

## **A Catalog of Finnish Earthquakes in 1610 - 1990**

*Päivi Mäntyniemi and Tellervo Ahjos*

Institute of Seismology, University of Helsinki,  
Et. Hesperiankatu 4, SF-00100 Helsinki

### *Abstract*

*The present catalog contains information on earthquakes that occurred in Finland between 1610 and 1990. The total number of entries is 526. The event size parameters listed comprise the perceptibility area, maximum intensity, and macroseismic magnitude for historical events. Instrumental magnitudes are available for the last 30 years of the catalog. Felt-earthquake information exists for instrumentally recorded earthquakes in cases of special investigations. Estimates of the time and epicentral coordinates of all events are provided. The reported maximum intensities range from II to VI, perceptibility areas from 300 to 225000 km<sup>2</sup>, and magnitudes from 0.1 to 4.9. Although the data available are inhomogeneous in time and space, certain features of the seismicity pattern of the country are consistent whether they are derived from the macroseismic or instrumental data.*

### *1. Introduction*

The purpose of this catalog is to provide a list of earthquakes that occurred inside Finnish territory or in its immediate vicinity during the interval 1610 - 1990. Since the catalog published previously (*Penttilä, 1978*) only extends to the latter half of the 1970s, it was felt necessary to have an updated version of Finnish events. The present catalog comprises both the latest observations and earlier events, all presented in a unified format. Parameters of several of the historical events have been revised. The number of entries totals 526. Besides the actual catalog, an outline of the existing literature on Finnish earthquakes is given. Its aim is not to provide a full bibliography but to point out the main origins of information behind catalog parameters and to distinguish between different kinds of sources.

### *2. Earthquake literature*

The earliest contributions to the Finnish earthquake literature date back to the 19th century. More abundant macroseismic information has been available since the latter half

of the 19th century as the systematic collection of these observations began in Finland at that time. A summary of known earthquakes during the 1840s had been compiled by *Moberg* (1855), and a later publication (*Moberg*, 1894) provided information of events that occurred before 1882. *Rosberg* (1912) produced a list of earthquakes in the 1904-1911 interval. The contemporary catalogs of adjacent countries included *Mushketov* and *Orlov* (1893) for Russia, *Kjellén* (1910) for Sweden, and *Kolderup* (1913) for Norway. *Renqvist* (1930) compiled an earthquake catalog comprising 235 entries between 1610 and 1929. These are descriptions of felt effects reported inside Finnish territory. Besides the previous earthquake publications and macroseismic surveys, this information originates from various sources such as newspapers, church manuals, and reminiscences of local residents. Analysis with maps and diagrams of the presented events is also given. *Renqvist* (1926) depicted some aspects of macroseismic work in connection with the 18 August 1926 event.

The early seismological literature includes some case-studies in addition to general reviews. More detailed macroseismic investigations exist for the earthquakes of 15 and 23 June 1882 and 4 November 1898, which have been studied by *Moberg* (1891, 1901), and the events of 10 April 1902 (*Rosberg*, 1904) and 9 March 1909 (*Rosberg*, 1912). In these works, maps with sites of felt-observations are presented.

Between 1930 and 1960, the available seismological information remains dominantly macroseismic. Very detailed macroseismic studies were carried out by *Karjalainen* (1936) on the event of 16 November 1931 and *Ekström* (1939), who investigated the earthquake of 12 December 1934 and its aftershocks. One source for the 1930-1950 interval is the catalog by *Båth* (1956) that is made up of Fennoscandian events between 1890 and 1950. In some cases, information originating from *Panasenko* (1977) has been utilized as well. Individual entries are also due to *Sirén* and *Koroleff* (1954) and *Penttilä* (1978). The parameters of several of the historical earthquakes have been revised by *Ahjos* on the basis of the macroseismic observations available.

The first short-period seismograph station was installed in Finland in 1956, and the network was gradually expanded after that. Biannual or other compilations containing the epicenters of recorded earthquakes for the years 1956-1970 were given out by *Vesanen* and *Porkka* (1959), *Korhonen* and *Talvitie* (1964), *Kataja et al.* (1968) and *Penttilä* (1978). Since the early 1970s, the regional events have been published in bulletins entitled 'Seismic events in northern Europe' of the Institute of Seismology, University of Helsinki. Annual earthquake reports have been published since 1979. They contain the completed information available on the local events recorded by the Finnish seismic network in each year.

Investigations on individual events since the commencement of instrumental recordings have also been carried out. A study of the Ranua events in December 1956 was presented by *Porkka* and *Vesanen* (1958). Other macroseismic works are due to *Kataja* (1961) on the 20 February 1960 earthquake, *Korhonen* (1966) on the 23 January 1965 event, and *Talvitie* (1971) on the 1 August 1963 and 11 January 1964 events. *Talvitie et al.* (1974) studied the 23 May 1969 occurrence, *Kataja* and *Korhonen* (1976) the 10

December 1973 earthquakes, *Korhonen* and *Saviaro* (1977) the 4 March, 21 June, and 6 November 1974 events in northern Finland, *Korhonen* (1978) several Kuusamo events between 1970-1976, *Ahjos* (1979) the 17 February 1979 earthquake, and *Kataja* (1982) the 7 November 1977 shock. A summary of the macroseismic studies for the most prominent earthquakes in 1877-1977 has been given by *Korhonen* and *Ahjos* (1979). *Mustila* and *Korhonen* (1991) inspected the 21 February 1989, 22 May 1989, 6 February 1990 and 9 November 1990 earthquakes. Several unpublished investigations exist as well. The observations of a local microearthquake survey (*Saari*, 1991) have been included in the present list.

### 3. *Earthquake catalog*

The main reference is given for each entry in the catalog. The information provided for listed events comprises parameters concerning the time, location, and size of the events. Epicentral coordinates of macroseismic events have been estimated on the basis of the geographic distribution of felt observations. The macroseismic epicenter indicates the site of maximum intensity, or the central point of the perceptibility area. Estimations of the precision of origin time and macroseismic location are provided according to the system of *Båth* (1956).

