94:286:07:33 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

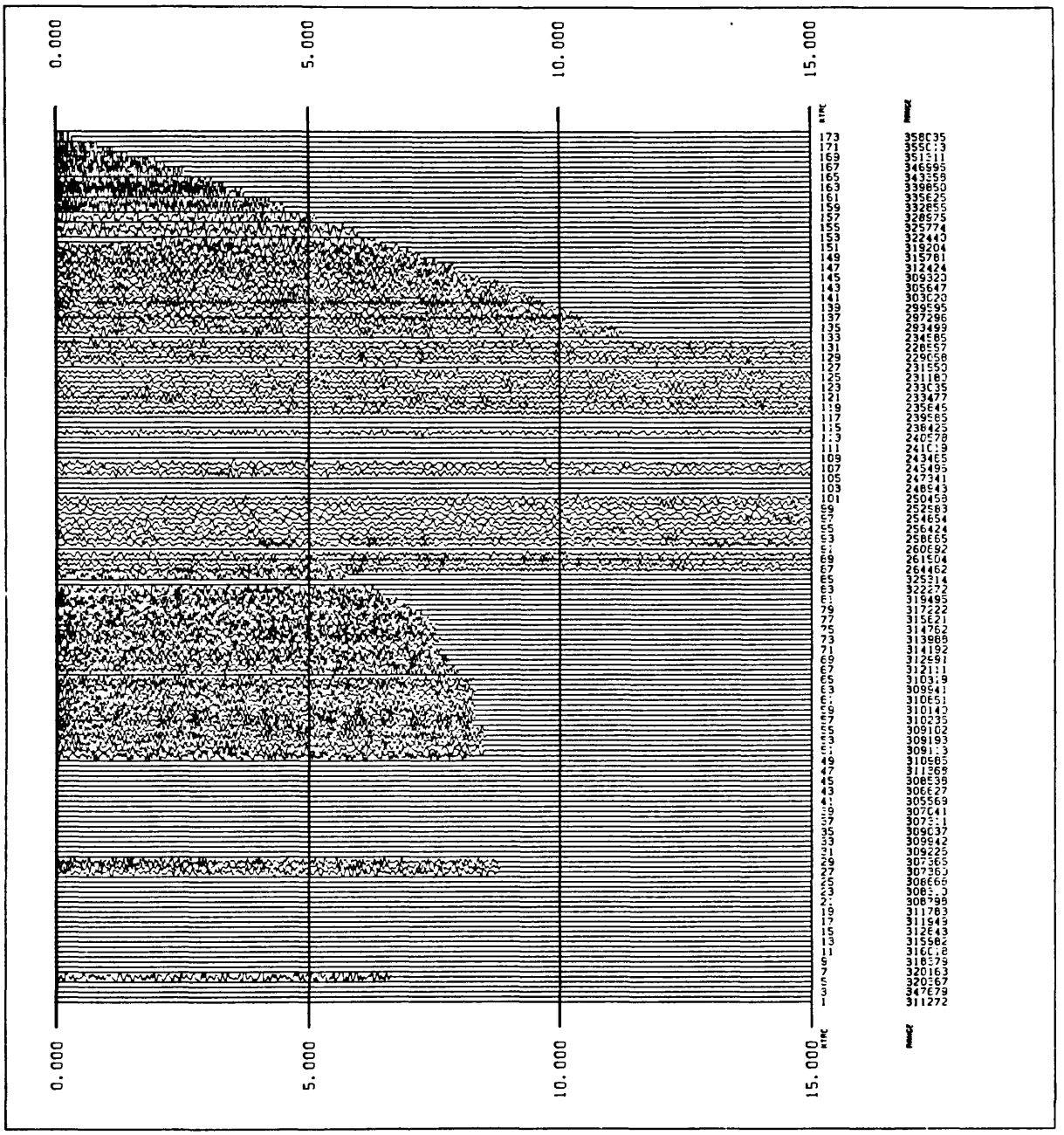


FIGURE A063) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #063 CAT 3188260 94:286:07:37 MAG 2.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

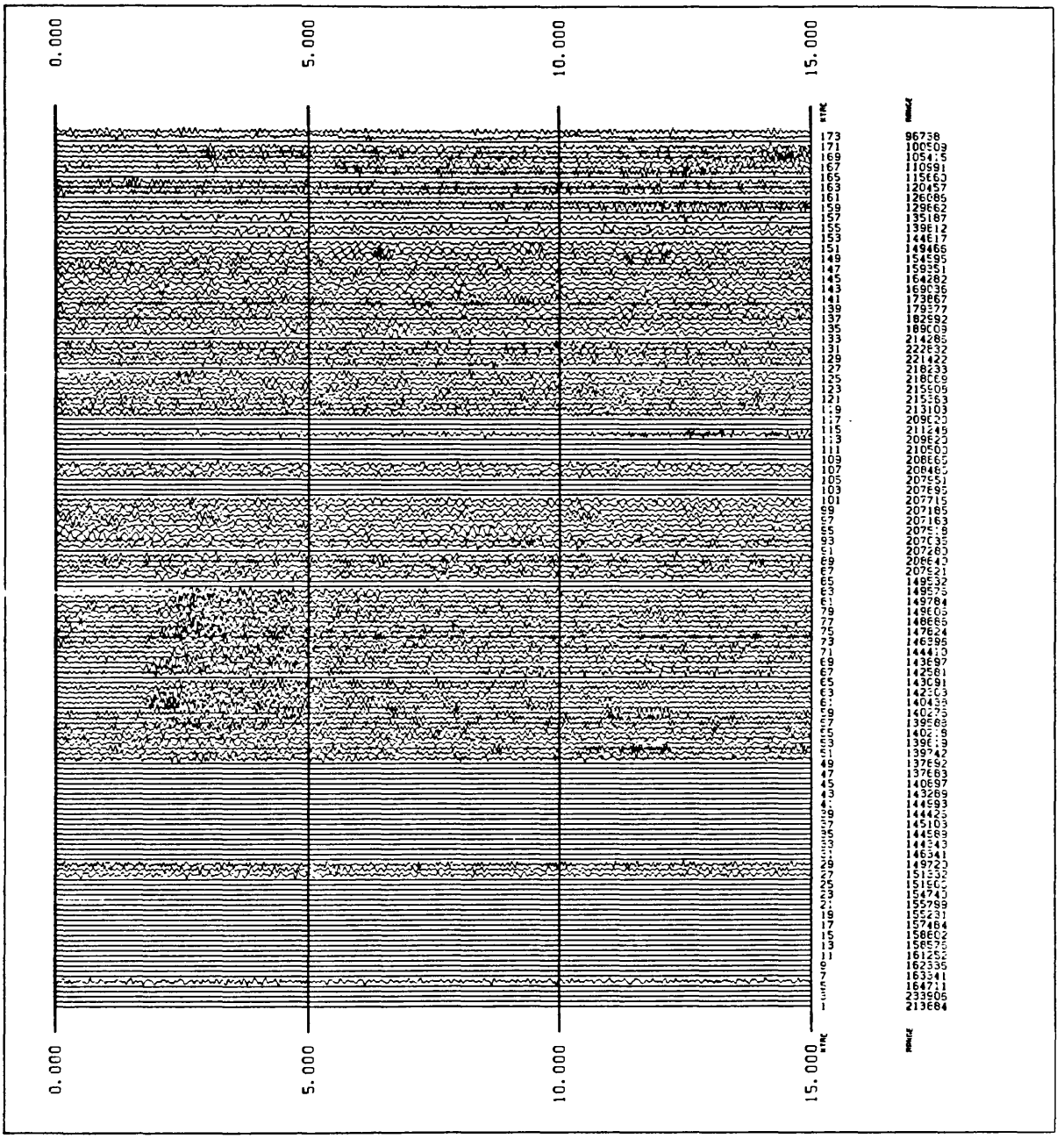


FIGURE A064) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #064 CAT 3188261 94:286:07:46 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

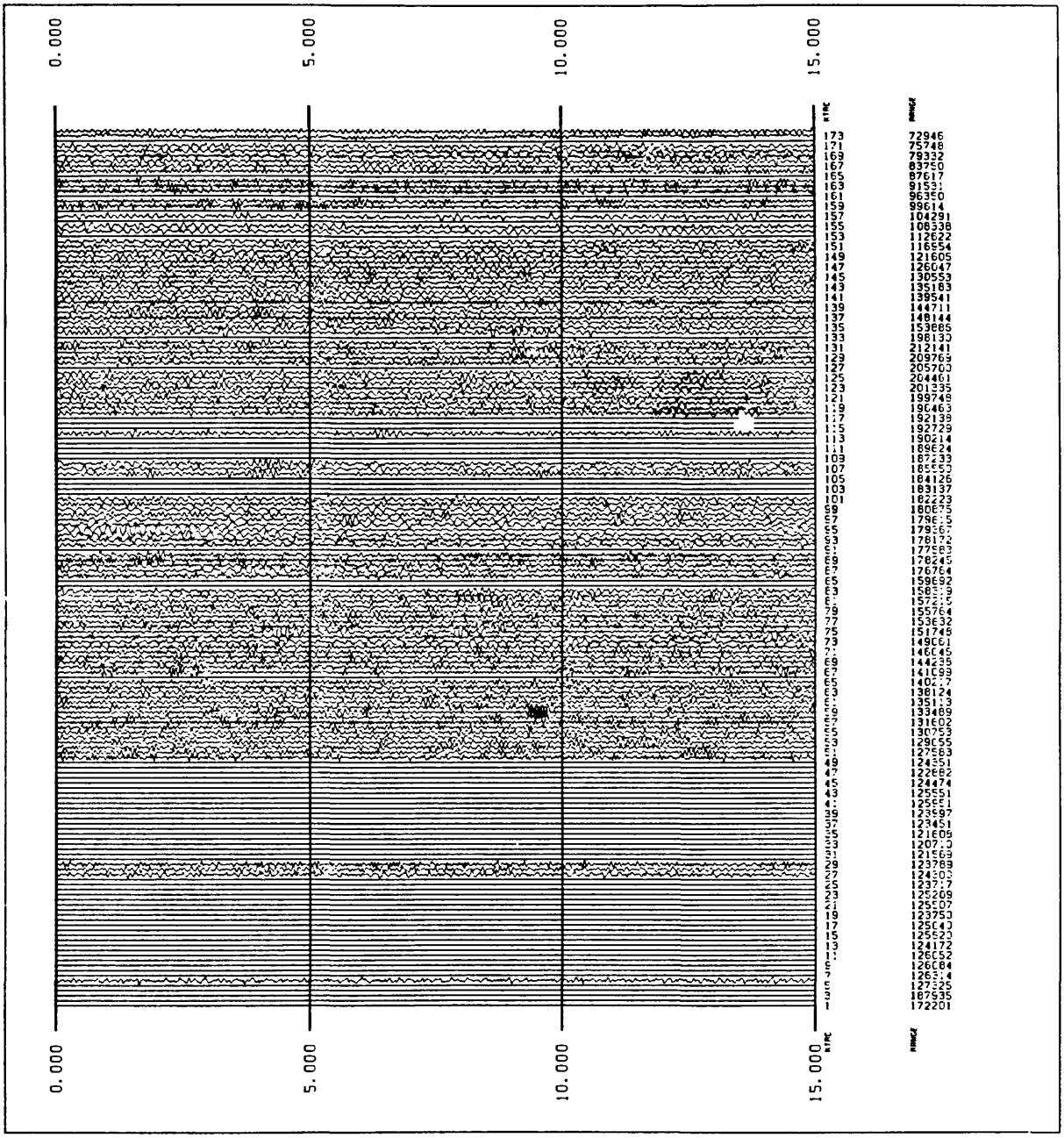


FIGURE A065) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #065 CAT 3188267 94:286:08:40 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

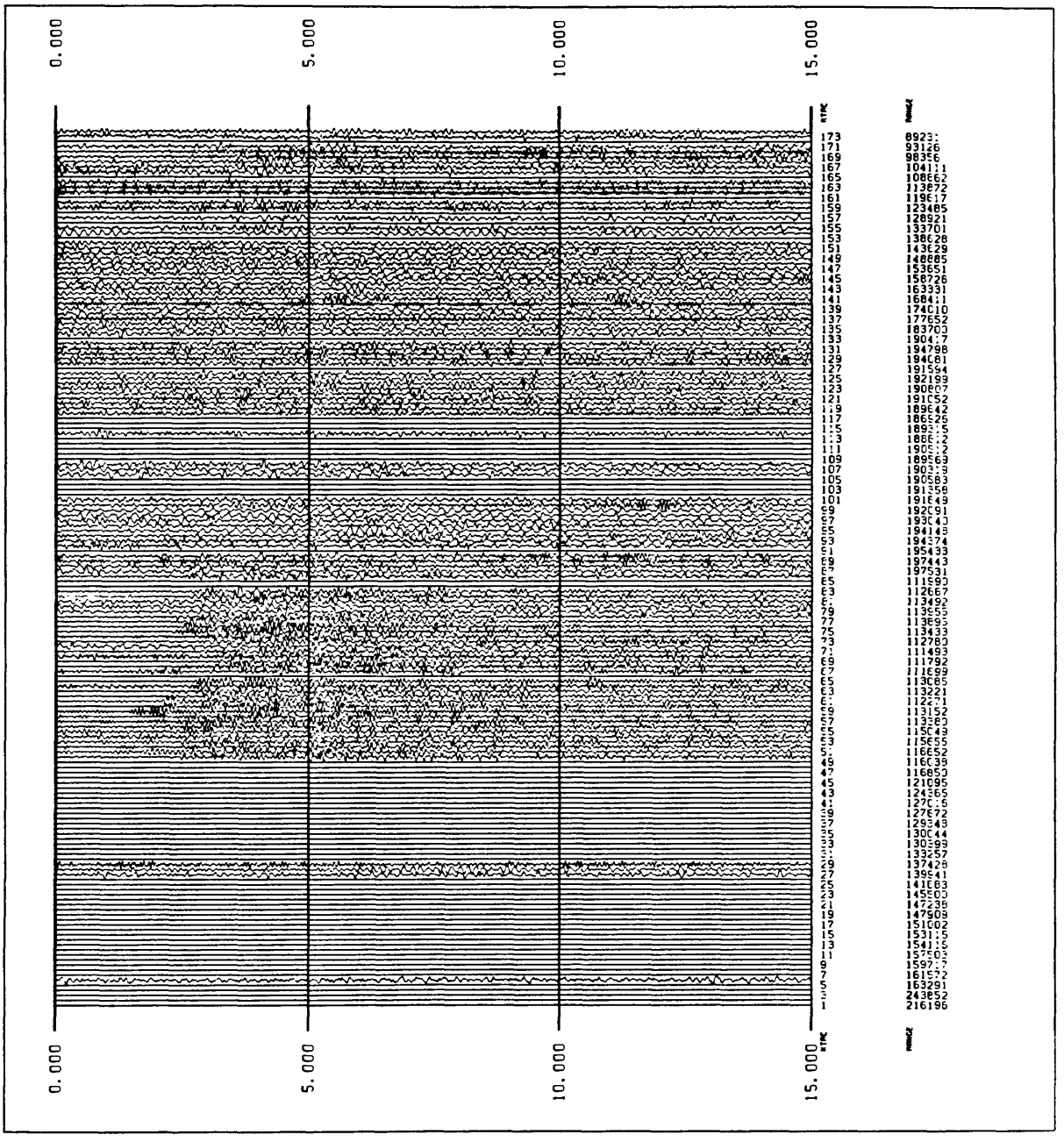


FIGURE A066) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #066 CAT 3188270 94:286:09:00 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

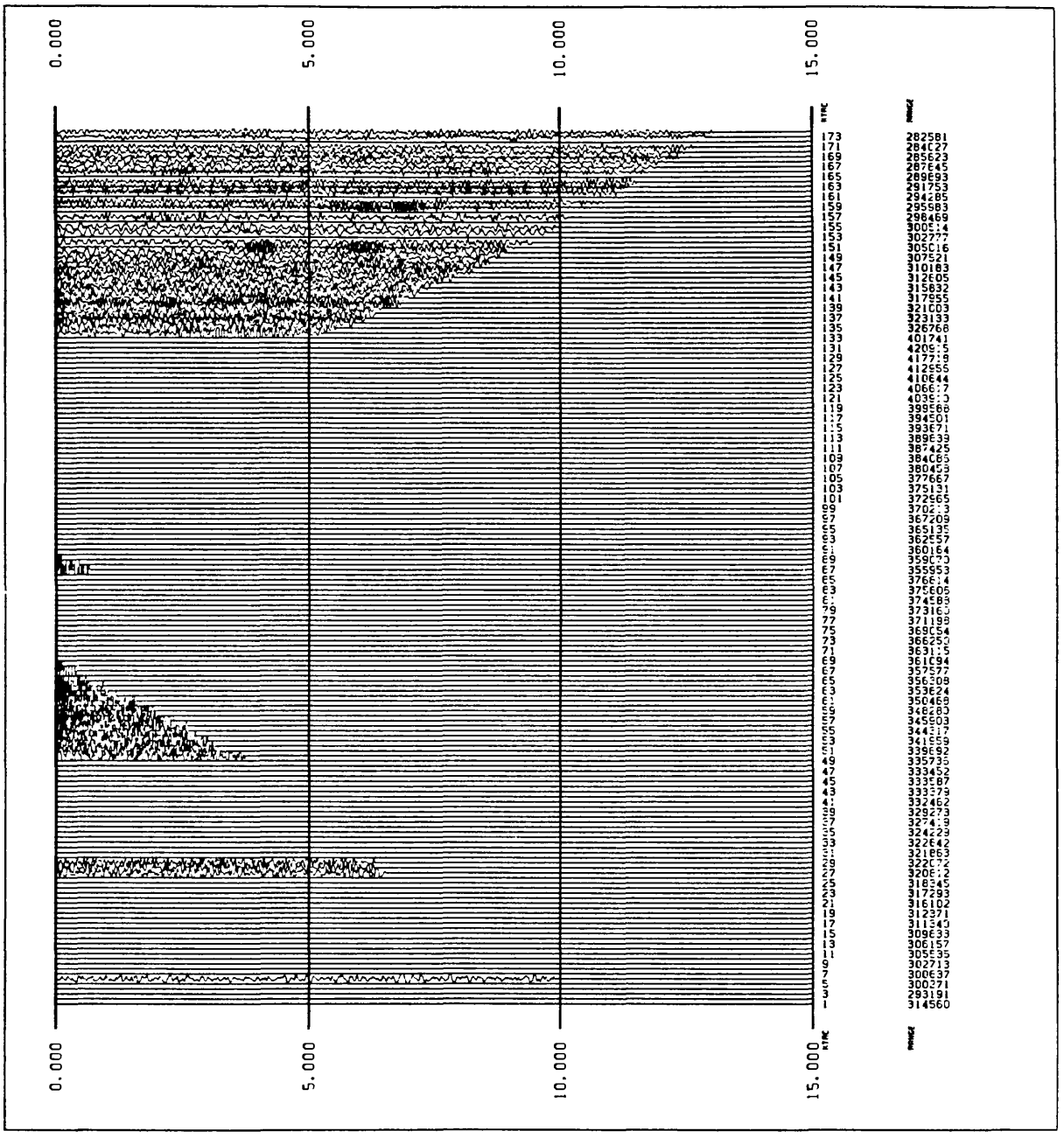


FIGURE A067) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #067 CAT 3188273 94:286:09:16 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

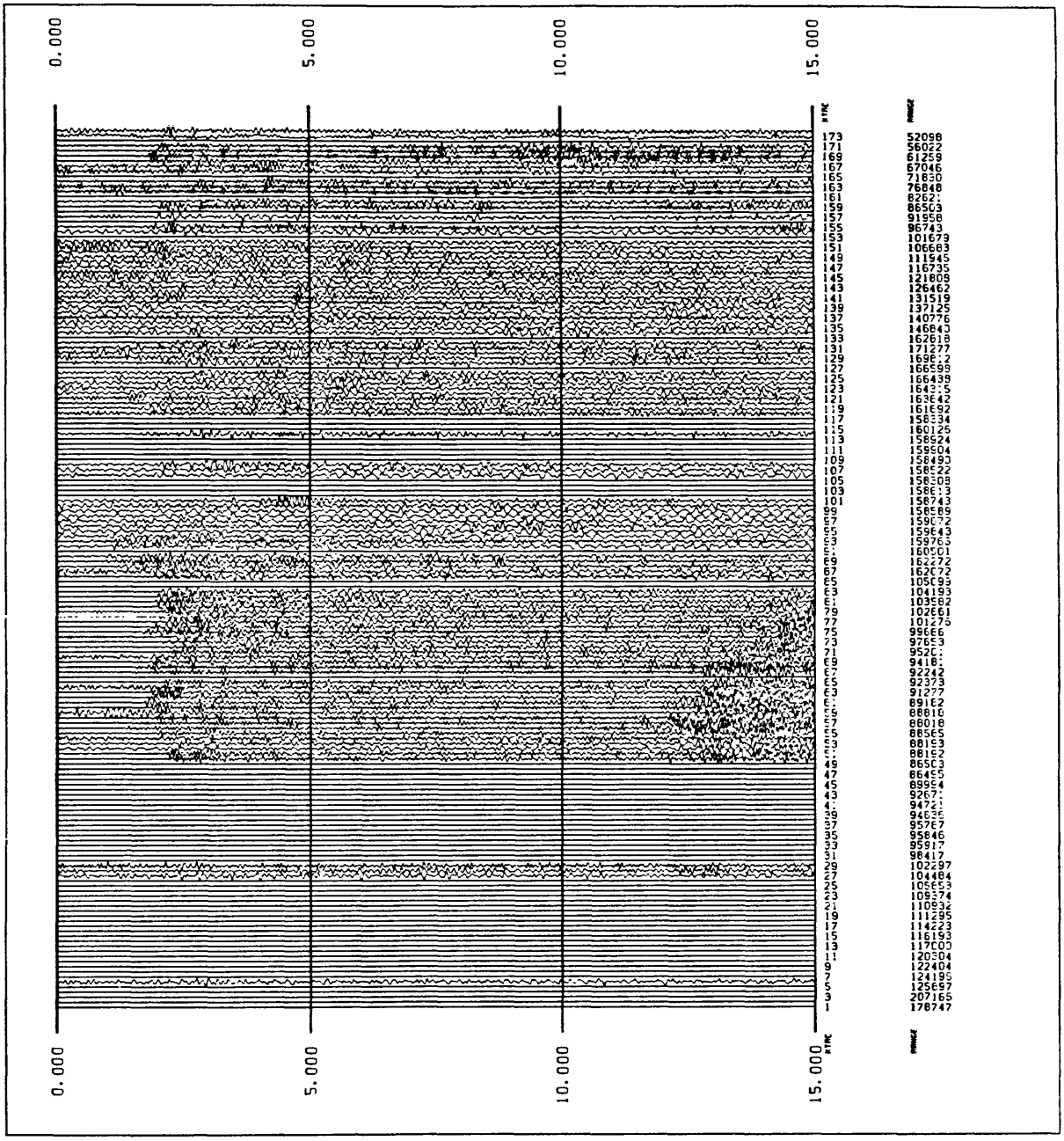


FIGURE A068) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #068 CAT 3188277 94:286:10:31 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

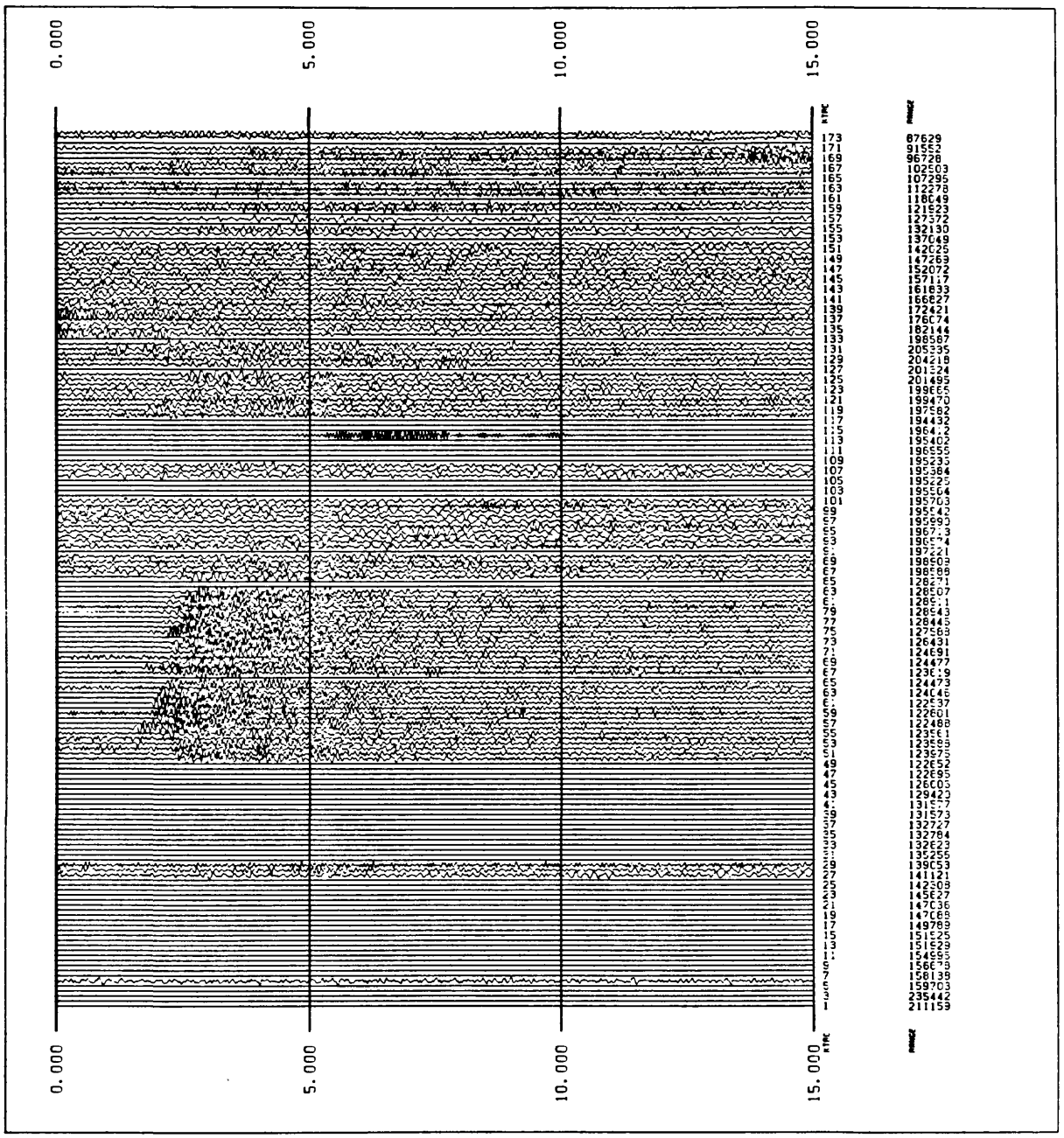


FIGURE A069) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #069 CAT 3188278 94:286:10:32 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

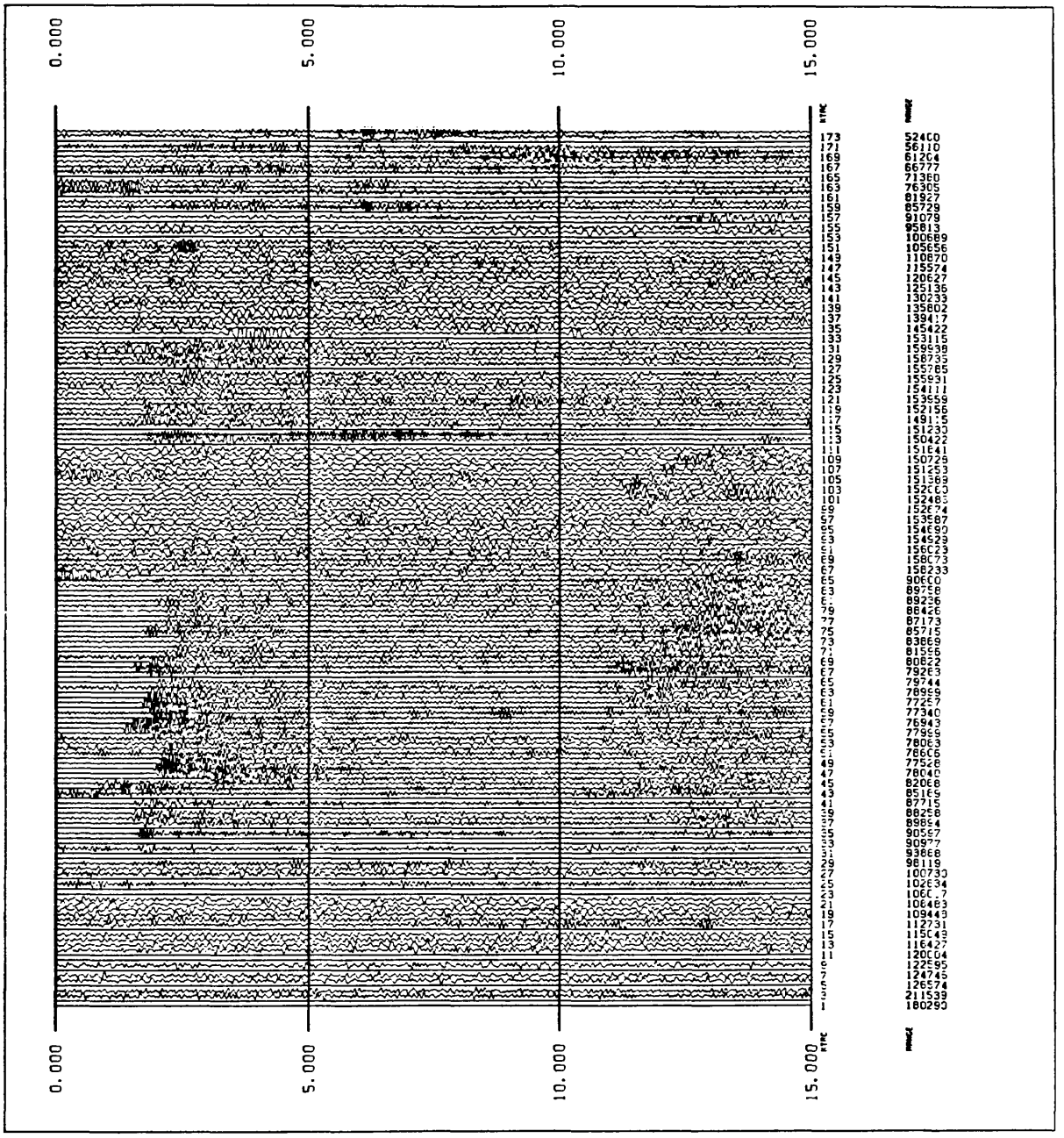


FIGURE A070) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #070 CAT 3188282 94:286:13:09 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

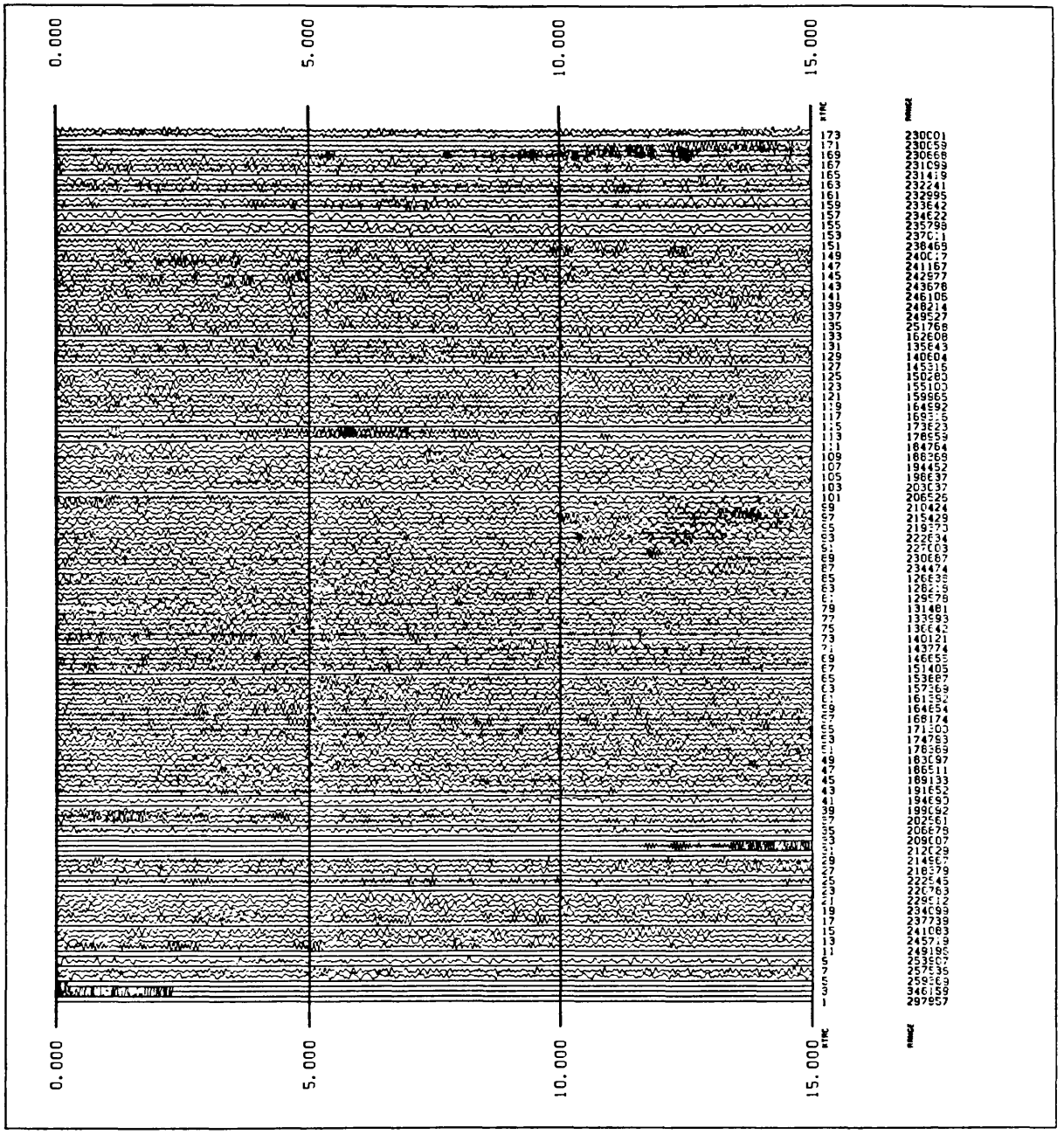


FIGURE A071) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #071 CAT 3188283 94:286:14:43 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

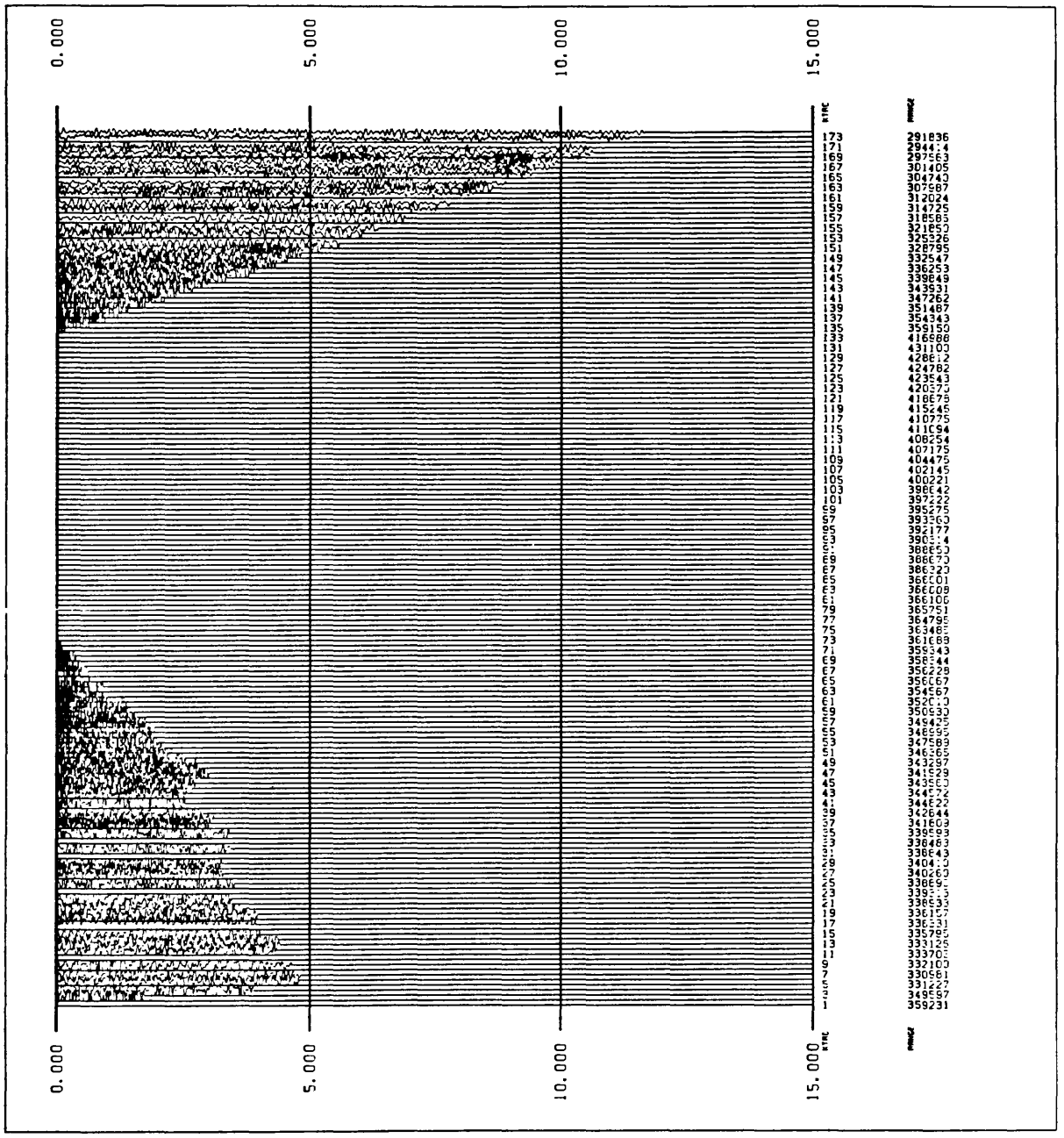


FIGURE A072) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #072 CAT 3188286 94:286:16:19 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

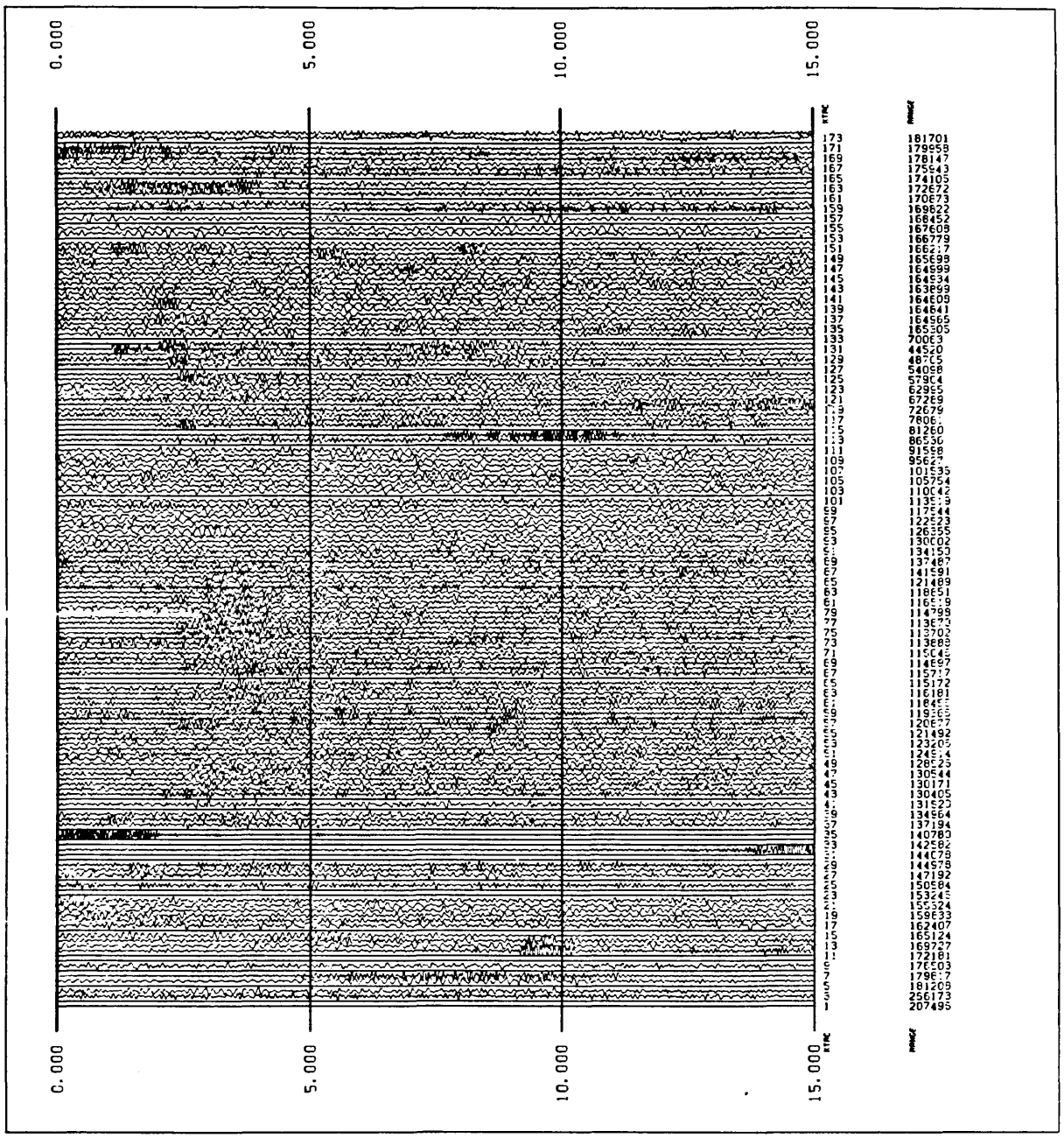


FIGURE A073) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #073 CAT 3188287 94:286:16:26 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

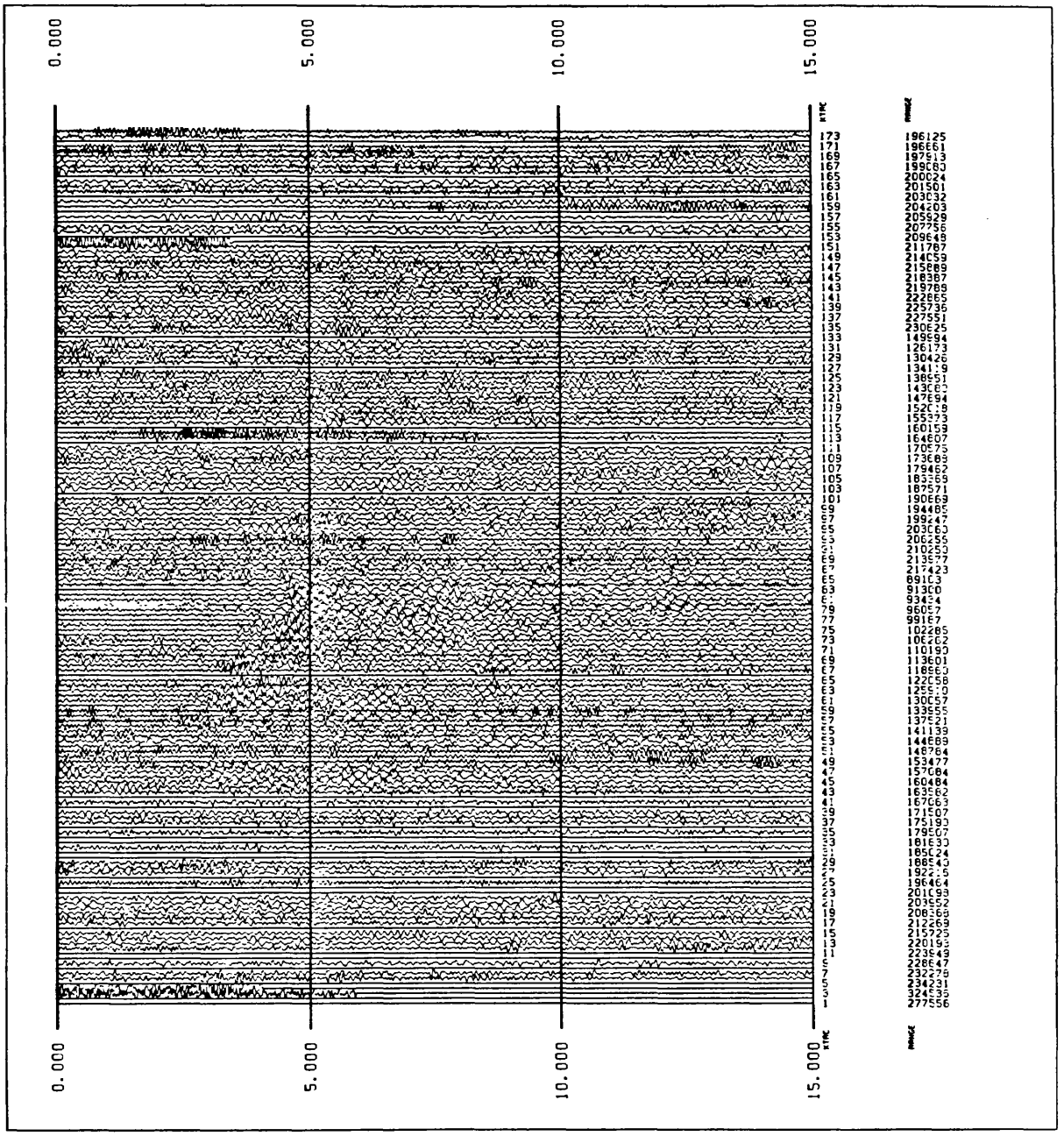


FIGURE A074) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #074 CAT 3188298 94:286:18:47 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

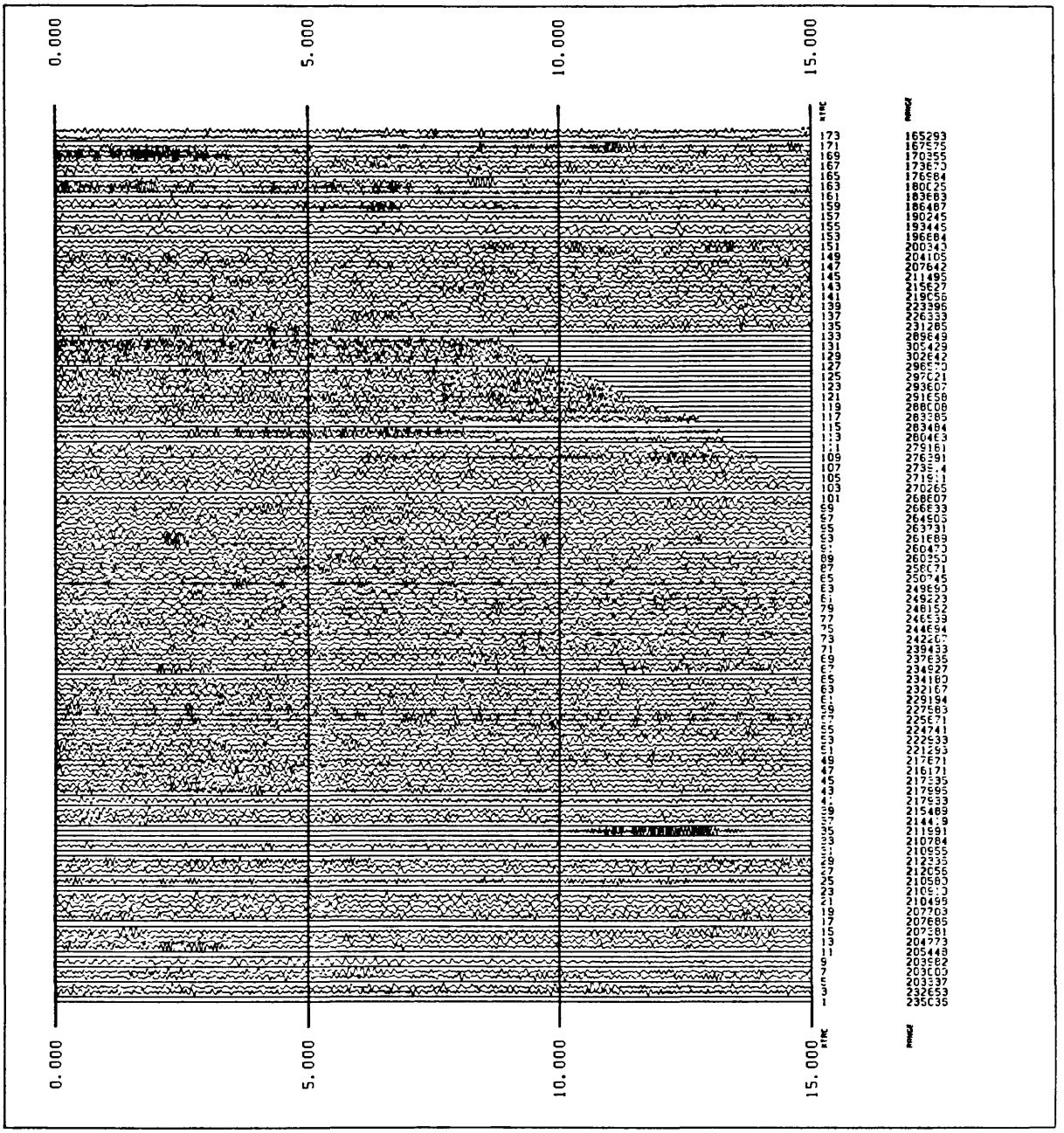


FIGURE A075) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #075 CAT 3188299 94:286:18:49 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

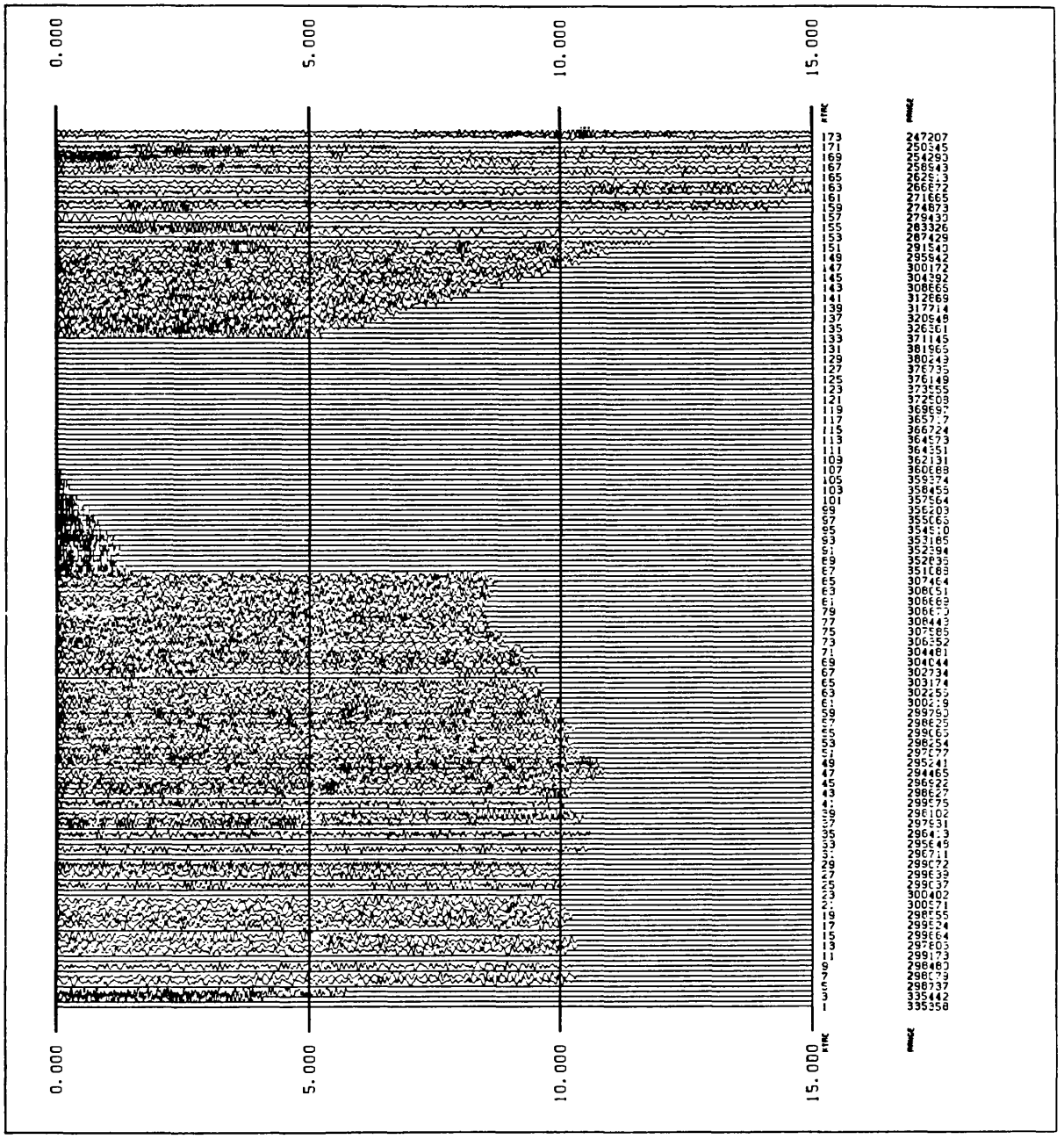


FIGURE A076) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #076 CAT 3188301 94:286:19:10 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

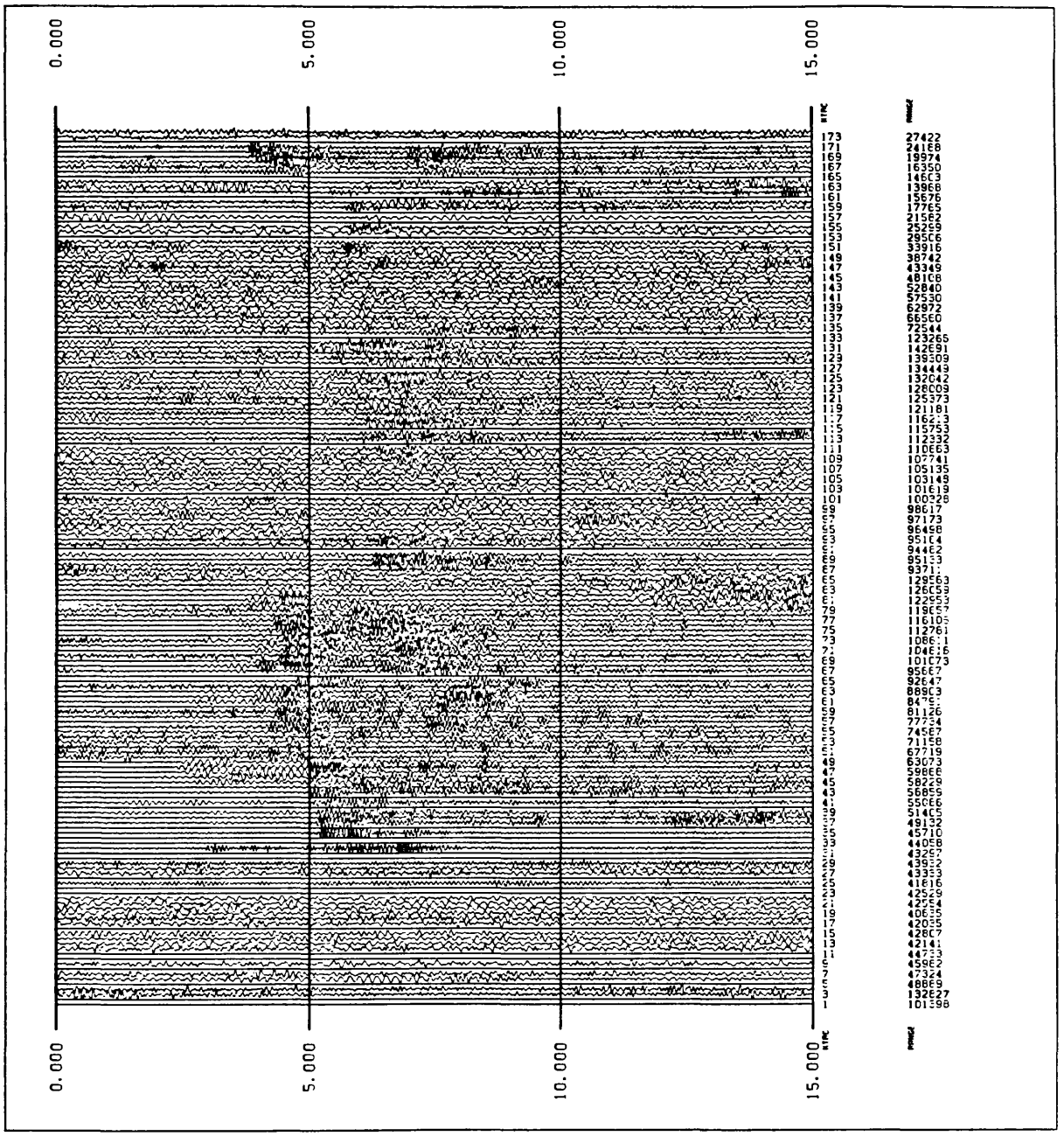


FIGURE A077) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #077 CAT 3188302 94:286:19:14 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

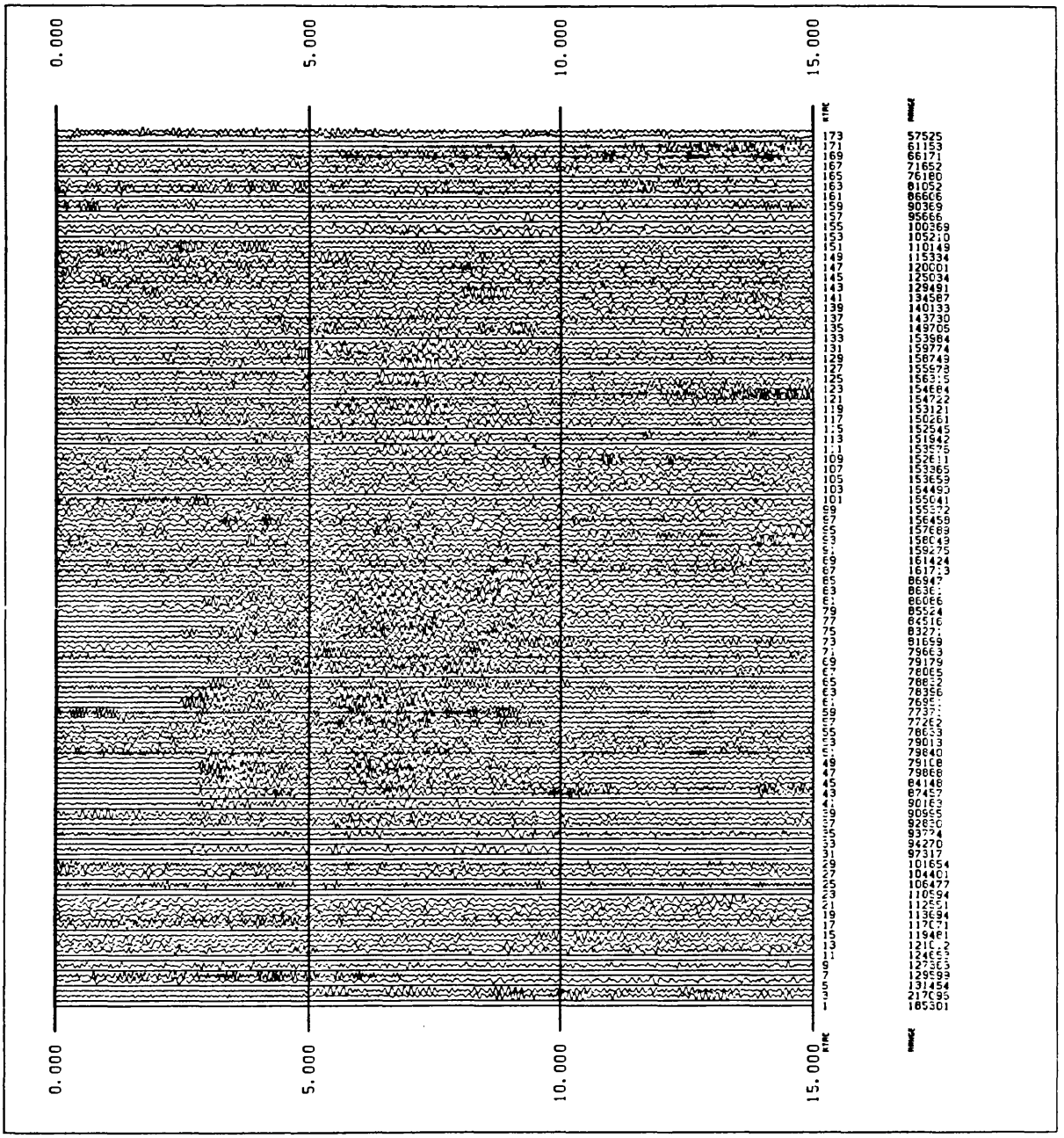


FIGURE A078) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #078 CAT 3188303 94:286:19:28 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

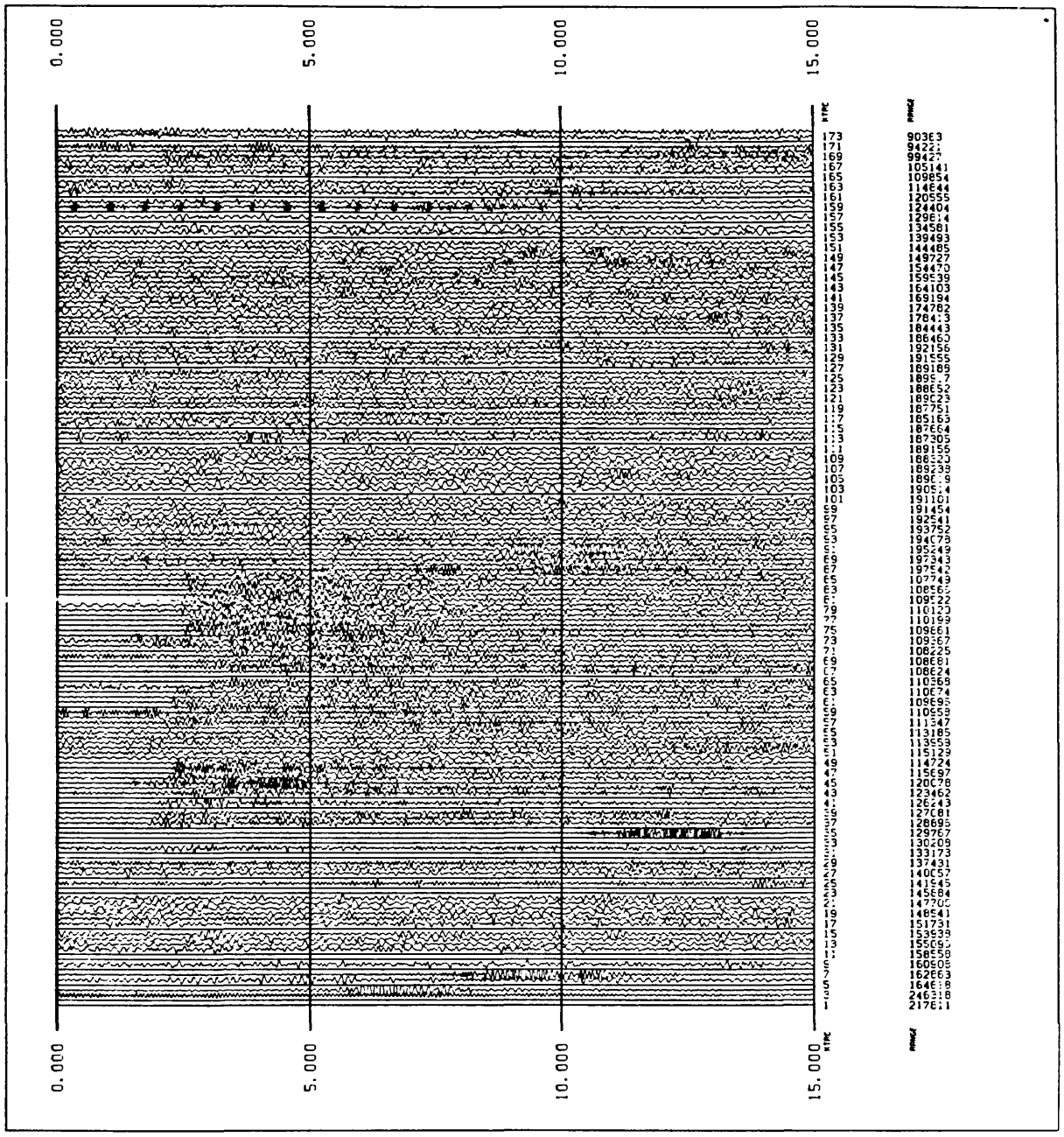


FIGURE A079) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #079 CAT 3188306 94:286:20:03 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

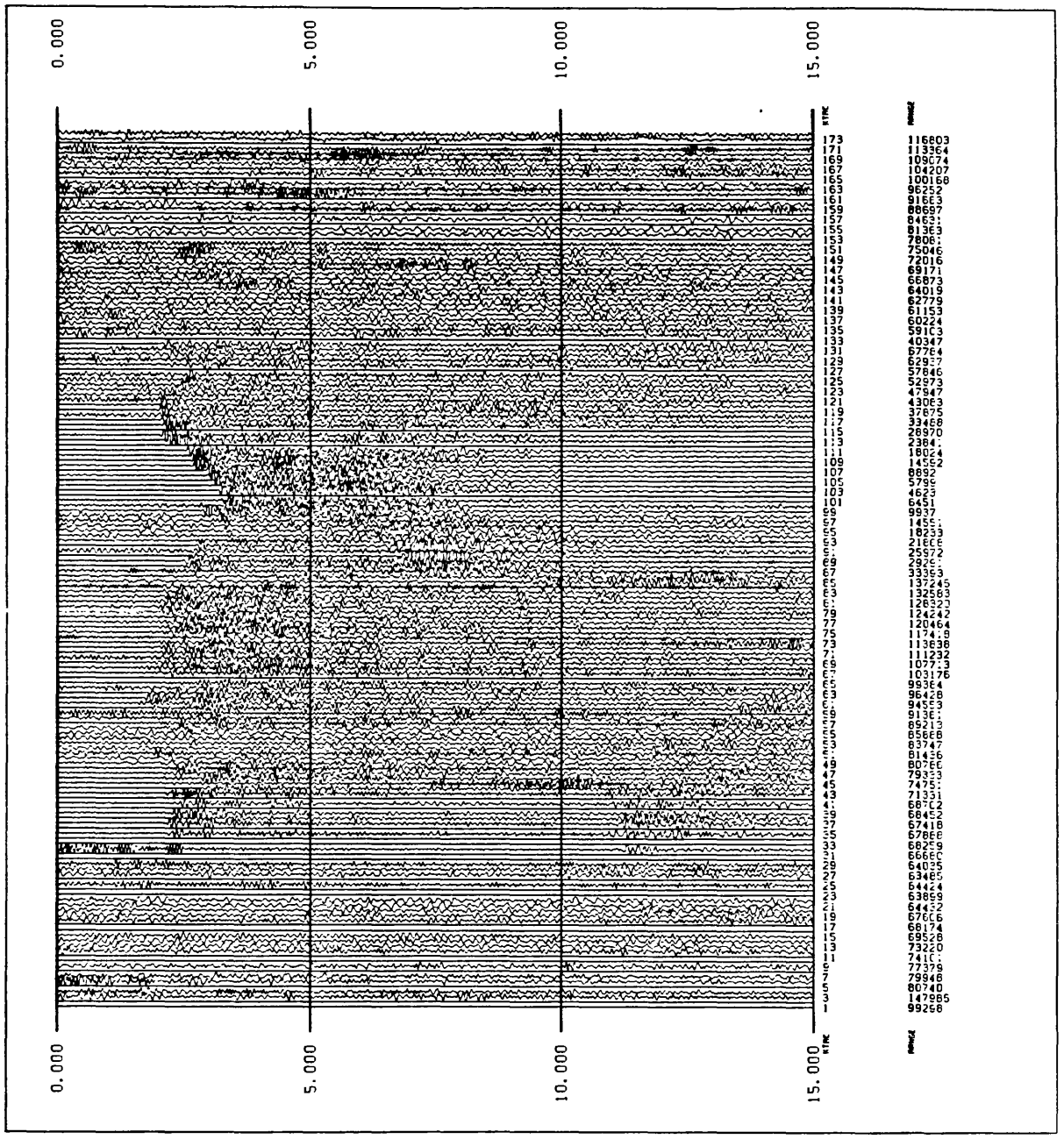


FIGURE A080) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #080 CAT 3188313 94:286:20:39 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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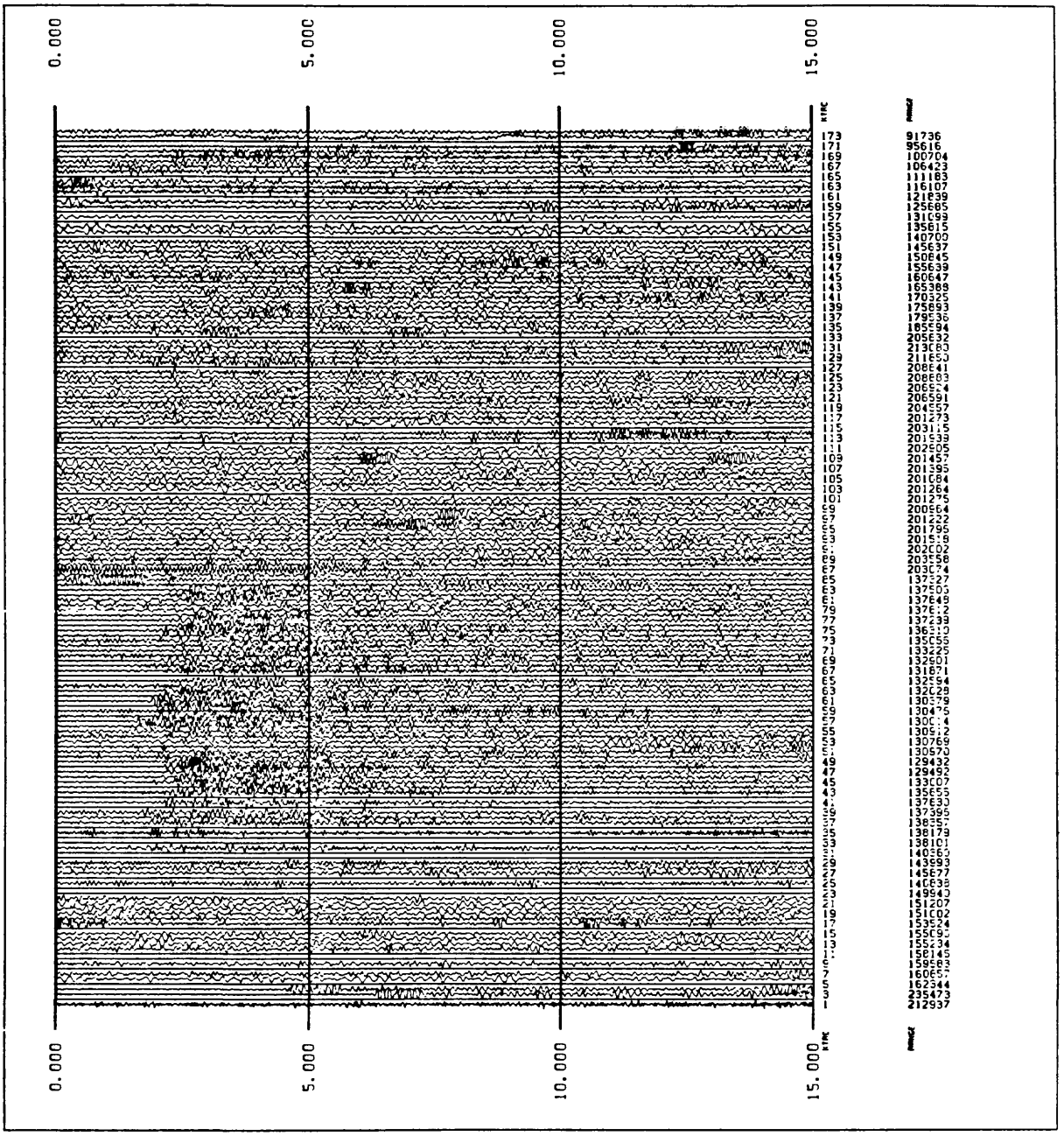

FIGURE A081) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #081 CAT 3188315 94:286:20:58 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

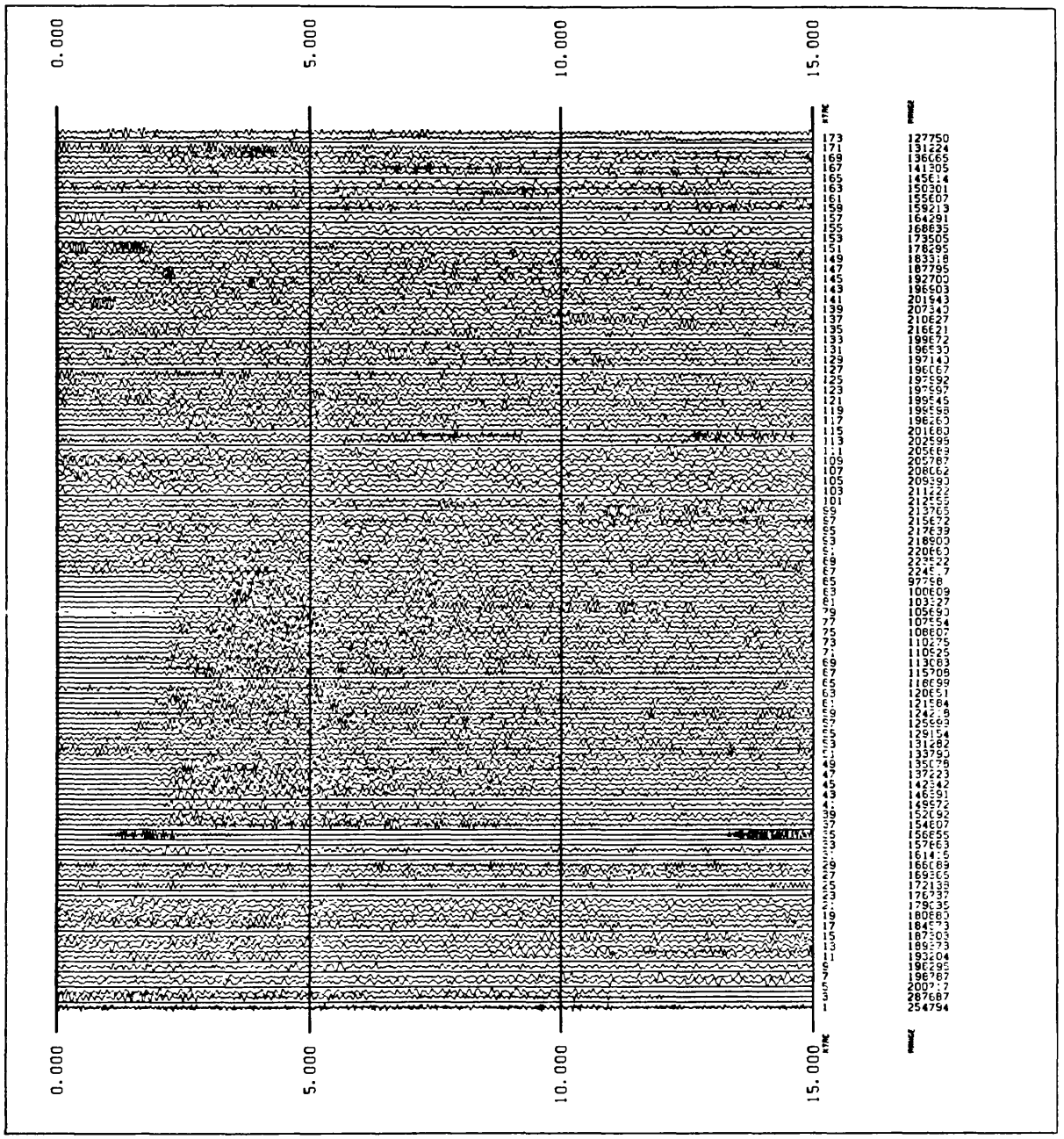

FIGURE A082) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #082 CAT 3188316 94:286:21:08 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

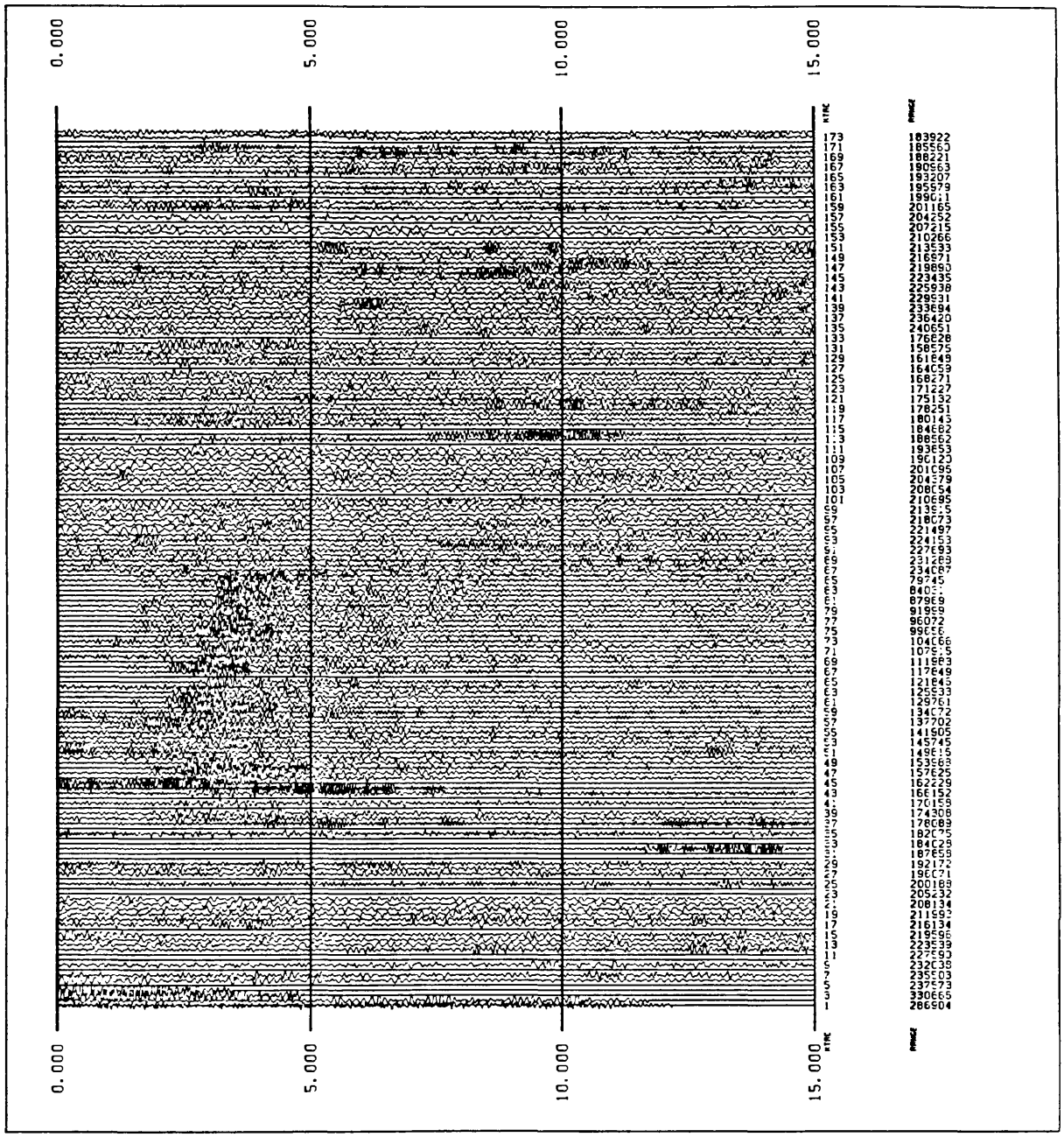

FIGURE A083) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #083 CAT 3188318 94:286:21:51 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

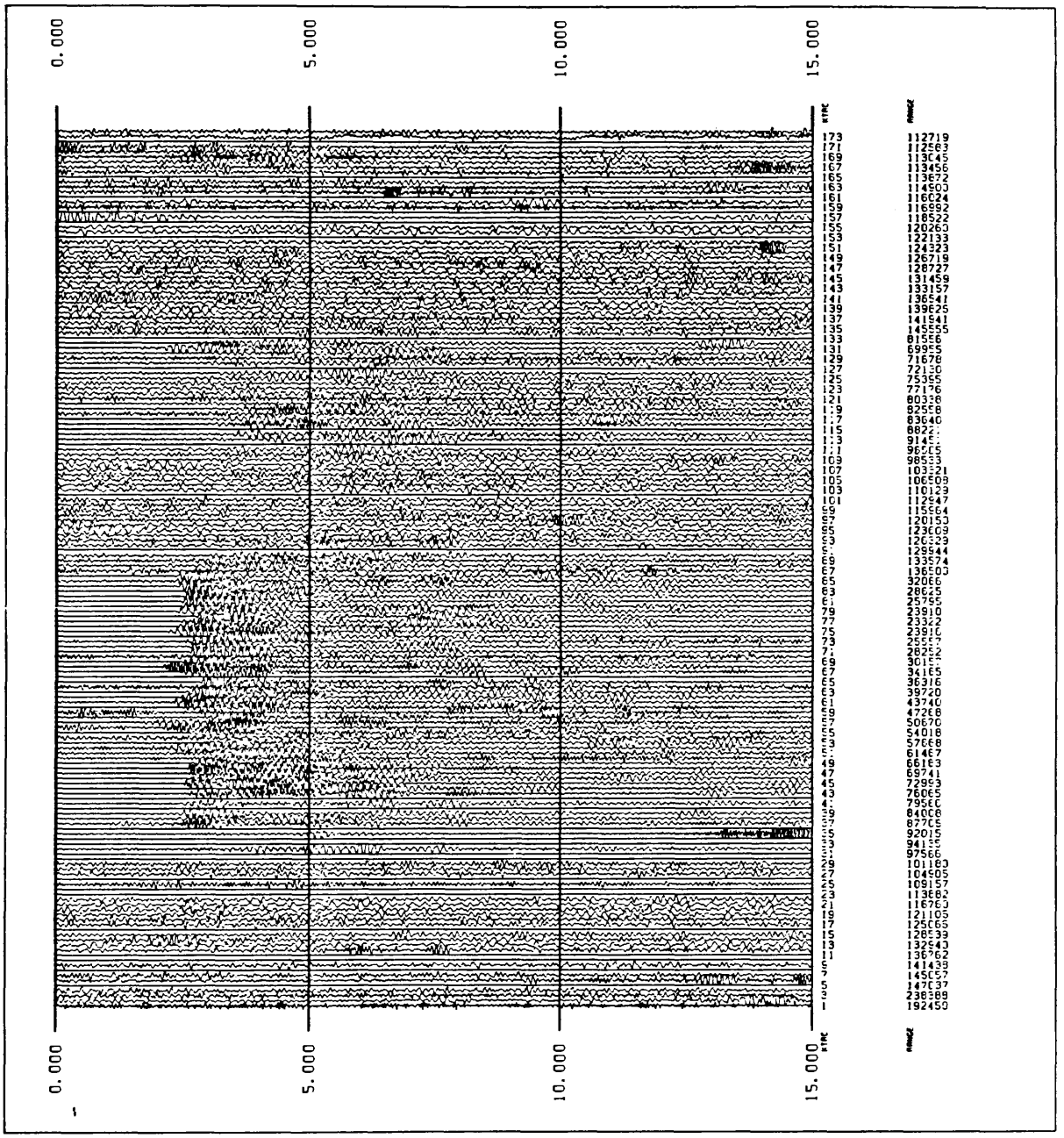

FIGURE A084) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #084 CAT 3188321 94:286:22:14 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

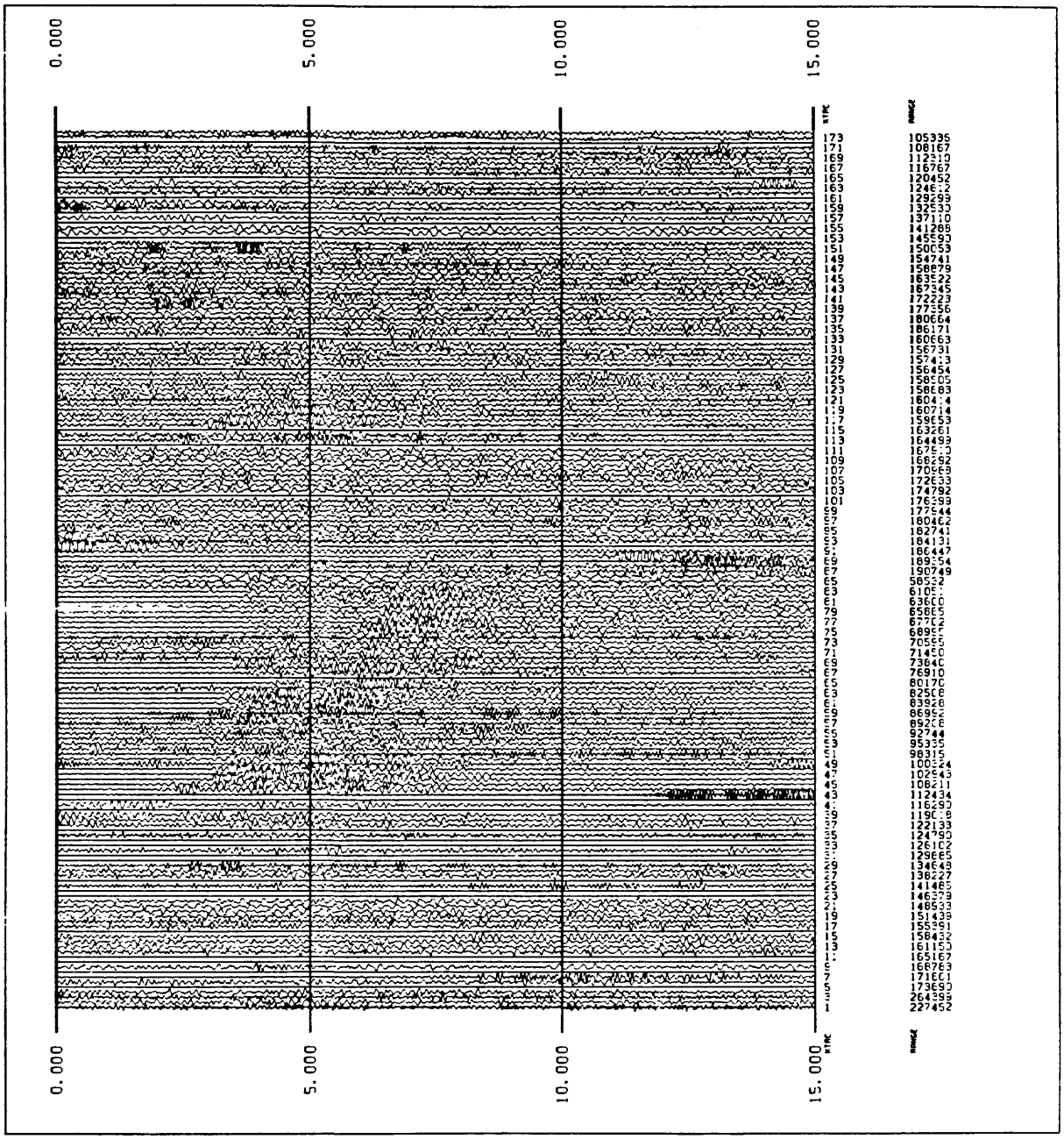

FIGURE A085) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #085 CAT 3188322 94:286:22:18 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

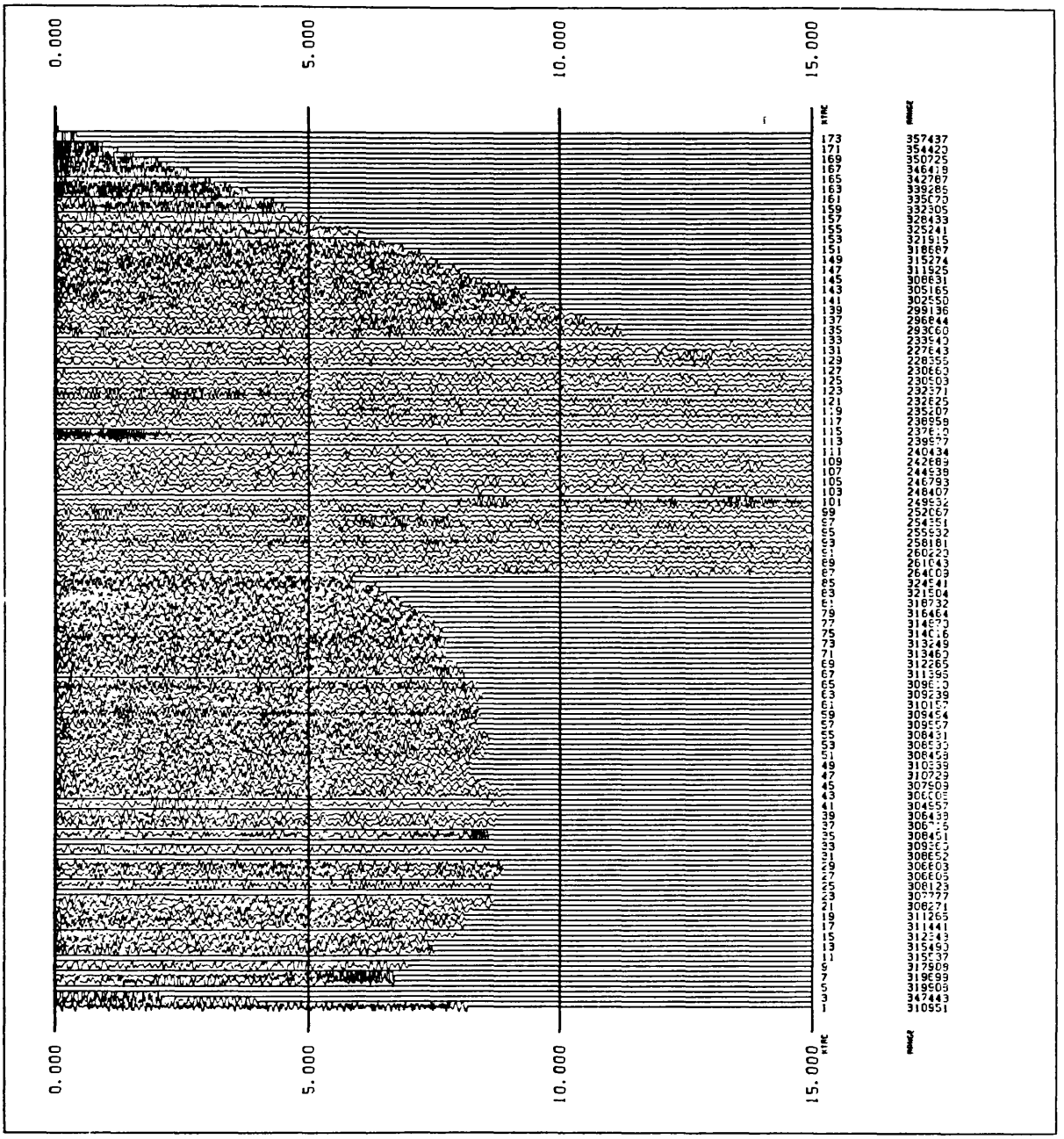

FIGURE A085) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #086 CAT 3188328 94:286:23:06 MAG 2.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

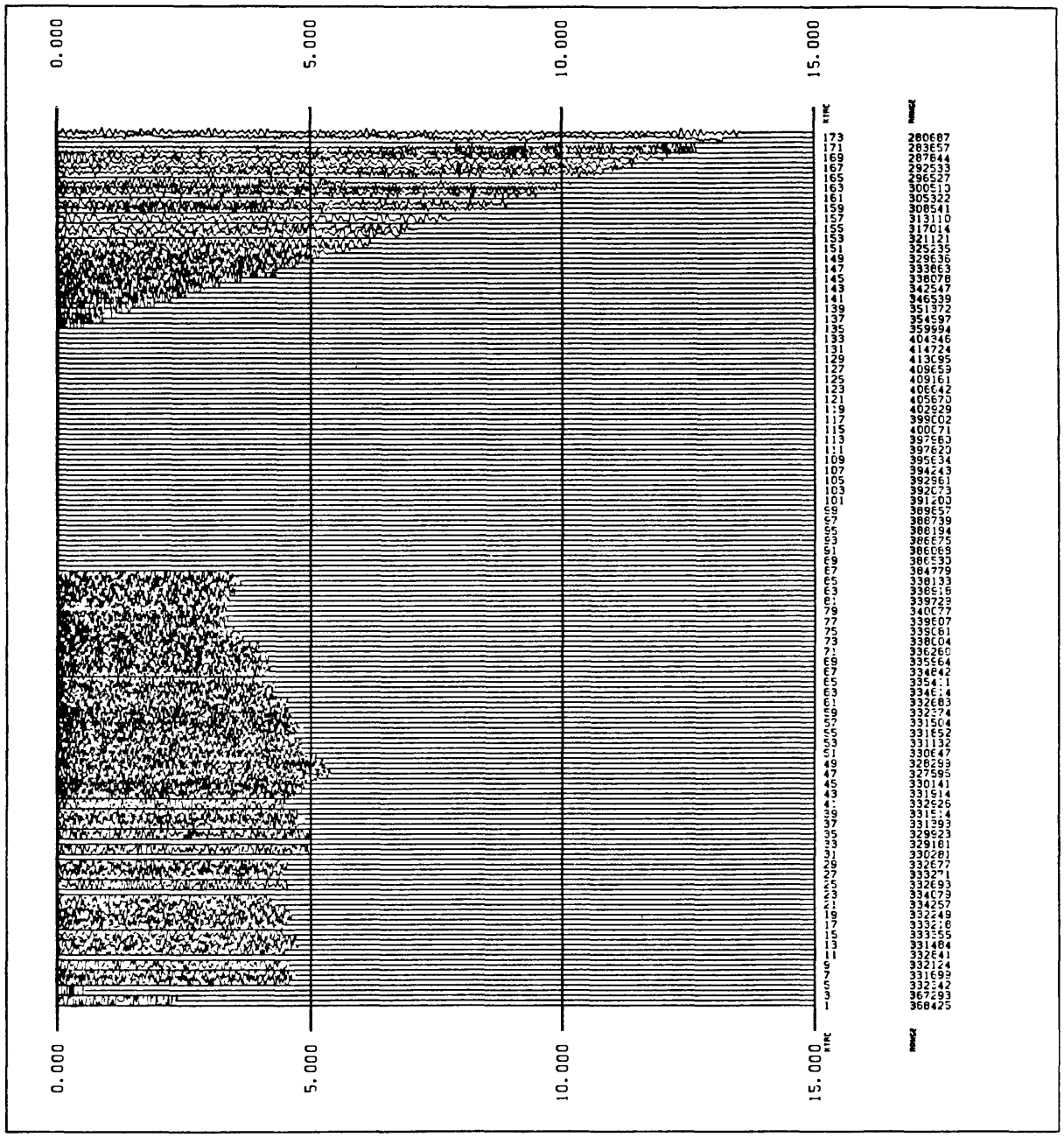

FIGURE A087) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #087 CAT 3188330 94:286:23:20 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

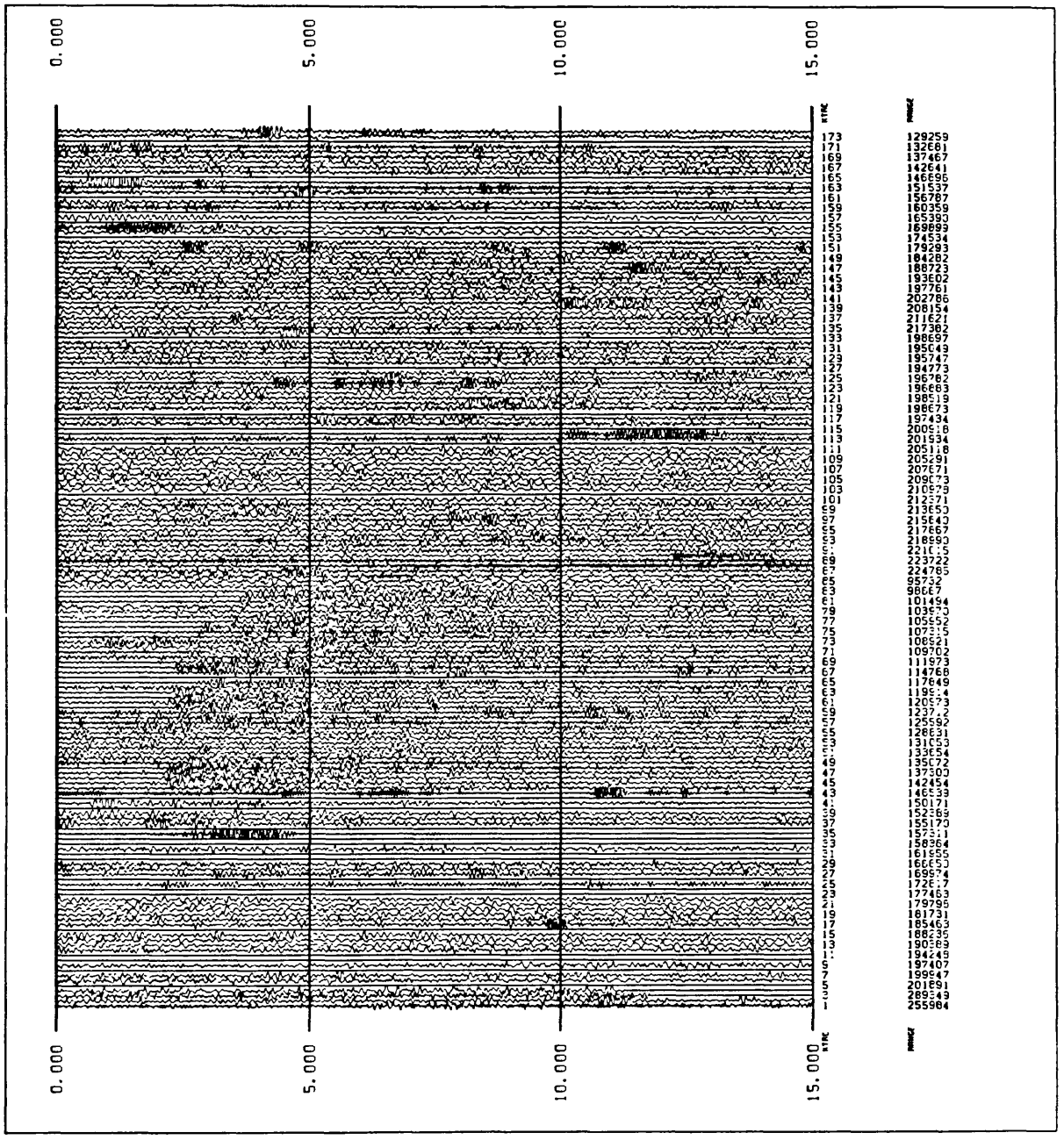

FIGURE A088) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #088 CAT 3188331 94:286:23:35 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

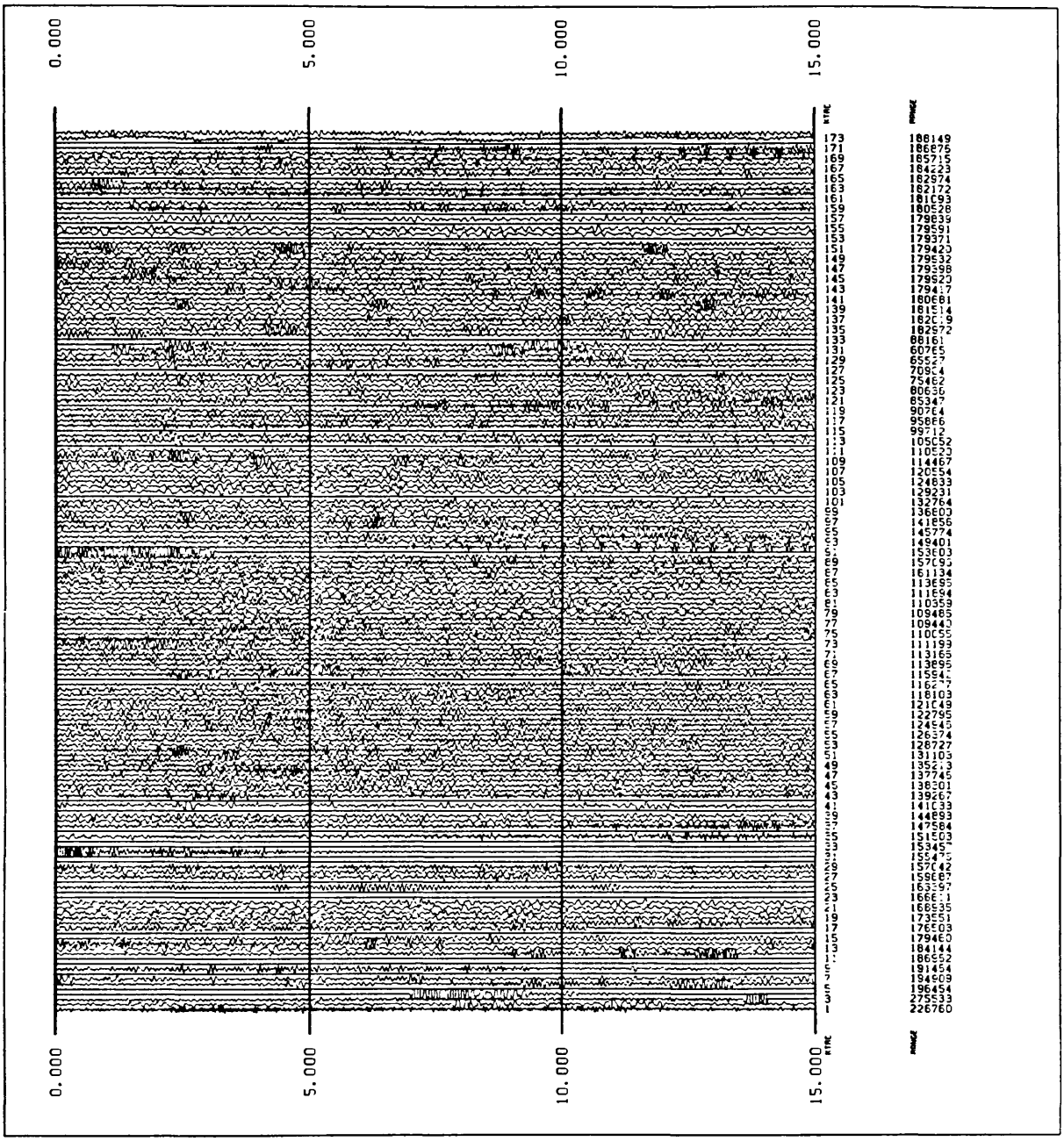

FIGURE A089) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #089 CAT 3188333 94:286:23:59 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

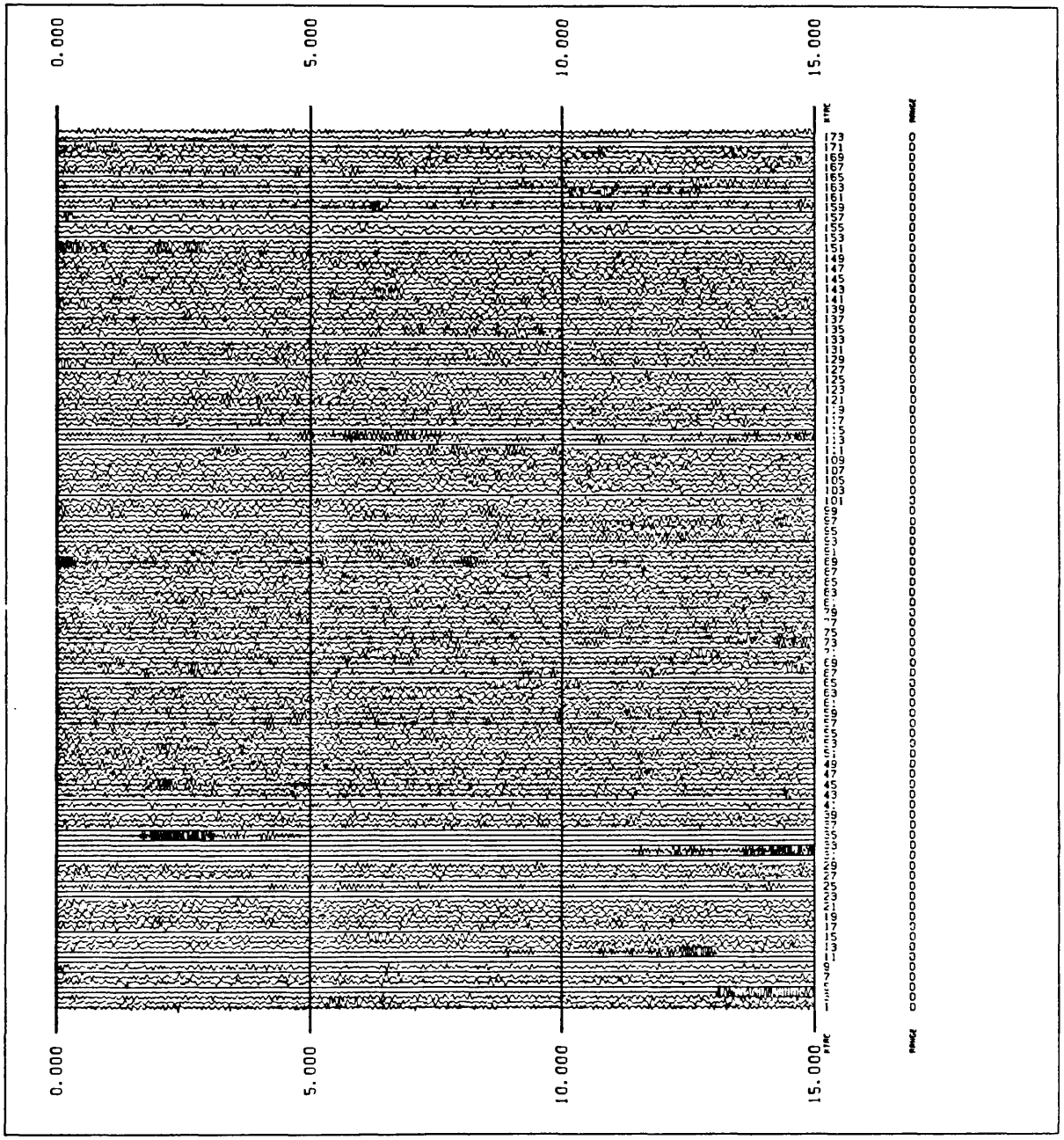

FIGURE A090) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #090 CAT 3188337 94:287:00:58 MAG 2.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

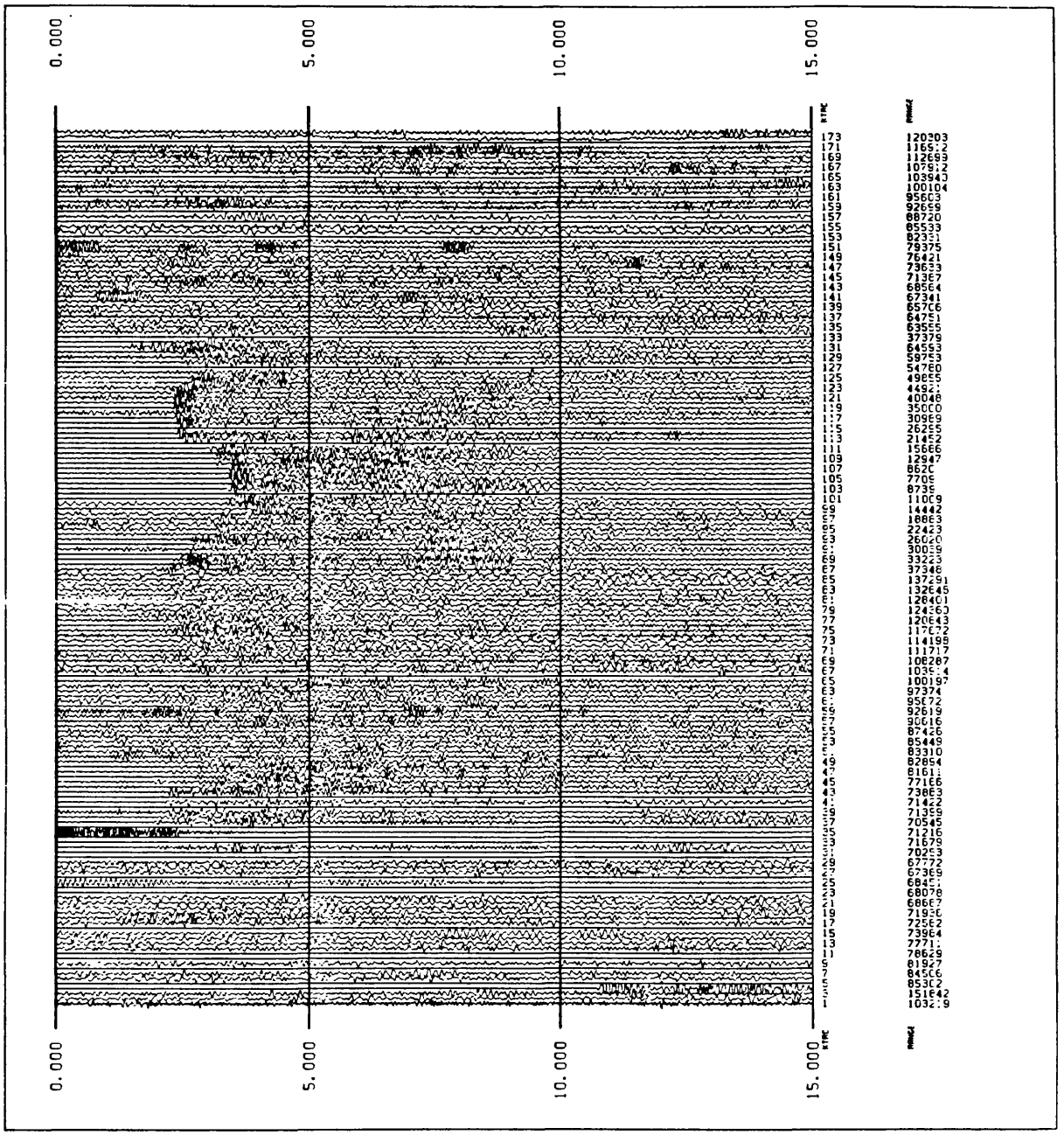

FIGURE A091) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #091 CAT 3188339 94:287:01:37 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

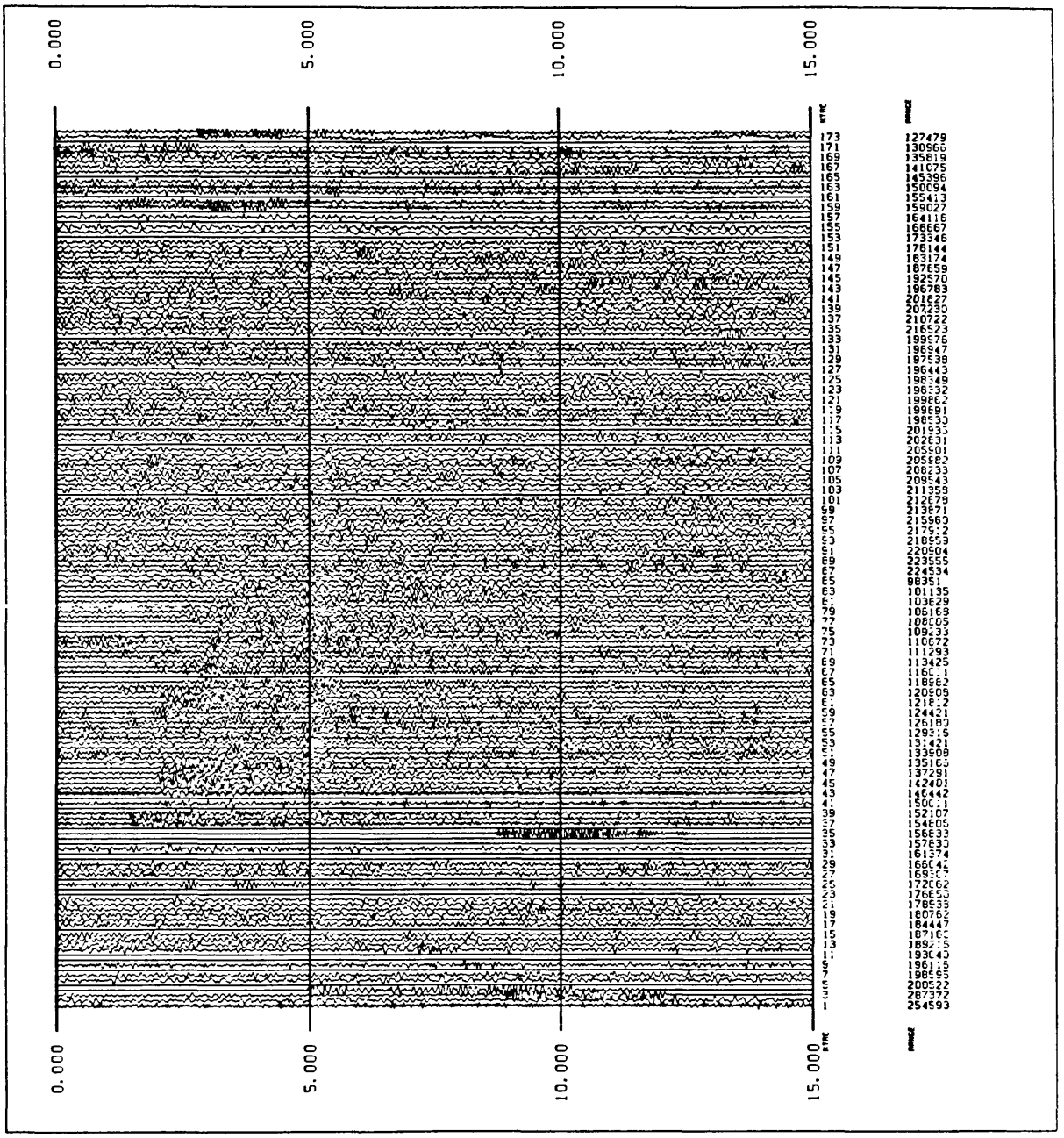

FIGURE A092) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #092 CAT 3188344 94:287:01:50 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

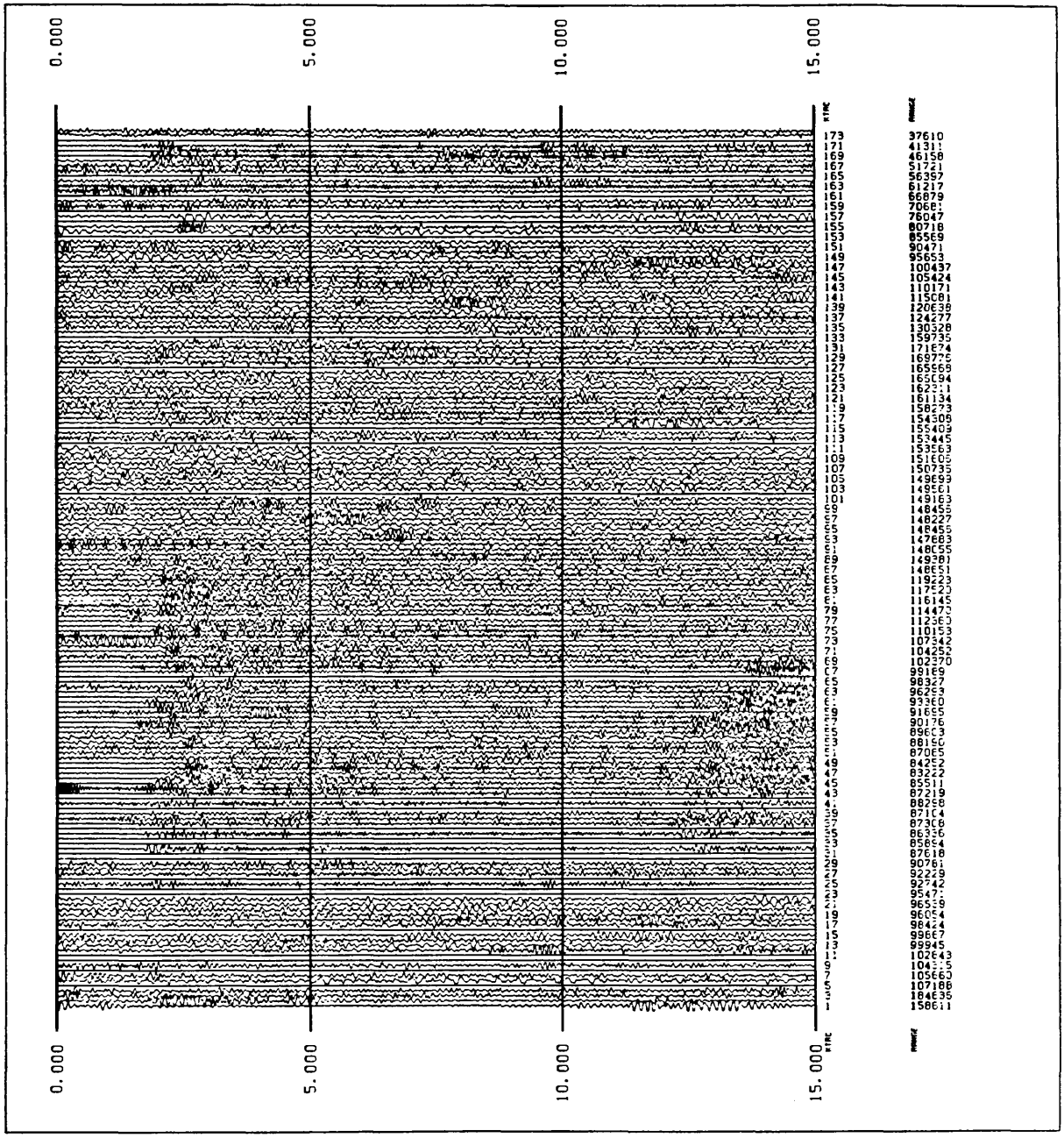

FIGURE A093) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #093 CAT 3188347 94:287:02:16 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

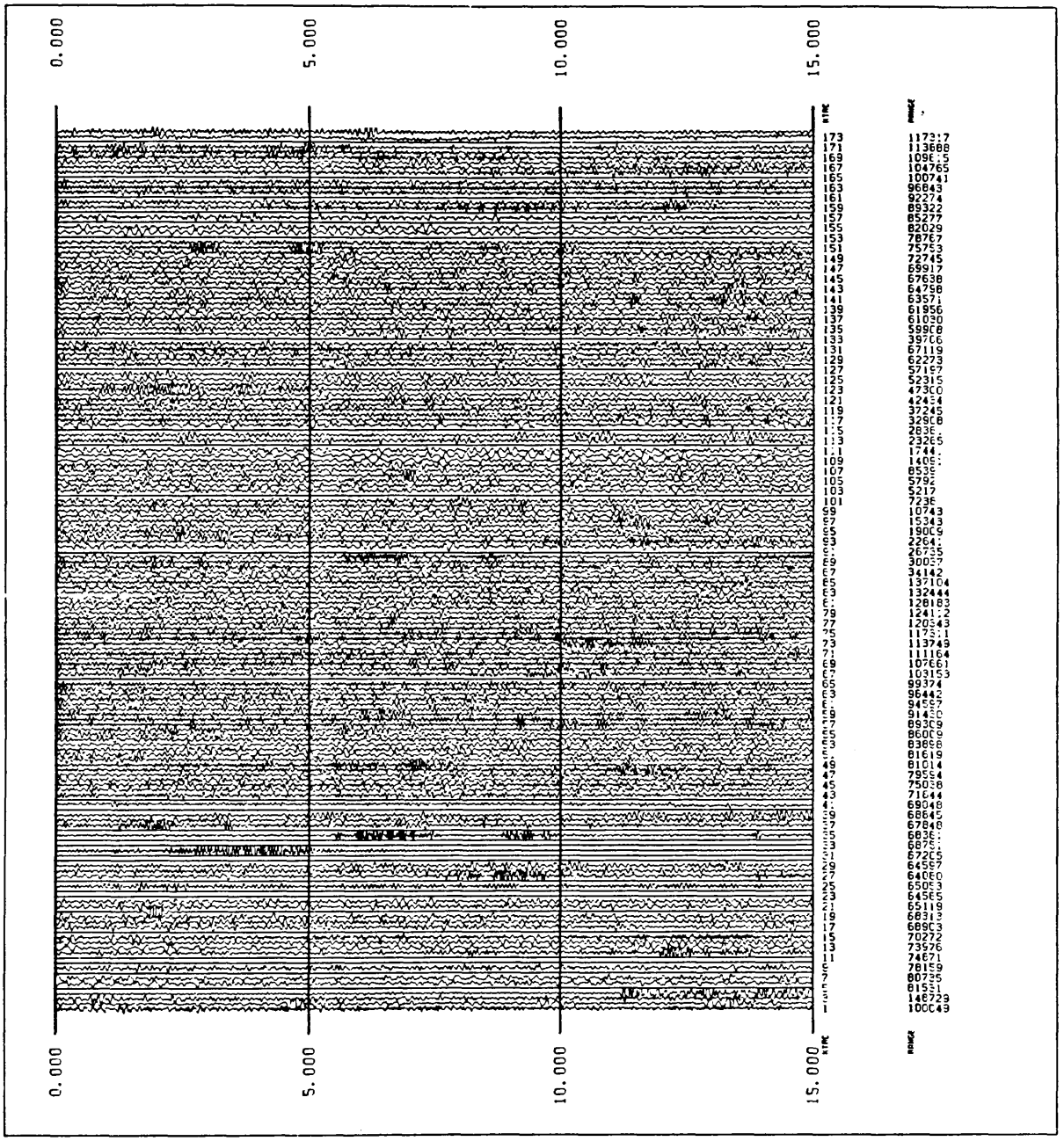

FIGURE A094) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #094 CAT 3188349 94:287:02:45 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

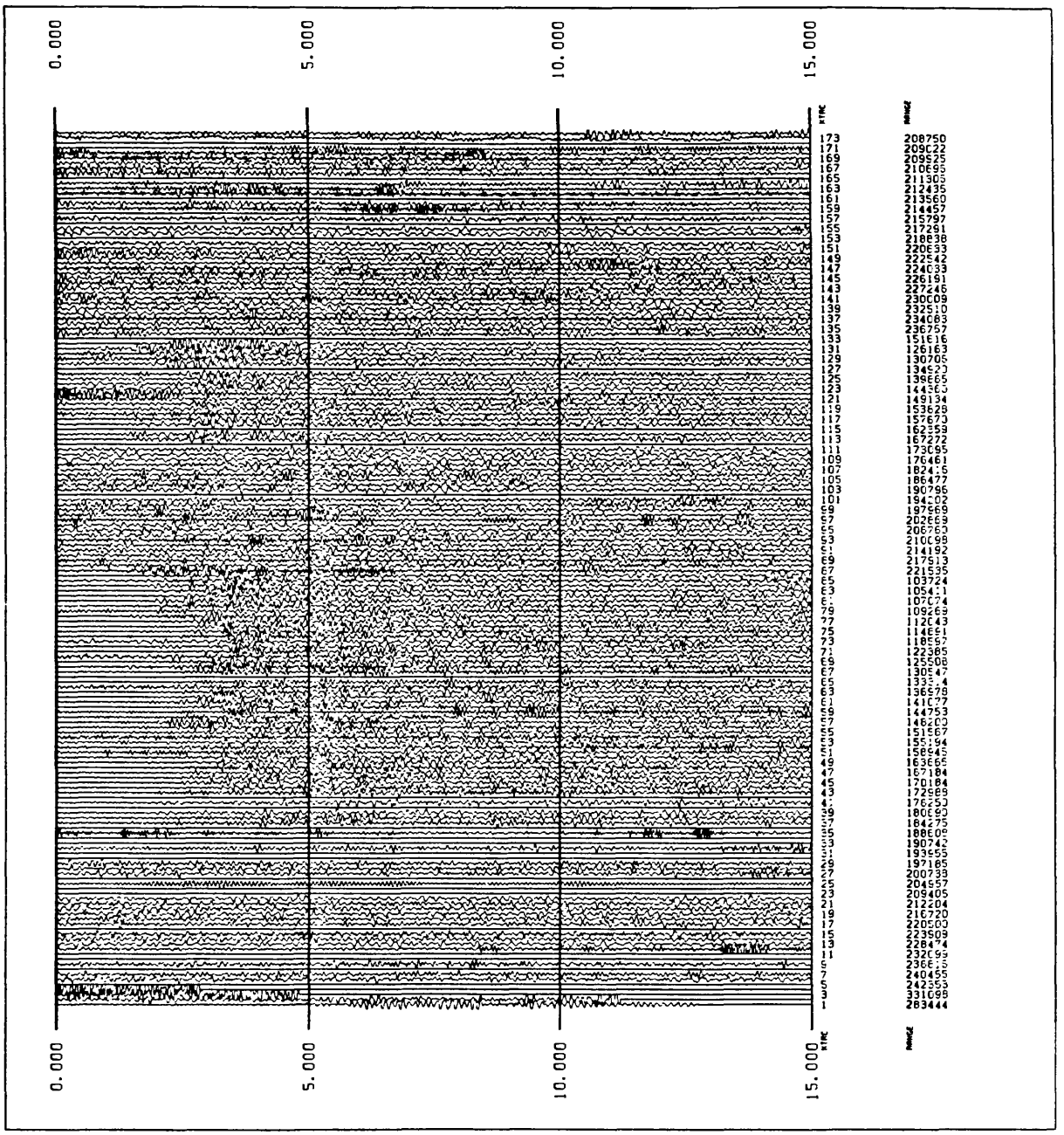

FIGURE A095) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #095 CAT 3188352 94:287:03:24 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

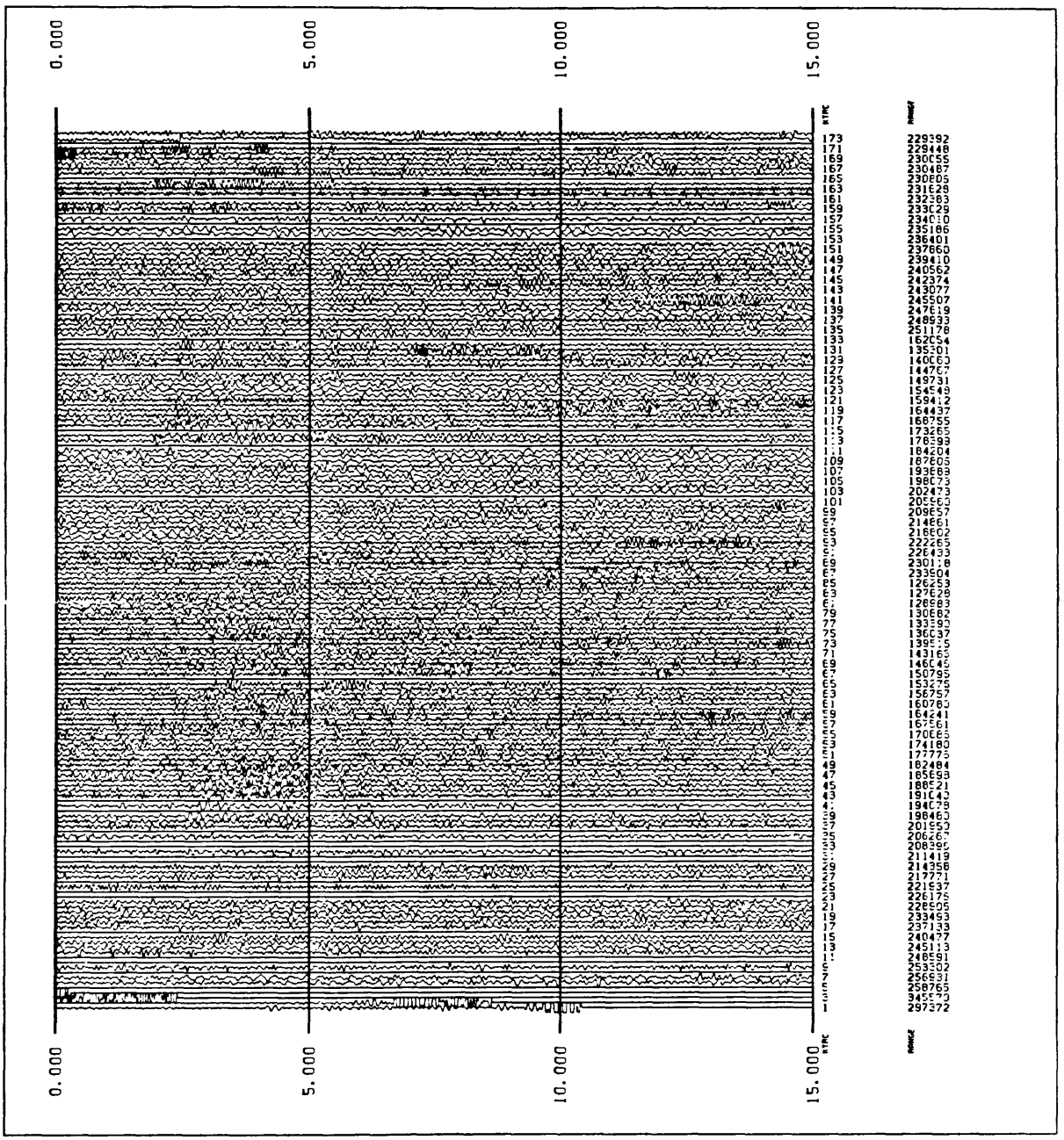

FIGURE A096) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #096 CAT 3188356 94:287:05:00 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

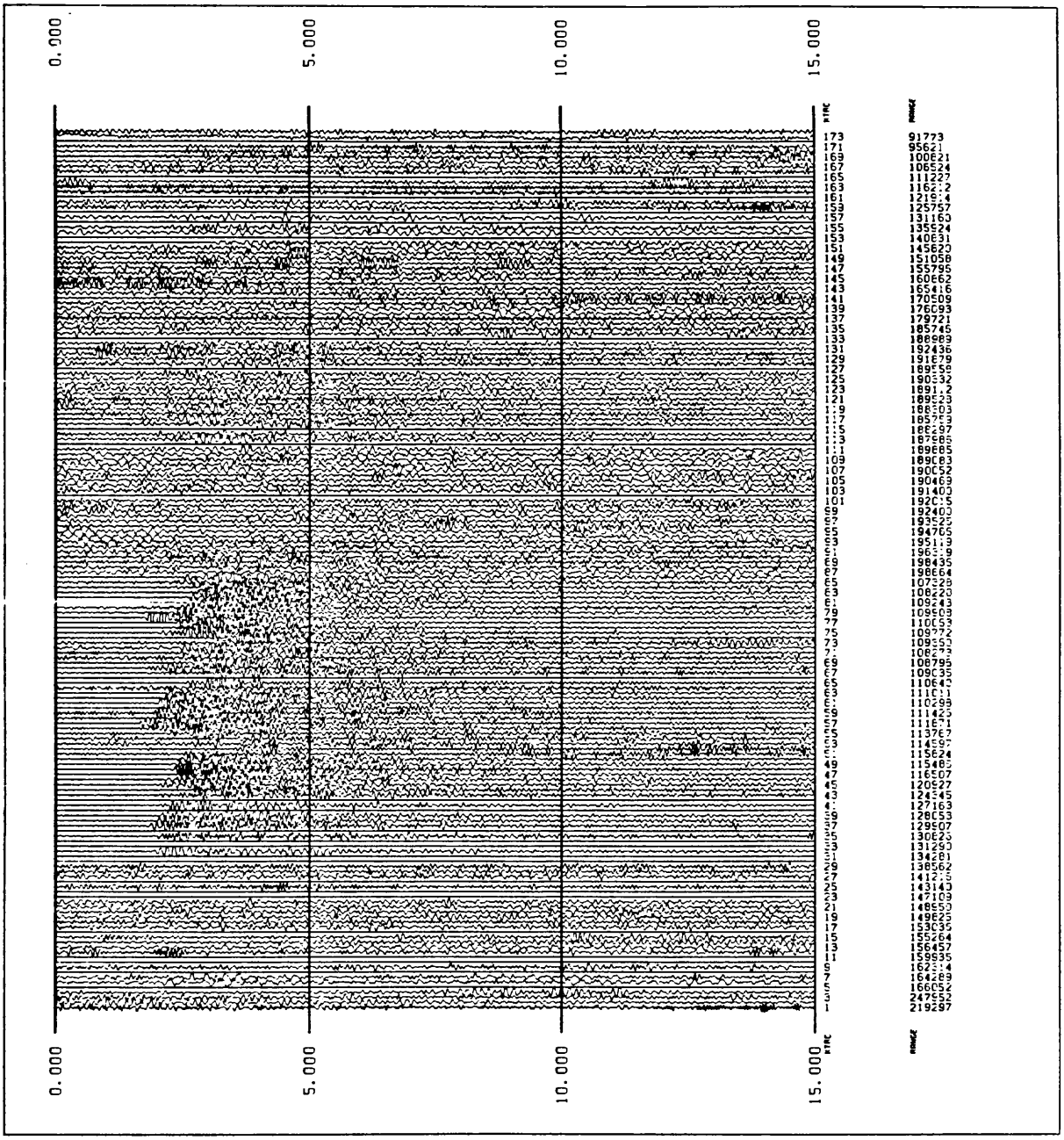

FIGURE A097) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #097 CAT 3188357 94:287:05:08 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

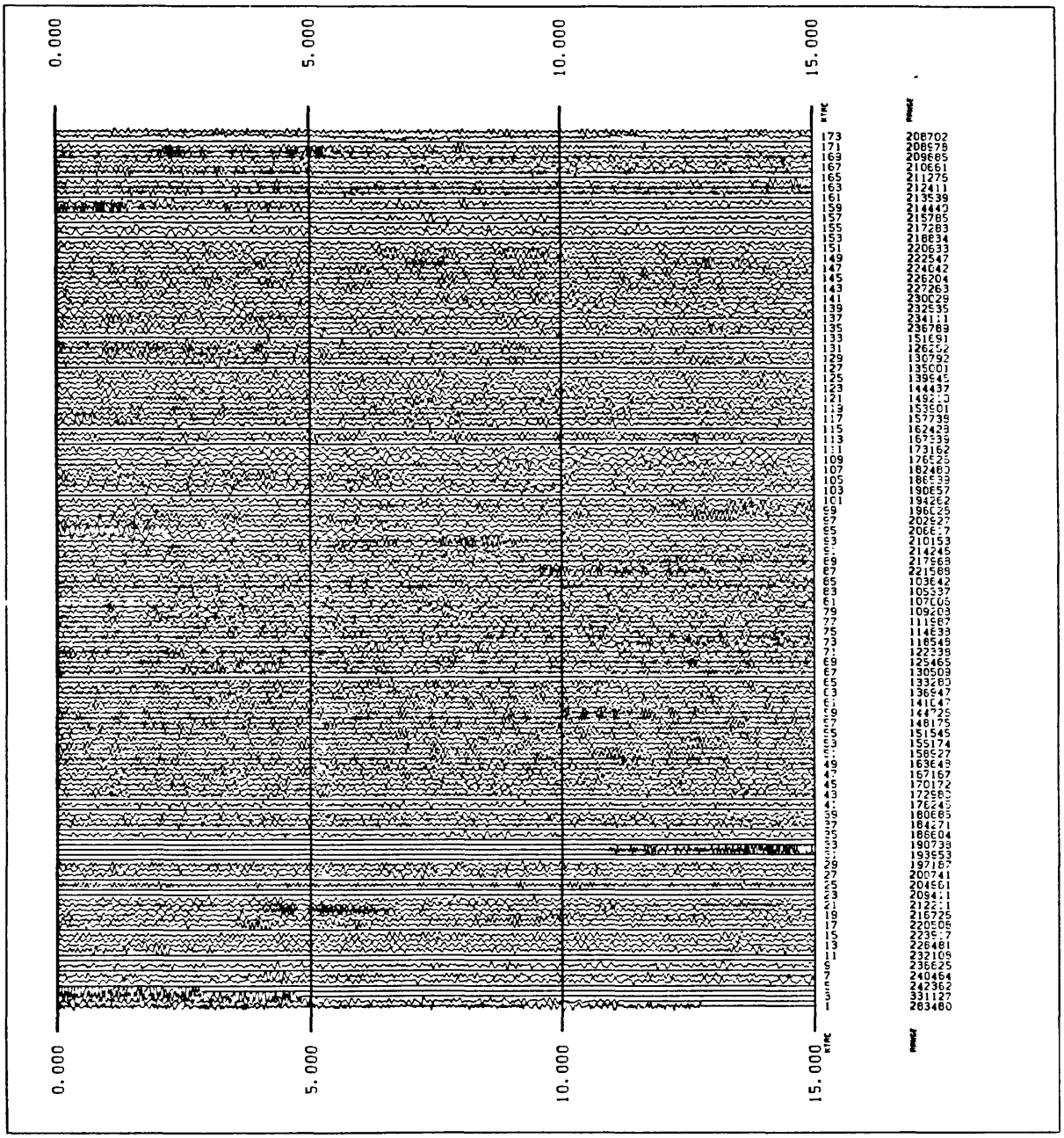

FIGURE A098) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #098 CAT 3188358 94:287:05:17 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

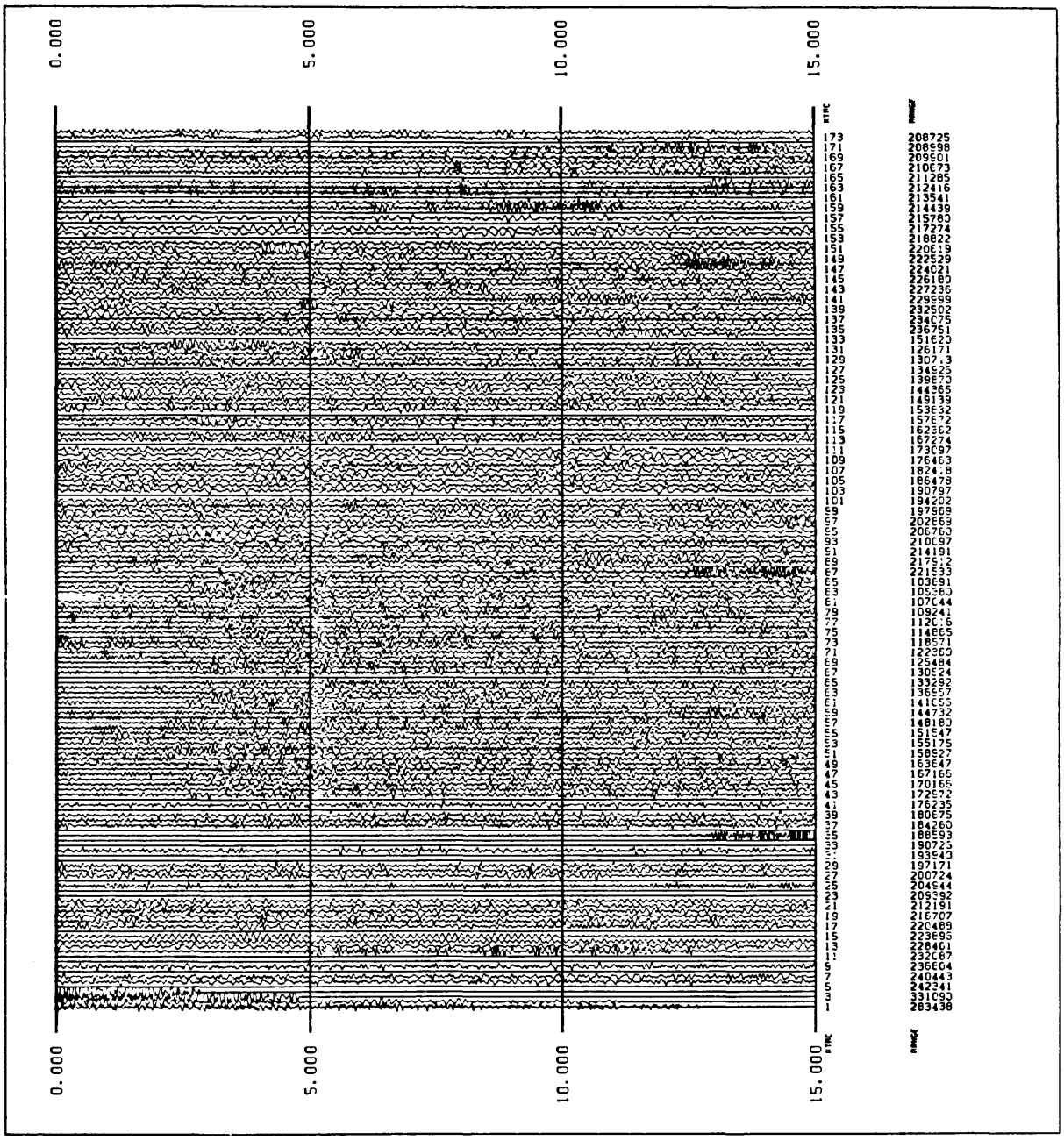

FIGURE A099) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #099 CAT 3188360 94:287:05:25 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

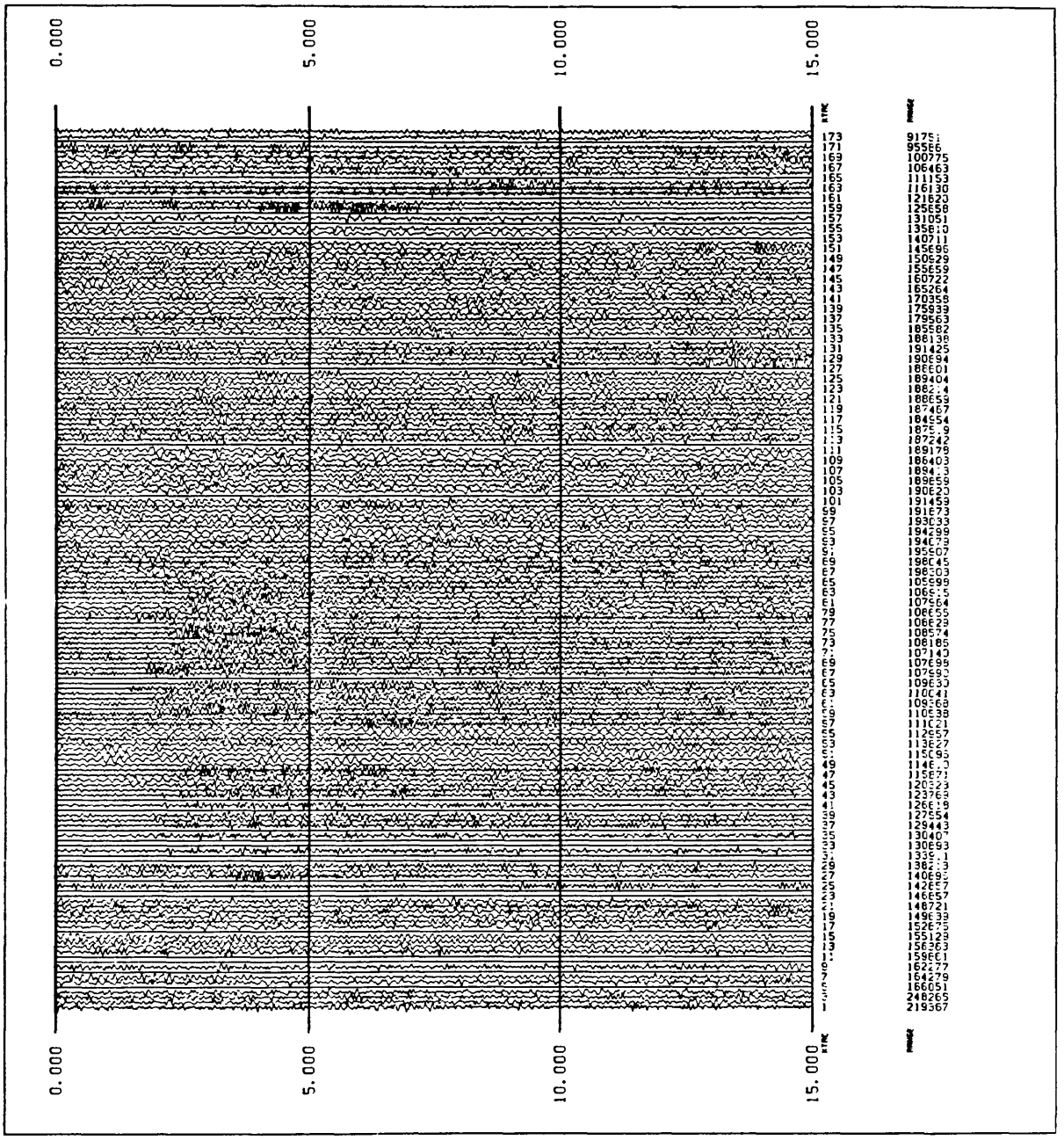

FIGURE A100) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #100 CAT 3188363 94:287:06:13 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

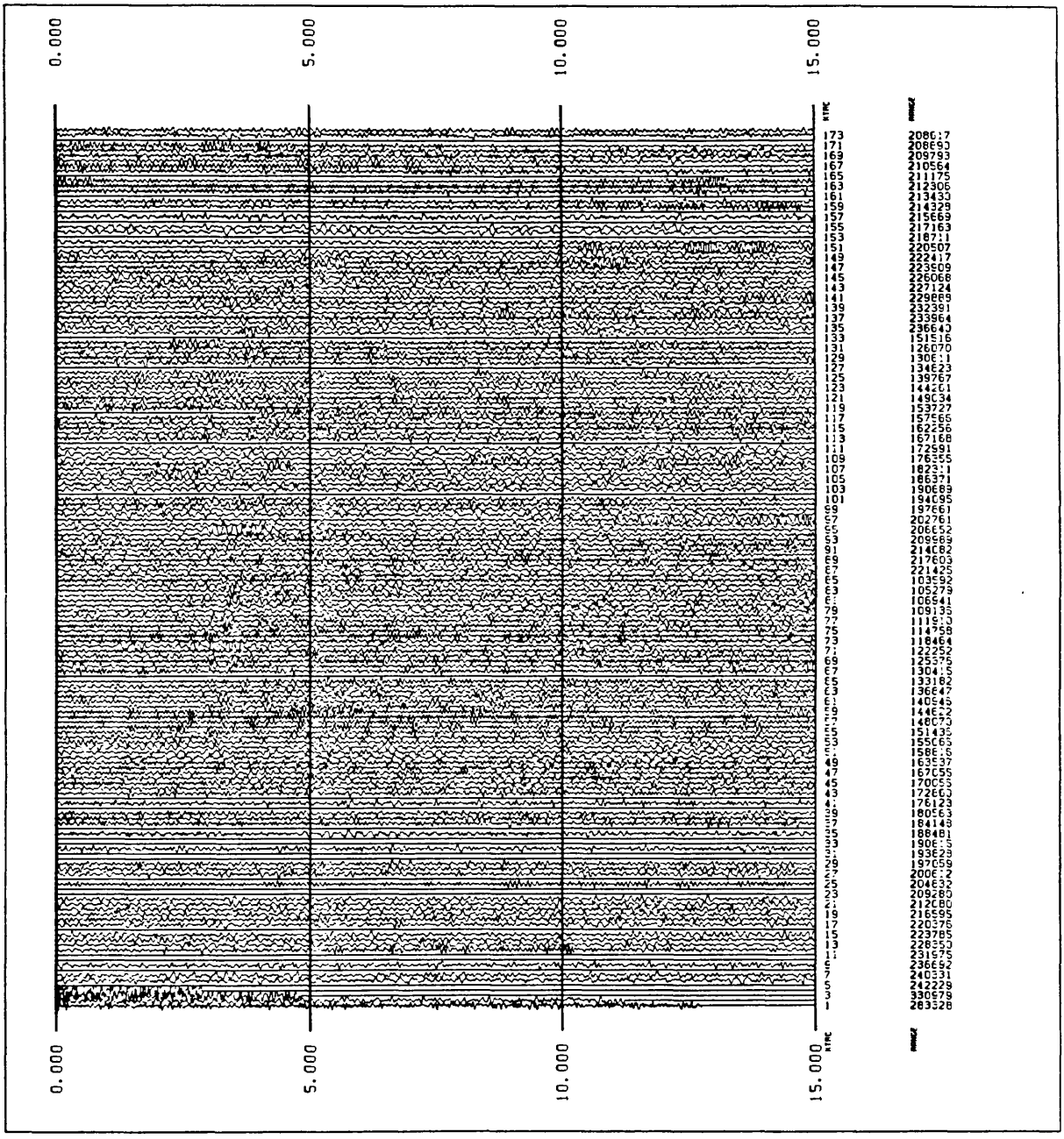

FIGURE A101) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #101 CAT 3188364 94:287:06:35 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

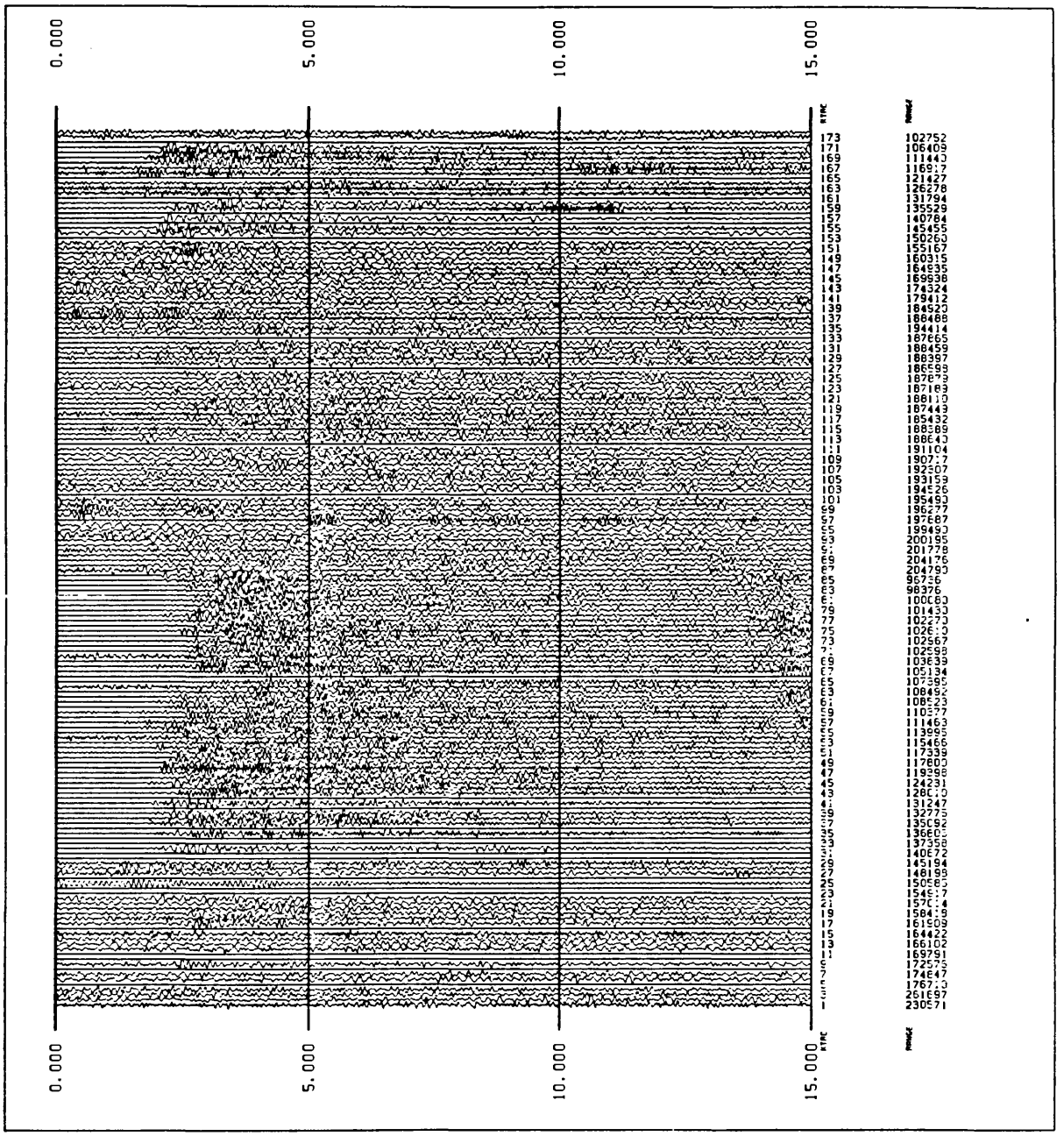

FIGURE A102) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #102 CAT 3188365 94:287:06:45 MAG 2.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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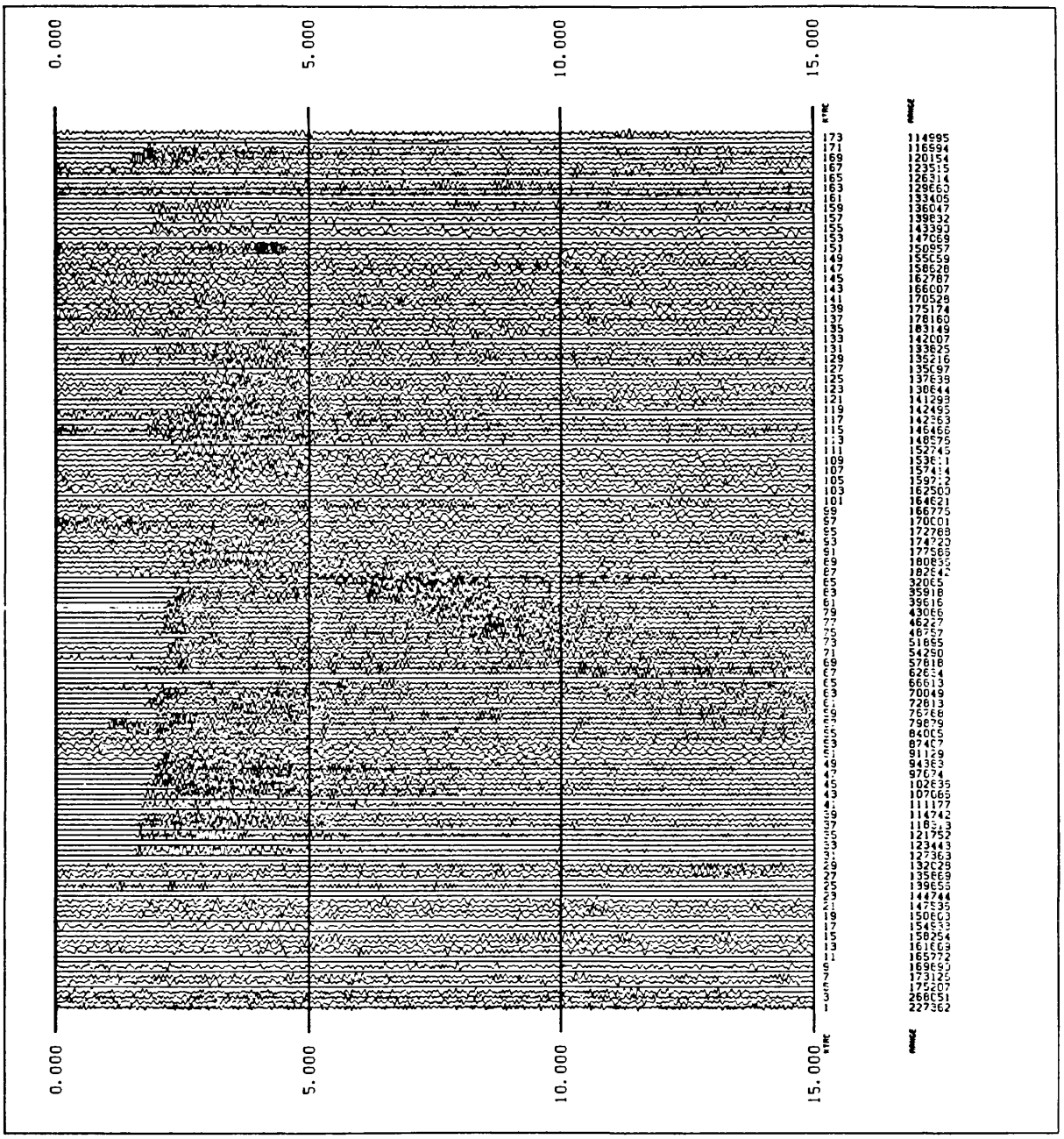

FIGURE A103) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #103 CAT 3188366 94:287:06:55 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

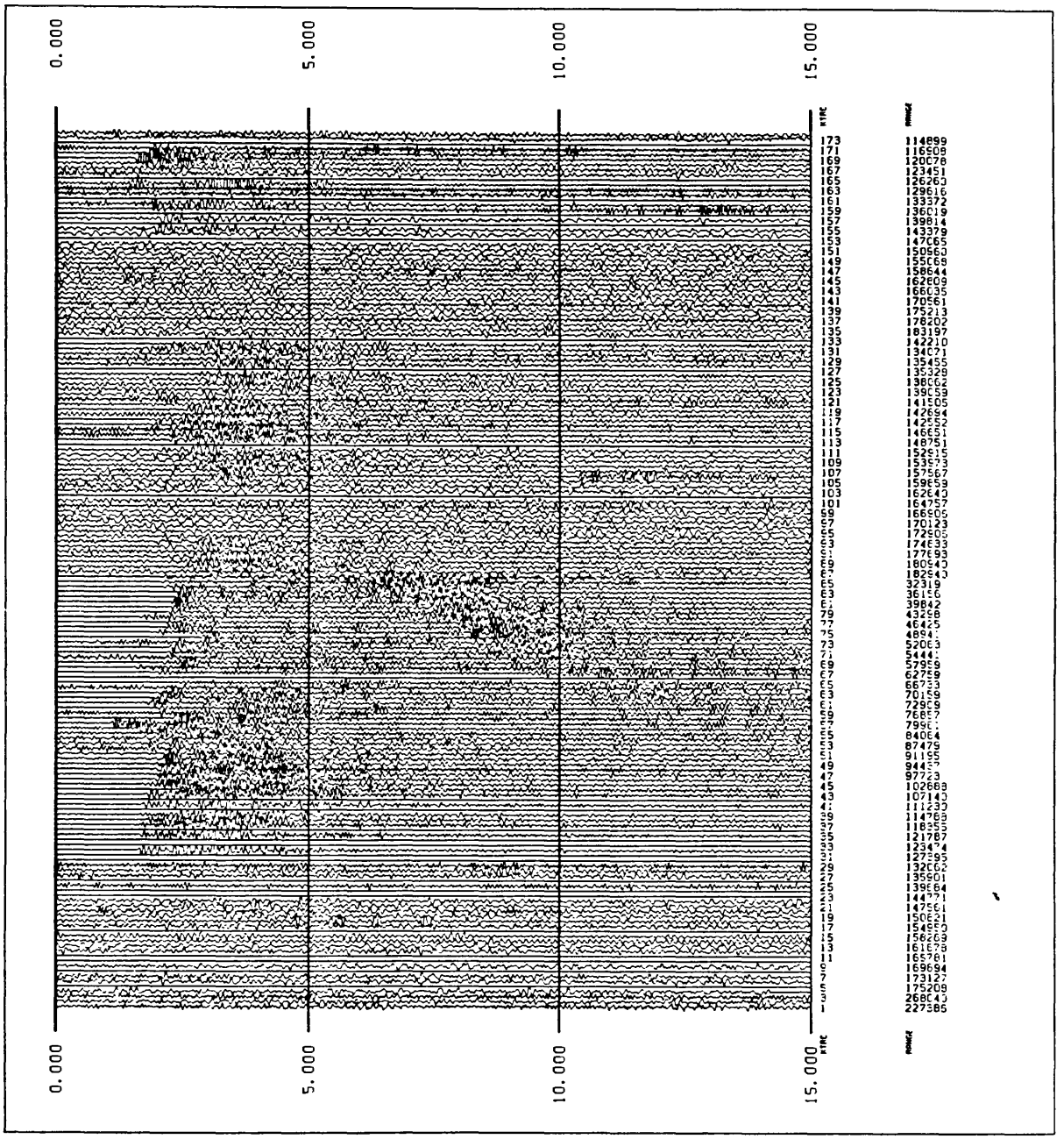

FIGURE A104) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #104 CAT 3188367 94:287:06:56 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

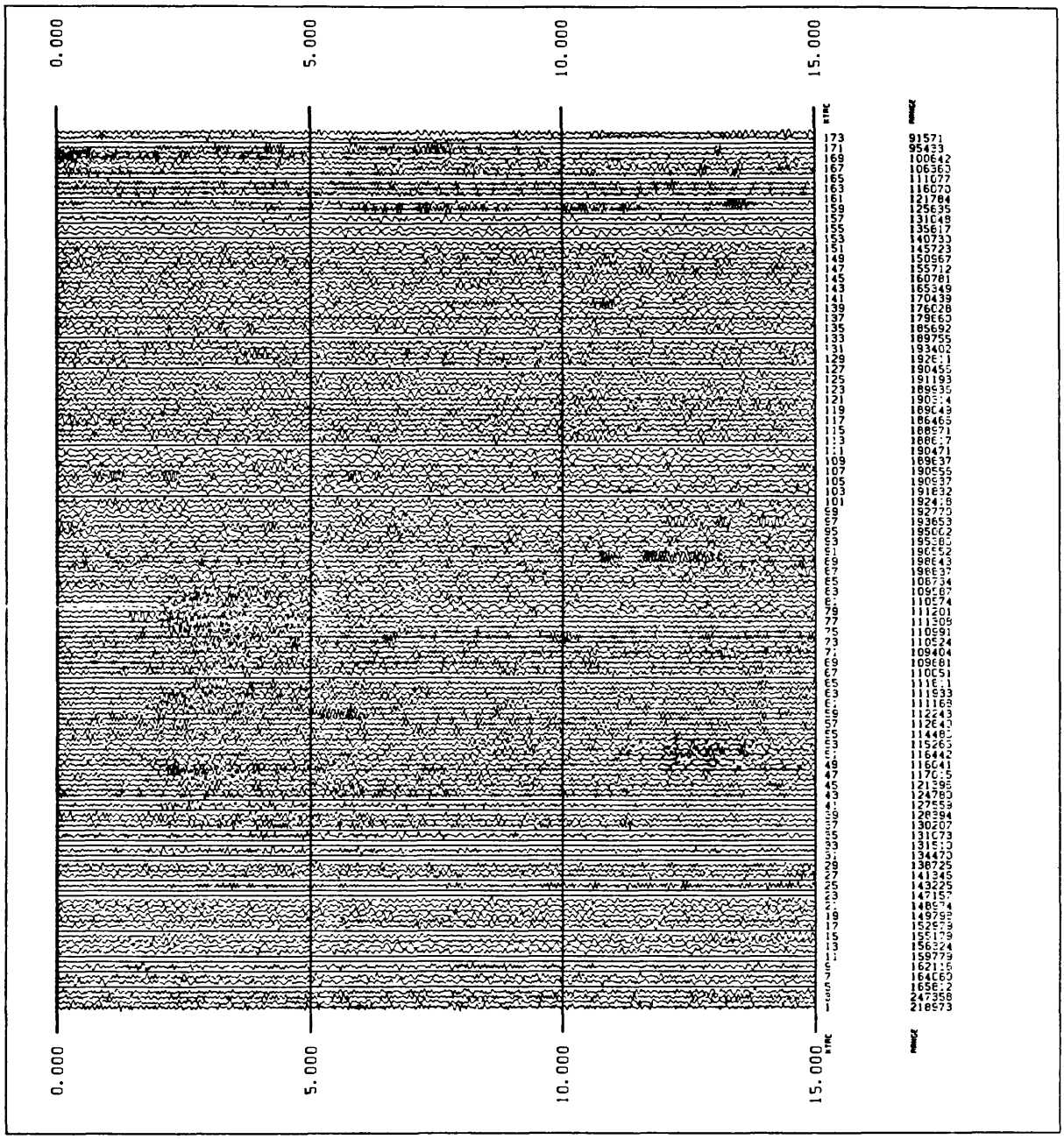

FIGURE A105) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #105 CAT 3188368 94:287:07:02 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

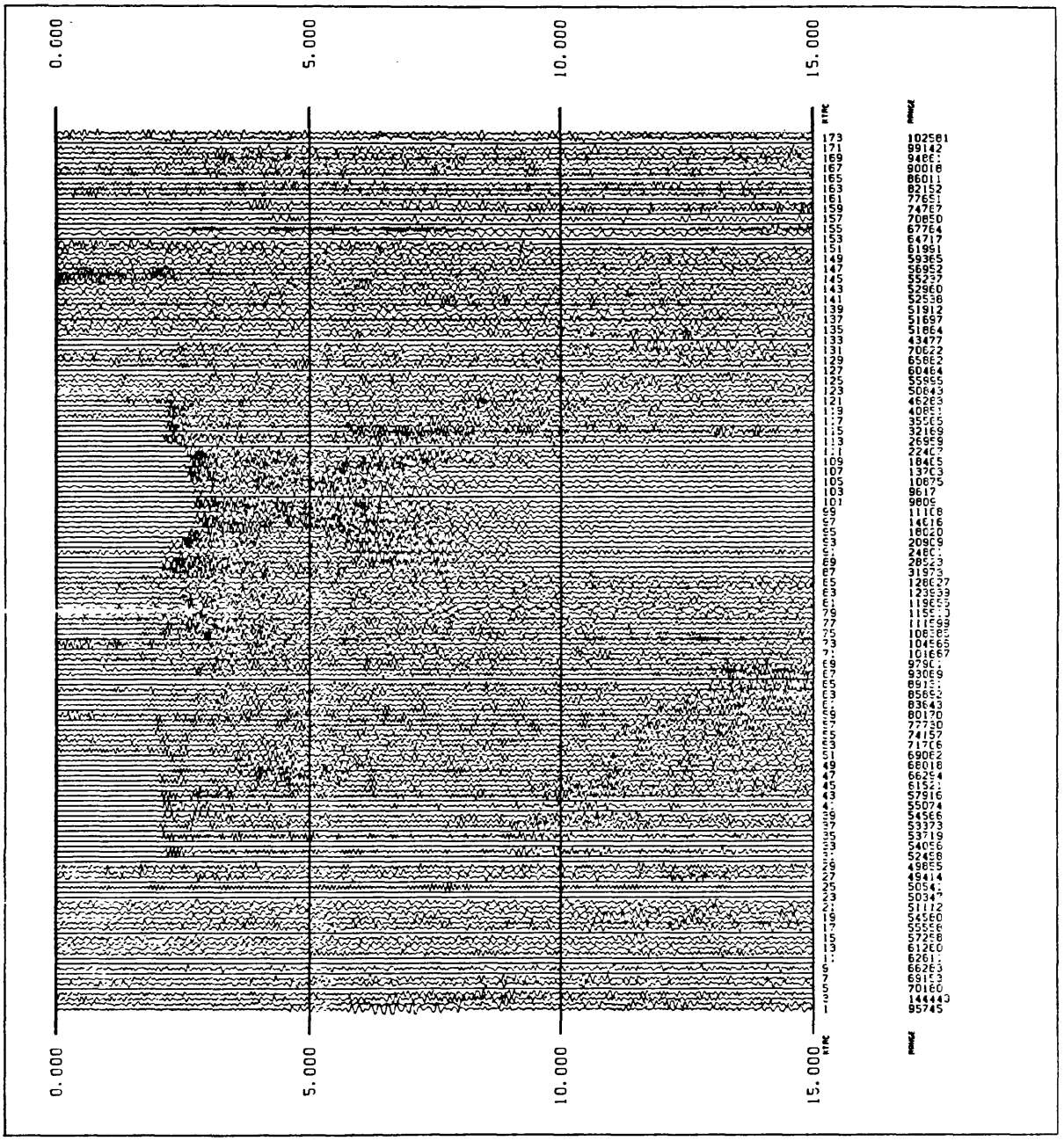

FIGURE A106) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #106 CAT 3188370 94:287:07:38 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

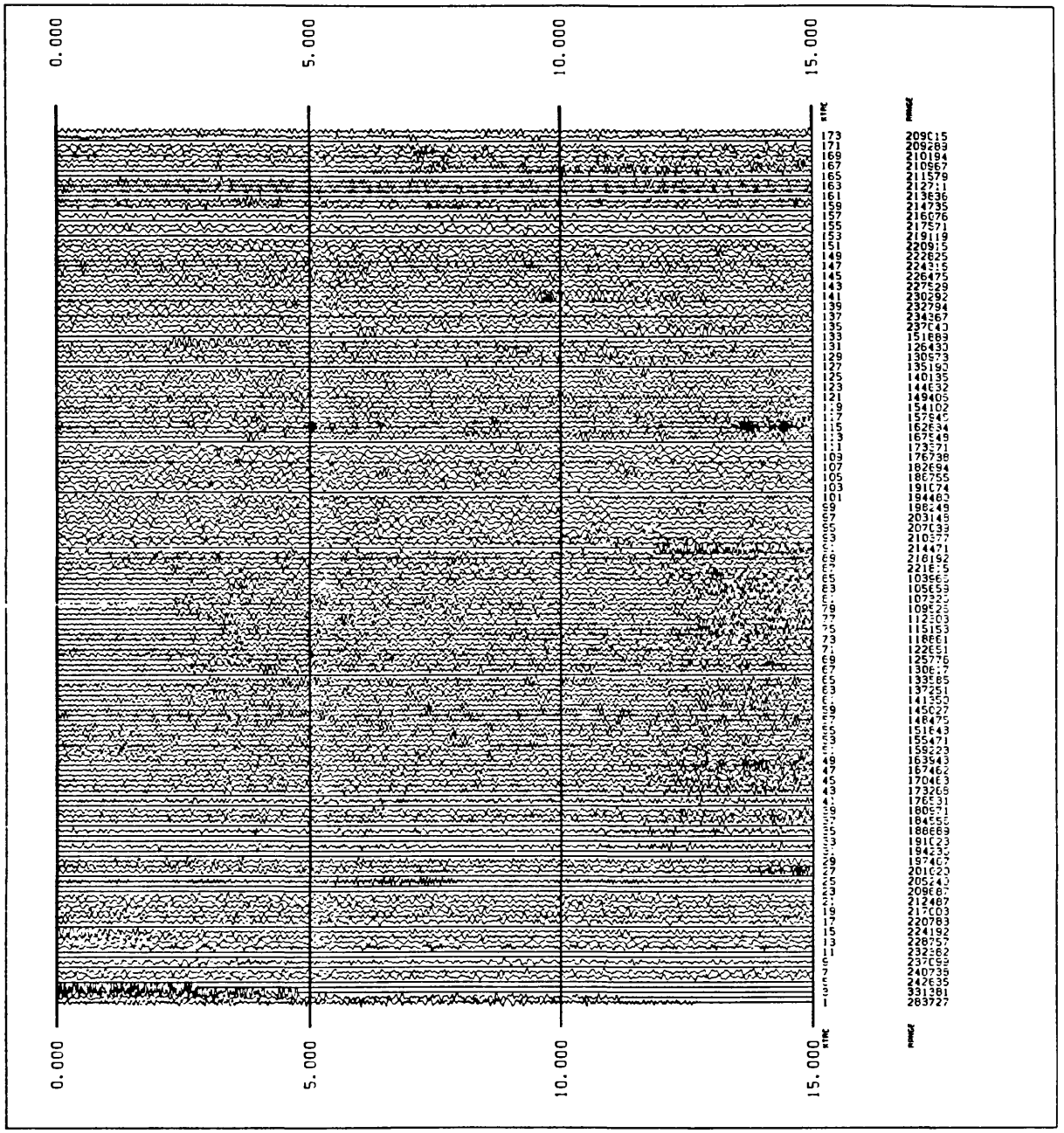

FIGURE A107) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #107 CAT 3188378 94:287:09:48 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

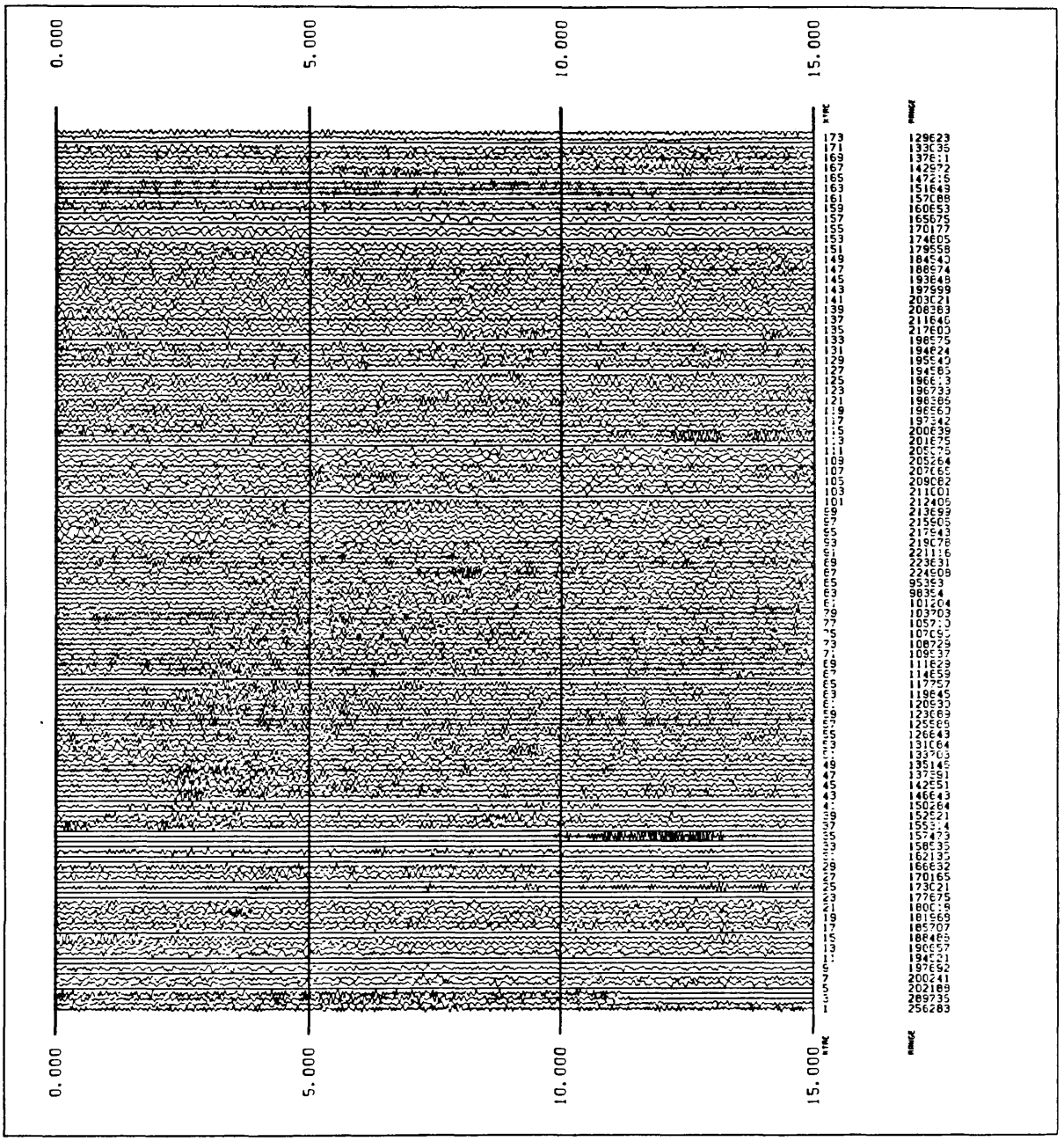

FIGURE A108) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #108 CAT 3188380 94:287:10:07 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

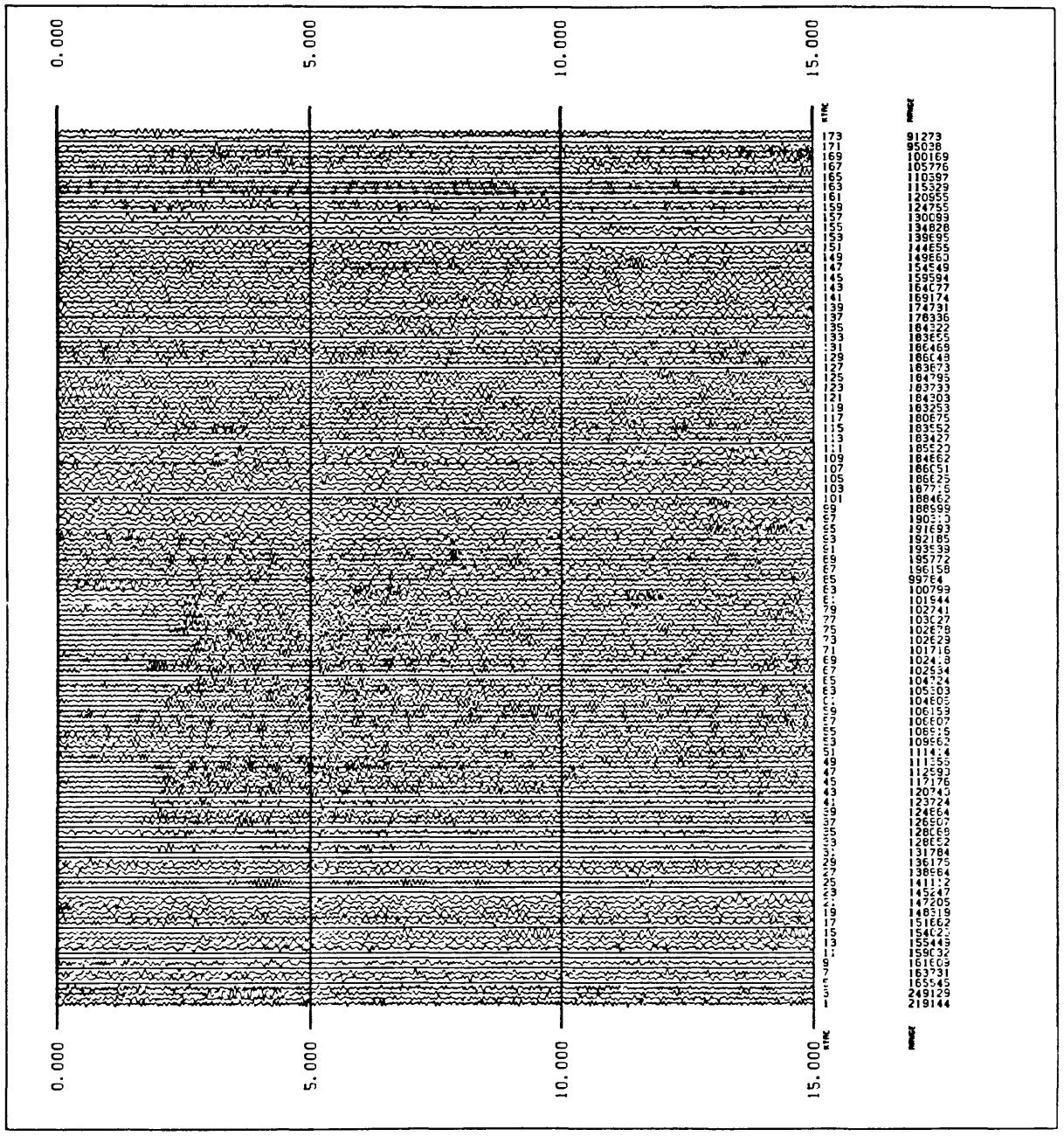

FIGURE A109) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #109 CAT 3188382 94:287:10:18 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

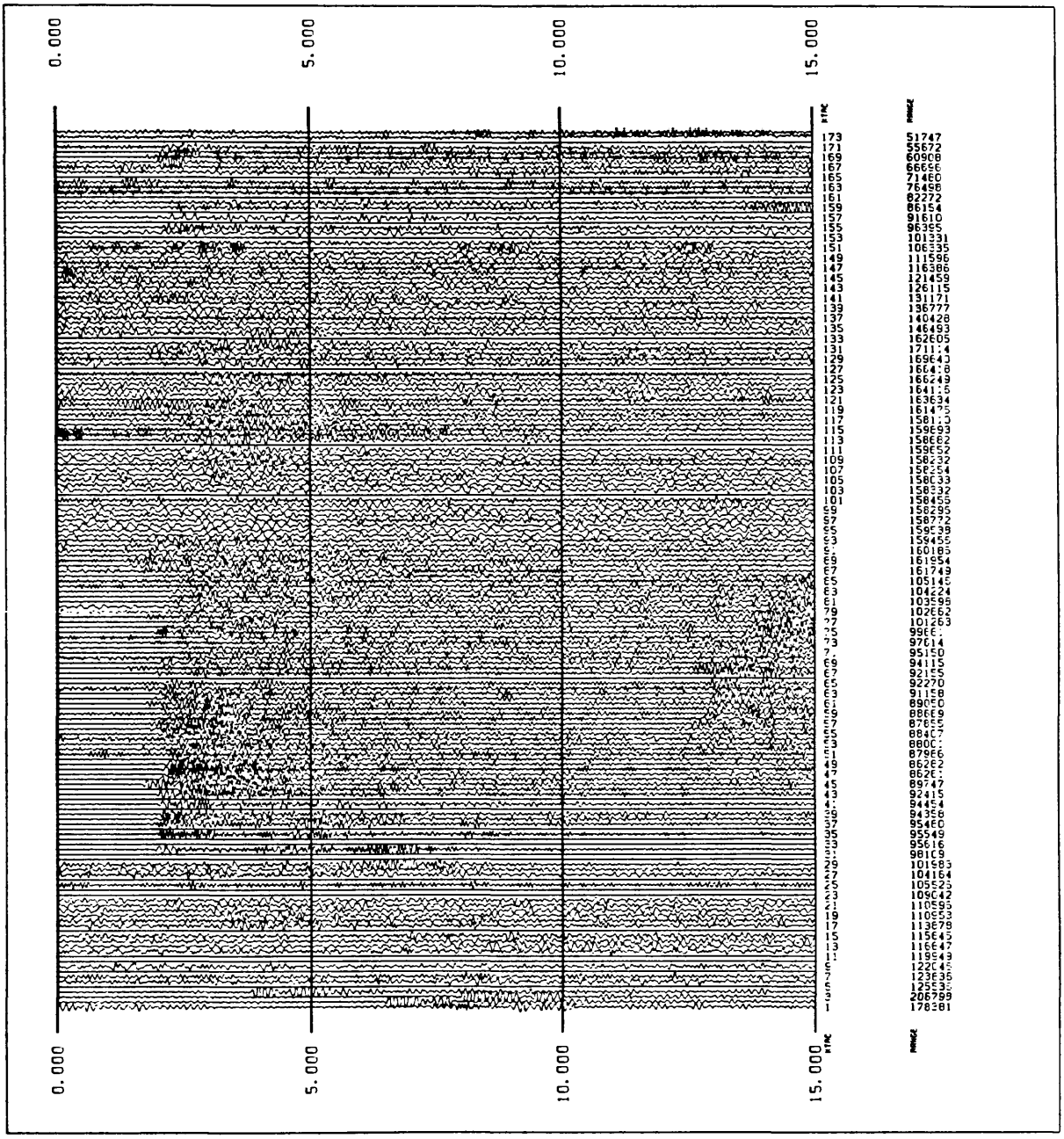

FIGURE A110) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #110 CAT 3188386 94:287:11:57 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

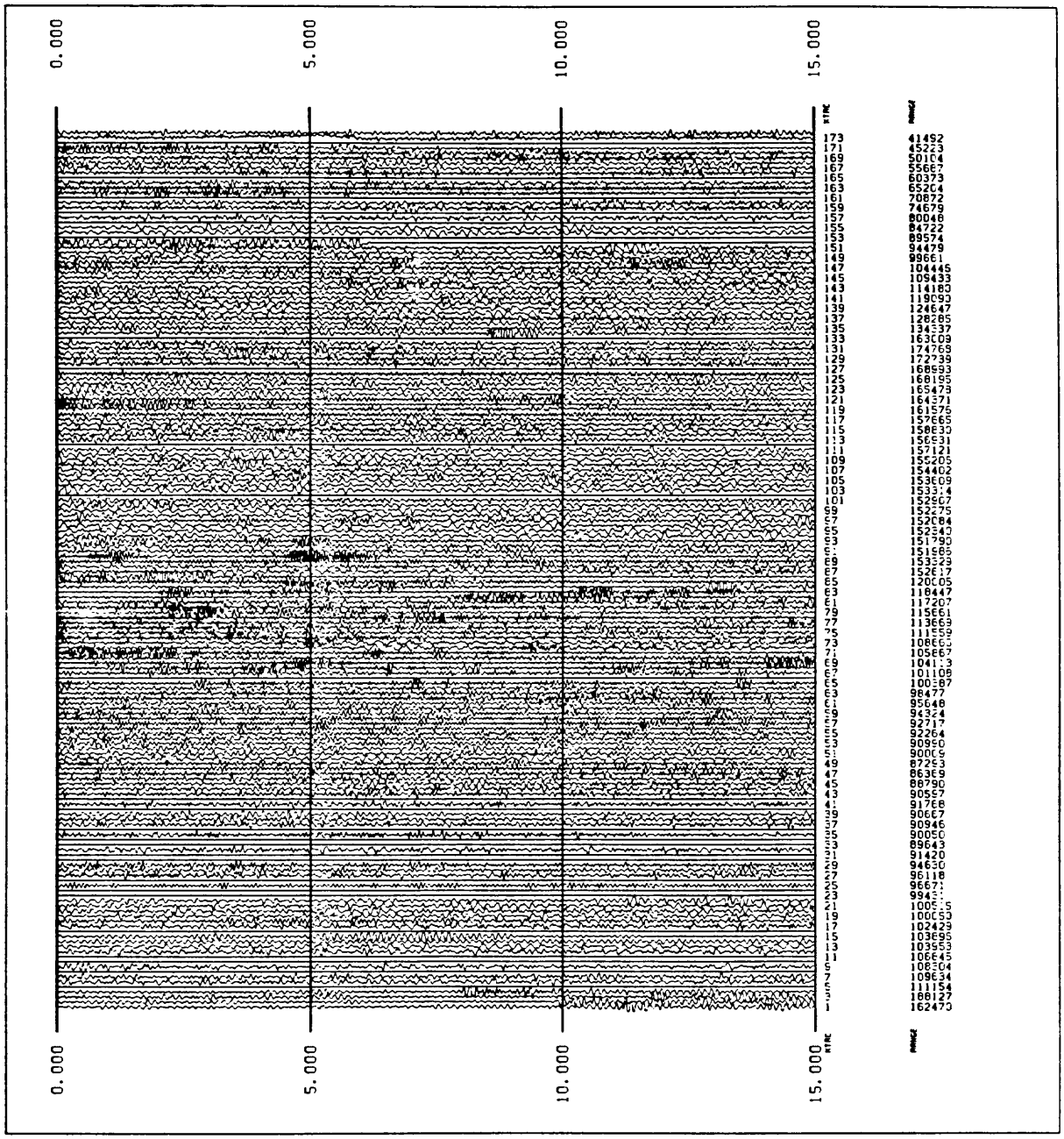

FIGURE A111) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #111 CAT 3188388 94:287:12:58 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

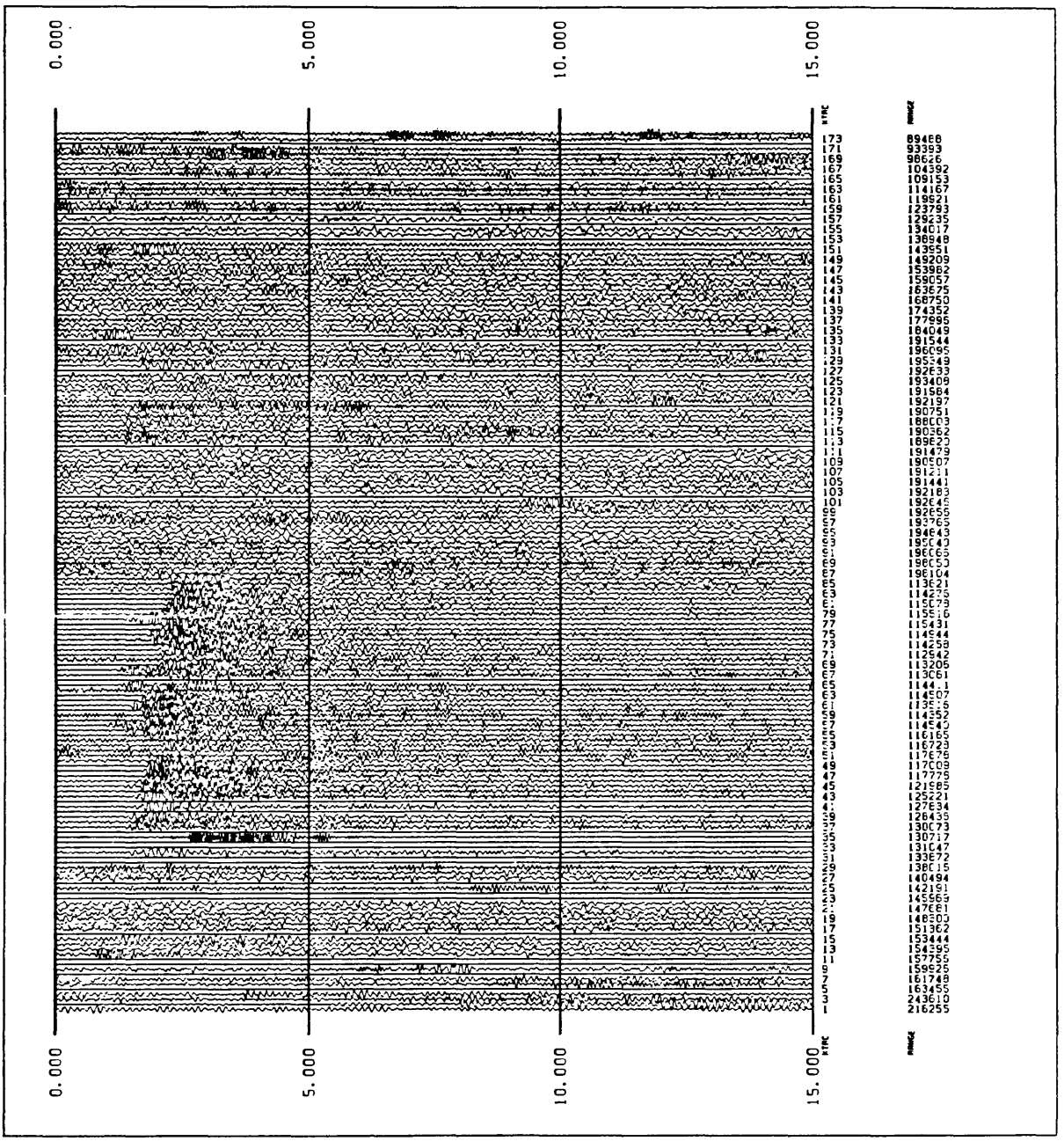

FIGURE A112) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #112 CAT 3188389 94:287:13:25 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

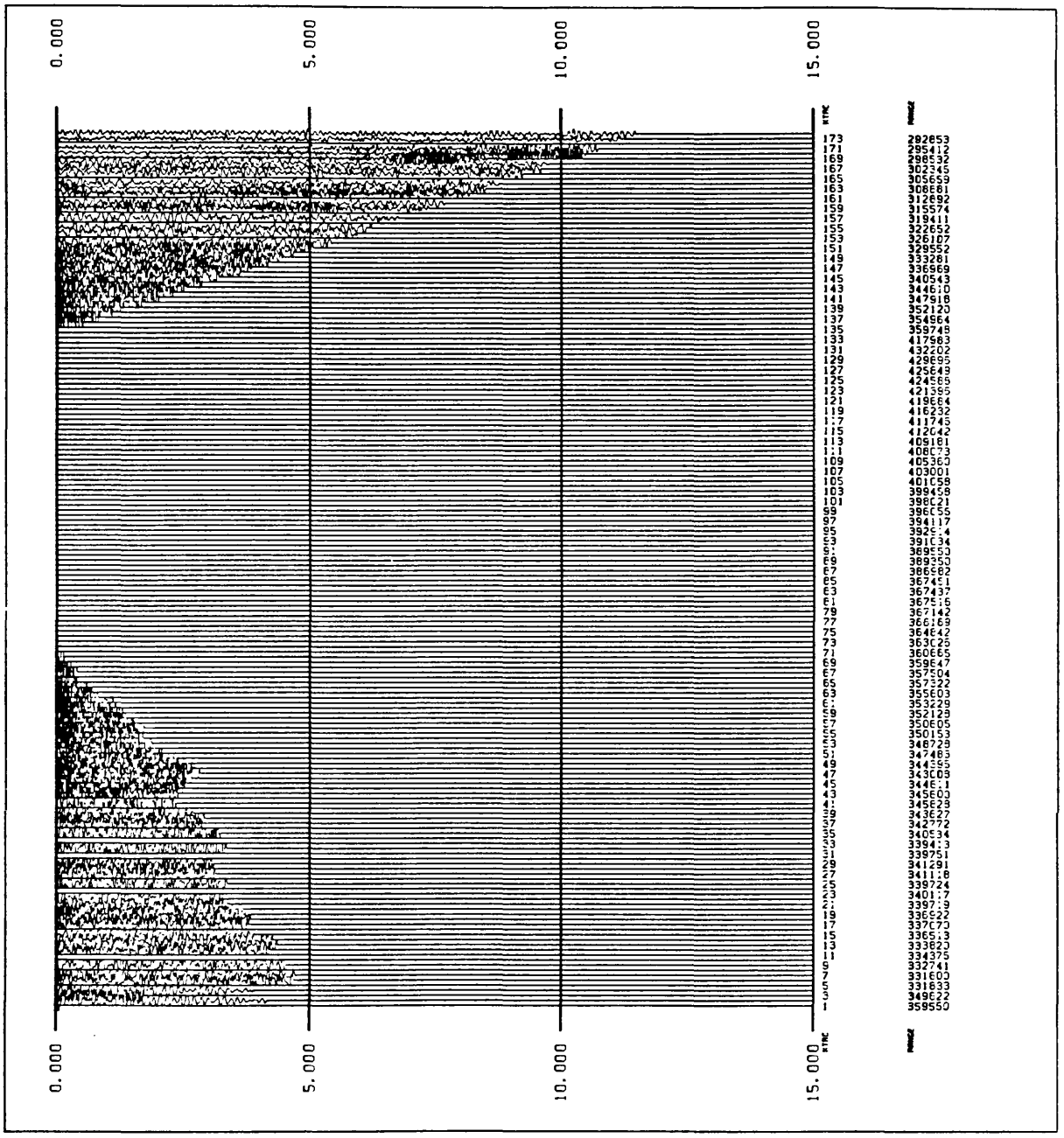

FIGURE A113) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #113 CAT 3188392 94:287:14:11 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

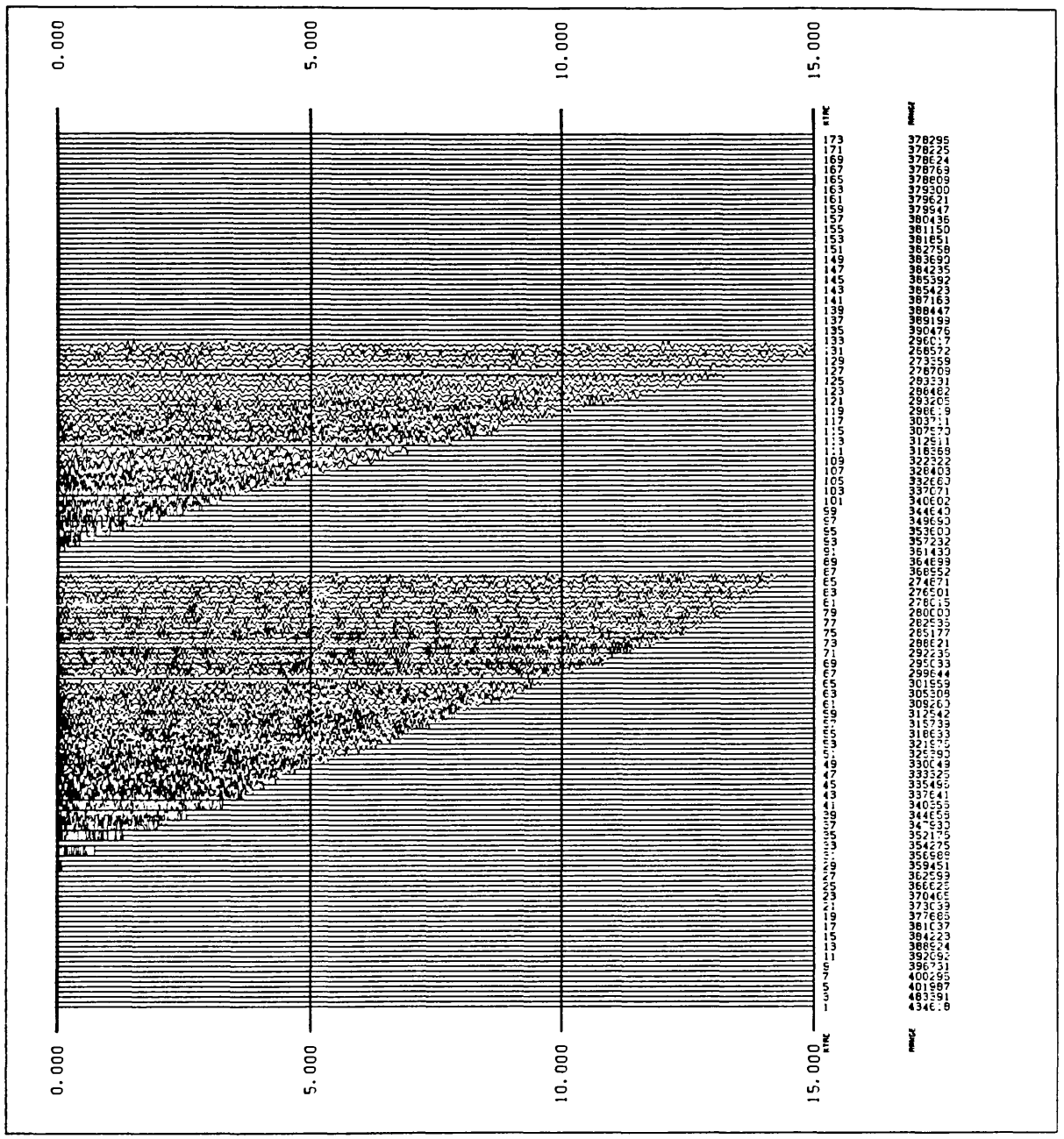

FIGURE A114) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #114 CAT 3188393 94:287:14:19 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

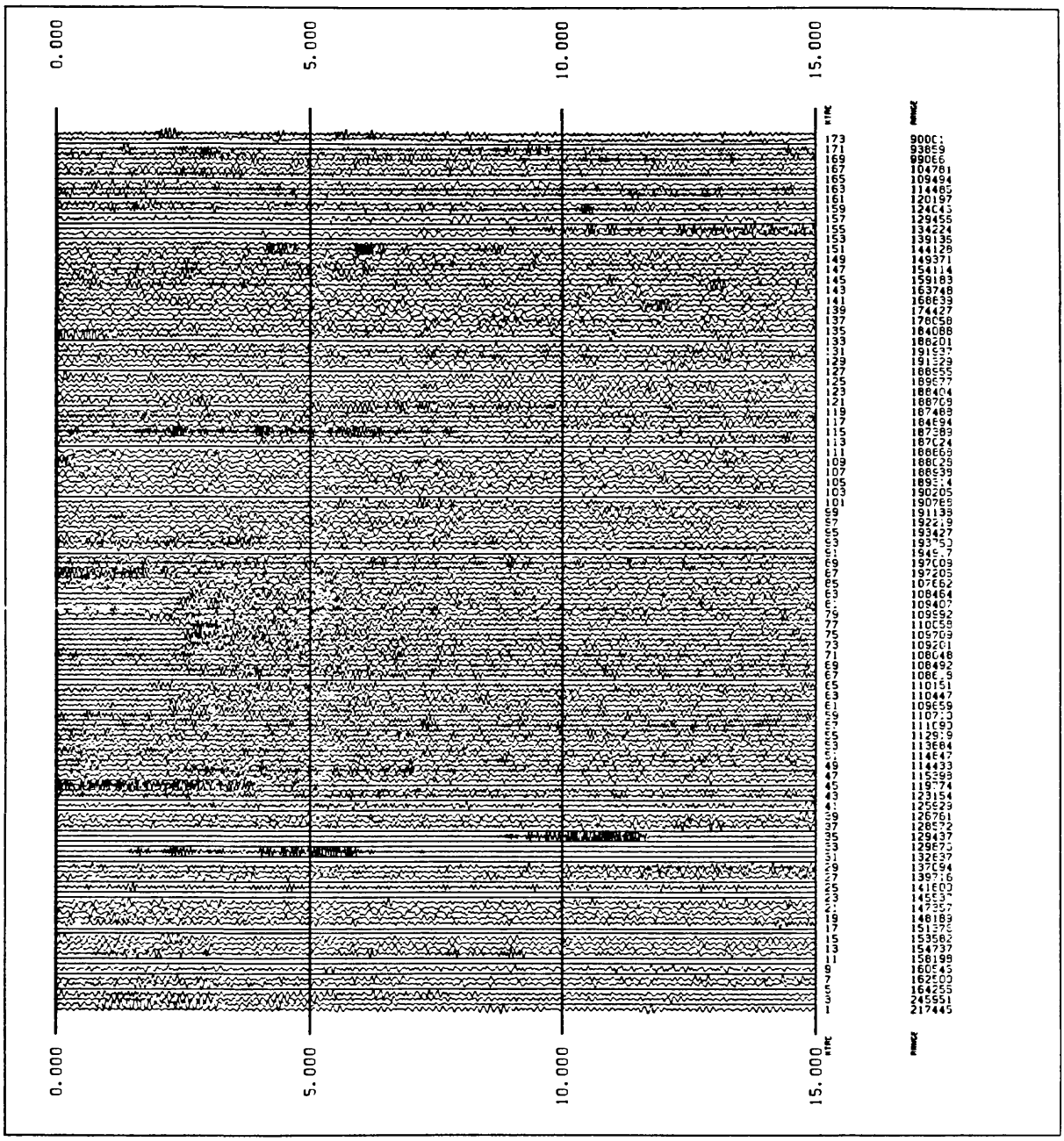

FIGURE A115) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #115 CAT 3188396 94:287:14:39 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

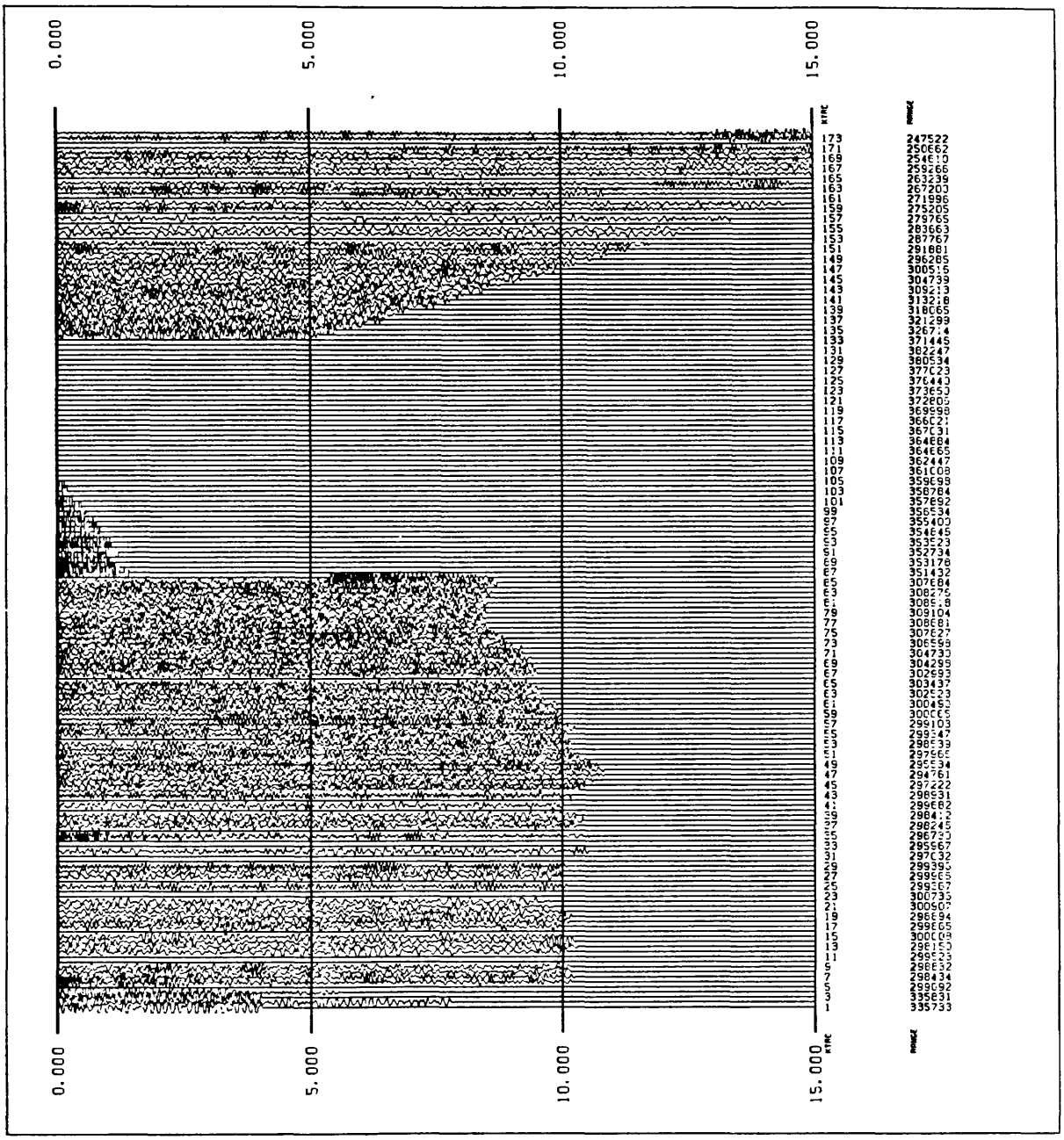

FIGURE A116) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #116 CAT 3188403 94:287:18:56 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

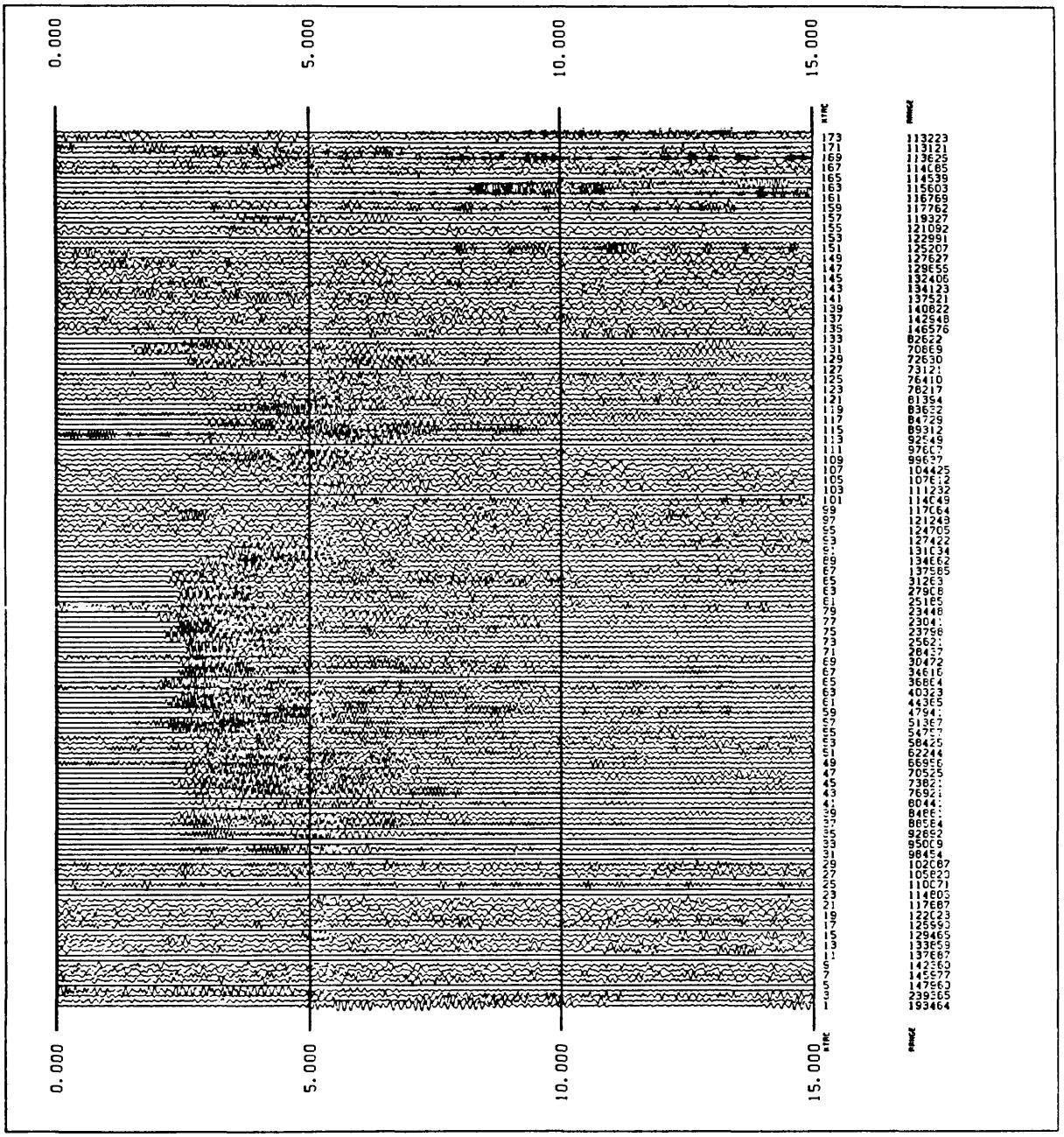

FIGURE A117) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #117 CAT 3188404 94:287:19:00 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