The maximum intensity evaluated in the Modified Mercalli Intensity scale and the area of perceptibility are given for felt earthquakes. The macroseismic magnitude (MM) has basically been computed according to the method presented by *Wahlström* and *Ahjos* (1984). In cases of scarcer information, magnitudes have been evaluated on the basis of solely the intensity, that is on the MI scale (e.g., *Ahjos*, 1979). The instrumental magnitudes have been expressed in the local magnitude (ML) scale, which originates from *Richter* (1935) and has been modified to the Fennoscandian shield (*Wahlström* and *Ahjos*, 1984), or the duration magnitude (MC) scale (*Korhonen*, 1976; *Wahlström* and *Ahjos*, 1984). The MM, ML, and MC scales are compatible. Maximum intensity and perceptibility area are given for instrumental entries if a specific macroseismic investigation has been carried out for the event in question.

Estimates of focal depths are available for certain instrumentally located earthquakes. Large uncertainties should be associated with the depth estimates.

For several entries in *Renqvist's* (1930) catalog, it is not clear that the event has a seismic origin. These cases and those where the macroseismic data are uncertain or where multiple shocks were reported are especially marked in the catalog.

### 4. *Discussion*

In the present catalog, the estimated perceptibility areas extend up to 225000 km<sup>2</sup>, the reported maximum intensities range from II to VI, and magnitudes from 0.1 to 4.9. All

events of magnitude  $< 1.3$  originate from individual microearthquake studies (Saari, 1991) that cover limited regions. In general, the data set is inhomogeneous in space and time.

The epicenters of the catalog are displayed in Figures 1 and 2, which illustrate separately the event locations determined macroseismically and instrumentally. The feature of the seismicity pattern clearly visible in both maps is the concentration of epicenters in the Kuusamo region, which stands out as one of the major seismically active areas in Finland. This has also been pointed out in earlier seismological publications (e.g., Renqvist, 1930), and holds true especially when the numbers of events are inspected. The southern half of the country contains more epicenters in the macroseismic interval. Their distribution seems to be quite random (Fig. 1), and it is not possible to distinguish any clear pattern, a possible effect of contamination from non-seismic events or uncertain locations of historical events. The instrumental data base (Fig. 2) shows an enhanced seismicity in the northern half of Finland, especially central Lapland. The Bothnian Bay region hosts many epicenters as illustrated in both maps (cf. Ahjos *et al.*, 1984). The easternmost part of the country exhibits low seismicity, which can be noted in both of the maps. However, it might lack some historical data: the historical epicenters are even fewer than the instrumental ones.

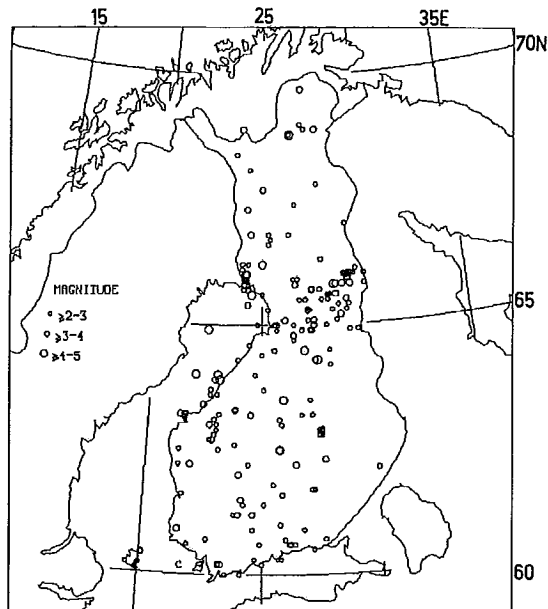


Fig. 1. Epicenters of Finnish earthquakes in 1610-1956. Predominantly macroseismic locations.

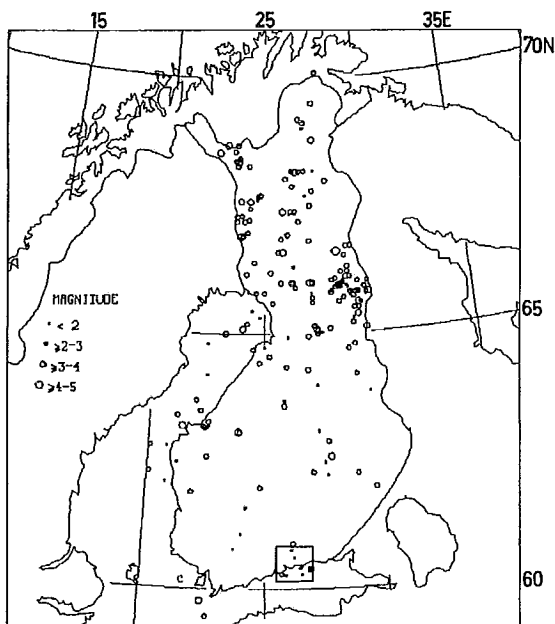


Fig. 2. Epicenters of Finnish earthquakes in 1957-1990. Predominantly instrumental locations. The enhanced seismicity inside the square is due to local microearthquake surveys.

In general, when evaluating historical seismicity, the distribution and density of the population should be taken into account. The main features of Finnish population history (e.g., *Jutikkala*, 1949) do not show any drastic changes during the 380 years of earthquake history but the density of the population in the inner and northern parts of the territory has increased in modern time. Population distribution is affected by the topography of the country, thus the scarce macroseismic observations in Lapland and the easternmost part of the country. A low population density in general decreases the confidence of macroseismic epicenters and epicentral intensities. An evaluation of epicenter determination accuracy of Finnish earthquake data has been given by *Ahjos* and *Arhe* (1983).

Figure 3 illustrates the numbers of earthquakes reported per decade. It should be noted that the numbers given correspond to the entries in the catalog where, in the historical part, the multiple shocks or earthquake swarms are not treated as separate events due to uncertainty of the reports. It can be seen that prior to the 1700s the information consists of a few events only. Since 1730, the number of felt earthquakes in each decade fluctuates but shows a certain continuity of reporting. The commencement of systematic macroseismic surveys at the end of the 19th century increased the number of observations, and the installations of seismic stations in the 1950s and, with a new generation of instruments, the 1980s have made the increase stepwise larger. The apparent reason for the lack of events in the 1940s is the war. However, a similar paucity of observations has been noted for many countries where seismograph stations were in operation at that time (cf. *Skordas*

*et al.*, 1991). One feature of the historical Fennoscandian data is that they comprise more earthquakes in winter than in summer which is attributed to weather-related phenomena (cf. *Renqvist*, 1930; *Wahlström*, 1990).