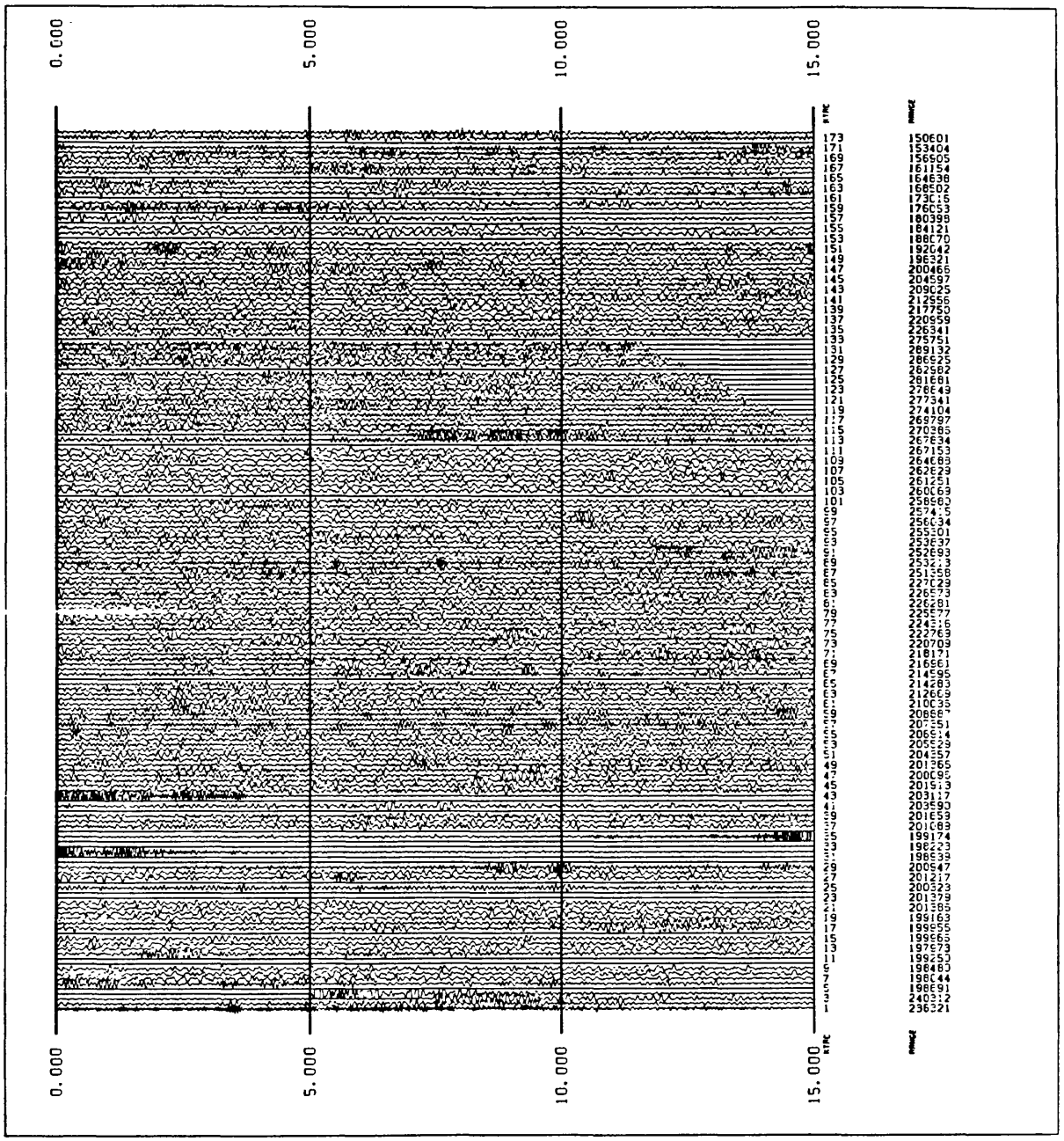

FIGURE A118) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #118 CAT 3188414 94:287:21:21 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

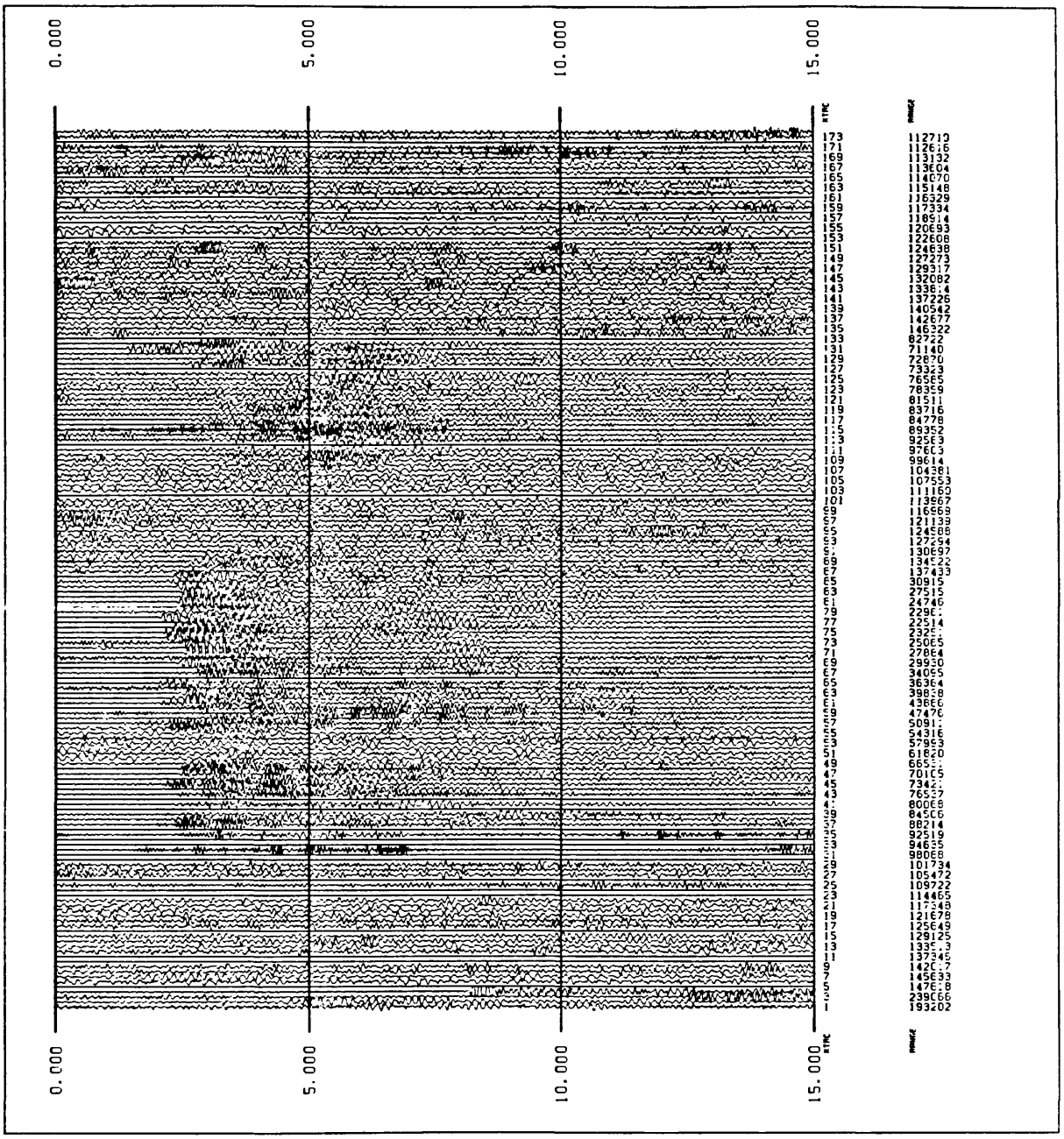

FIGURE A119) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #119 CAT 3188419 94:287:22:16 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

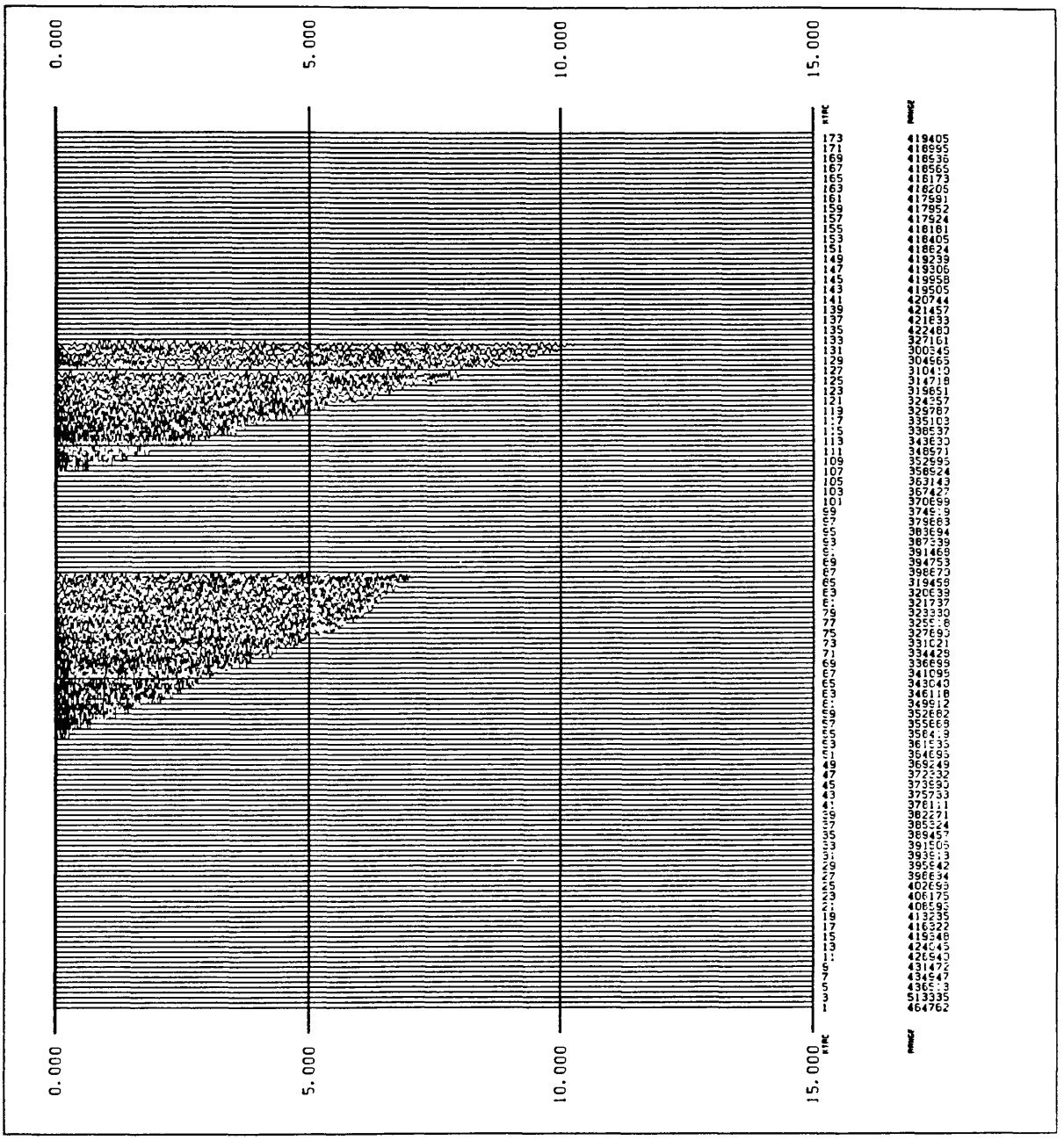

FIGURE A120) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #120 CAT 3188421 94:287:22:39 MAG 2.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

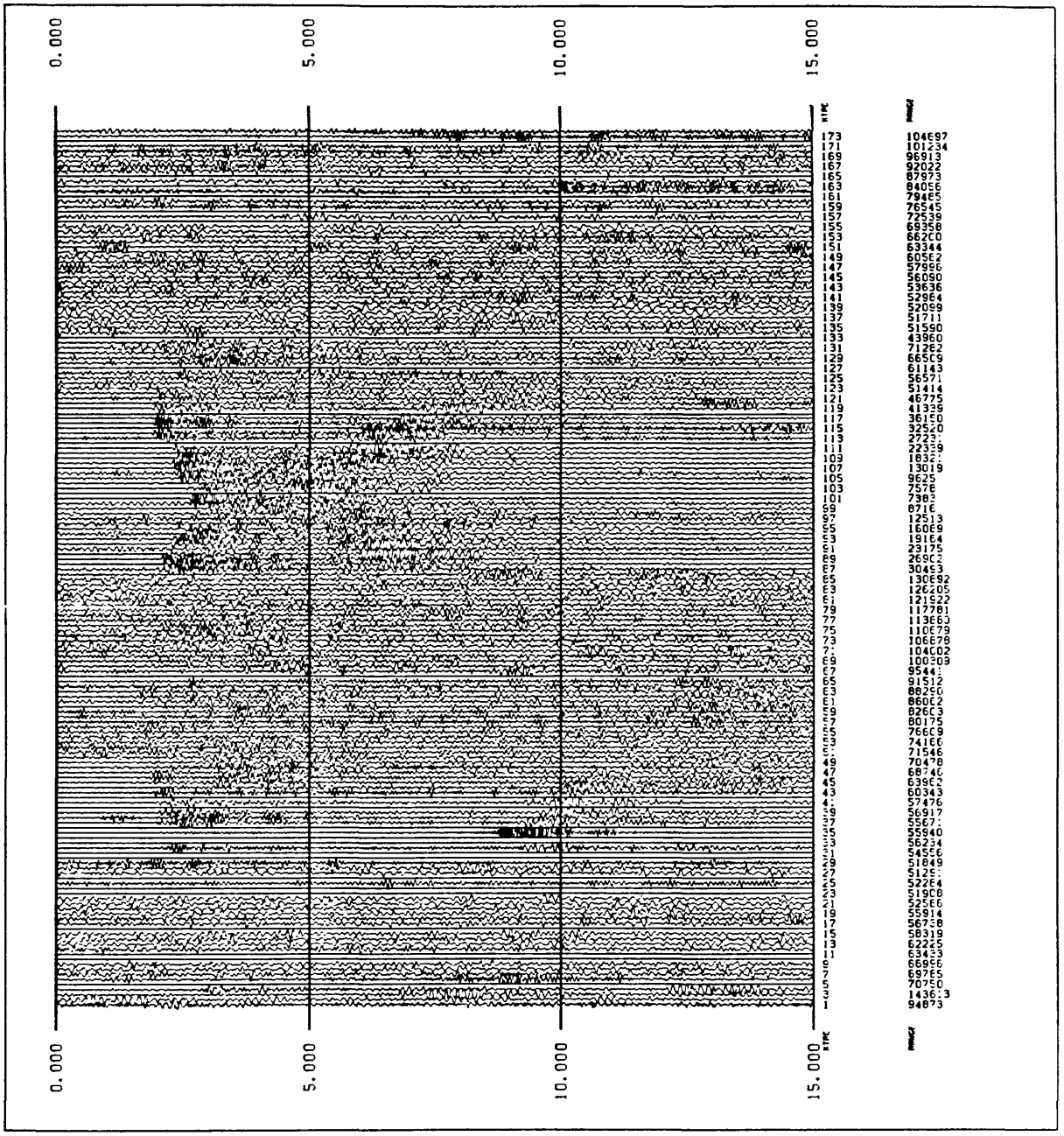

FIGURE A121) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #121 CAT 3188424 94:287:23:15 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

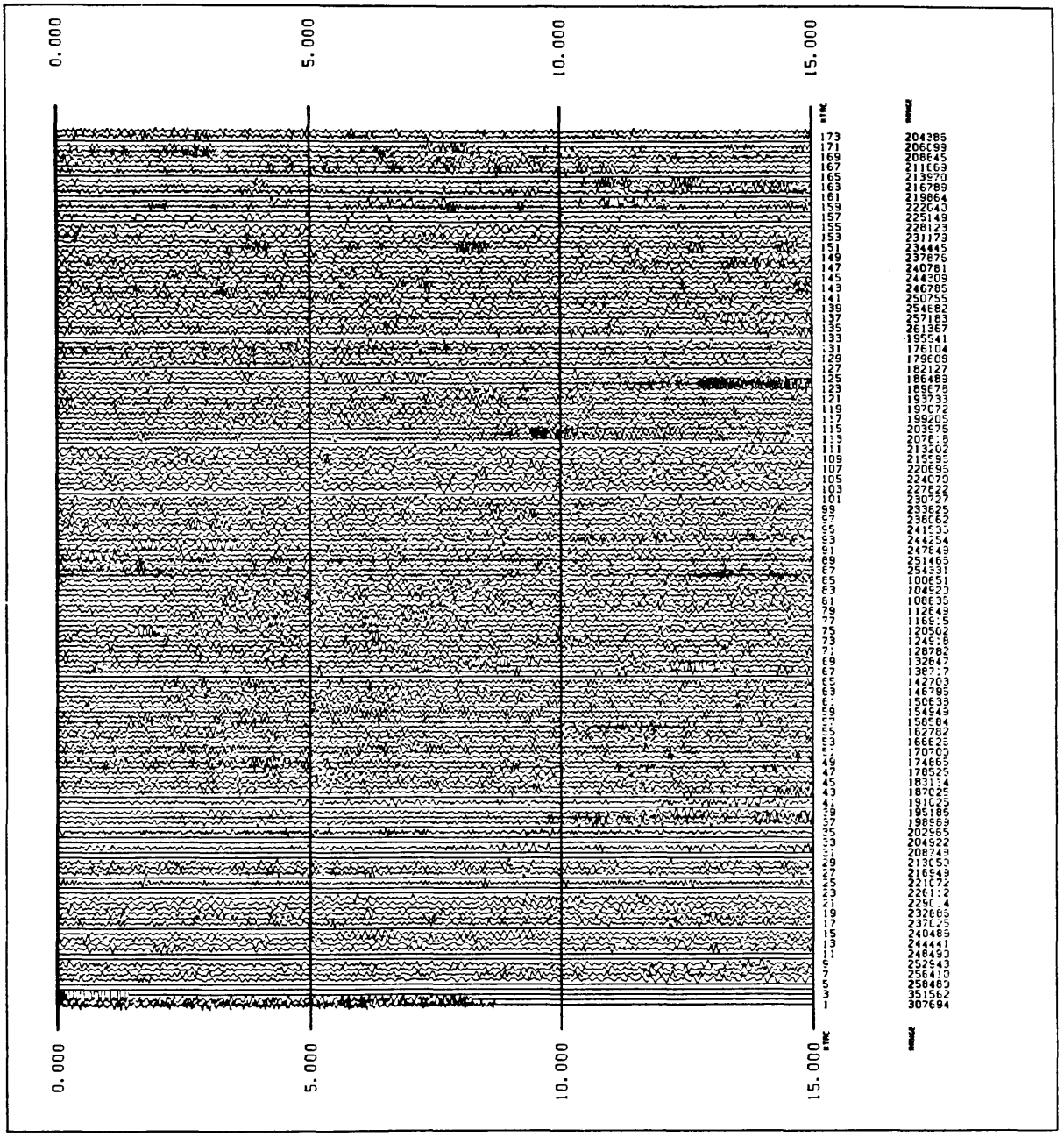

FIGURE A122) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #122 CAT 3188428 94:288:00:19 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

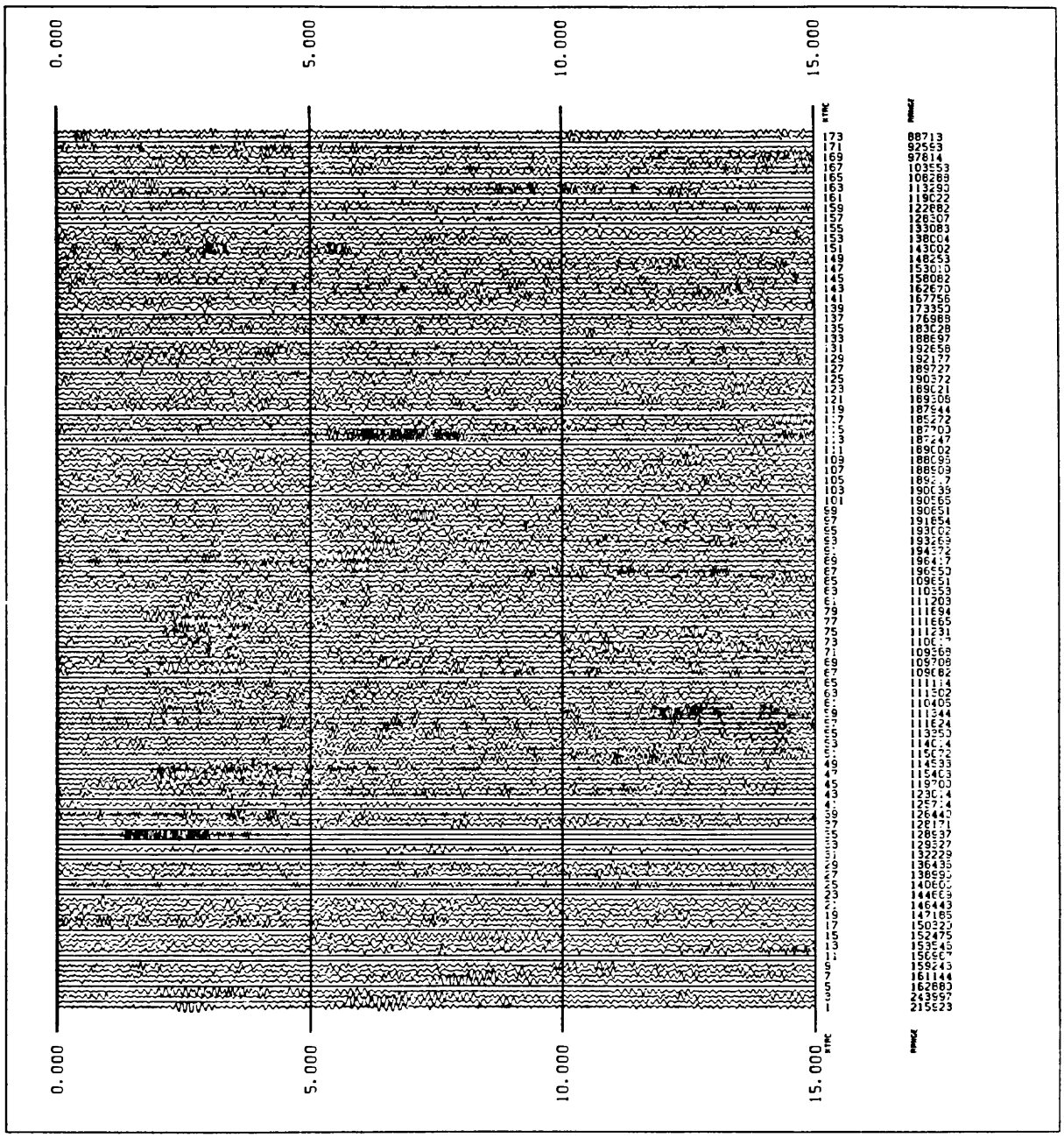

FIGURE A123) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #123 CAT 3188429 94:288:00:25 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

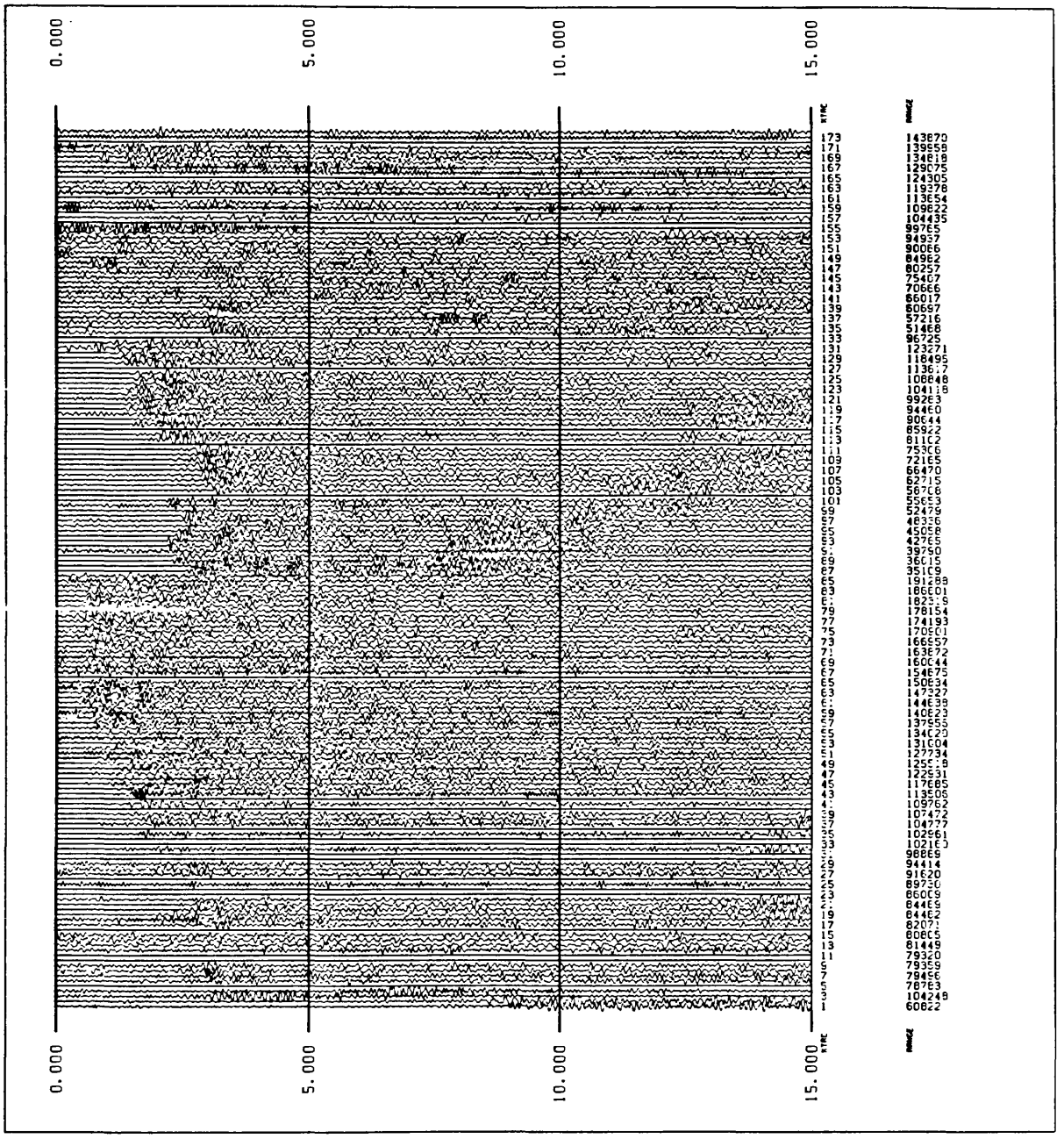

FIGURE A124) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #124 CAT 3188439 94:288:02:48 MAG 2.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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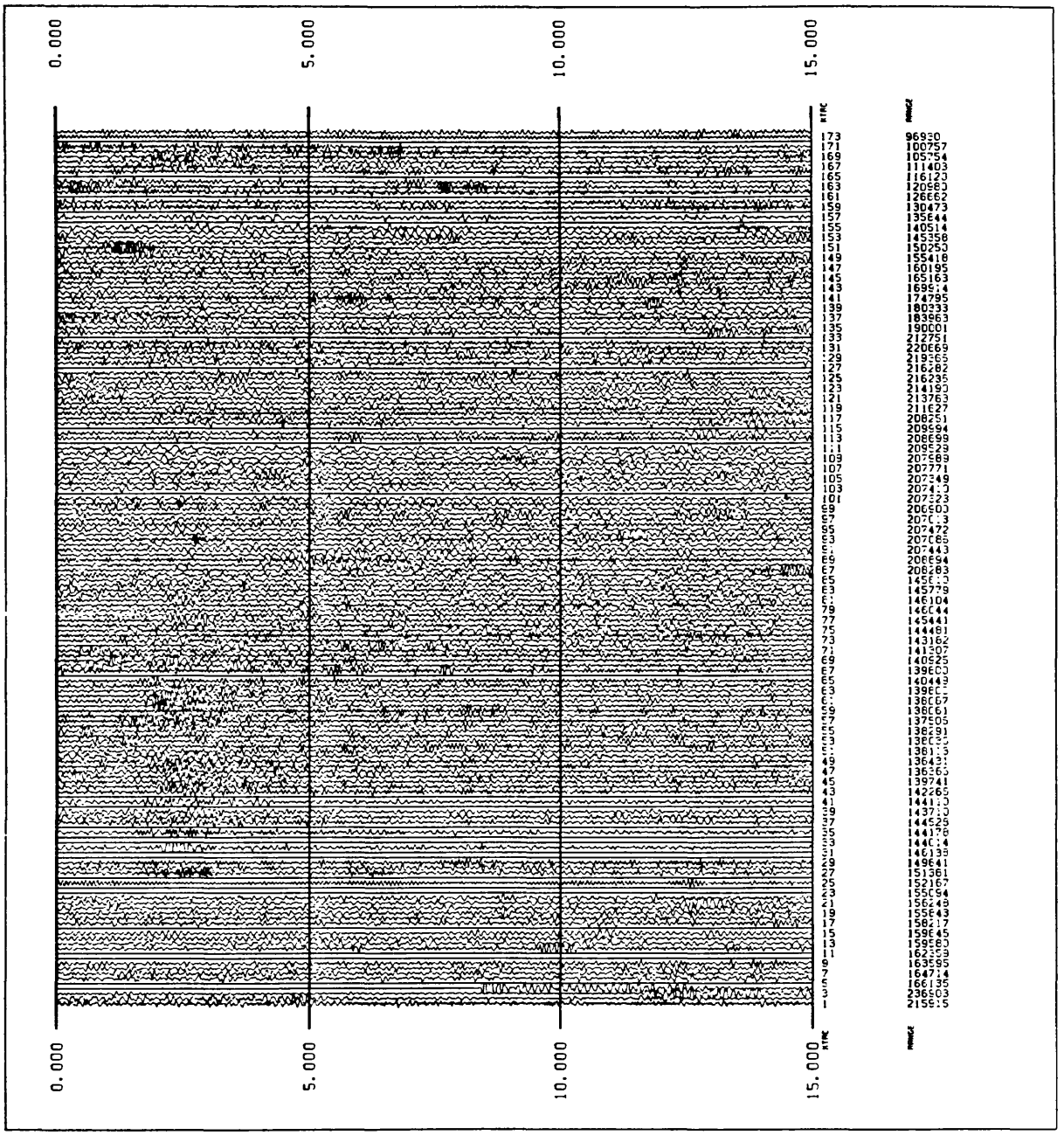

FIGURE A125) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #125 CAT 3188446 94:288:04:48 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

FIGURE A126) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #126 CAT 3188453 94:288:08:46 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

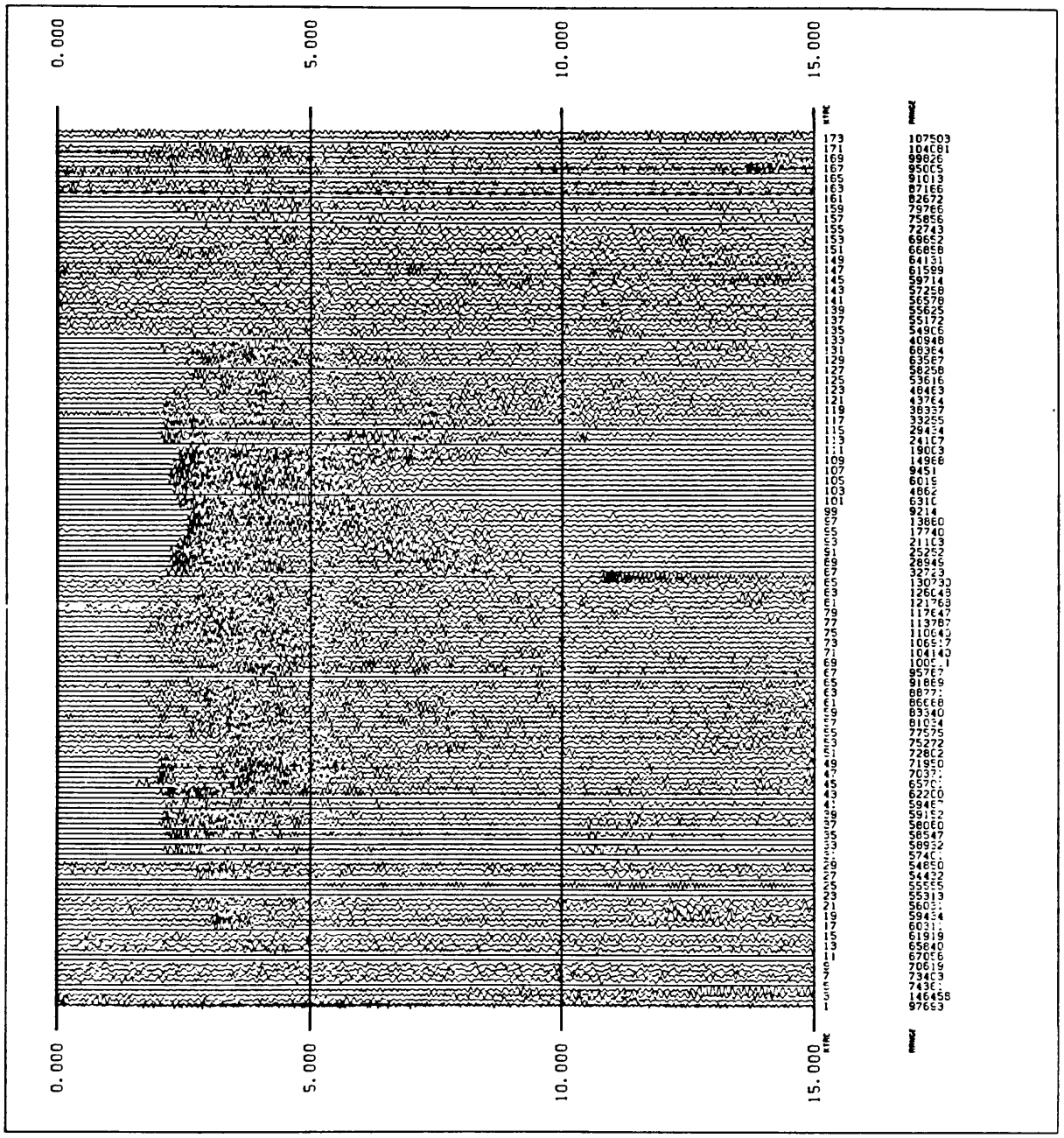

FIGURE A127) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #127 CAT 3188456 94:288:10:32 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

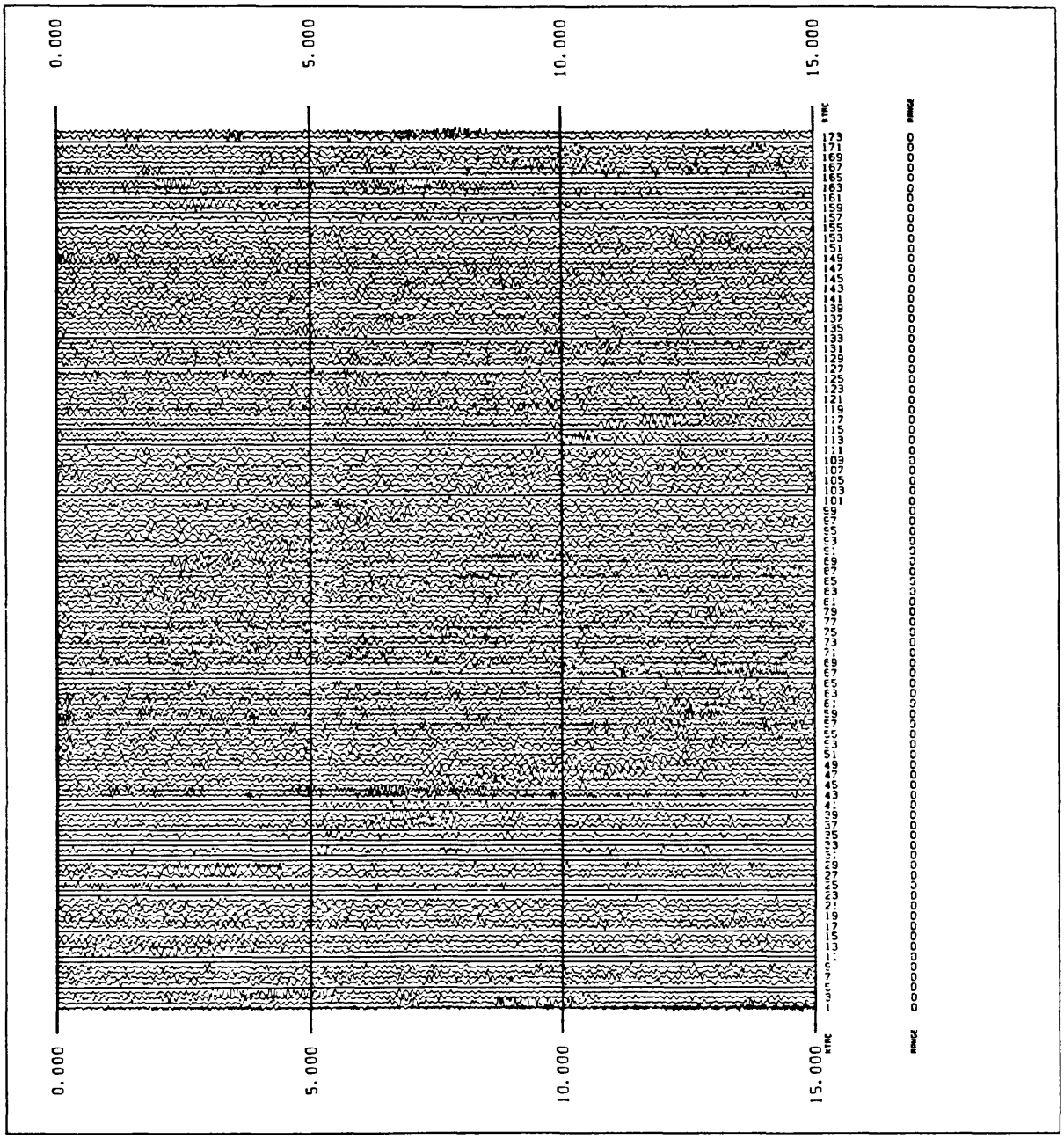

FIGURE A128) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #128 CAT 3188457 94:288:10:58 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

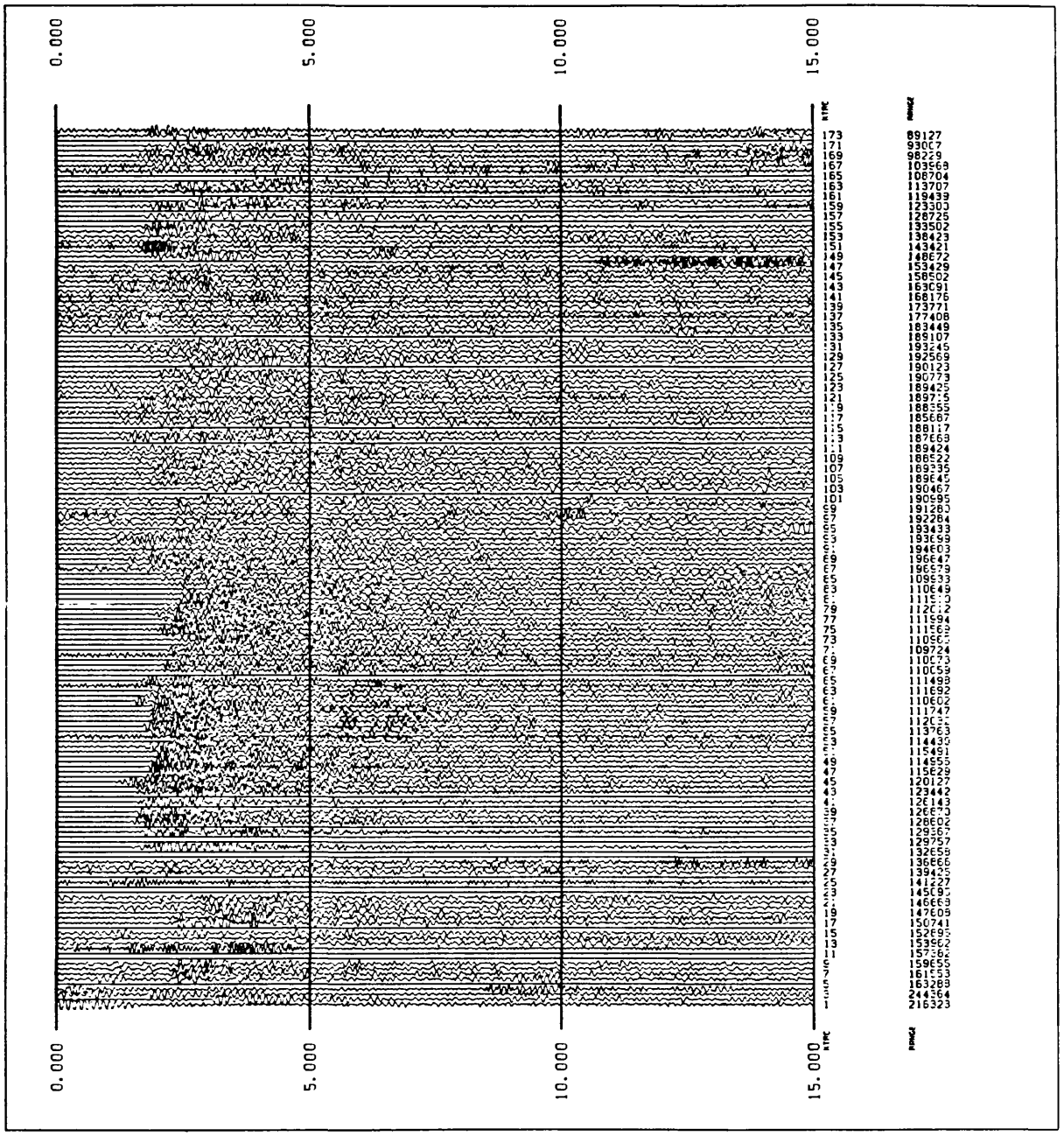

FIGURE A129) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #129 CAT 3188459 94:288:12:58 MAG 2.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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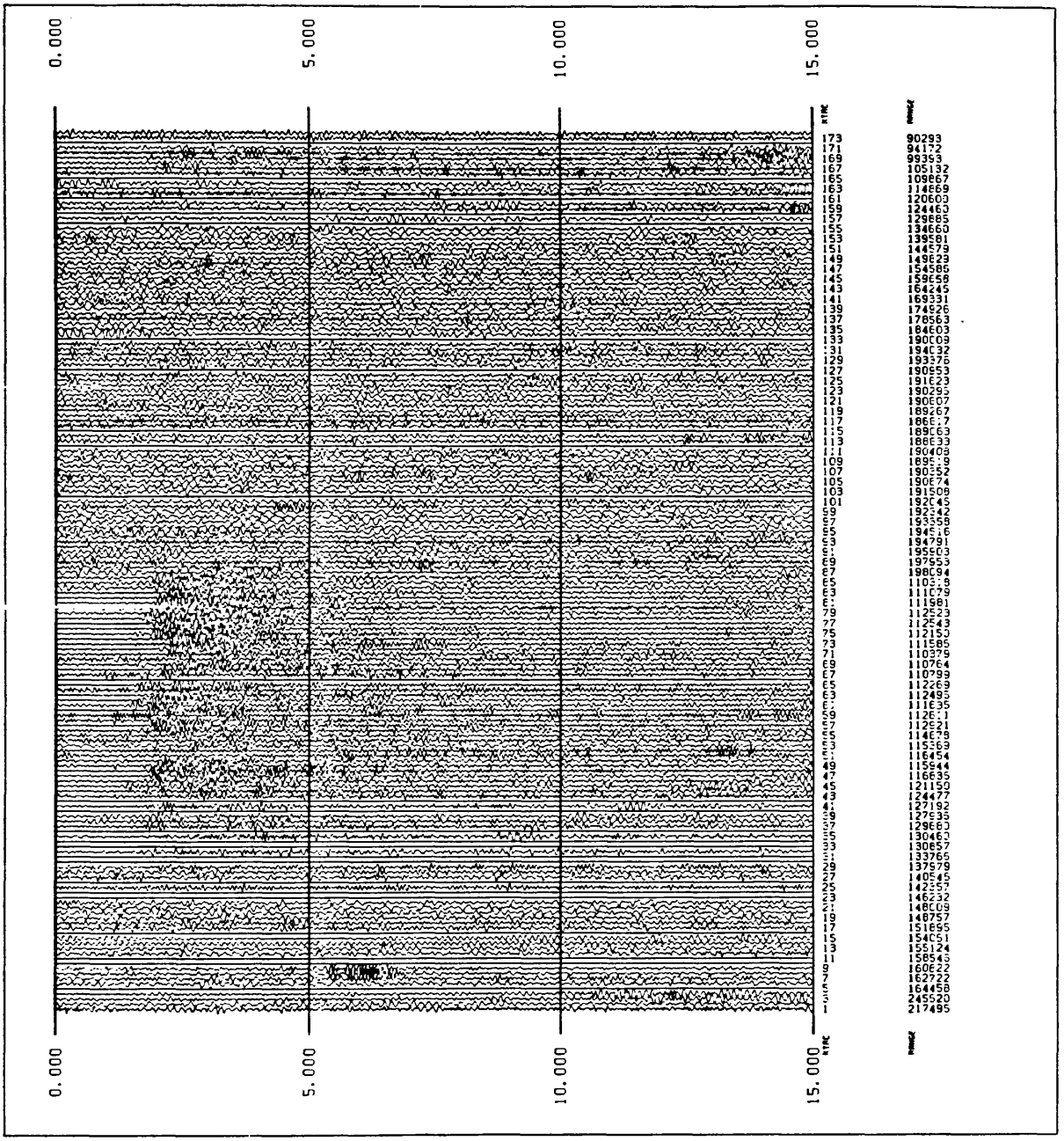

FIGURE A130) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #130 CAT 3188461 94:288:13:14 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

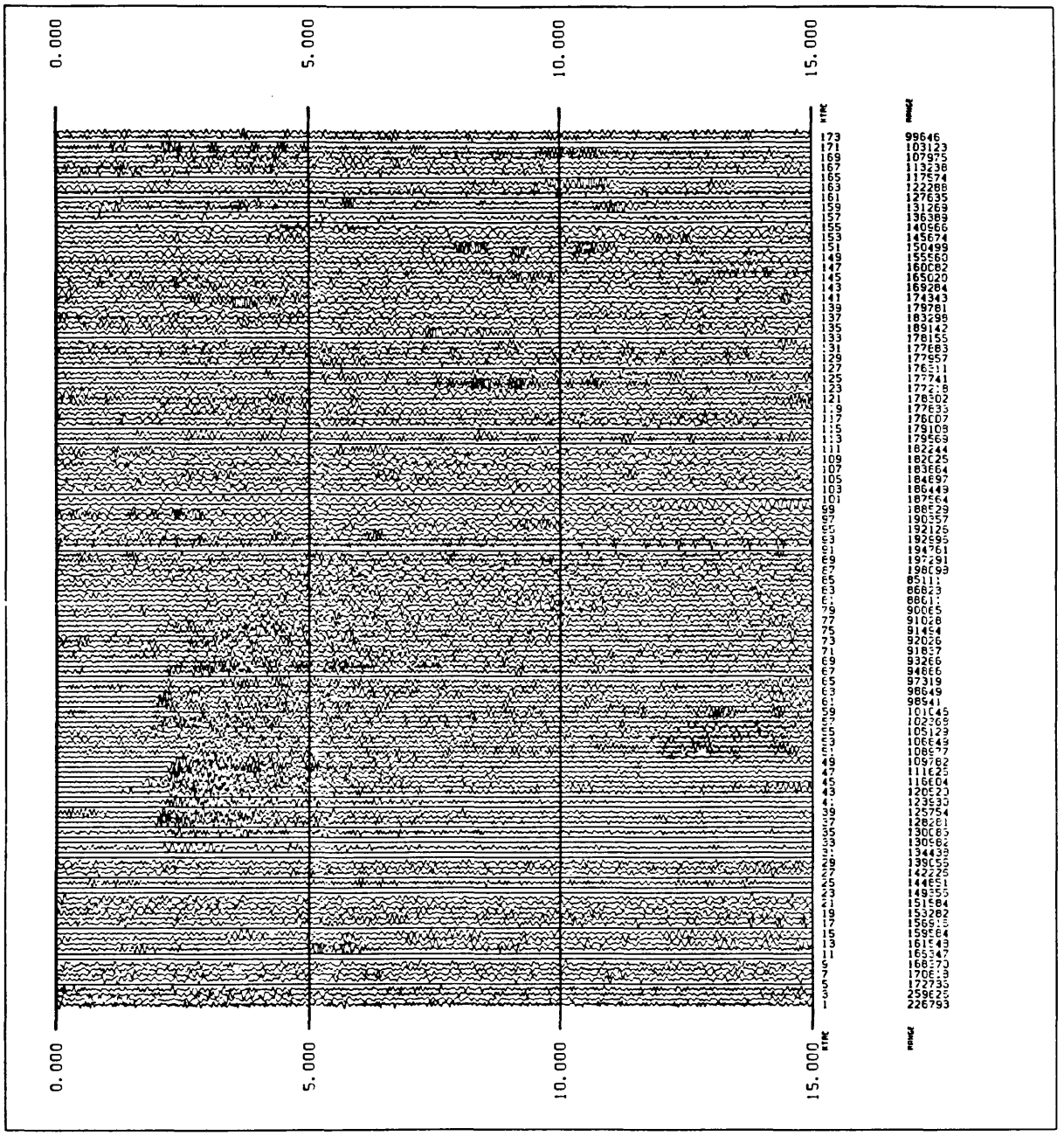

FIGURE A131) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #131 CAT 3188462 94:288:13:54 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

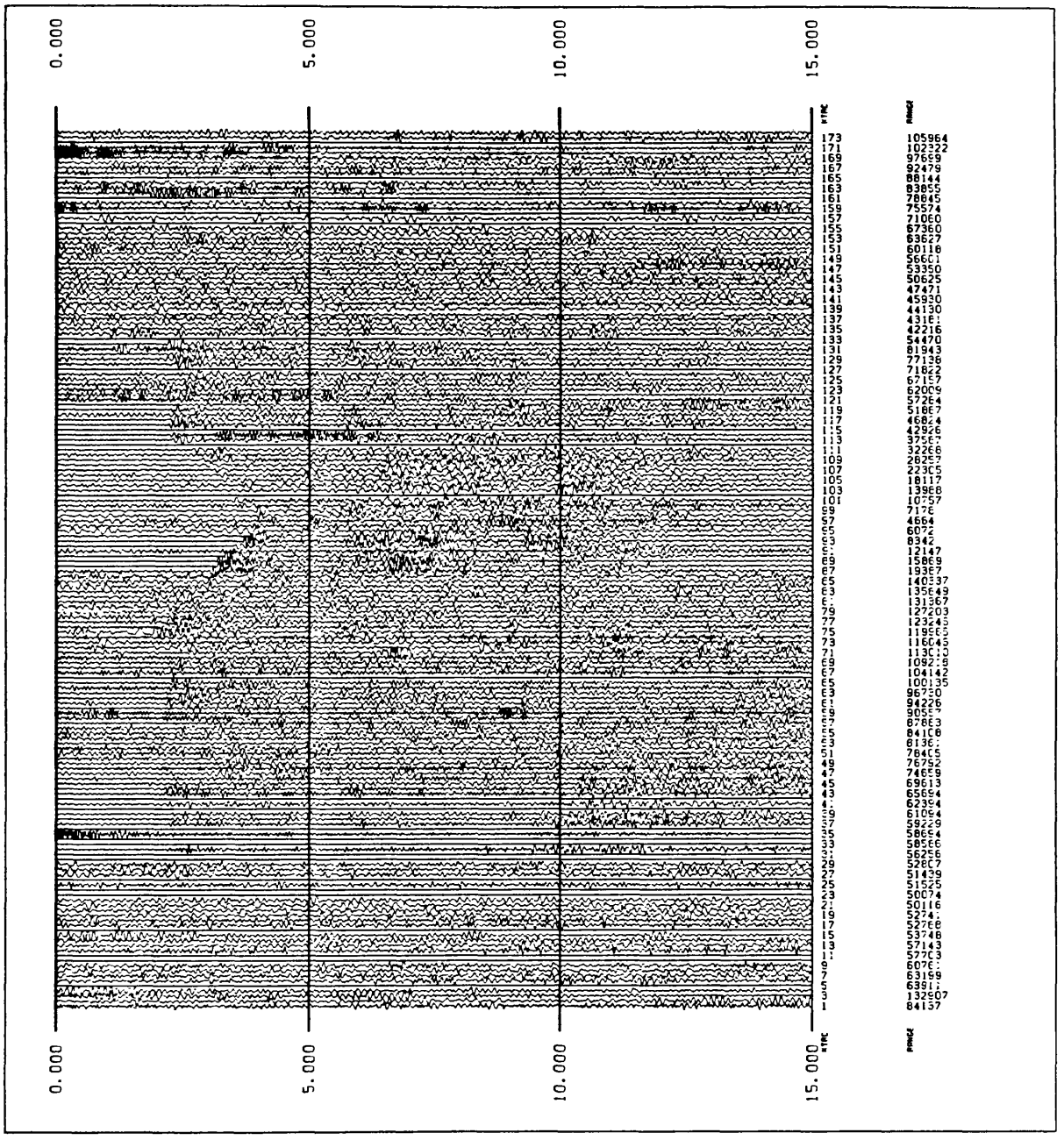

FIGURE A132) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #132 CAT 3188463 94:288:14:18 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

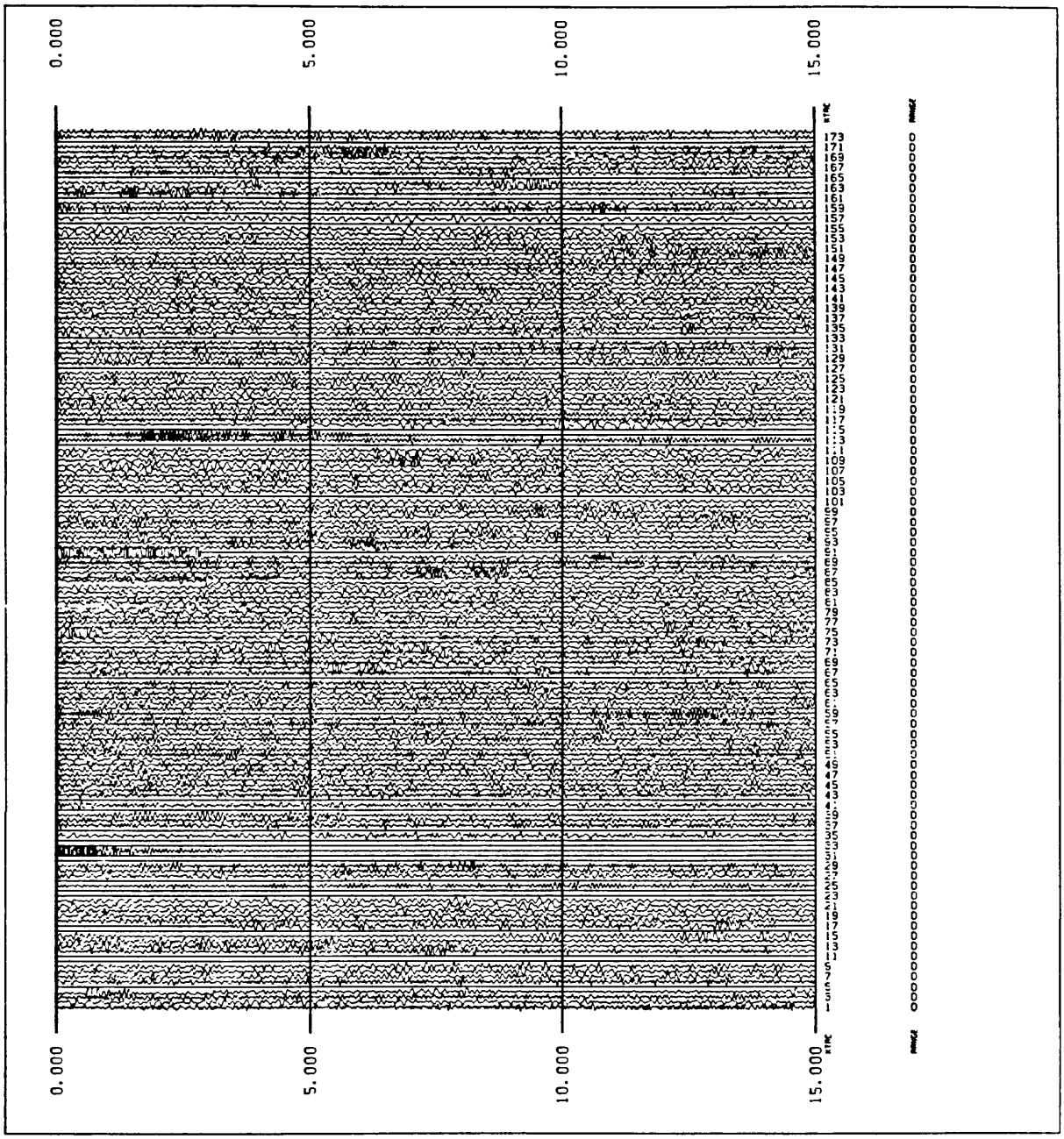

FIGURE A133) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #133 CAT 3188467 94:288:15:30 MAG 2.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

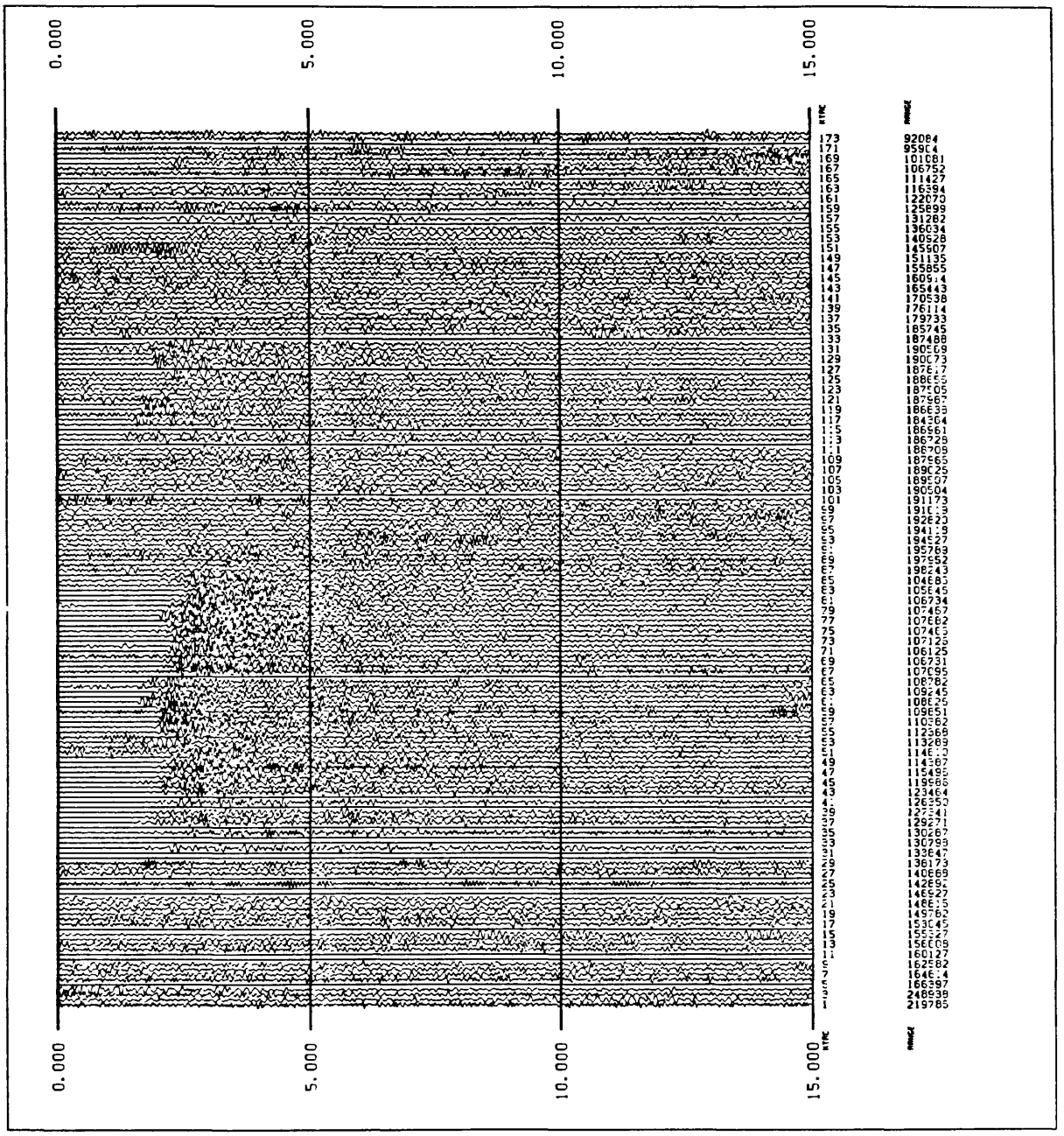

FIGURE A134) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #134 CAT 3188491 94:288:15:30 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

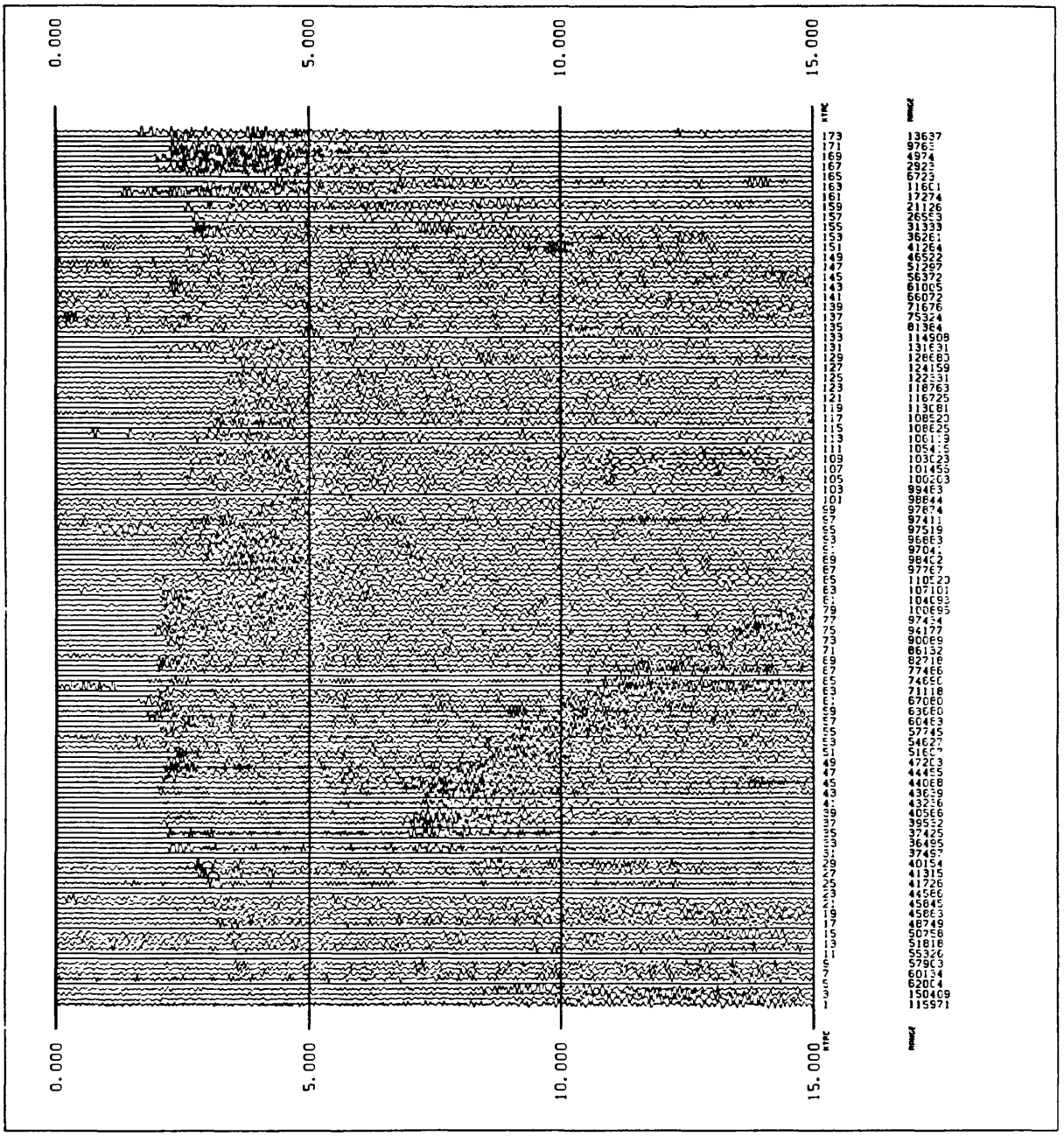

FIGURE A135) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #135 CAT 3188468 94:288:15:43 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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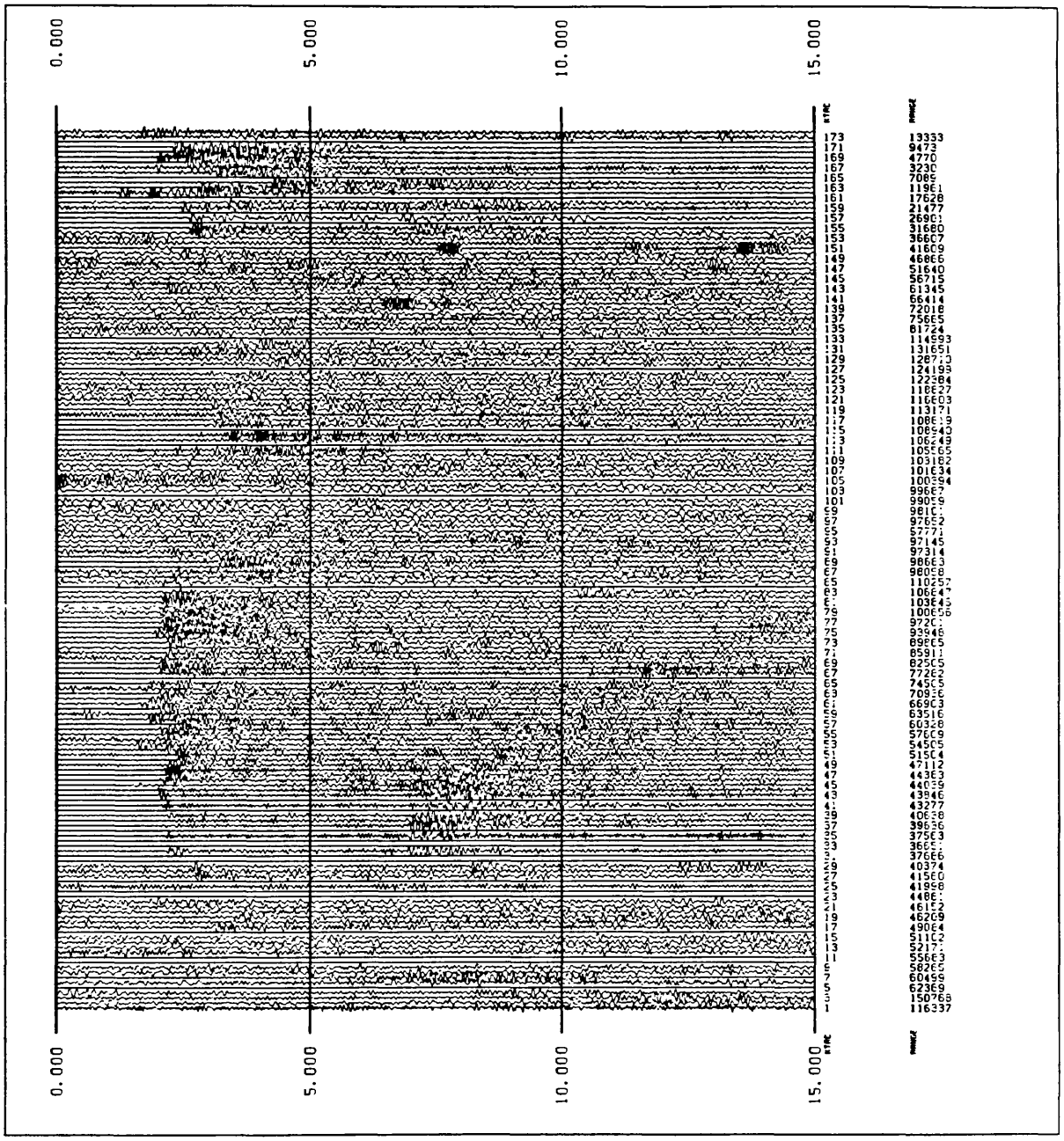

FIGURE A136) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #136 CAT 3188469 94:288:15:57 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

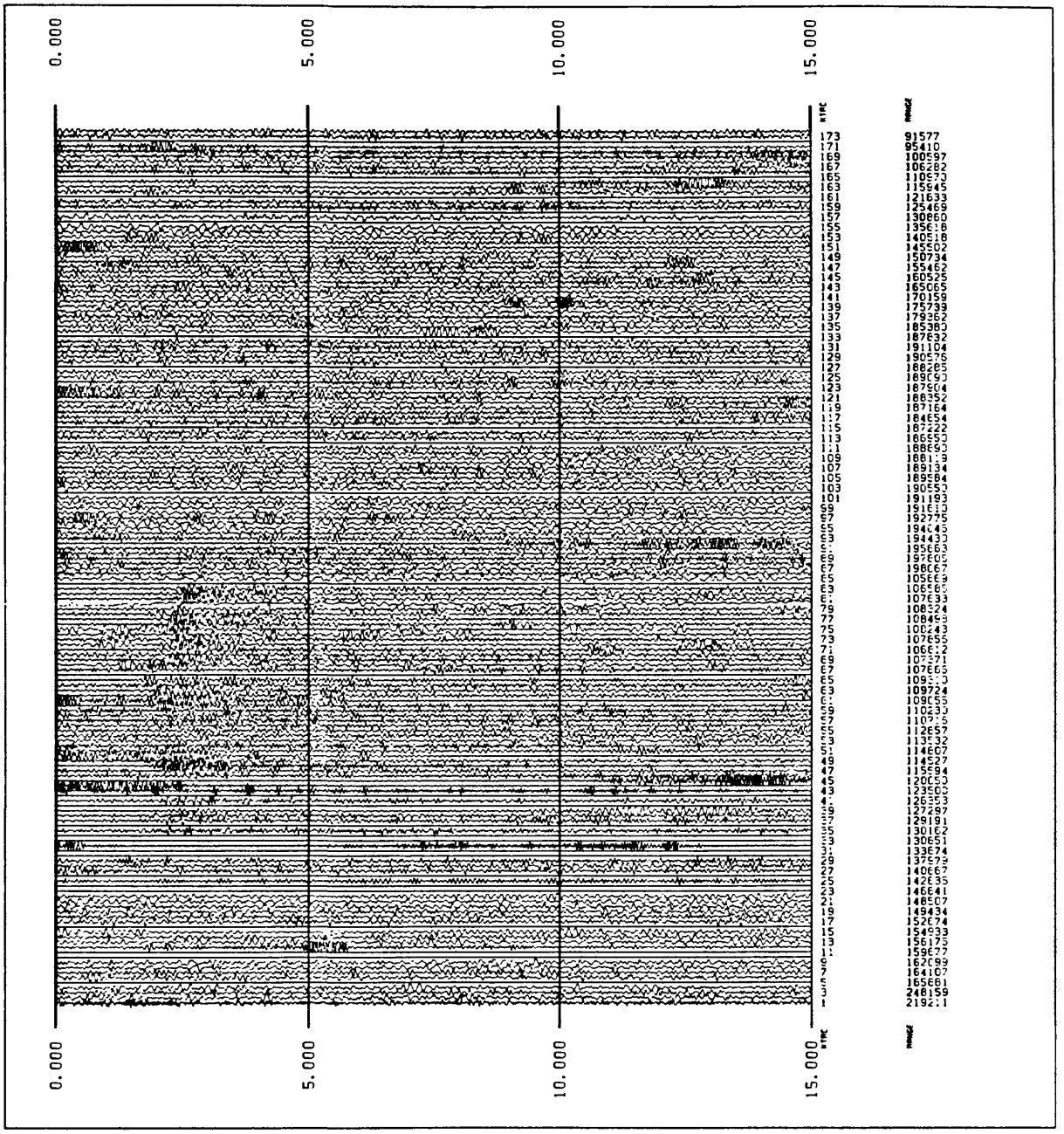

FIGURE A137) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #137 CAT 3188472 94:288:17:00 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

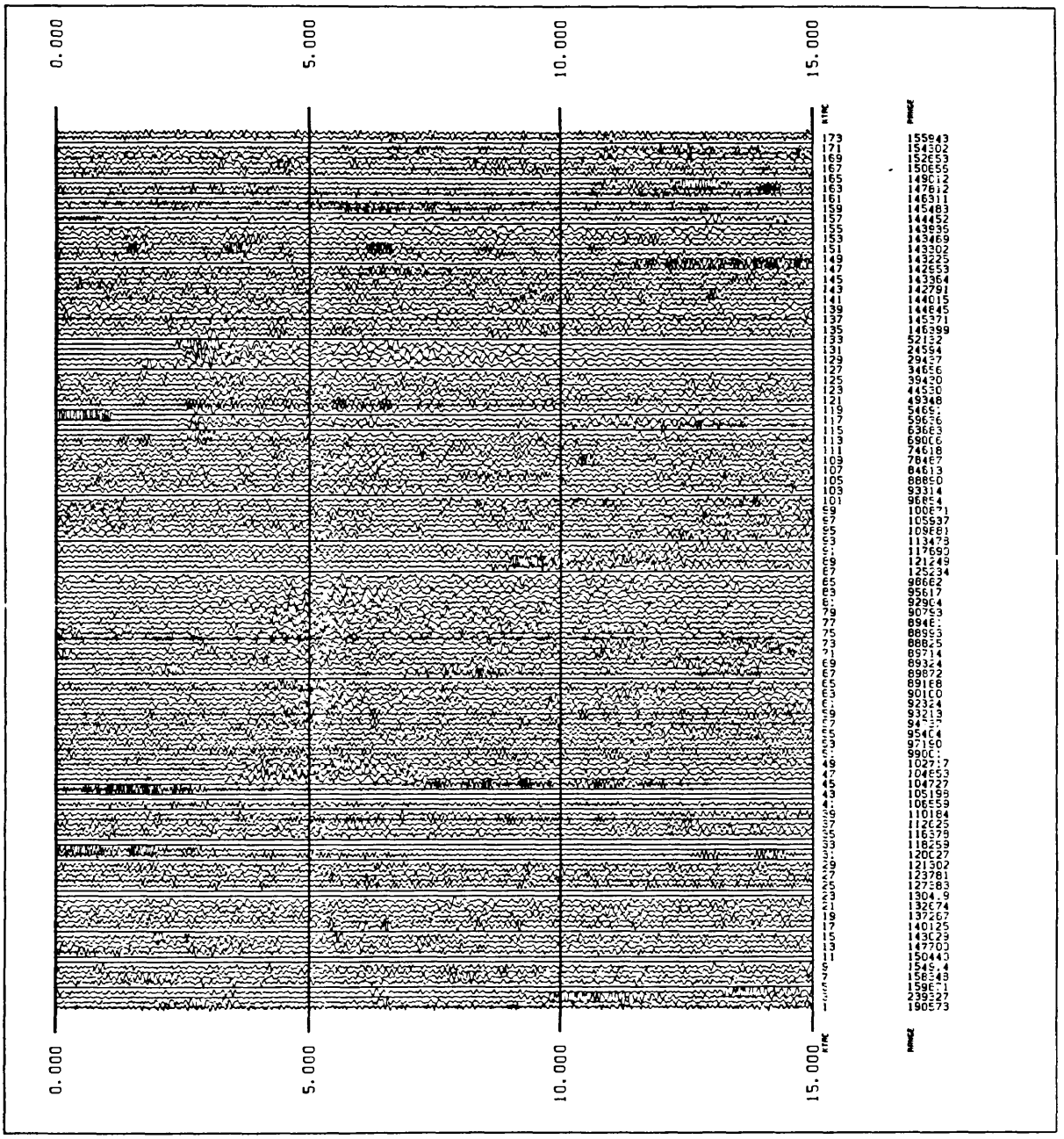

FIGURE A138) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #138 CAT 3188480 94:288:22:05 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

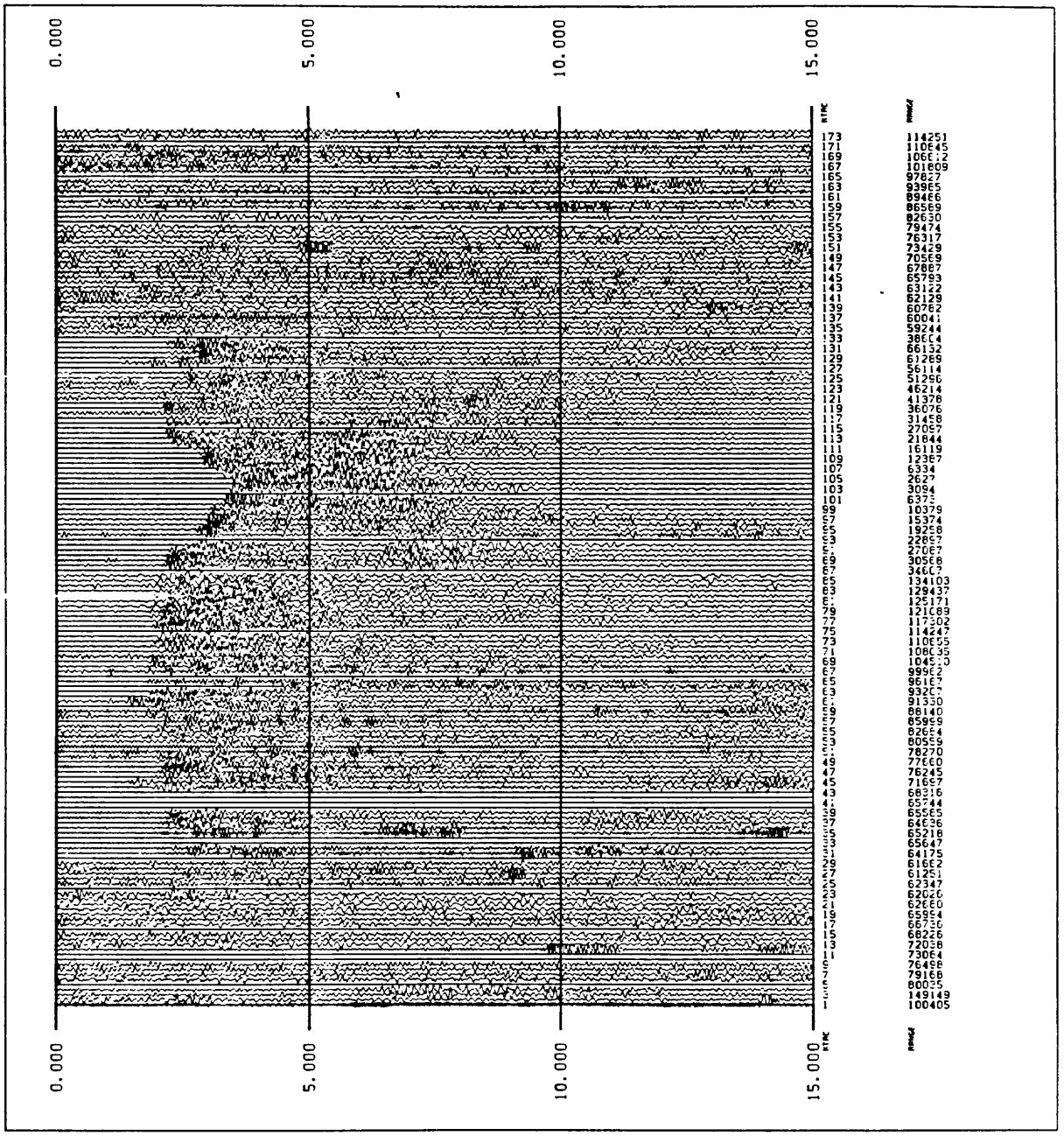

FIGURE A139) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #139 CAT 3188483 94:288:23:03 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

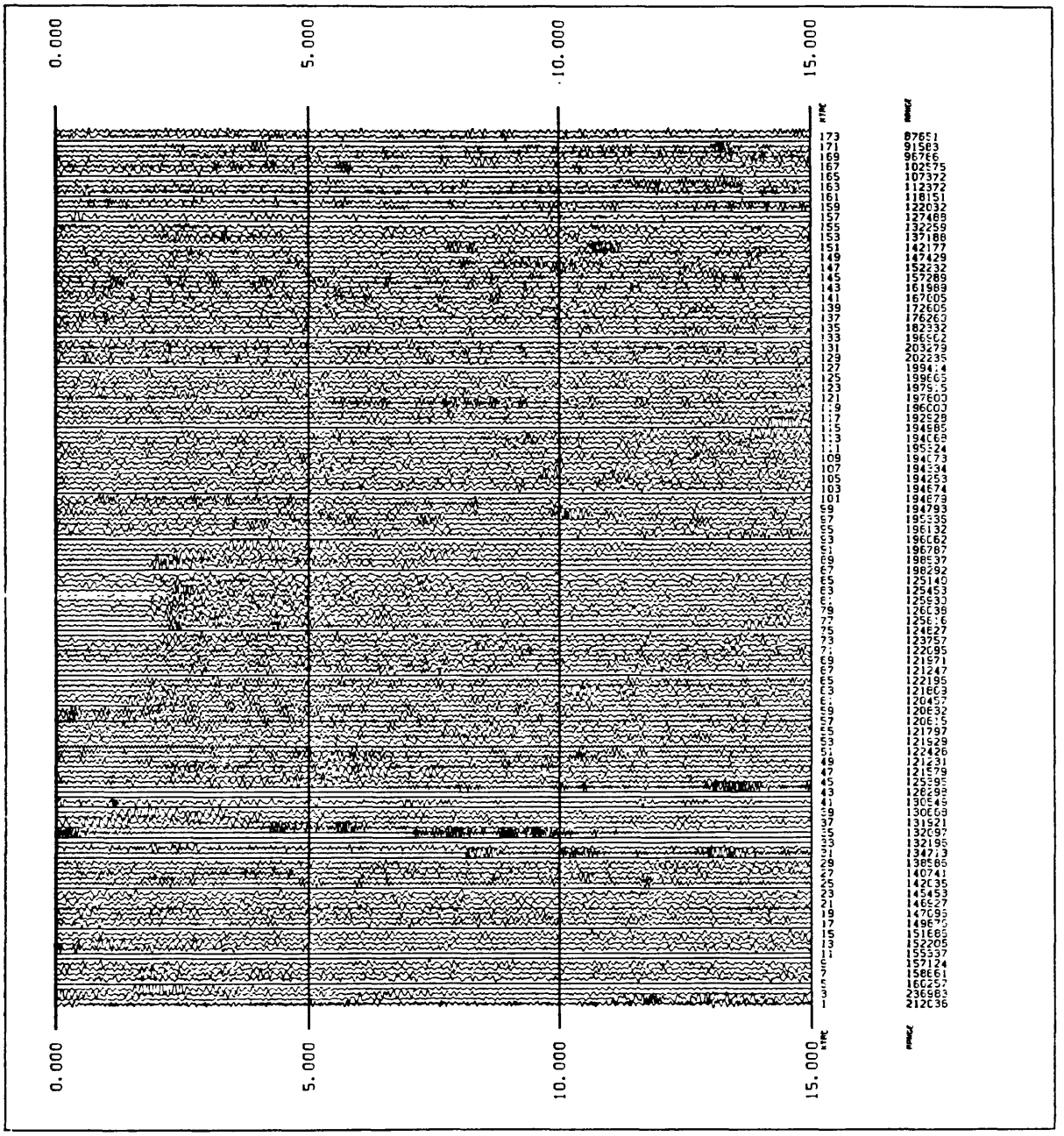

FIGURE A14() LOCAL QUAKES DURING LARSE ON-OFF
EVENT #140 CAT 3188484 94:288:23:18 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

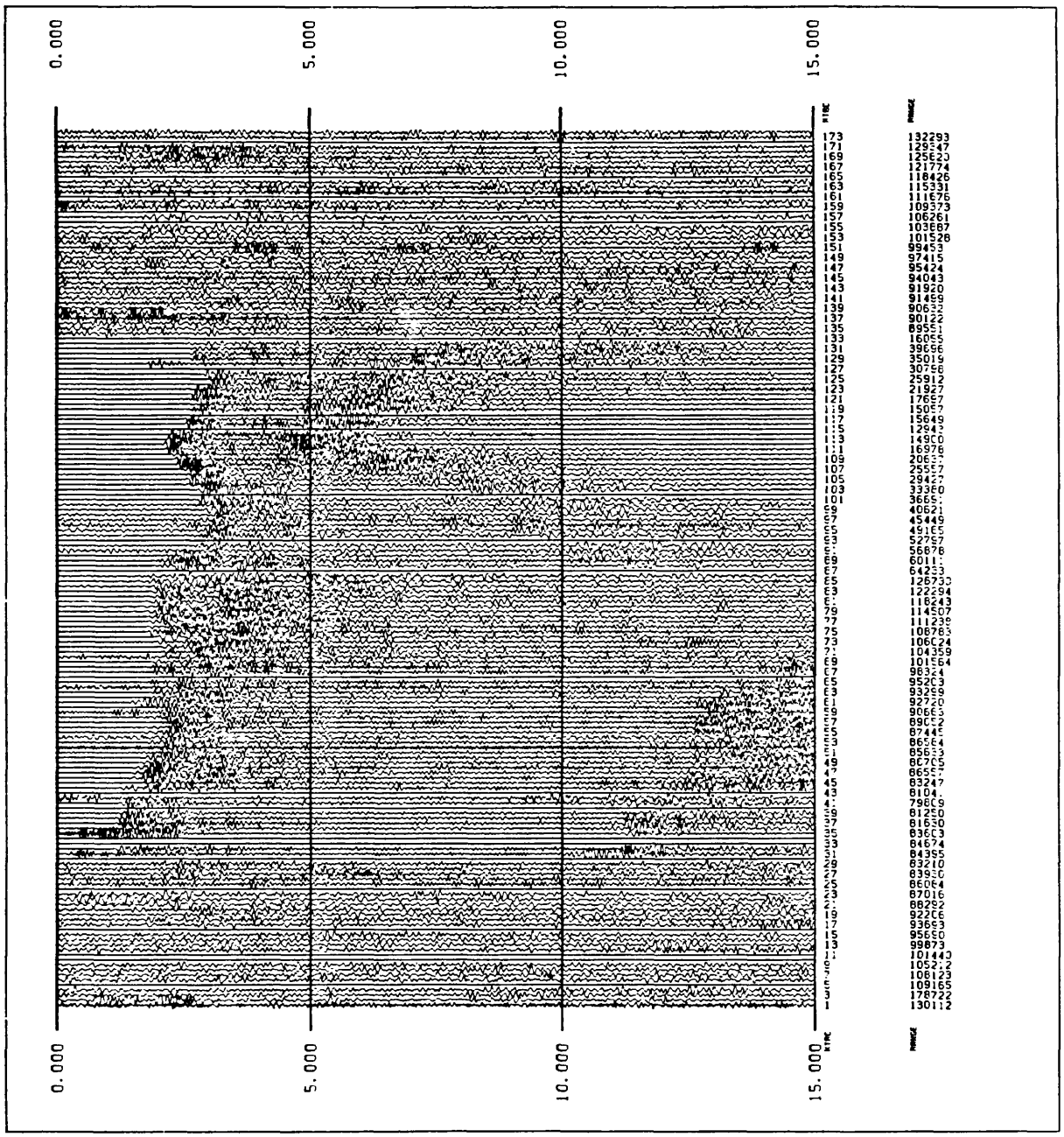

FIGURE A141) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #141 CAT 3188485 94:288:23:45 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

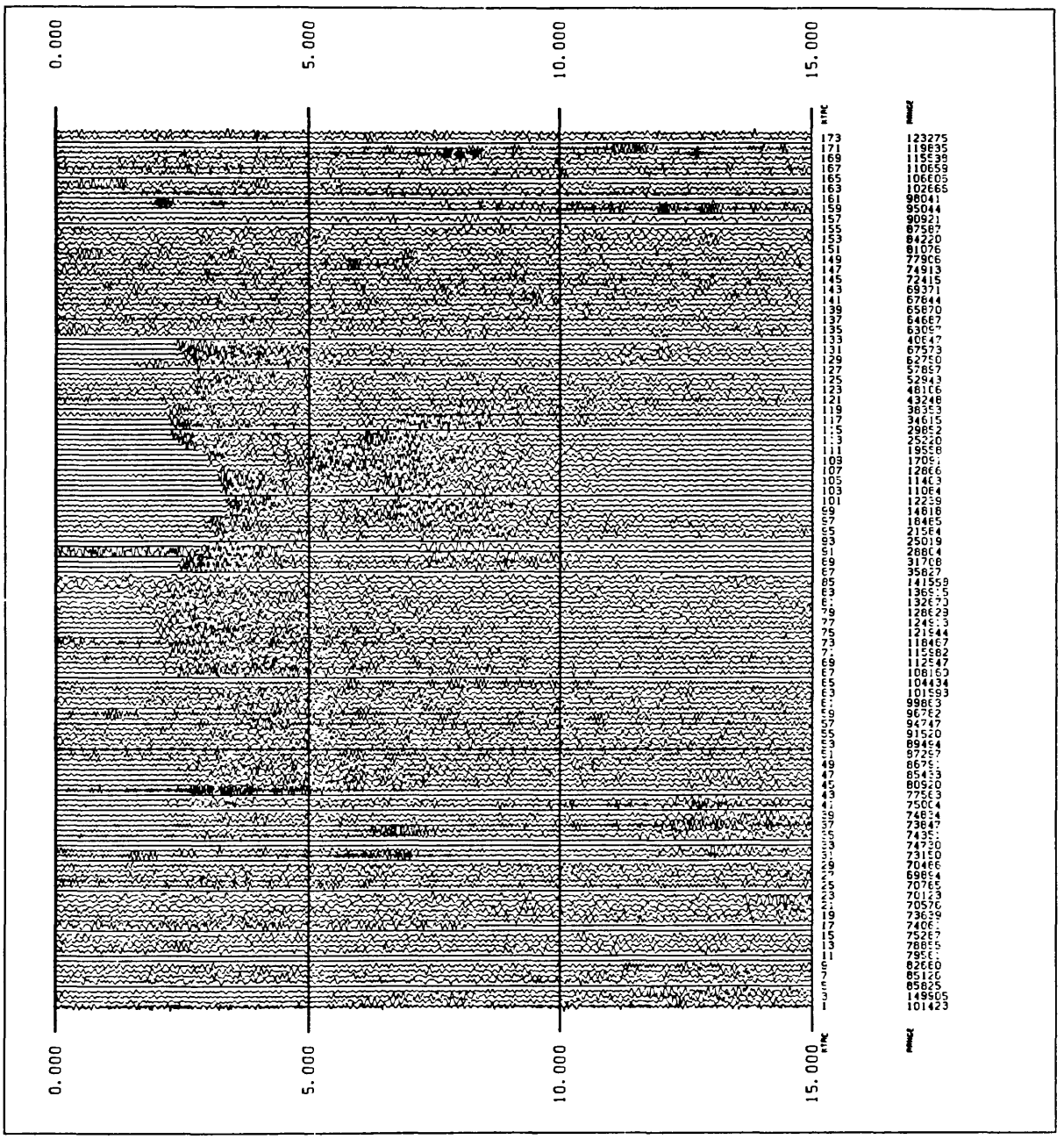

FIGURE A142) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #142 CAT 3188486 94:288:23:59 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

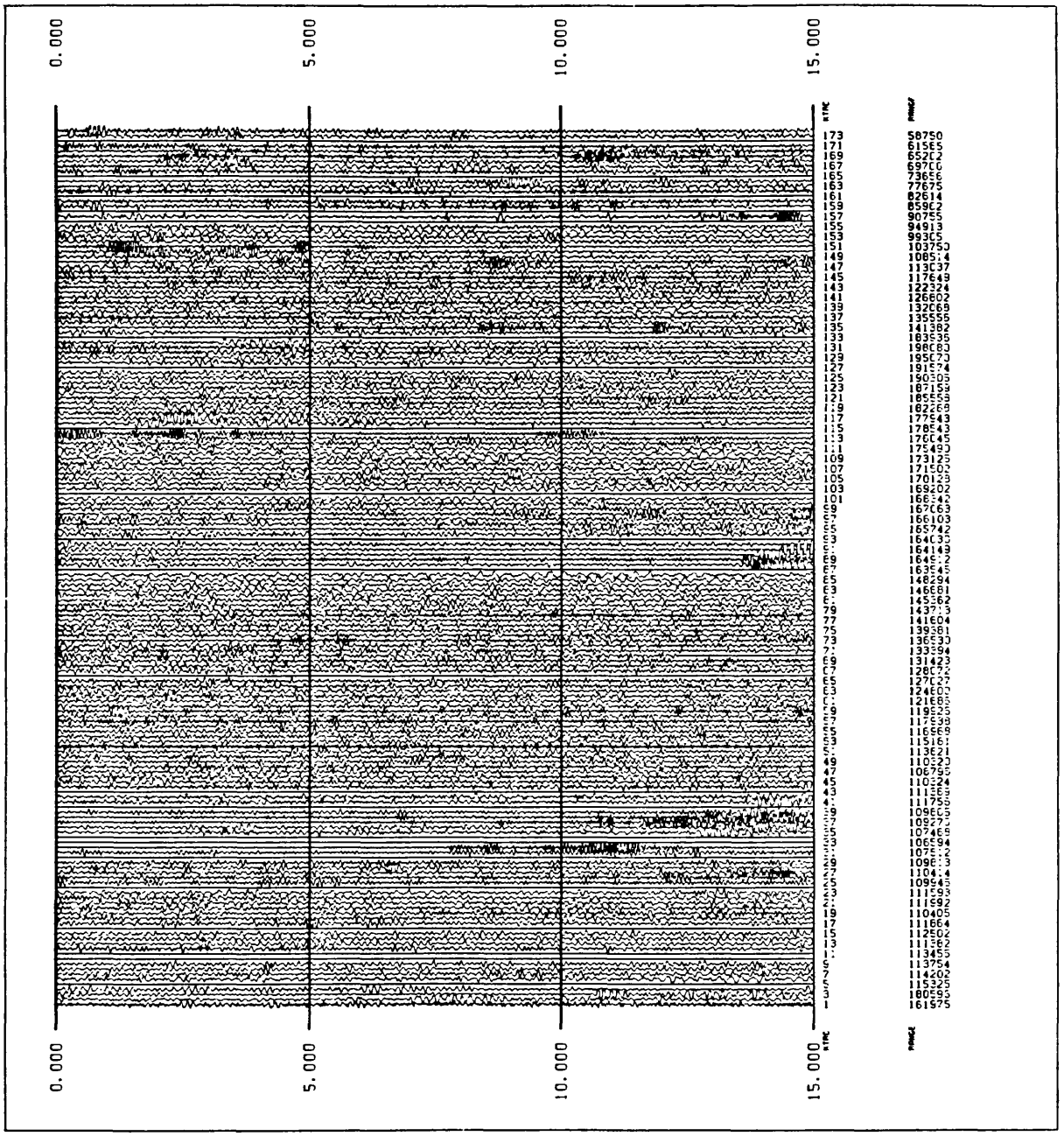

FIGURE A143) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #143 CAT 3188487 94:289:00:23 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

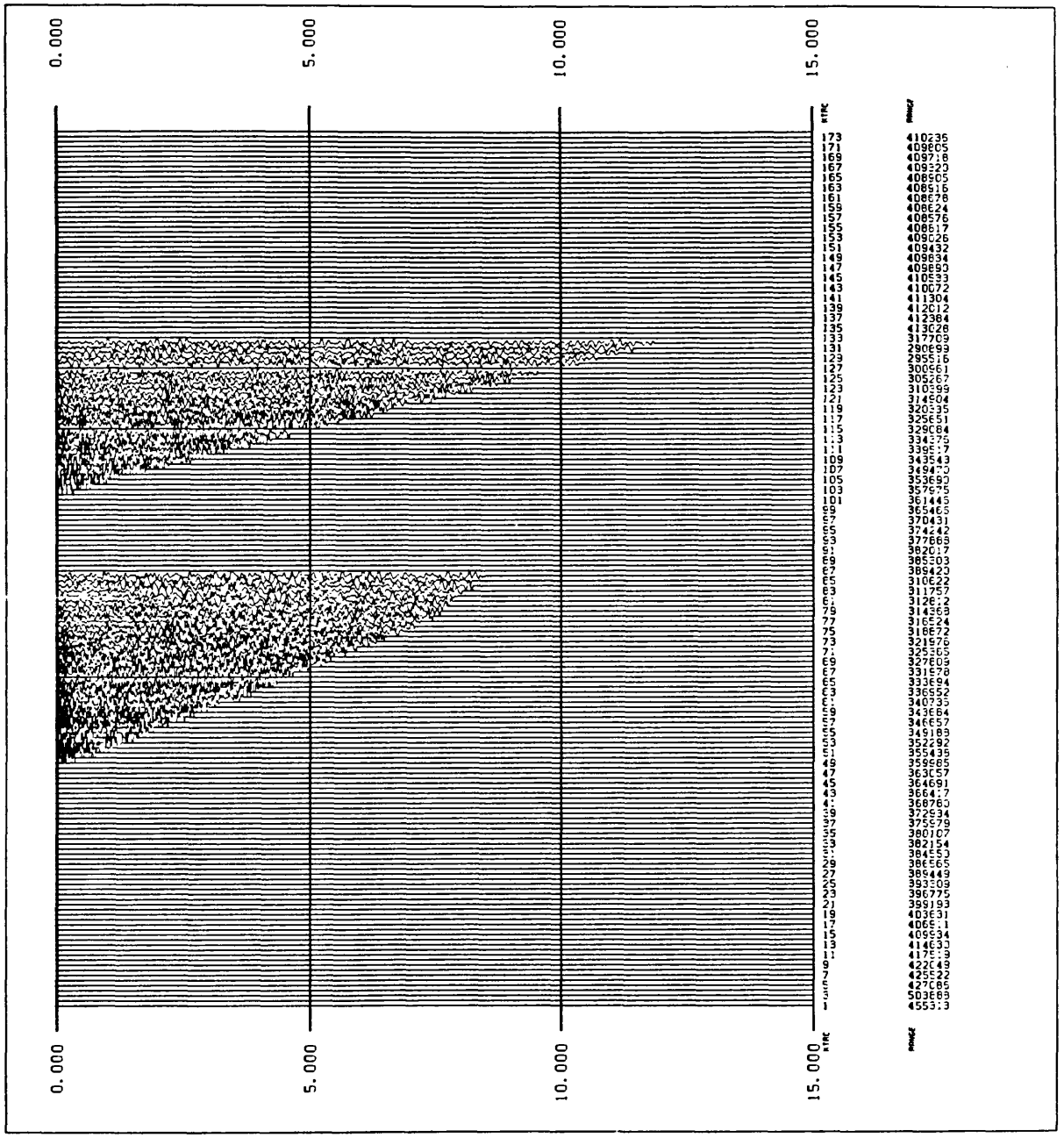

FIGURE A144) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #144 CAT 3188489 94:289:00:56 MAG 2.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

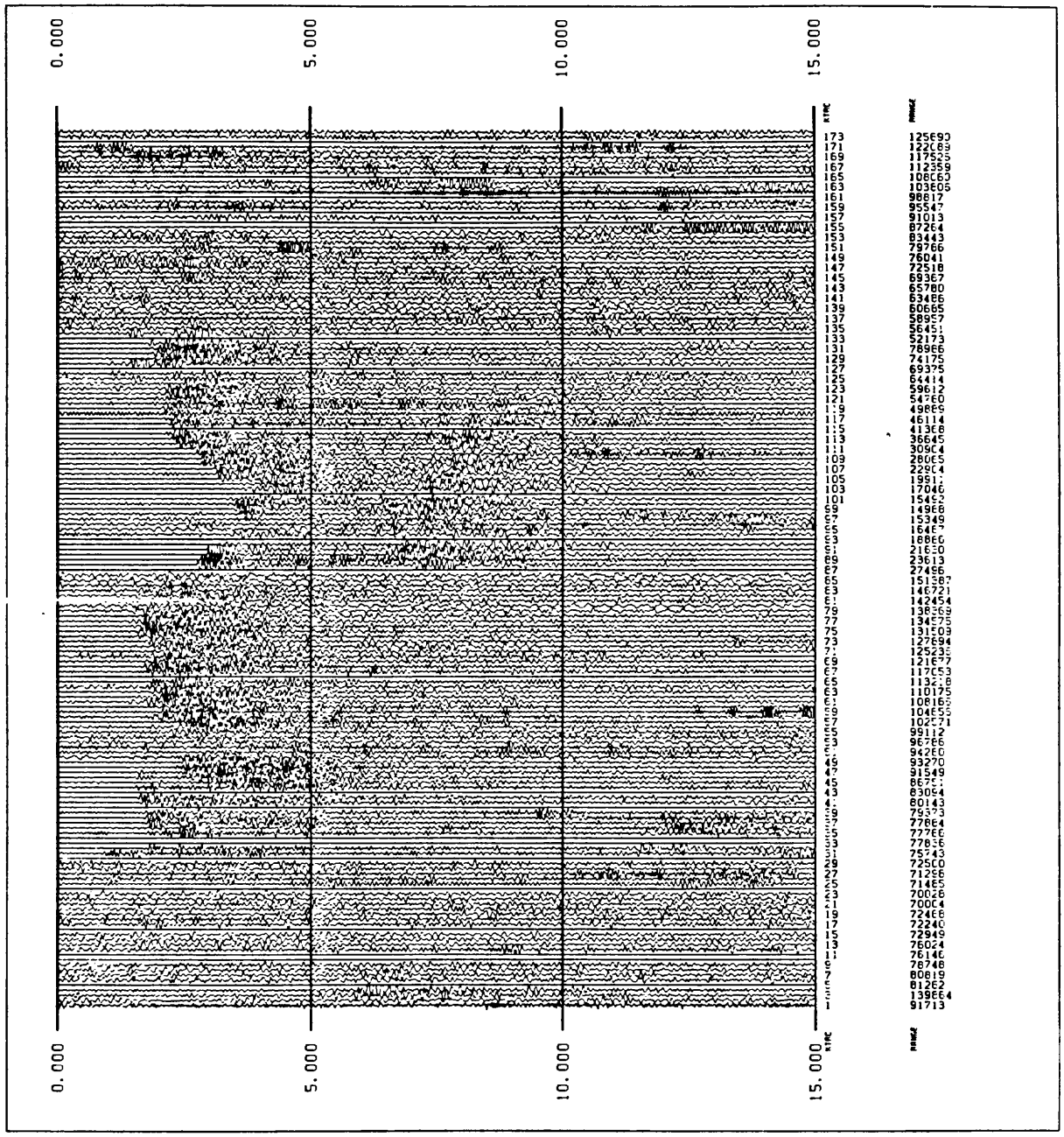

FIGURE A145) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #145 CAT 3188492 94:289:01:53 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

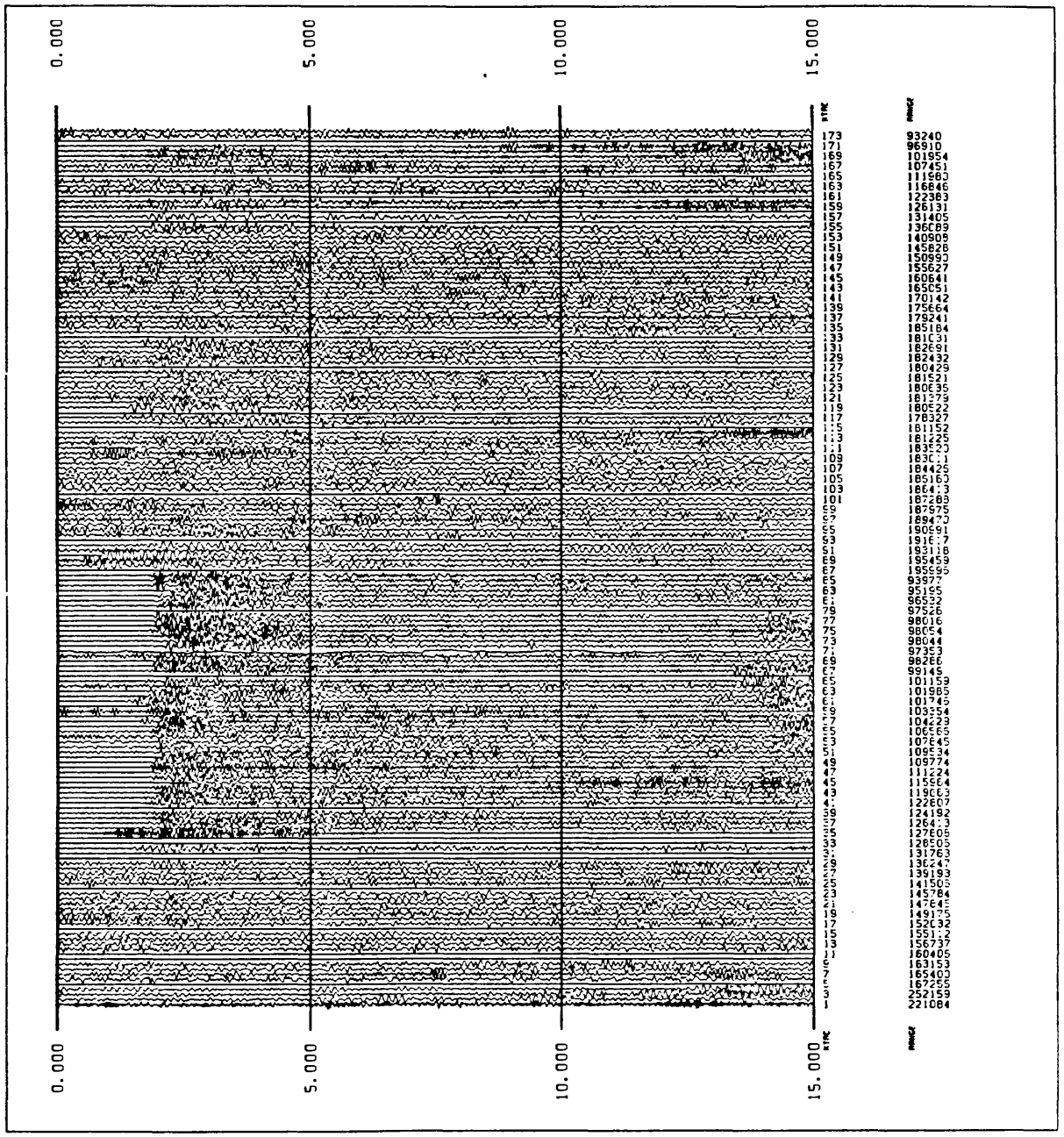

FIGURE A146) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #146 CAT 3188494 94:289:03:25 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

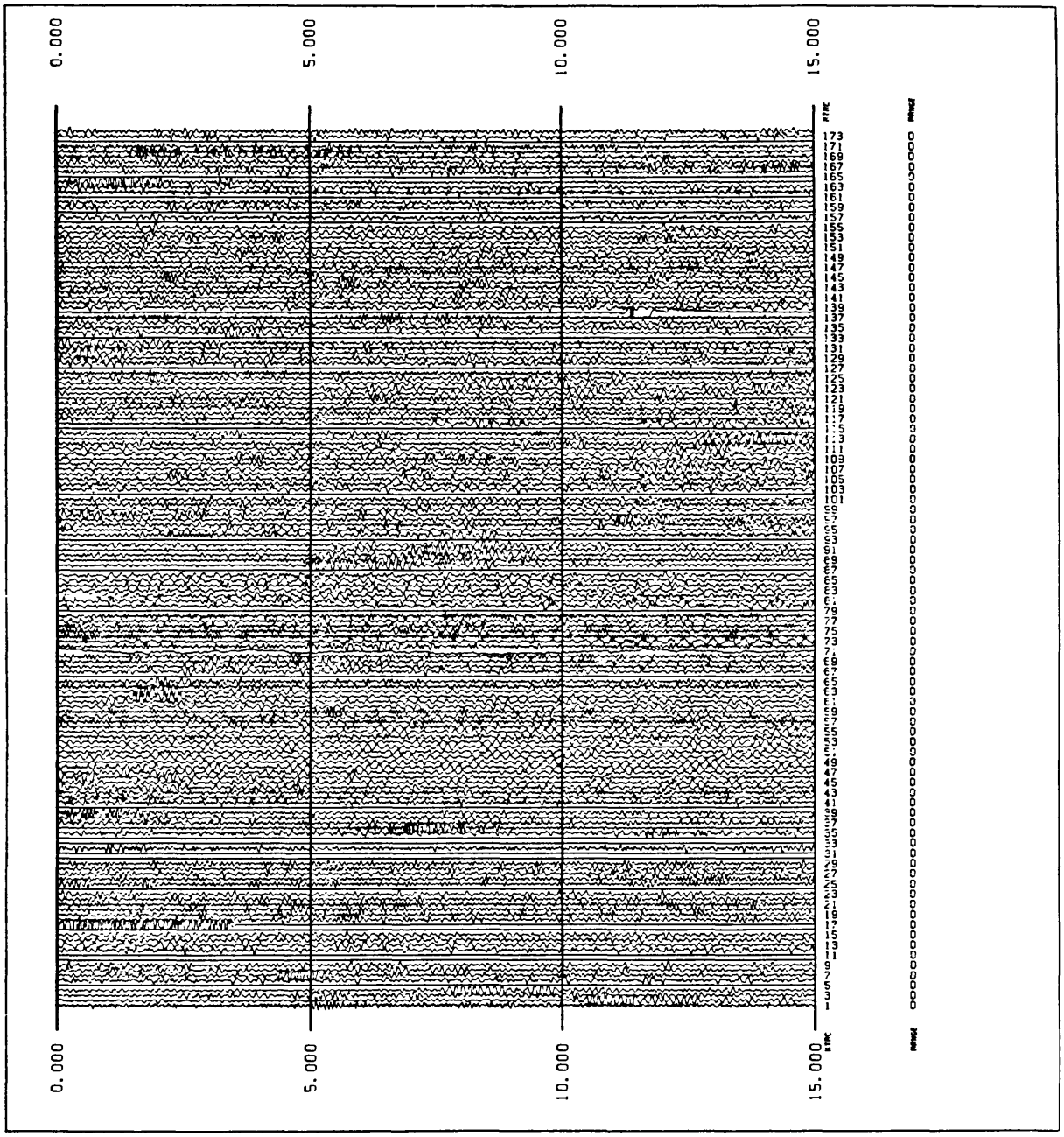

FIGURE A147) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #147 CAT 3188505 94:289:05:20 MAG 3.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

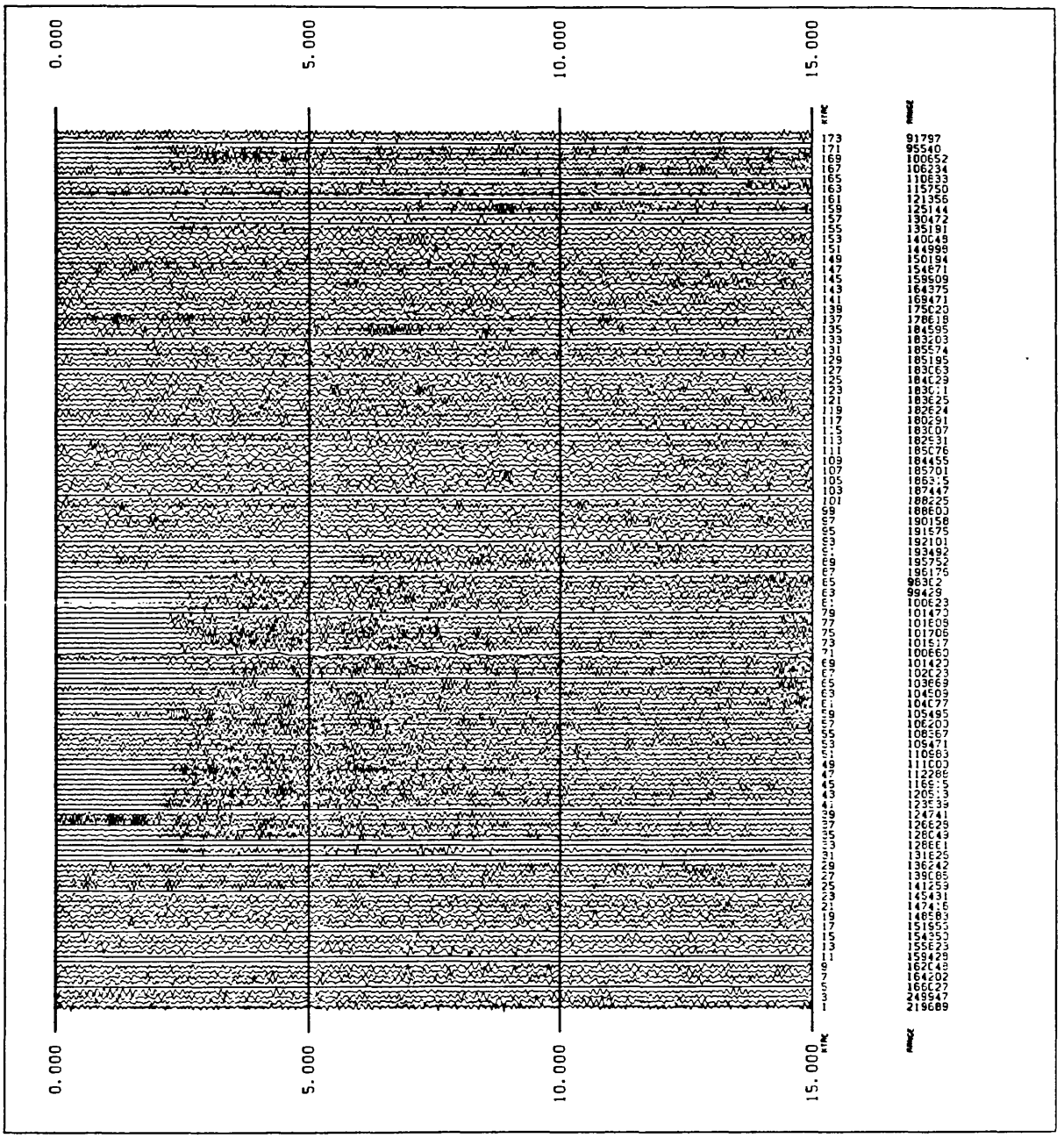

FIGURE A148) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #148 CAT 3188506 94:289:05:42 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

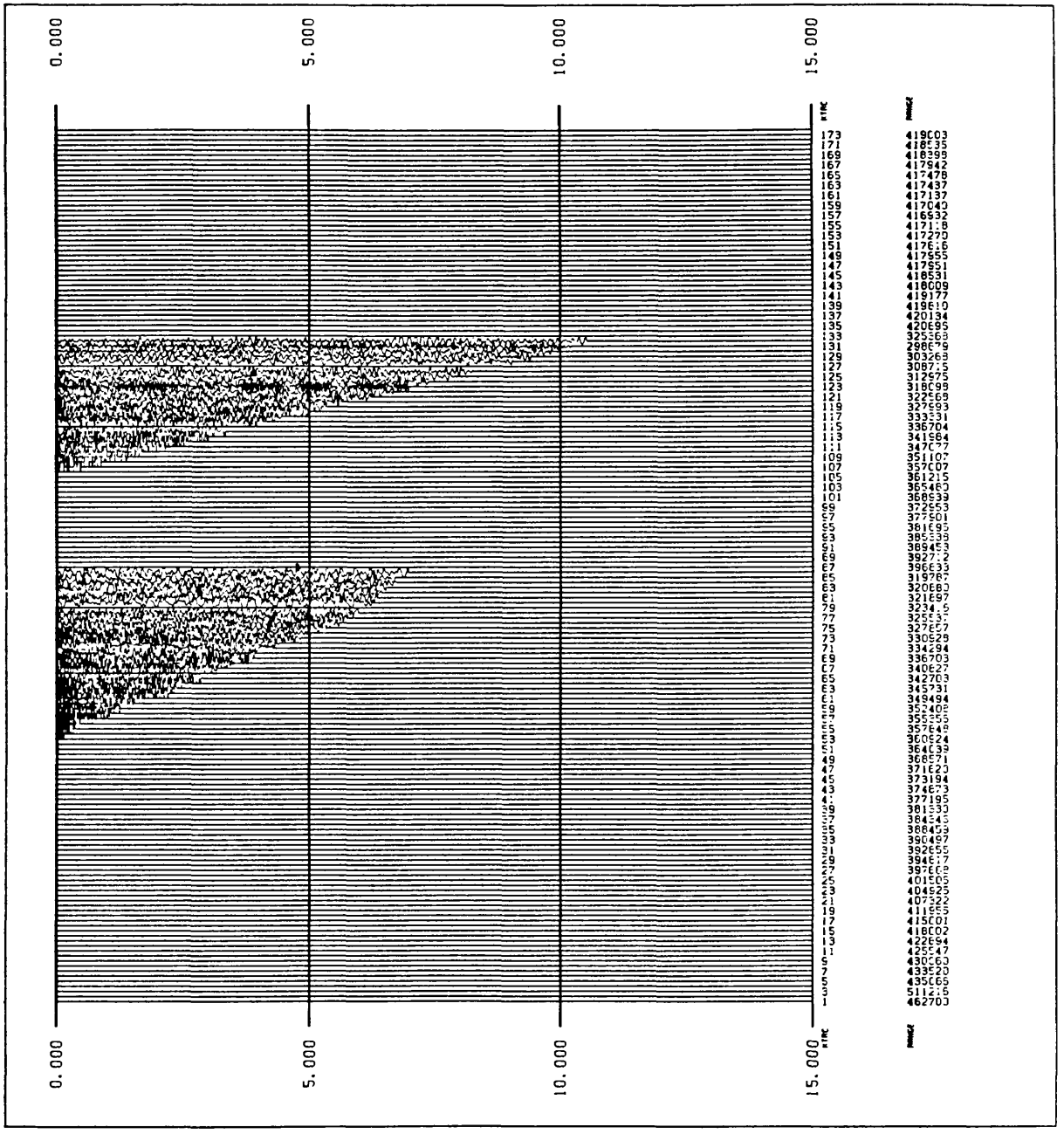

FIGURE A149) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #149 CAT 3188510 94:289:07:49 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

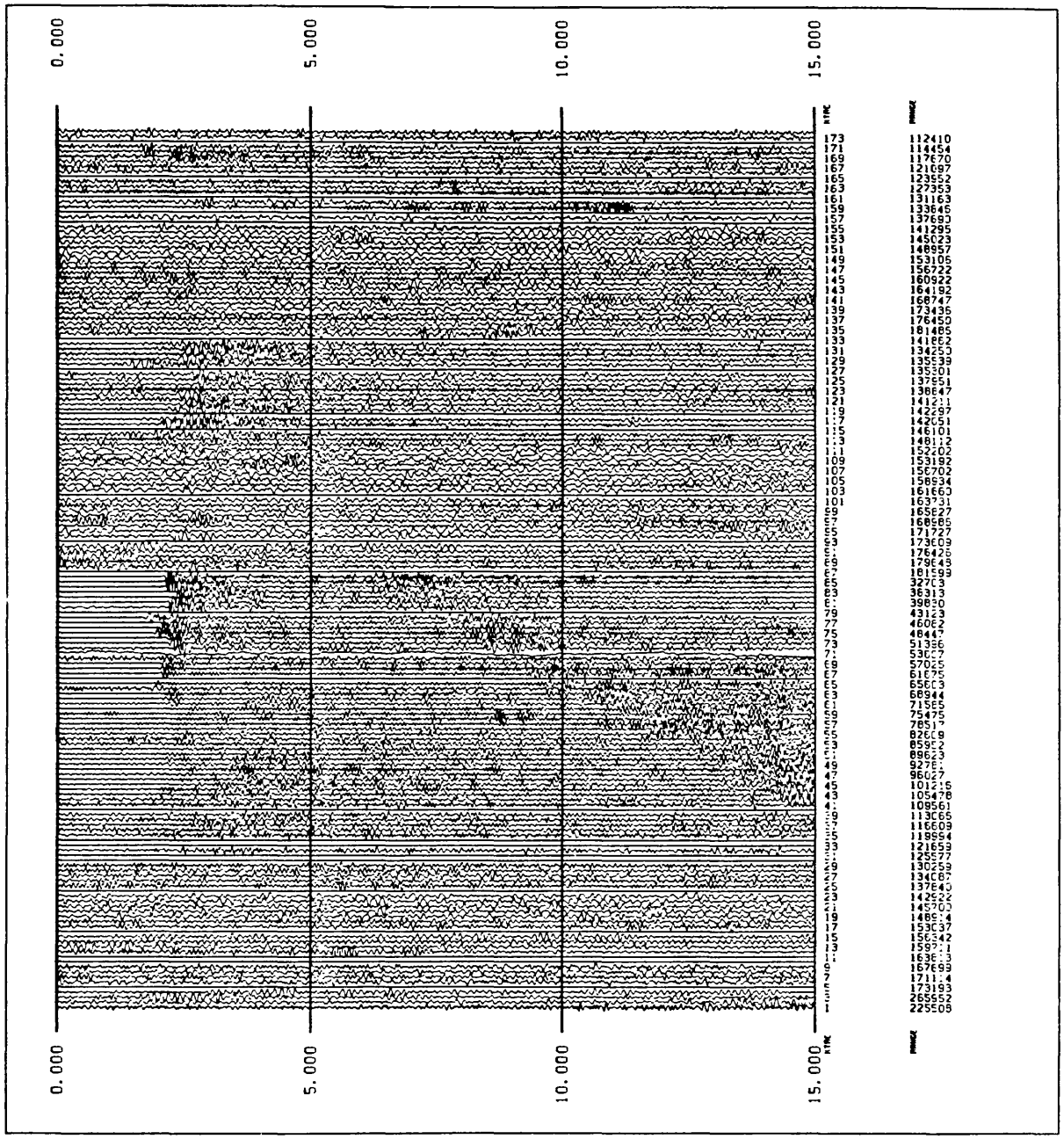

FIGURE A15O) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #150 CAT 3188512 94:289:07:55 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

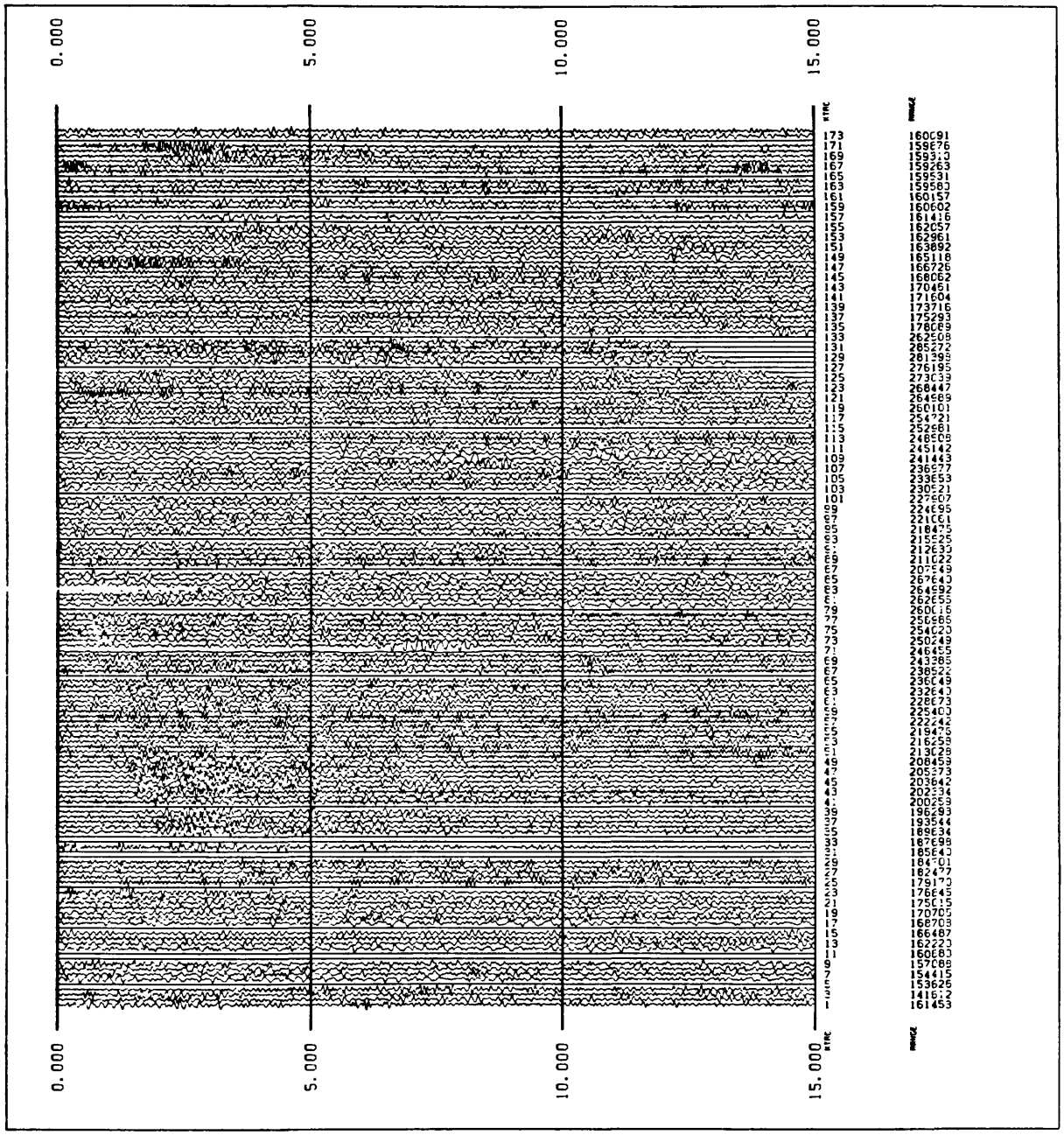

FIGURE A151) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #151 CAT 3188513 94:289:08:01 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

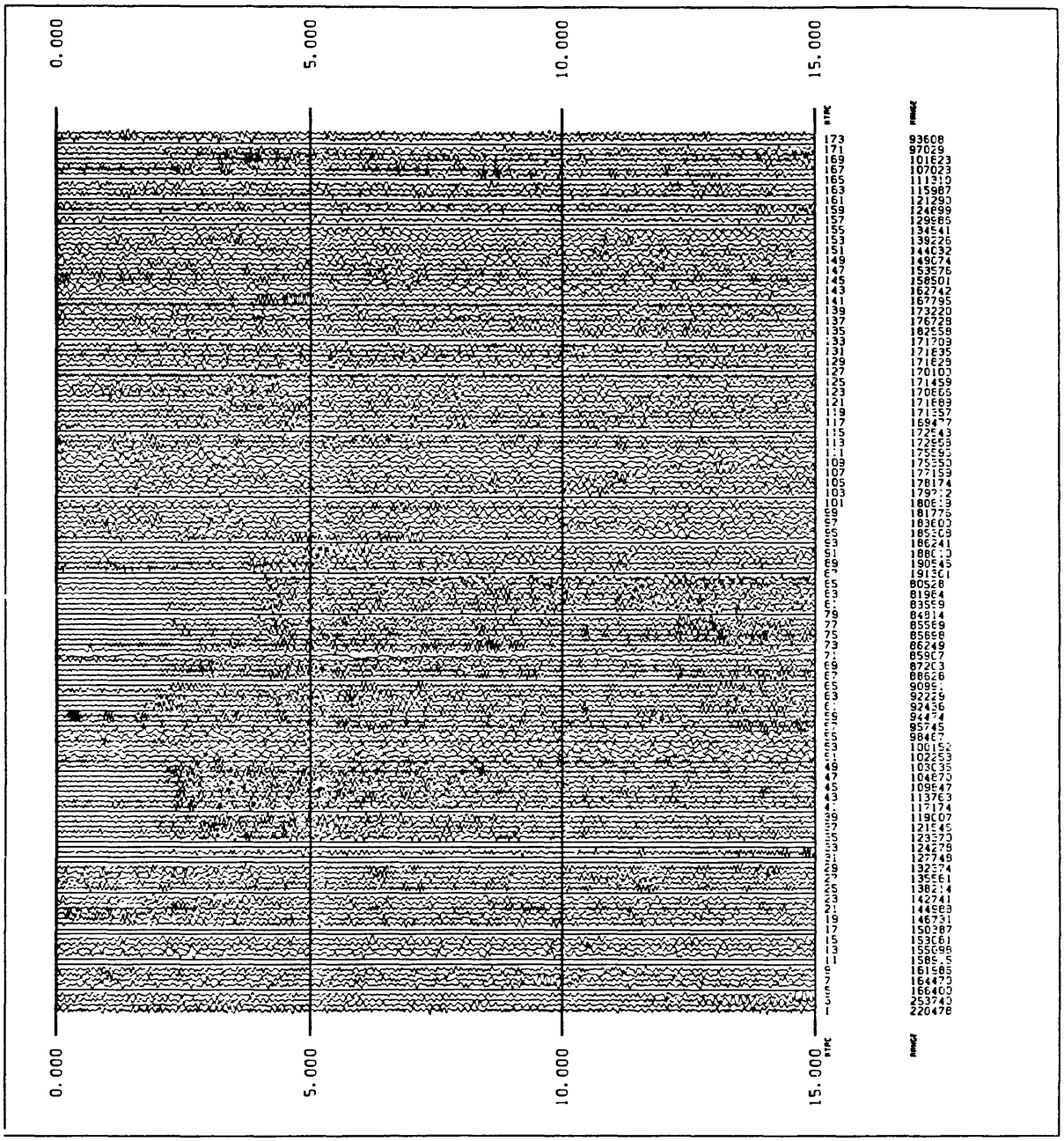

FIGURE A152) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #152 CAT 3188515 94:289:08:10 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

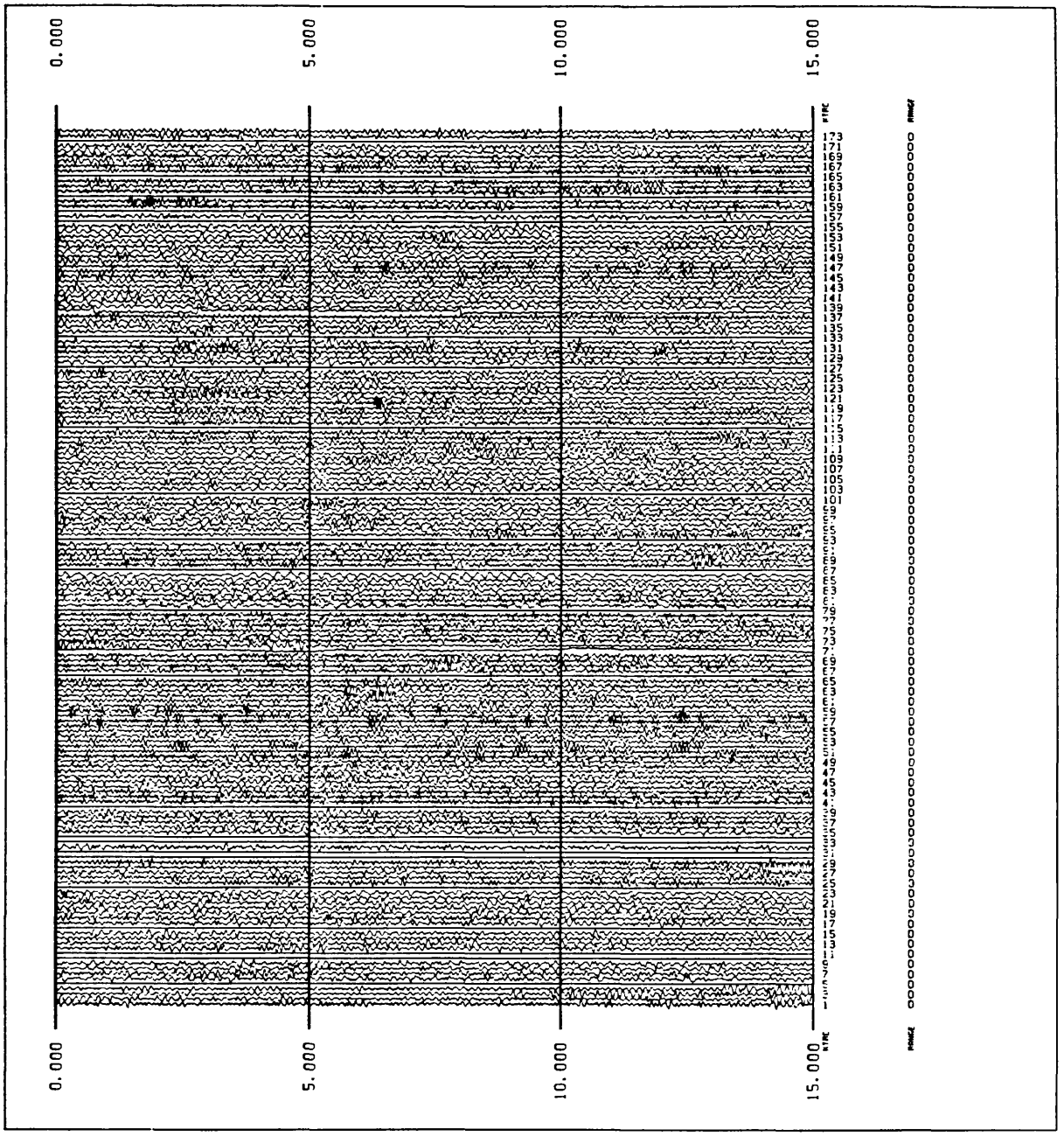

FIGURE A153) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #153 CAT 3188524 94:289:09:40 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

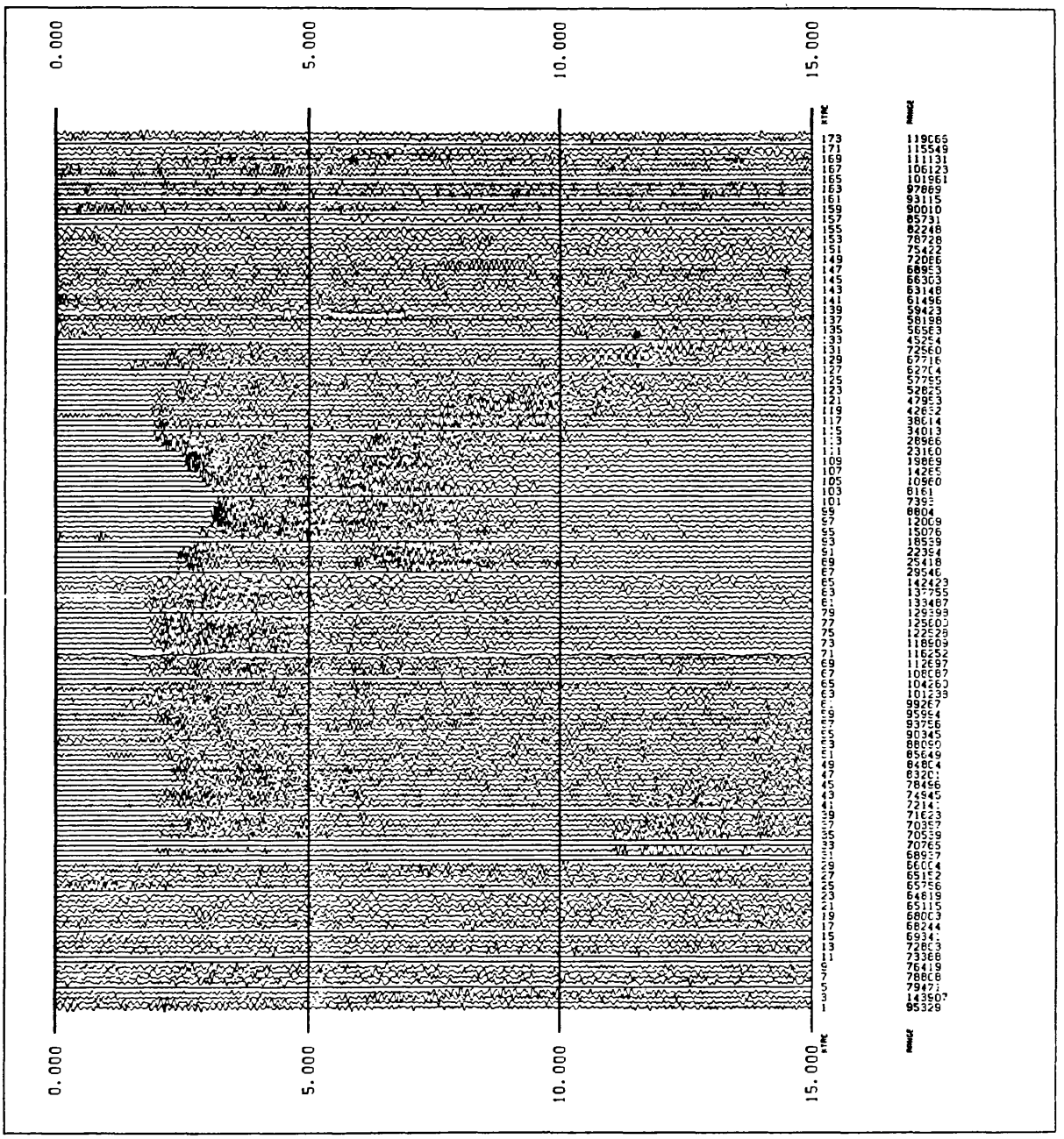

FIGURE A154) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #154 CAT 3188568 94:289:09:41 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

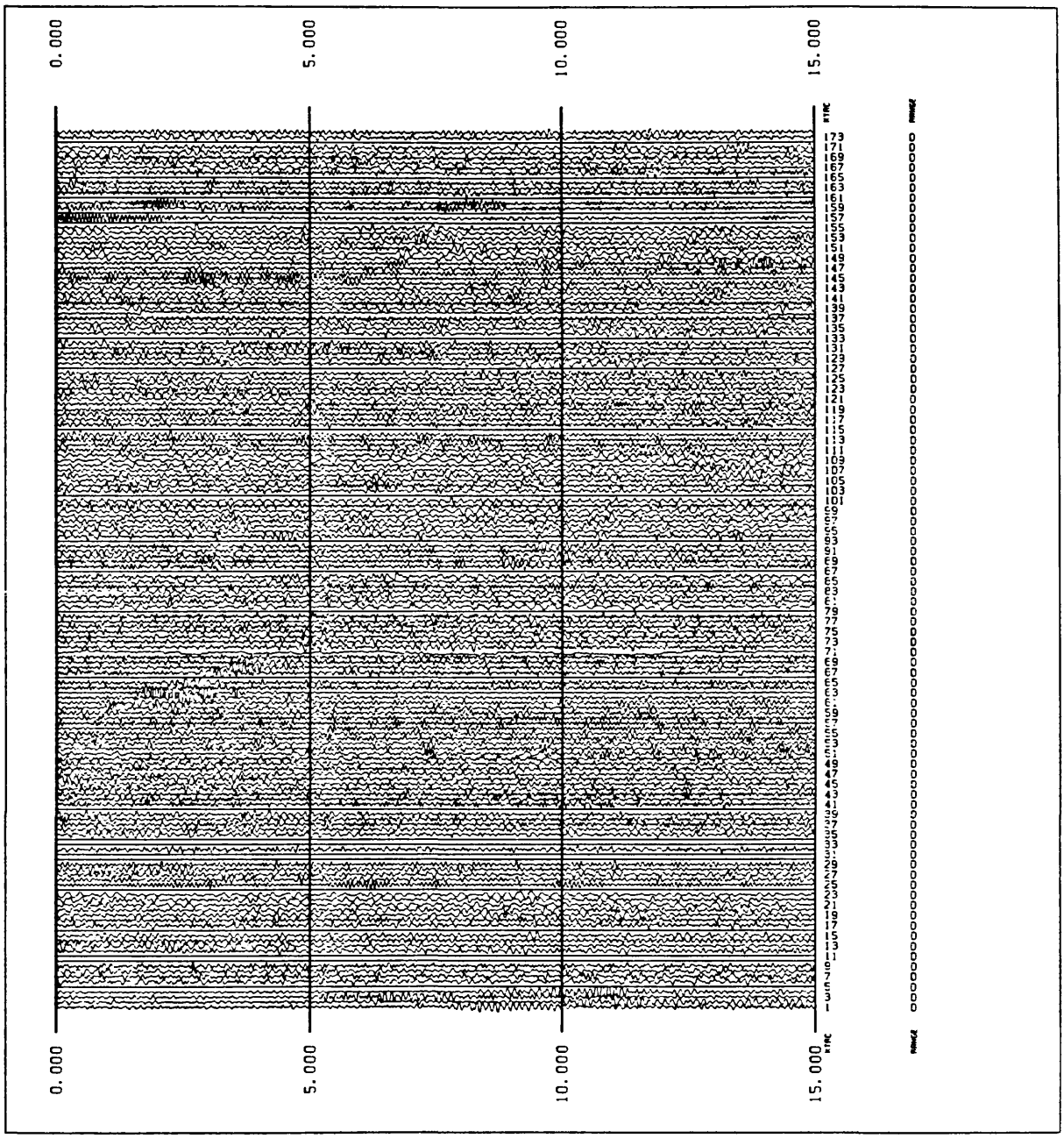

FIGURE A155) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #155 CAT 3188525 94:289:09:48 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

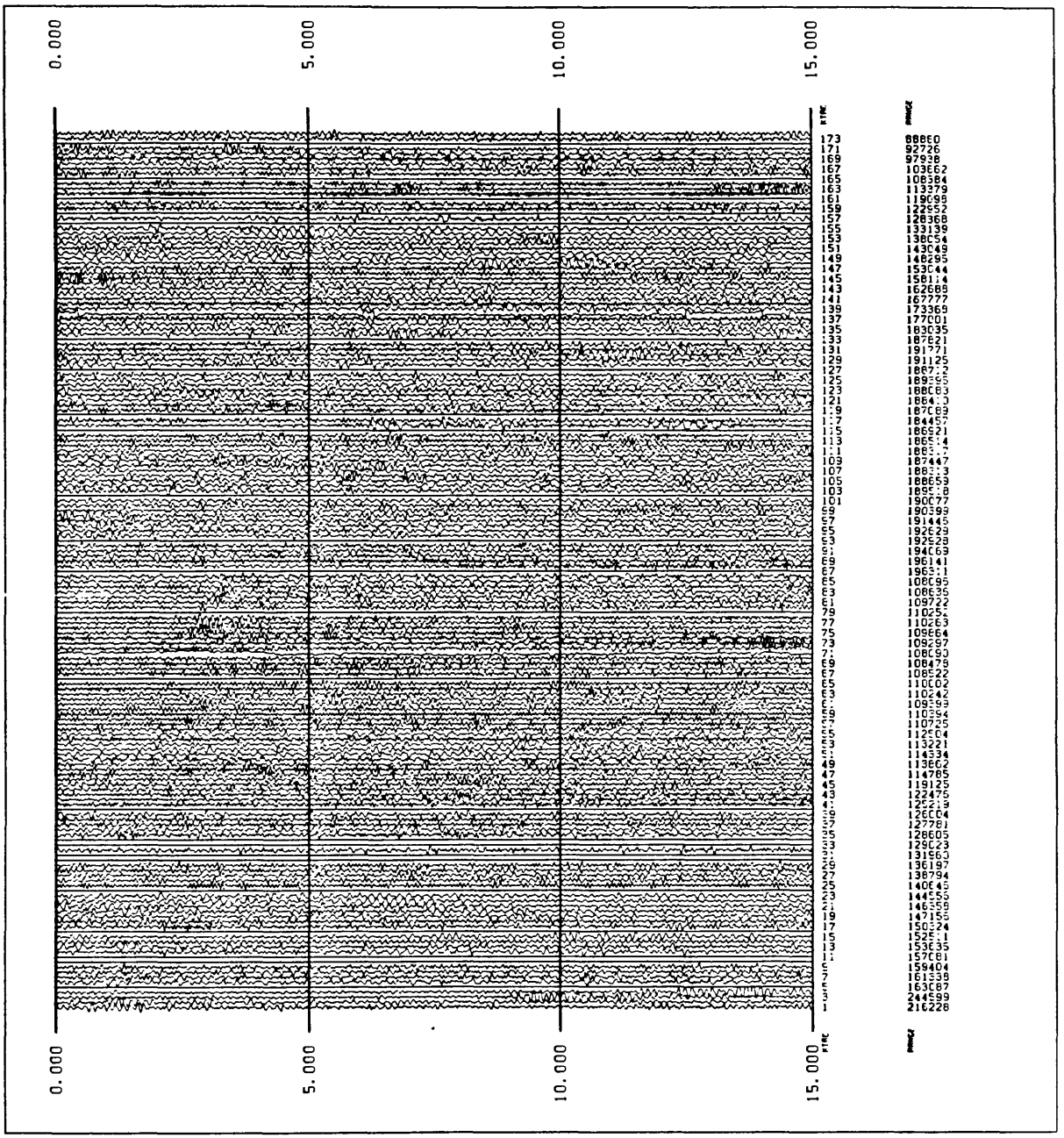

FIGURE A156) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #156 CAT 3188526 94:289:09:55 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

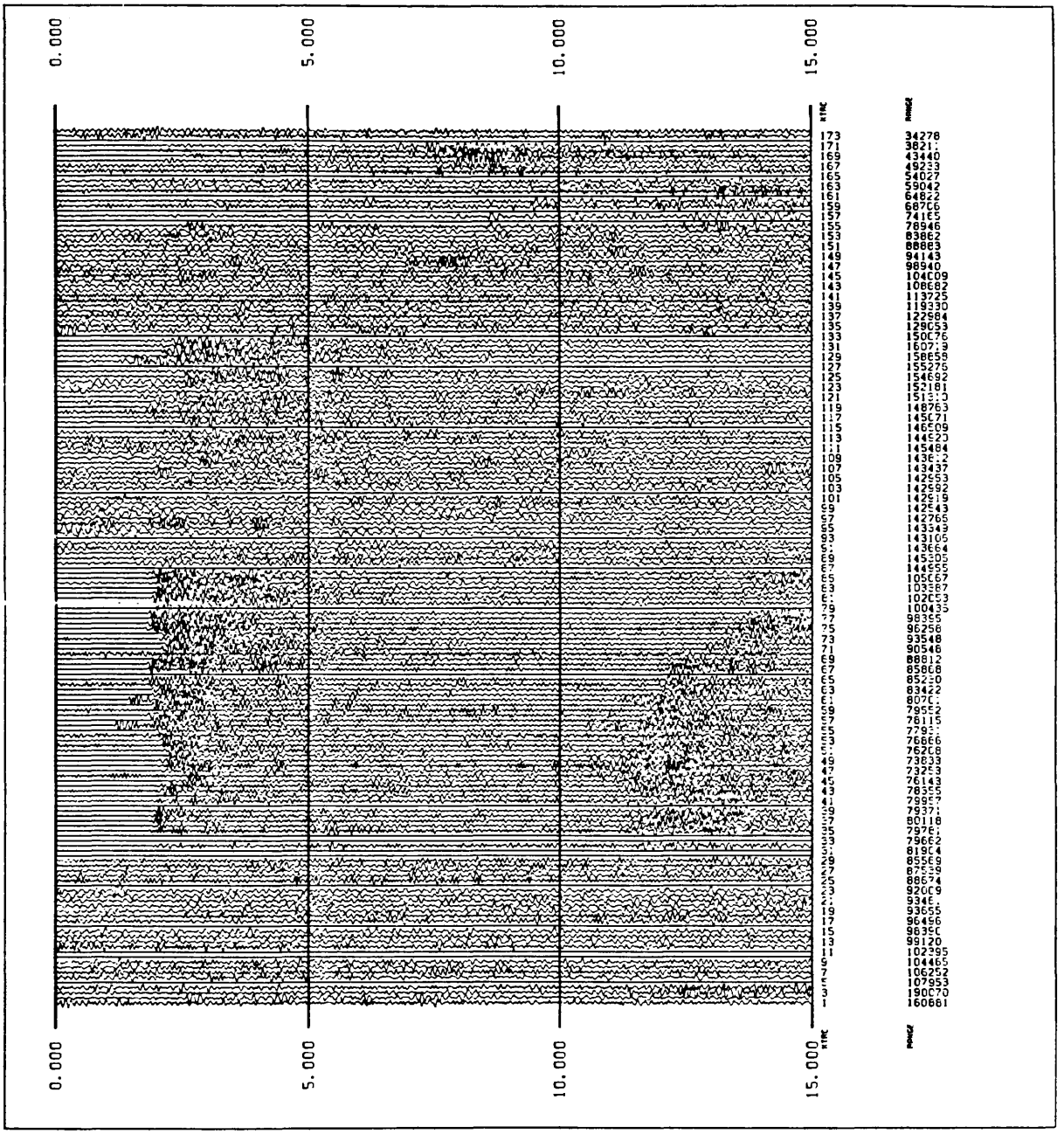

FIGURE A157) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #157 CAT 3188538 94:289:14:07 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

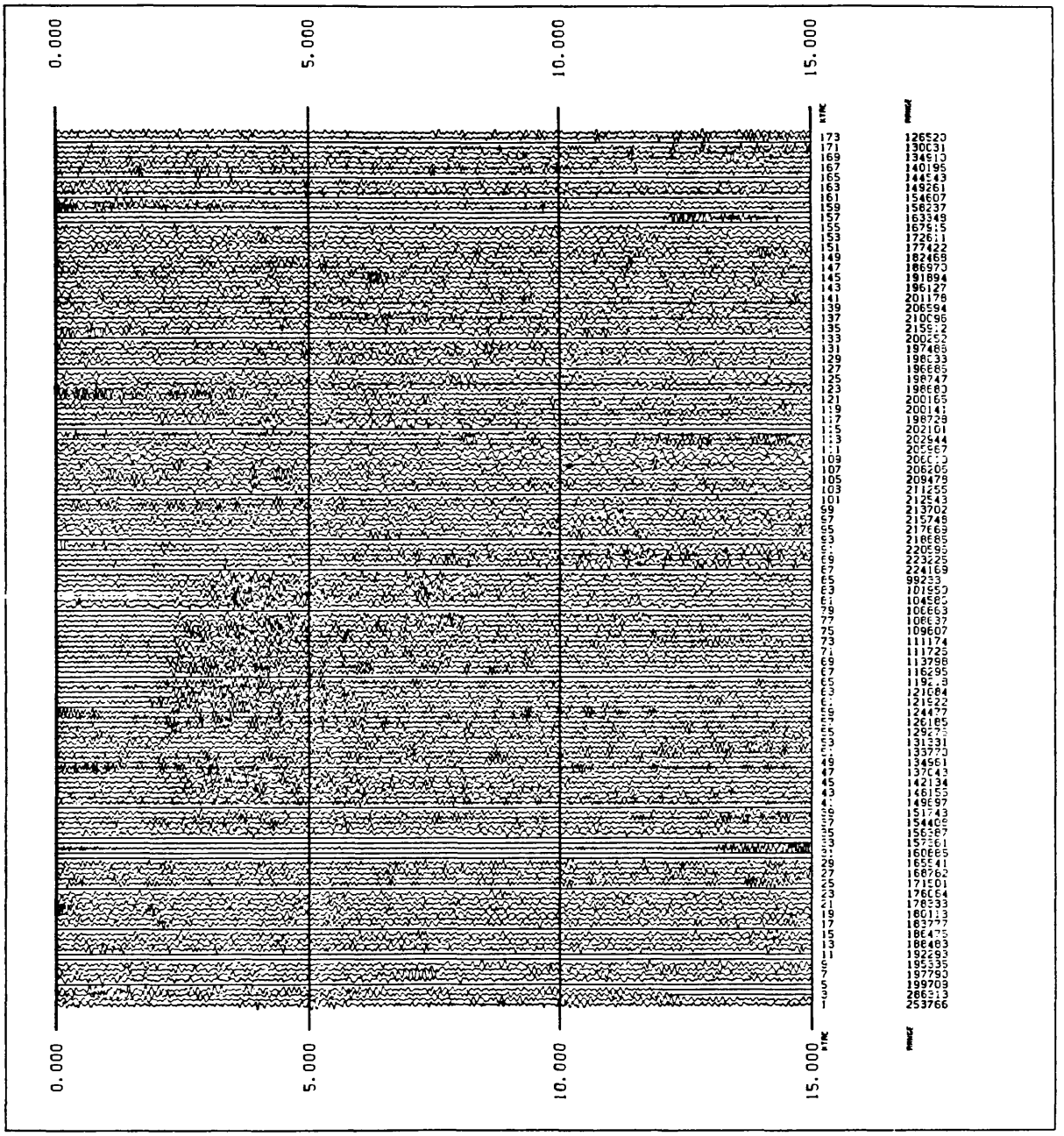

FIGURE A158) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #158 CAT 3188541 94:289:15:00 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

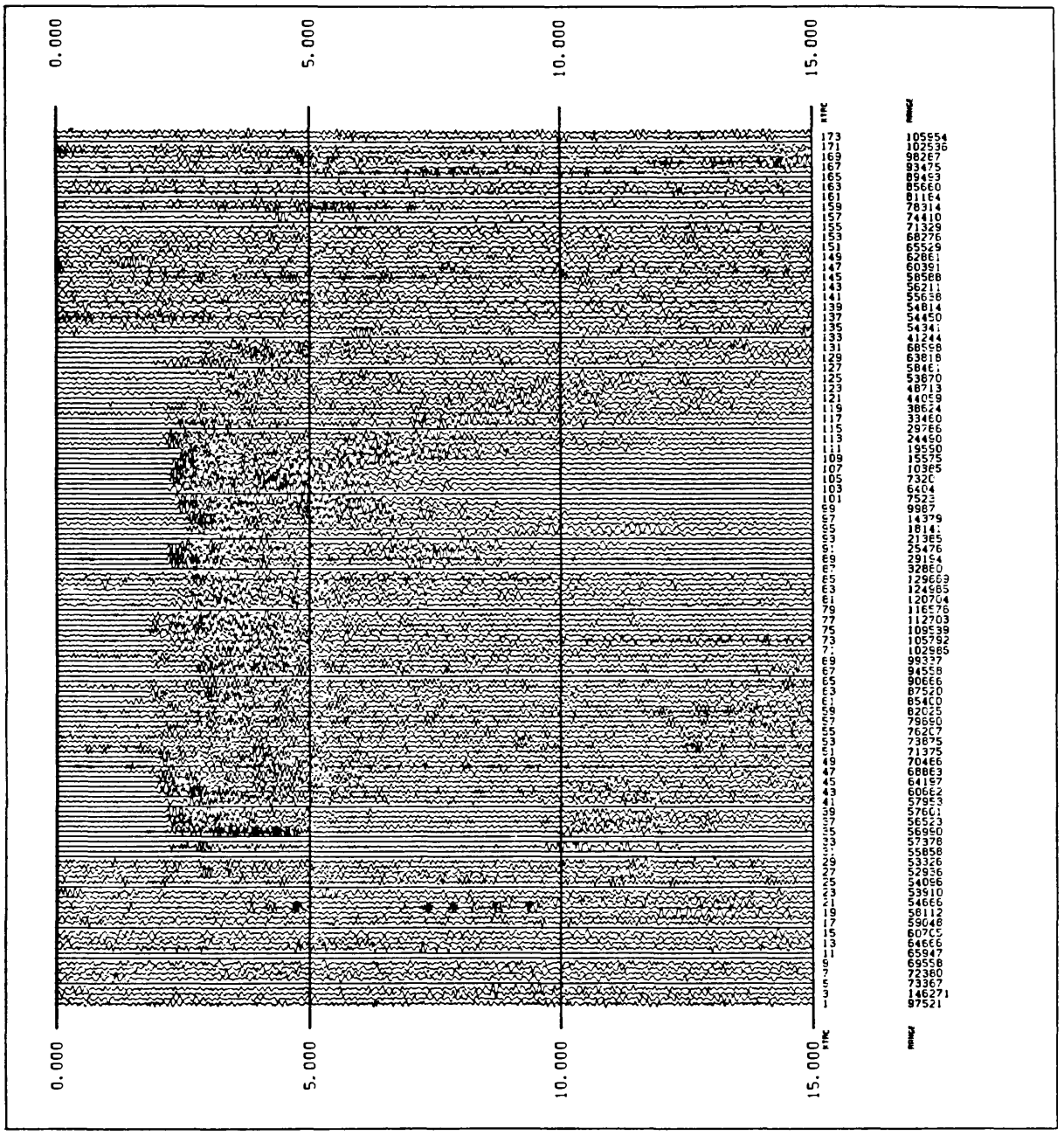

FIGURE A159) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #159 CAT 3188543 94:289:15:31 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

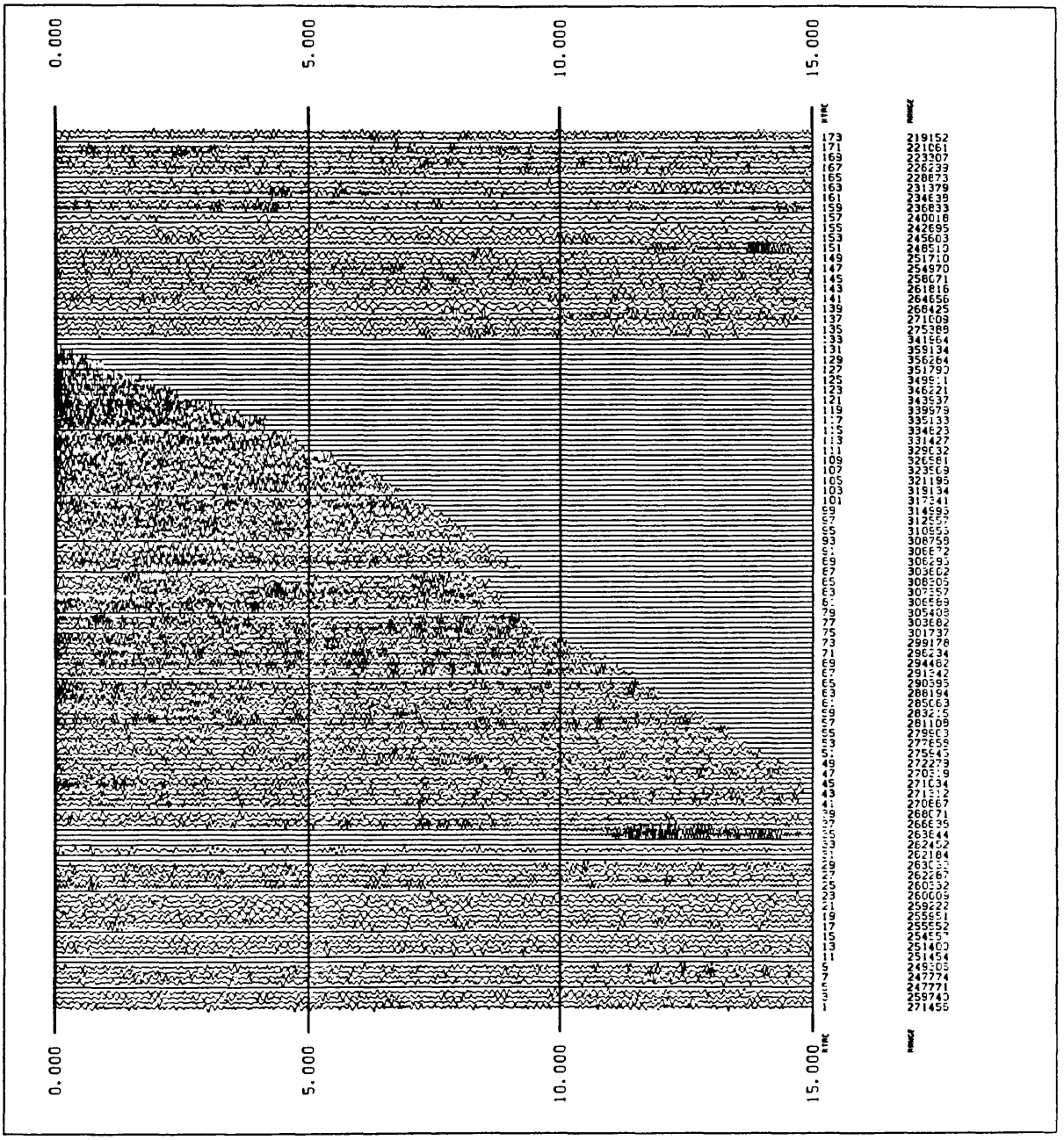

FIGURE A160) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #160 CAT 3188582 94:289:16:01 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

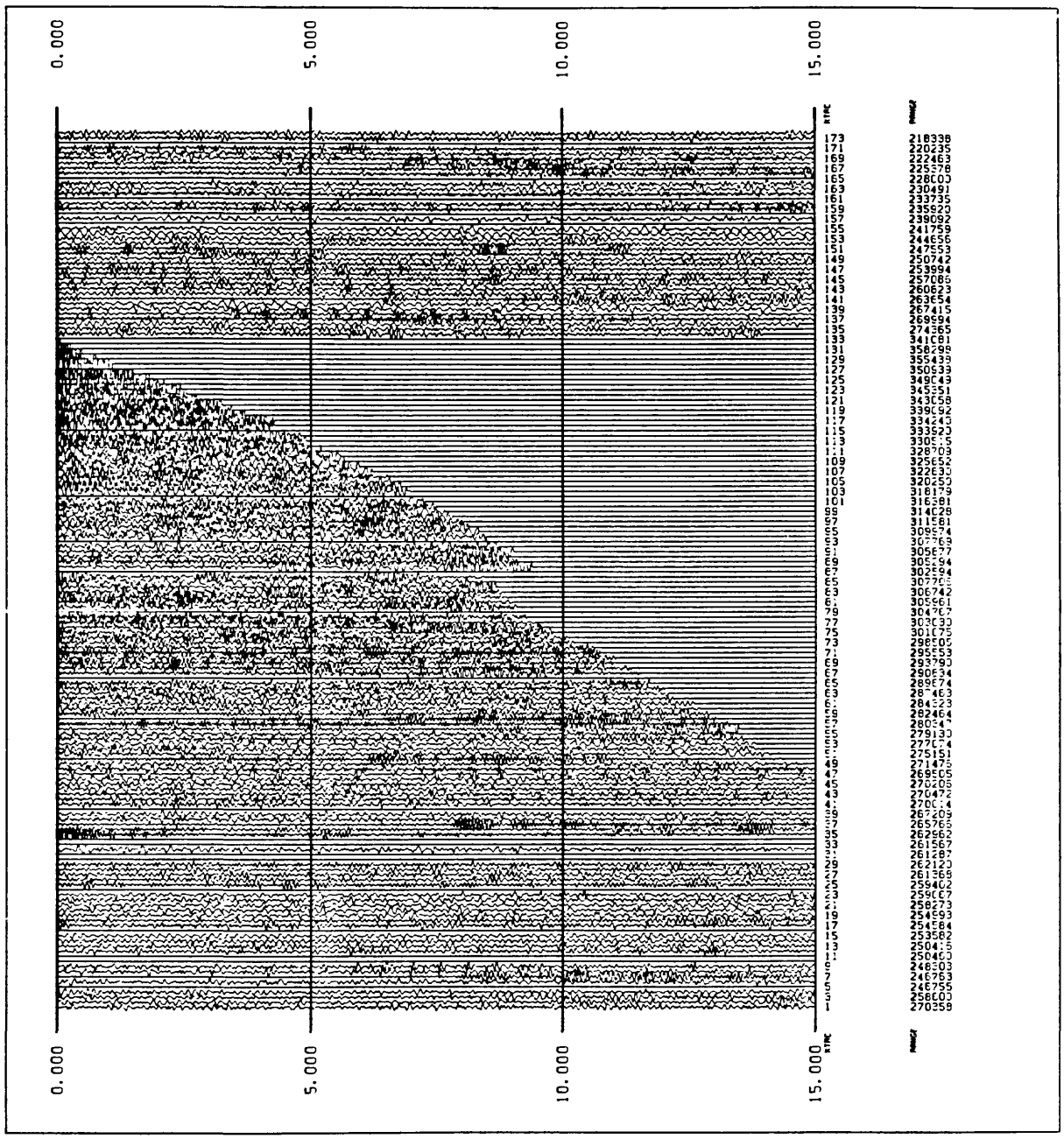

FIGURE A161) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #161 CAT 3188546 94:289:16:02 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

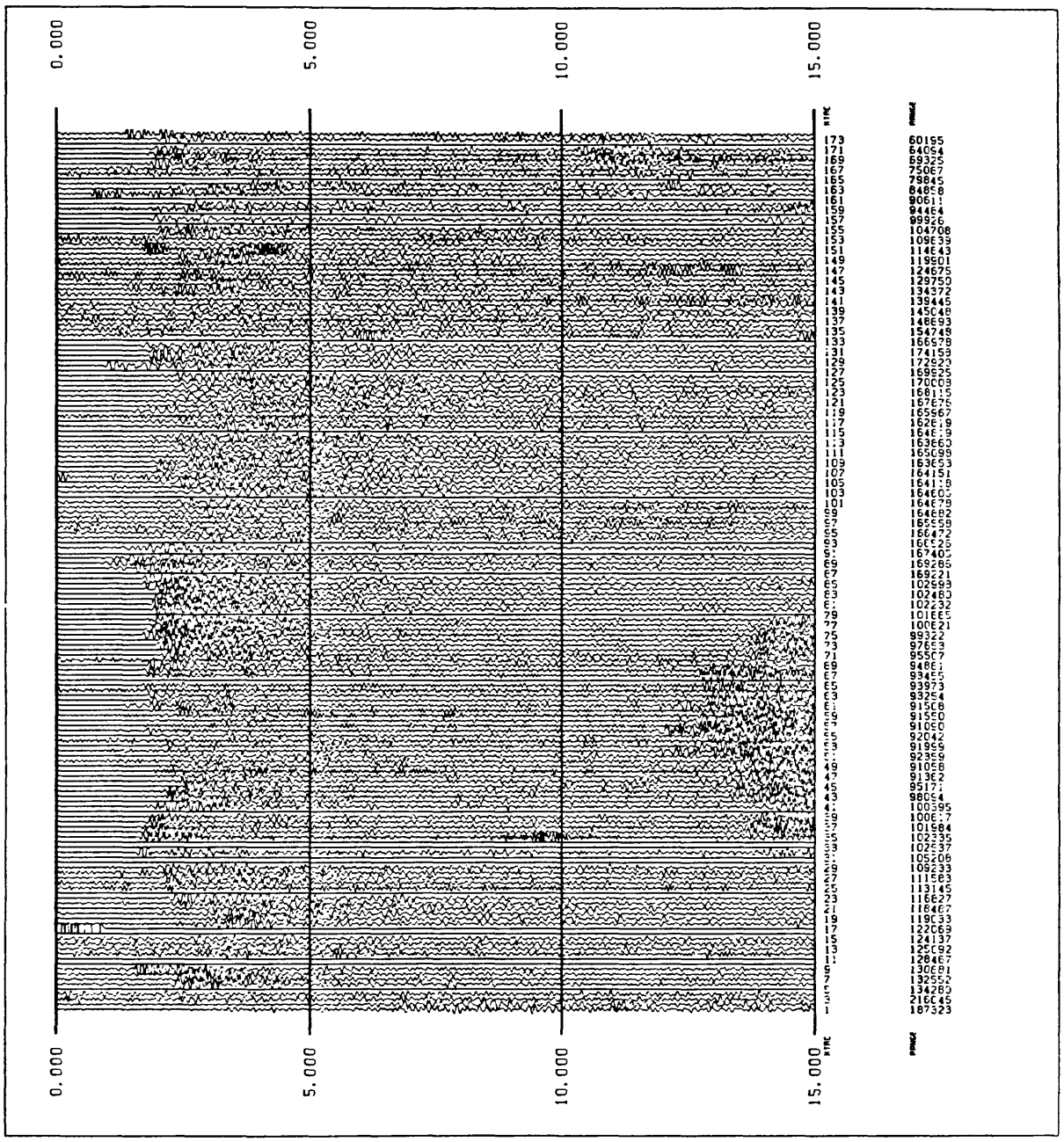

FIGURE A162) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #162 CAT 3188551 94:289:16:29 MAG 3.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Big Bear

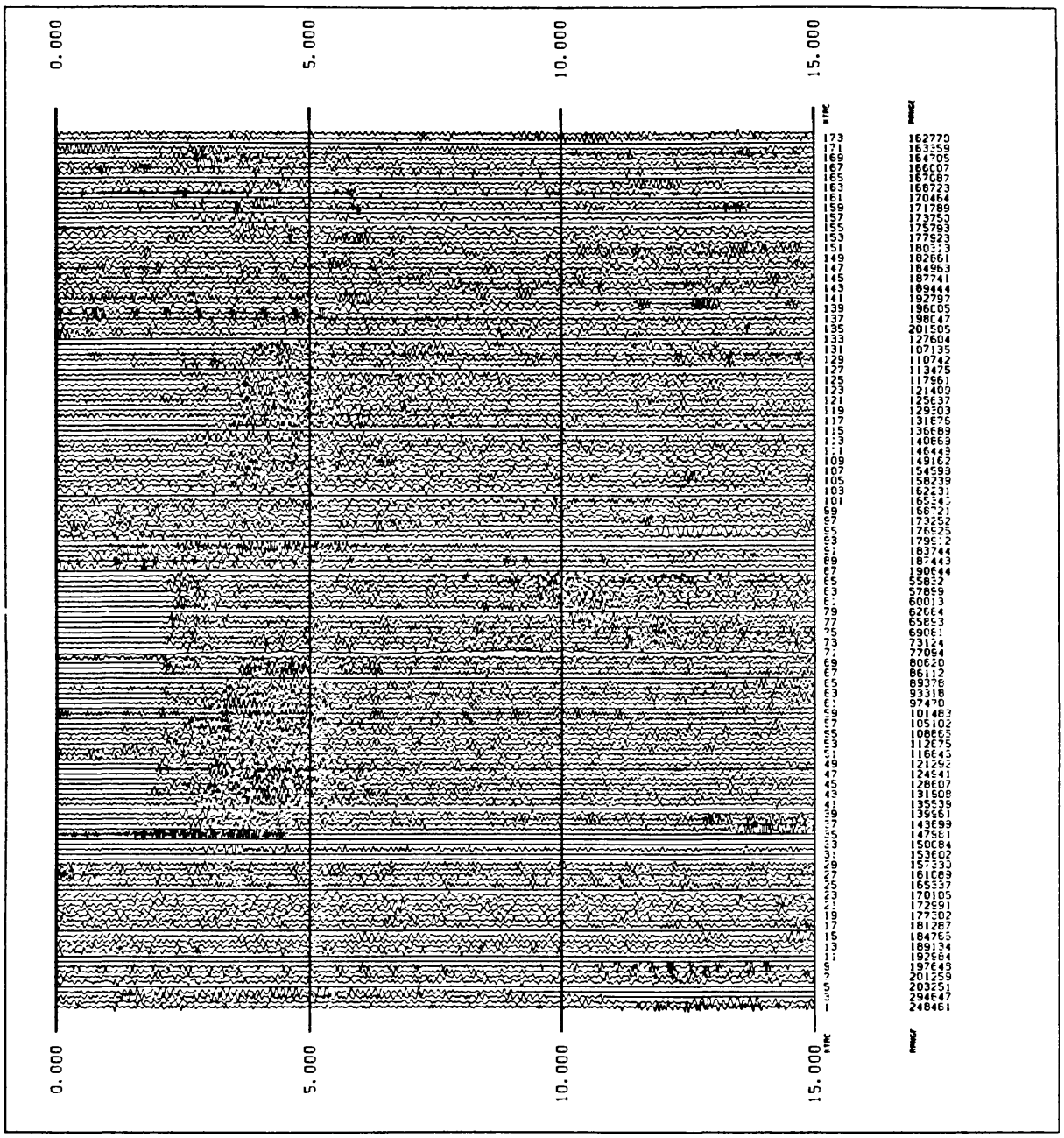

FIGURE A163) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #163 CAT 3188554 94:289:17:02 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

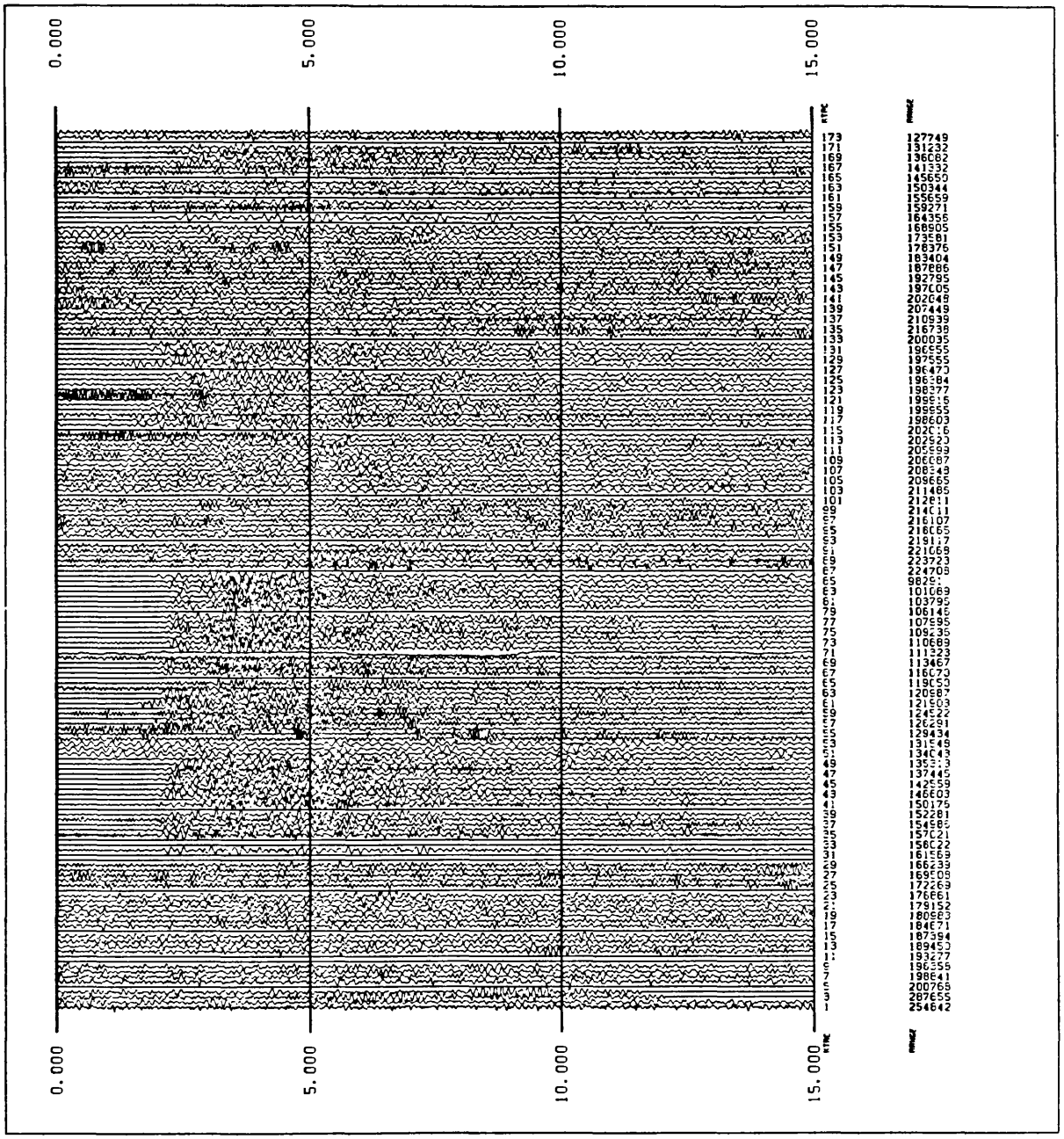

FIGURE A164) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #164 CAT 3188555 94:289:17:29 MAG 2.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

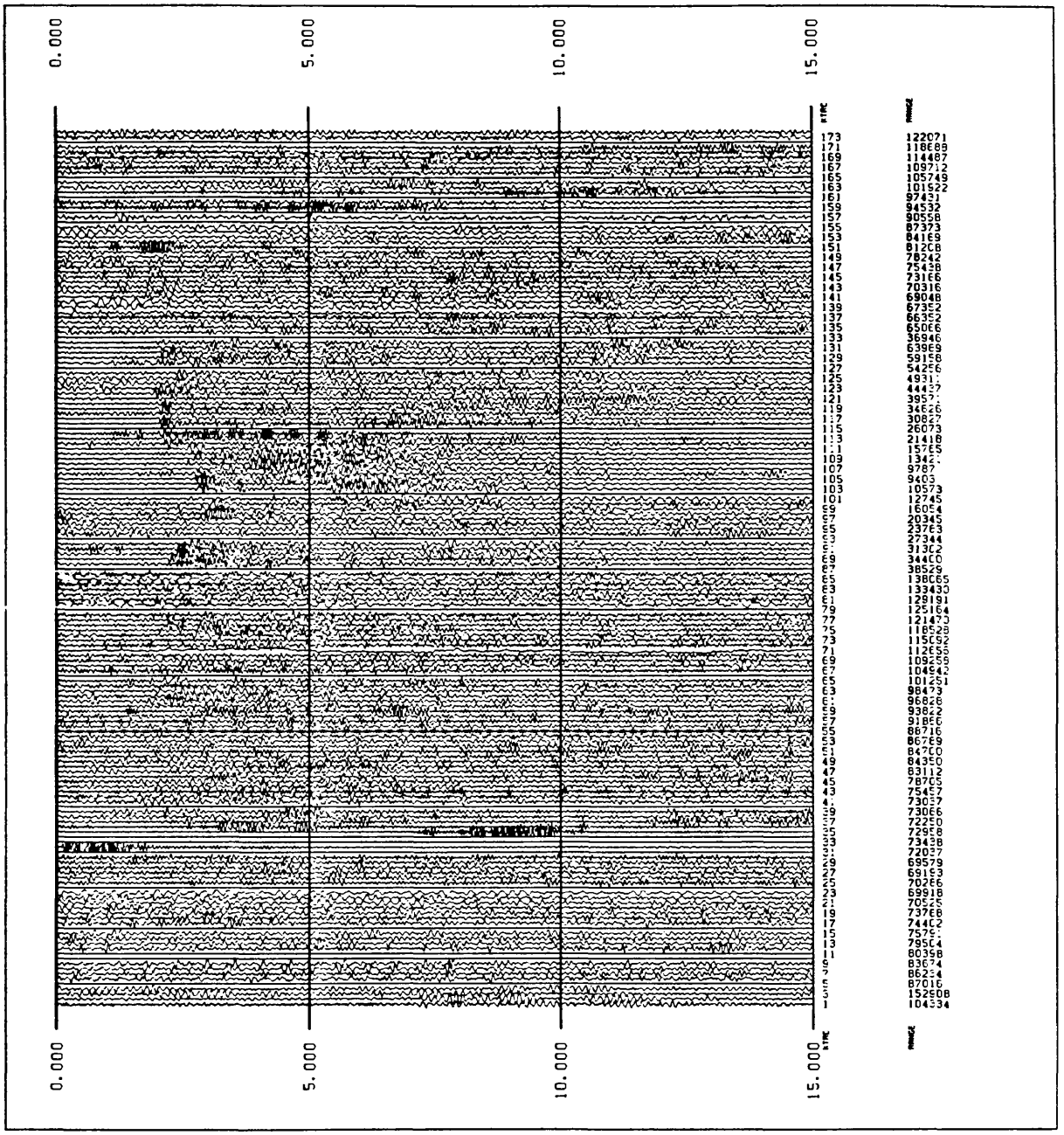

FIGURE A165) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #165 CAT 3188562 94:289:18:41 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

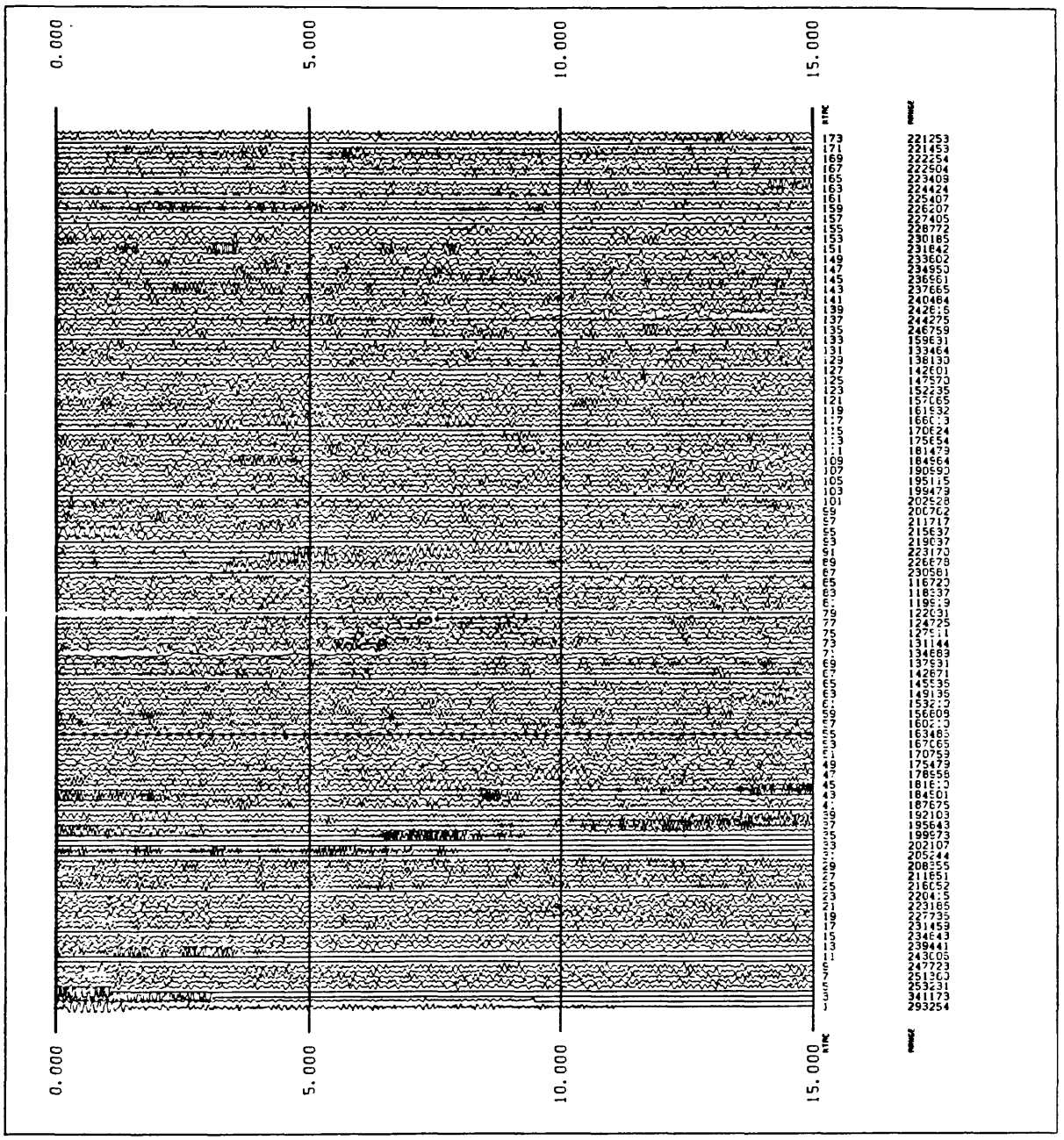

FIGURE A166) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #166 CAT 3188571 94:289:19:42 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

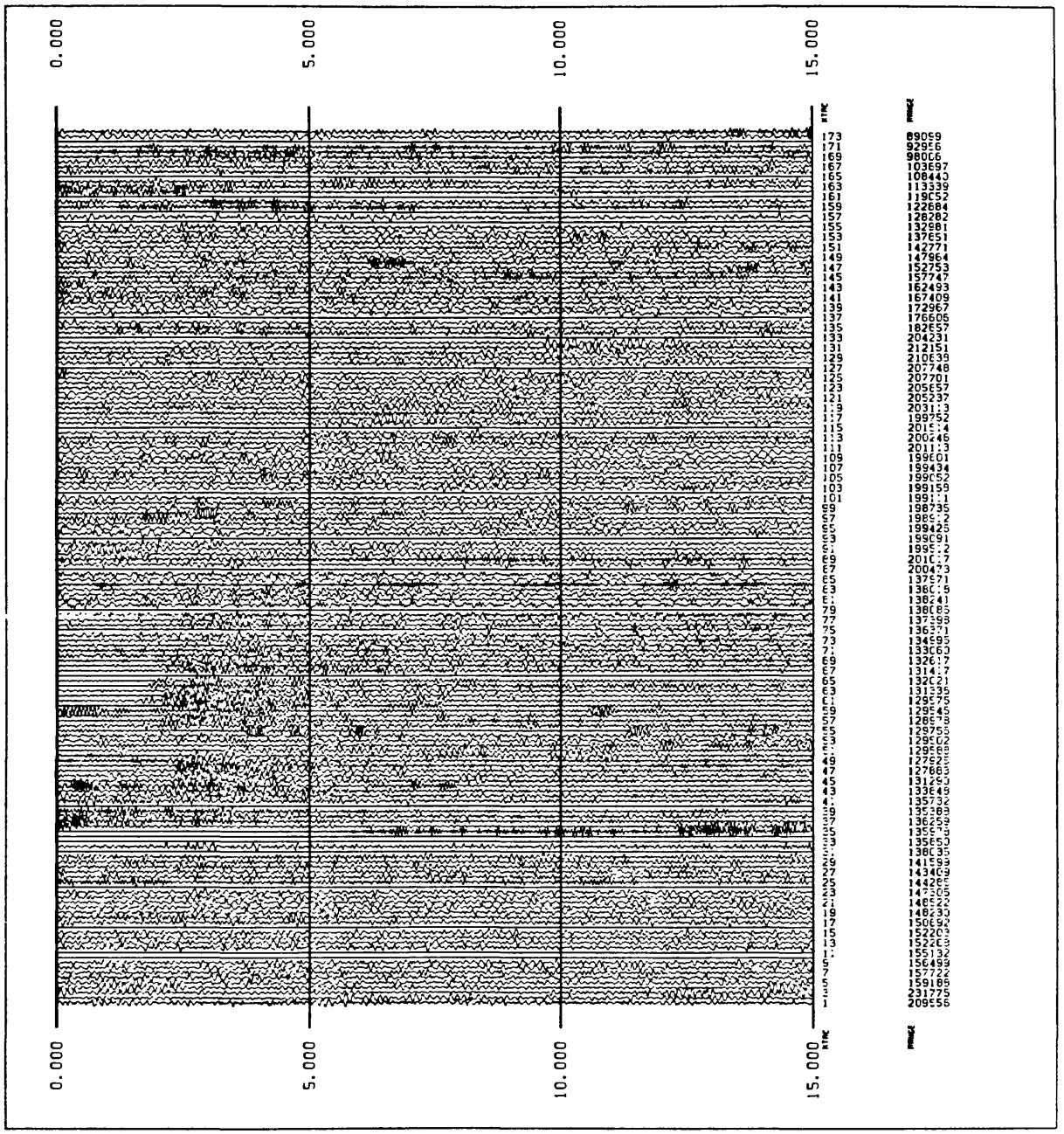

FIGURE A167) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #167 CAT 3188575 94:289:21:03 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

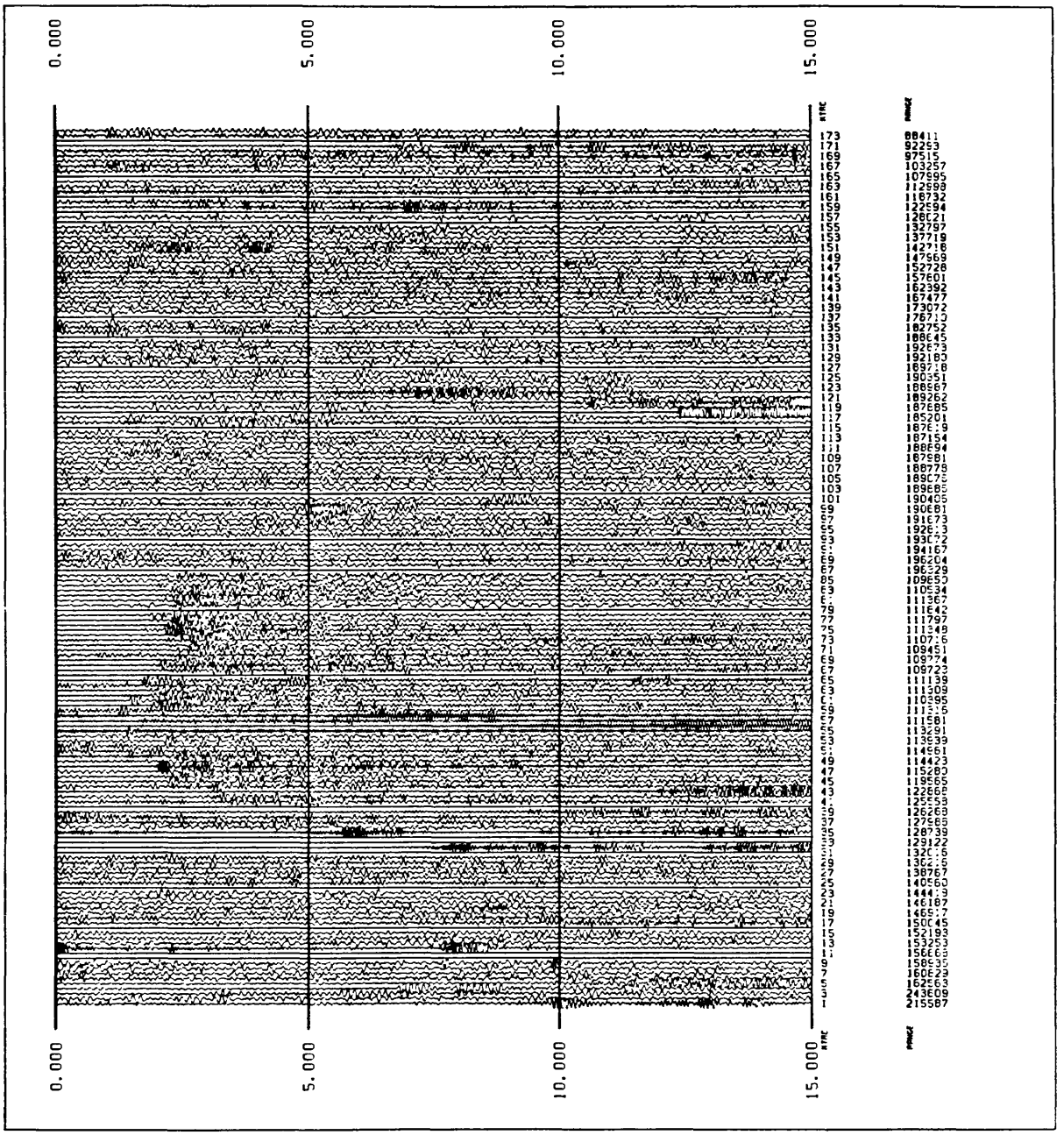

FIGURE A168) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #168 CAT 3188577 94:289:21:15 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

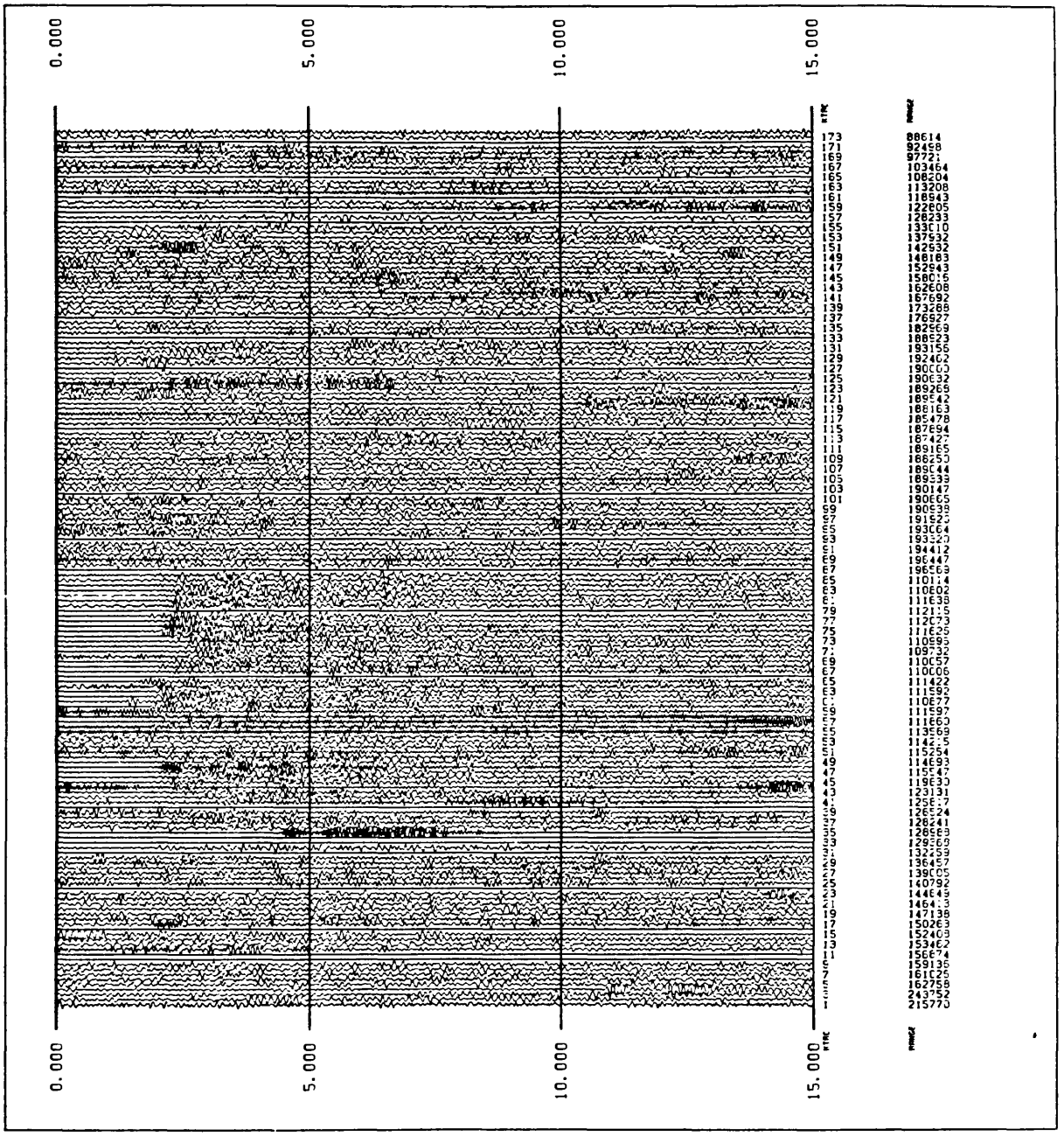

FIGURE A169) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #169 CAT 3188578 94:289:21:17 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

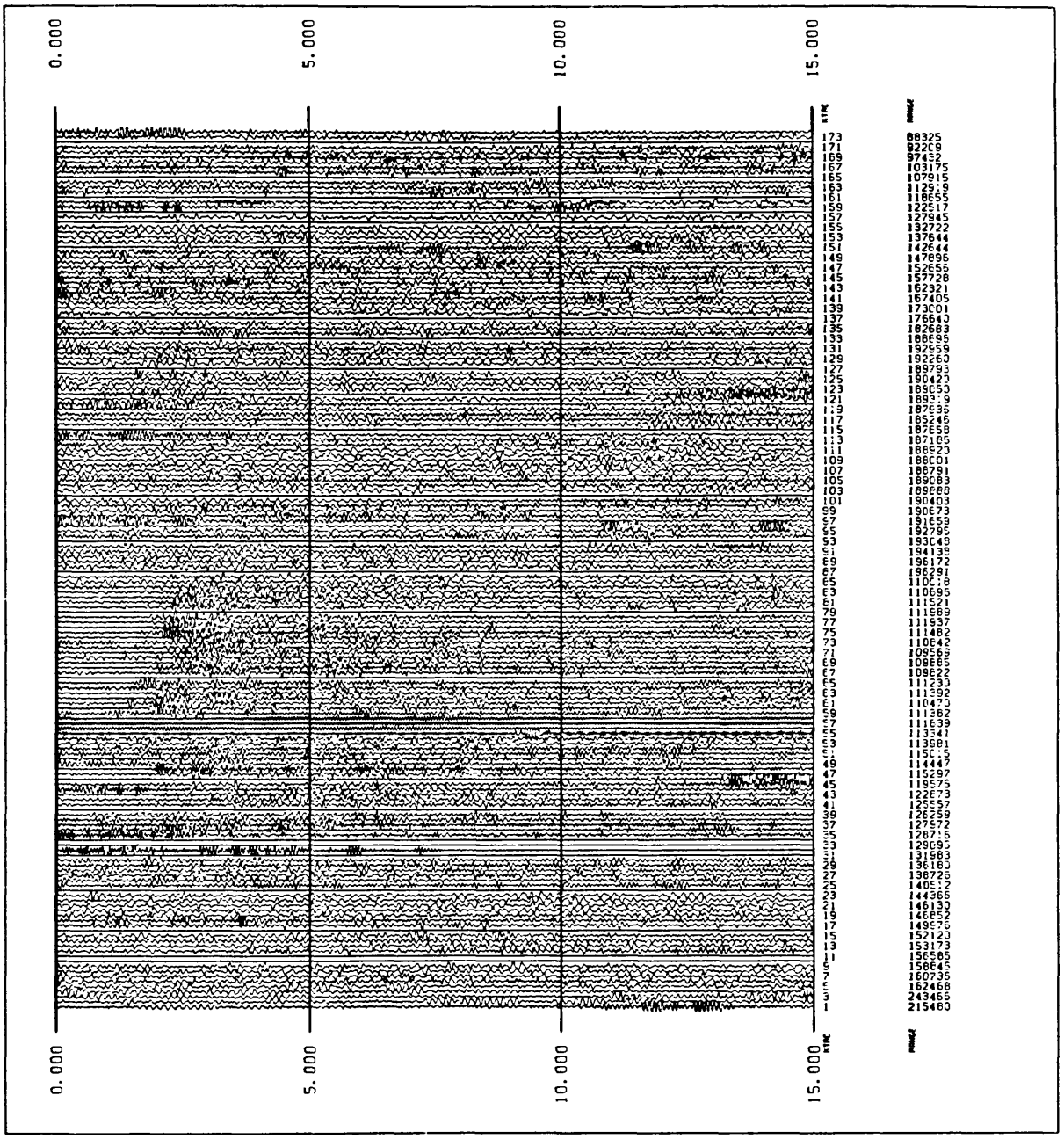

FIGURE A170) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #170 CAT 3188579 94:289:21:18 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

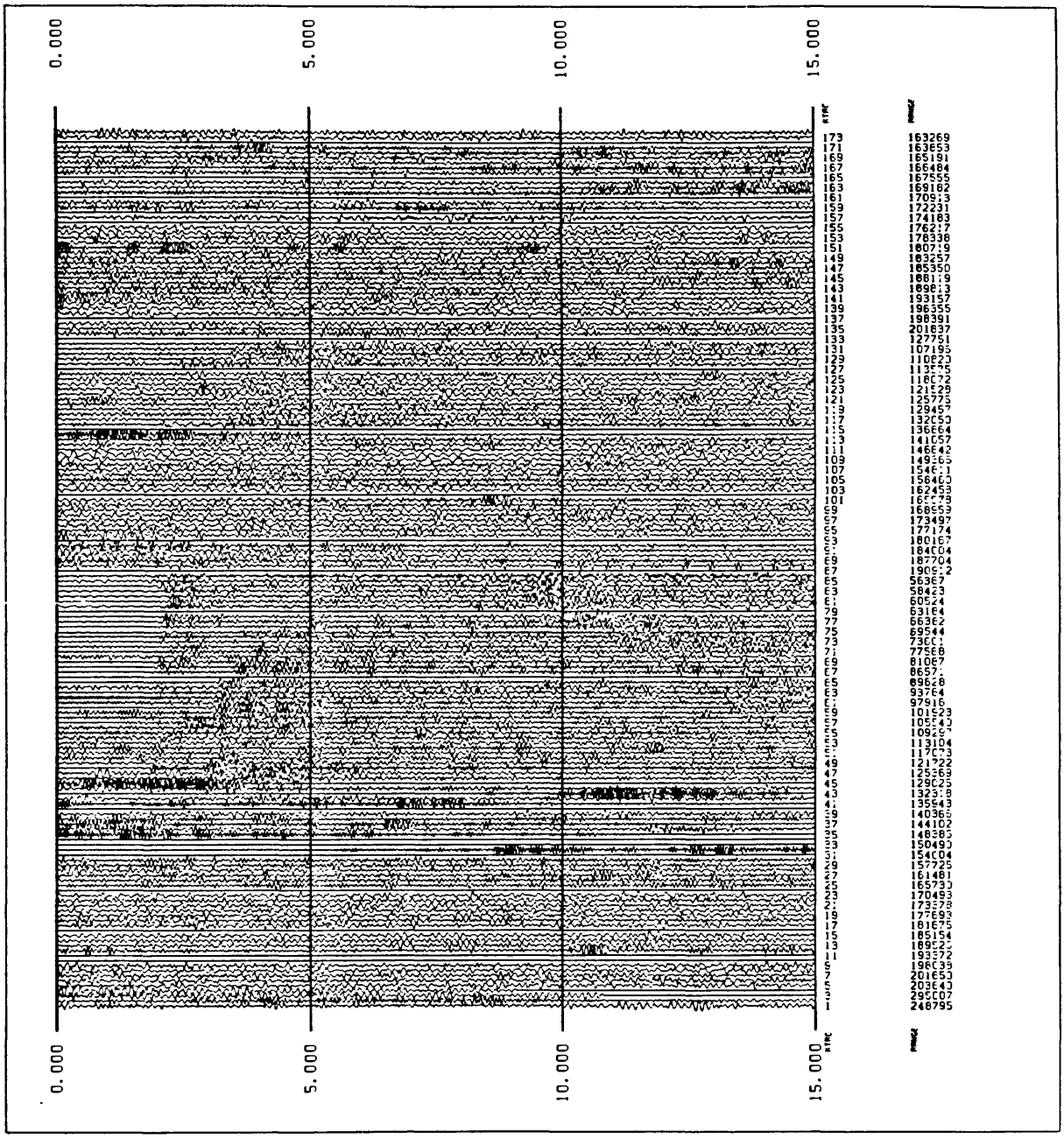

FIGURE A171) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #171 CAT 3188580 94:289:21:22 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

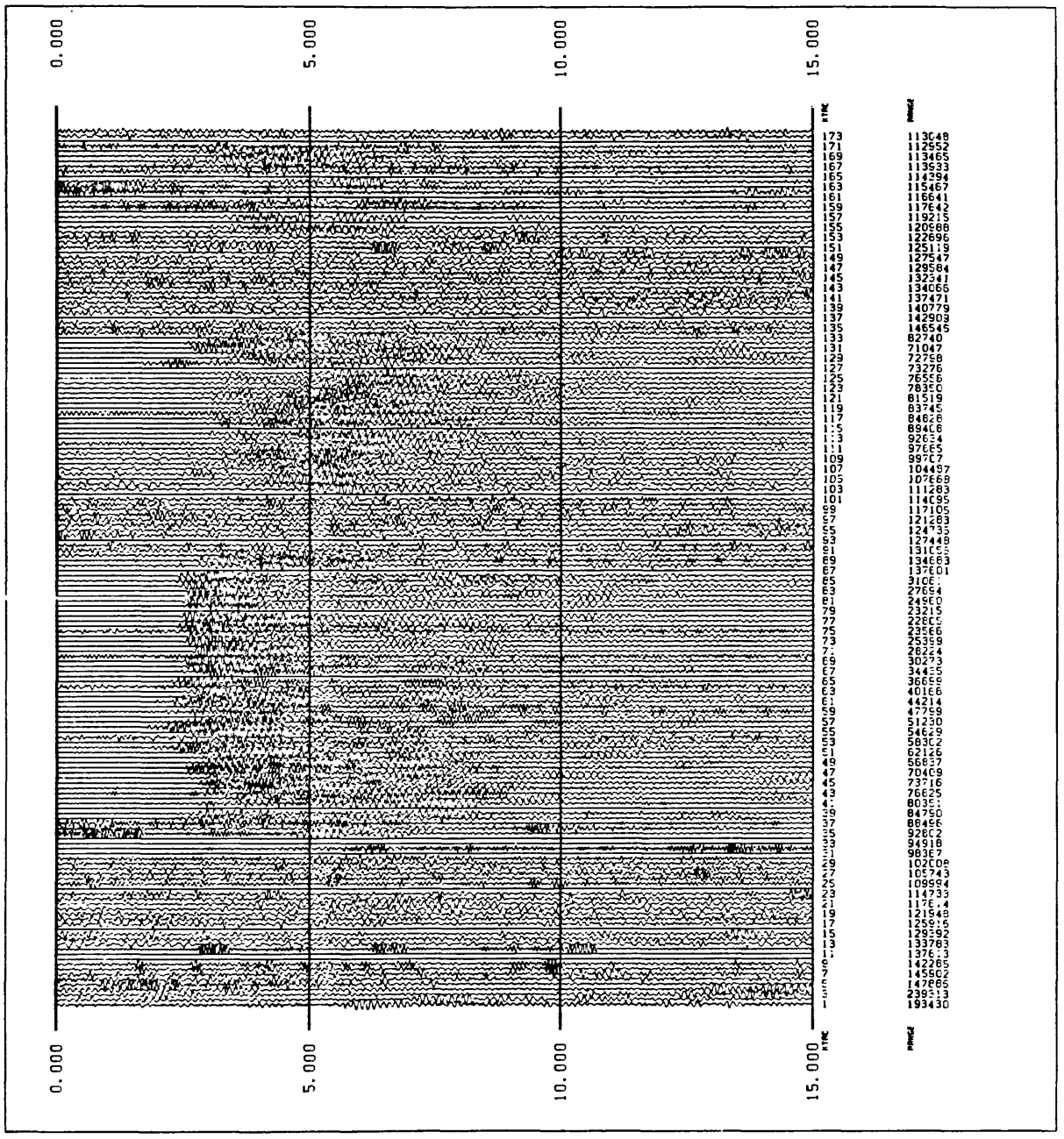

FIGURE A172) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #172 CAT 3188586 94:289:22:18 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Bower