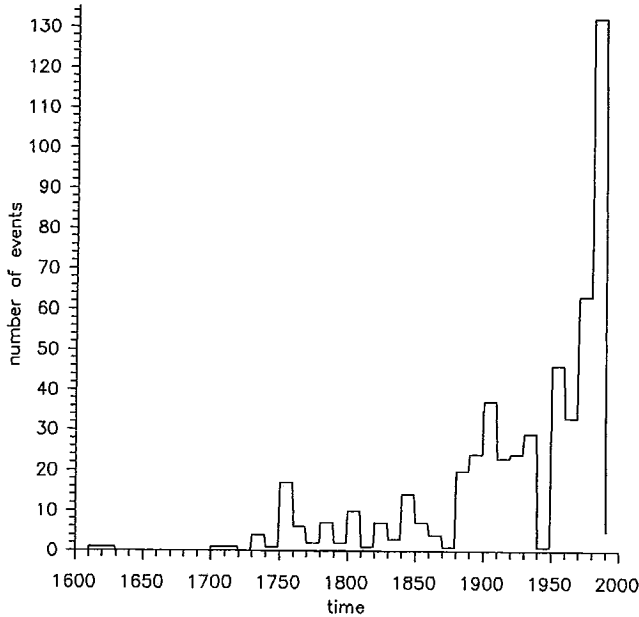


Fig. 3. Number of earthquakes reported per decade.

Figure 4 shows the total number of earthquakes recorded each year since 1956. The events of magnitudes  $\leq 2$  and  $> 2$  have been separated in order to diminish the effect of detection capability. Some shocks of magnitudes around 2 could possibly have been missed due to the sparse network at the beginning of the inspected period. The microearthquakes reported by *Saari* (1991) are in the interval 1985-1989. It can be seen that swarm-type occurrences such as the Kuusamo sequence in 1984 can considerably increase the annual number of earthquakes. There are reports of earthquake swarms in the macroseismic interval as well (*Renqvist*, 1983; *Ahjos* and *Arhe*, 1983). Also occurrences with a main shock accompanied by fore/aftershocks have been noted; the observations in 1956 are mainly due to the Ranua events of this kind (*Porkka* and *Vesanen*, 1958).

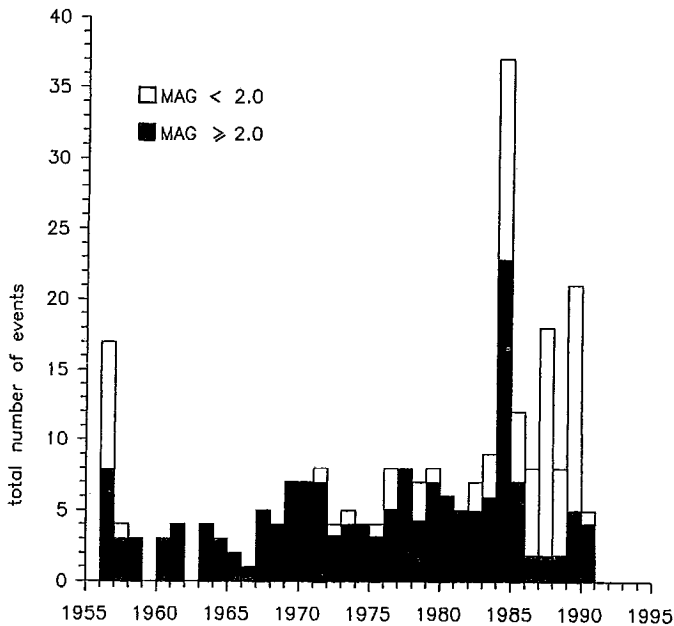


Fig. 4. Number of earthquakes recorded annually in 1956-1990.

The Finnish earthquake data since the 1880s have been regarded as sufficient for more detailed seismicity studies (Korhonen *et al.*, 1980; Ahjos *et al.*, 1984). The macroseismic sources available have been utilized quite carefully, and therefore purely seismological information cannot be expected to bring relevant changes to the present knowledge of past earthquakes. Historical weather reports could sometimes bring more clarity to the origin of felt observations reported.

One drawback with national catalogs is their inconsistency with geotectonic units, and therefore combination of observations from contiguous countries could improve existing evaluations in many cases.

### References

- Ahjos, T., 1979: Suomen maanjäristysten makroseismisten parametrien määrittämisestä (On determination of macroseismic parameters of Finnish earthquakes), *Geofysiikan päivät 16.-17.5.1979*, ed. J. Yliniemi, 75-88.
- Ahjos, T. and Arhe, K., 1983: Loviisan ympäristön seismisyys (Seismicity of the Loviisa region), *Inst. Seismology, Univ. Helsinki, Report T-21*.
- Ahjos, T., Saari, J., Penttilä, E. and Korhonen, H., 1984: Earthquakes and seismic hazard in Finland, *Engineering Geology*, **20**, 1-12.