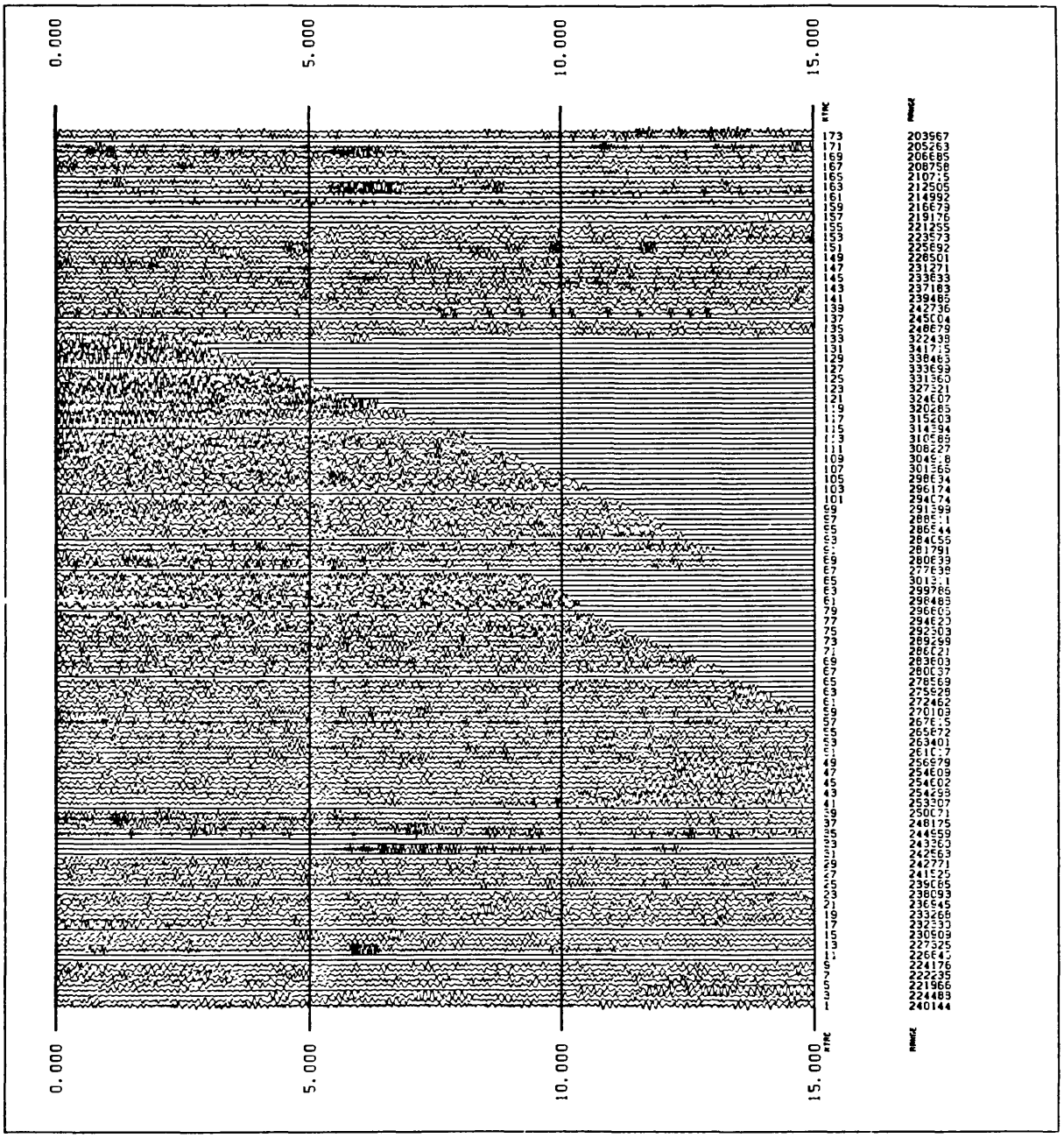

FIGURE A173) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #173 CAT 3188595 94:290:00:05 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

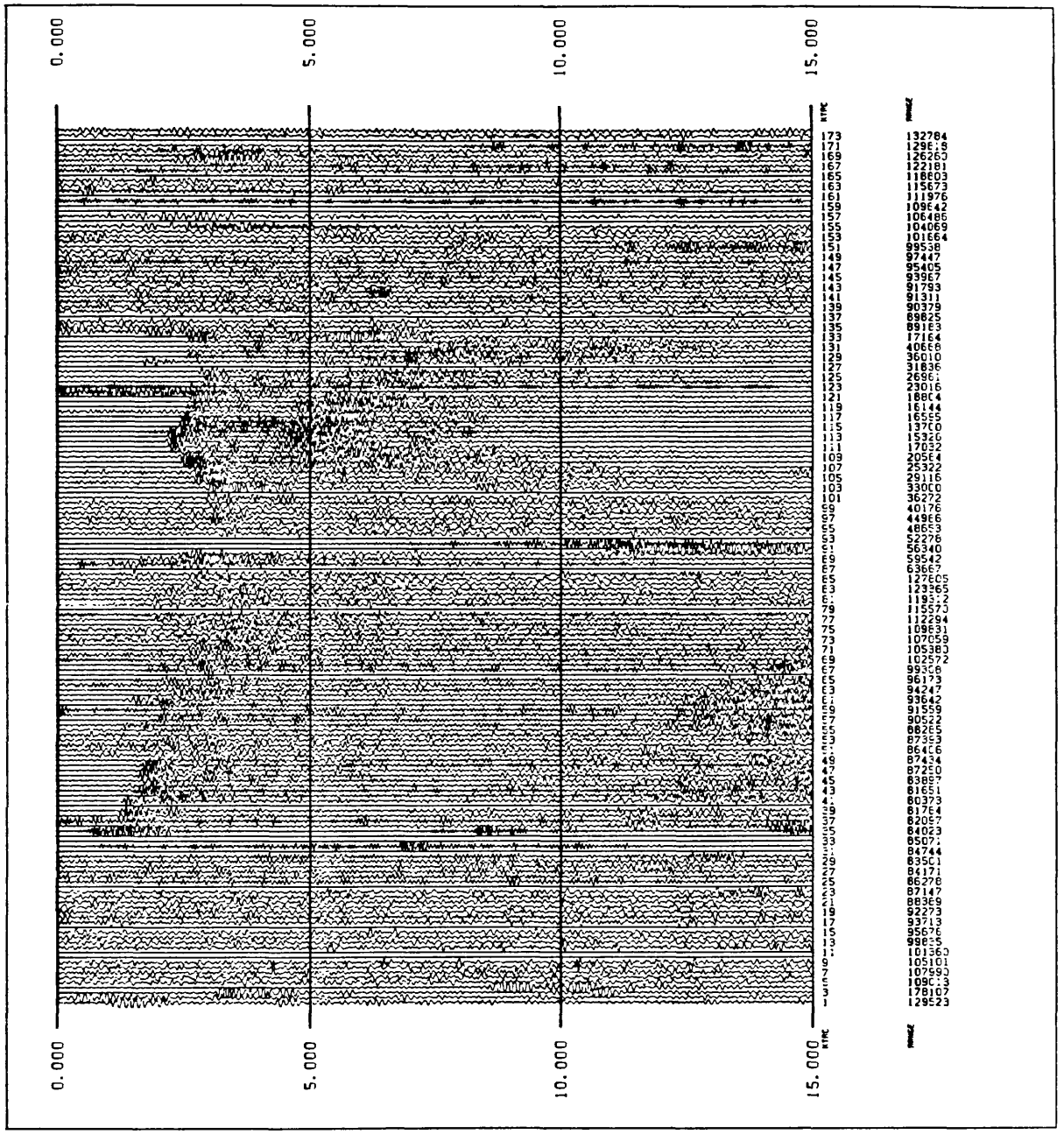

FIGURE A174) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #174 CAT 3188602 94:290:01:55 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

NI

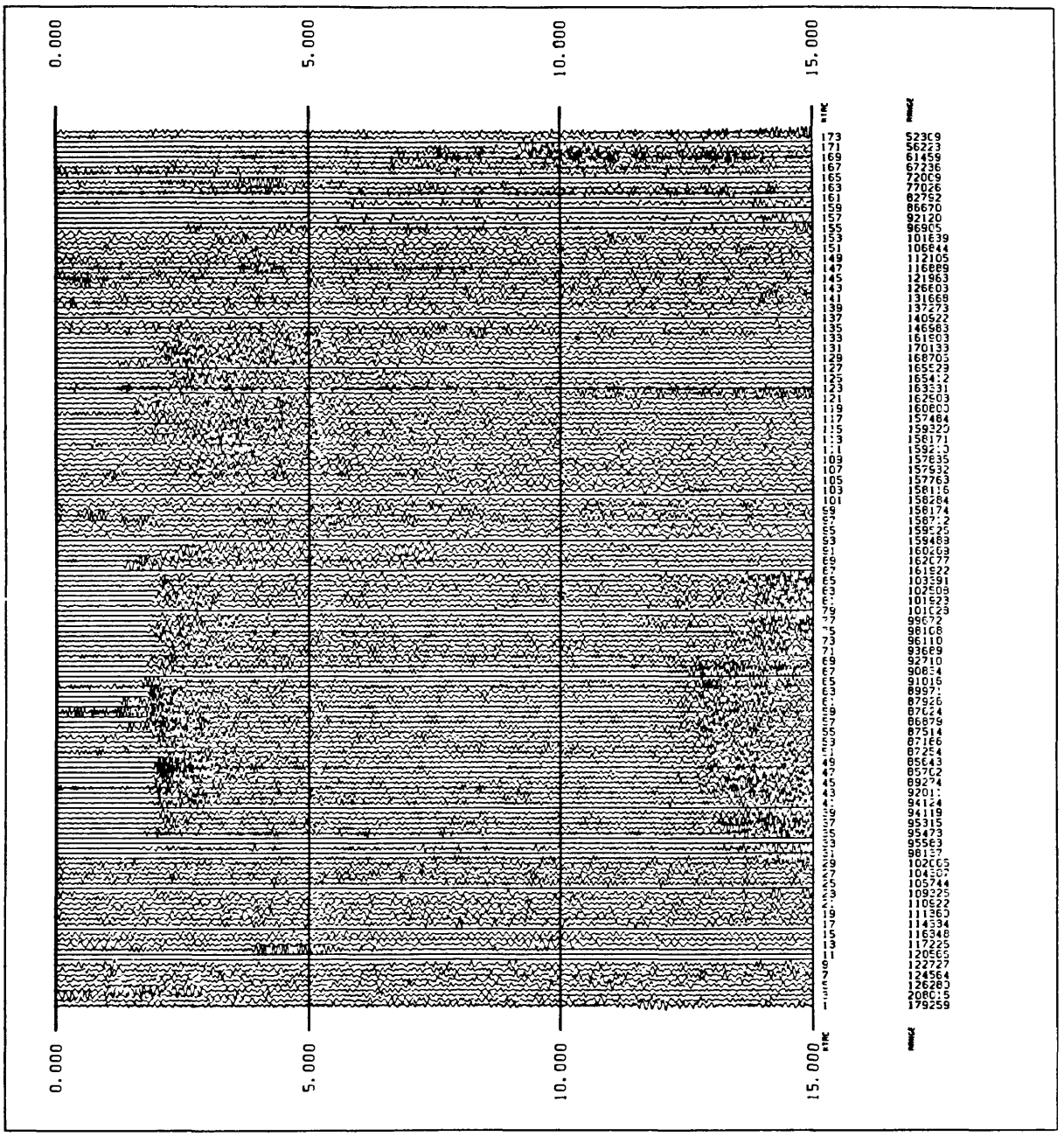

FIGURE A175) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #175 CAT 3188605 94:290:03:10 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

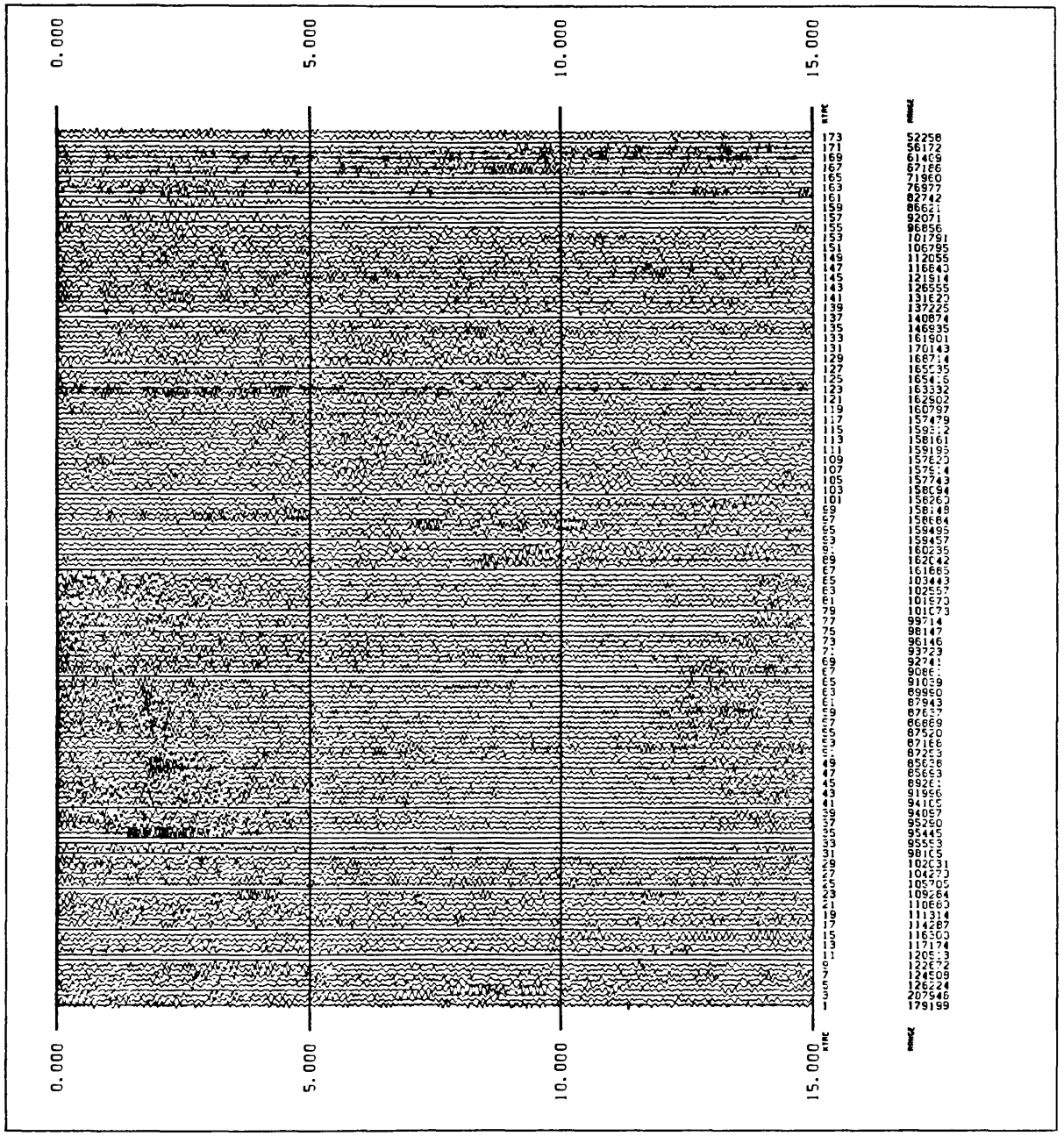

FIGURE A176) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #176 CAT 3188620 94:290:03:11 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

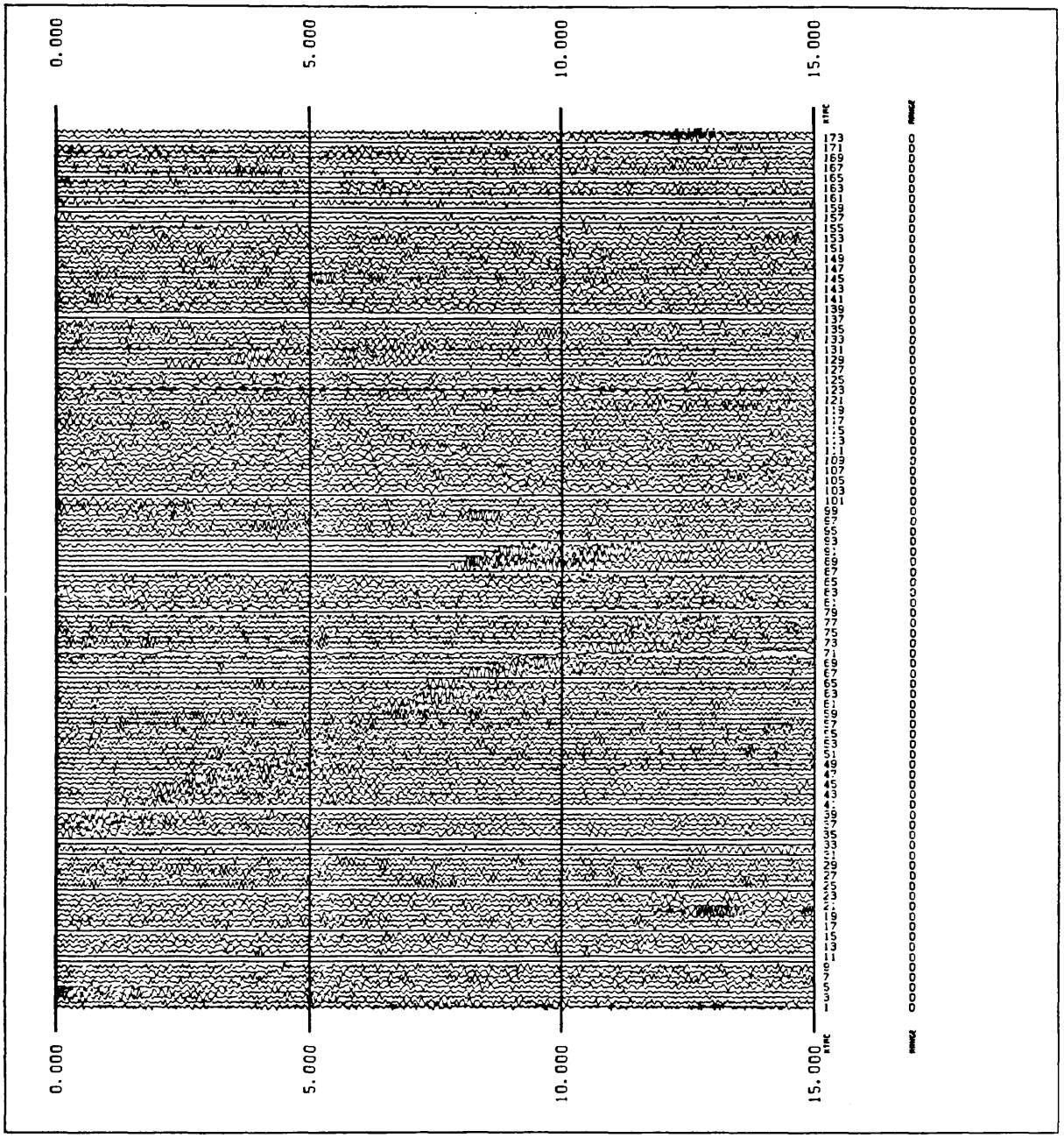

FIGURE A177) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #177 CAT 3188608 94:290:04:41 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

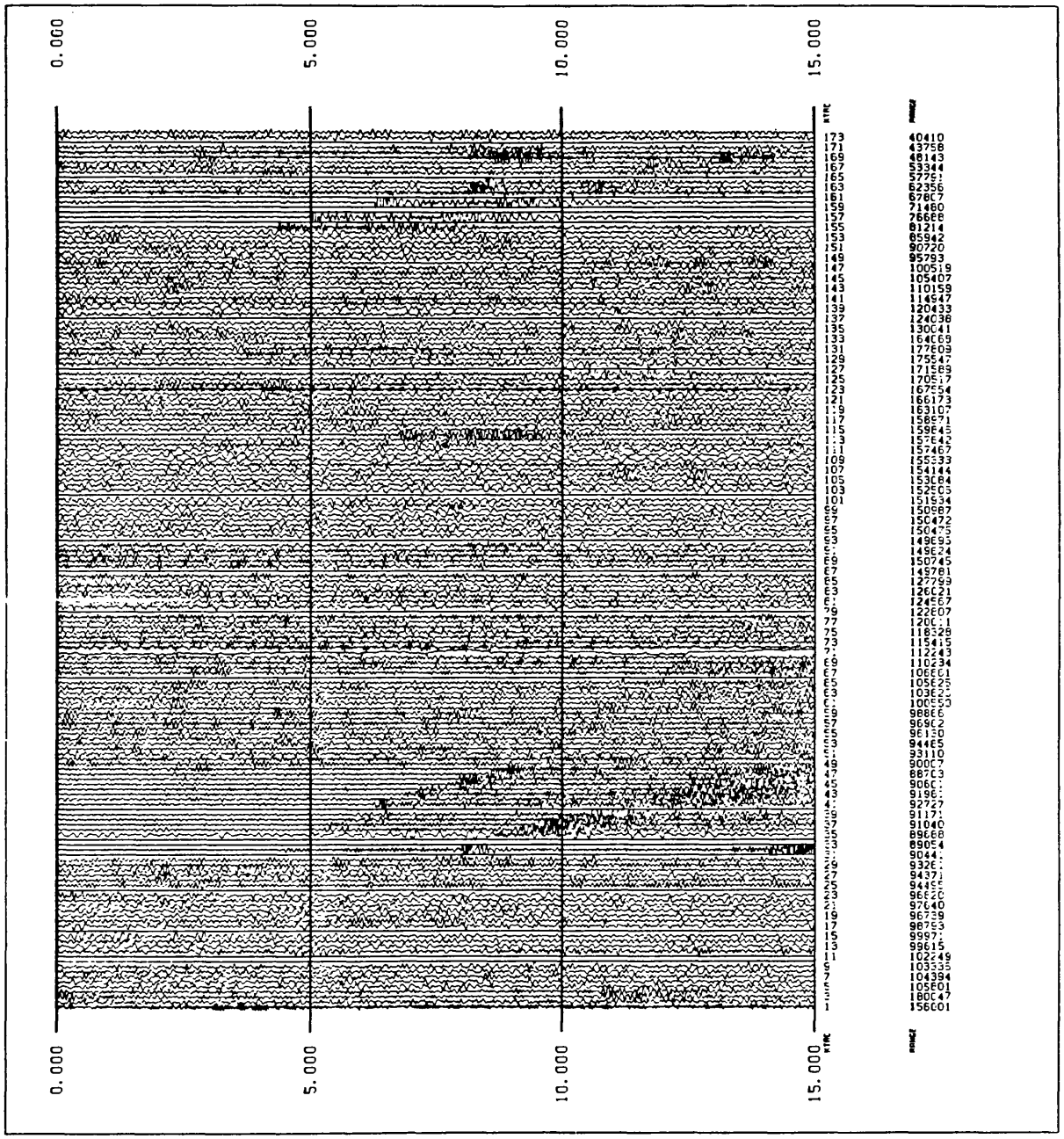

FIGURE A178) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #178 CAT 3188610 94:290:05:29 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

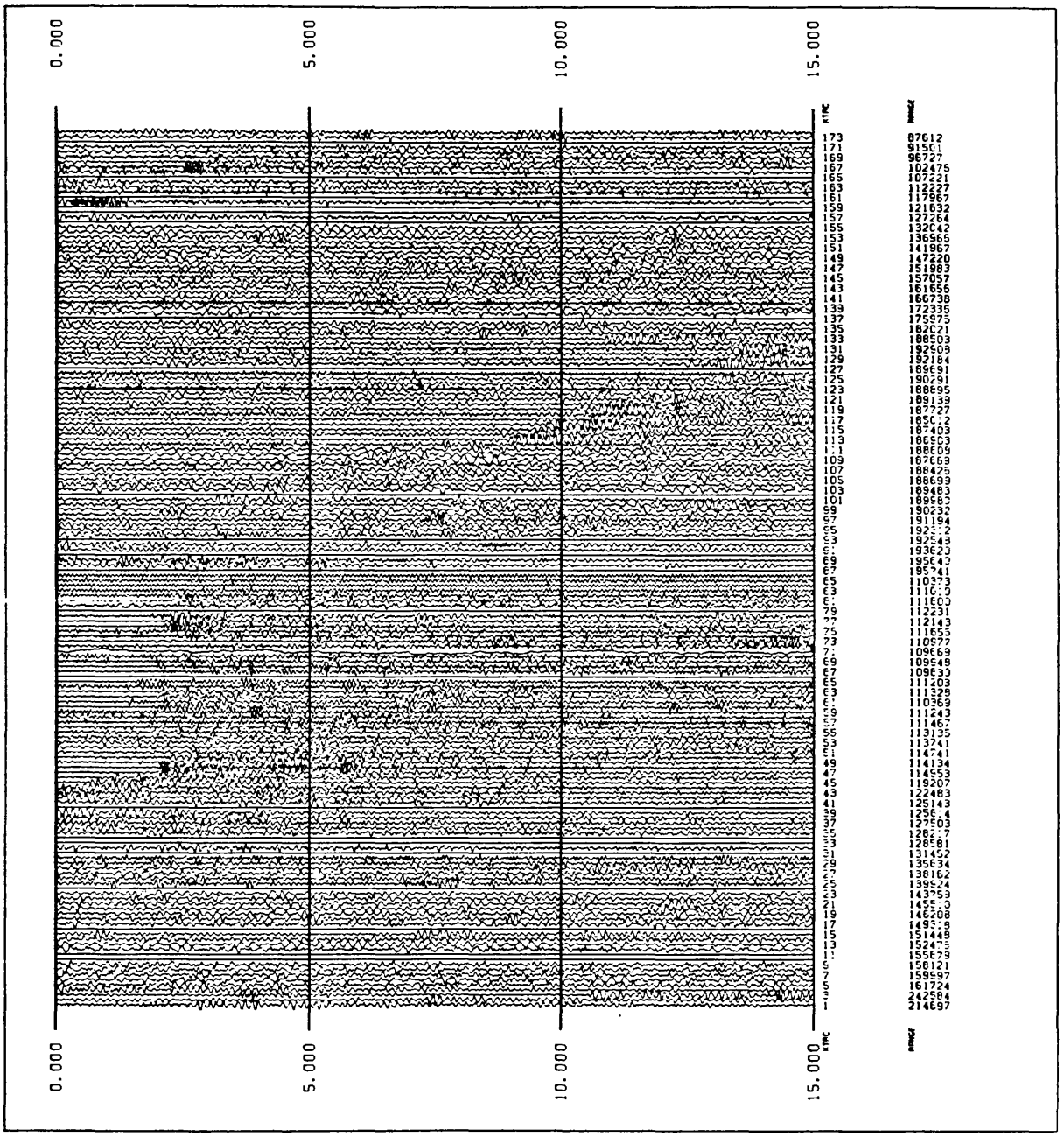

FIGURE A179) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #179 CAT 3188623 94:290:09:15 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

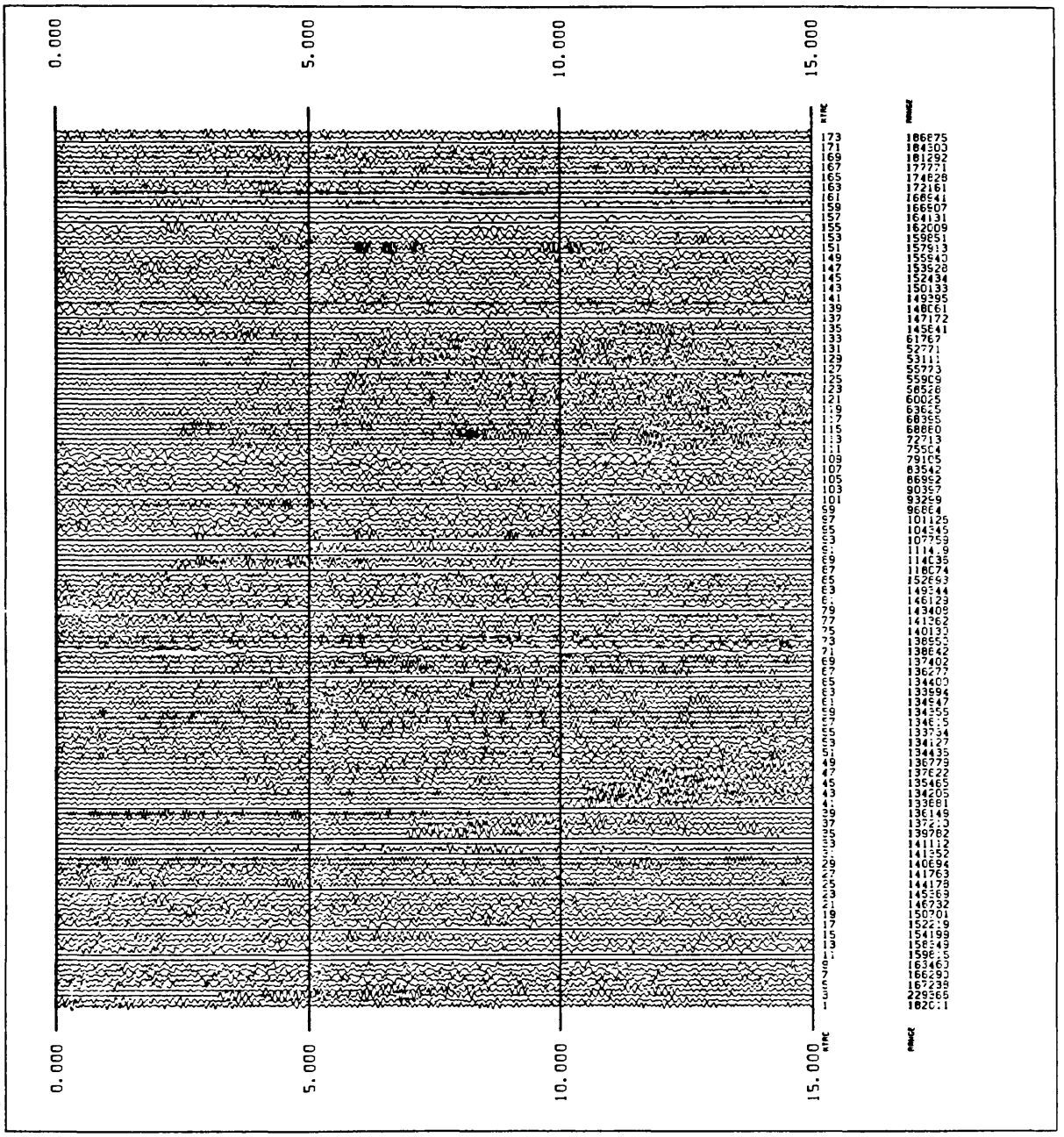

FIGURE A18O) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #18O CAT 3188627 94:290:09:56 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

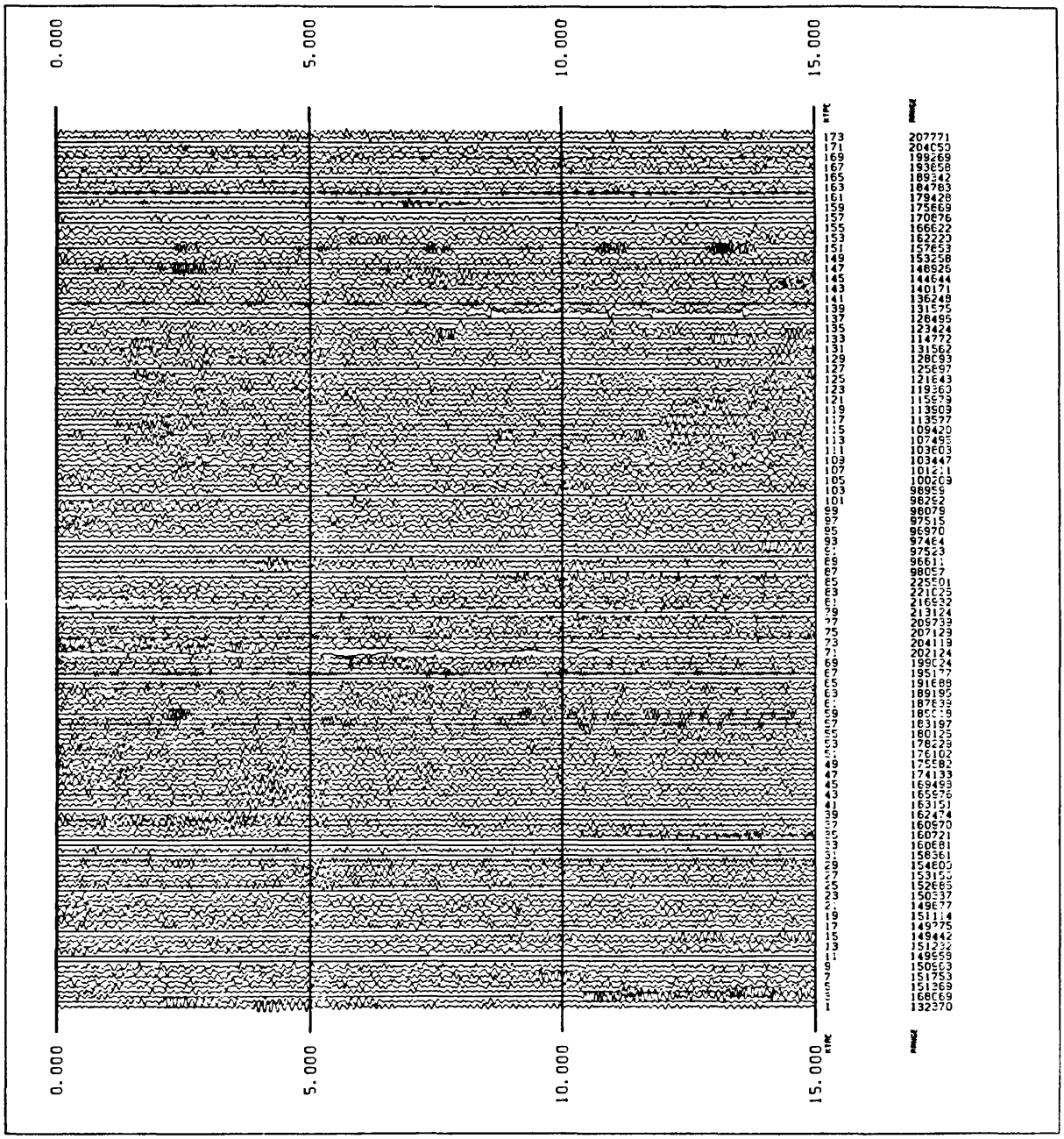

FIGURE A181) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #181 CAT 3188628 94:290:10:27 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

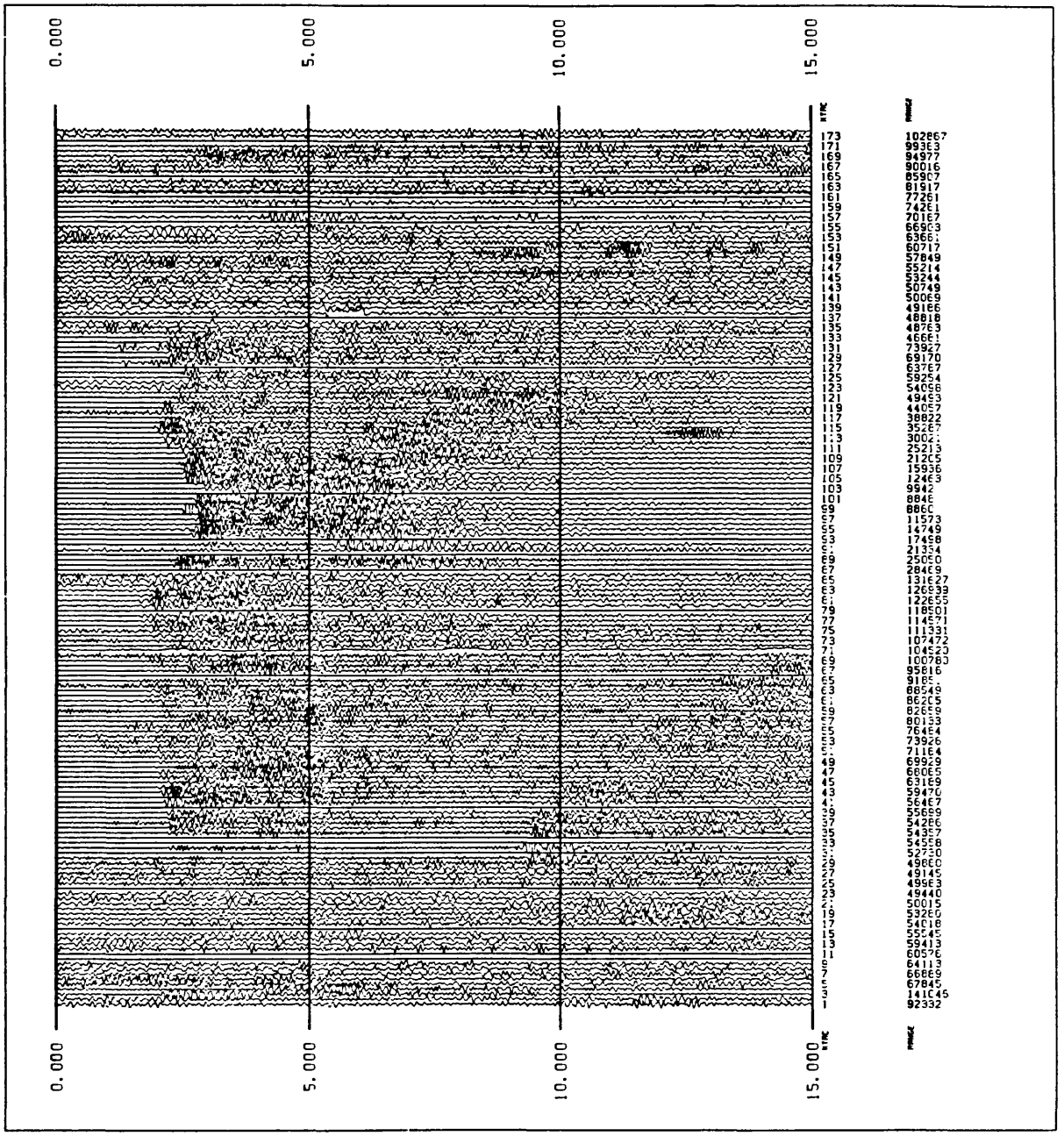

FIGURE A182) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #182 CAT 3188631 94:290:12:46 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

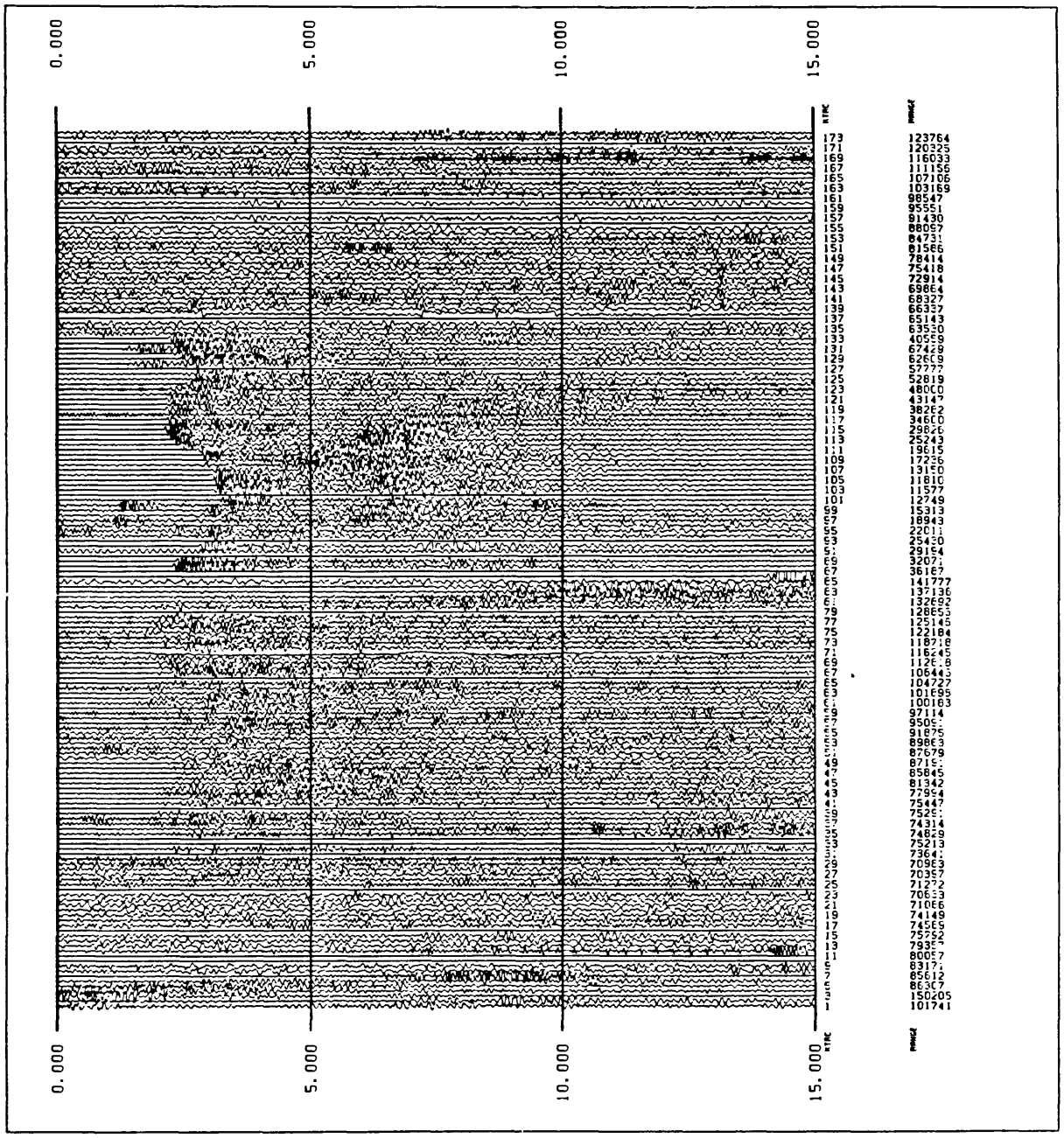

FIGURE A183) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #183 CAT 3188636 94:290:15:07 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

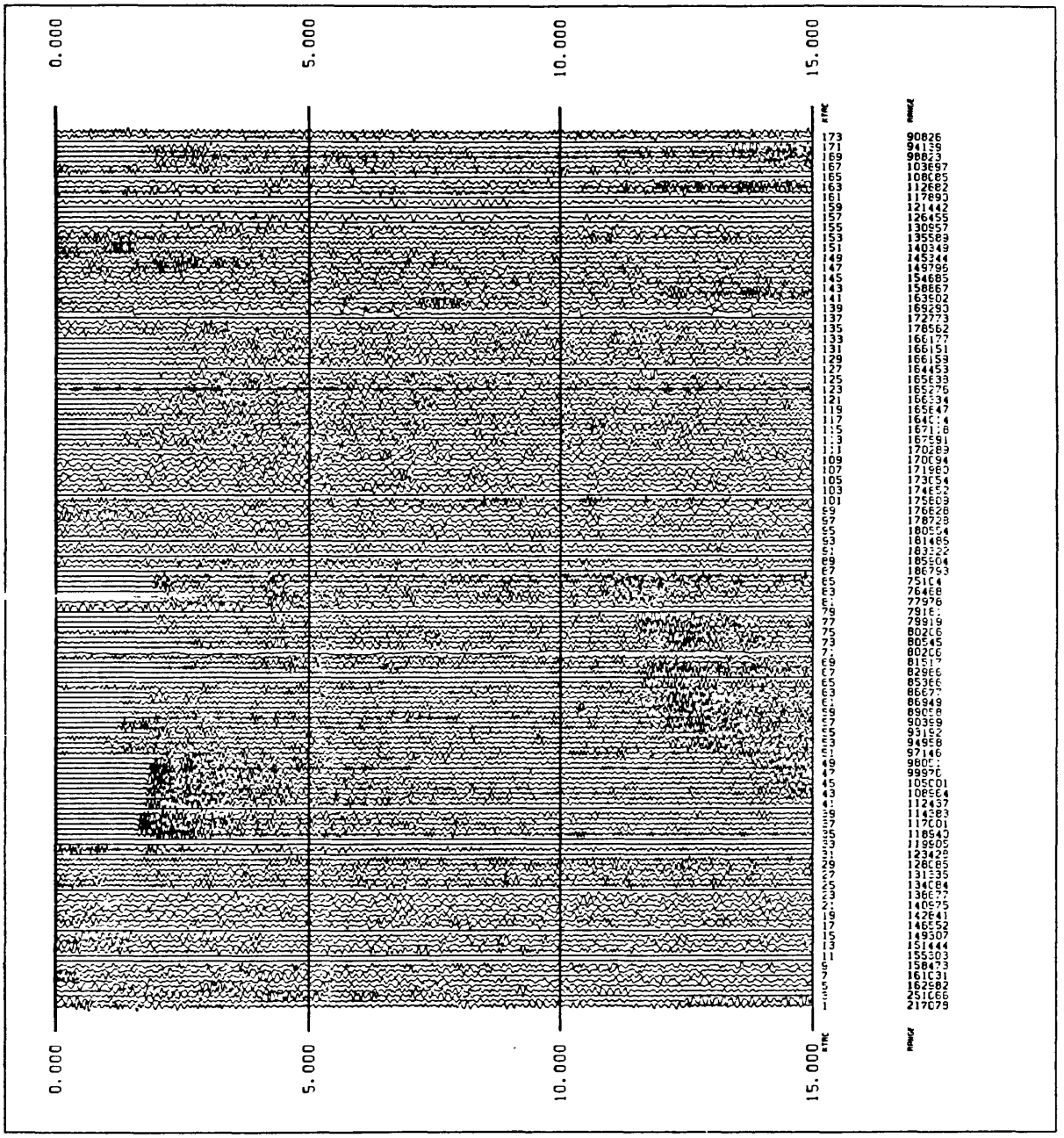

FIGURE A184) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #184 CAT 3188638 94:290:15:18 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

FIGURE A185) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #185 CAT 3188640 94:290:16:17 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

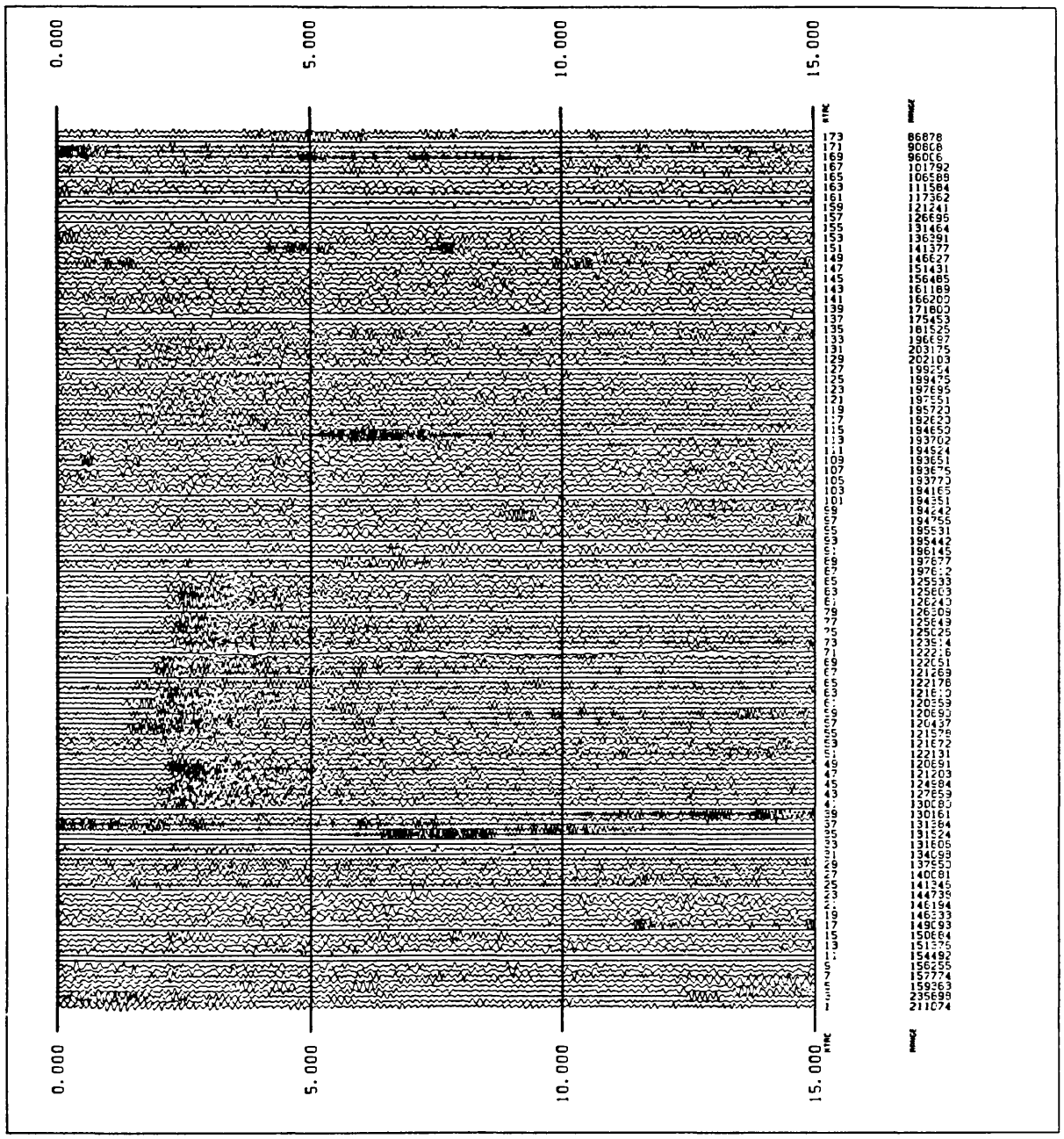

FIGURE A186) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #186 CAT 3188648 94:290:17:22 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

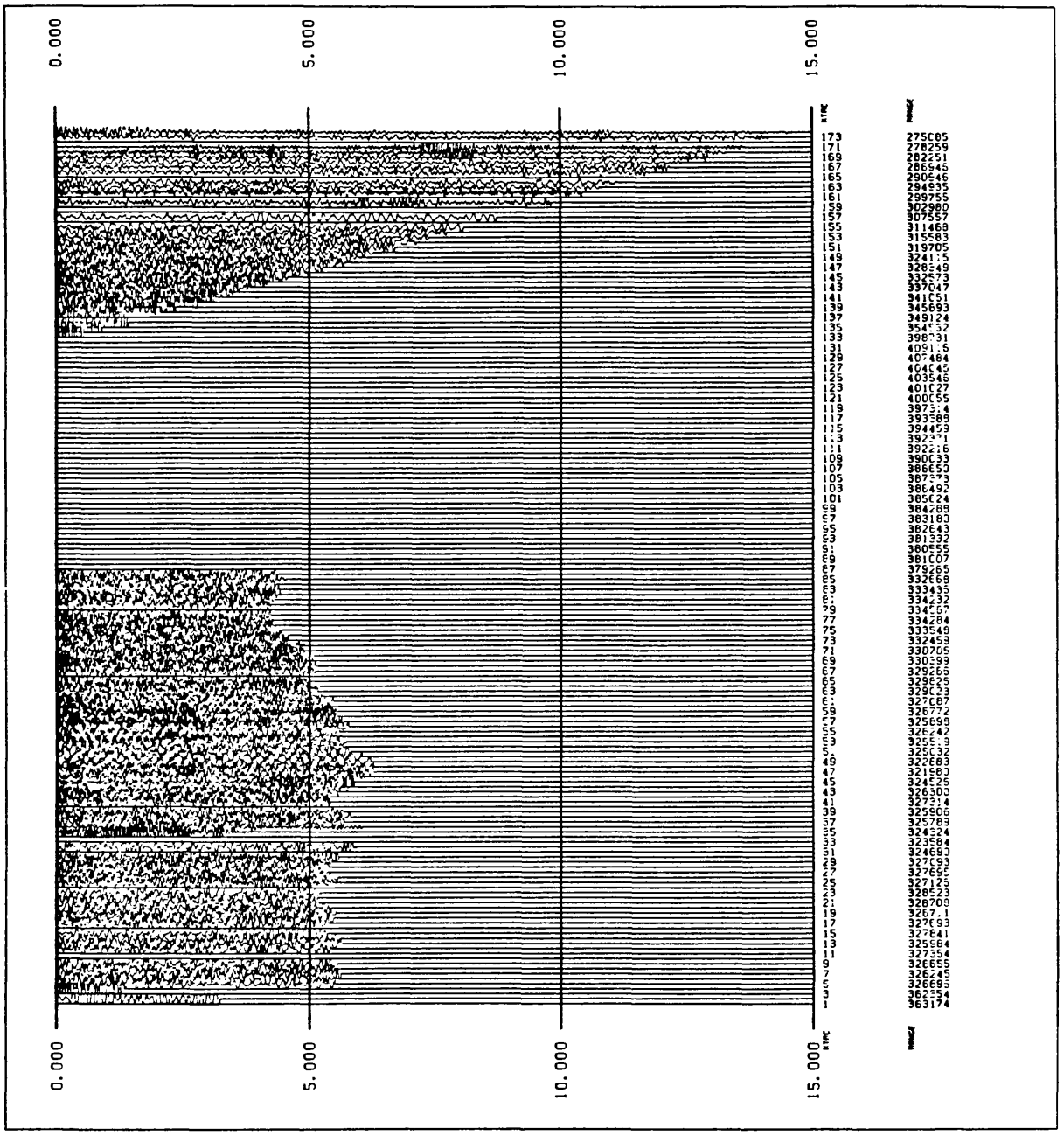

FIGURE A187) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #187 CAT 3188654 94:290:19:14 MAG 1.7
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

FIGURE A188) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #188 CAT 3188669 94:290:20:13 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

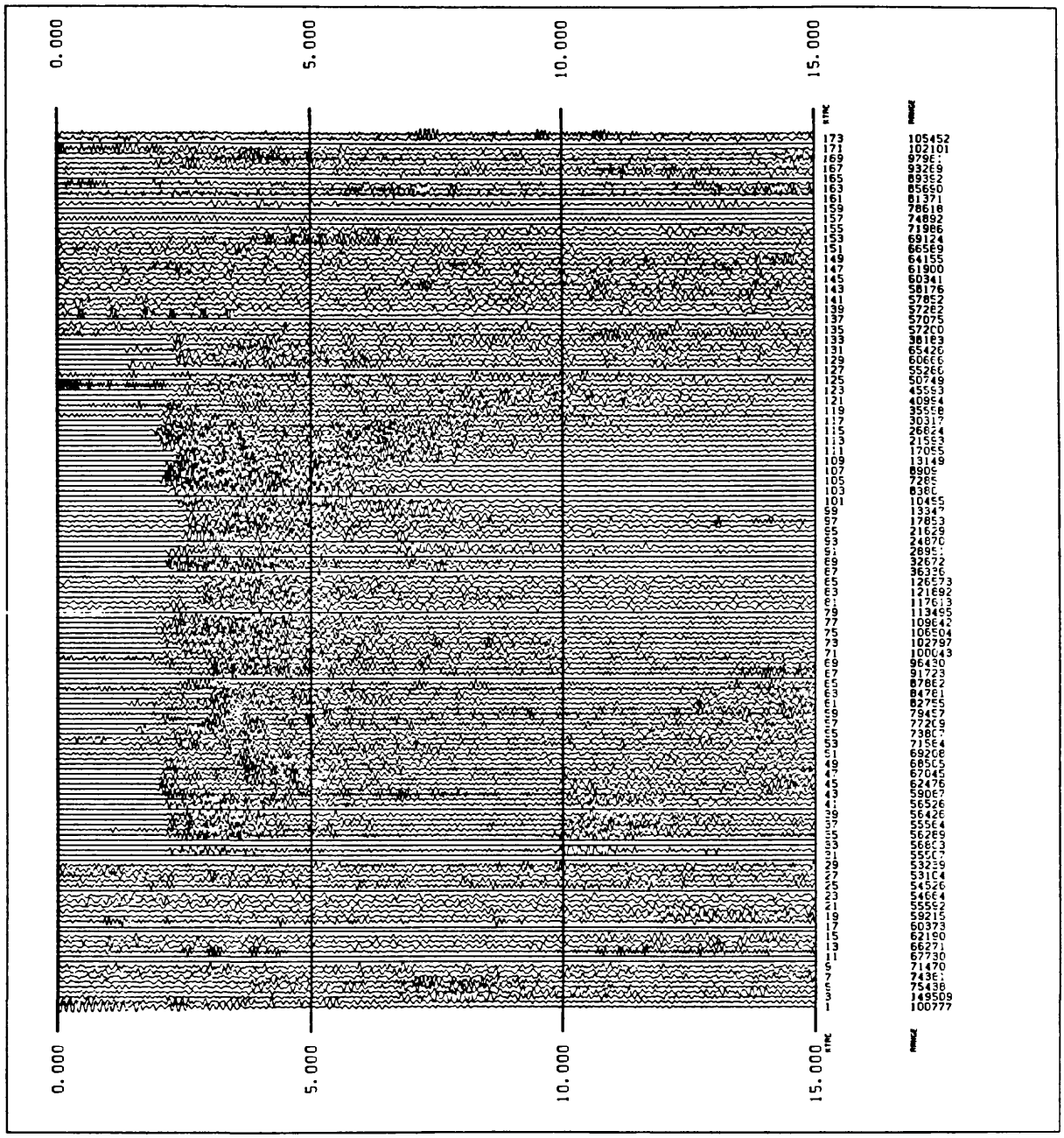

FIGURE A189) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #189 CAT 3188672 94:290:20:40 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

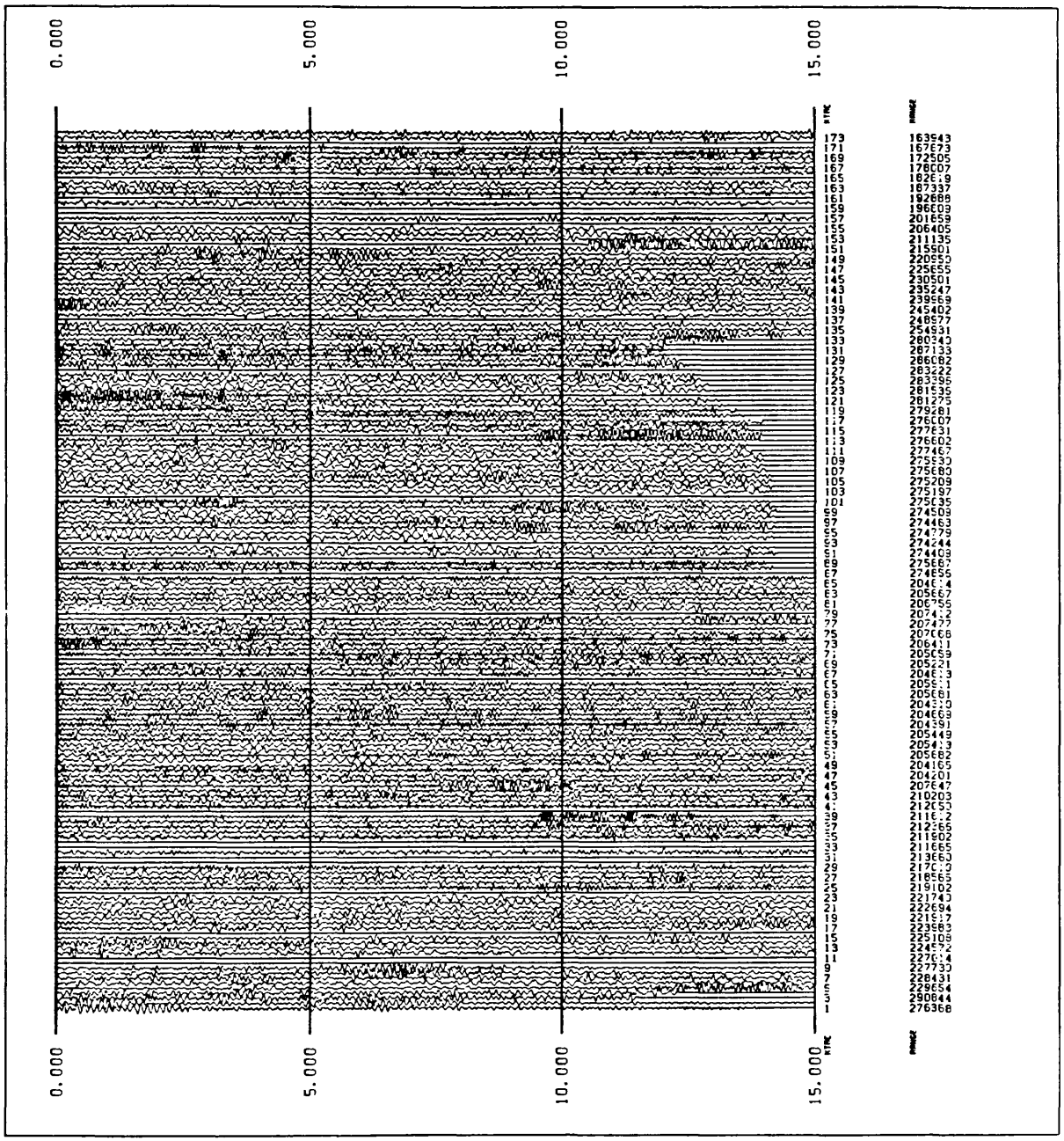

FIGURE A1901 LOCAL QUAKES DURING LARSE ON-OFF
EVENT #190 CAT 3188673 94:290:20:43 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

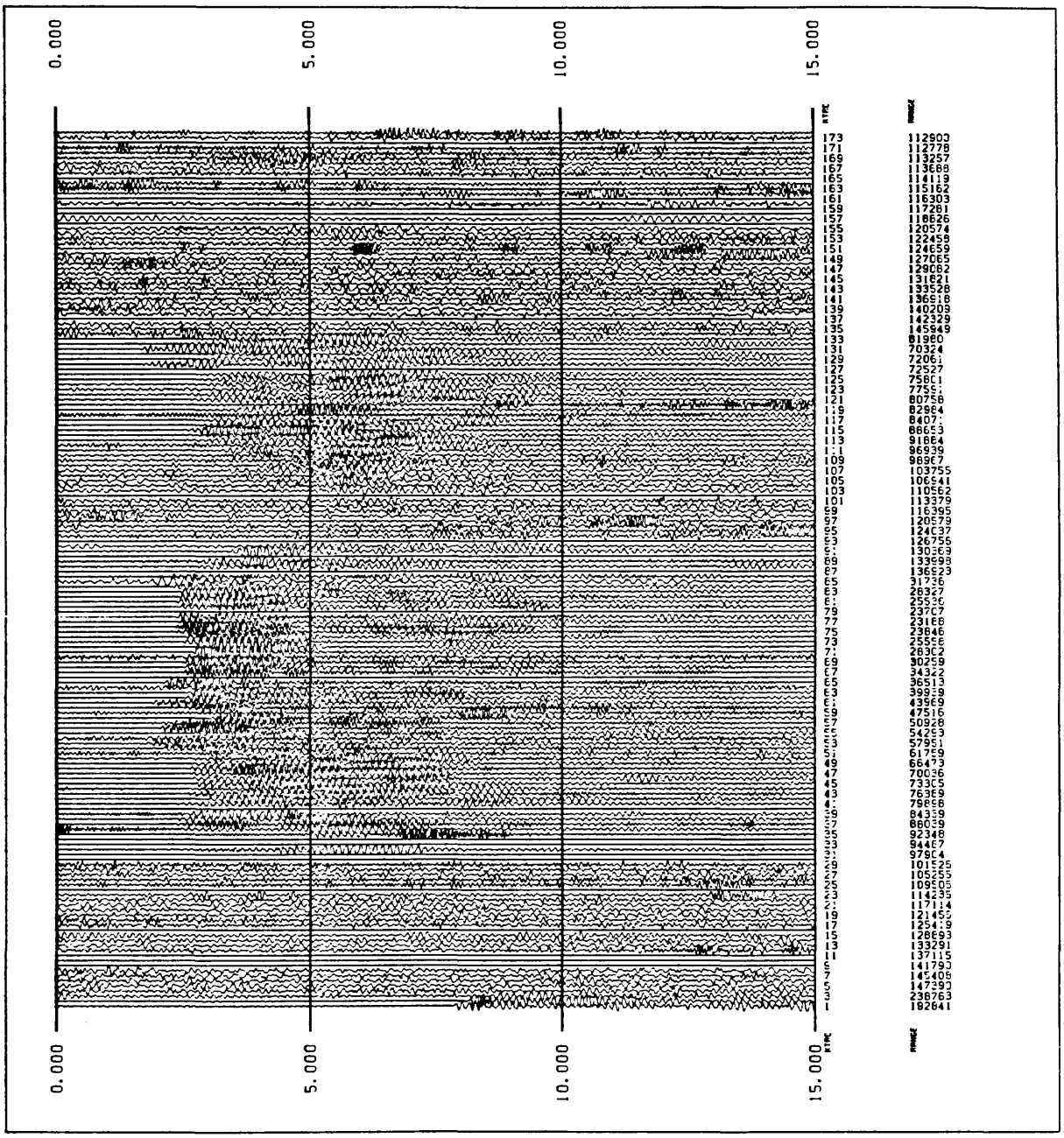

FIGURE A191) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #191 CAT 3188684 94:290:22:11 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Boron

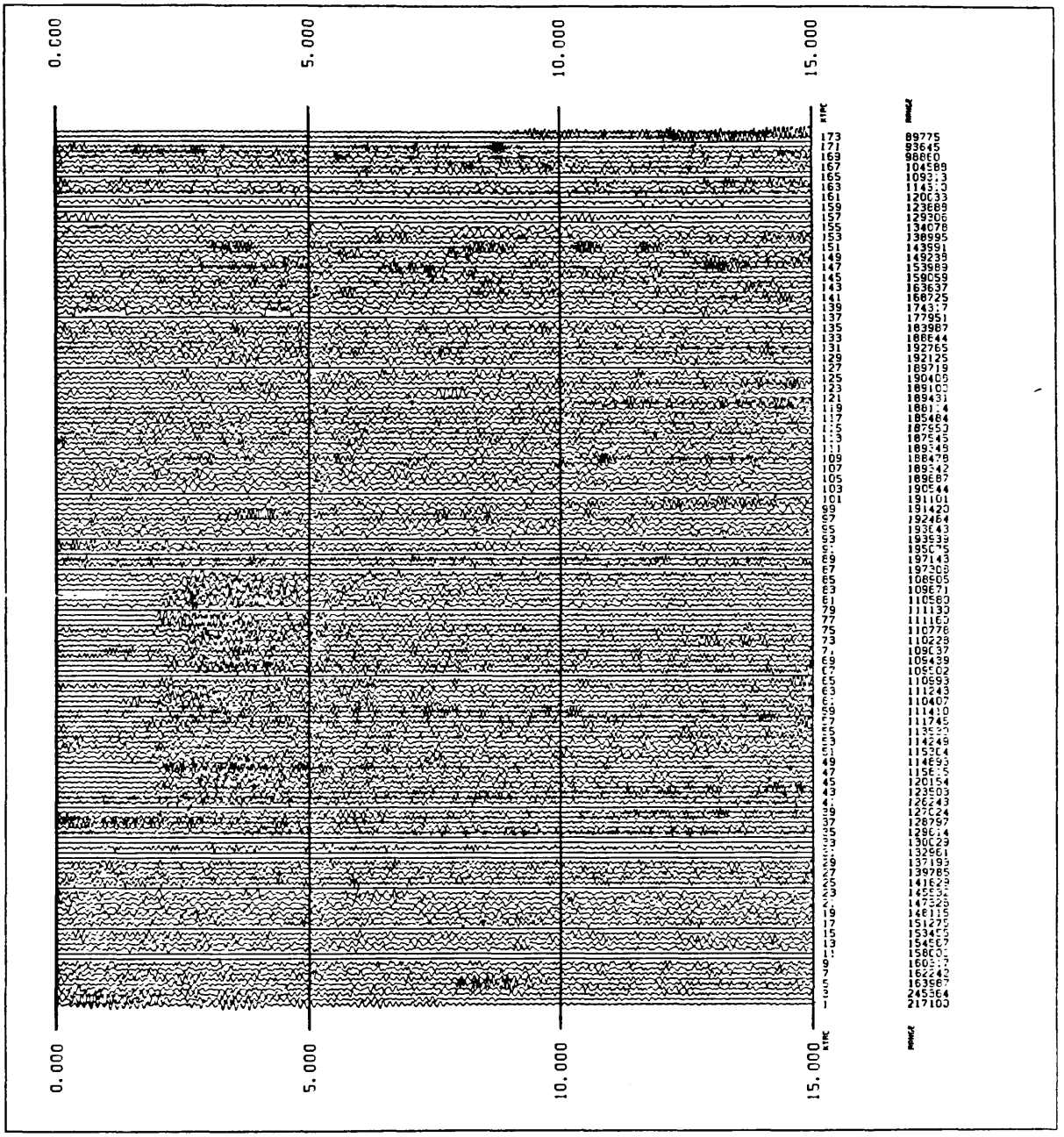

FIGURE A192) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #192 CAT 3188685 94:290:22:18 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

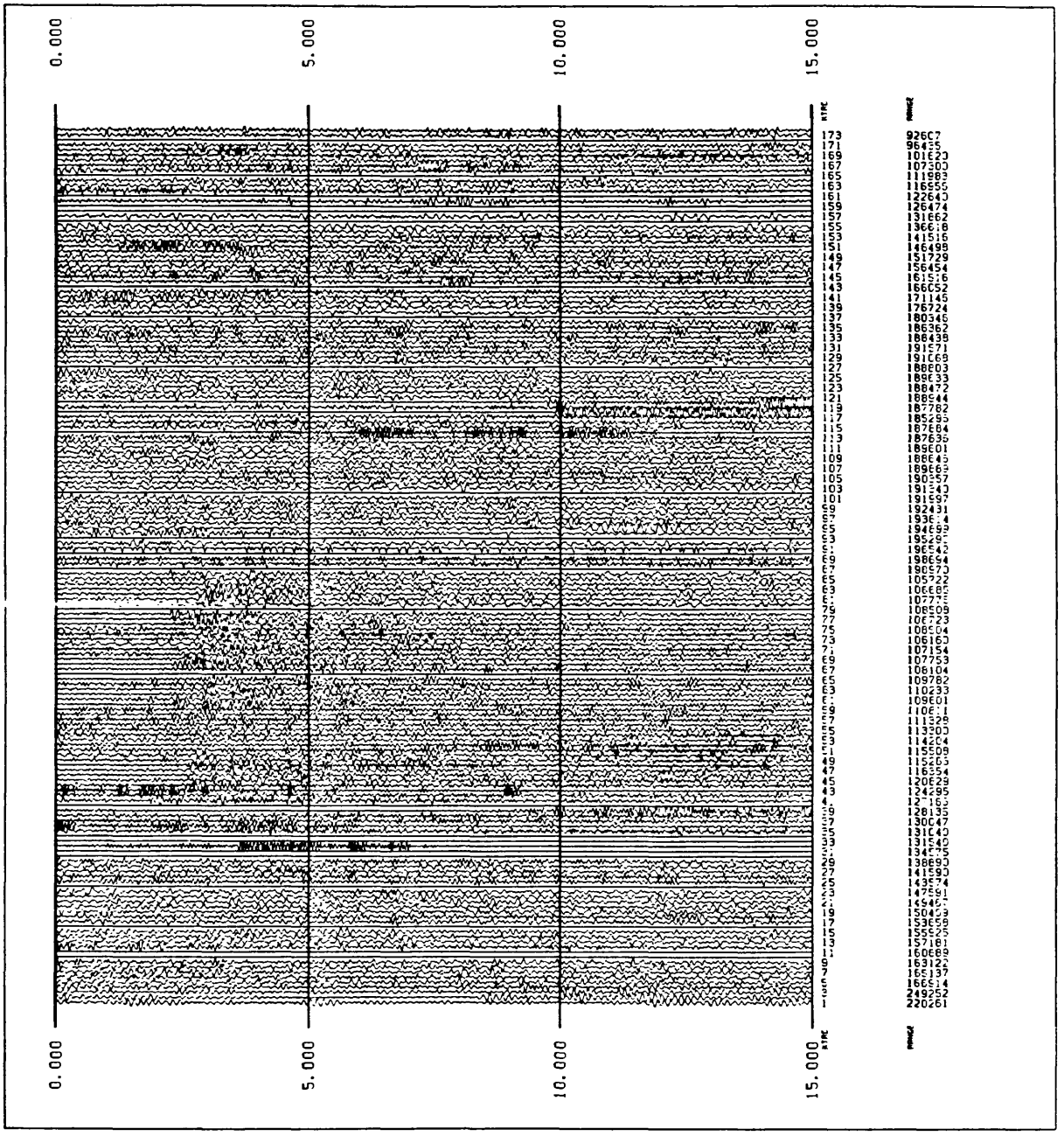

FIGURE A193) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #193 CAT 3188689 94:291:00:45 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

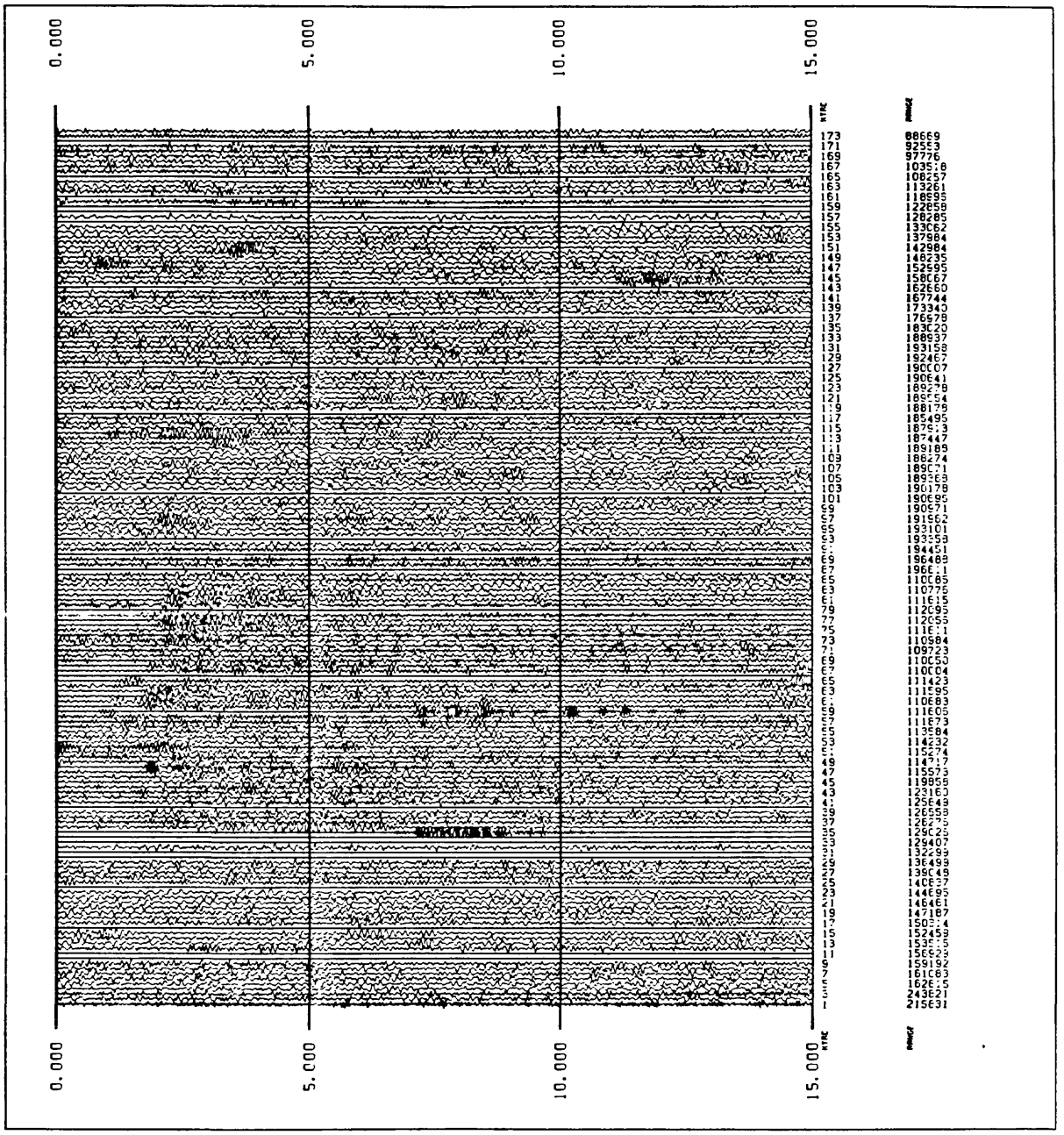

FIGURE A194) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #194 CAT 3188693 94:291:01:55 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

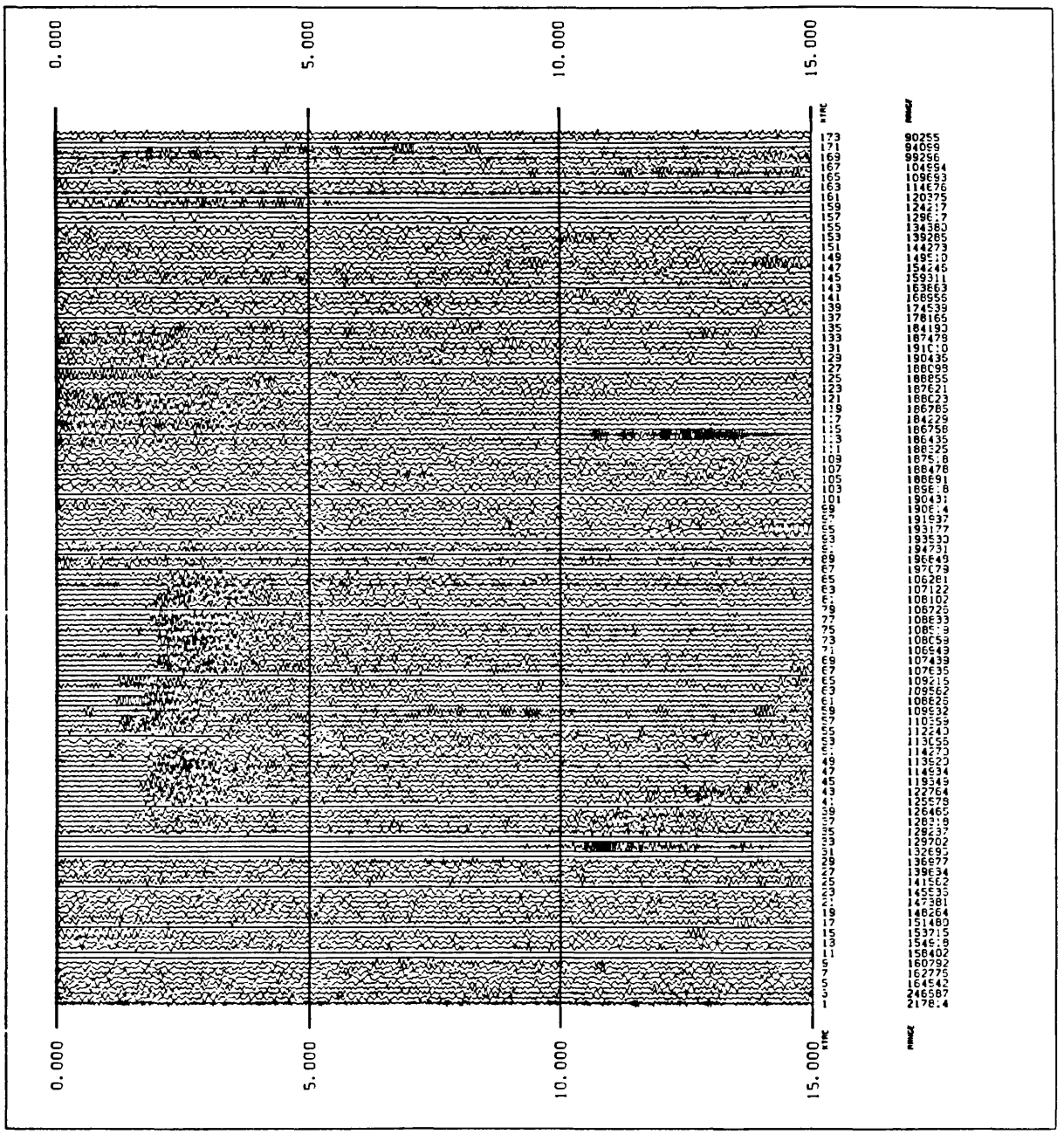

FIGURE A195) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #195 CAT 3188697 94:291:03:56 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

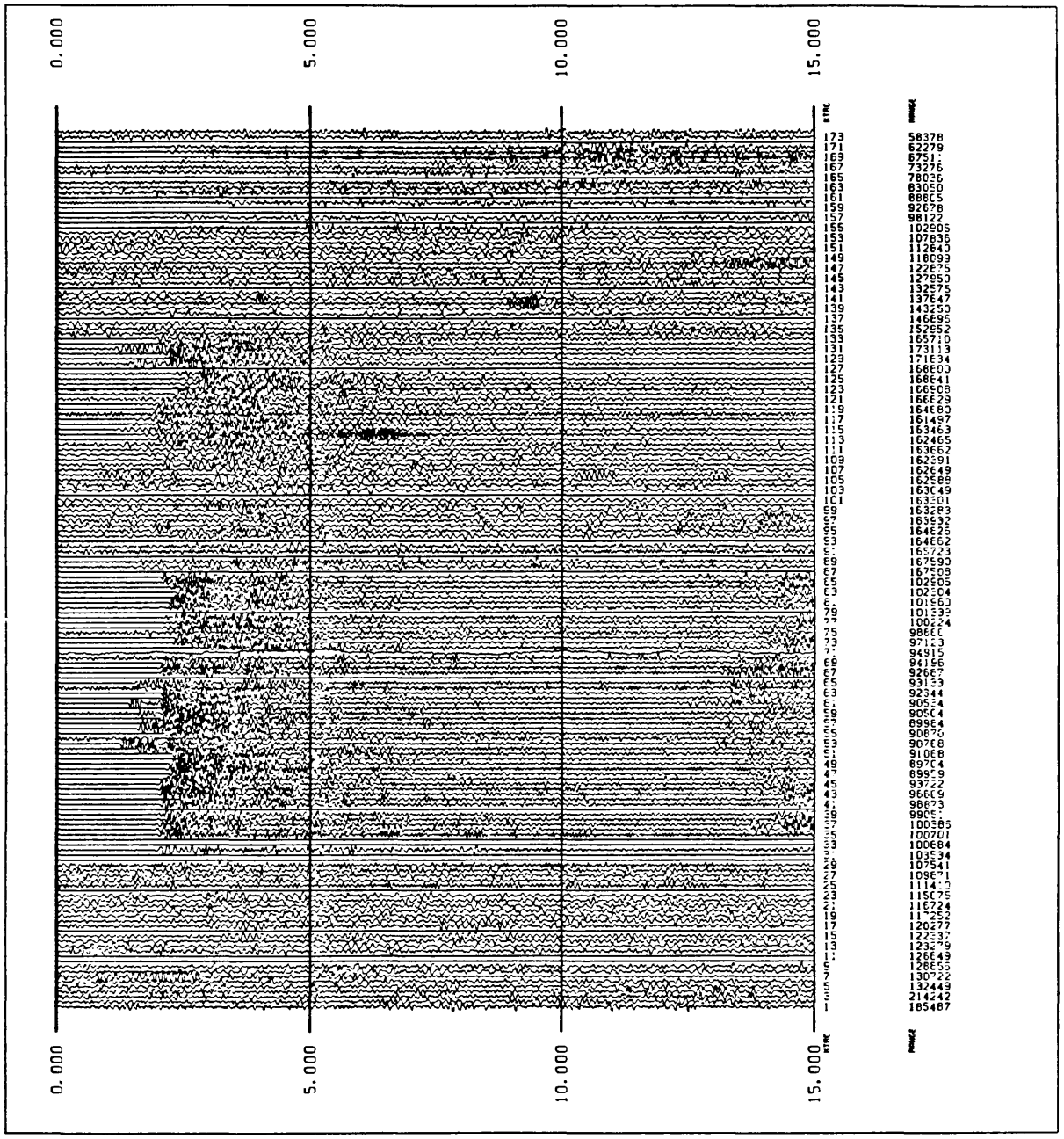

FIGURE A196) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #196 CAT 3188701 94:291:05:37 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Big Bear

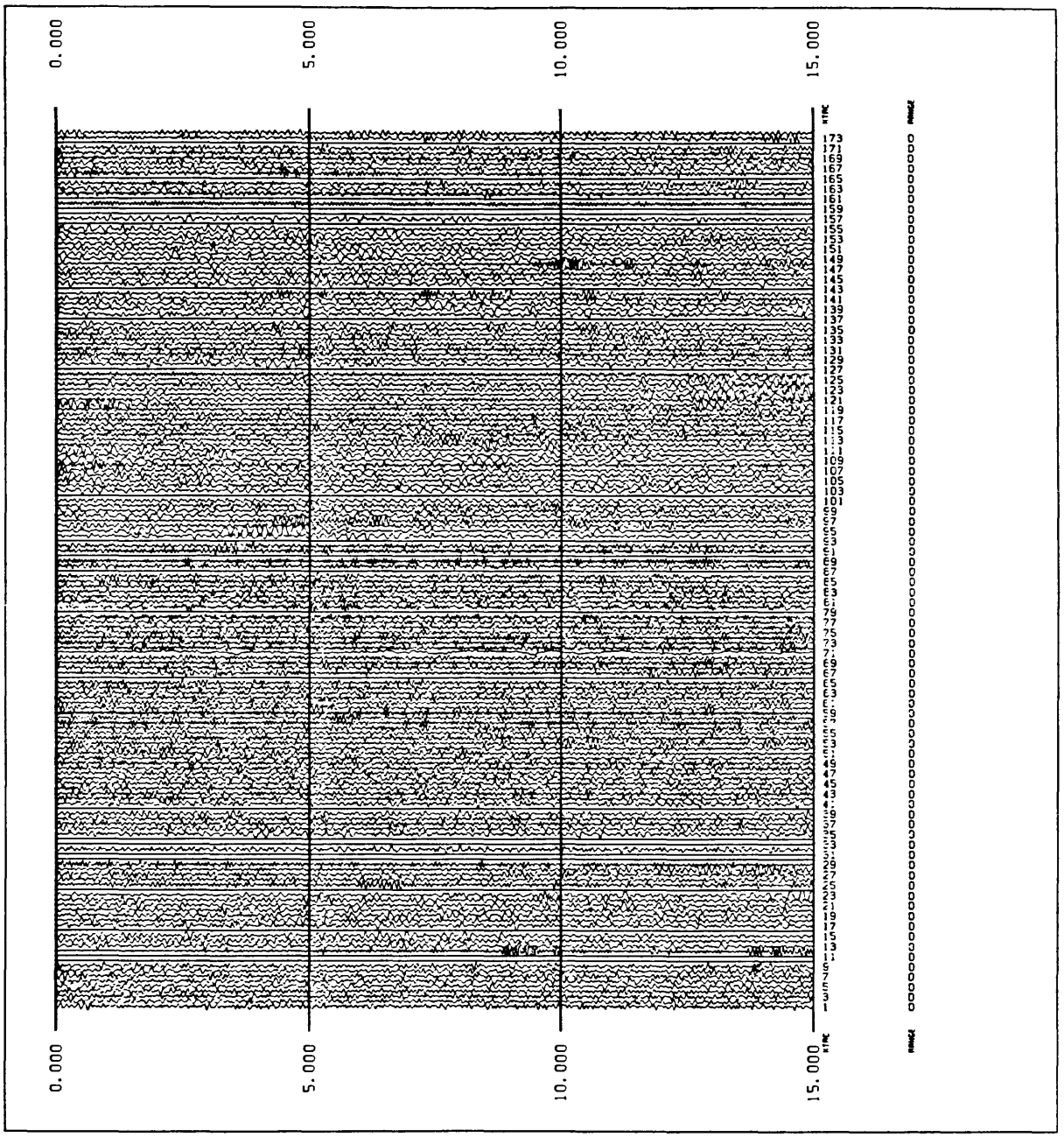

FIGURE A197) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #197 CAT 3188704 94:291:06:32 MAG 2.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

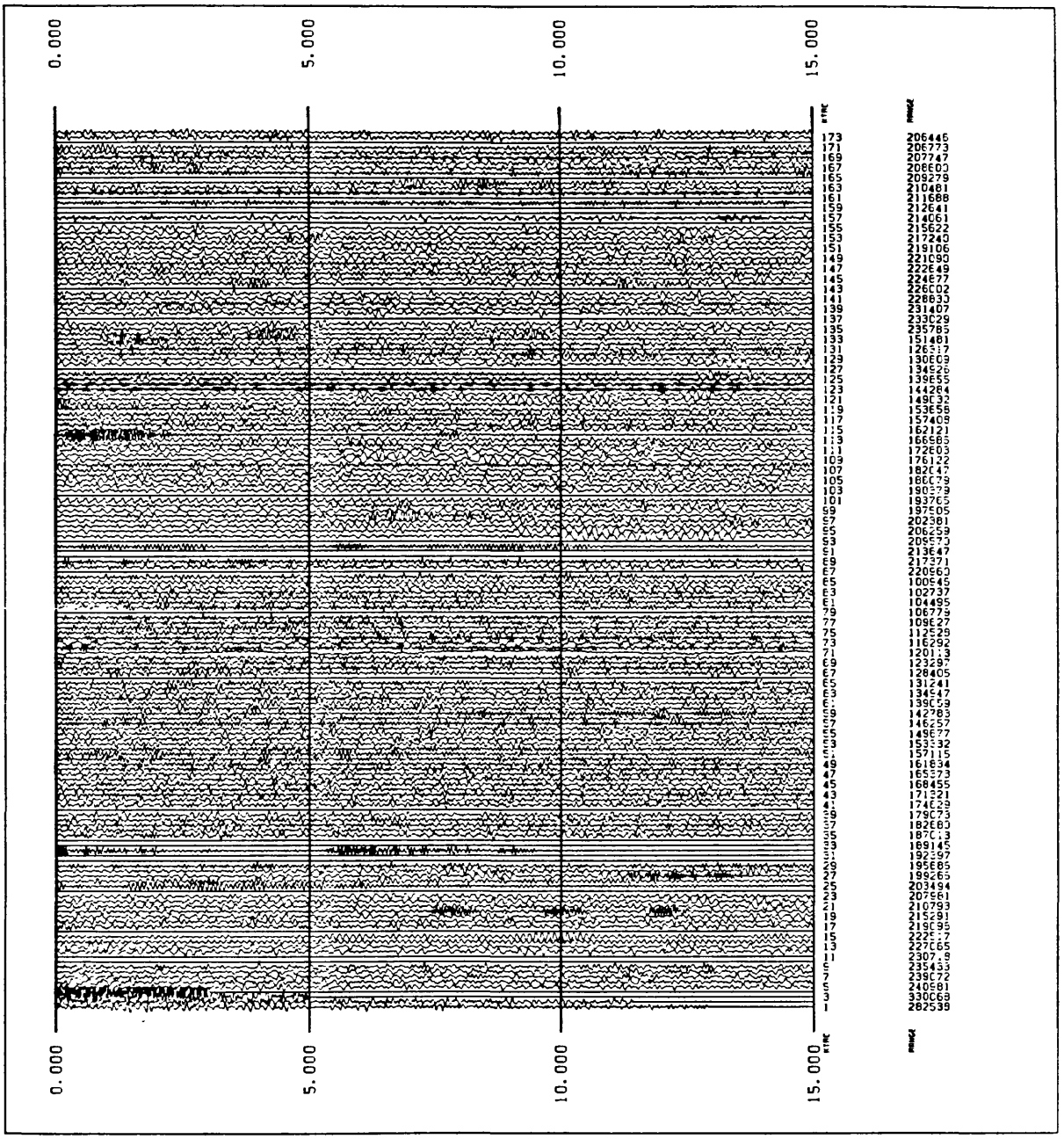

FIGURE A198) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #198 CAT 3188707 94:291:07:34 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

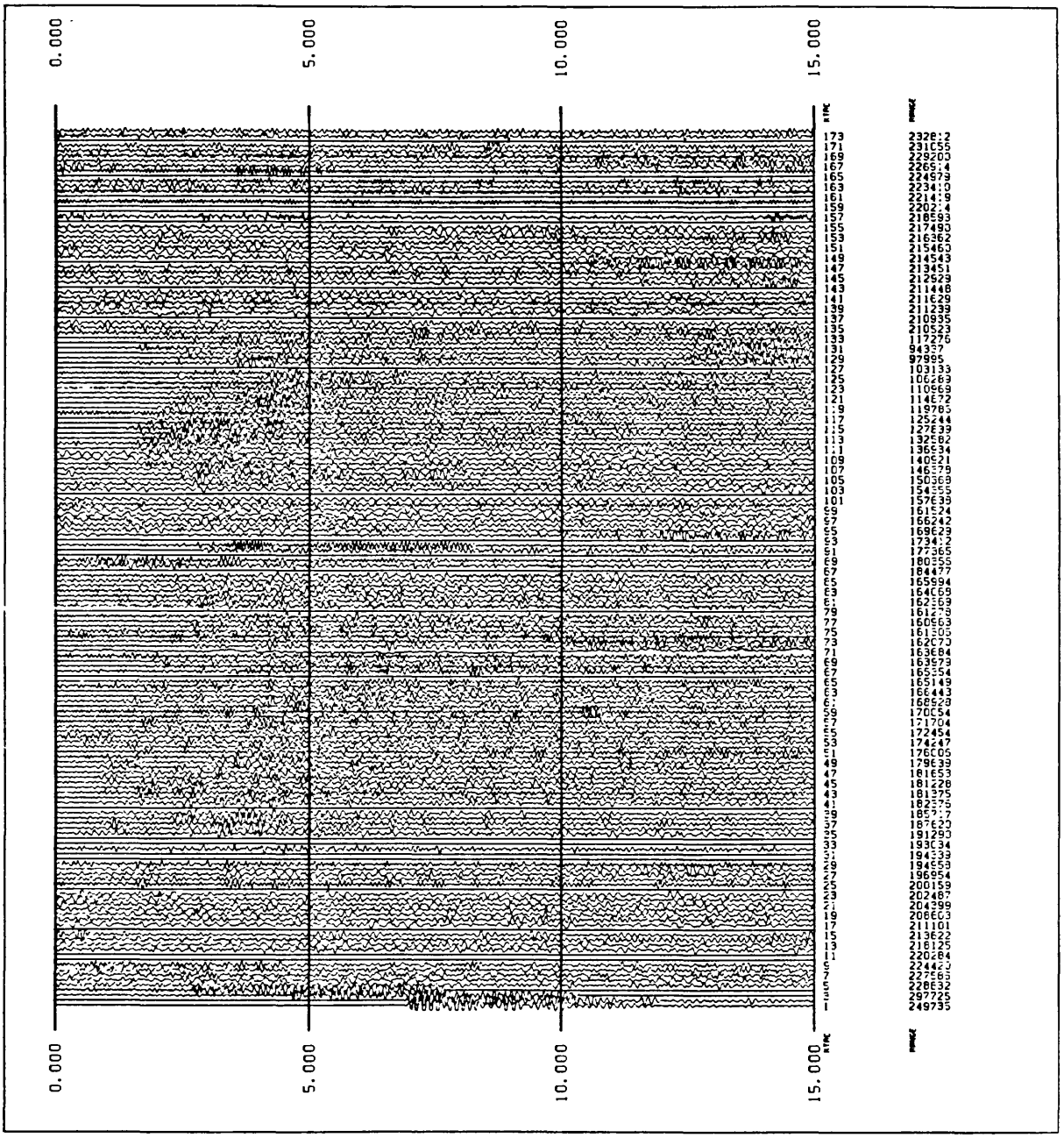

FIGURE A199) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #199 CAT 3188776 94:291:07:34 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

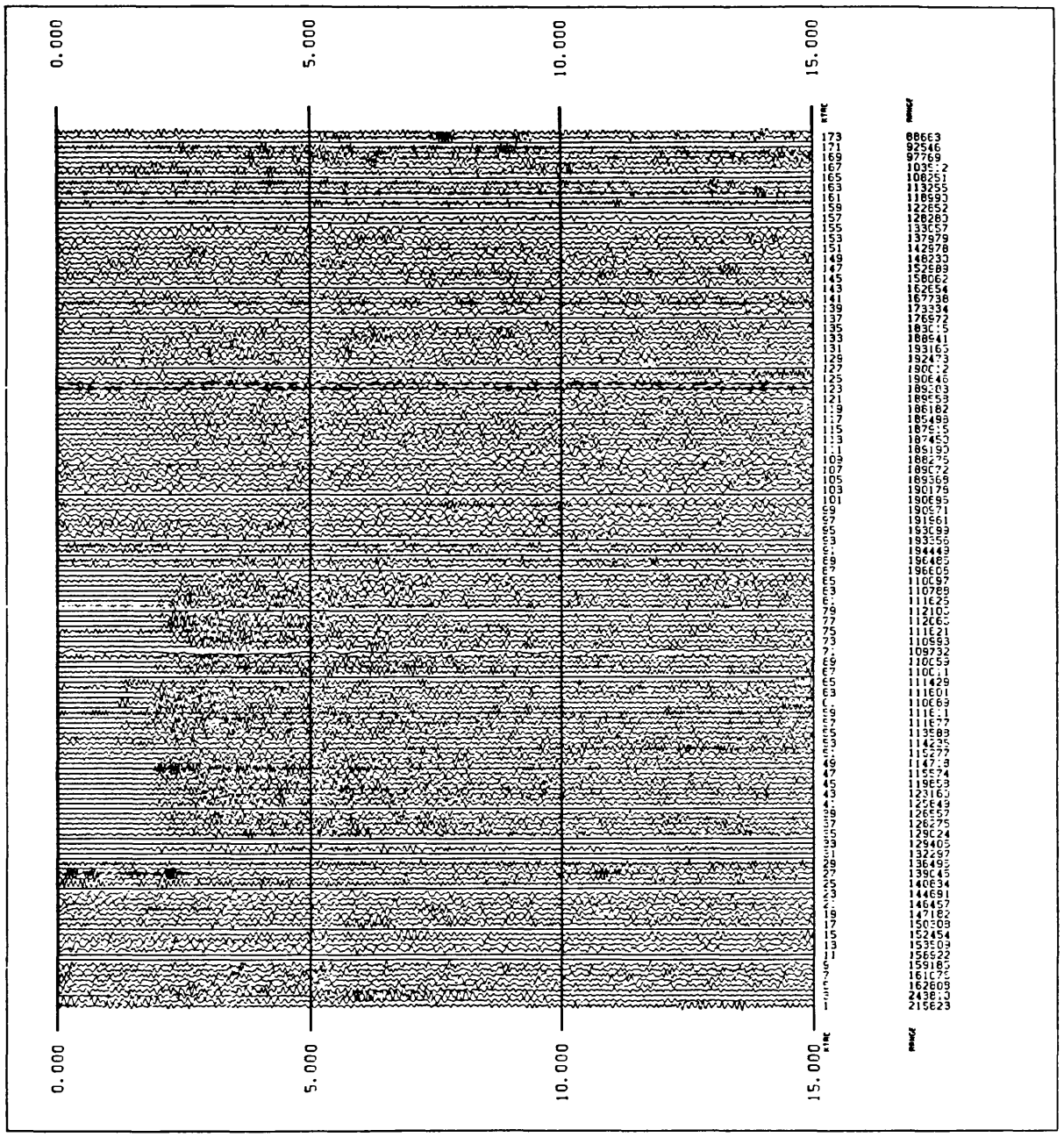

FIGURE A200) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #200 CAT 3188709 94:291:07:47 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

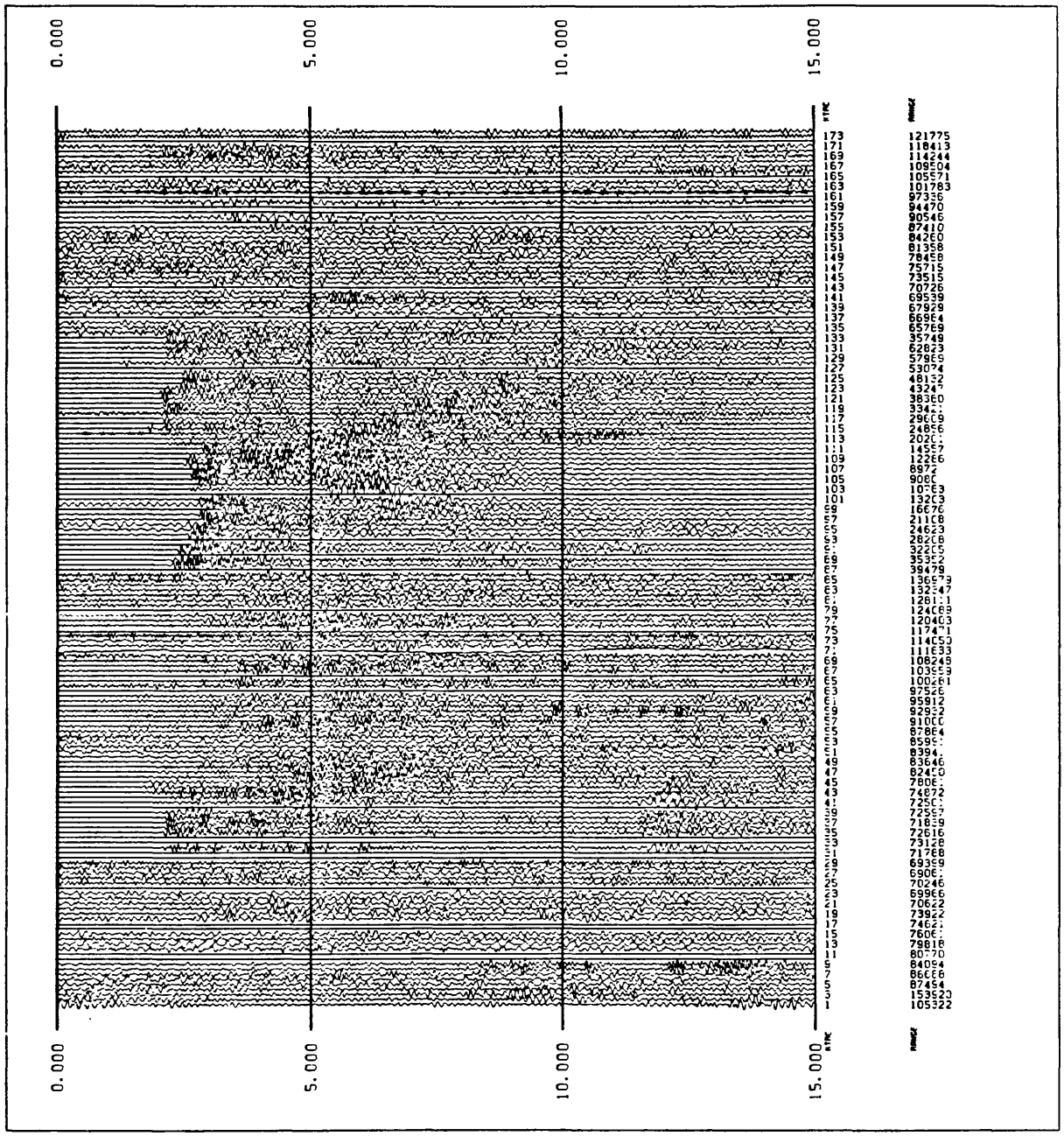

FIGURE A201) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #201 CAT 3188713 94:291:10:40 MAG 1.7
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