- Båth, M., 1956: An earthquake catalogue for Fennoscandia for the years 1891-1950, *Sveriges Geol. Unders.*, Ser. C 545.
- Ekström, E., 1939: Das Erdbeben im südwestlichen Teil von Finnland am 12. XII. 1934 nebst Nachbeben, *Fennia*, **66**, 1-68.
- Helsinki, (1971-1990): Seismic events in Northern Europe, bulletins of Institute of Seismology, University of Helsinki, Reports R.
- Helsinki, (1979-1990): Seismic events in Northern Europe, annual reports of Institute of Seismology, University of Helsinki, Reports S-9, S-12, S-14, S-17, S-18, S-19, S-21.
- Jutikkala, E. (ed.), 1949: Suomen historian kartasto (Atlas of Finnish history), WSOY, Porvoo.
- Karjalainen, T., 1936: Das Erdbeben in Mittelfinnland am 18. XI. 1931, *Fennia*, **61**, 1-88.
- Kataja, A., 1961: The 1960 Kuusamo - Salla earthquake. II Macroseismic data, *Geophysica*, **7**, 179-189.
- Kataja, A., Korhonen, H. and Penttilä, E., 1968: Seismological Notes. Earthquakes in Finland 1965-1968, *Geophysica*, **10**, 125-127.
- Kataja, A. and Korhonen, H., 1976: The Rovaniemi earthquake of December 1973, Dept. Geophys., Oulu Univ., Contribution 74.
- Kataja, A., 1982: Inarin maanjäristys marraskuussa 1977 (Earthquake in Inari in November 1977), Inst. Seismology, Univ. Helsinki, Report T-16.
- Kjellén, R., 1910: Sveriges jordskalv (Earthquakes in Sweden), Göteborgs högskolans årsskrift, **15**.
- Kolderup, C.F., 1913: Norges jordskjaelv (Earthquakes in Norway), Bergens museums aarbok, **8**.
- Korhonen, H. and Talvitie, J., 1964: Seismological notes 1962- 1964, *Geophysica*, **9**, 97-98.
- Korhonen, H., 1966: Earthquakes in Gulf of Bothnia 23-1-1965(in Finnish), *Geofysiikan päivät 21/22-6-1965*, ed. P. Tuomikoski, 109-111.
- Korhonen, H., 1976: Some magnitude estimations of local earthquakes in Northern Finland, Dept. Geophys., Oulu Univ., Contribution 63.
- Korhonen, H. and Saviaro, K., 1977: Earthquakes felt in northern Finland in 1974, Dept. Geophys., Oulu Univ., Contribution 61.
- Korhonen, H., 1978: Maanjäristyshavainnoista Kuusamossa 1970-76 (Earthquakes in Kuusamo 1970-1976), *Acta Univ. Oul. A 68 Biol.*, **4**, 25-32.
- Korhonen, H. and Ahjos, T., 1979: A contribution to the macroseismic investigations of earthquakes felt in Finland, Inst. Seismology, Univ. Helsinki, Report S-4.
- Korhonen, H., Penttilä, E., Ahjos, T. and Saari, J., 1980: Earthquakes in Finland during the last 100 years, Proc. 17th Assembly ESC, Budapest, Akad. Kiadó, Budapest, 127-132.
- Moberg, K.A., 1855: Om i Finland inträffade jordskalv och varseblifna eldkulor åren 1842-1850 (On earthquakes and thunderbolts in Finland in 1842-1855), *Survey of the Proceedings of the Finnish Society of Sciences*, **2**.
- Moberg, K.A., 1891: Jordskalvfen i Finland år 1882 (Earthquakes in Finland in 1882), *Fennia*, **4**, 1-36.
- Moberg, K.A., 1894: Uppgifter om jordskalven i Finland före 1882 (On earthquakes in Finland before 1882), *Fennia*, **9**, 1-26.
- Moberg, K.A., 1901: Jordskalvfen den 5 Nov. 1898 (Earthquake in 5 Nov. 1898), *Fennia*, **18**, 1-28.
- Mushketov, I. and Orlov, A., 1893: Katalog zemletrjasenij Rossijskoi Imperii, *Zapiski Imper. Russ. Geograf. objestv.*



- Mustila, L. and Korhonen, H., 1991: Macro seismic observations in Finland 1989-1990, Inst. Seismology, Univ. Helsinki, Report S-26.
- Panasenko, G.D., 1977: *Zemletrjasenija Fennoskandii*, katalog 1951-1970 gg., Soviet Geophysical Committee of the Academy of Sciences of the USSR, Moscow.
- Penttilä, E., 1978: Earthquakes in Finland 1610-1976, Inst. Seismology, Univ. Helsinki, Report S-1.
- Porkka, M.T. and Vesanen, E., 1958: Earthquake in Ranua and Pudasjärvi 1956, *Geophysica*, **5**, 226-229.
- Renqvist, H., 1926: Kuusamon maanjäristys ja sen johdosta sananen (The Kuusamo Earthquake and some comments due to it), *Terra*, **38**, 159-170.
- Renqvist, H., 1930: Finlands jordskalv (Earthquakes in Finland), *Fennia*, **54**.
- Richter, C.F., 1935: An instrumental earthquake magnitude scale, *Bull. Seism. Soc. Am.*, **25**, 1-32.
- Rosberg, J.E., 1904: Jordskalfvet den 10 April 1902 (Earthquake in 10 April 1902), *Fennia*, **21**, 1-28.
- Rosberg, J.E., 1912: Jordskalf i Finland 1904-1911 (Earthquakes in Finland 1904-1911), *Fennia*, **32**, 1-24.
- Saari, J., 1991: Microearthquakes and seismotectonic analysis for a nuclear plant area in southeastern Finland, *Engineering Geology*, in press.
- Sirén, A. and Koroleff, N., 1954: Verzeichnis der Erdbeben in Finnland 1930-1954, unpublished manuscript.
- Skordas, E., Meyer, K., Olsson, R. and Kulhánek, O., 1991: Causality between interplate (North Atlantic) and intraplate (Fennoscandia) seismicities, *Tectonophysics*, **185**, 295-307.
- Slunga, R., 1989: Earthquake mechanisms in northern Sweden Oct 1987-Apr 1988, Swedish Nat. Defence Res. Inst., SKB Tech. Report **89**.
- Talvitie, J., 1971: Seismotectonics of the Kuopio region, Finland, *Bull. Comm. géol. Finlande*, **248**.
- Talvitie, J., Korhonen, H. and Porkka, M.T., 1974: The Simojärvi earthquake of 1969 in Finland, *Pure Appl. Geophys.*, **112**, 855-862.
- Vesanen, E. and Porkka, M.T., 1959: Report of the Earthquakes in Finland 1956-1958, (ESC, Utrecht 1959).
- Wahlström, R. and Ahjos, T., 1984: Magnitude determination of earthquakes in the Baltic shield, *Annales Geophysicae*, **2**, 553-558.
- Wahlström, R., 1990: A catalogue of earthquakes in Sweden in 1375- 1890, *Geologiska Föreningens i Stockholm Förhandlingar*, **112**, 215-225.

## CATALOG

No.	Source	Date Y M D	Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
				Lat.	Long.							
1	REN	16100120		60.9 N	26.8 E	-B		2.1 MM	IV	300		Valkeala
2	REN	16260622		64.5 N	27.0 E	-B		4.6 MM	VI	110000		Paltamo
3	REN?	1700		64.2 N	28.2 E	?B		2.1 MM	IV	?	300	Sotkamo
4	REN	17140315		63.6 N	22.7 E	?B		2.3 MM	V		300	Jakobstad
5	REN	17311221	13	66.0 N	29.1 E	CB		2.8 MM	IV		2000	Kuusamo
6	REN	17361028	00	66.0 N	29.1 E	CB		2.5 MM	IV		1000	Kuusamo
7	REN	17371008	18	64.0 N	23.0 E	CC		4.1 MM	V		50000	Kalajoki
8	REN	17390506	14	65.3 N	25.3 E	CB		2.8 MM	IV		2000	Ii
9	REN?	17490111		63.0 N	23.0 E	-B		2.3 MM	V	?	300	Lapua
10	REN	17500802	21	66.0 N	29.1 E	CB		3.4 MM	V		8000	Kuusamo
11	REN	17511107	00	60.6 N	26.4 E	CB		2.1 MM	IV		300	Pyhtää, 5
12	REN	17511116	19	60.6 N	26.4 E	CB		2.3 MM	V		300	Pyhtää, 4
13	REN	17511121	00	60.6 N	26.4 E	CB		2.1 MM	IV	?	300	Pyhtää, 2
14	REN	17511129	00	60.6 N	26.4 E	CB		2.3 MM	V		300	Pyhtää, 14
15	REN	17511222	18	60.6 N	26.4 E	CB		2.1 MM	IV	?	300	Pyhtää
16	REN	17511225	05	60.6 N	26.4 E	BB		2.3 MM	V		300	Pyhtää
17	REN	17520105	13	60.6 N	26.4 E	CB		2.1 MM	IV		300	Pyhtää, 4
18	REN	17520409	00	66.0 N	29.1 E	CB		2.8 MM	IV		2000	Kuusamo
19	NES	17520531		66.0 N	29.1 E	-B		2.1 MM	III		300	Kuusamo
20	REN	17531214	14	66.0 N	29.2 E	CB		2.5 MM	IV		1000	Kuusamo
21	REN	1754		64.3 N	23.9 E	?B		2.6 MM	V		1000	Kalajoki
22	REN	17541206		66.0 N	29.1 E	-B		3.2 MM	V		4000	Kuusamo
23	REN	17571130		60.0 N	24.1 E	-B		2.1 MM	IV	?	300	Inkoo
24	REN	17581231	2030	68.8 N	26.4 E	BC		4.4 MM	V		95000	Utsjoki, 2
25	REN	17581231	2230	68.8 N	26.4 E	BB		2.1 MM	III		300	Utsjoki
26	REN	17591027	18	63.2 N	24.5 E	CB		3.9 MM	V		30000	Vitasaalmi
27	REN	17630520	06	65.9 N	29.1 E	CB		2.5 MM	IV		1000	Kuusamo
28	REN	17640515	15	64.3 N	27.5 E	CB		3.7 MM	V		15000	Kajaani
29	REN	17650310	14	62.7 N	22.8 E	CB		3.0 MM	V		3000	Seinäjäki
30	REN	17650714	19	64.9 N	22.5 E	CB		4.0 MM	V		35000	Perämeri
31	REN	17661010		64.6 N	24.4 E	-B		2.1 MM	IV		300	Raah
32	REN	17671114	18	61.5 N	24.1 E	CB		3.1 MM	IV		5000	Tampere
33	REN	17721225		69.7 N	27.1 E	-B		3.2 MM	IV		7000	Utsjoki
34	REN	17770329	18	63.9 N	23.1 E	CB		4.0 MM	V		38000	Kokkola
35	REN	17801013	0450	65.9 N	24.2 E	BB		3.5 MM	VI		6000	Tornio
36	REN	17821225		61.2 N	24.6 E	-B		3.1 MM	IV		5000	Hauho
37	REN	17830116	1450	61.4 N	25.1 E	BB		2.6 MM	V		1000	Padasjoki
38	REN	17831228	03	60.9 N	24.6 E	CB		2.9 MM	V		2000	Janakkala
39	REN	17851221	13	65.9 N	29.2 E	CB		2.5 MM	IV		1000	Kuusamo
40	REN	178602		61.6 N	25.9 E	-B		2.8 MM	IV		2000	Sysmä
41	REN	17870818	12	63.2 N	21.6 E	BB		3.4 MM	V		8000	Vaasa
42	REN	17921122	09	66.0 N	29.1 E	CB		3.2 MM	IV		6000	Kuusamo
43	REN	17941010	02	61.2 N	24.0 E	CB		3.0 MM	V		3000	Sääksmäki
44	RBN	18001005	03	66.0 N	29.1 E	CB		3.0 MM	V		3000	Kuusamo
45	REN	18010912	00	62.7 N	22.7 E	CB		2.5 MM	IV		1000	Ilmajoki
46	REN	18011003		66.0 N	29.1 E	-B		2.9 MM	IV		3000	Kuusamo
47	REN?	18011227	20	62.9 N	27.7 E	BB		2.5 MM	IV		1000	Kuopio, 2
48	REN	180312		61.2 N	24.6 E	-B		3.1 MM	IV		5000	Hauho, 2
49	REN	18031205		66.0 N	29.0 E	-B		2.5 MM	IV		1000	Kuusamo
50	REN	180406		61.6 N	21.6 E	-B		2.8 MM	IV		2000	Pori
51	REN	18040921	19	66.0 N	29.2 E	CB		2.5 MM	IV		1000	Kuusamo
52	REN	18041009	20	66.0 N	29.1 E	CB		3.3 MM	IV		8000	Kuusamo
53	REN	18041203		66.0 N	29.2 E	-B		3.0 MM	V		3000	Kuusamo
54	REN	18190217	21	67.3 N	24.2 E	CB		3.8 MM	VI		14000	Kolari