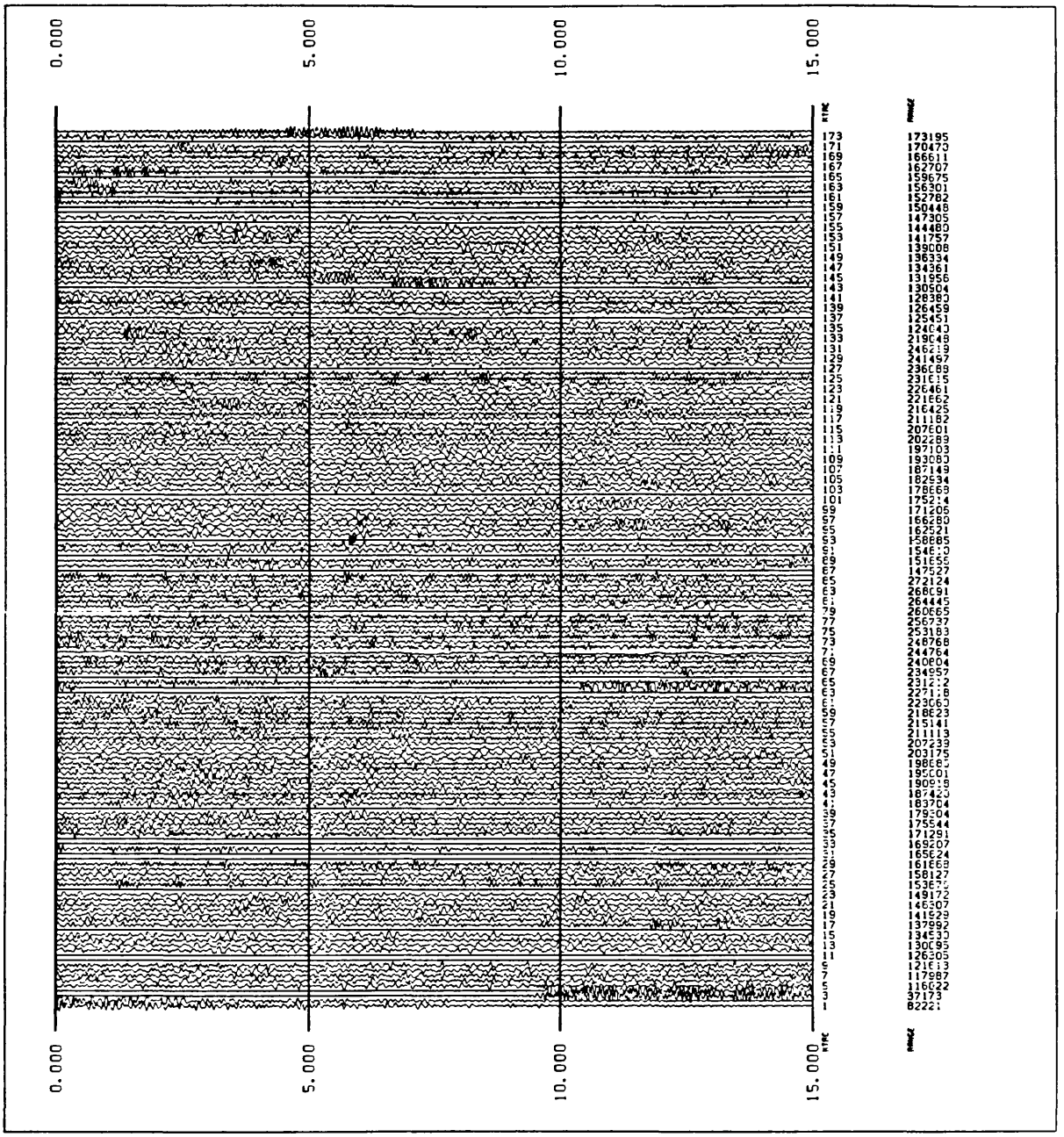

FIGURE A202) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #202 CAT 3188714 94:291:10:42 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

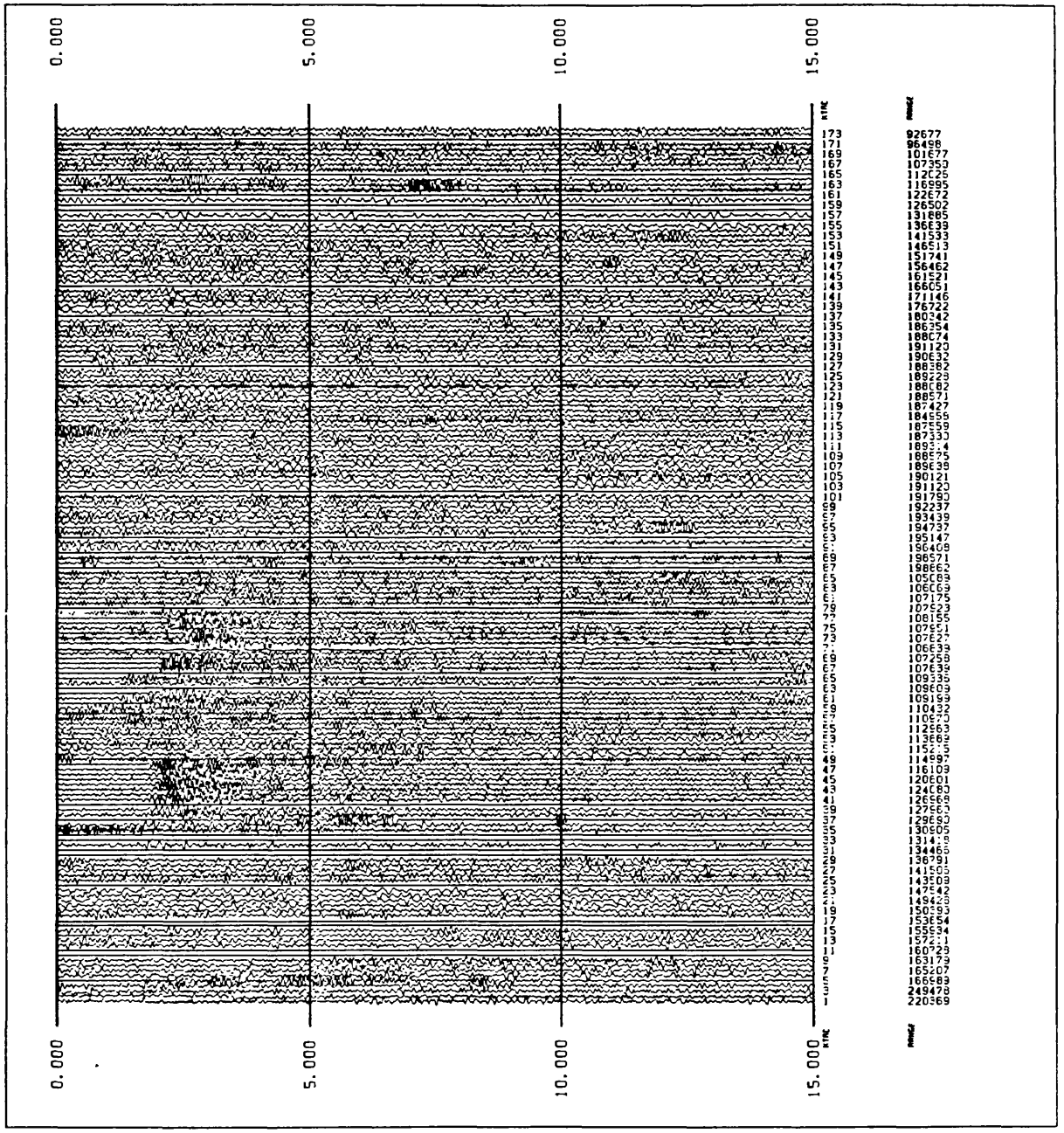

FIGURE A203) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #203 CAT 3188737 94:291:14:39 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

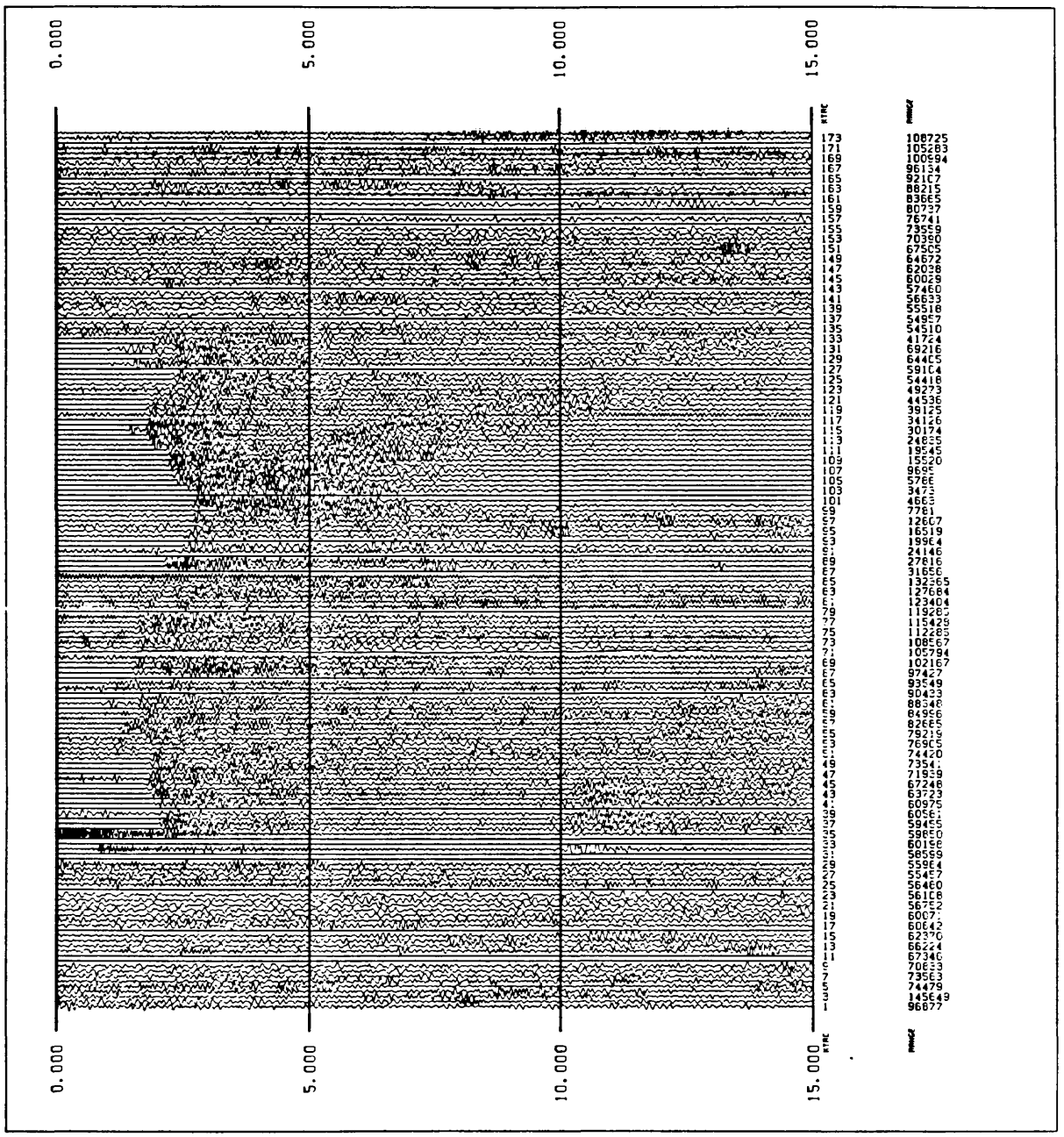

FIGURE A204) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #204 CAT 3188740 94:291:14:46 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

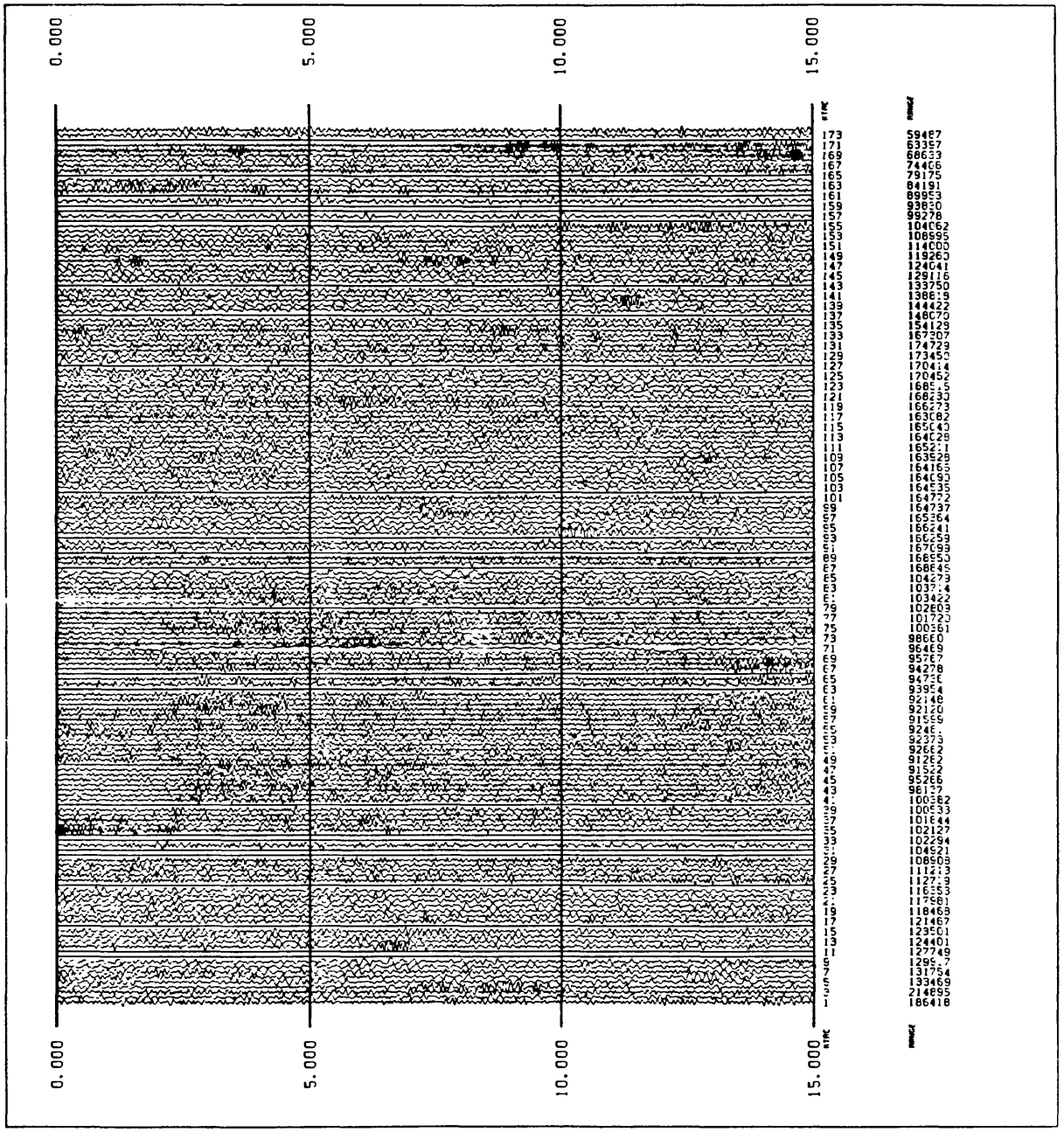

FIGURE A205) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #205 CAT 3188754 94:291:16:00 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

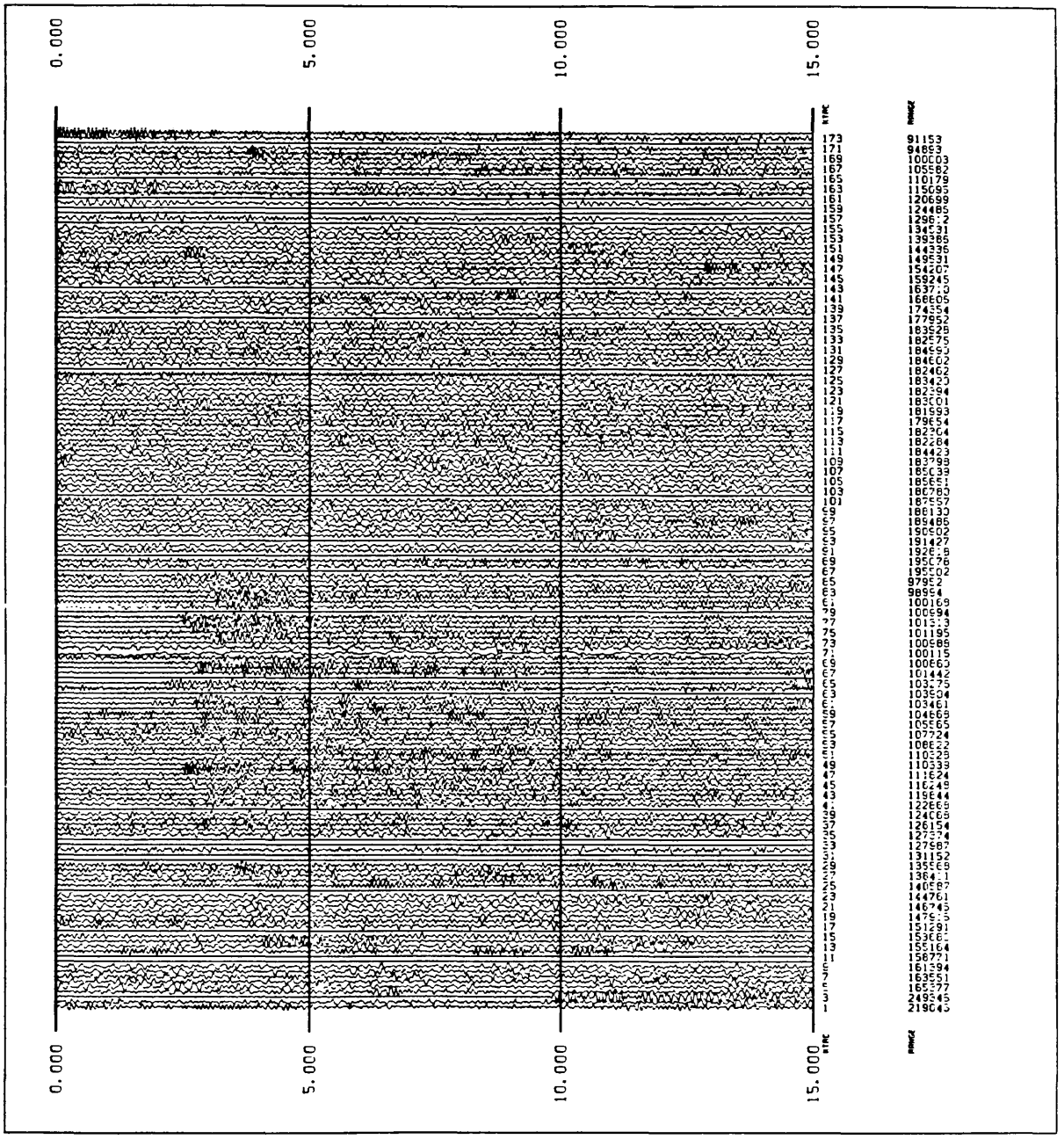

FIGURE A206) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #206 CAT 3188755 94:291:16:17 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

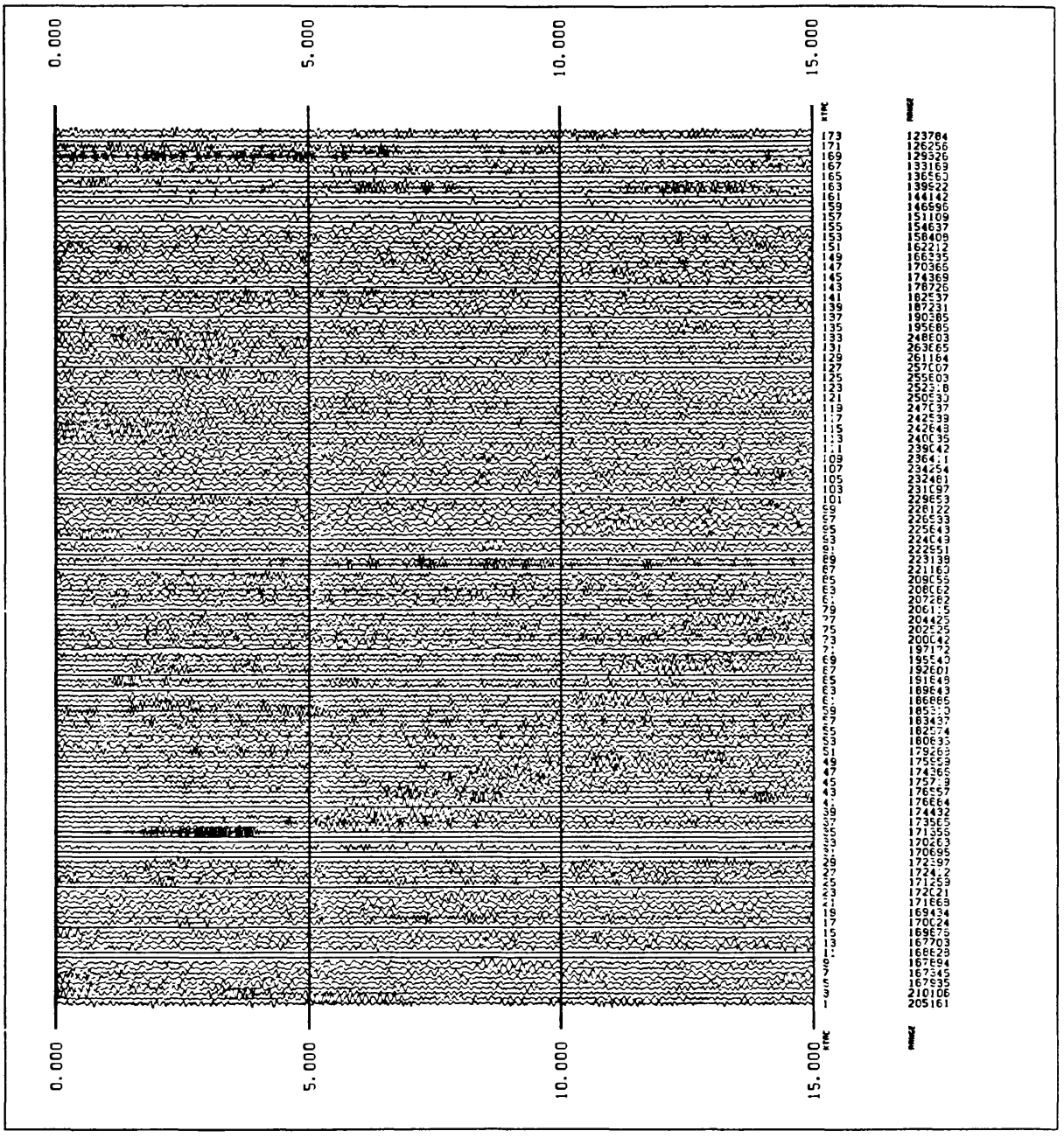

FIGURE A207) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #207 CAT 3188759 94:291:16:49 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

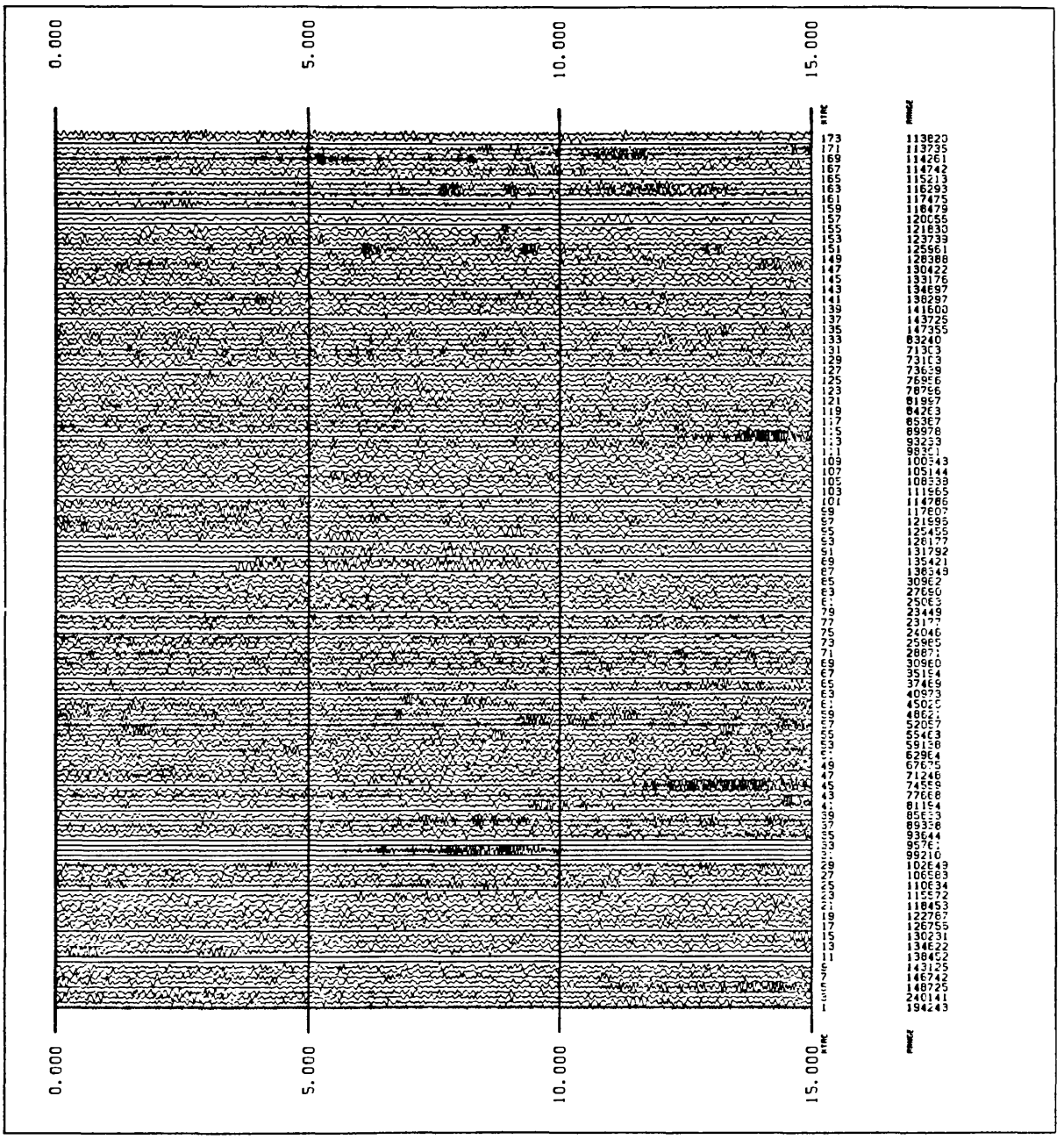

FIGURE A208) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #208 CAT 3188767 94:291:19:01 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

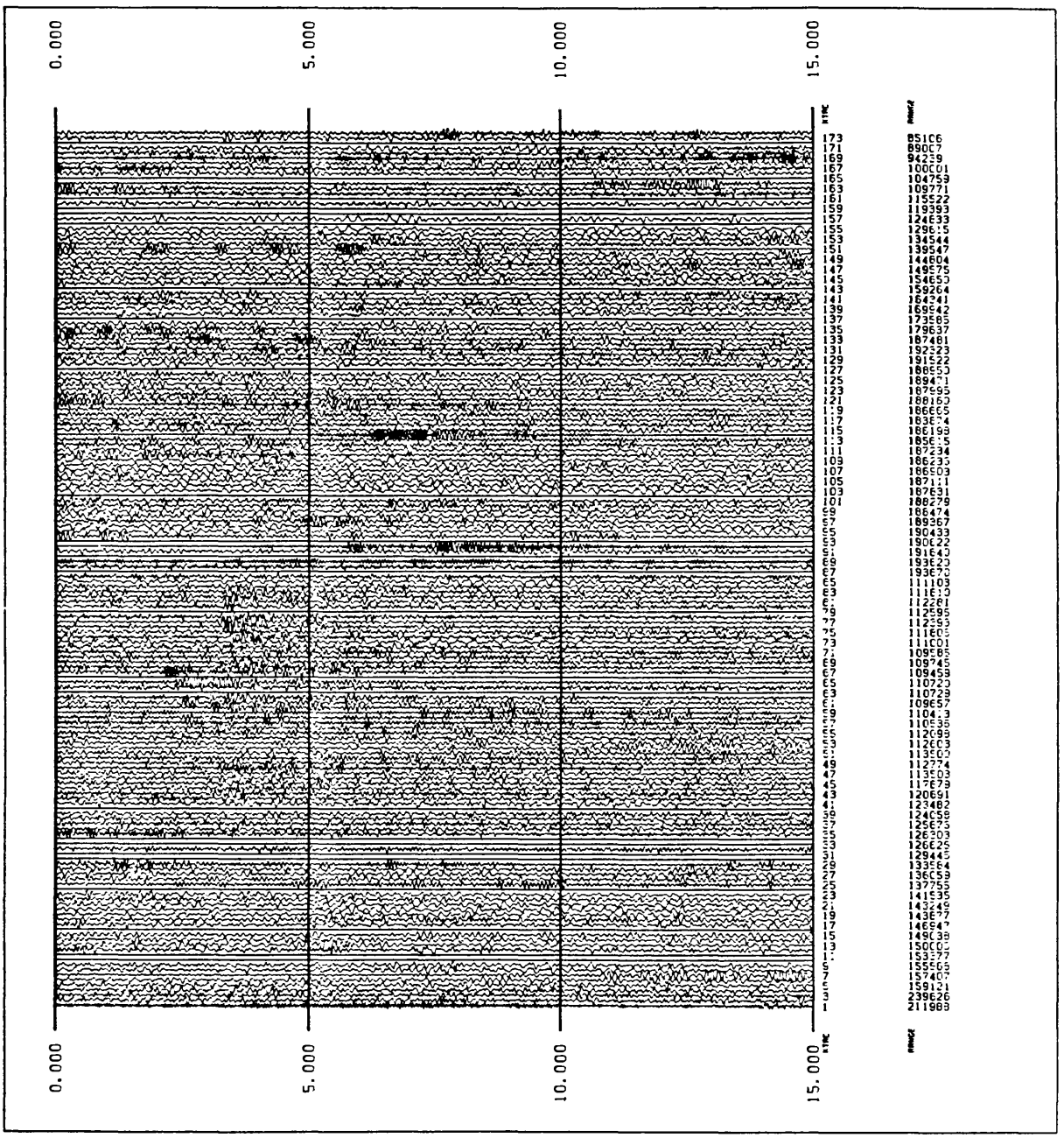

FIGURE A209) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #209 CAT 3188802 94:291:20:42 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

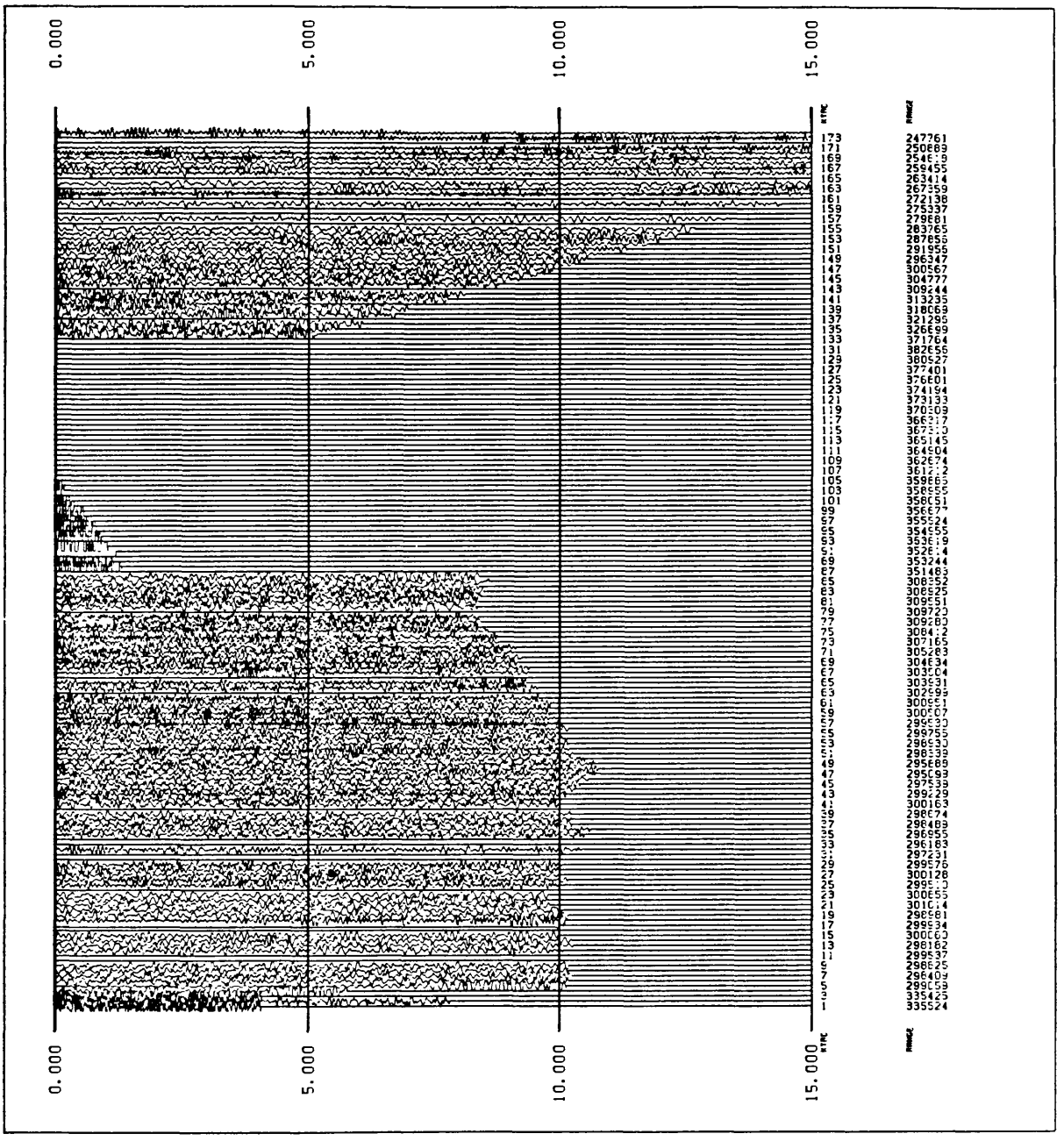

FIGURE A210) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #210 CAT 3188782 94:291:20:59 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

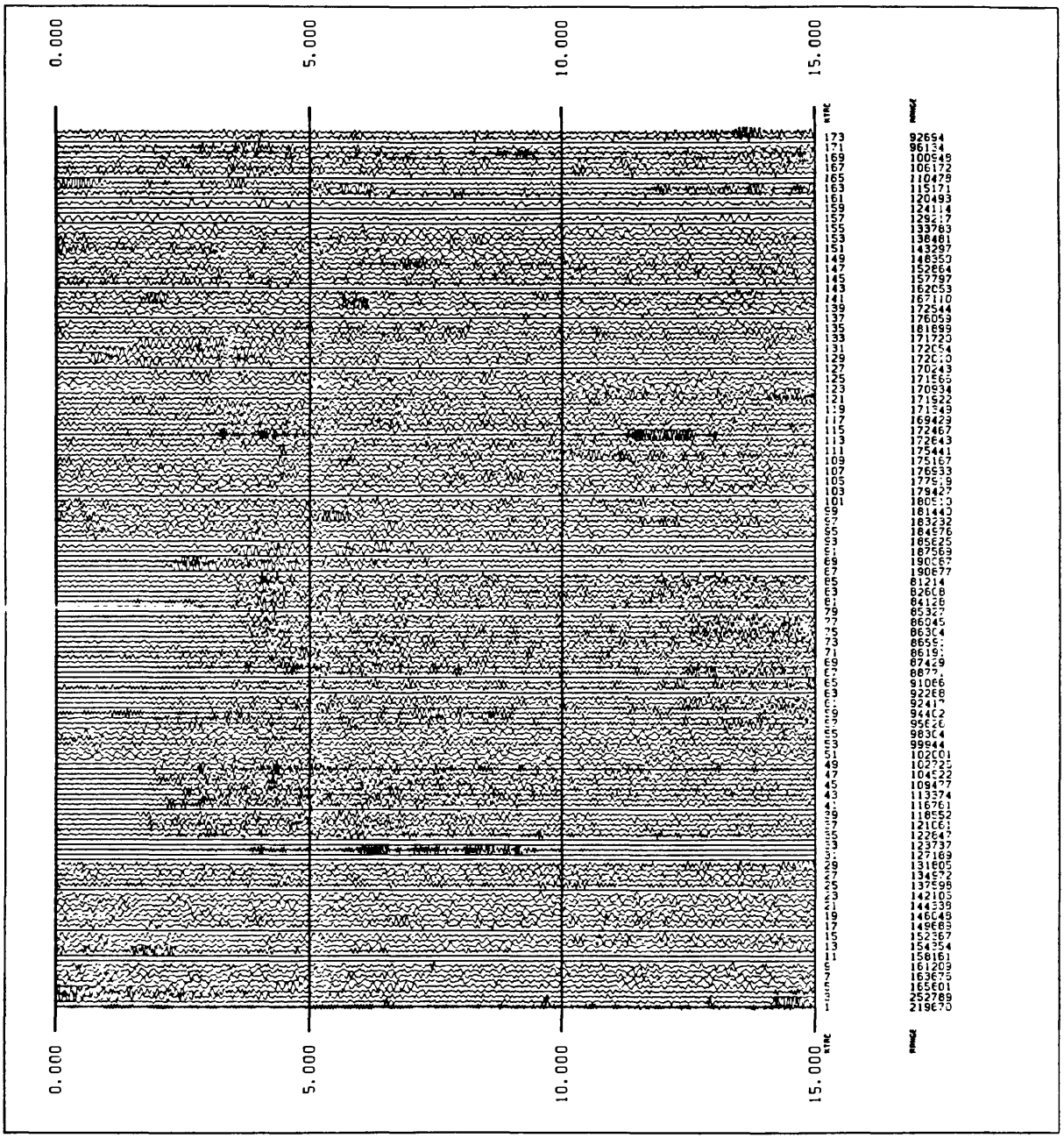

FIGURE A211) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #211 CAT 3188787 94:291:22:11 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

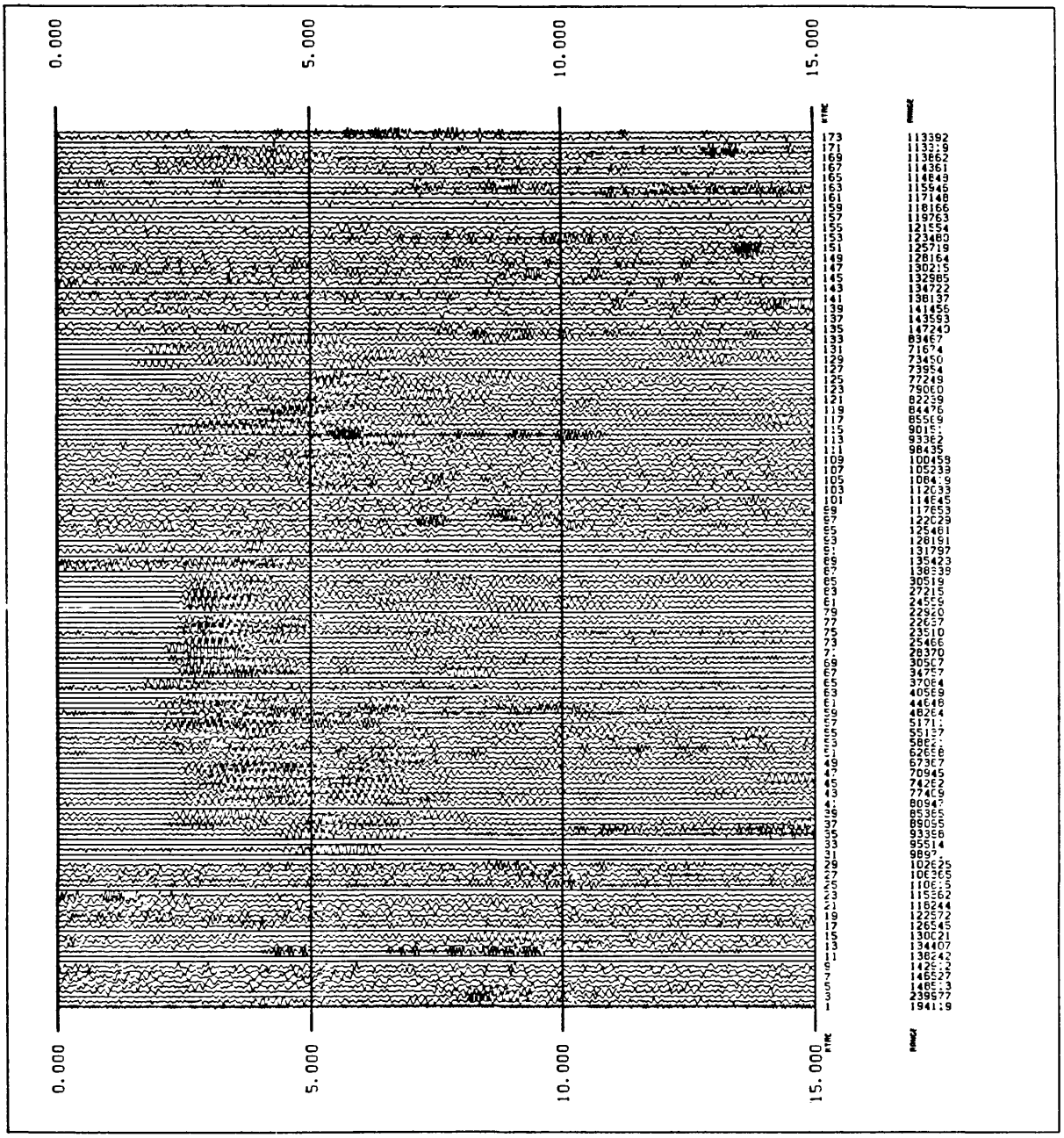

FIGURE A212) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #212 CAT 3188789 94:291:22:17 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Boron

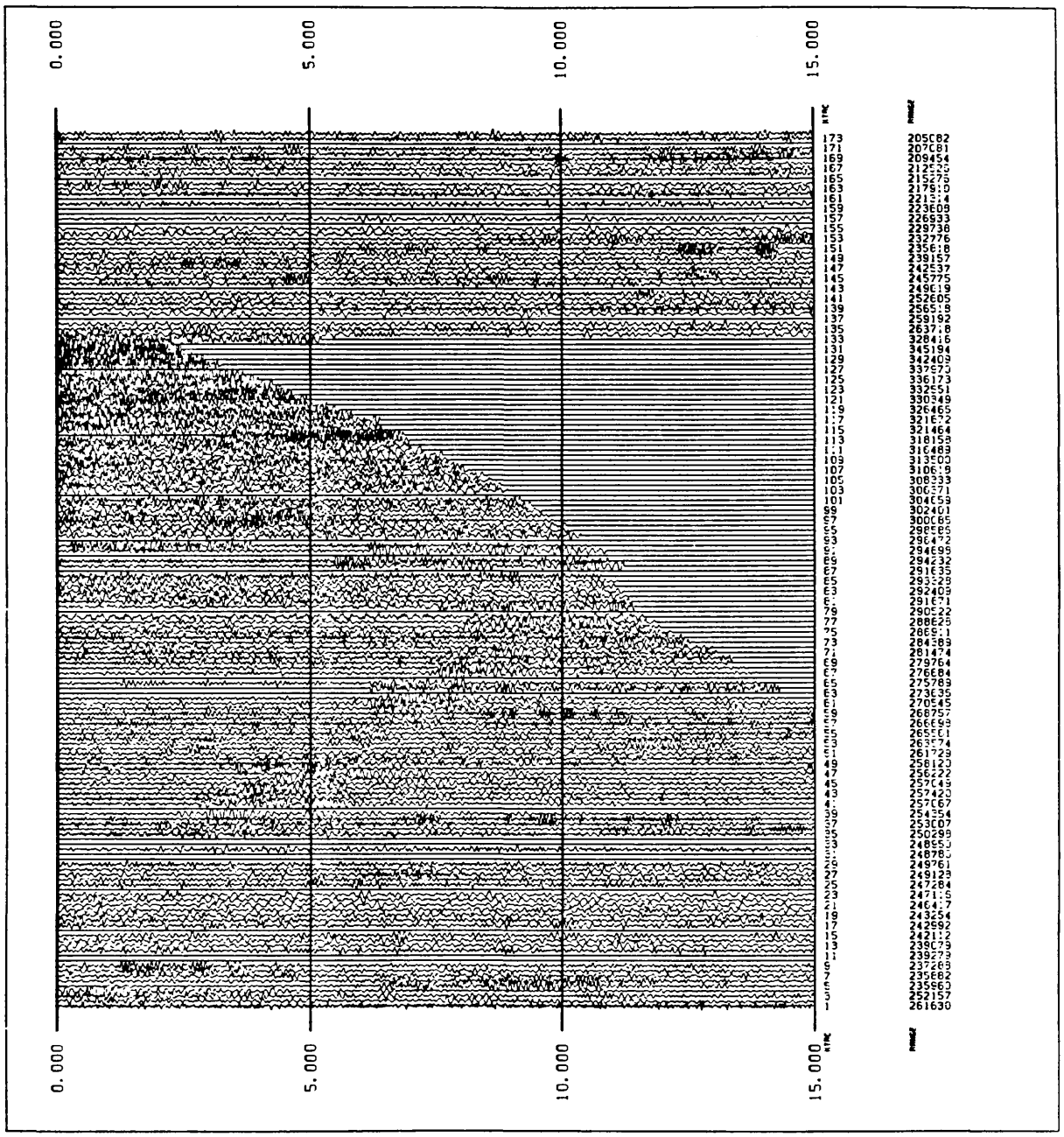

FIGURE A213) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #213 CAT 3188793 94:291:23:22 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

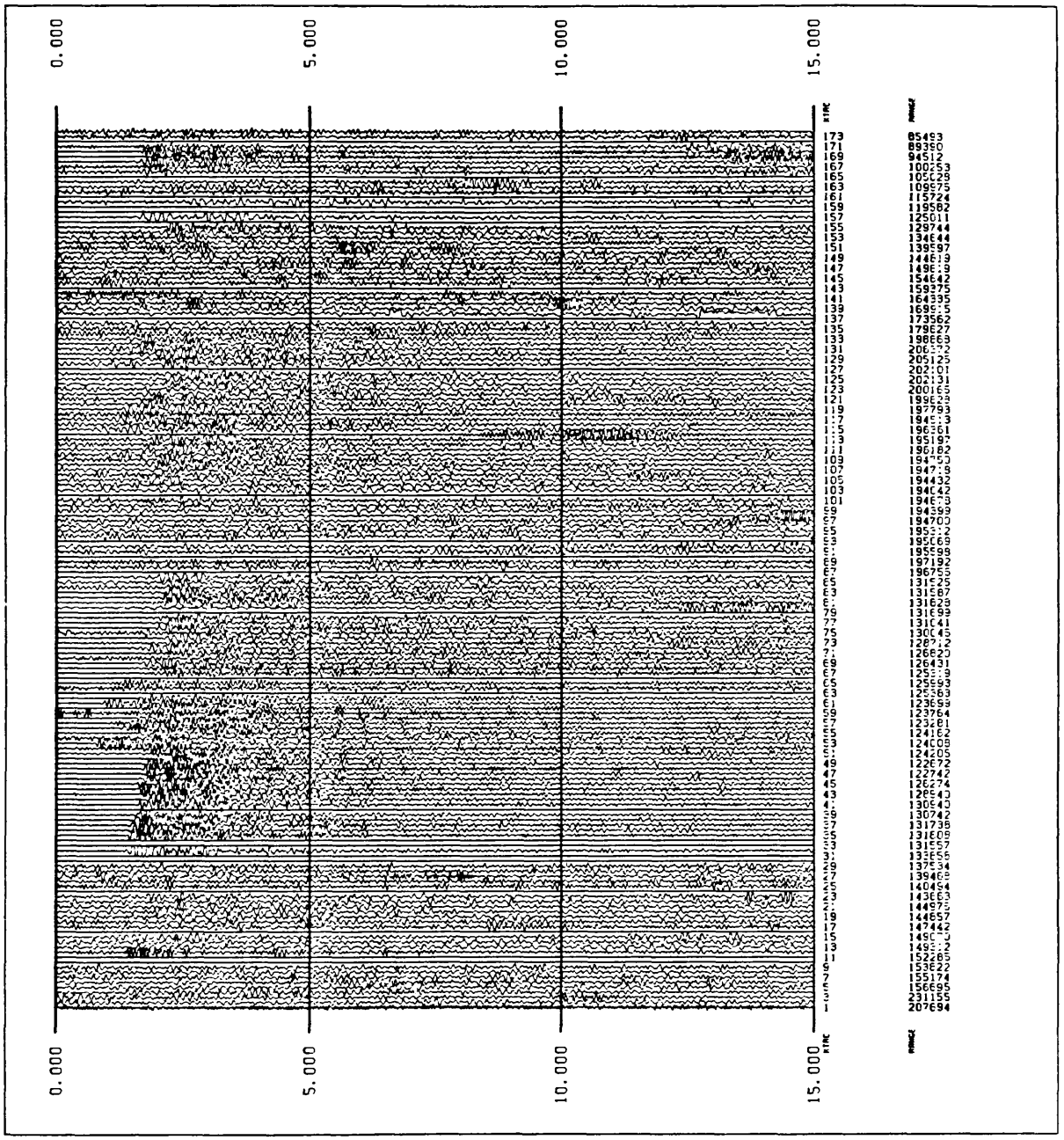

FIGURE A214) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #214 CAT 3188800 94:292:00:37 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Joshua Tree

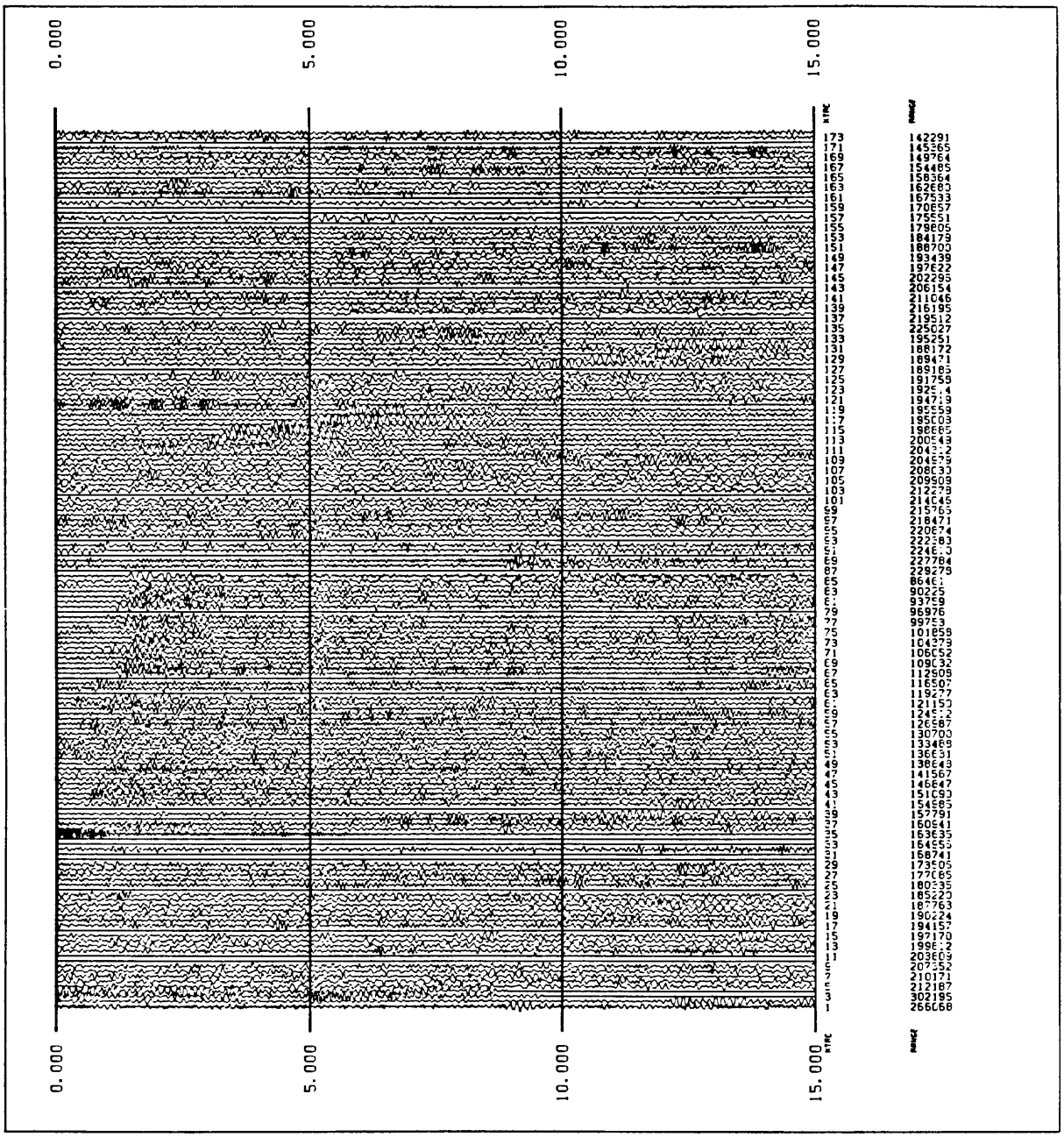

FIGURE A215) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #215 CAT 3188801 94:292:00:45 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

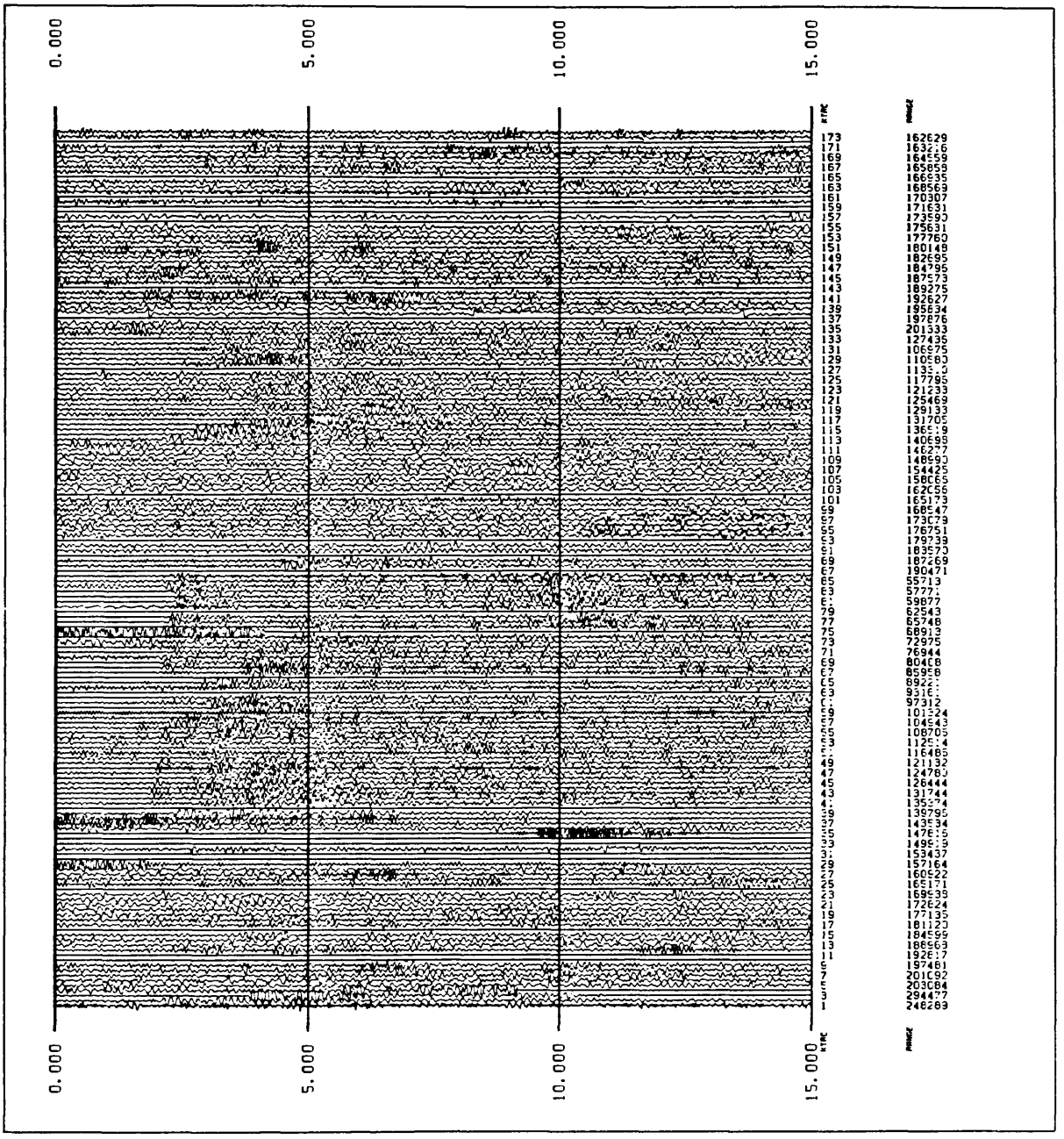

FIGURE A216) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #216 CAT 3188803 94:292:00:47 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

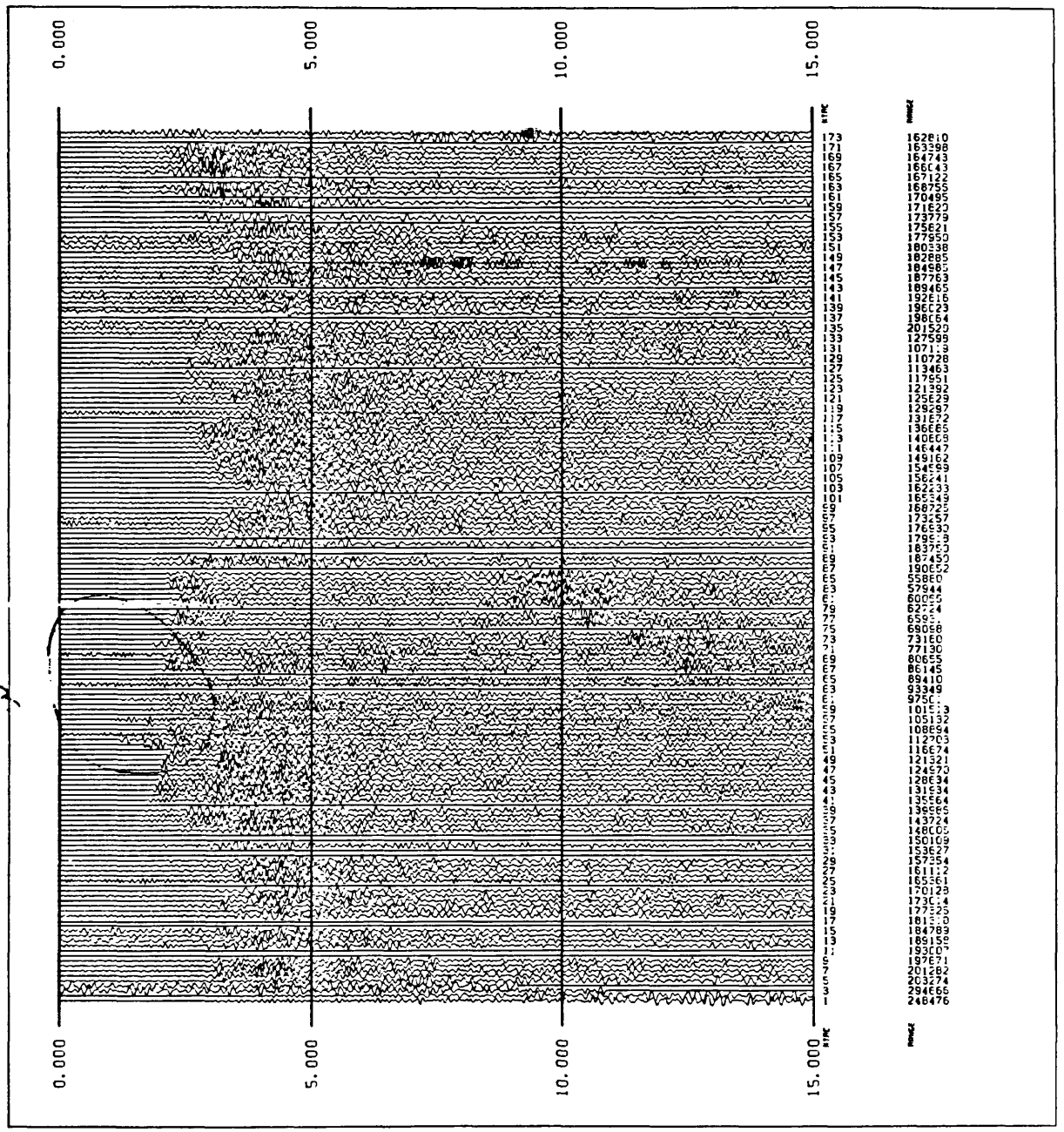

FIGURE A217) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #217 CAT 3188805 94:292:00:49 MAG 4.2
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

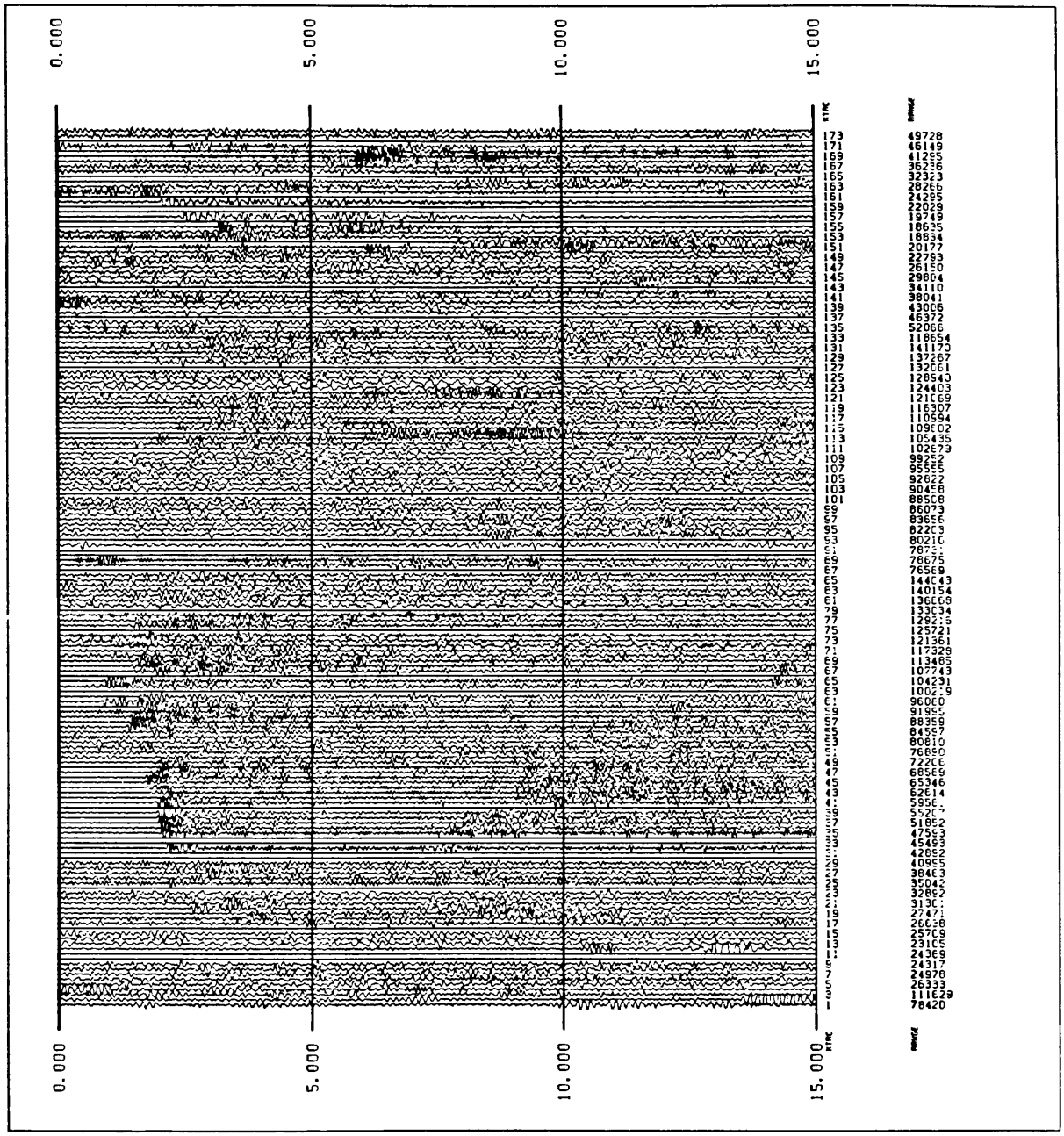

FIGURE A218) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #218 CAT 3188806 94:292:01:24 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

Orange County

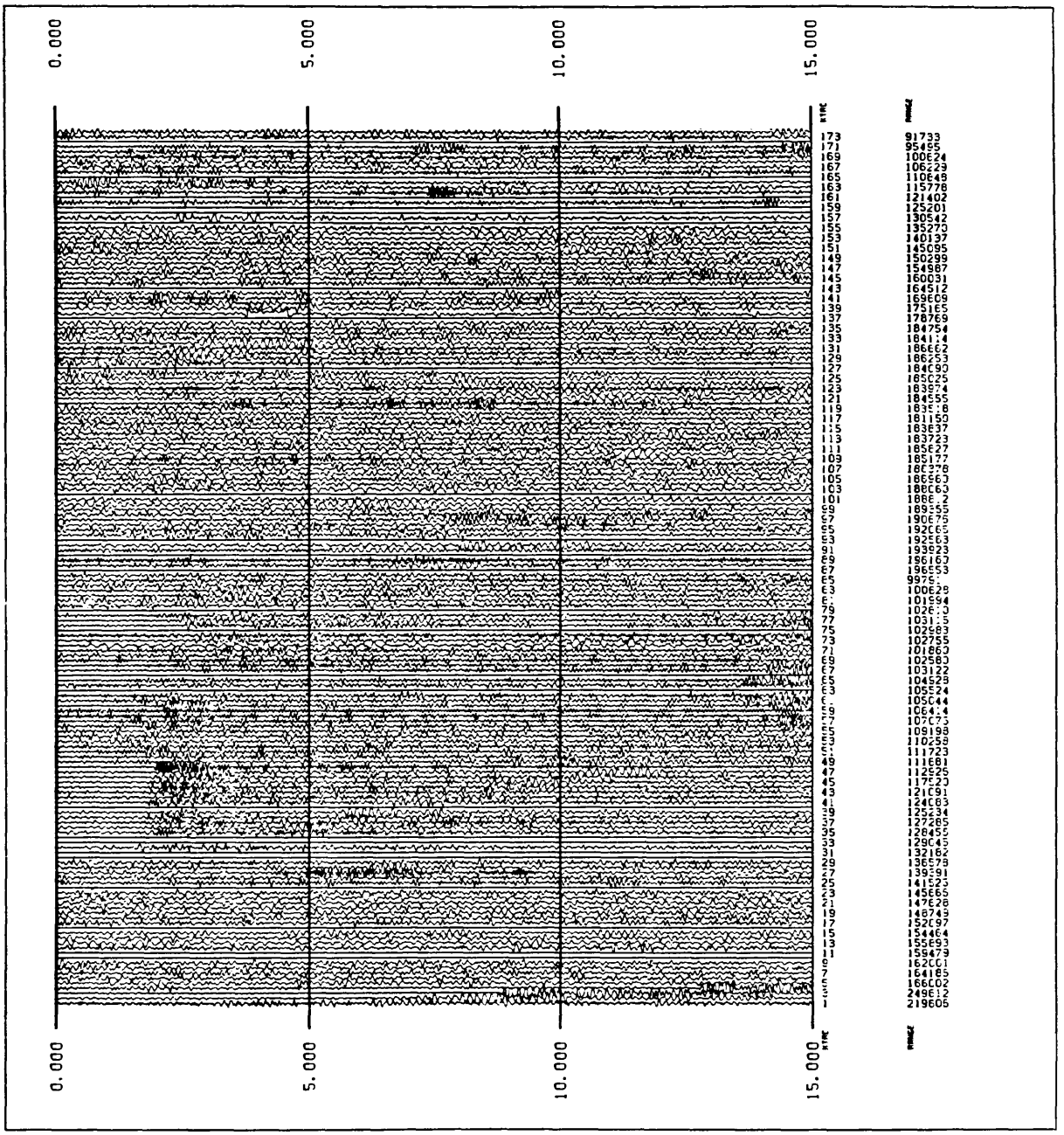

FIGURE A219) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #219 CAT 3188814 94:292:02:18 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

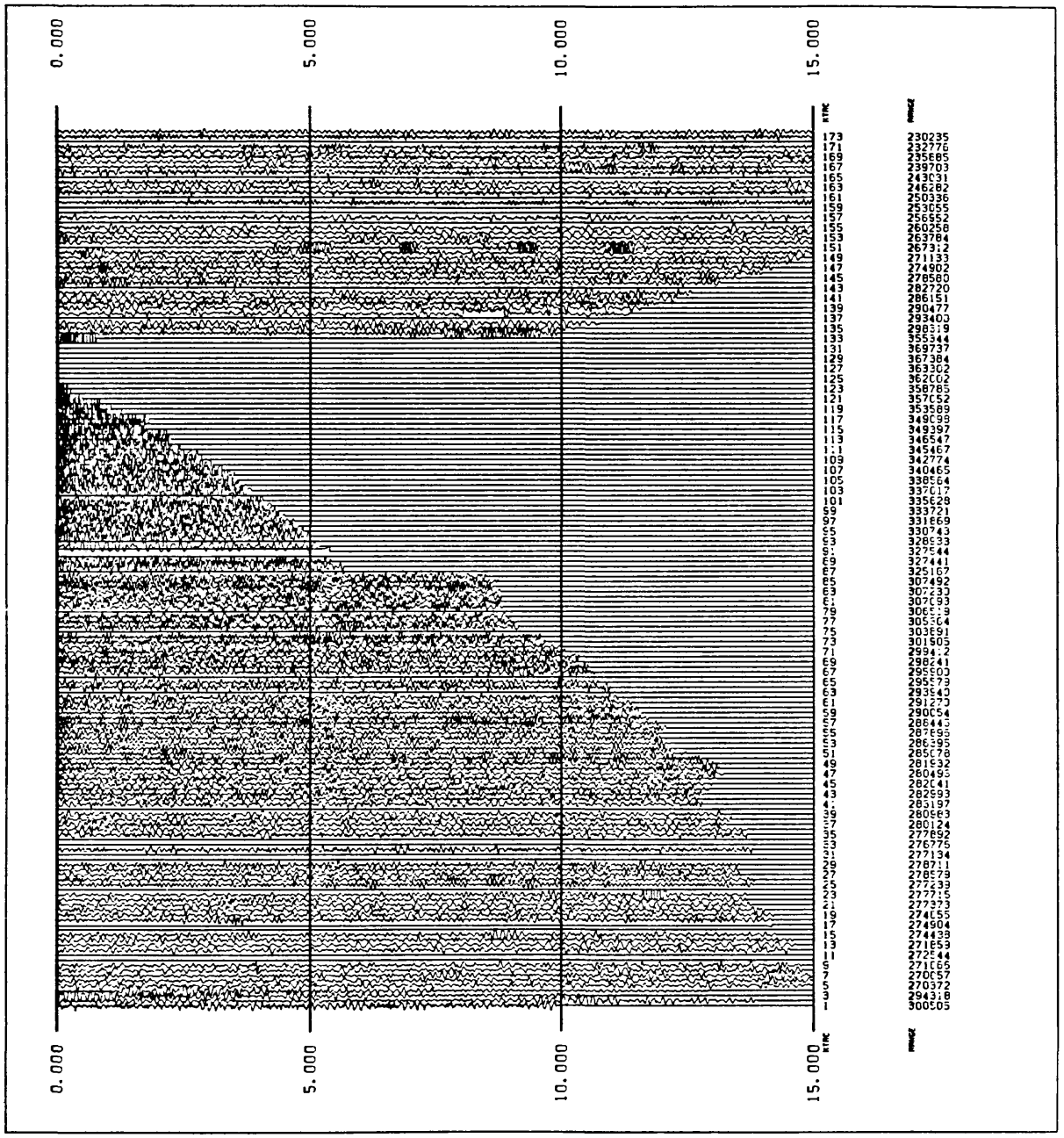

FIGURE A220) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #220 CAT 3188824 94:292:02:49 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

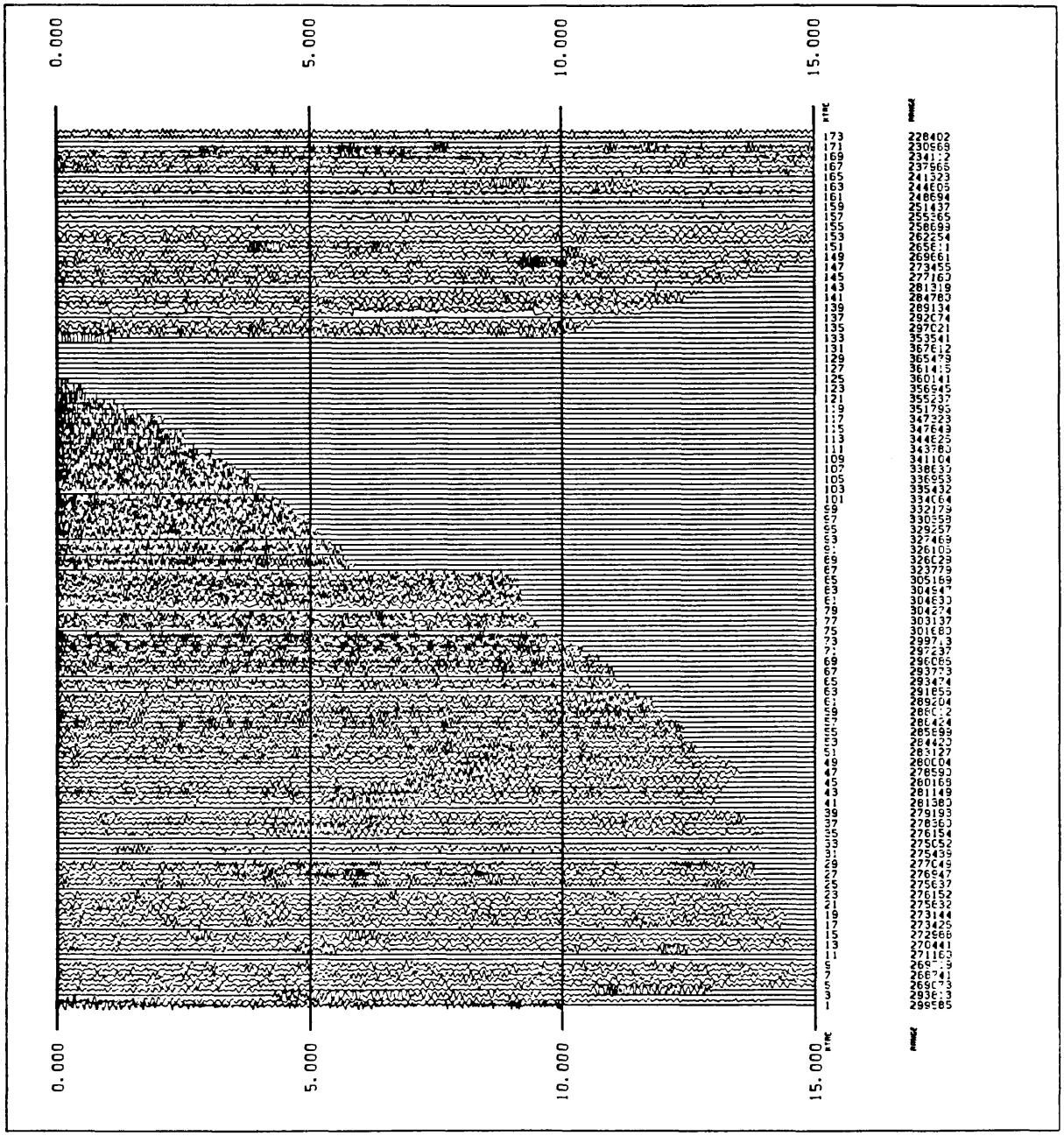

FIGURE A221) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #221 CAT 3188825 94:292:03:03 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

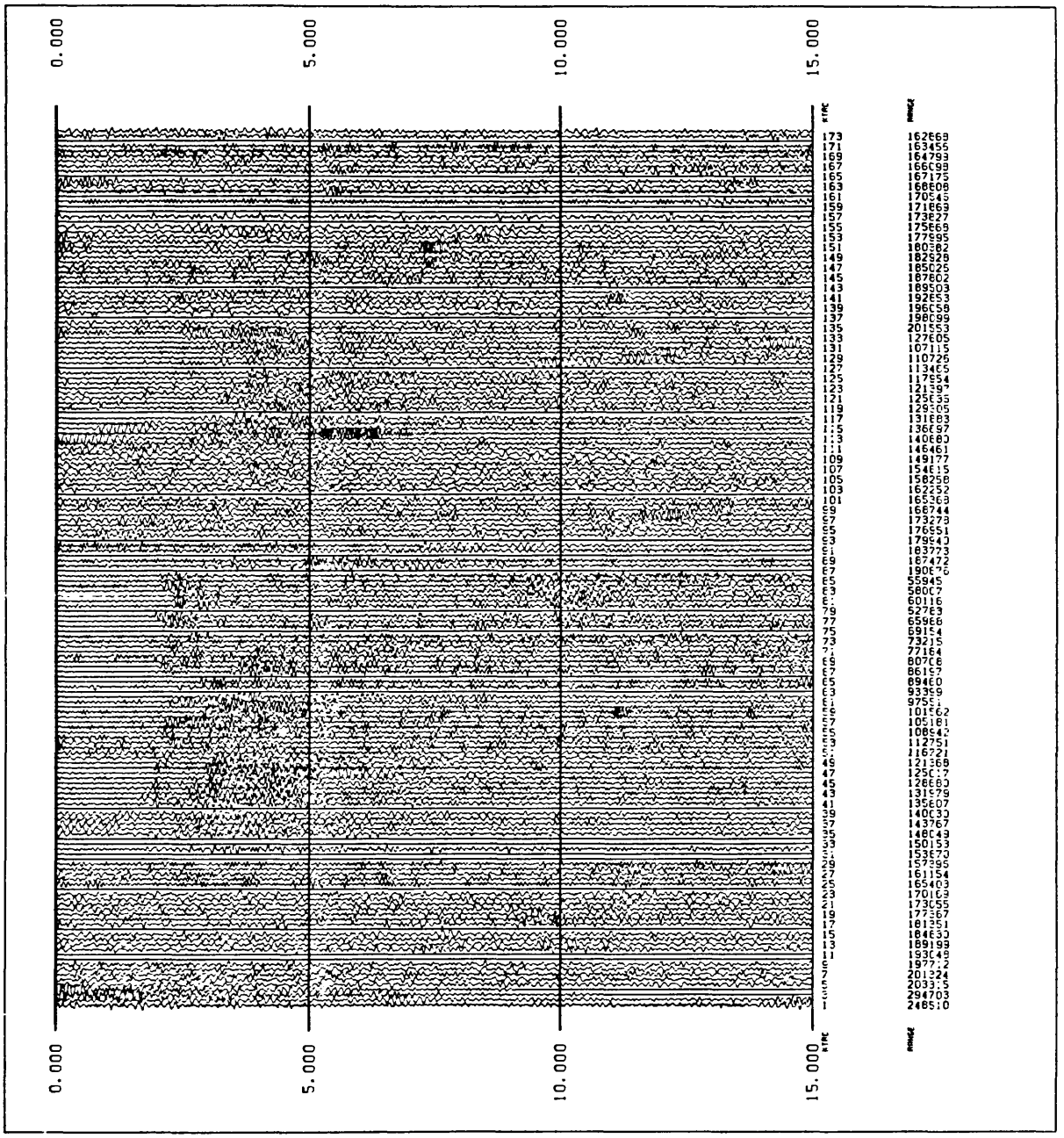

FIGURE A22) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #222 CAT 3188827 94:292:03:15 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

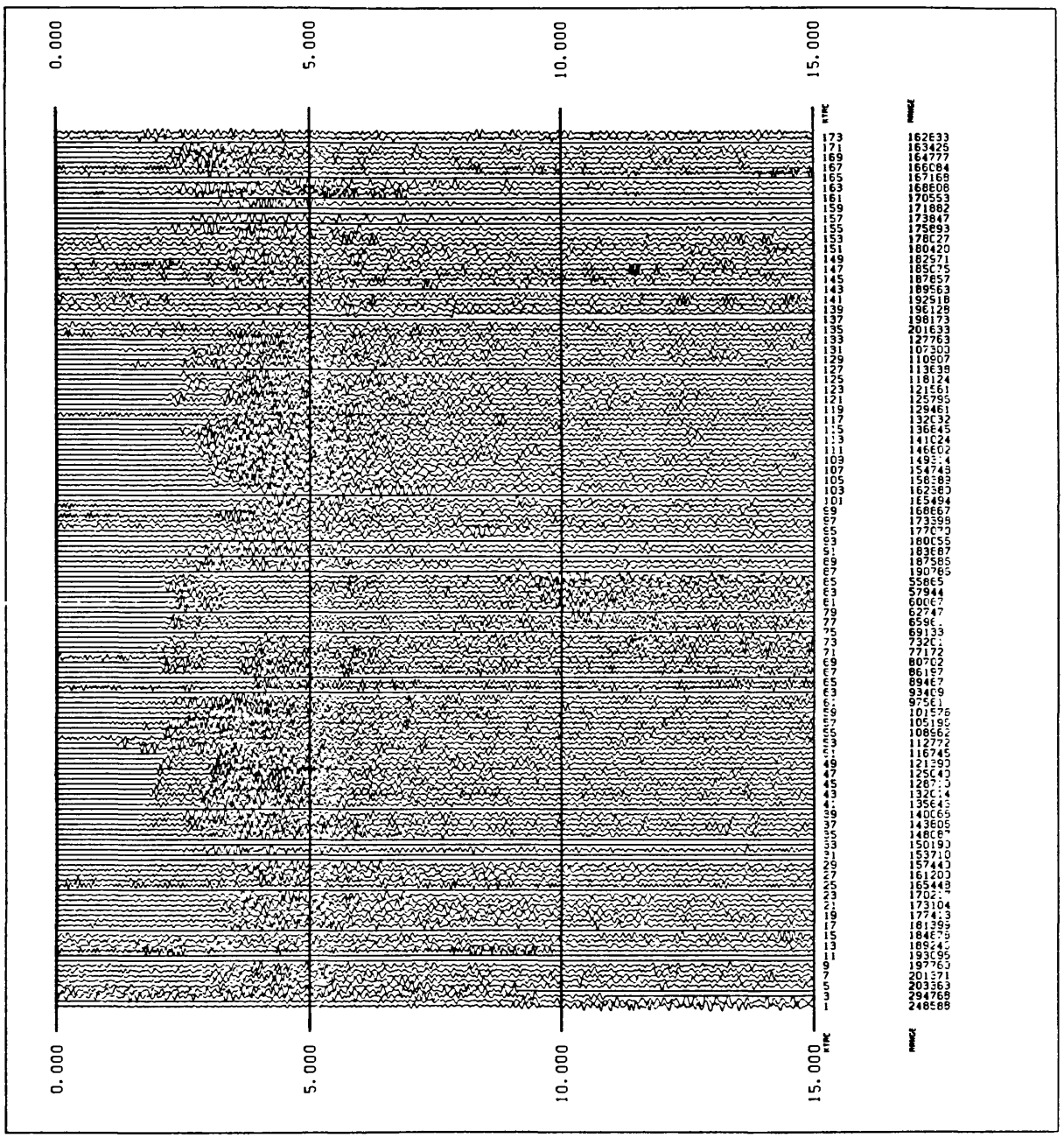

FIGURE A223) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #223 CAT 3188828 94:292:03:34 MAG 3.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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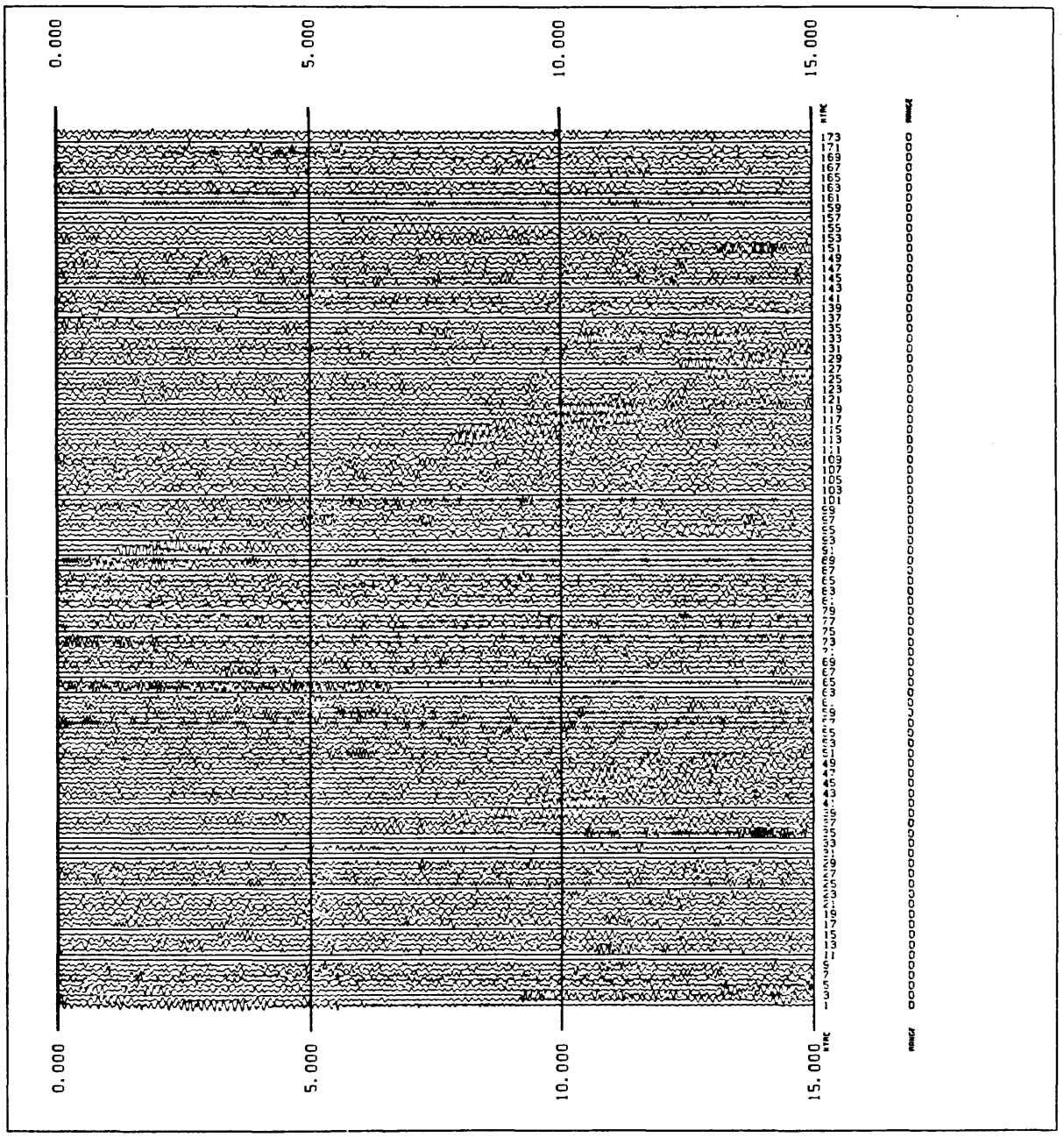

FIGURE A224) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #224 CAT 3188830 94:292:04:13 MAG 2.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

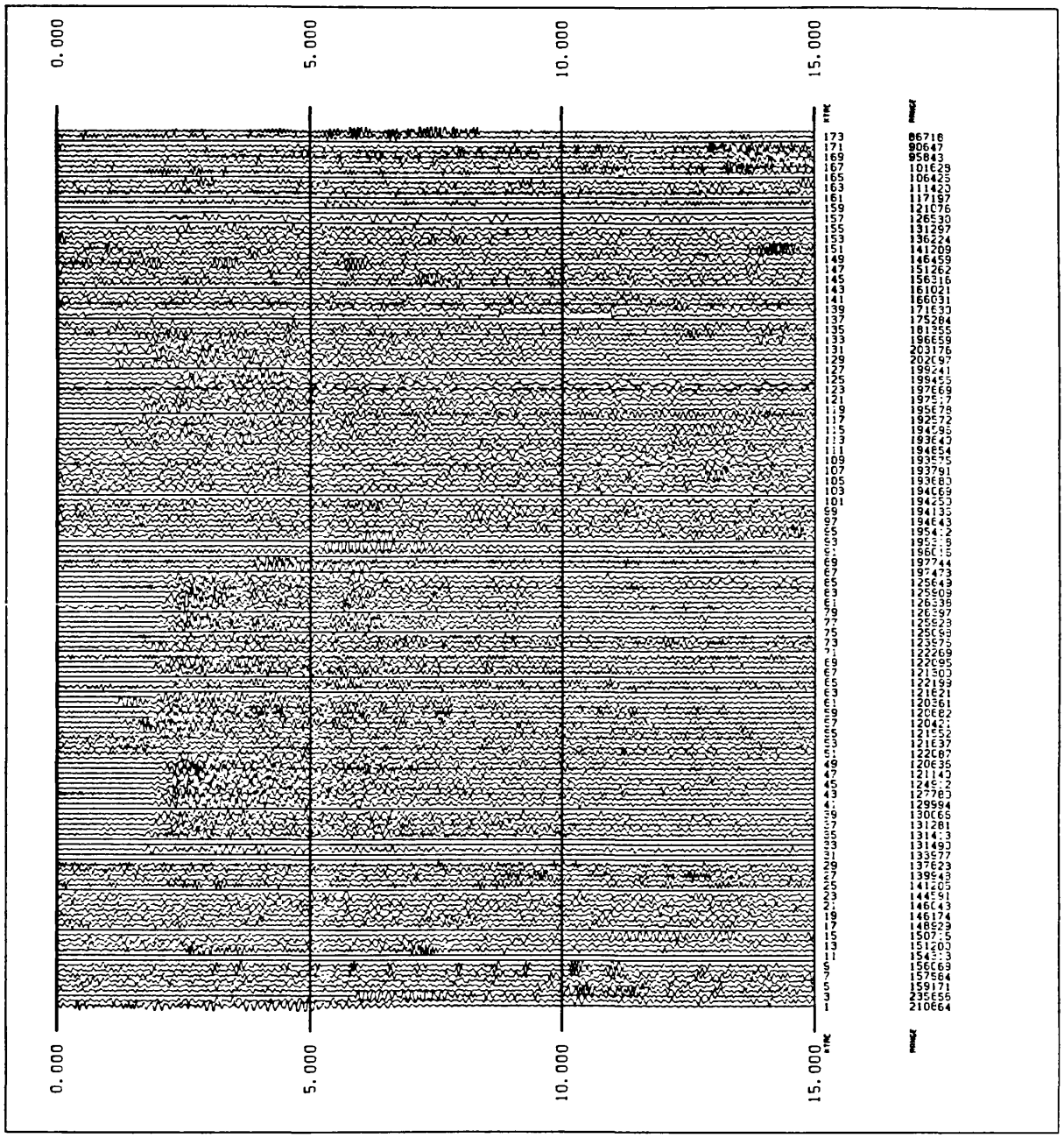

FIGURE A225) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #225 CAT 3188832 94:292:04:55 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

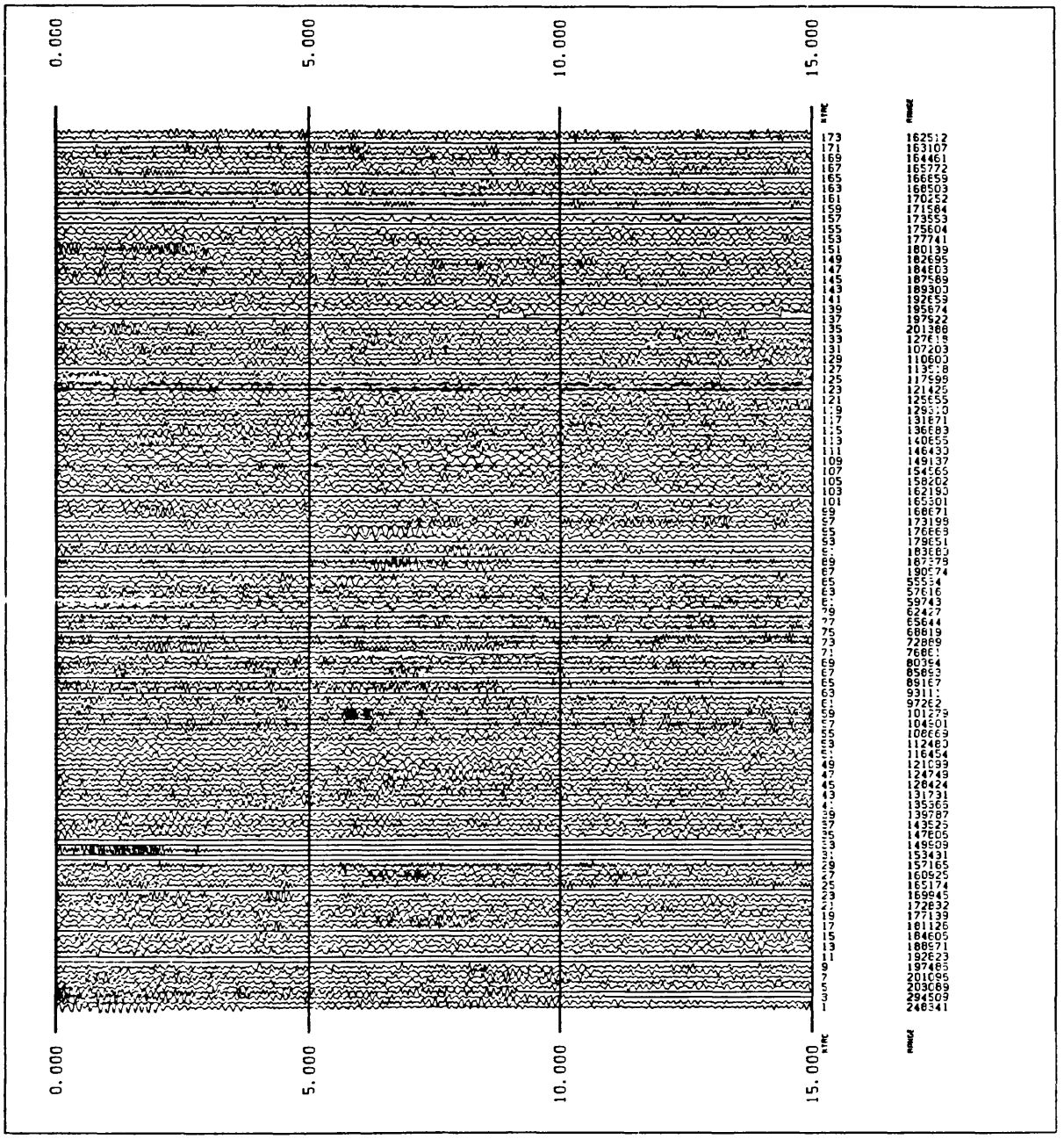

FIGURE A226) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #226 CAT 3188833 94:292:05:03 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

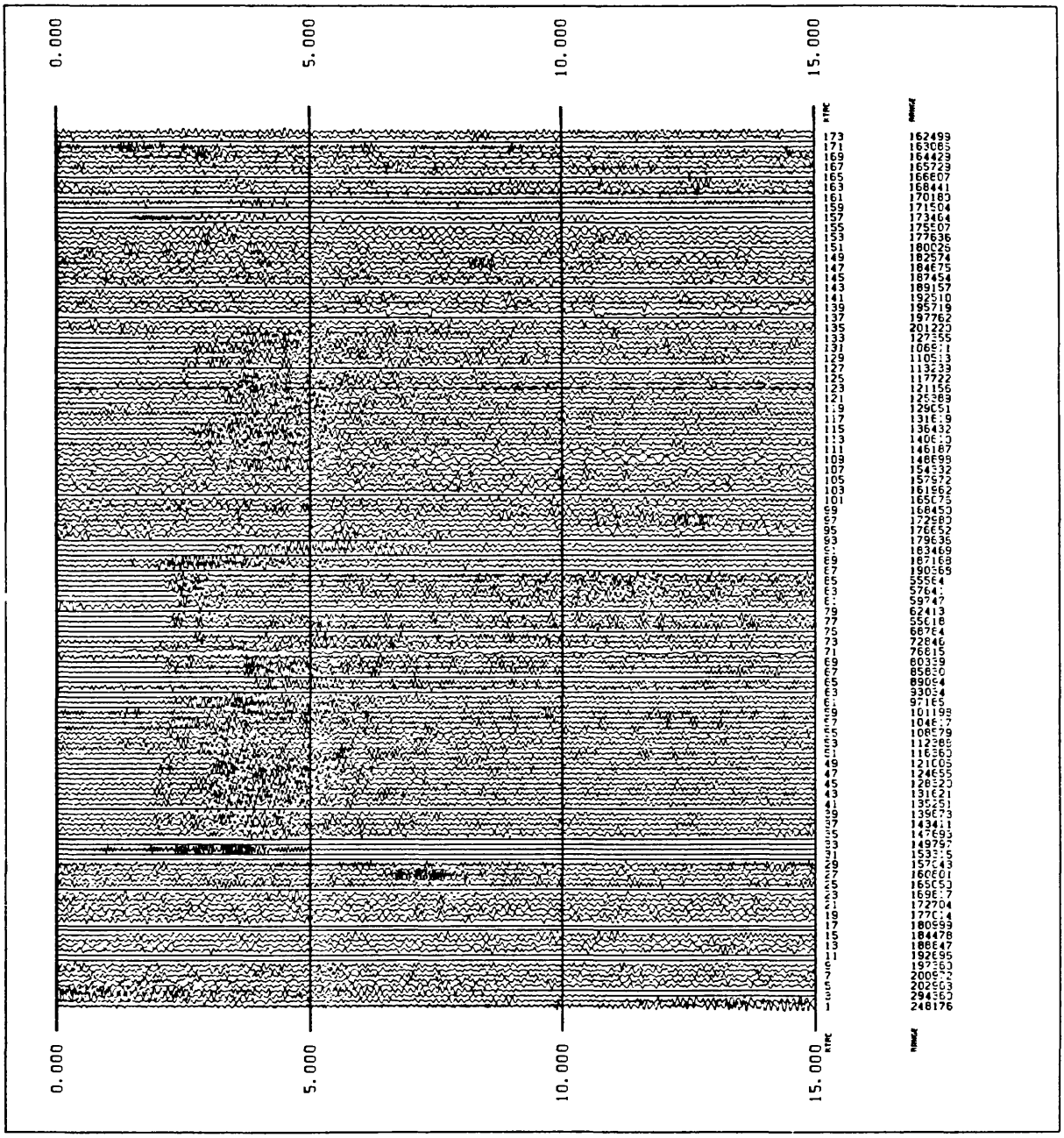

FIGURE A227) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #227 CAT 3188834 94:292:05:20 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

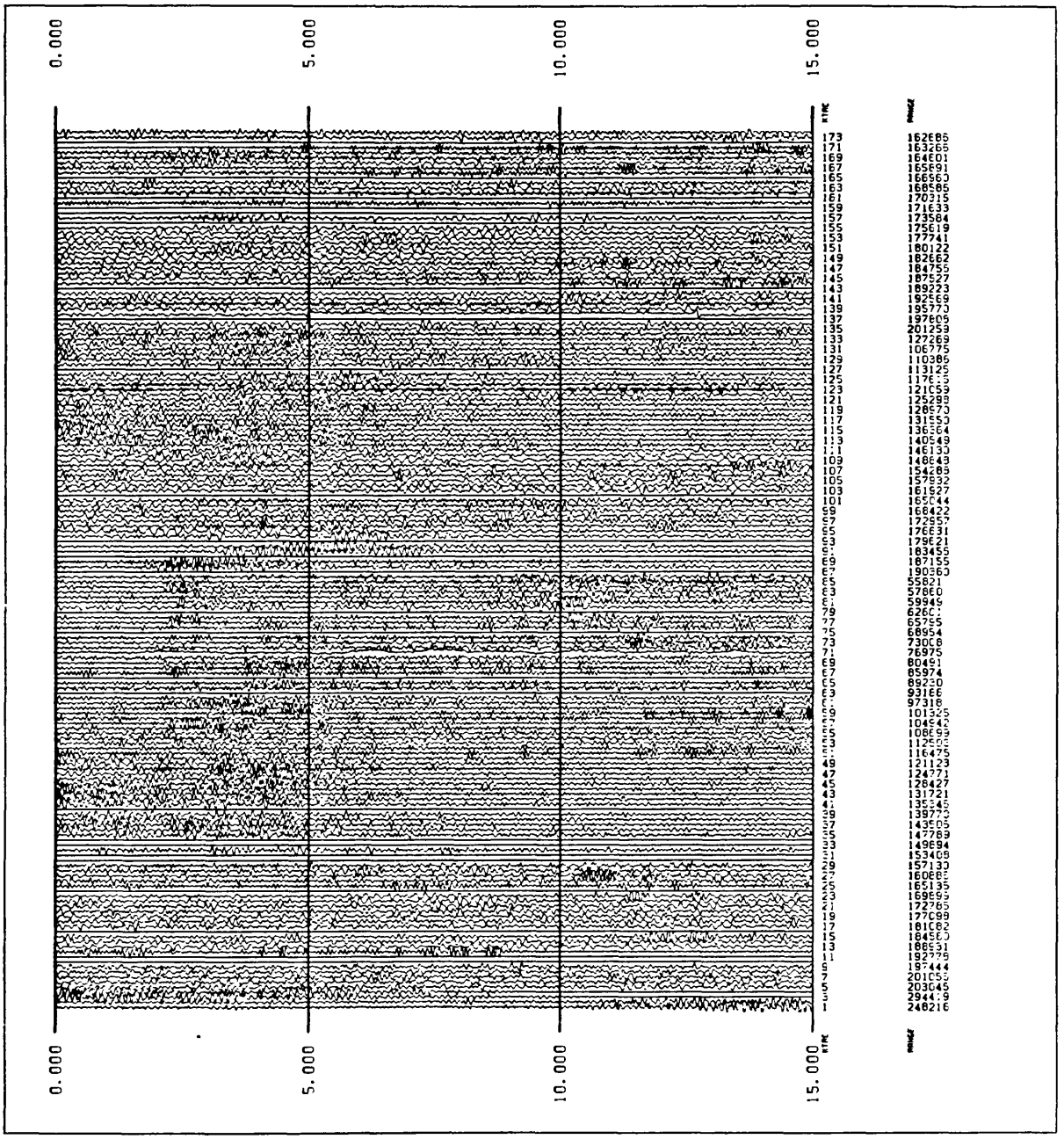

FIGURE A228) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #228 CAT 3188899 94:292:05:20 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

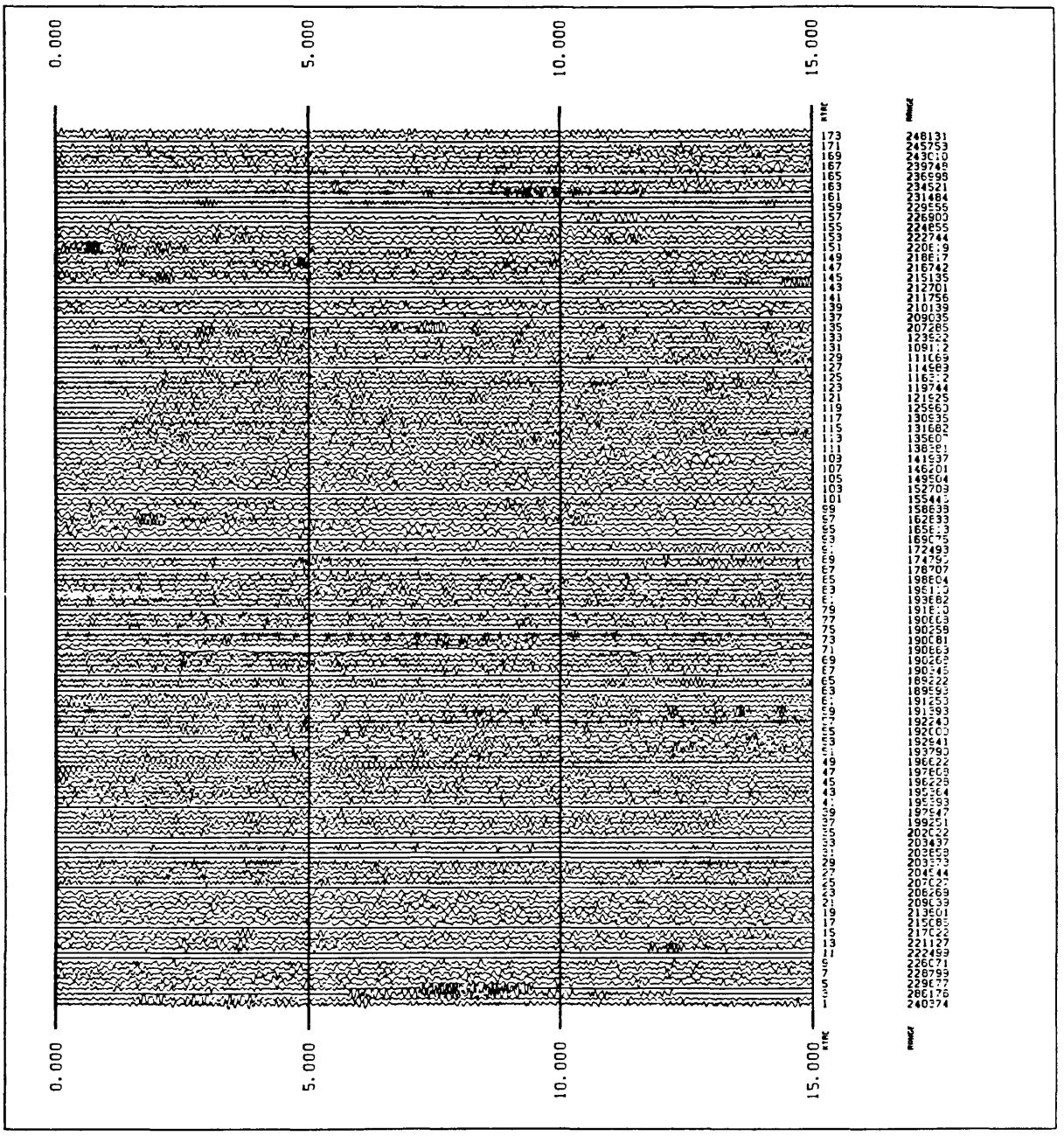

FIGURE A229) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #229 CAT 3188840 94:292:06:26 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