No.	Source	Date		Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
		Y	M D		Lat.	Long.							
55	REN	18230130		10	60.4 N	20.1 E	CB		2.1 MM	III	300		Åland
56	REN	18230130		13	60.4 N	20.1 E	CB		3.9 MM	IV	4000		Åland
57	REN	18240620			65.8 N	29.3 E	7B		3.7 MM	IV	25000		Kuusamo
58	REN	18260221		07	66.0 N	24.2 E	CB		3.9 MM	V	25000		Karunki
59	REN?	18290120		04	60.2 N	25.0 E	CB		2.1 MM	III	300		Helsinki
60	REN?	18290121		05	60.2 N	25.0 E	CB		2.1 MM	IV	300		Helsinki
61	REN?	18290121		06	60.2 N	25.0 E	CB		2.1 MM	III	300		Helsinki
62	REN	183605			60.2 N	20.0 E	-B		2.8 MM	IV	2000		Åland
63	REN?	18361224			62.9 N	27.7 E	7B		2.1 MM	IV	?	300	Kuopio
64	REN?	18380129		01	63.9 N	22.9 E	CB		3.2 MM	IV	7000		Kokkola
65	REN	18420614		08	67.7 N	25.0 E	BB		3.2 MM	IV	6000		Kittilä, 2
66	REN	18460119		19	61.2 N	24.6 E	BB		3.5 MM	IV	15000		Hauho
67	REN	18460607		16	68.9 N	27.8 E	CB		3.1 MM	IV	5000		Inari
68	REN	18460723		13	61.4 N	24.2 E	CB		2.5 MM	IV	1000		Kangasala
69	REN	184609			63.3 N	23.8 E	-B		3.0 MM	IV	4000		Lappajärvi, N
70	REN	184610			63.3 N	23.8 E	-B		2.1 MM	III	300		Bvijärvi
71	REN	18461210		14	60.2 N	19.5 E	CB		2.5 MM	IV	1000		Åland
72	REN	18461222		18	66.0 N	29.3 E	CB		3.1 MM	IV	5000		Kuusamo
73	REN	18471111		09	66.1 N	24.0 E	BB		2.8 MM	IV	2000		Karunki
74	REN?	18471112		01	62.1 N	30.1 E	BB		2.1 MM	IV	300		Kitee
75	REN?	18471112		00	62.1 N	30.1 E	BB		2.1 MM	III	300		Kitee
76	REN	18480202		00	65.9 N	24.1 E	CB		2.8 MM	IV	2000		Tornio
77	REN	18481212		09	68.9 N	23.9 E	CB		3.7 MM	IV	25000		Enontekiö
78	REN	18490319		10	60.7 N	26.0 E	BB		2.5 MM	IV	1000		Myrskylä
79	REN	18521115			61.2 N	23.8 E	7B		2.8 MM	IV	2000		Vilala
80	REN	18550214		22	60.5 N	27.2 E	CB		2.3 MM	V	300		Hamina
81	REN	18571212		06	63.5 N	26.0 E	CC		4.4 MM	V	100000		Pyhäjärvi
82	REN	185801			62.8 N	27.7 E	7B		2.5 MM	IV	?	1000	Kuopio
83	REN	18580103		00	62.2 N	26.5 E	CB		3.9 MM	IV	?	40000	Kangasniemi
84	REN	18580222		13	65.7 N	24.3 E	CB		3.1 MM	IV	5000		Kemi
85	REN	18590512			64.9 N	29.2 E	-B		2.5 MM	IV	1000		Suomussalmi
86	REN	18611029			60.3 N	24.7 E	-B		2.8 MM	IV	2000		Espoo
87	NES	18620108		20	66.0 N	29.1 E	CB		2.1 MM	IV	300		Kuusamo
88	REN?	18621217		20	65.0 N	25.7 E	CB		3.9 MM	V	30000		Oulu, 2
89	REN?	18640101			61.7 N	27.3 E	7C		2.1 MM	IV	?	300	Mikkeli, N
90	REN	18790204			65.9 N	29.1 E	-B		2.5 MM	IV	?	1000	Kuusamo
91	PNB	18820615		13	65.8 N	24.2 E	CB		4.6 MM	VI	125000	MOB1	Tornio
92	REN	18820623		03	60.1 N	19.9 E	CB		2.9 MM	IV	3000		Åland
93	REN	18820623		04	66.2 N	24.0 E	CB		2.1 MM	III	300		Kainuunkylä
94	PNB	18820623		06	65.6 N	24.5 E	CB		4.9 MM	VI	225000	MOB1	Perämeri
95	REN	18820625		02	65.4 N	24.3 E	CB		3.3 MM	IV	8000		Perämeri
96	REN	18820630		05	60.2 N	20.0 E	CB		2.8 MM	IV	2000		Åland
97	REN	18821019		02	66.8 N	26.3 E	BB		2.5 MM	IV	1000		Rovaniemi
98	REN	18830331		20	63.1 N	21.6 E	CB		2.1 MM	IV	300		Vaasa, 2
99	REN	18830401		1945	63.4 N	22.4 E	BB		3.5 MM	V	10000		Nykarleby
100	REN	18830402		00	63.7 N	22.7 E	CB		2.1 MM	III	300		Jakobstad
101	REN	18830402		18	63.7 N	22.7 E	CB		2.1 MM	III	300		Jakobstad
102	REN?	18840103			65.0 N	25.6 E	-B		2.5 MM	IV	1000		Oulu
103	REN?	18840226		00	61.7 N	27.2 E	CB		2.1 MM	IV	300		Mikkeli
104	REN	18870502		0230	62.9 N	27.7 E	BB		3.0 MM	V	3000		Kuopio
105	REN	18870603		00	63.2 N	26.8 E	CB		2.3 MM	V	300		Pielavesi
106	REN	18870604		2350	62.8 N	27.6 E	BB		2.5 MM	IV	1000		Kuopio
107	REN	18880708		0130	63.7 N	22.7 E	BB		2.5 MM	IV	1000		Jakobstad
108	REN	18890309		1130	66.1 N	24.0 E	BB		2.1 MM	IV	300		Karunki
109	REN	188908			60.3 N	25.8 E	-B		2.1 MM	III	300		Porvoo
110	REN	18890903		12	60.3 N	25.7 E	CB		2.4 MM	III	1000		Porvoo
111	REN	189011			66.0 N	29.1 E	-B		2.4 MM	III	1000		Kuusamo

No.	Source	Date		Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
		Y	M D		Lat.	Long.							
112	REN	18910321		20	66.0 N	29.2 E	CB		2.5 MM	IV	1000		Kuusamo
113	REN	18910421		22	65.9 N	29.2 E	BB		3.0 MM	V	3000		Kuusamo
114	REN	18910421		23	66.0 N	29.0 E	BB		2.8 MM	IV	2000		Kuusamo
115	REN	18910916		0910	68.9 N	27.2 E	BB		2.8 MM	IV	2000		Inari
116	REN	18920331		22	63.7 N	22.7 E	CB		2.1 MM	IV	300		Jakobstad
117	REN	18940101		00	60.5 N	27.2 E	CB		2.1 MM	IV	300		Hamina
118	REN	18940102		19	60.0 N	23.5 E	CB		2.1 MM	IV	300		Ekenäs
119	REN	18940102		2136	60.0 N	23.5 E	BB		2.3 MM	V	300		Ekenäs
120	REN	18940103		0024	60.0 N	23.5 E	BB		2.1 MM	III	300		Ekenäs
121	REN	18940103		02	60.0 N	23.5 E	BB		2.1 MM	IV	300		Ekenäs
122	REN	18940103		14	60.0 N	23.5 E	CB		2.1 MM	IV	300		Ekenäs
123	REN	18940103		17	60.0 N	23.5 E	CB		2.1 MM	III	300		Ekenäs
124	REN	1898			65.6 N	25.0 E	-B		2.5 MM	IV	1000		Simo, N
125	REN	189809			65.5 N	27.1 E	-B		2.4 MM	III	1000		Pudasjärvi
126	REN	18981104		23	66.2 N	25.0 E	BB		4.7 MM	VI	150000	MOB2	Tornio
127	REN	18981104		2330	66.0 N	24.2 E	CB		4.0 MM	IV	50000		Karunki
128	REN?	18981115			67.4 N	26.6 E	-B		2.5 MM	IV	1000		Sodankylä
129	REN?	18990111		00	63.7 N	25.1 E	CB		2.1 MM	III	300		Haapajärvi
130	REN?	189903		21	65.5 N	27.9 E	-B		2.5 MM	IV	1000		Taivalkoski
131	REN	18990717		03	66.3 N	27.9 E	CB		2.5 MM	IV	1000		Posio
132	REN	18991020		1100	63.1 N	25.8 E	BB		2.4 MM	III	1000		Viitasaari
133	REN	18991021		2155	63.0 N	25.9 E	BB		2.4 MM	III	1000		Viitasaari
134	REN	189912			60.7 N	27.7 E	?B		2.3 MM	V	300		Virolahti, N
135	REN	19000315			60.7 N	27.7 E	?B		2.1 MM	III	300		Virolahti, N
136	REN?	1901			65.7 N	27.8 E	?B		2.3 MM	V	300		Taivalkoski
137	REN	19010625		0935	68.4 N	23.6 E	BB		2.8 MM	IV	2000		Enontekiö
138	REN?	19011030		1050	60.7 N	22.7 E	BB		2.4 MM	III	1000		Loimaa
139	REN?	19011030		1120	60.7 N	22.7 E	BB		2.9 MM	IV	3000		Loimaa
140	REN	19011208		1627	65.0 N	24.8 E	BB		2.4 MM	III	1000		Halluoto
141	REN	19020311		03	65.3 N	27.2 E	CB		3.5 MM	V	10000		Pudasjärvi
142	REN	19020410		1930	64.3 N	27.6 E	BB		4.7 MM	VI	150000	ROS1	Paltamo
143	REN	19020831		19	63.1 N	22.9 E	CB		2.1 MM	IV	300		Ylihärmä, 2
144	REN?	19021210		1325	64.5 N	25.6 E	BB		2.1 MM	III	300		Rantsila
145	REN?	19021210		1345	64.5 N	25.6 E	BB		2.1 MM	III	300		Rantsila
146	REN?	19031010		20	64.5 N	28.2 E	BB		2.1 MM	III	300		Risti järvi
147	REN	190505			60.6 N	24.9 E	?B		2.1 MM	IV	? 300		Hyvinkää
148	REN	19051225		18	65.8 N	28.6 E	?B		3.1 MM	IV	? 5000		Taivalkoski
149	REN?	19060125		1412	60.2 N	25.0 E	BB		2.1 MM	III	300		Helsinki
150	REN	19060125		1626	66.2 N	24.3 E	BB		2.1 MM	IV	300		Alatornio
151	REN	19060807		20	64.4 N	25.0 E	CB		2.9 MM	IV	3000		Vihanti
152	REN	19061224		1020	64.7 N	26.5 E	CB		2.1 MM	IV	300		Utajärvi
153	REN	19070529		00	65.8 N	24.1 E	CB		2.1 MM	III	300		Tornio
154	REN	19071218		0020	67.8 N	27.8 E	CB		2.1 MM	IV	300		Sodankylä
155	REN	19080130		1720	63.7 N	22.7 E	CB		2.1 MM	III	300		Jakobstad
156	REN	190811			65.3 N	29.1 E	?B		2.3 MM	V	300		Suomussalmi
157	REN	19081225		00	63.6 N	23.0 E	CB		2.1 MM	III	? 300		Ähtävä
158	REN	19081225		1530	61.8 N	25.5 E	CB		2.7 MM	III	? 2000		Jämsä
159	REN	19081226		17	62.6 N	23.8 E	CB		2.1 MM	IV	? 300		Alavus
160	REN	19081227		18	60.6 N	24.9 E	CB		2.1 MM	IV	? 300		Hyvinkää
161	REN	19081227		2244	60.6 N	24.9 E	BB		2.1 MM	III	? 300		Hyvinkää
162	REN	19081228		2320	64.9 N	25.7 E	BB		2.5 MM	IV	1000		Muhos, 3
163	REN	19090108		2350	63.5 N	27.2 E	BB		2.1 MM	IV	? 300		Iisalmi, 5
164	REN	19090129		00	62.2 N	24.4 E	CB		2.1 MM	IV	? 300		Haapamäki, 3
165	REN	19090306		11	62.5 N	21.4 E	CB		2.1 MM	IV	? 300		Närpes
166	REN	19090309		00	64.0 N	22.0 E	BB		4.6 MM	VI	115000	ROS2	Perämeri
167	REN	19090817		09	62.2 N	21.9 E	CB		3.3 MM	IV	7500		Isojoki
168	REN?	19090817		14	62.2 N	21.4 E	CB		2.1 MM	IV	300		Kristinestad, 2