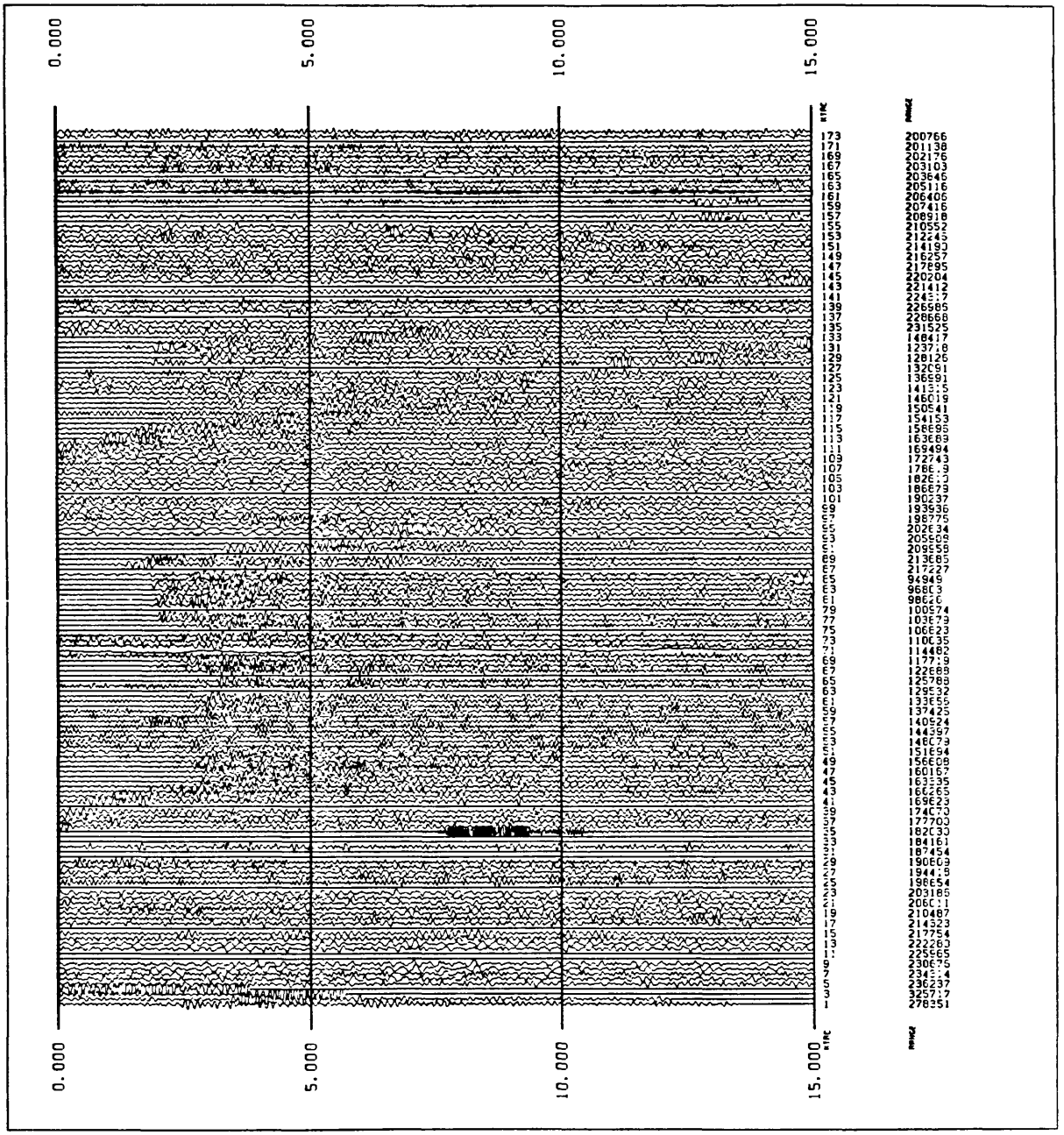

FIGURE A230) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #230 CAT 3188862 94:292:10:20 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

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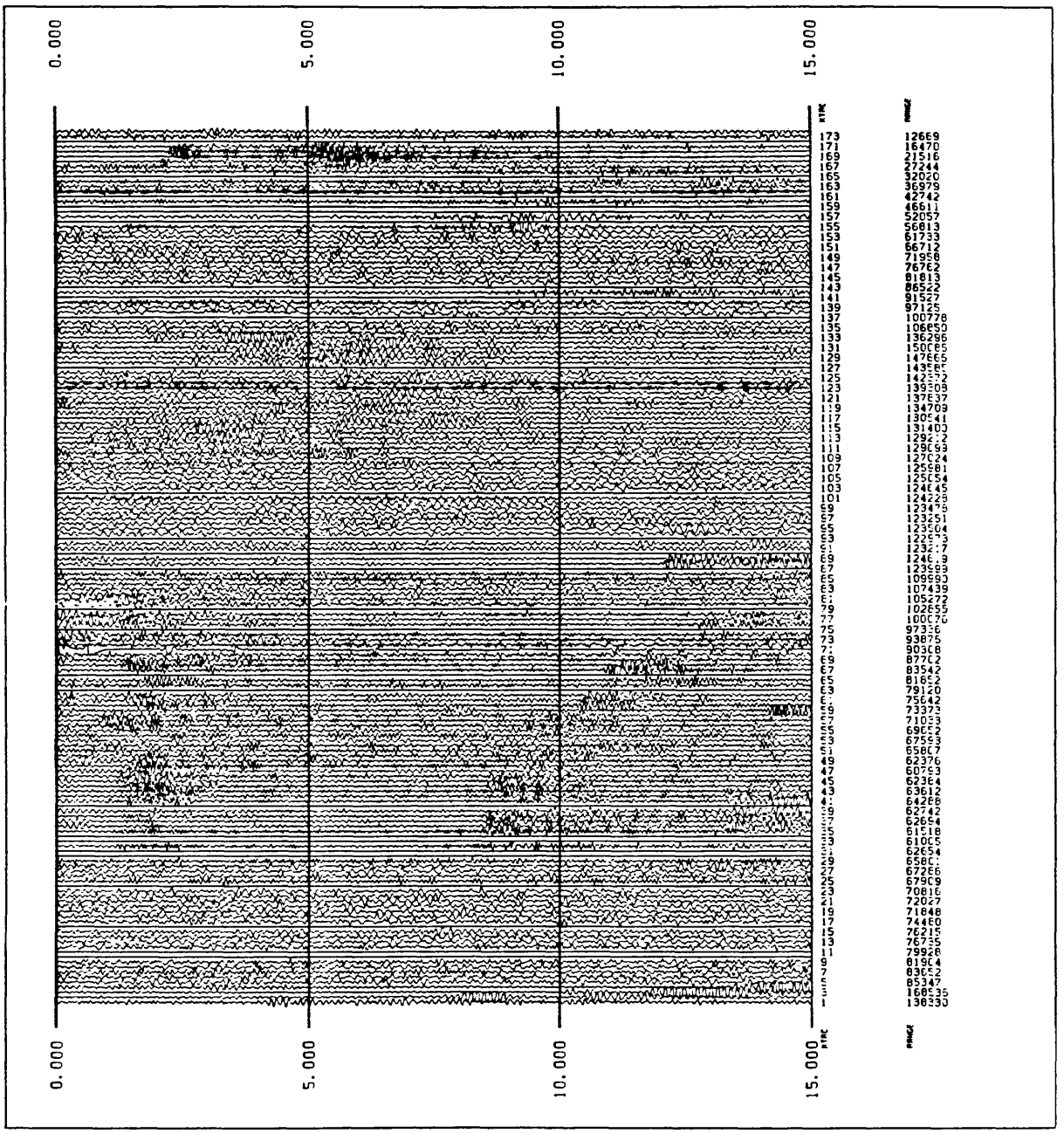

FIGURE A231) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #231 CAT 3188866 94:292:11:28 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

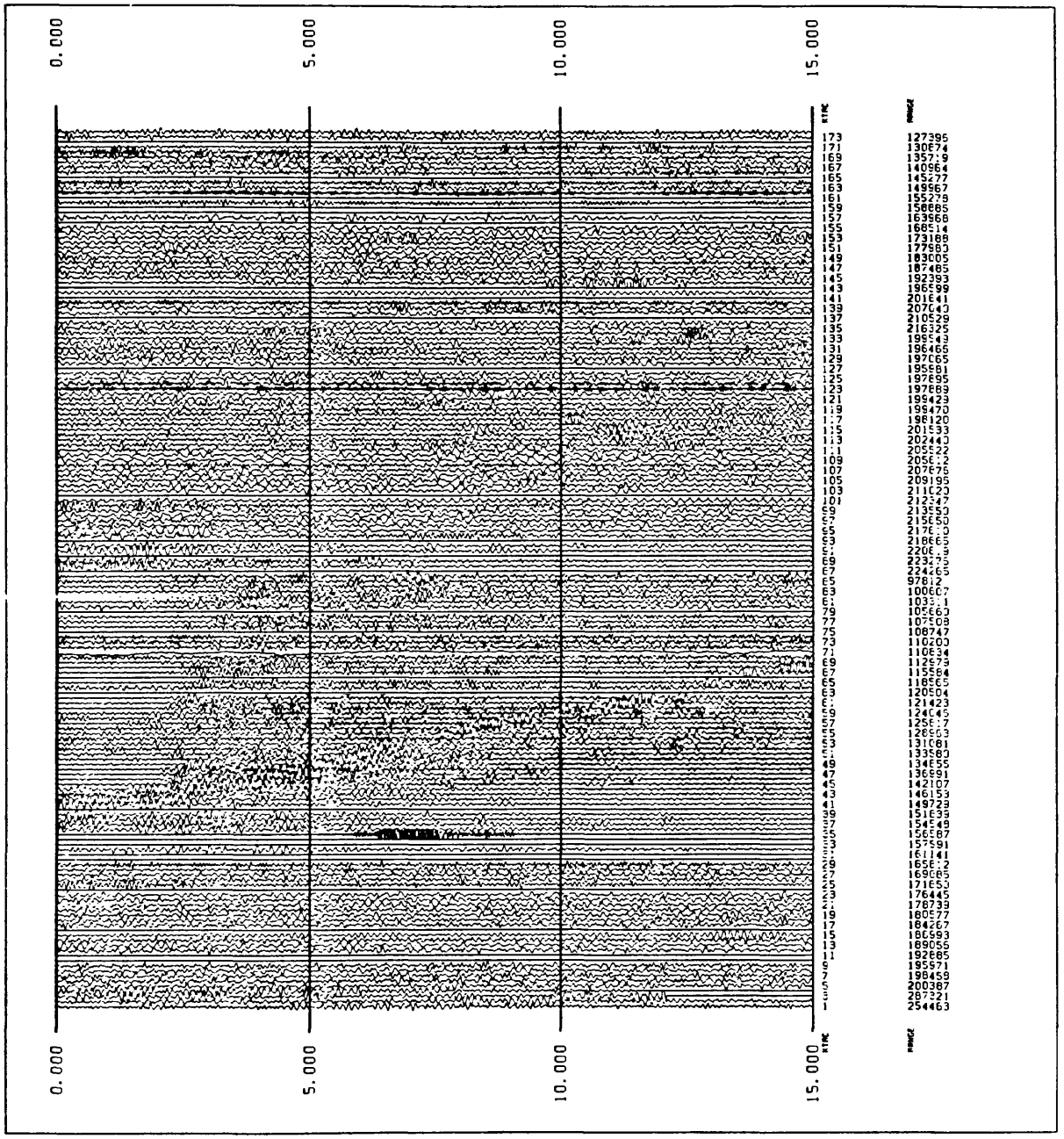

FIGURE A232) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #232 CAT 3188868 94:292:11:31 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

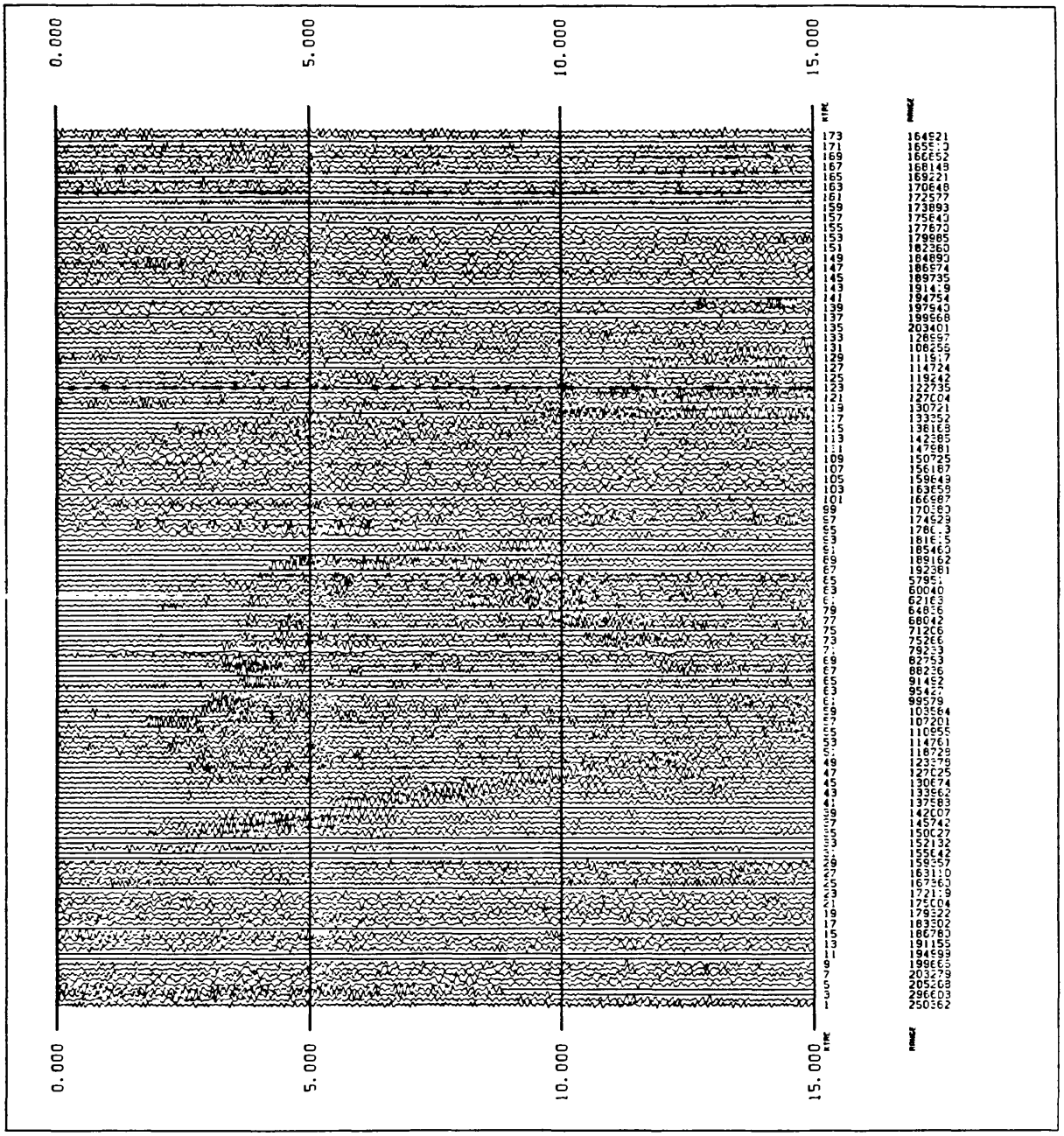

FIGURE A233) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #233 CAT 3188870 94:292:11:35 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

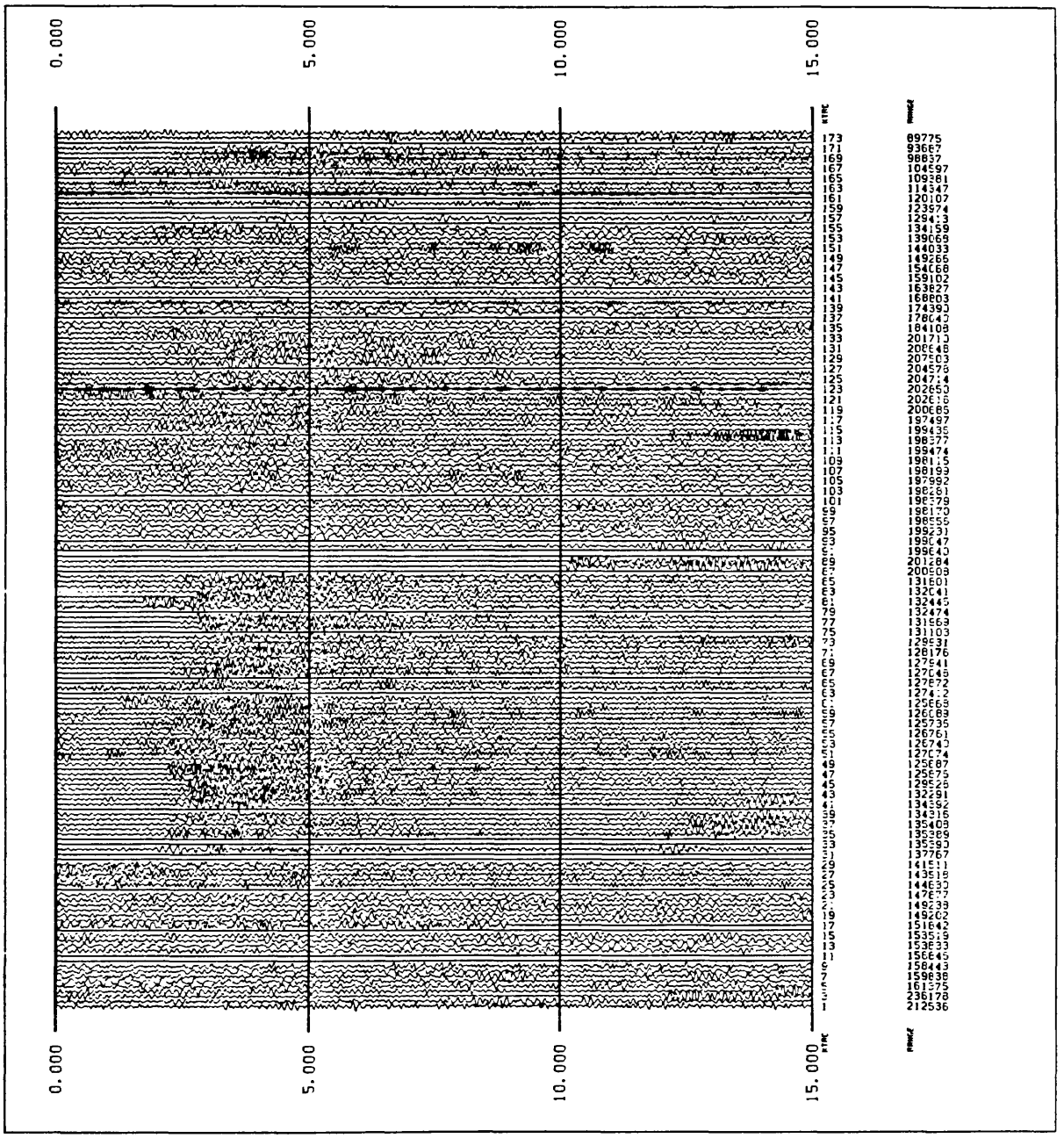

FIGURE A234) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #234 CAT 3188872 94:292:11:49 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

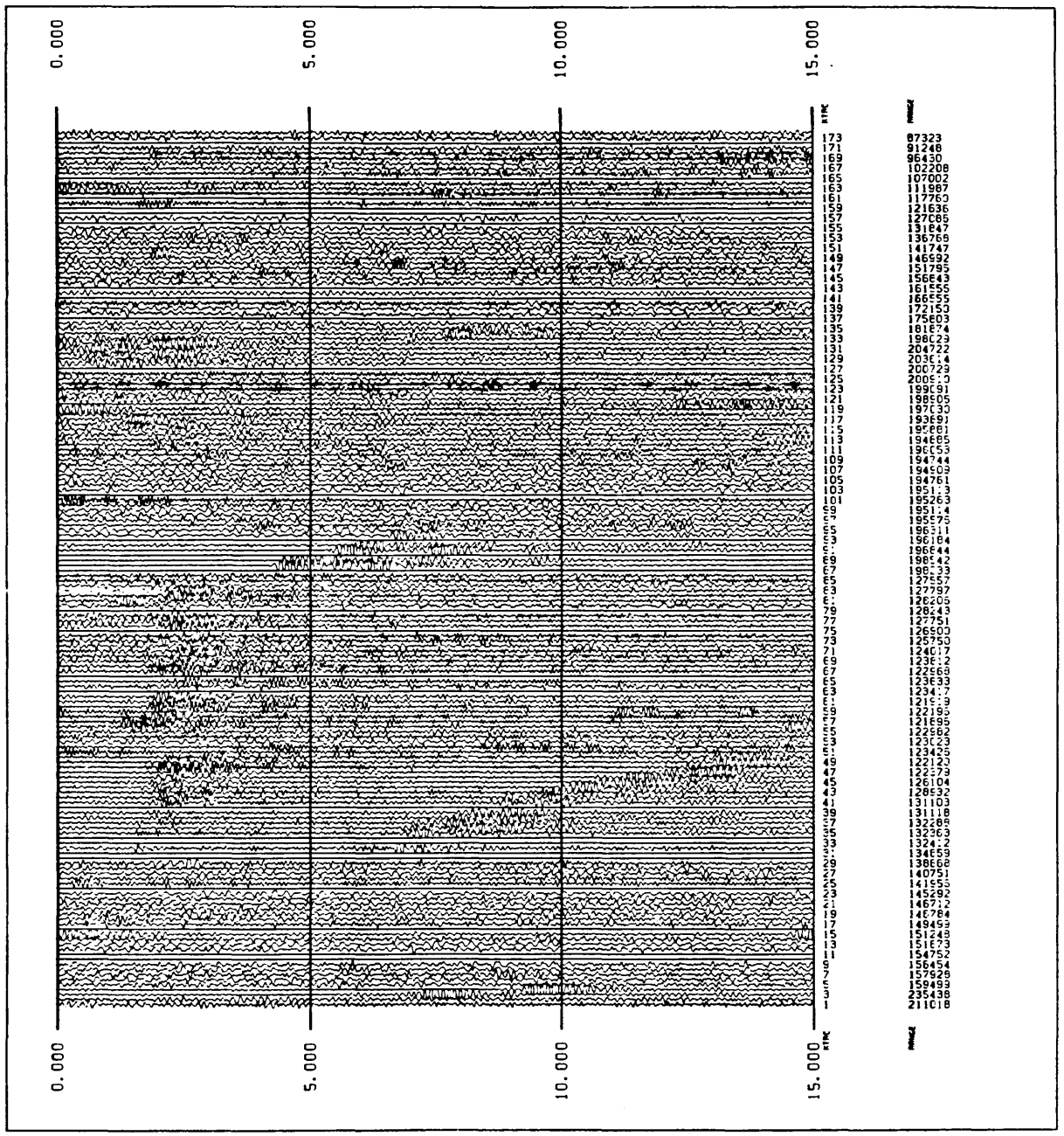

FIGURE A2351 LOCAL QUAKES DURING LARSE ON-OFF
EVENT #235 CAT 3188874 94:292:12:13 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

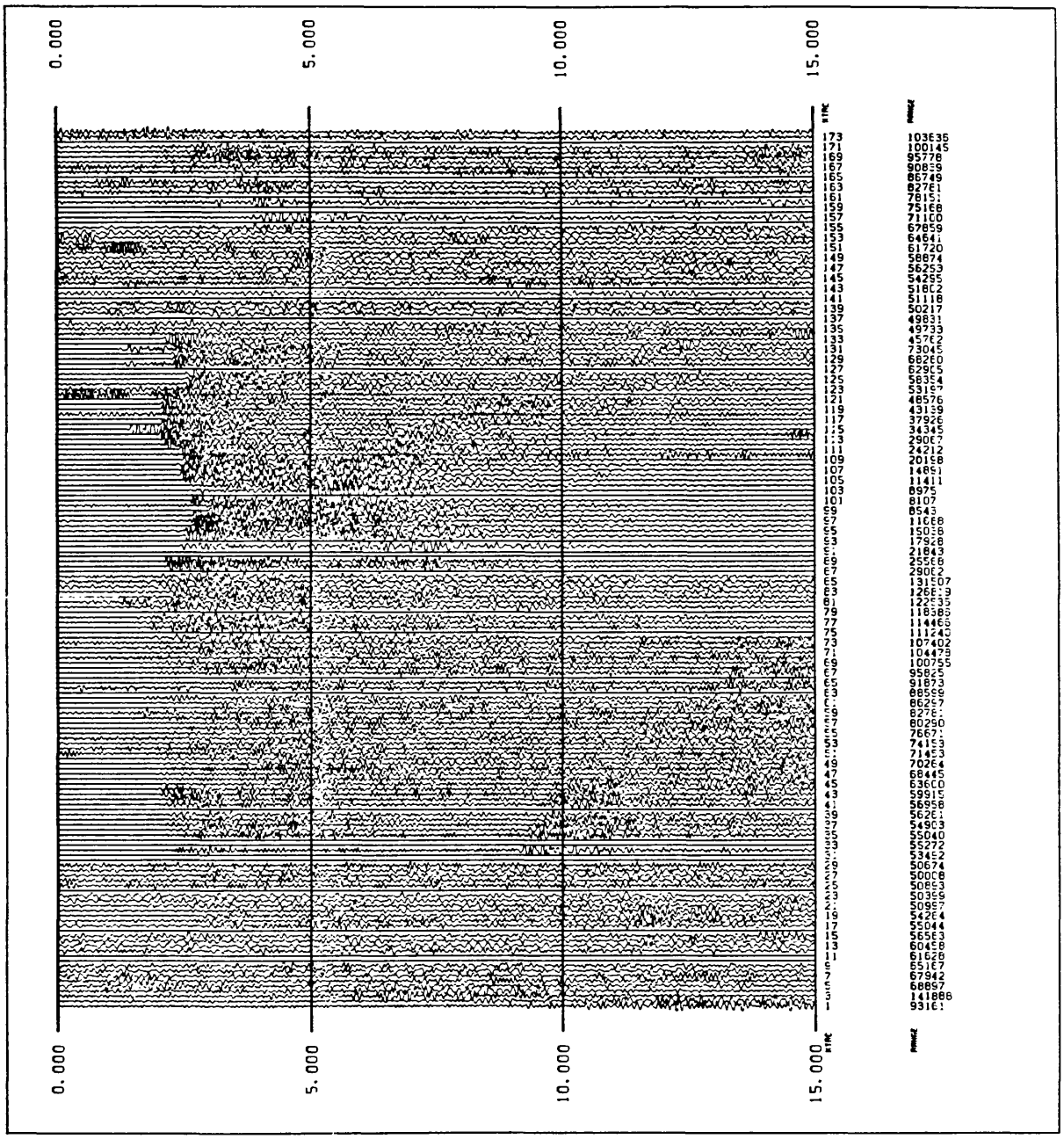

FIGURE A236) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #236 CAT 3188878 94:292:13:14 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

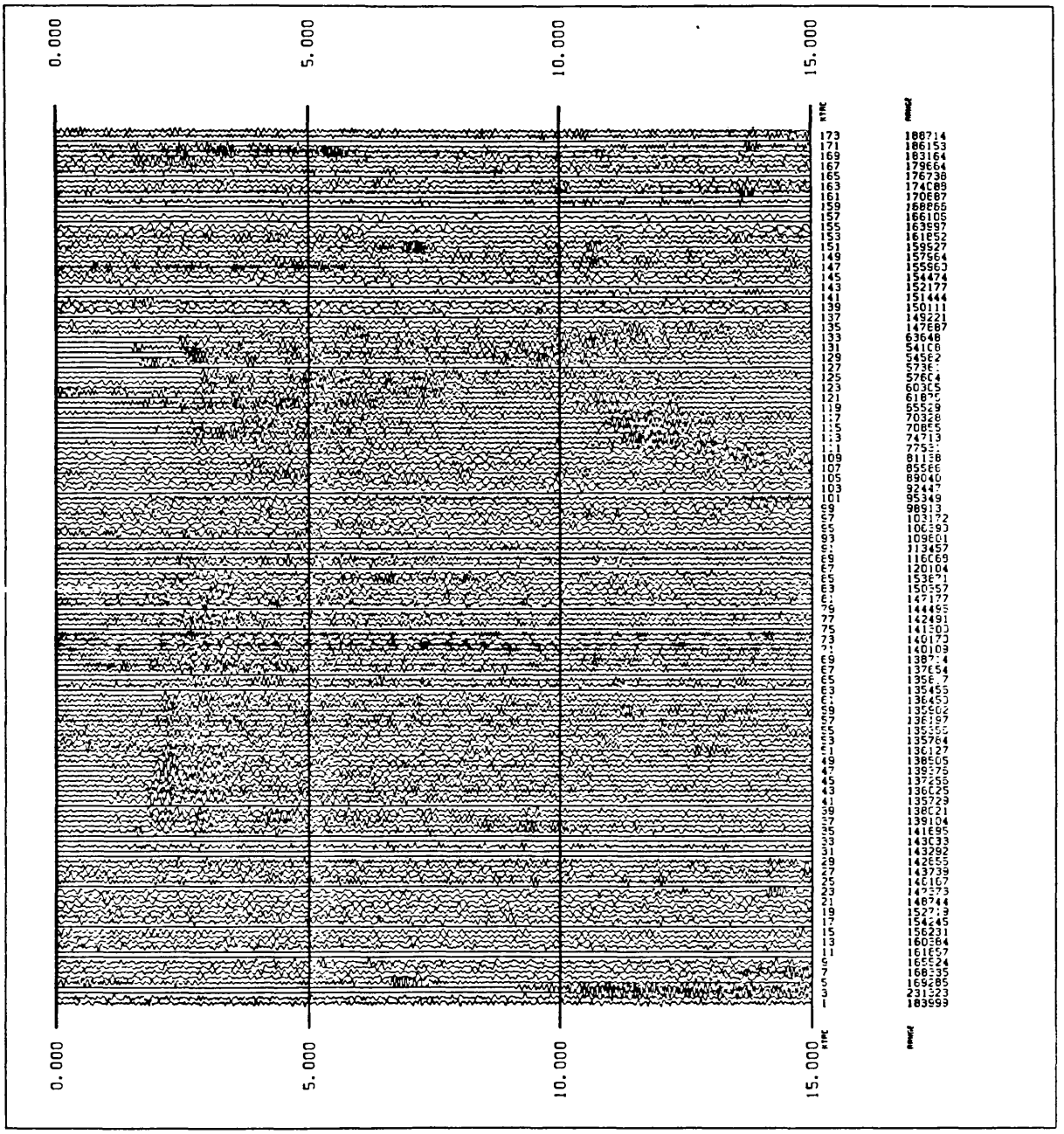

FIGURE A237) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #237 CAT 3188879 94:292:13:27 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

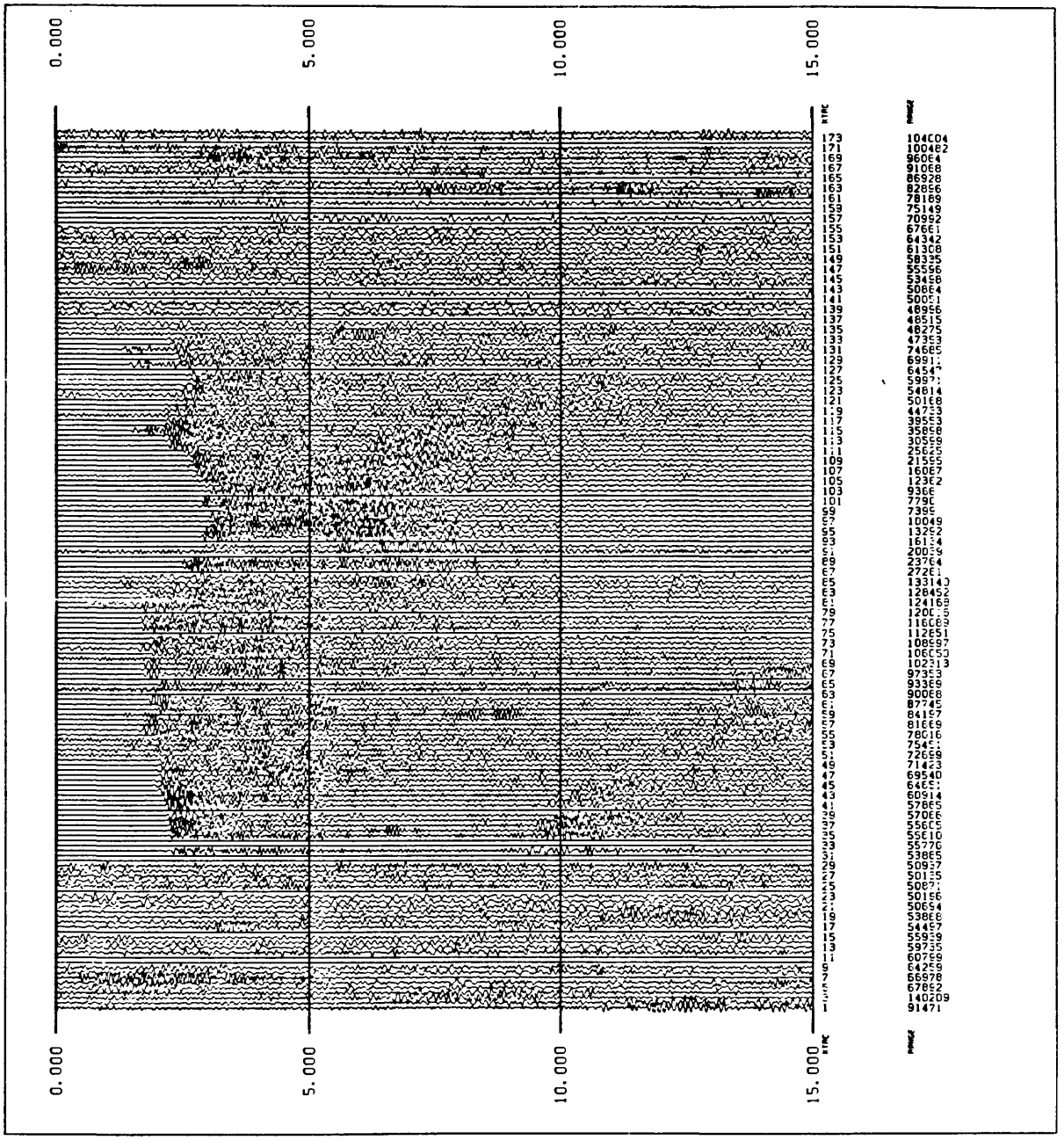

FIGURE A2381 LOCAL QUAKES DURING LARSE ON-OFF
EVENT #238 CAT 3188920 94:292:13:28 MAG 2.0
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

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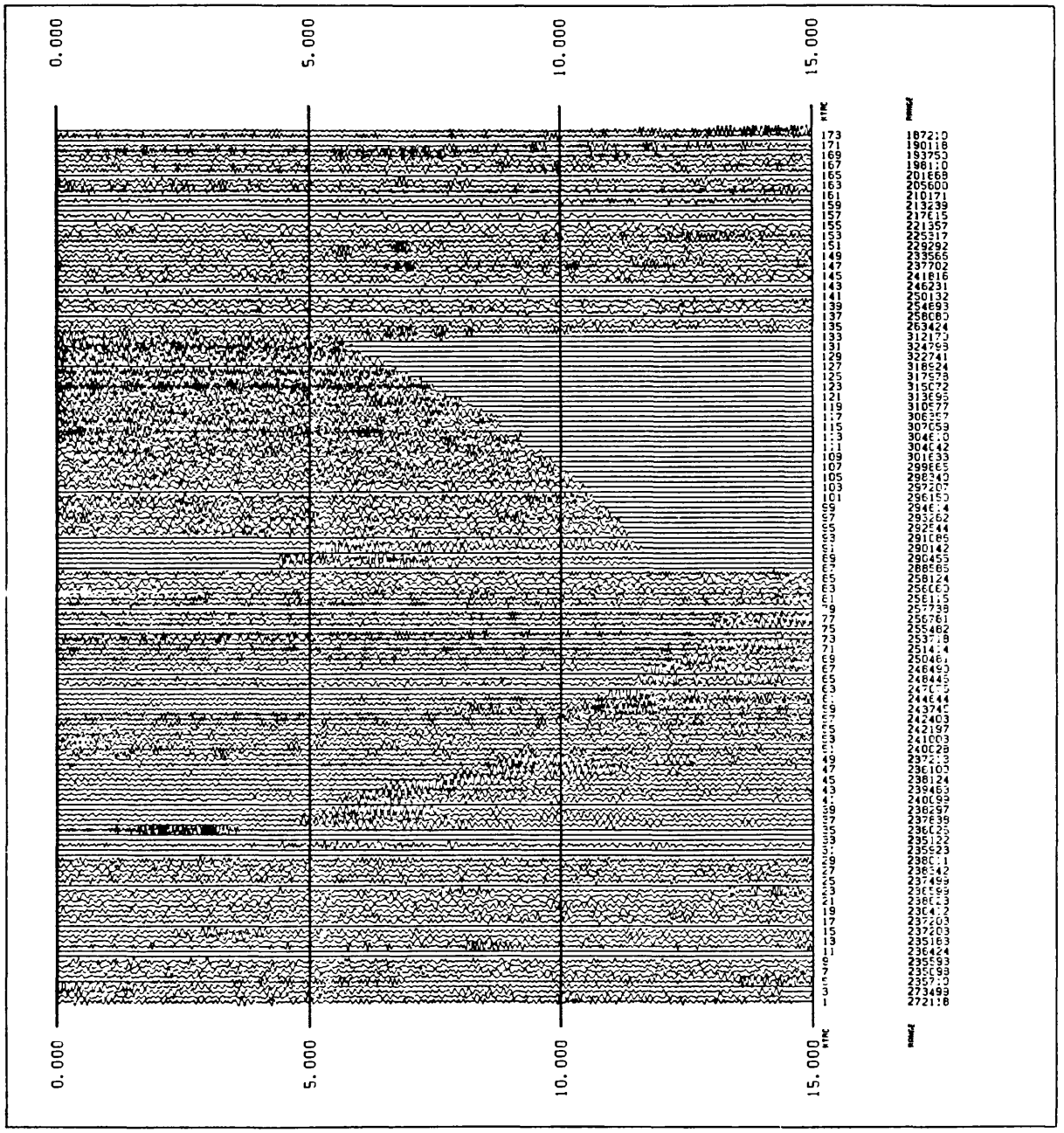

FIGURE A239) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #239 CAT 3188881 94:292:14:03 MAG 1.7
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

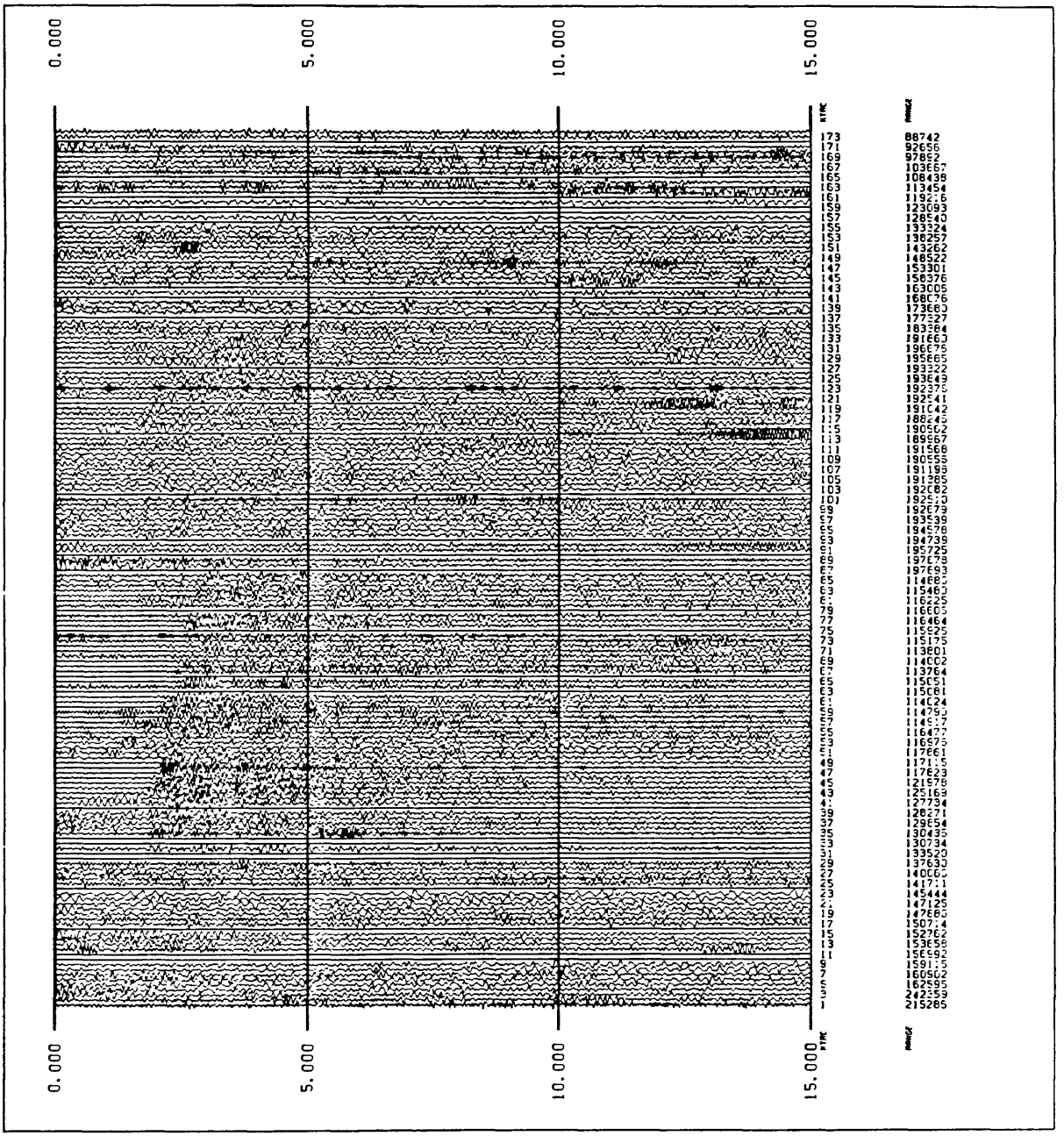

FIGURE A2401 LOCAL QUAKES DURING LARSE ON-OFF
EVENT #240 CAT 3188884 94:292:14:37 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

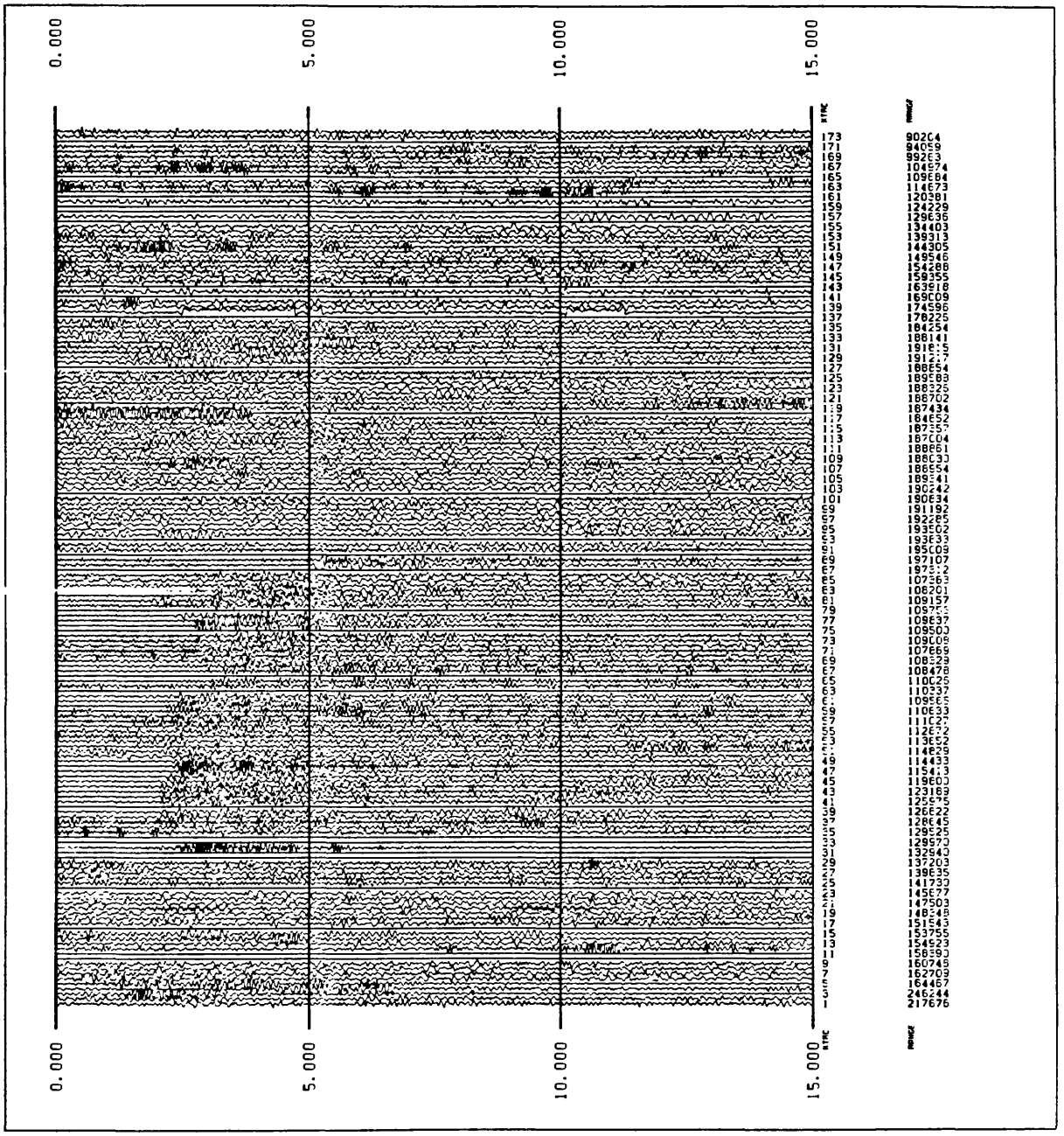

FIGURE A241) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #241 CAT 3188890 94:292:15:24 MAG 1.8
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

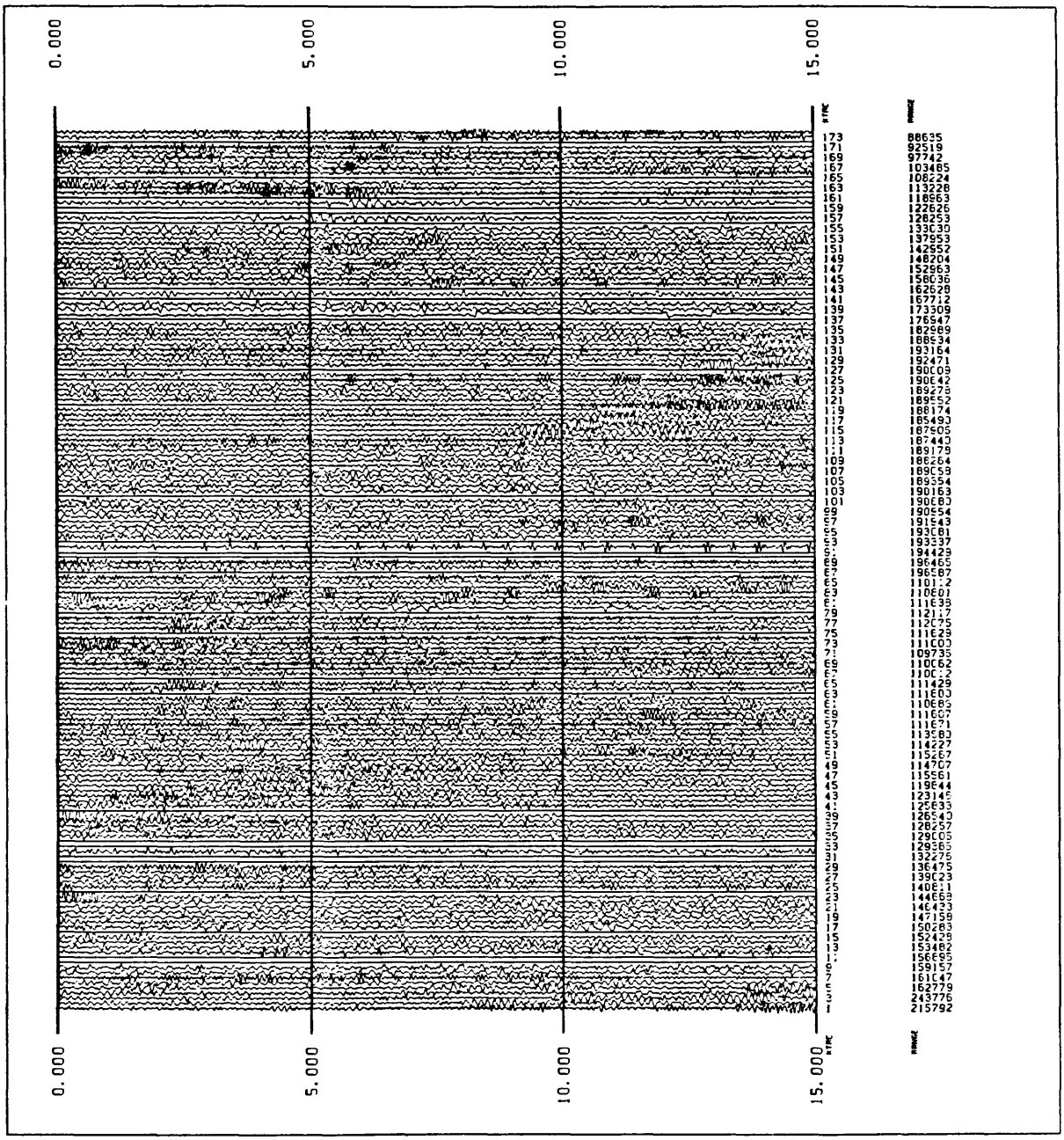

FIGURE A242) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #242 CAT 3188898 94:292:16:24 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

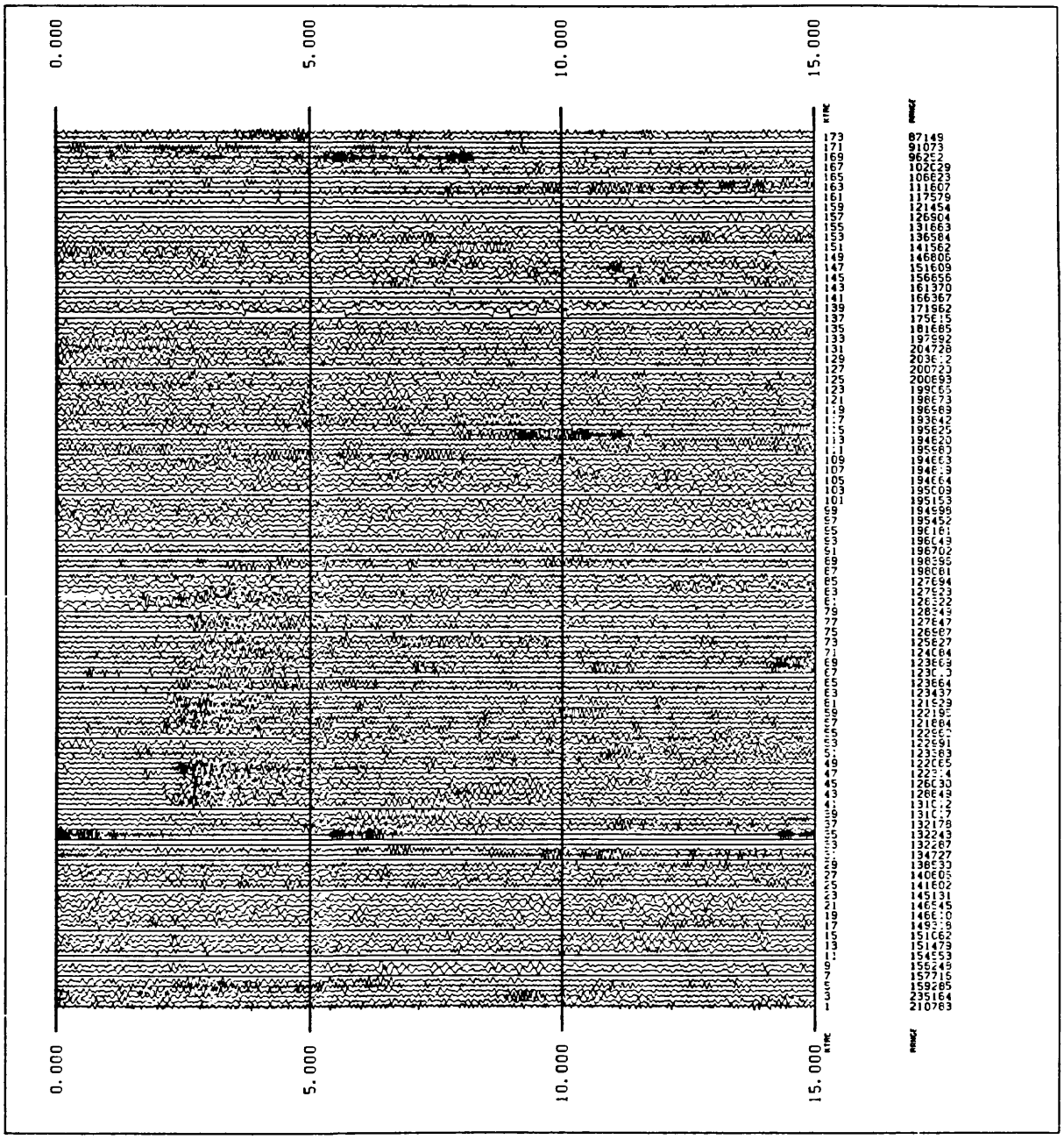

FIGURE A243) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #243 CAT 3188908 94:292:17:26 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

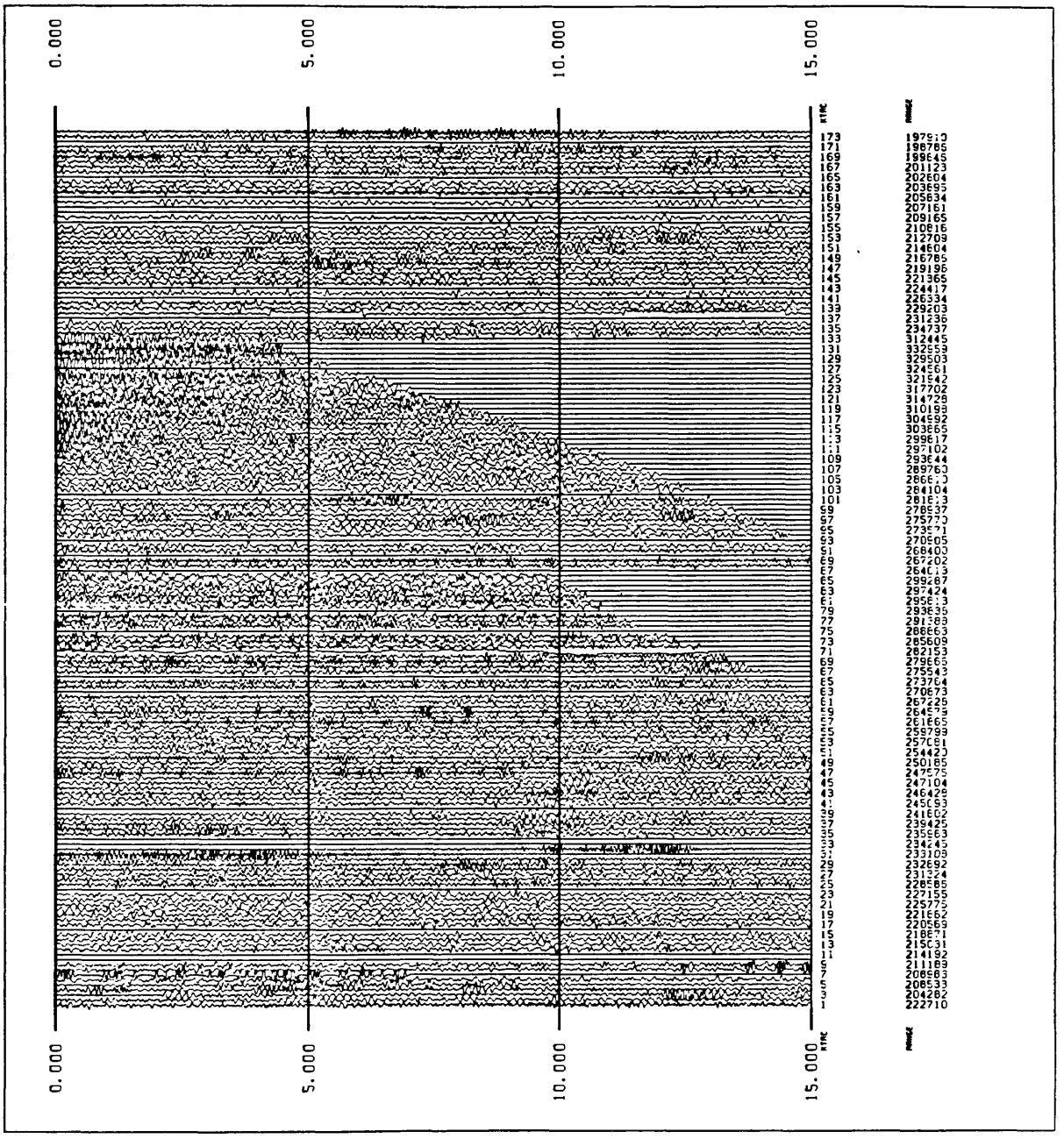

FIGURE A244) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #244 CAT 3188910 94:292:18:24 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

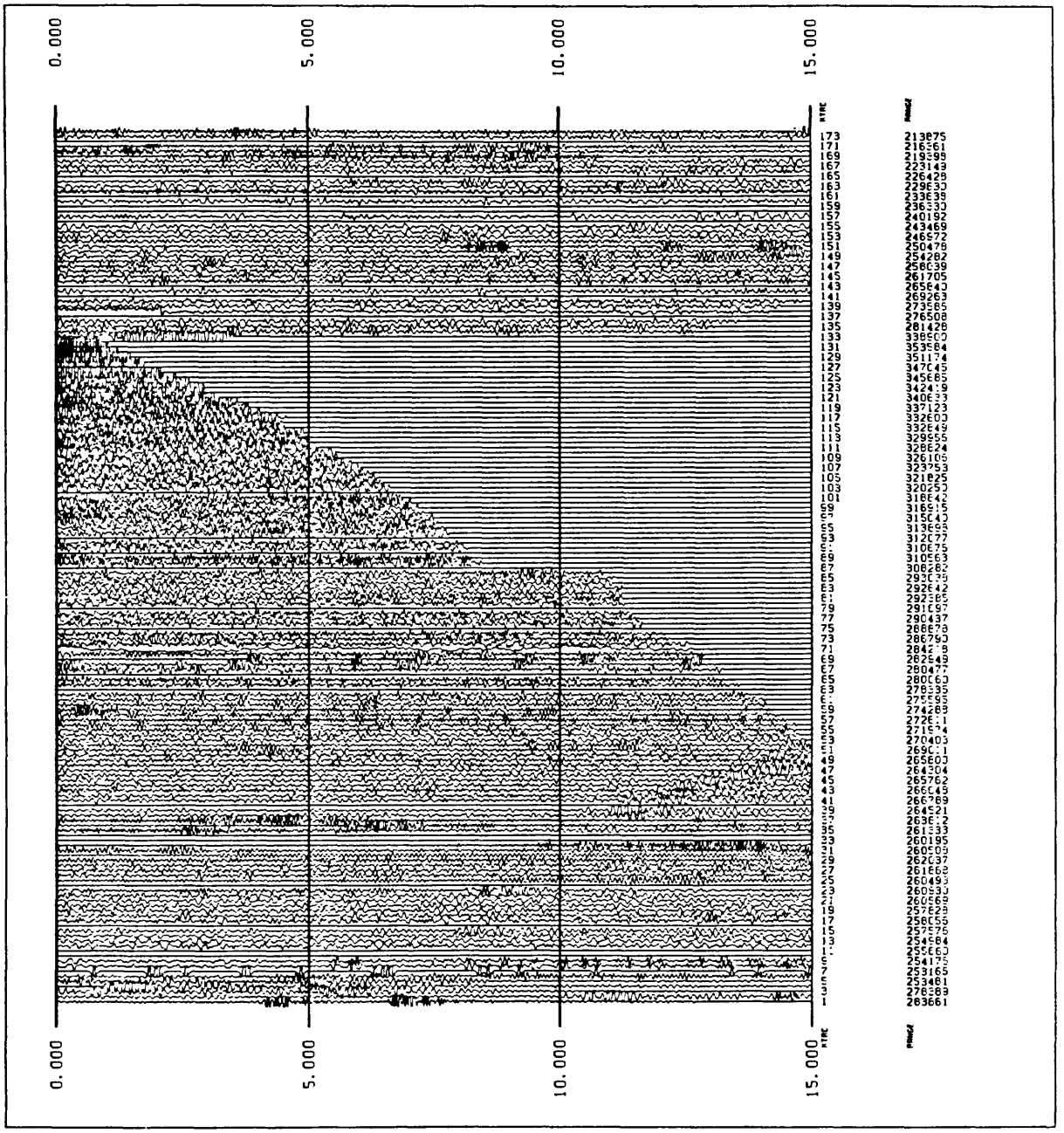

FIGURE A245) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #245 CAT 3188911 94:292:18:34 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

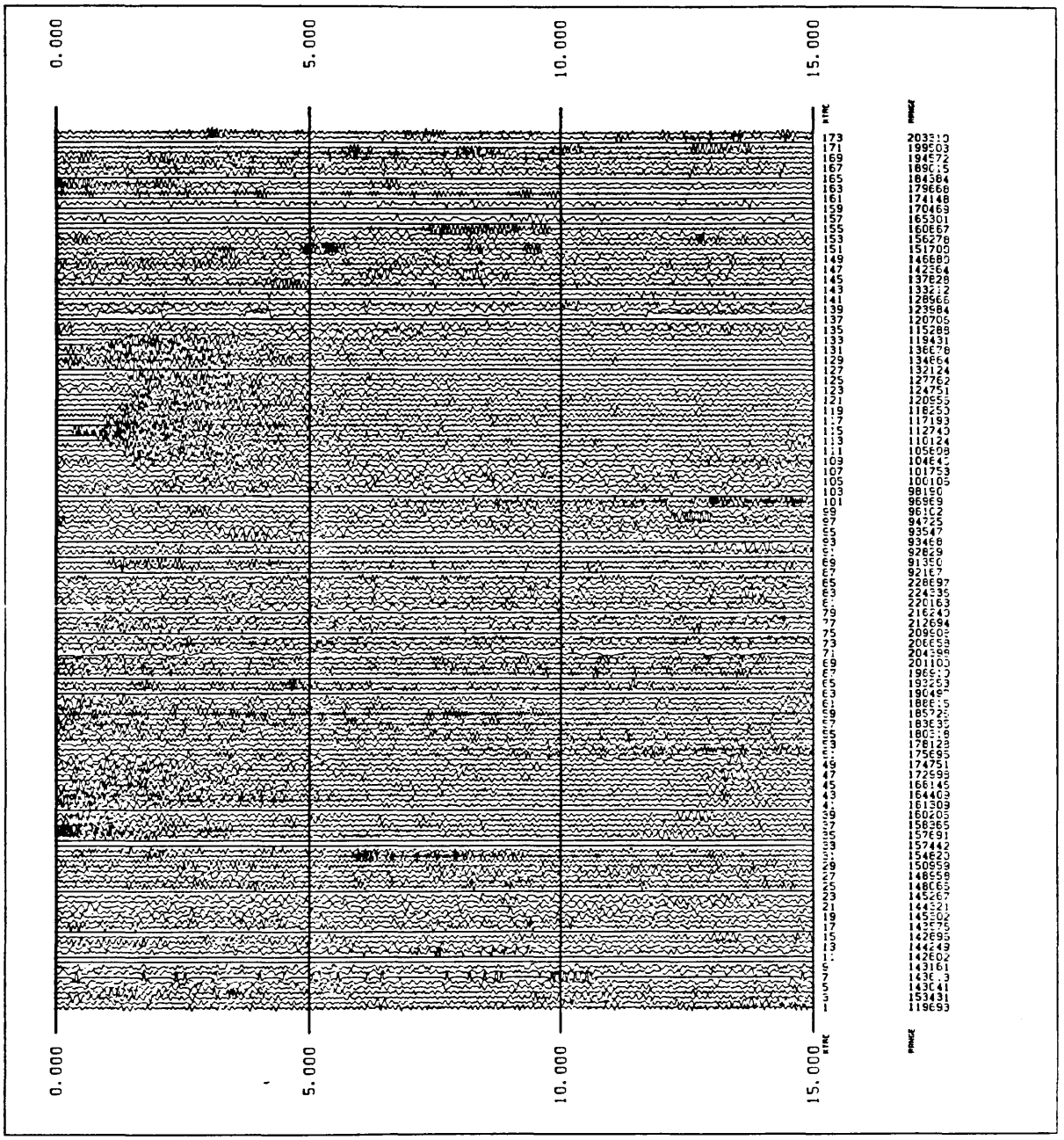

FIGURE A246) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #246 CAT 3188912 94:292:18:38 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

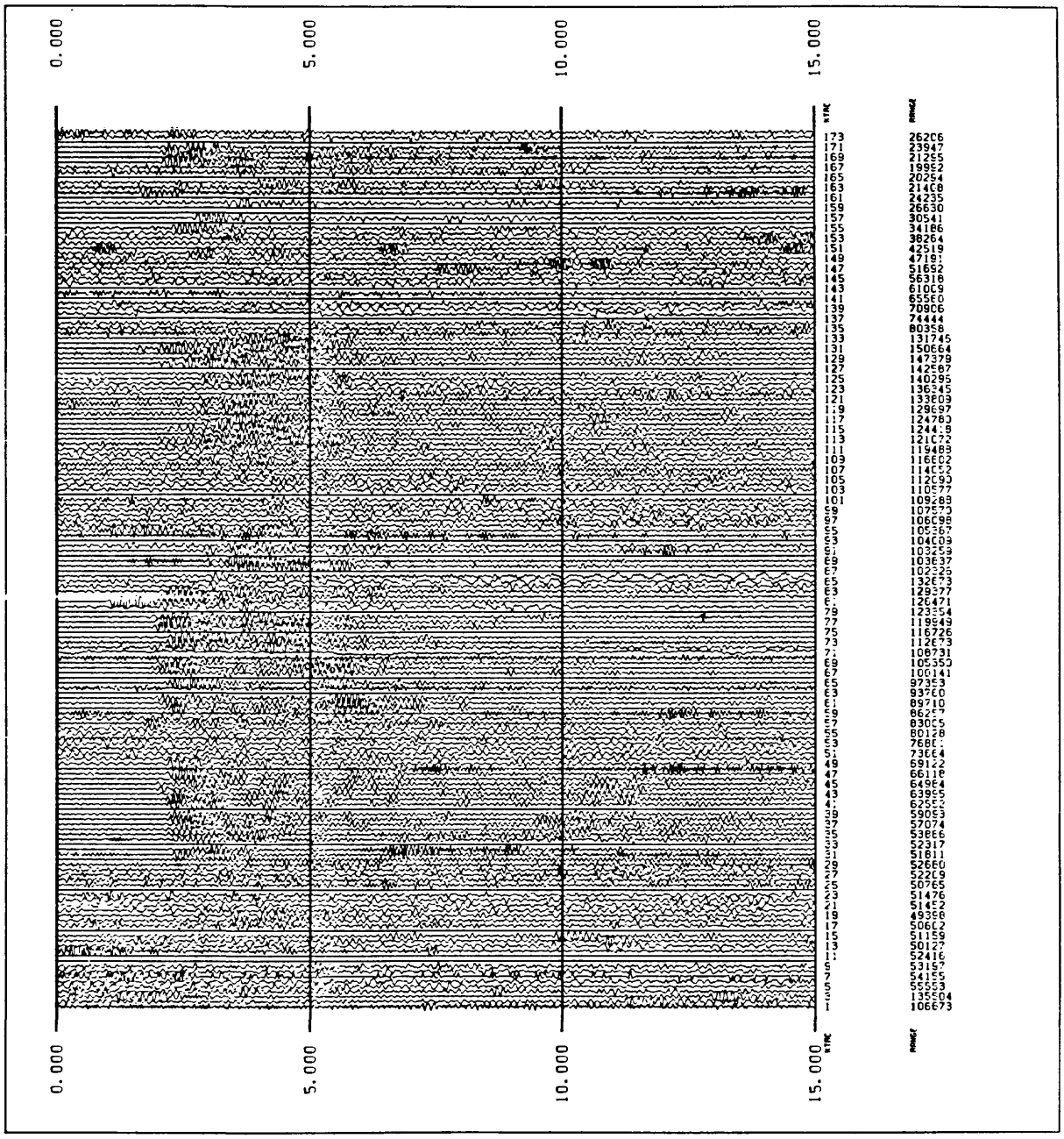

FIGURE A247) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #247 CAT 3188915 94:292:18:53 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

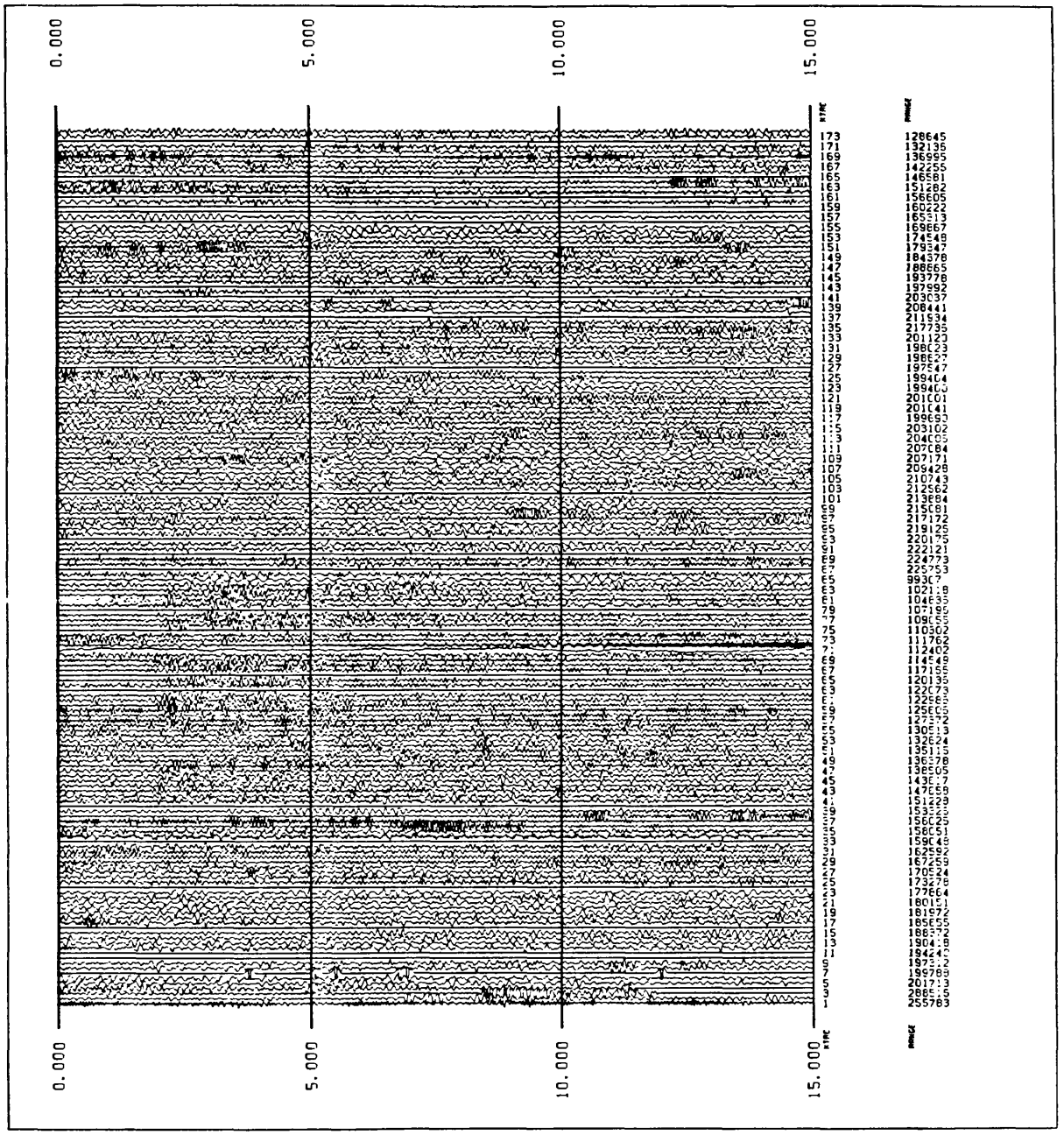

FIGURE A248) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #248 CAT 3188917 94:292:19:11 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

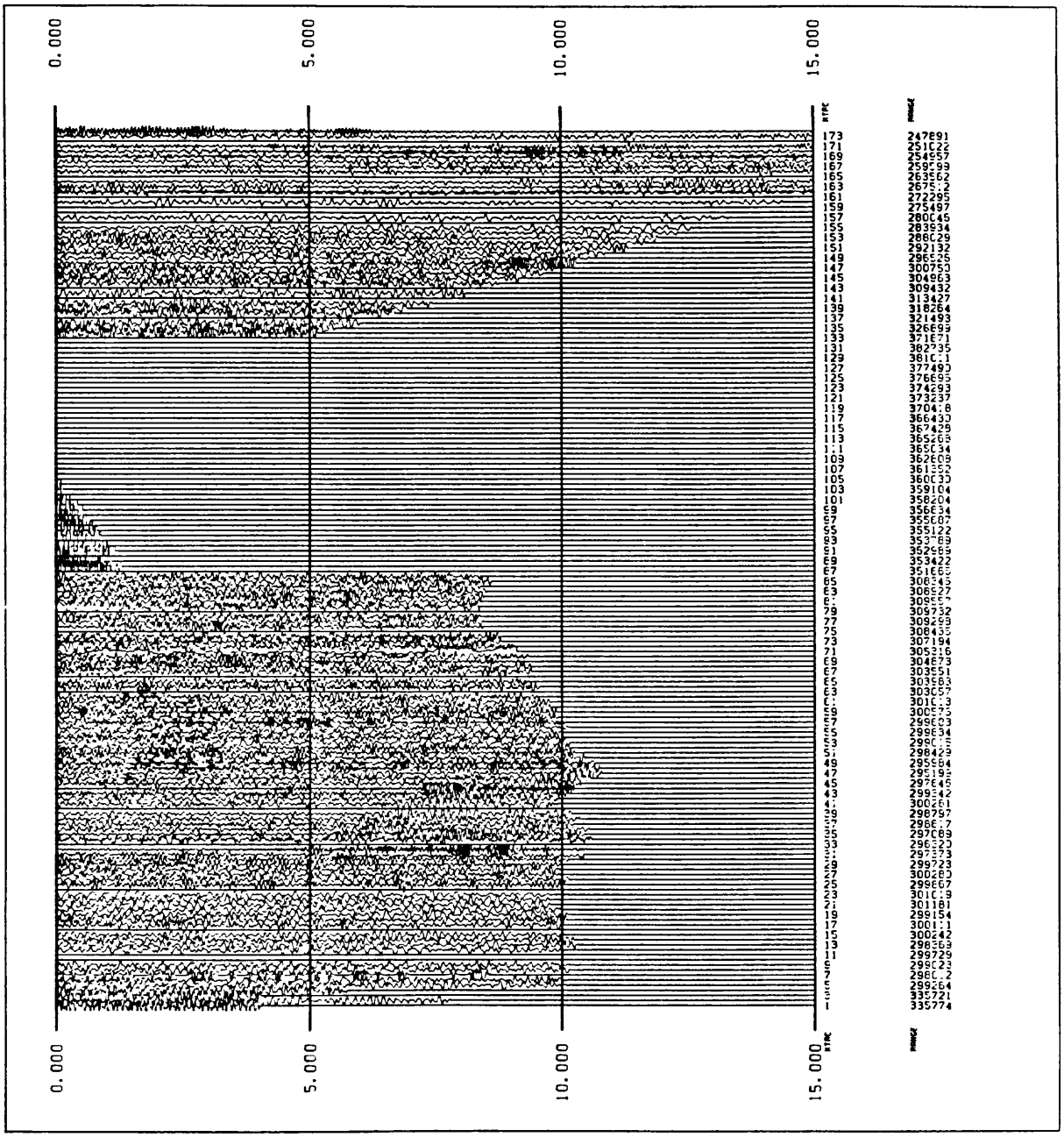

FIGURE A249) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #249 CAT 3188923 94:292:19:55 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

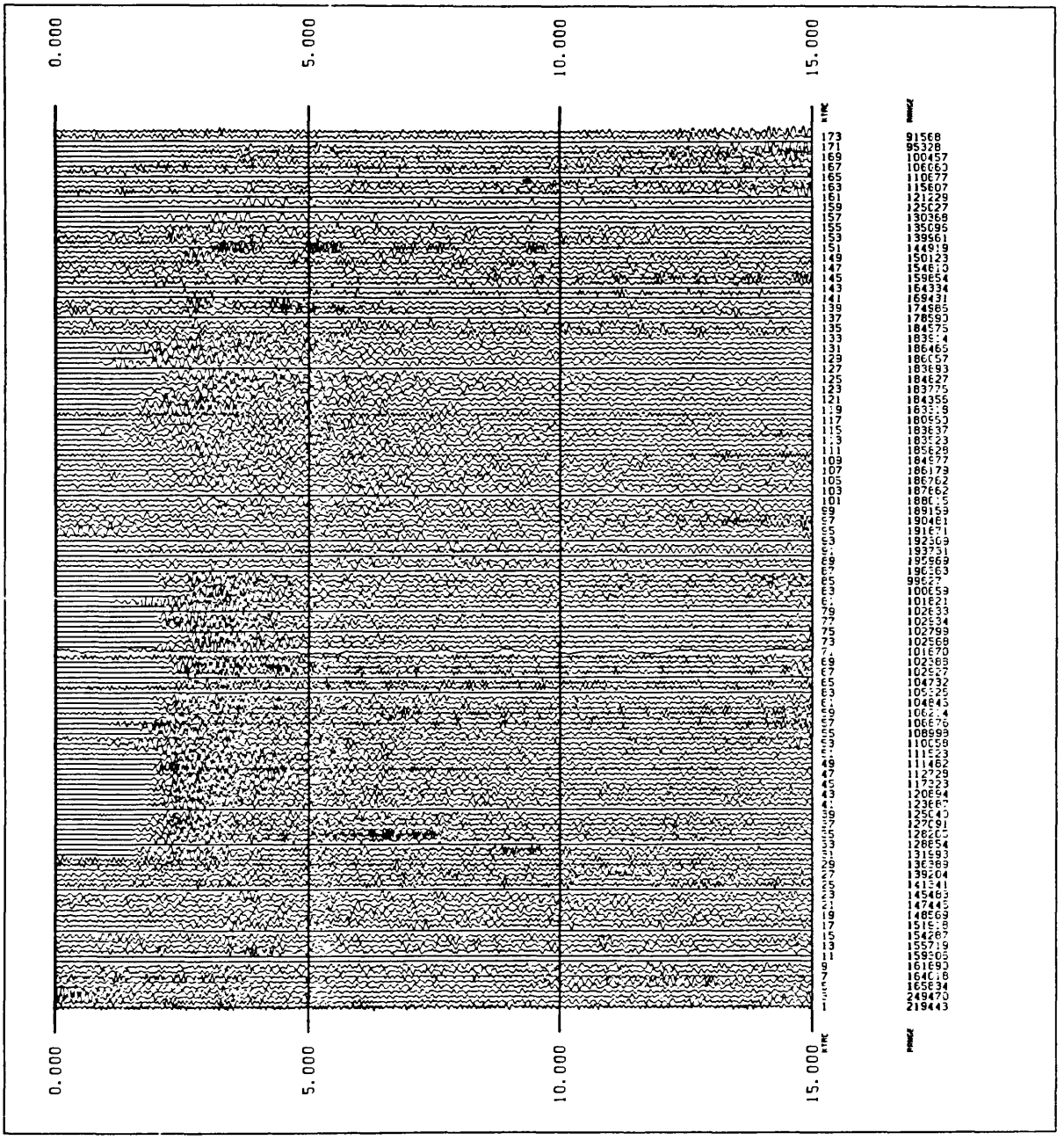

FIGURE A250) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #250 CAT 3188924 94:292:20:04 MAG 3.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

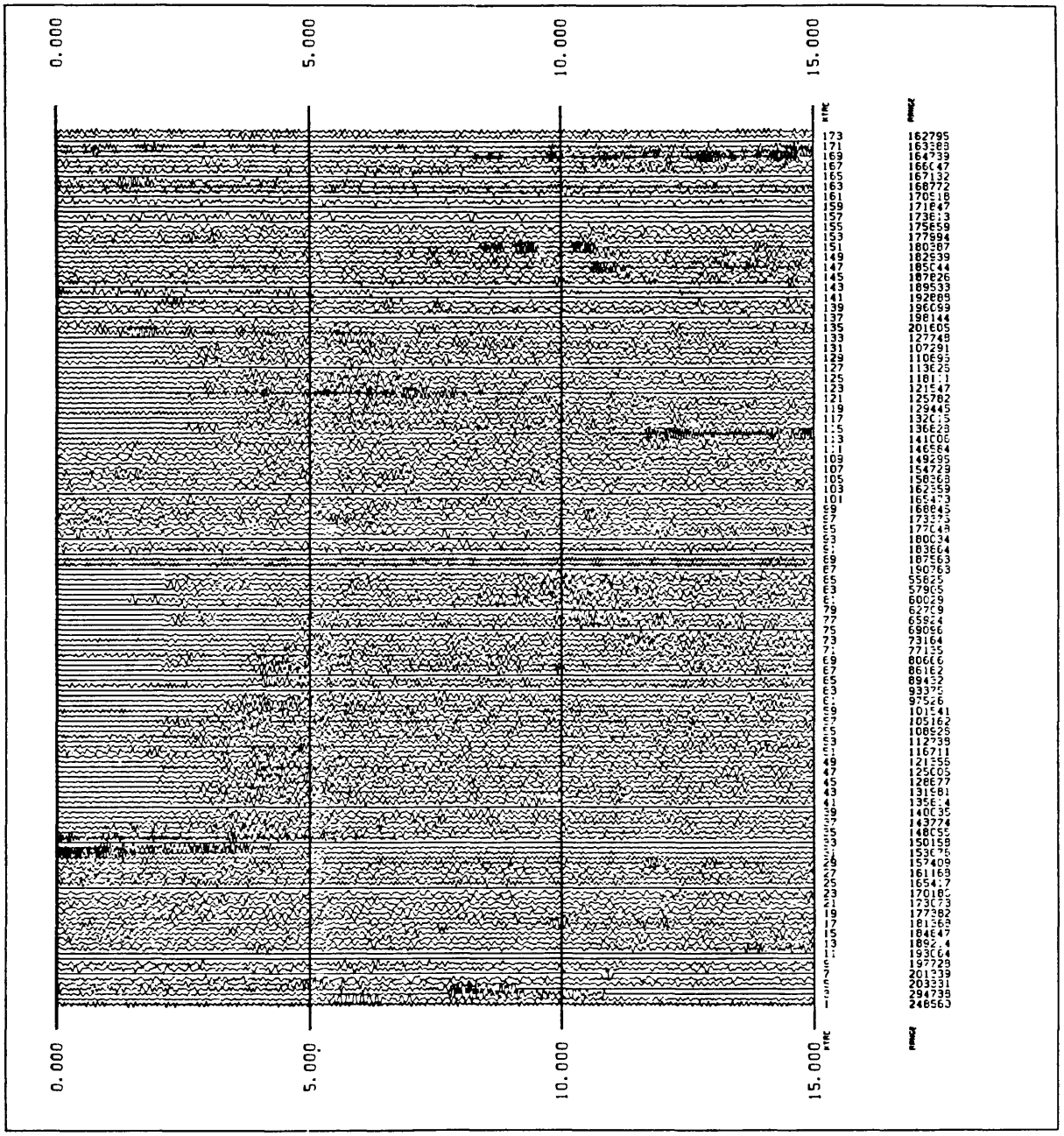

FIGURE A251) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #251 CAT 3188927 94:292:20:51 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

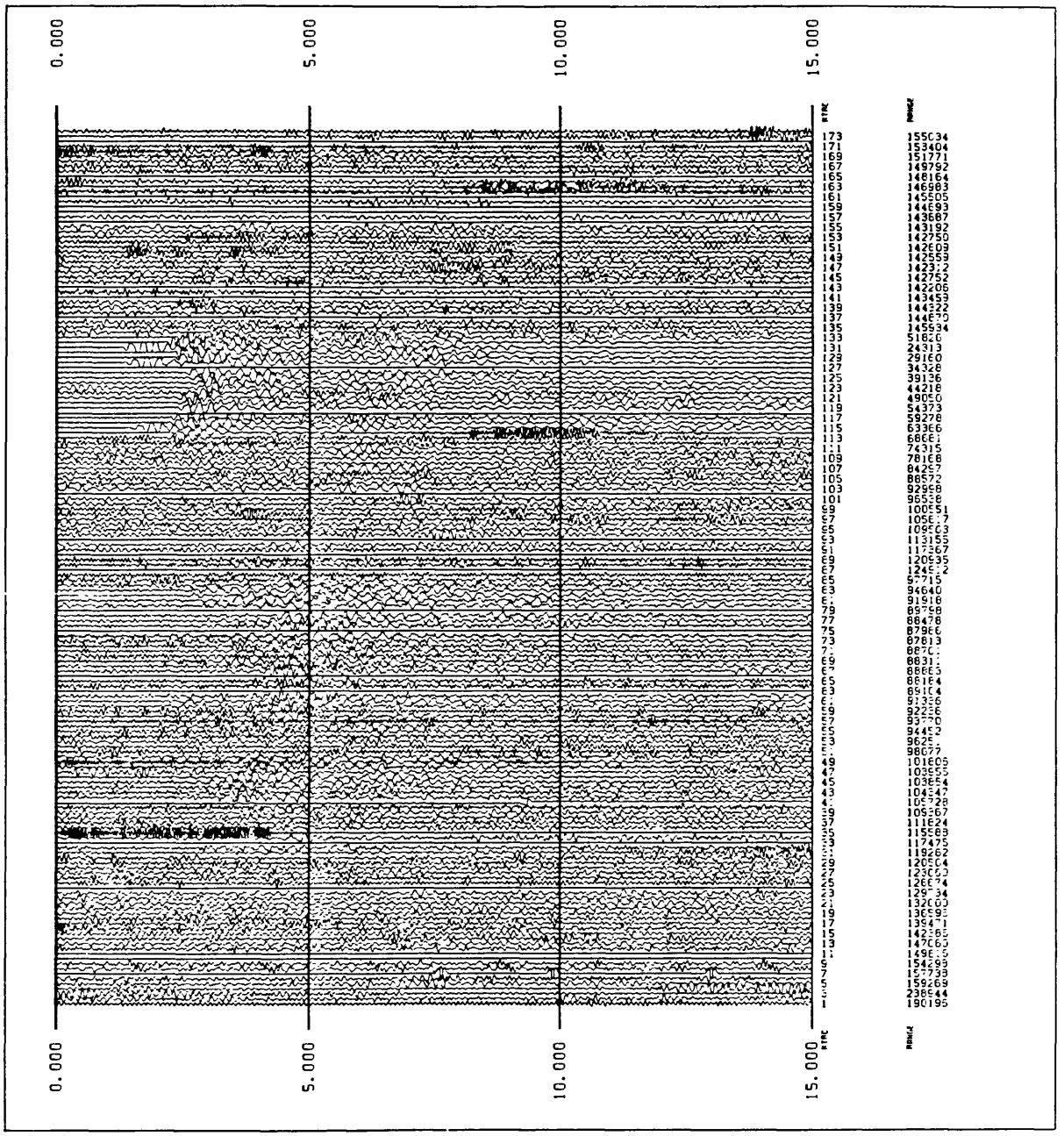

FIGURE A252) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #252 CAT 3188930 94:292:22:05 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

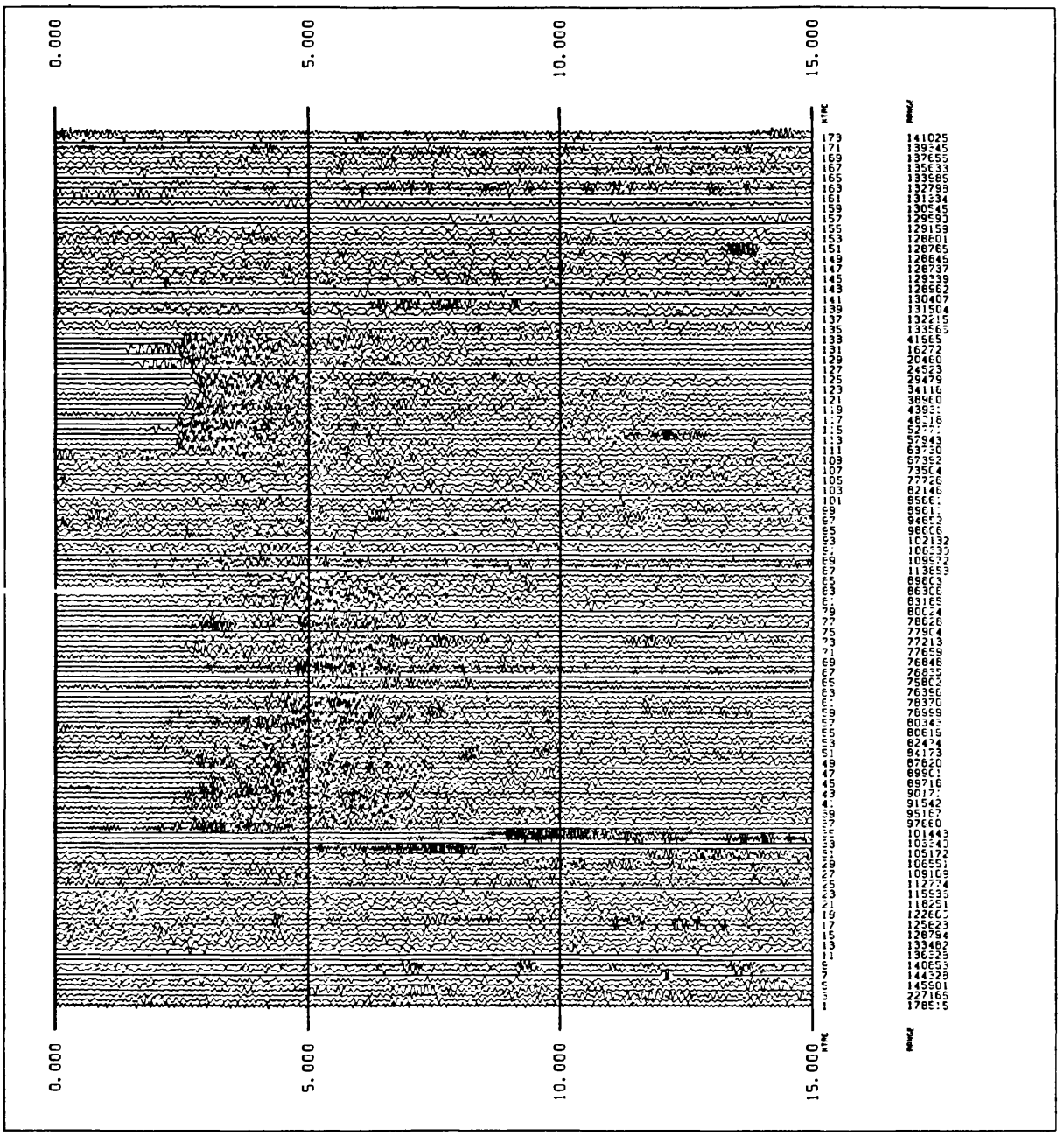

FIGURE A253) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #253 CAT 3188932 94:292:22:10 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

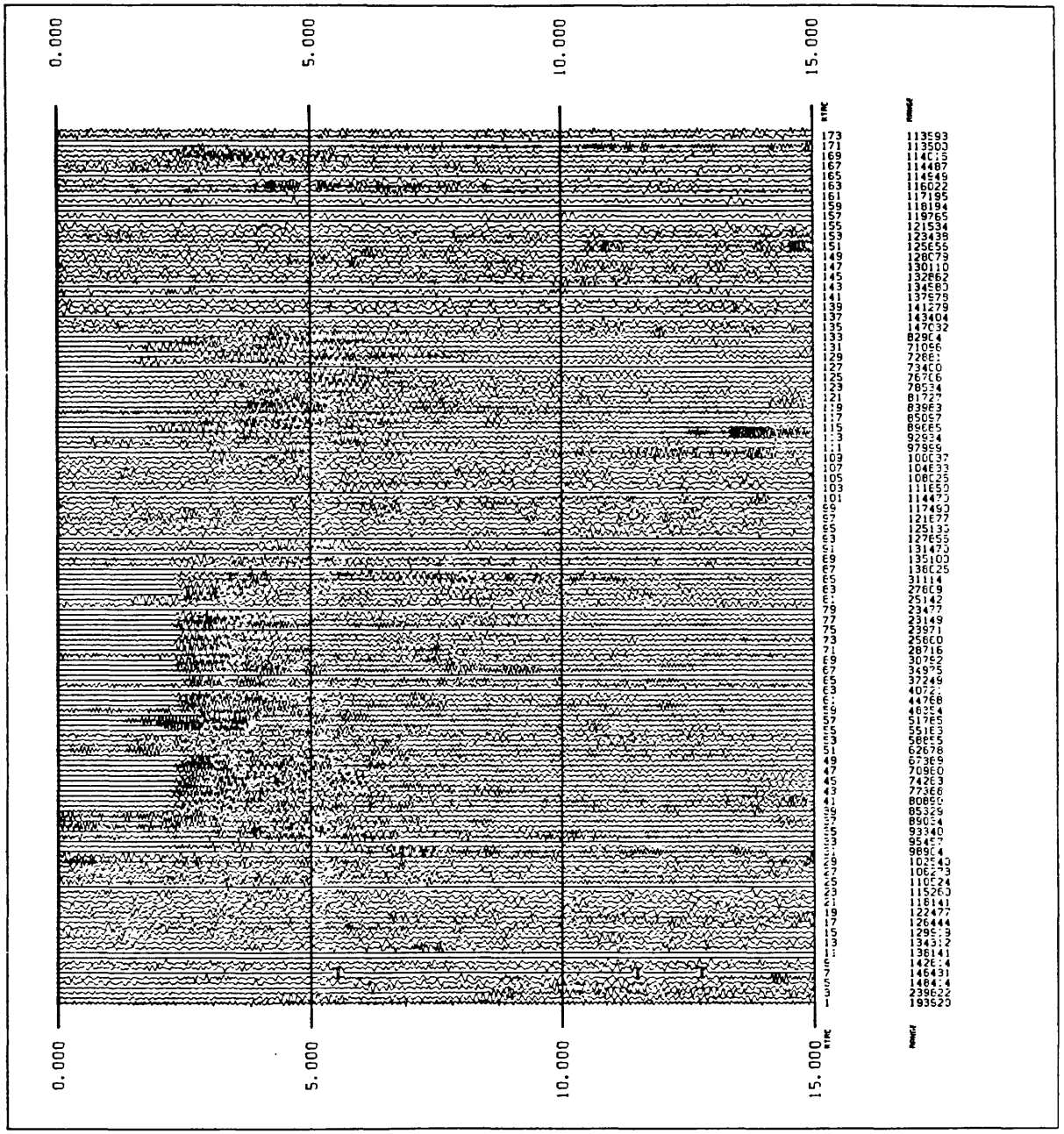

FIGURE A254) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #254 CAT 3188933 94:292:22:17 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

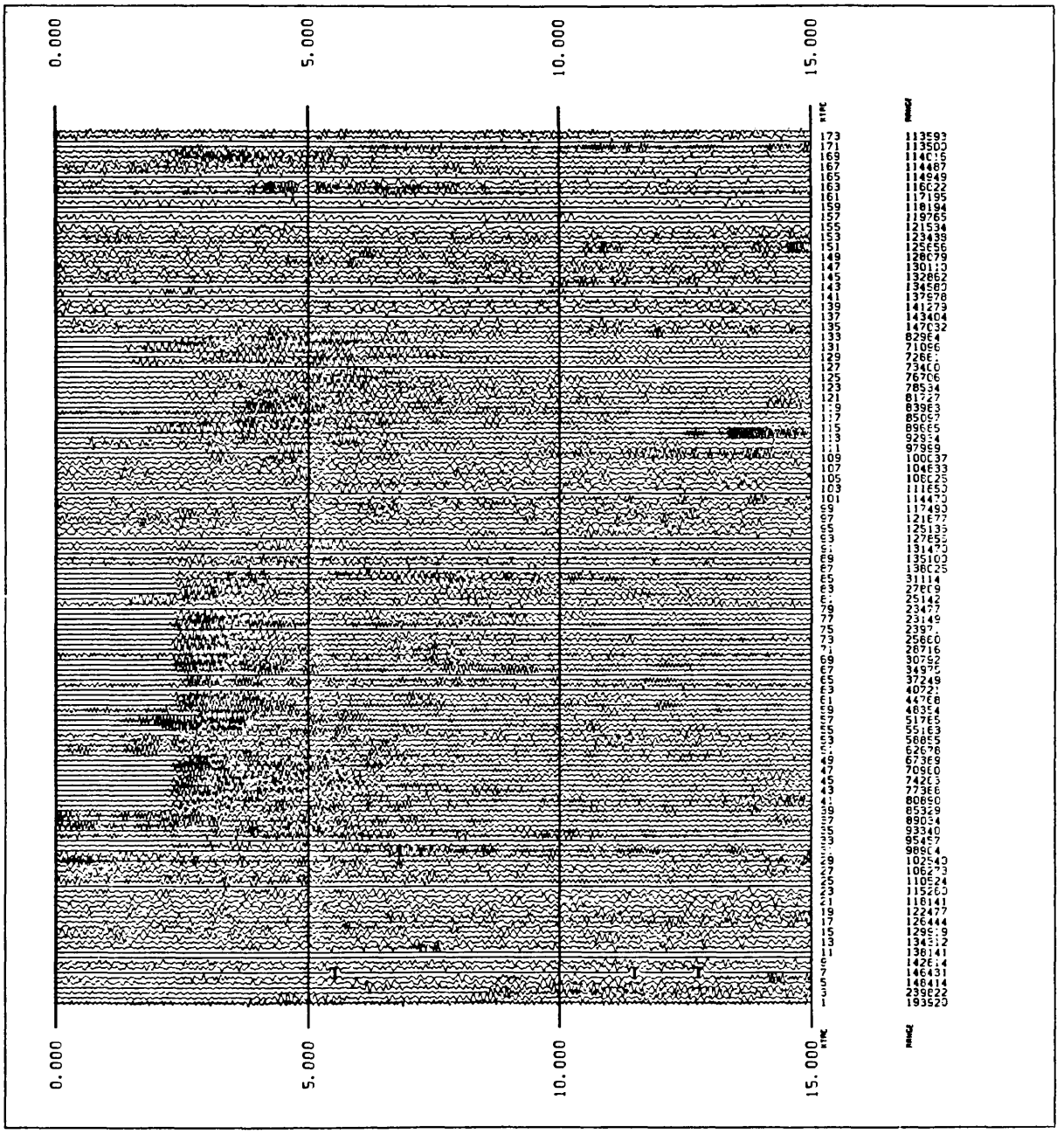

FIGURE A254) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #254 CAT 3188933 94:292:22:17 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

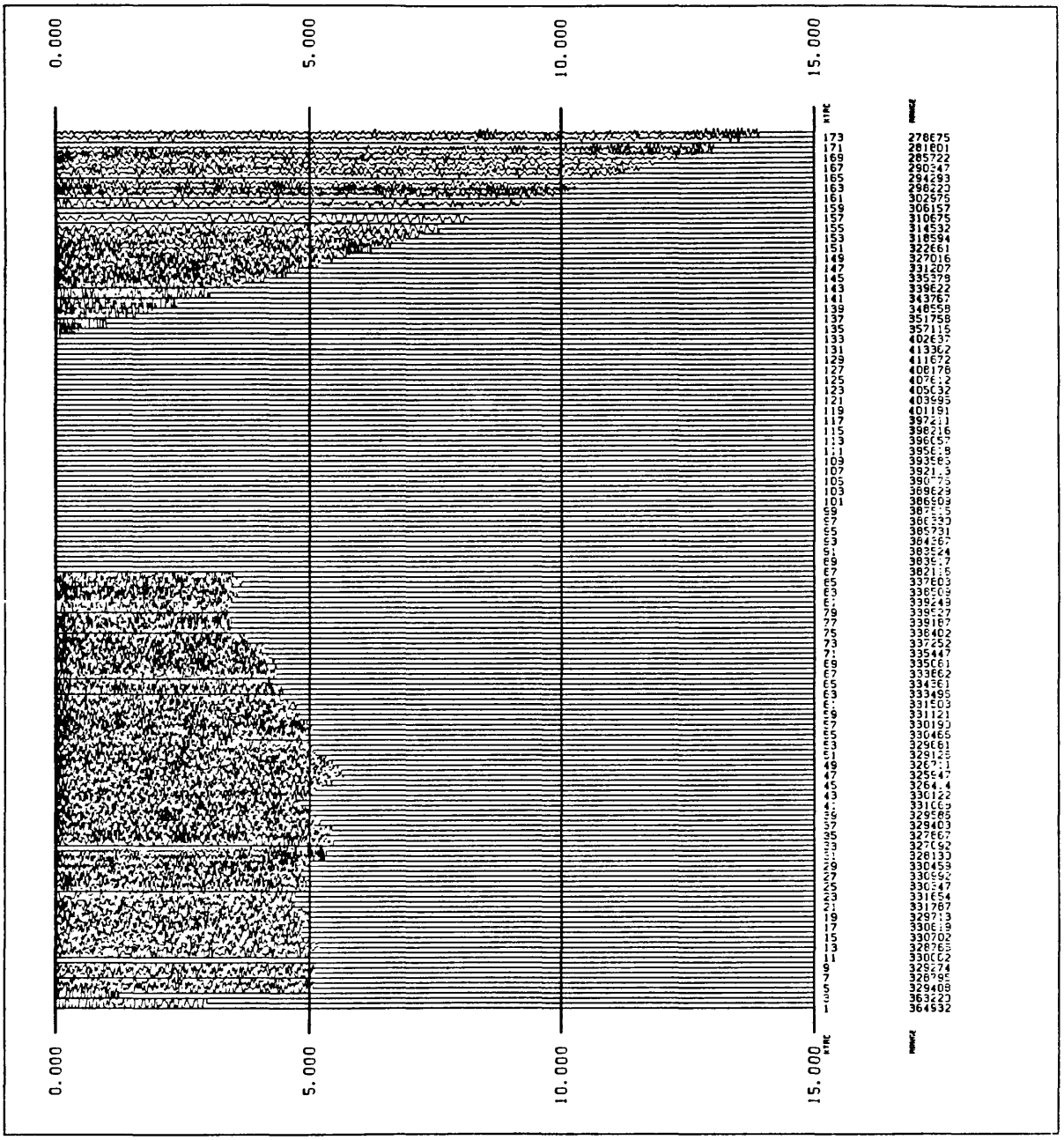

FIGURE A255) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #255 CAT 3188942 94:292:23:26 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

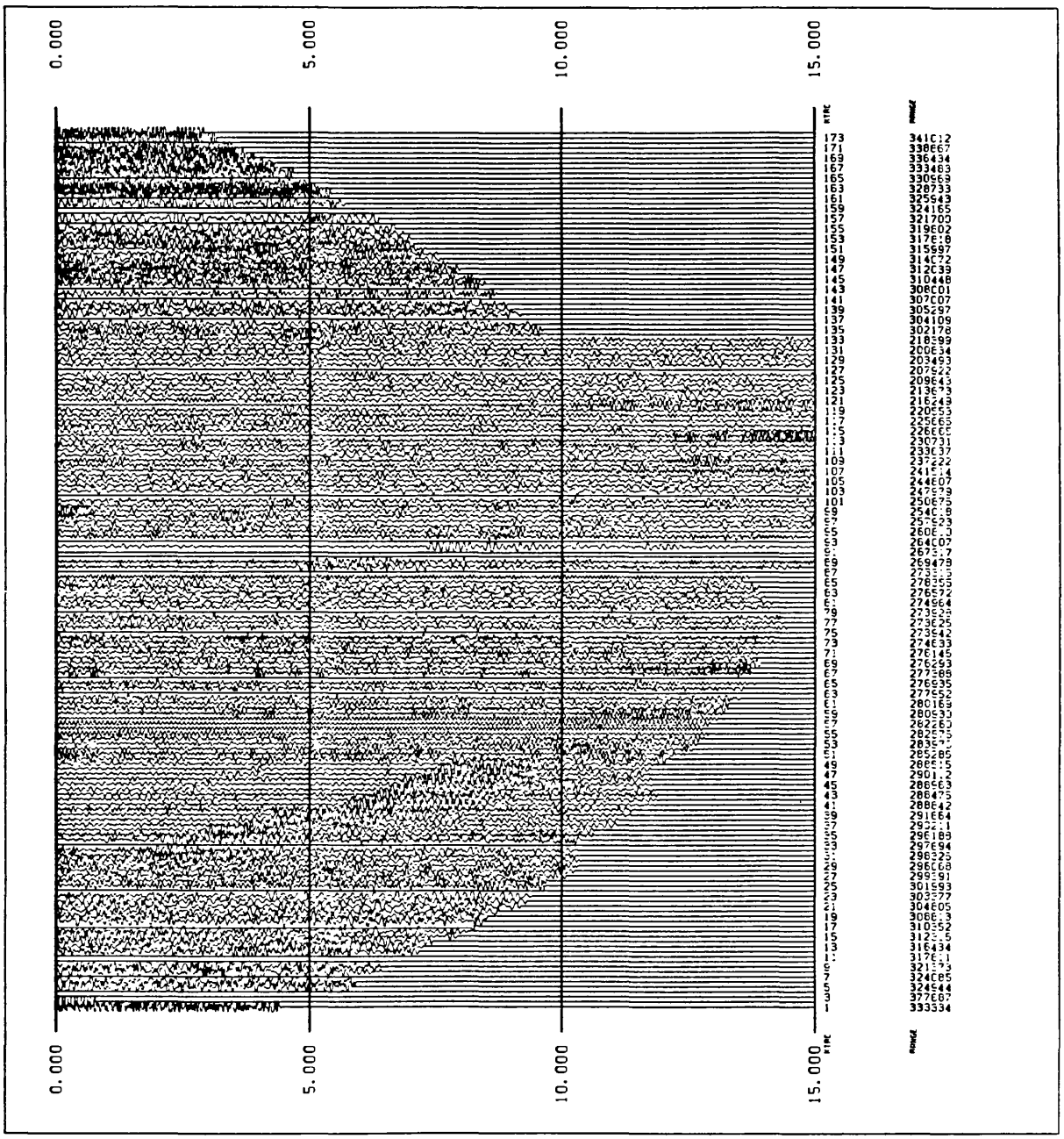

FIGURE A256) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #256 CAT 3188944 94:292:23:59 MAG 2.2
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

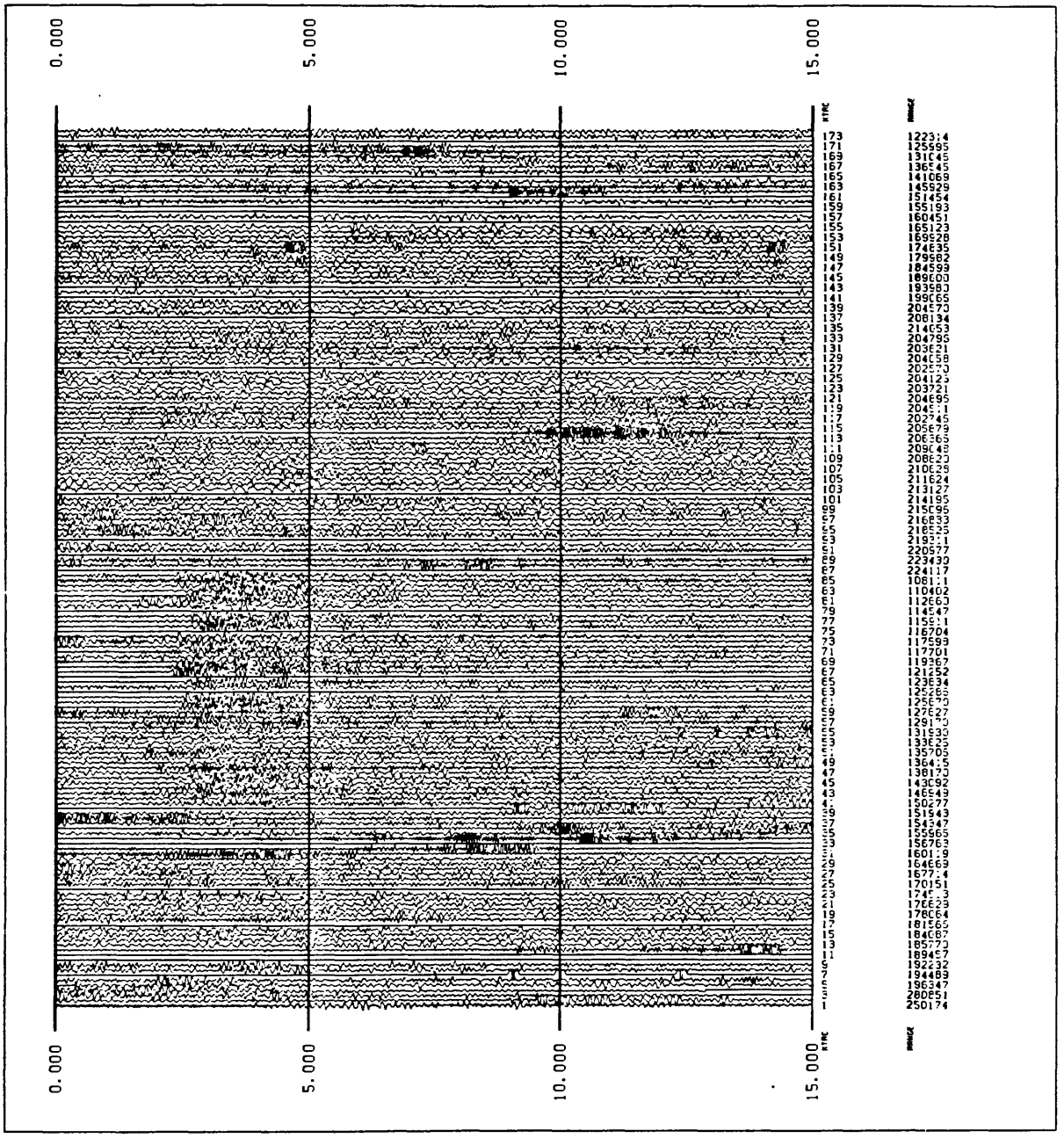

FIGURE A257) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #257 CAT 3188948 94:293:00:59 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

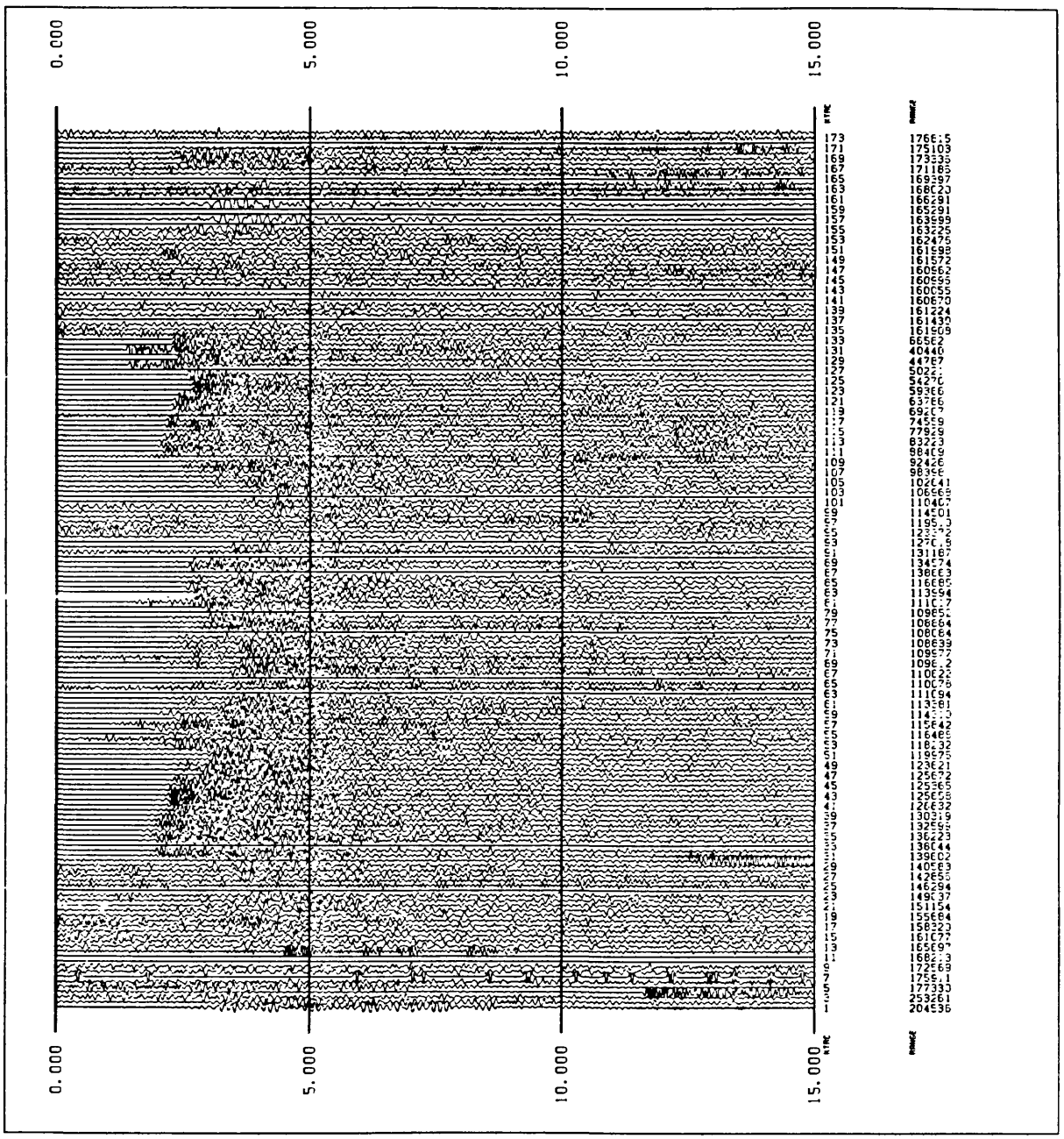

FIGURE A258) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #258 CAT 3188951 94:293:02:37 MAG 2.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

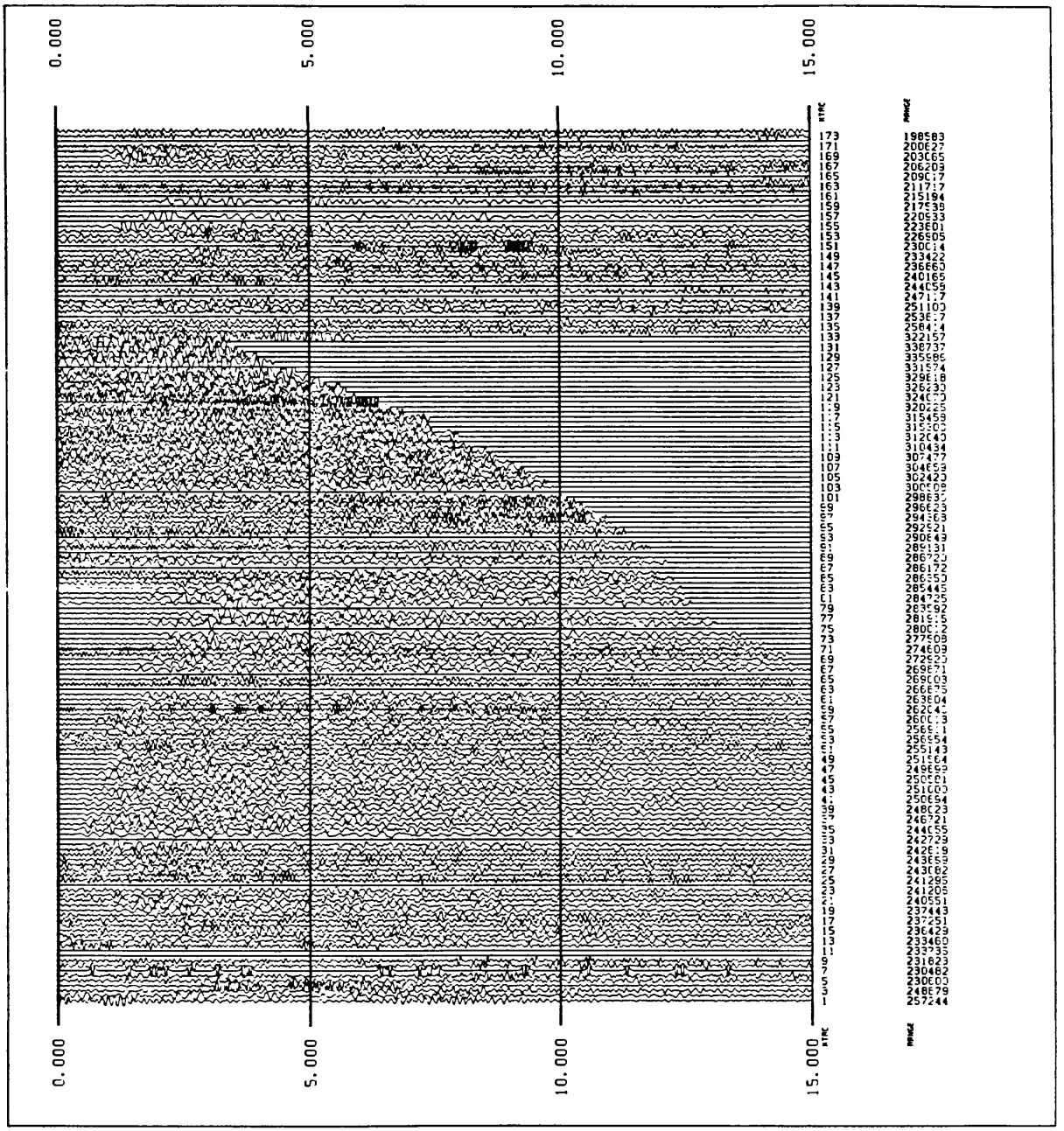

FIGURE A259) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #259 CAT 3188952 94:293:02:56 MAG 3.3
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

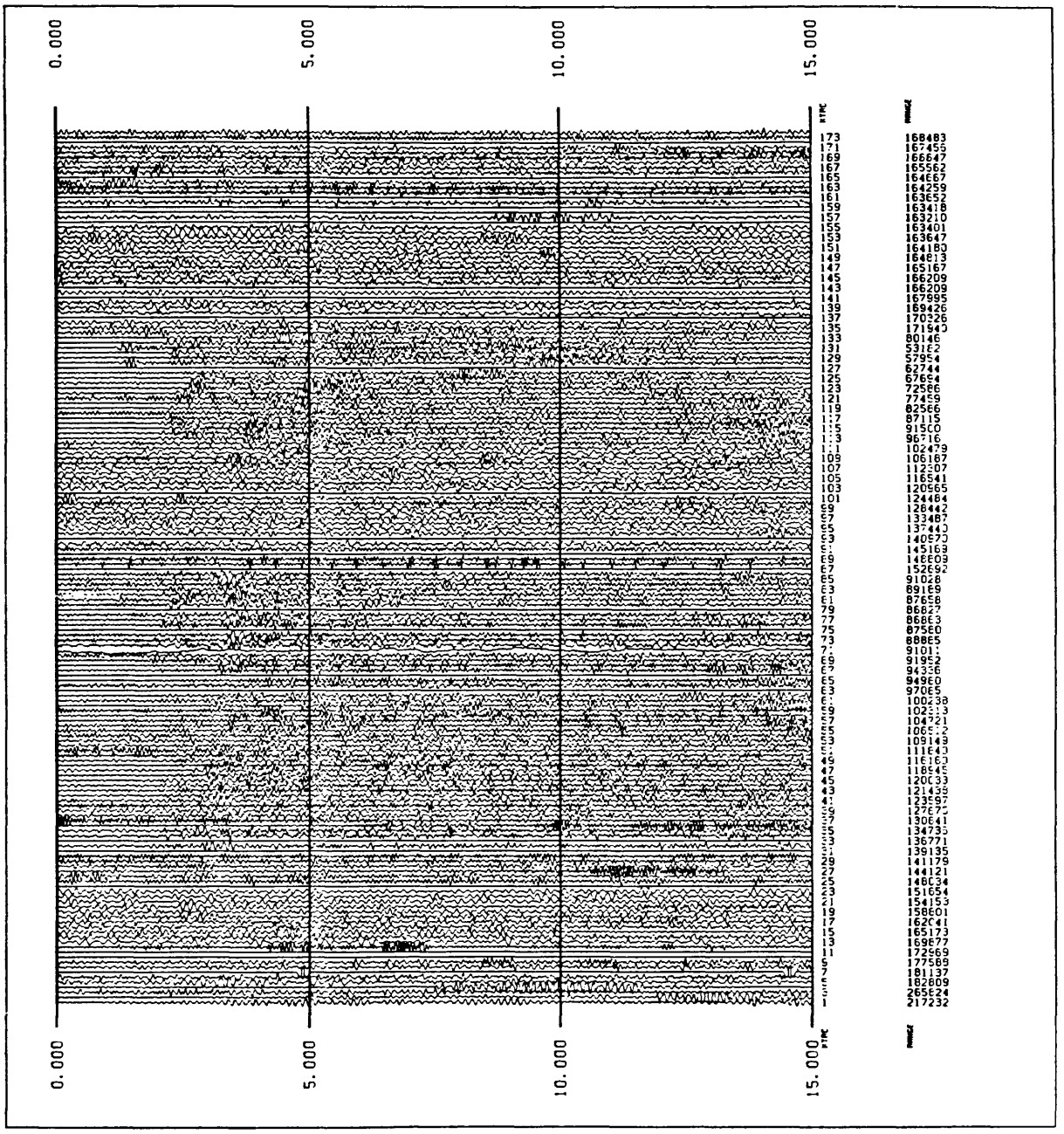

FIGURE A260) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #260 CAT 3188954 94:293:05:08 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

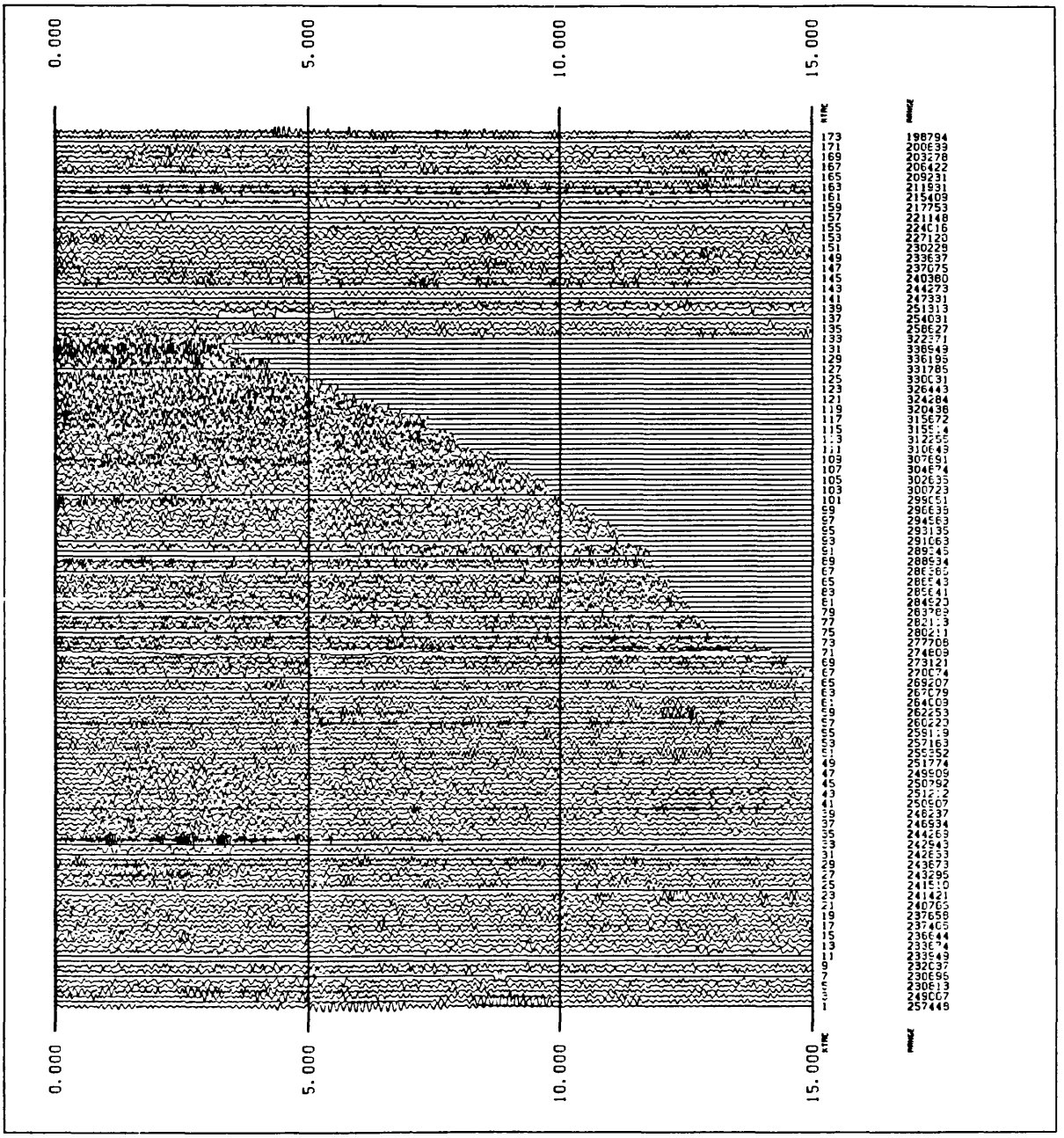

FIGURE A261) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #261 CAT 3188955 94:293:05:34 MAG 2.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

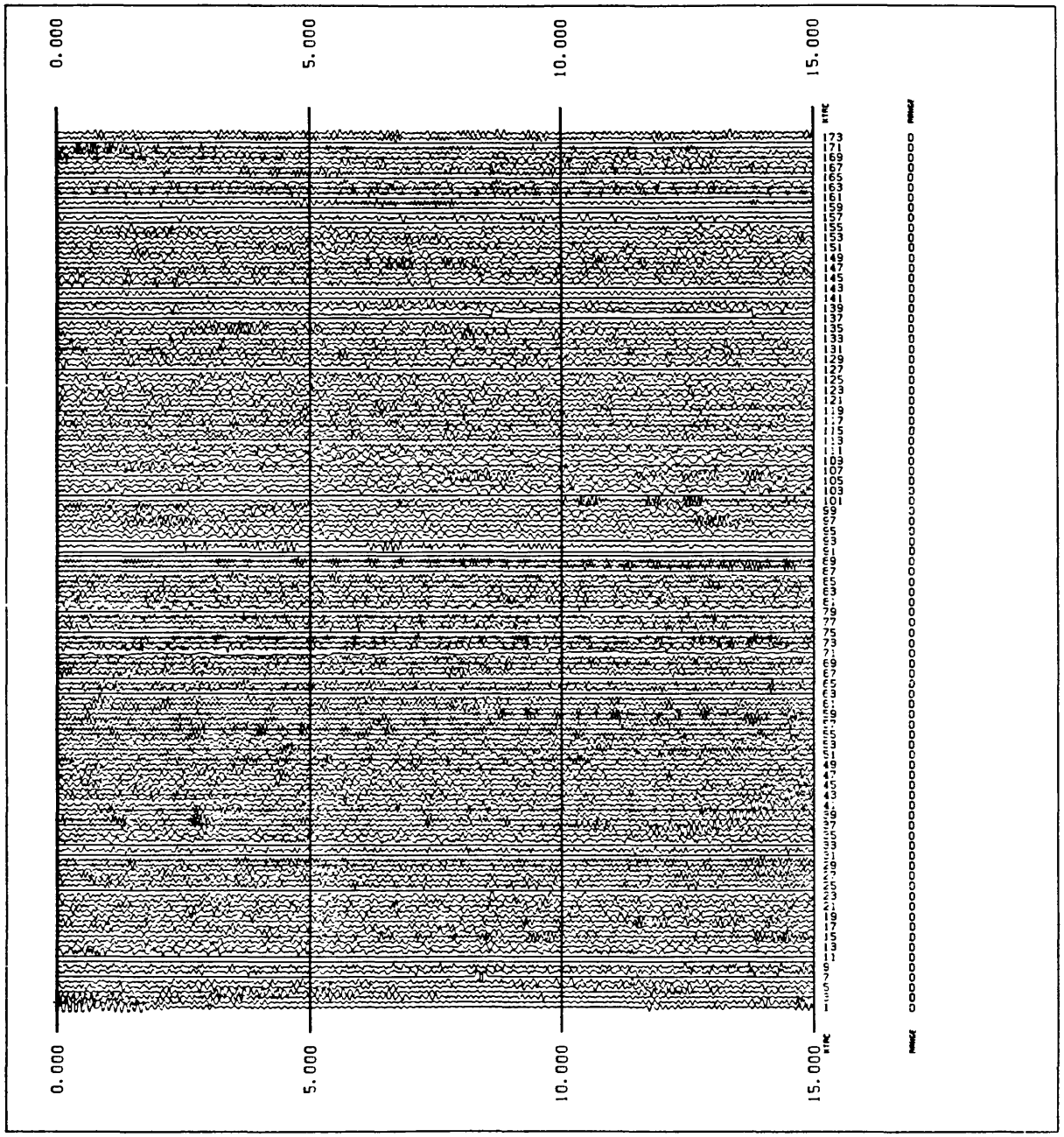

FIGURE A262) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #262 CAT 3188960 94:293:06:44 MAG 2.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

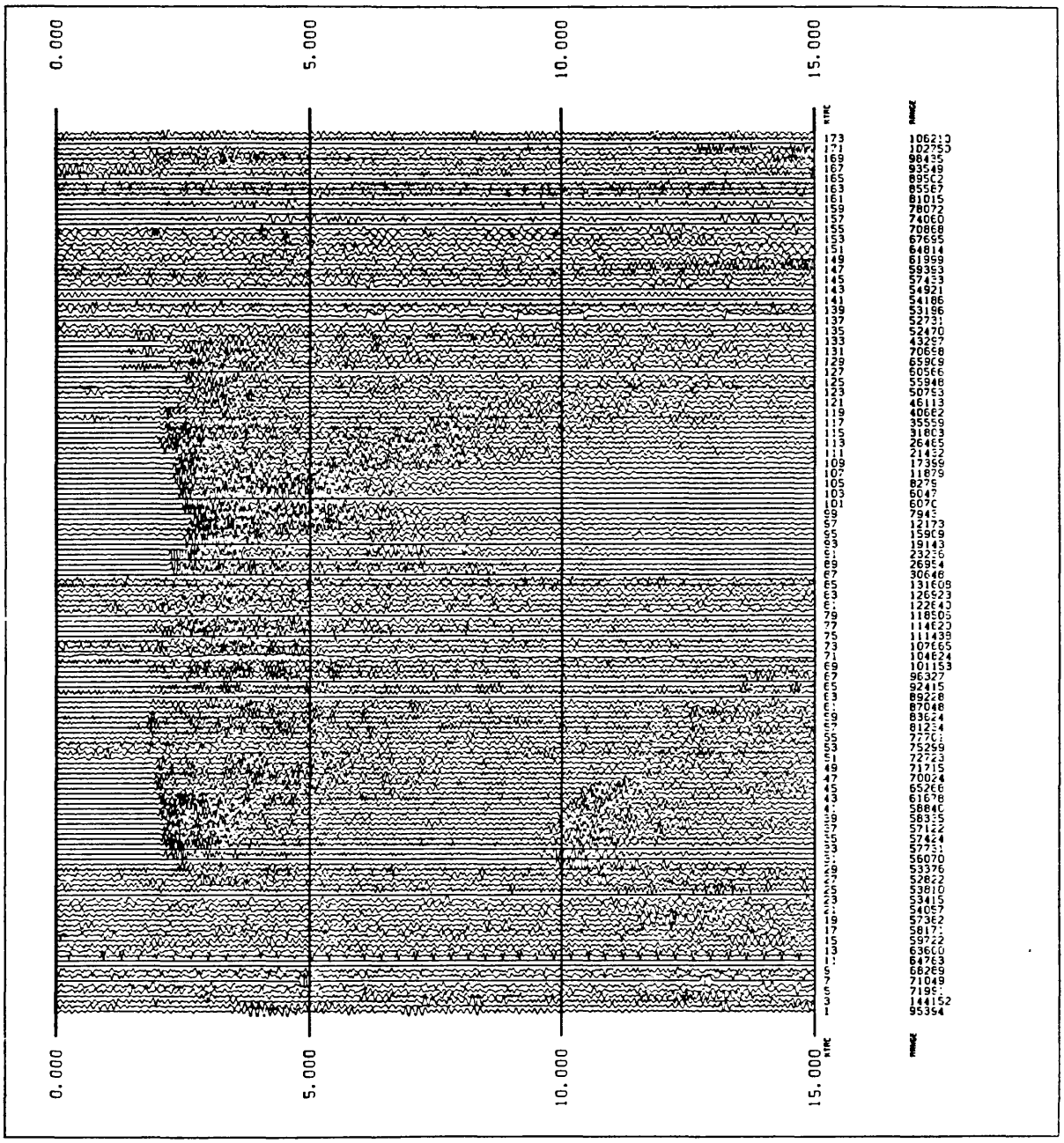

FIGURE A263) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #263 CAT 3188966 94:293:08:32 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

NR

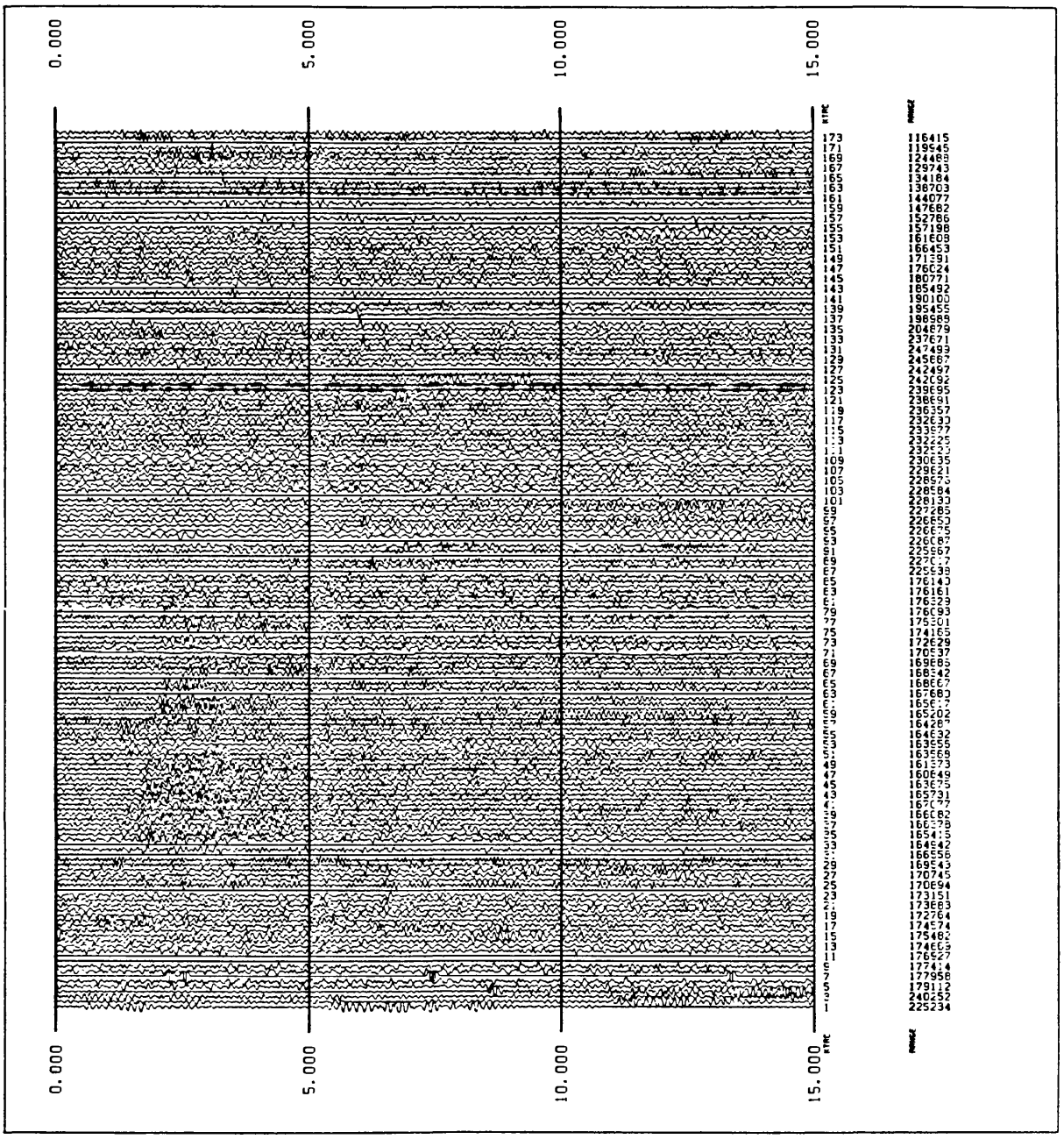

FIGURE A264) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #264 CAT 3188967 94:293:09:27 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

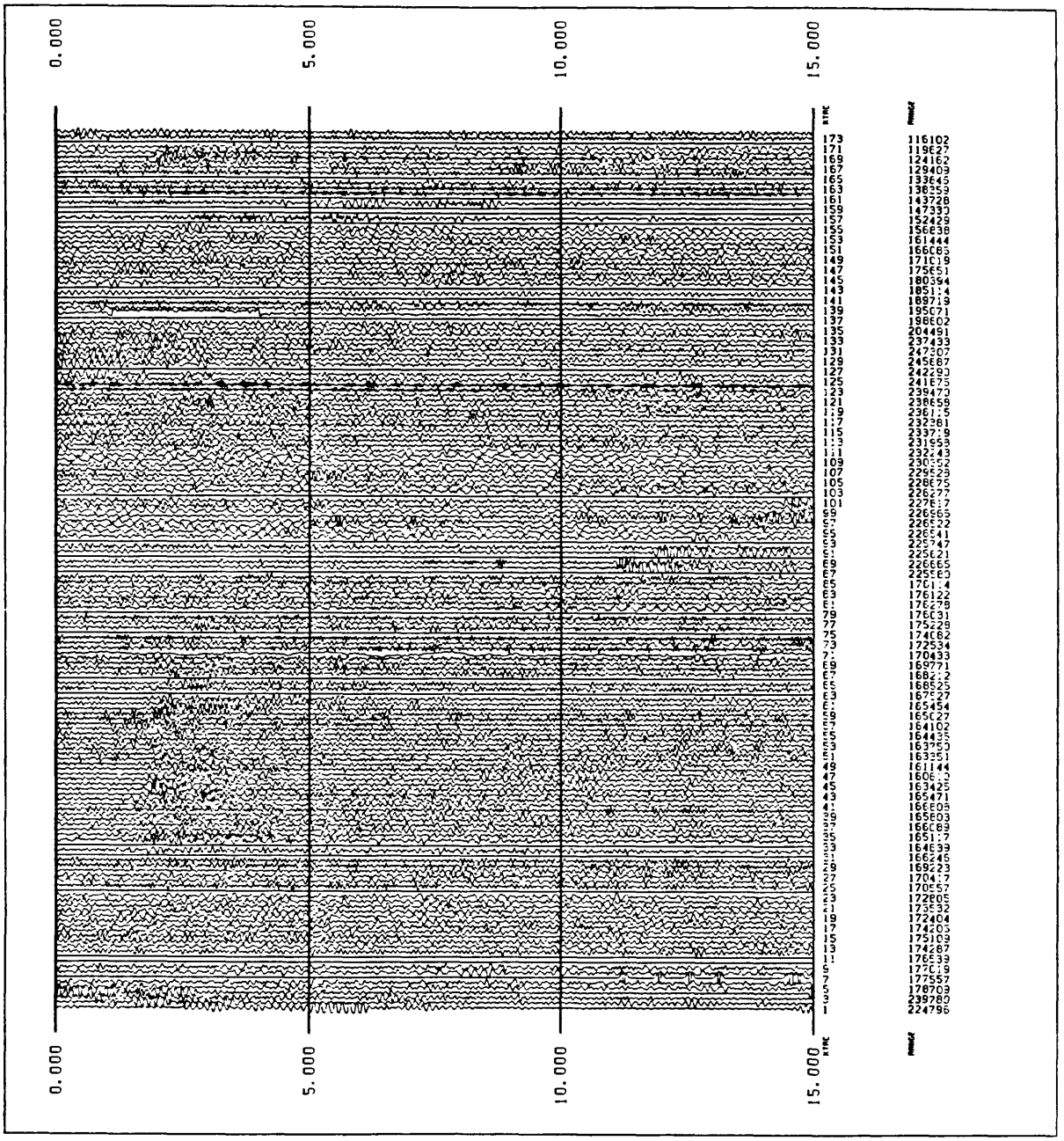

FIGURE A265) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #265 CAT 3188970 94:293:10:01 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

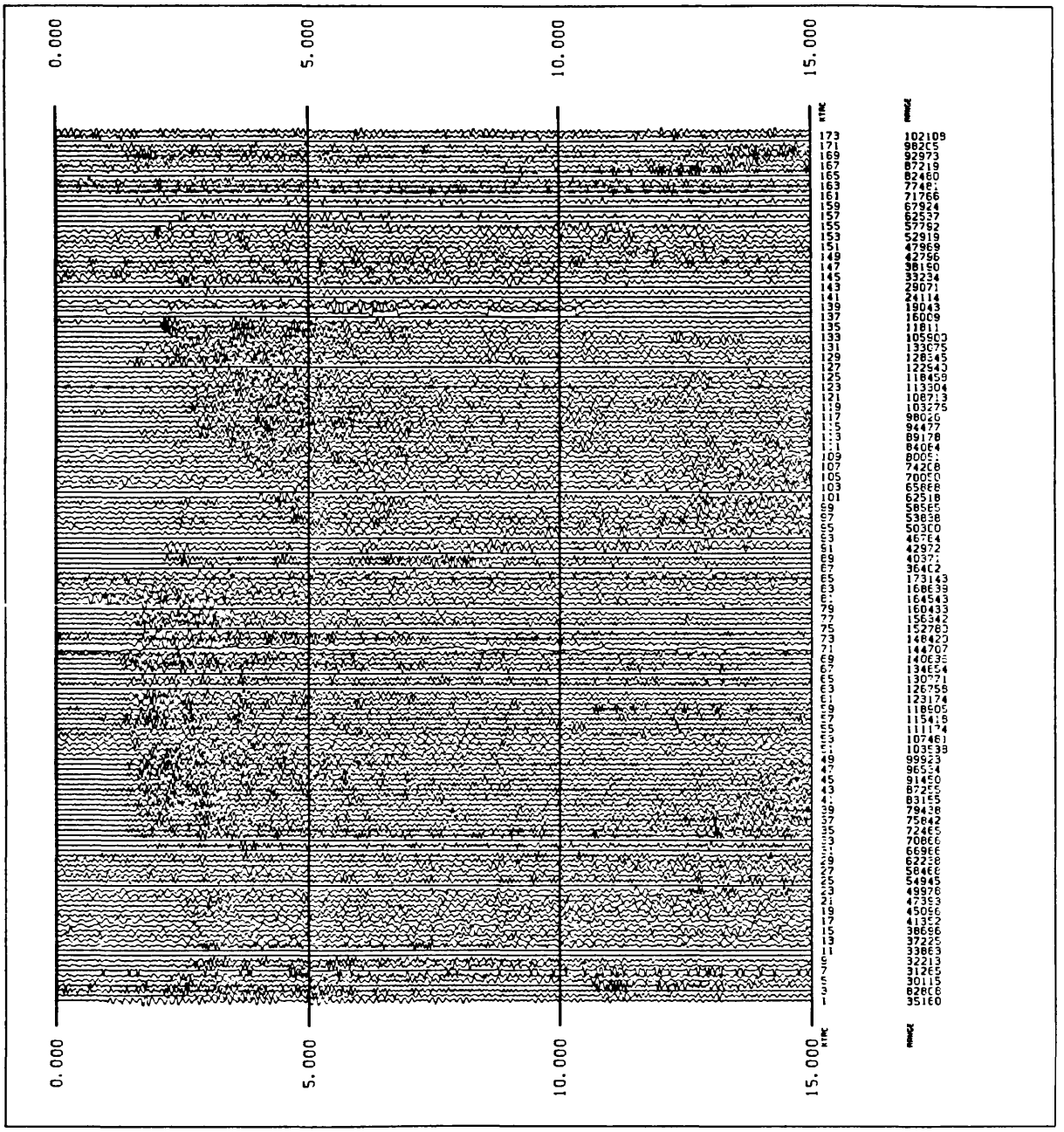

FIGURE A266) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #266 CAT 3188972 94:293:10:22 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

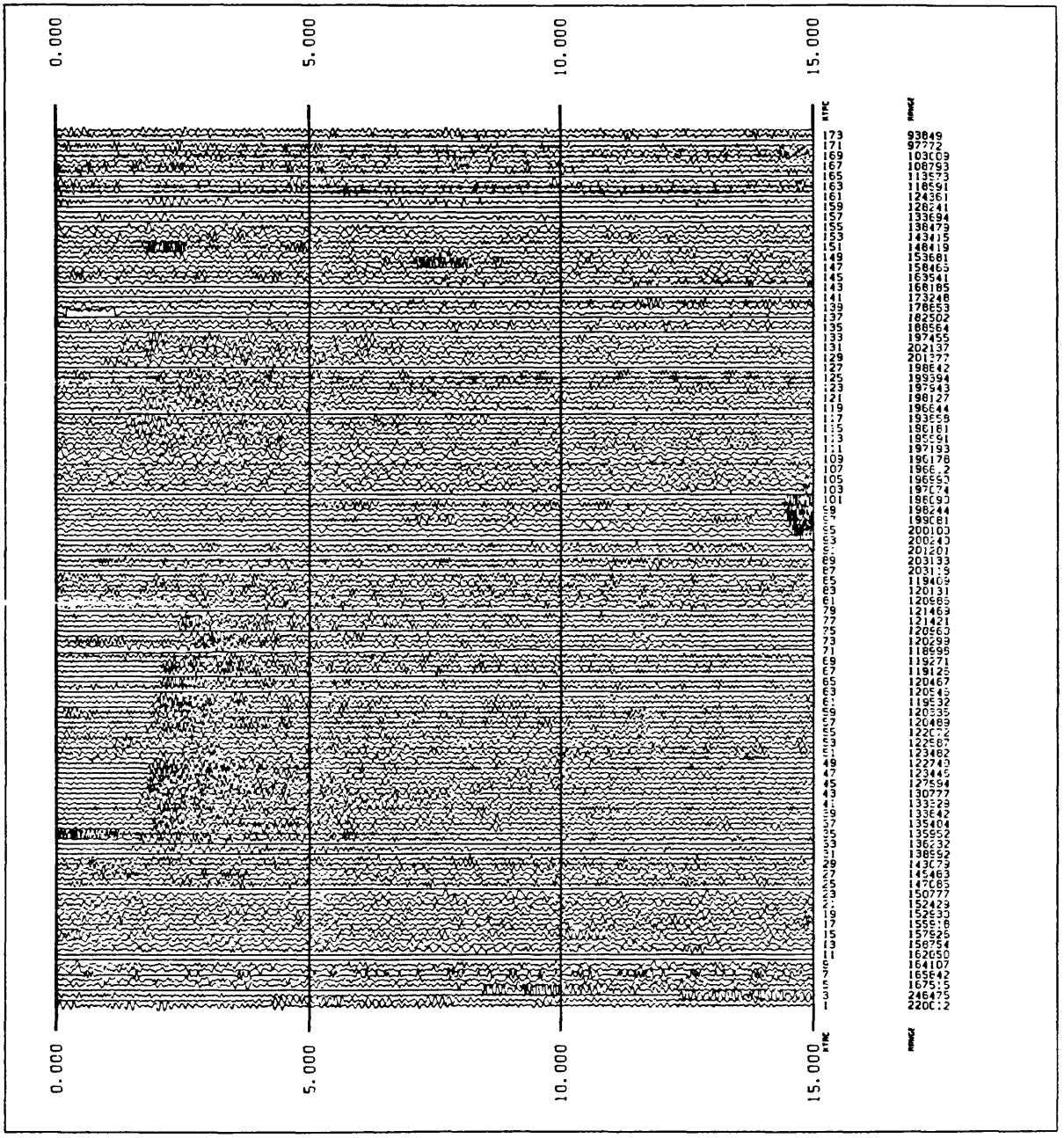

FIGURE A267) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #267 CAT 3188980 94:293:12:05 MAG 2.4
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

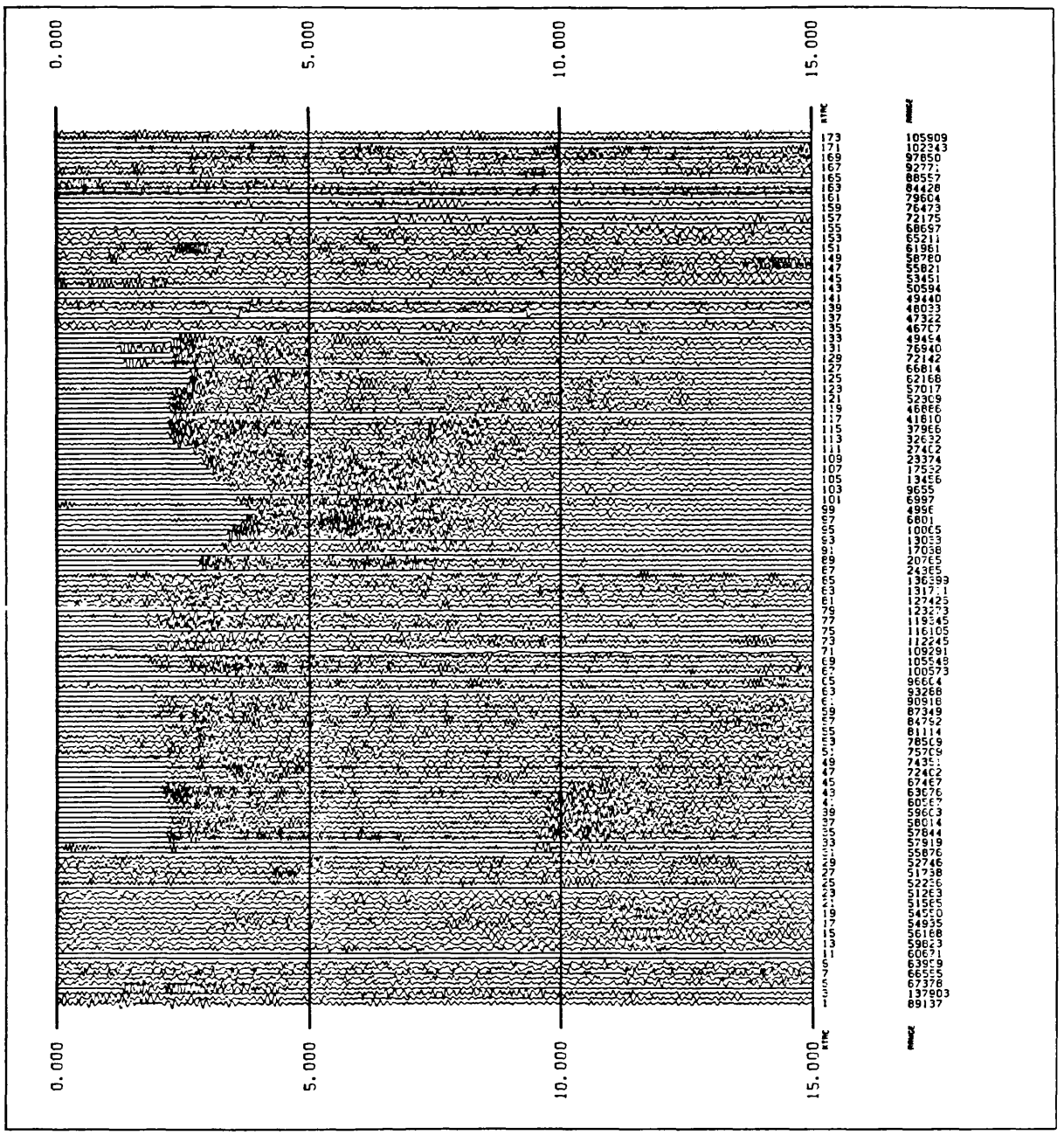

FIGURE A268) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #268 CAT 3189016 94:293:12:05 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

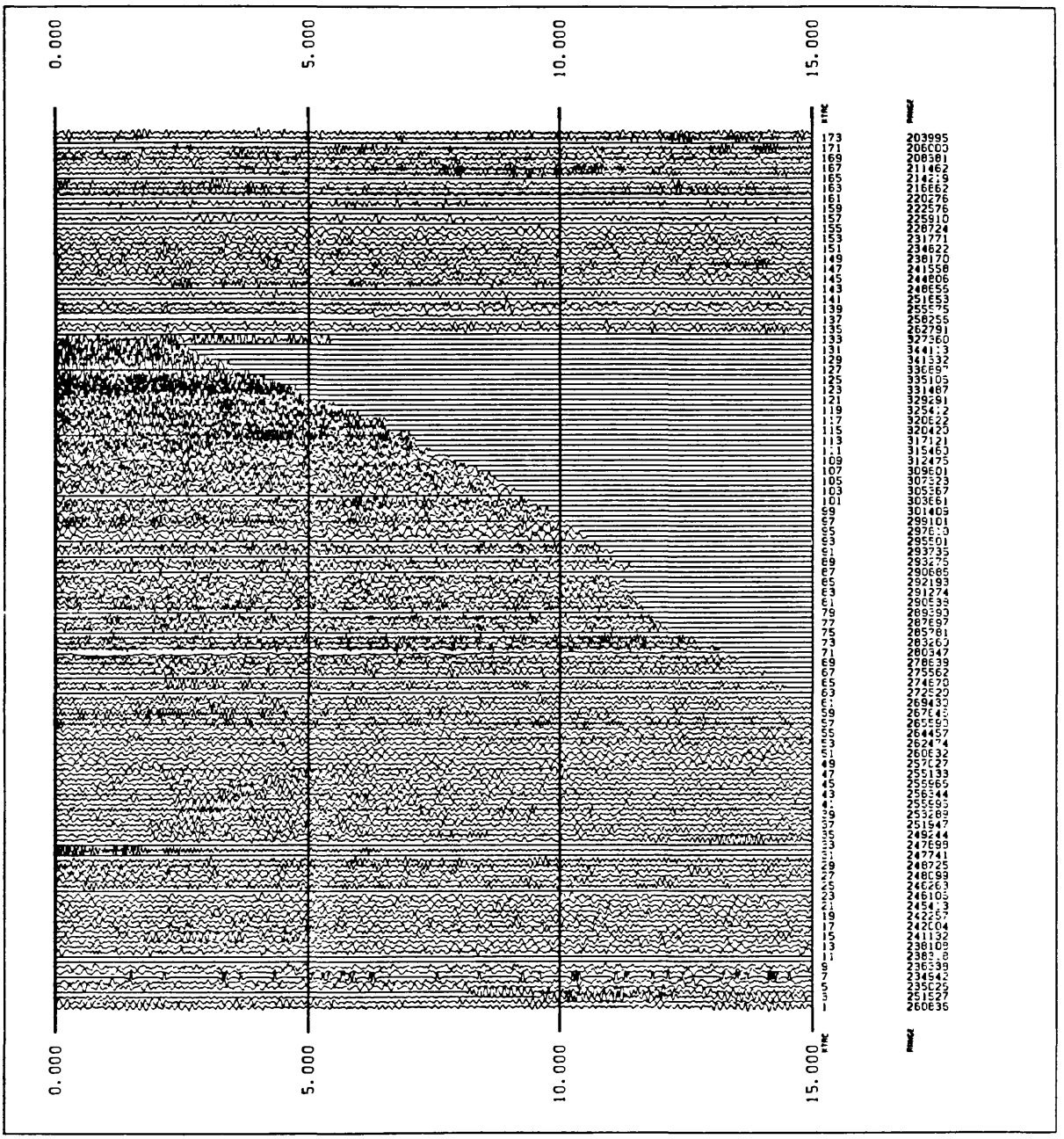

FIGURE A269) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #269 CAT 3188981 94:293:12:28 MAG 2.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

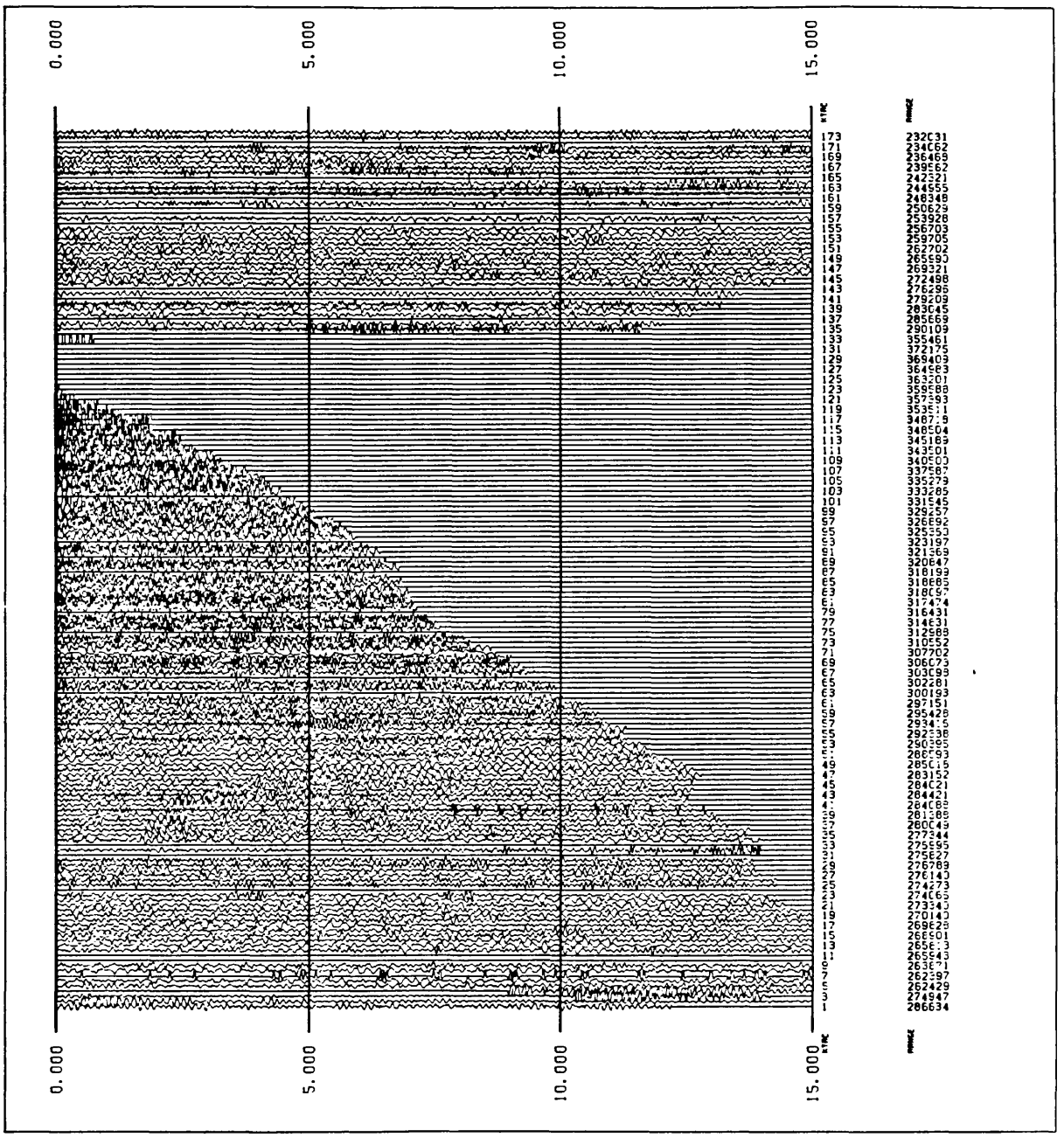

FIGURE A270) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #270 CAT 3188982 94:293:12:30 MAG 1.6
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

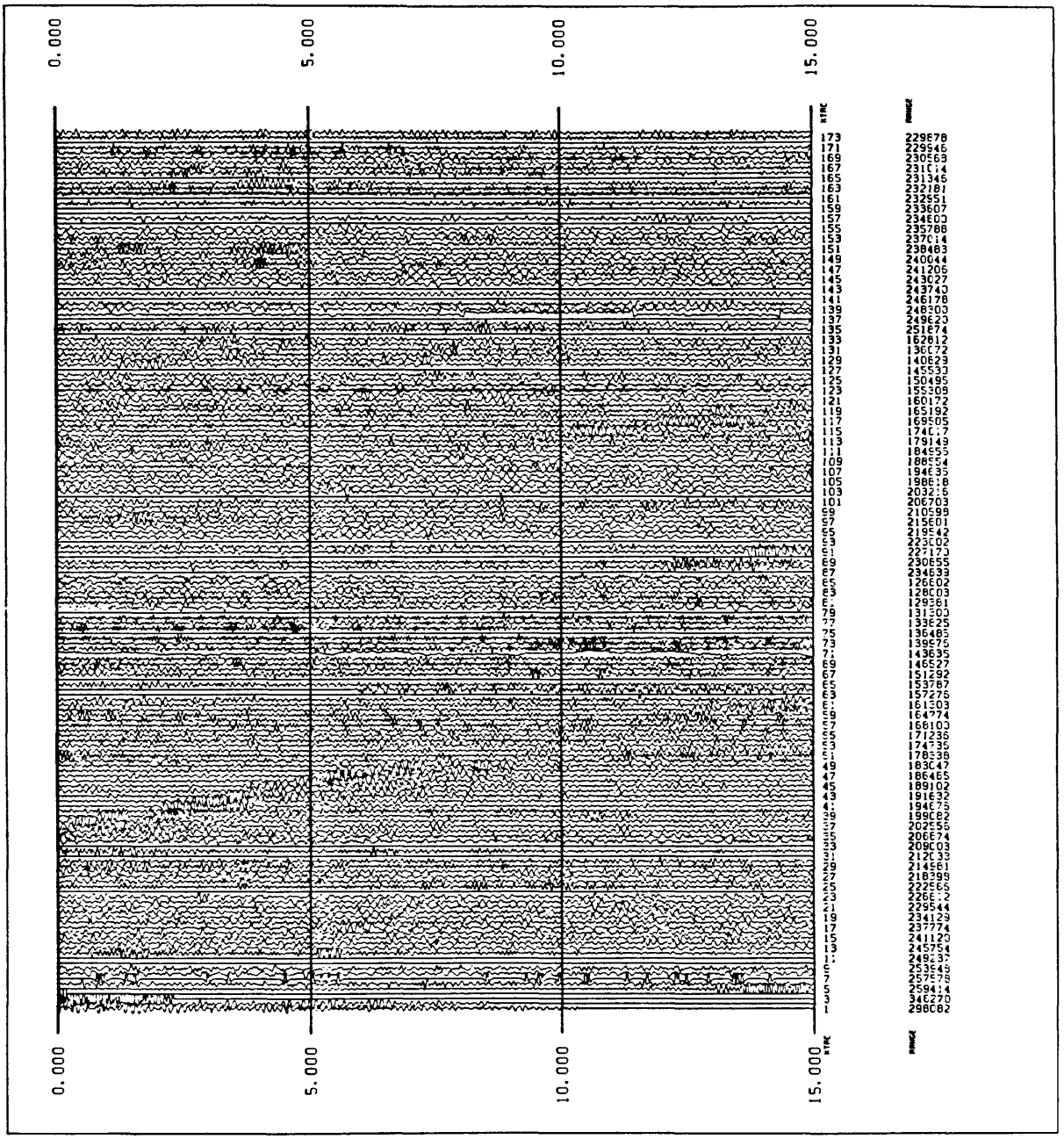

FIGURE A2711 LOCAL QUAKES DURING LARSE ON-OFF
EVENT #271 CAT 3186985 94:293:13:03 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

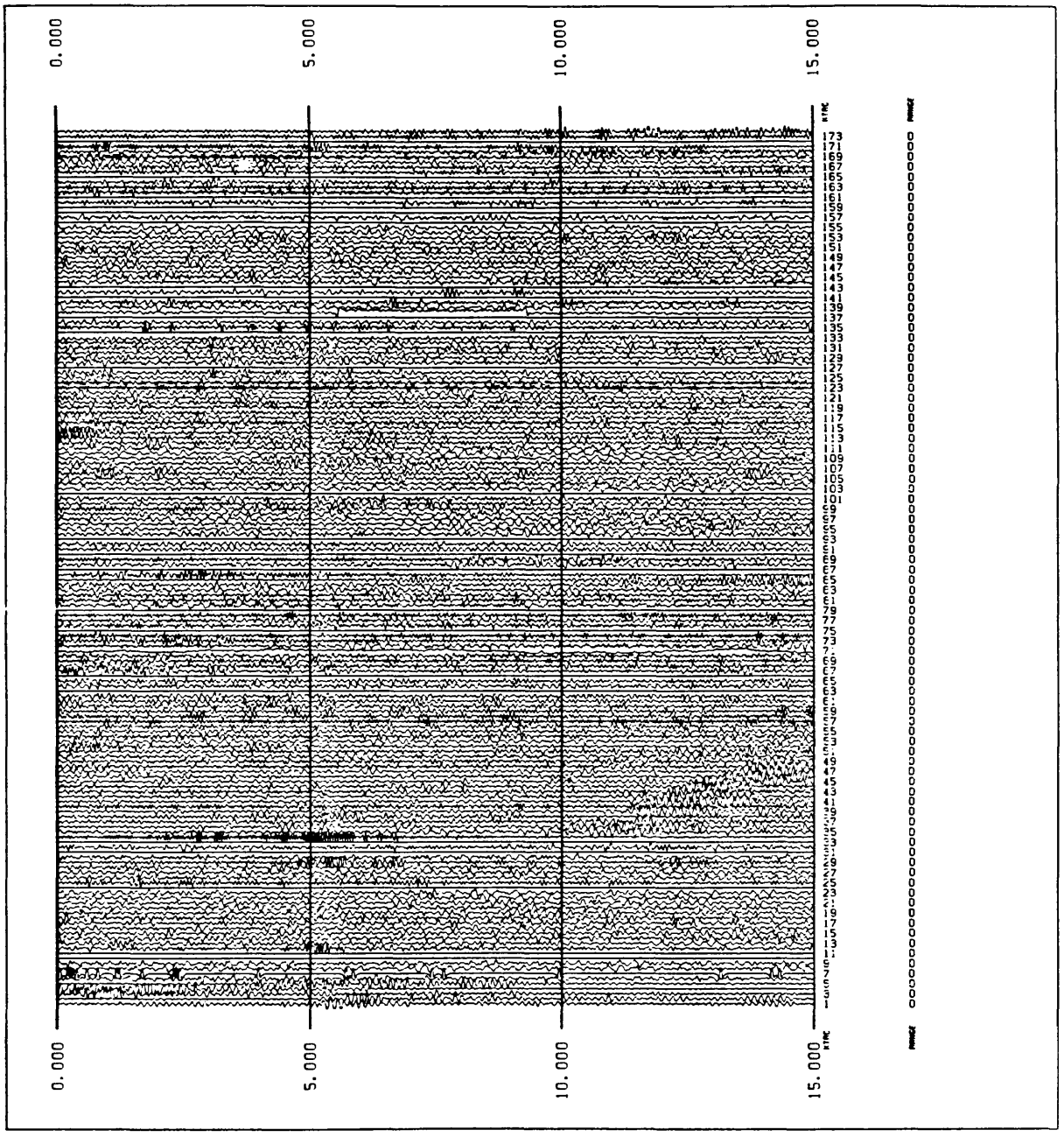

FIGURE A272) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #272 CAT 3188986 94:293:13:06 MAG 3.1
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

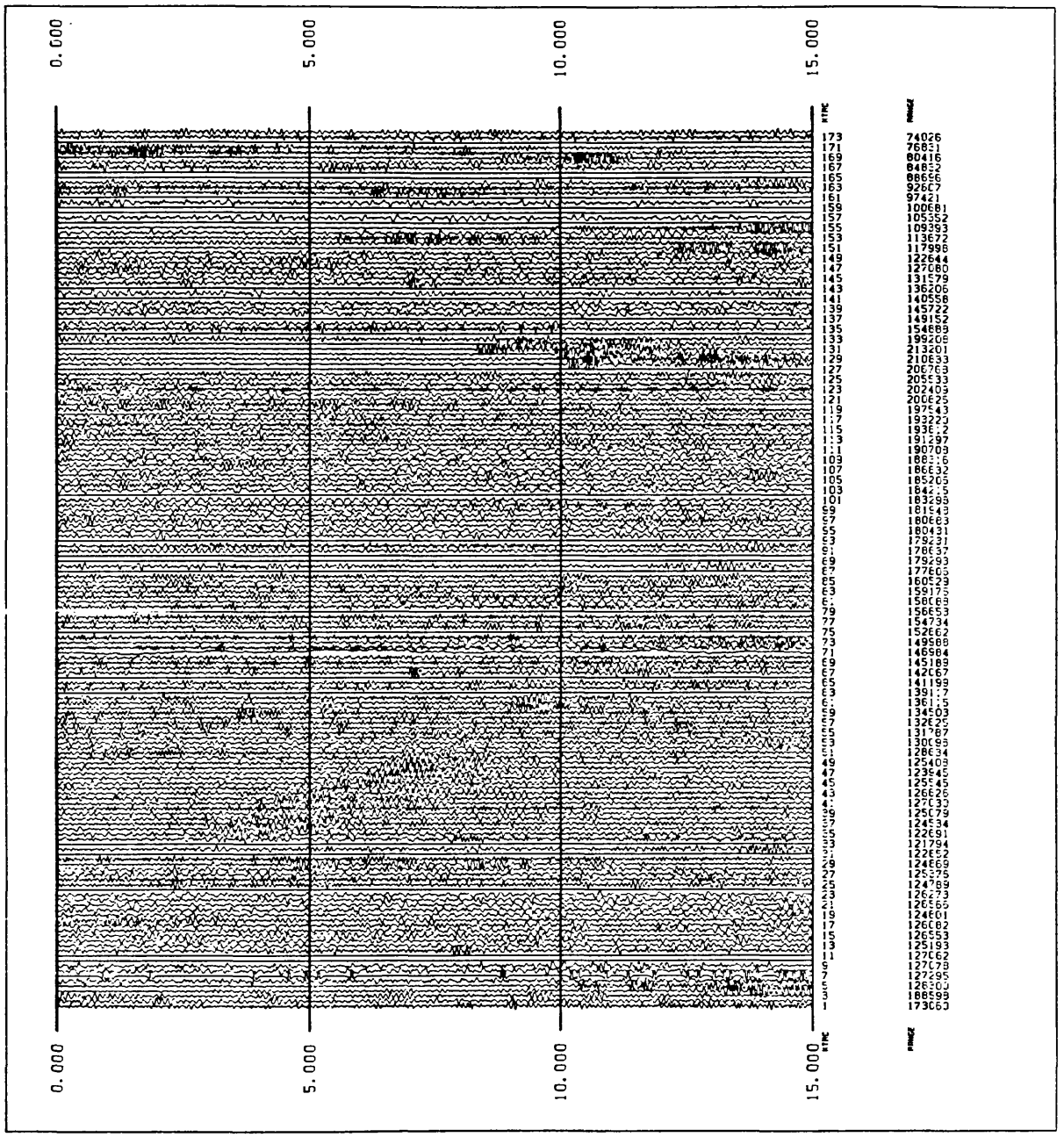

FIGURE A273) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #273 CAT 3188997 94:293:14:45 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

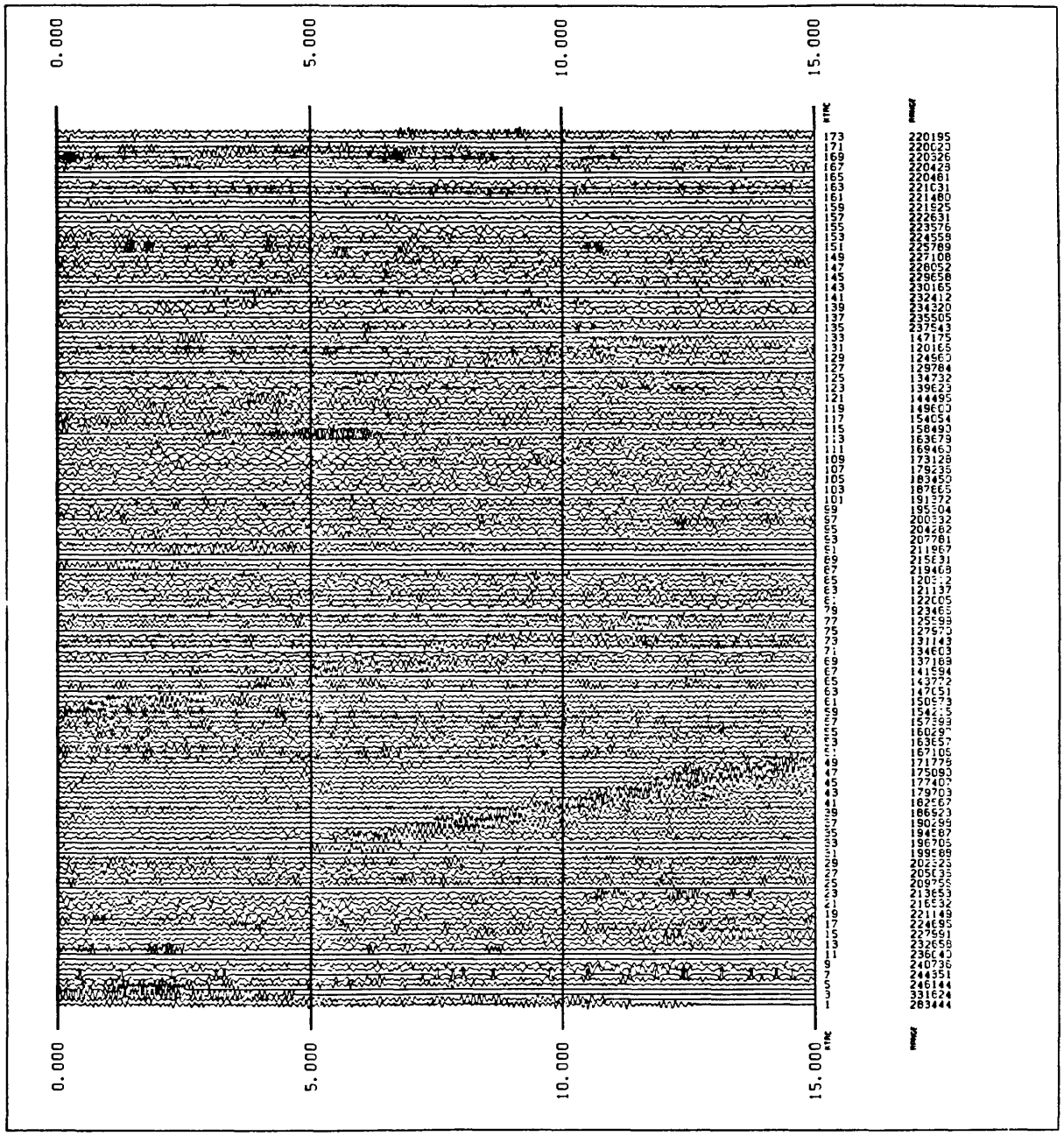

FIGURE A274) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #274 CAT 3189001 94:293:14:54 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

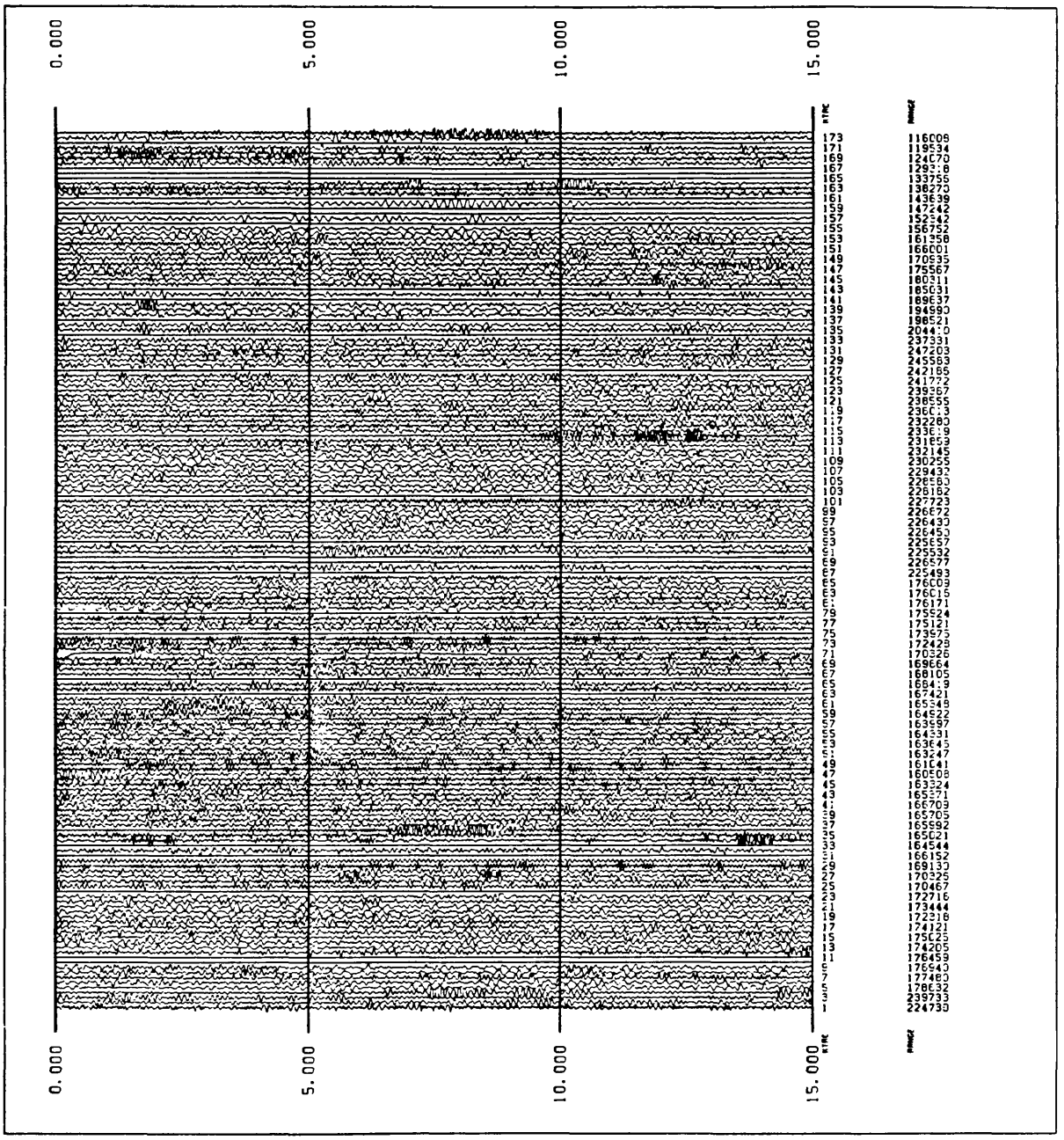

FIGURE A275) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #275 CAT 3189006 94:293:15:32 MAG 1.5
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

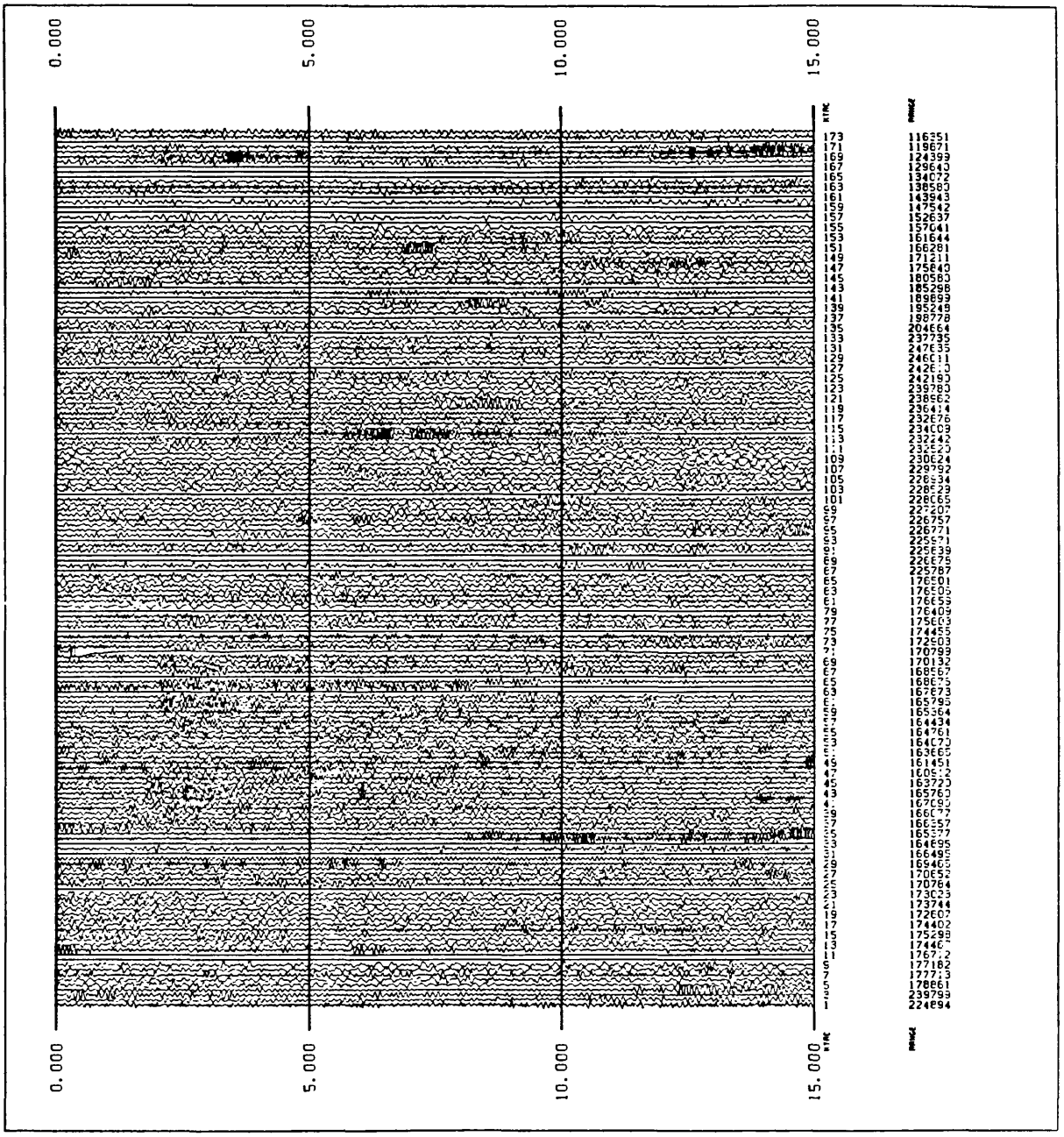

FIGURE A276) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #276 CAT 3189029 94:293:15:32 MAG 1.8
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

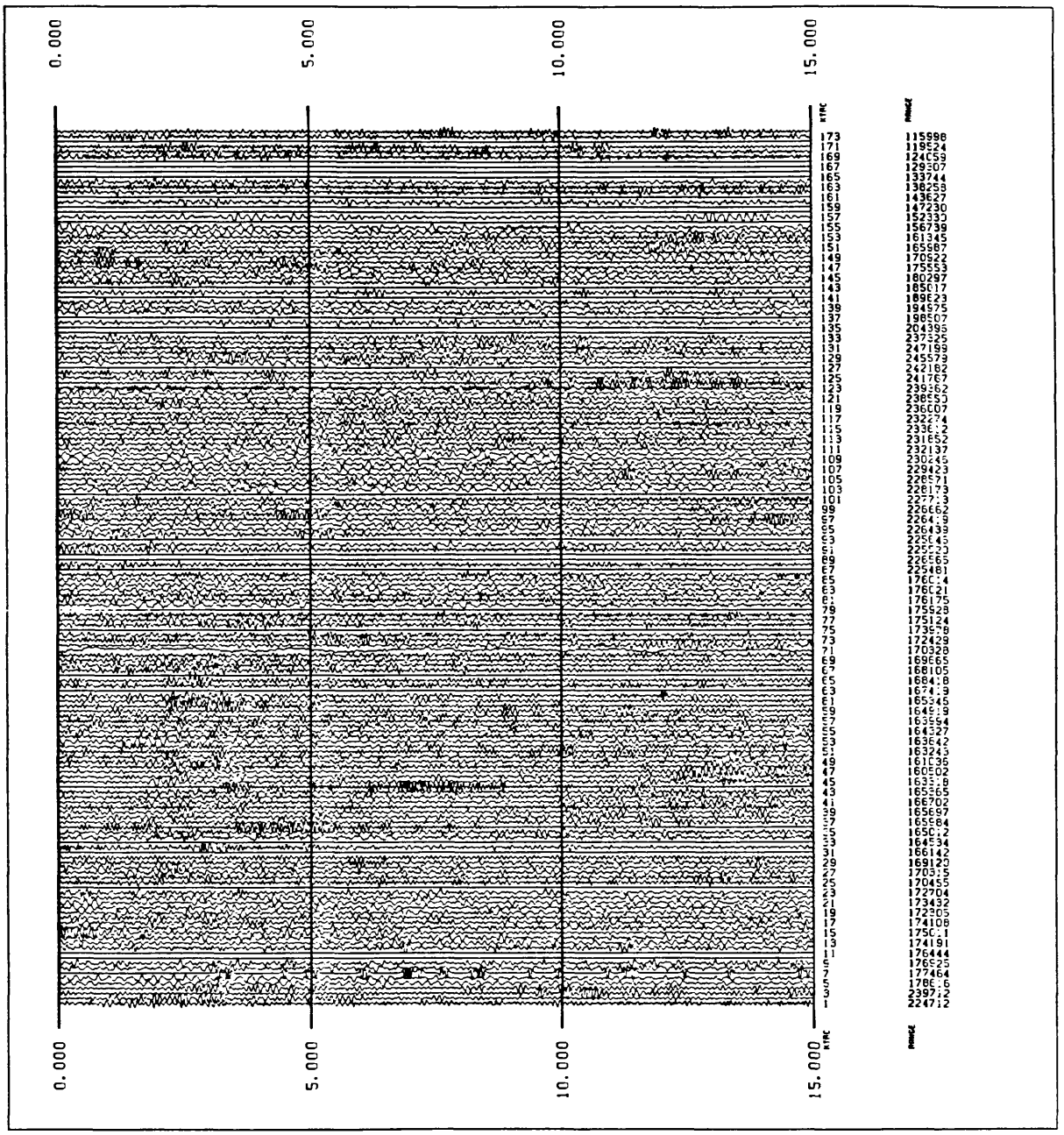

FIGURE A277) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #277 CAT 3189035 94:293:16:02 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

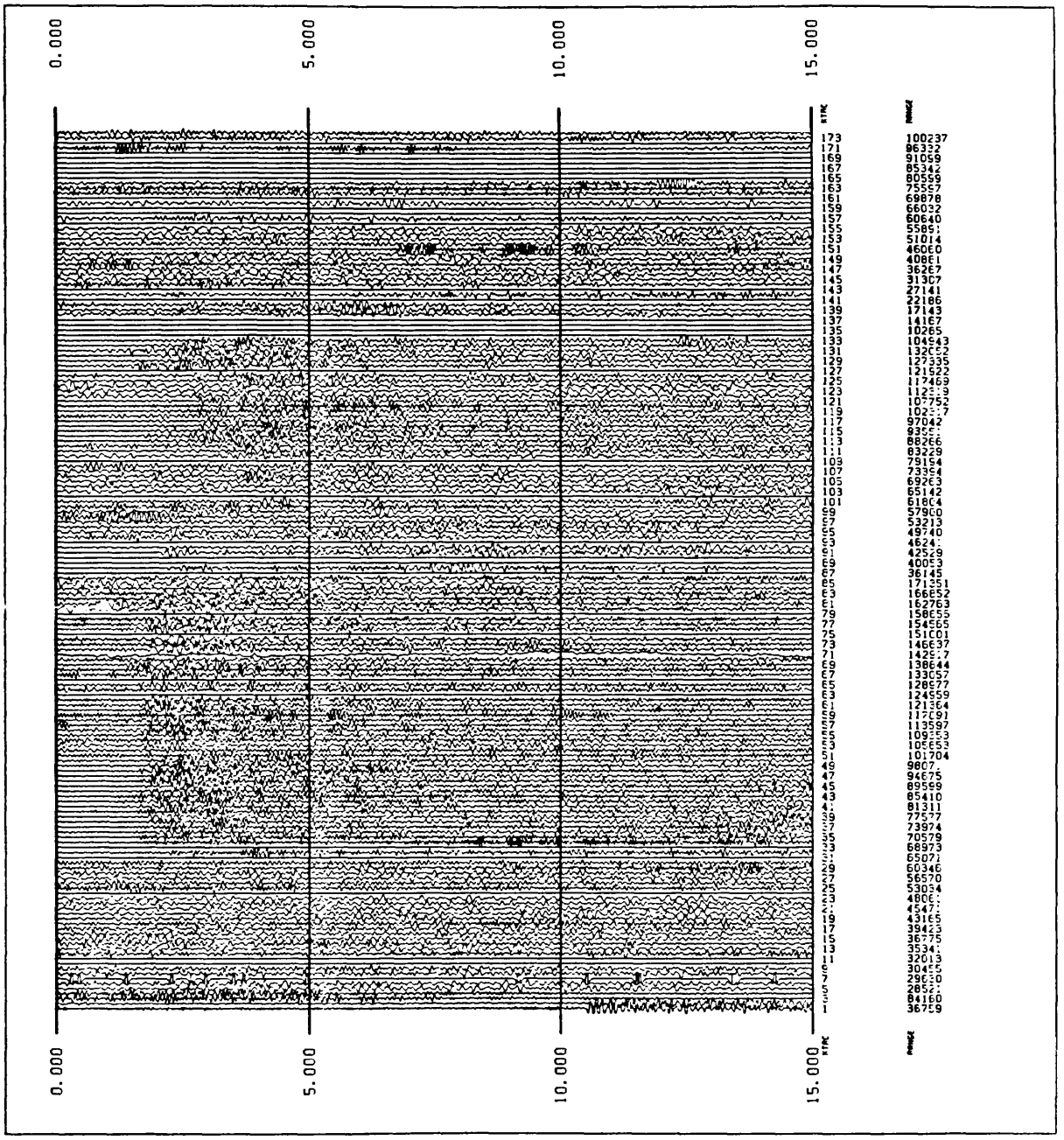

FIGURE A278) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #278 CAT 3189020 94:293:17:10 MAG 2.0
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

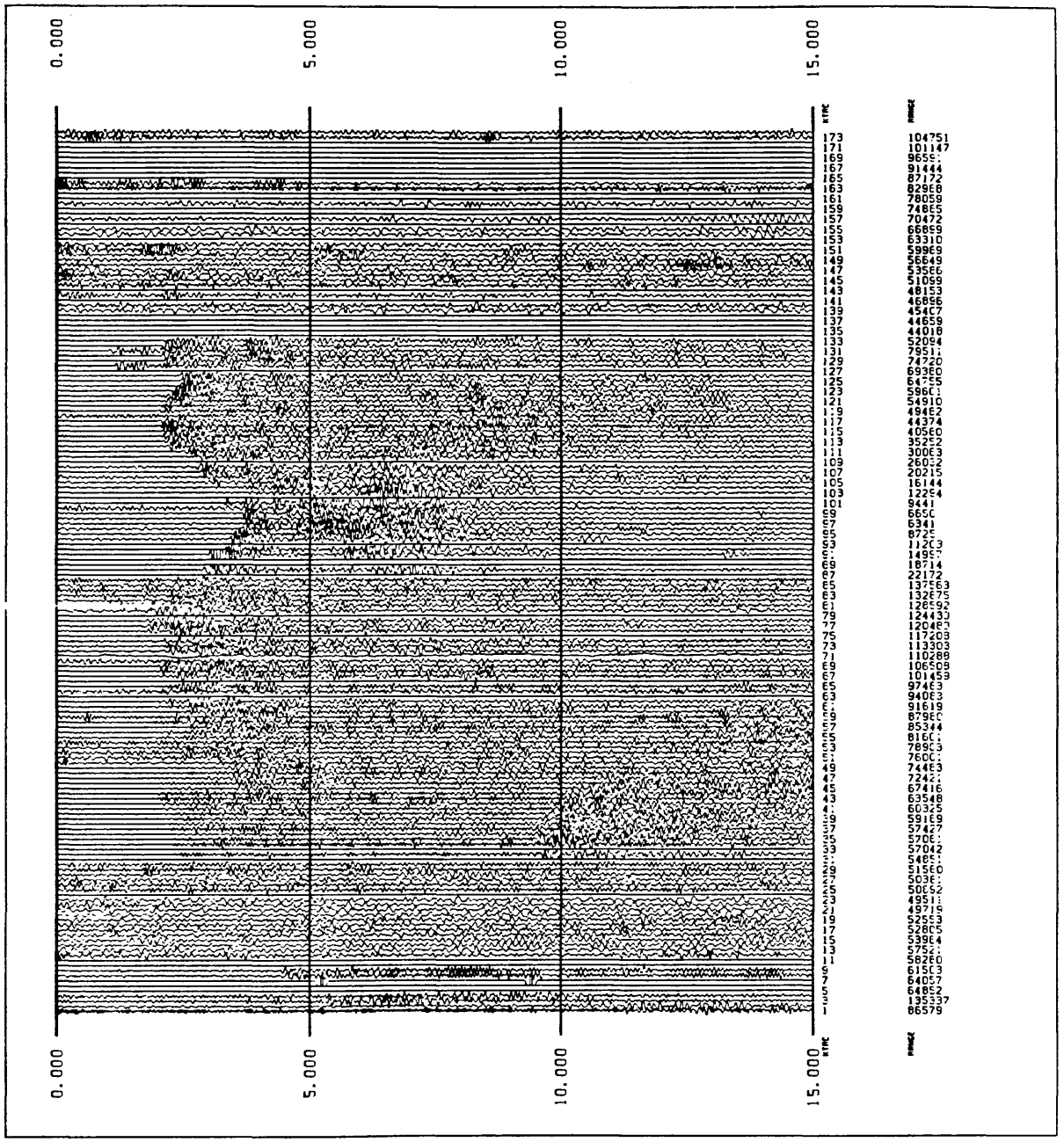

FIGURE A279) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #279 CAT 3189023 94:293:17:32 MAG 1.9
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.

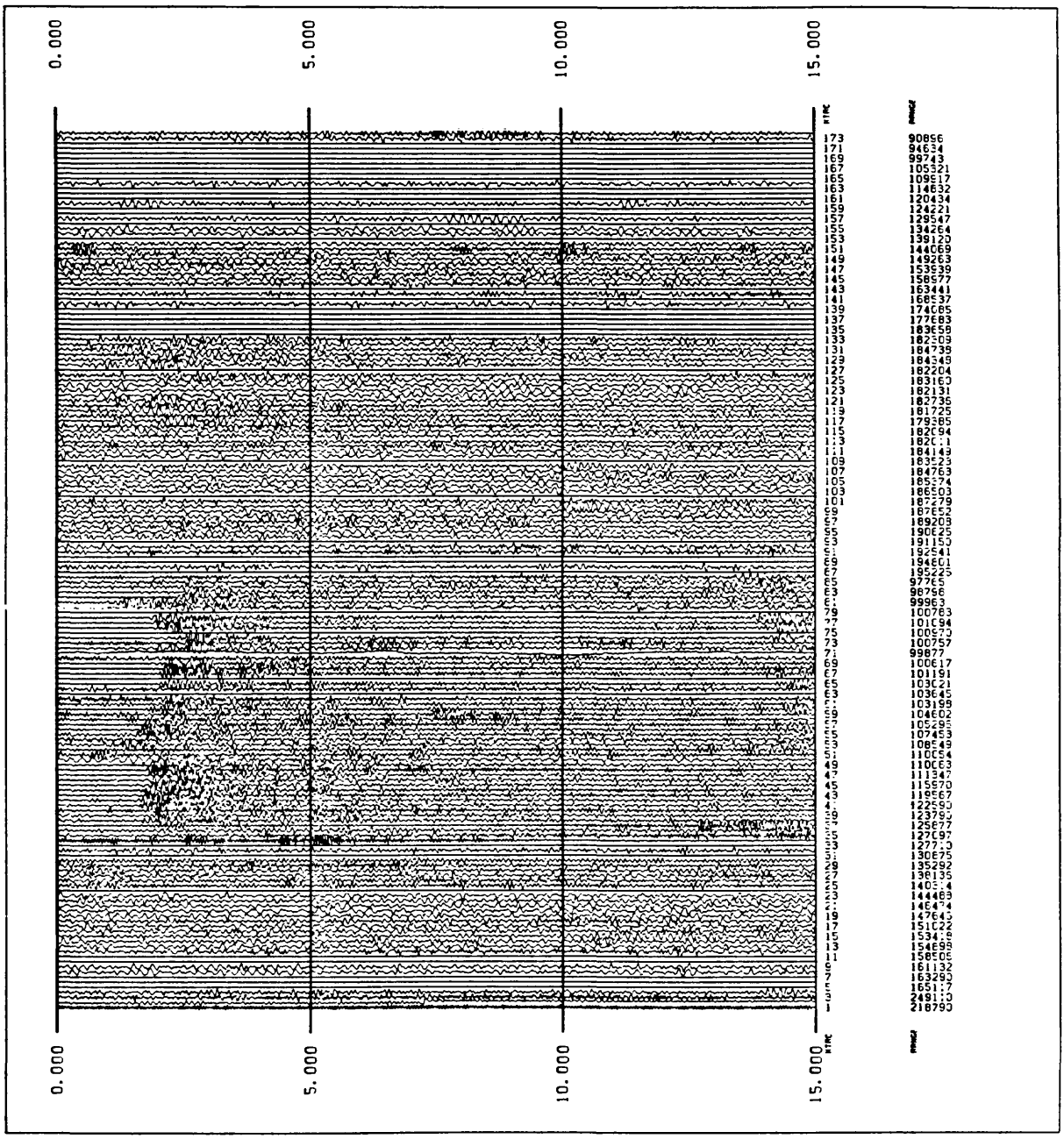

FIGURE A280) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #280 CAT 3189024 94:293:17:42 MAG 1.7
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

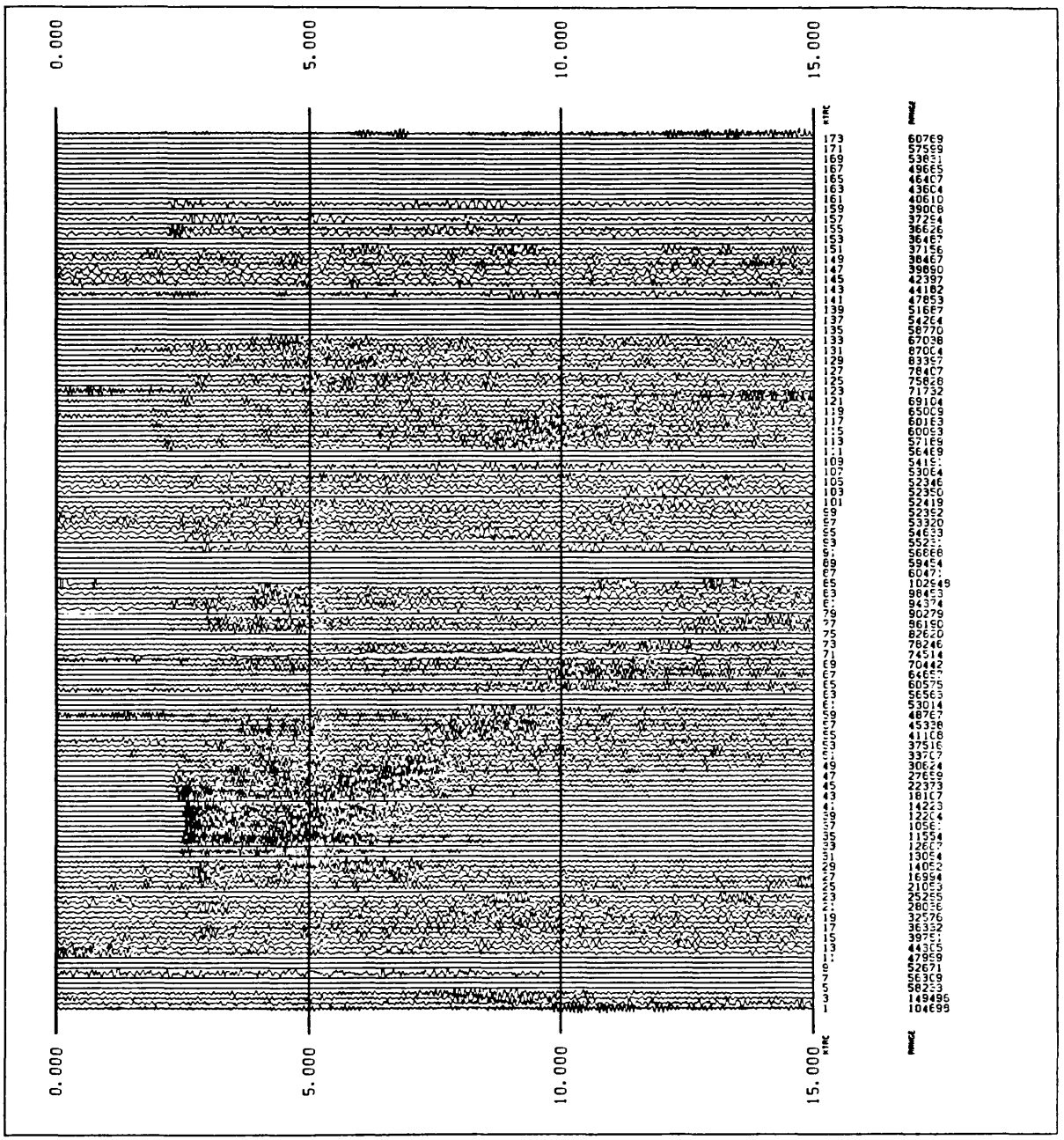

FIGURE A281) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #281 CAT 3189026 94:293:18:24 MAG 1.9
ARRAYS 1, 2, 3 START @ TRACES 1, 87, 134.

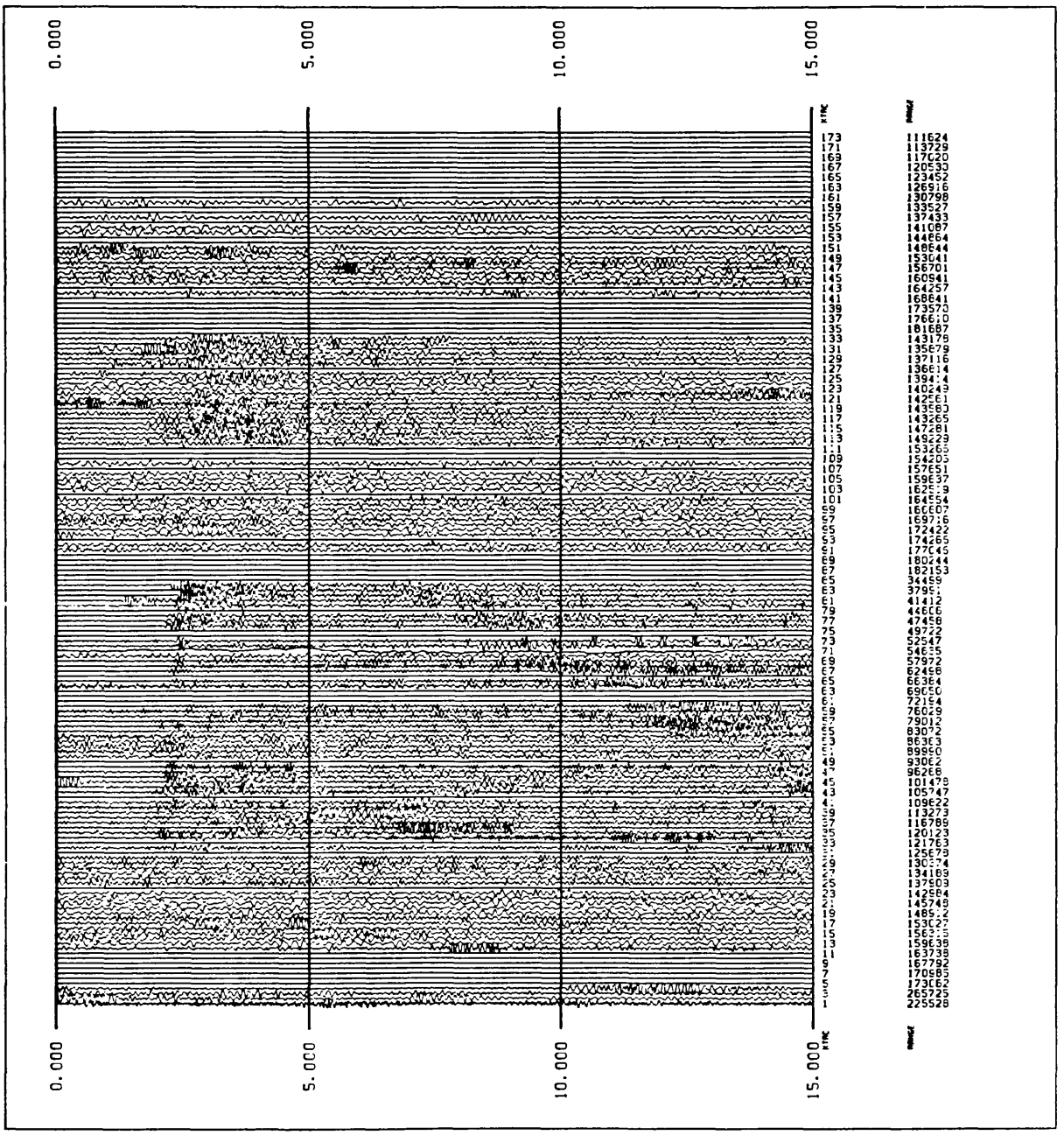

FIGURE A282) LOCAL QUAKES DURING LARSE ON-OFF
EVENT #282 CAT 3189027 94:293:18:35 MAG 1.6
ARRAYS 1. 2. 3 START @ TRACES 1. 87. 134.