No.	Source	Date Y M D	Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
				Lat.	Long.							
169	REN?	19090818		62.2 N	21.4 E	-B		2.1 MM	III	?	300	Kristinestad
170	REN?	19090819	08	62.2 N	21.4 E	CB		2.1 MM	III	?	300	Kristinestad
171	REN?	19090824		62.5 N	21.4 E	-B		2.1 MM	IV		300	Närpes
172	REN?	1910		63.1 N	21.6 E	-B		2.5 MM	IV		1000	Vaasa
173	REN	19100116	0845	65.7 N	24.1 E	BB		2.7 MM	III		2000	Perämeri
174	REN	19100811	1835	63.2 N	27.3 E	BB		2.1 MM	IV	?	300	Maaninka
175	REN	19110410	2320	63.1 N	21.6 E	CB		2.1 MM	III	?	300	Vaasa, 2
176	REN	19111224		64.9 N	26.9 E	-B		2.1 MM	III		300	Utajärvi, 2
177	REN	19111226	0855	64.8 N	26.5 E	AB		3.9 MM	V		30000	ROSZ Utajärvi, 1-4
178	REN	19111226	09	62.9 N	27.6 E	BB		2.1 MM	III		300	Kuopio
179	REN	19111226		65.3 N	27.3 E	-B		2.1 MM	III		300	Pudasjärvi, N
180	REN	19111227	00	65.0 N	27.5 E	CB		3.0 MM	III		4000	Pudasjärvi
181	REN	19111227	06	65.0 N	27.5 E	CB		3.0 MM	III		4000	Pudasjärvi
182	REN	19111228		65.1 N	27.2 E	-B		2.9 MM	III		3000	Pudasjärvi
183	REN	19120107	23	65.1 N	26.1 E	CB		3.1 MM	III		5000	Kitiminki
184	REN	19120110	17	65.1 N	27.5 E	CB		3.0 MM	IV		4000	Pudasjärvi
185	REN	19120114	22	64.9 N	27.4 E	CB		2.8 MM	IV		2000	Puolanka
186	REN	19120117	23	64.9 N	27.3 E	CB		2.8 MM	IV		2000	Utajärvi
187	REN	19120719	06	65.8 N	28.9 E	CB		3.1 MM	IV		5000	Kuusamo
188	REN?	1914		65.9 N	26.7 E	?B		2.5 MM	IV	?	1000	Ranua
189	BAT	19150205	0811	63.2 N	21.6 E	AB		2.9 MM	IV		3000	Vaasa
190	REN	19150206	01	63.1 N	21.6 E	CB		2.1 MM	III		300	Vaasa
191	REN	19151120		65.5 N	28.2 E	?B		2.4 MM	III		1000	Taivalkoski
192	REN?	19160308		64.0 N	24.7 E	-B		2.1 MM	III		300	Ylivieska
193	REN	19160311	12	65.2 N	28.8 E	CB		3.2 MM	IV		6000	Taivalkoski
194	REN	191704		65.6 N	28.2 E	-B		2.5 MM	IV		1000	Taivalkoski
195	REN?	19230224	2120	60.2 N	25.0 E	BB		2.1 MM	IV		300	Helsinki
196	REN	1924		67.0 N	29.2 E	-B		2.1 MM	IV		300	Salla
197	REN	19240825		66.8 N	25.3 E	?B		2.1 MM	IV		300	Rovaniemi
198	REN	19251128	22	65.1 N	28.6 E	CB		2.1 MM	III		300	Suomussalmi
199	REN	192511	23	60.6 N	21.9 E	?B		2.3 MM	V		300	Mietois
200	REN	19251220		65.0 N	28.1 E	?B		2.1 MM	III		300	Puolanka, N
201	REN	19260422	0430	60.9 N	21.5 E	BB		3.1 MM	IV		5000	Nystad
202	REN	19260805	1710	65.4 N	29.2 E	BB		2.8 MM	IV		2000	Kuusamo
203	REN	19260818	135736	65.8 N	28.5 E	AA		4.6 MM	VI		105000	Kuusamo
204	REN	19260818	18	66.0 N	30.0 E	CB		2.1 MM	III		300	Kuusamo
205	REN	19260825	1420	65.5 N	26.8 E	BB		2.1 MM	III		300	Pudasjärvi
206	REN	19261009	19	65.6 N	28.6 E	CB		3.1 MM	IV		5000	Taivalkoski
207	REN	19261016	18	65.6 N	28.3 E	CB		2.8 MM	IV		2000	Taivalkoski
208	REN	192611		65.9 N	29.1 E	-B		2.1 MM	III		300	Kuusamo
209	REN	19270211	0524	65.3 N	27.3 E	BB		2.1 MM	III		300	Pudasjärvi
210	REN	19270211	0830	64.9 N	29.6 E	BA		2.1 MM	III		300	Suomussalmi
211	REN	19270225	20	65.5 N	29.1 E	BB		3.8 MM	V		23000	Kuusamo
212	REN	19270303	0025	65.3 N	28.4 E	BB		2.1 MM	III		300	Taivalkoski
213	REN	19270311		65.4 N	28.7 E	?B		2.3 MM	V		300	Taivalkoski
214	REN	19270524	2340	65.8 N	30.0 E	BB		2.1 MM	IV		300	Kuusamo, 3
215	REN	19270527	2030	66.0 N	29.5 E	BB		2.9 MM	IV		3000	Kuusamo
216	REN	19271004	19	60.2 N	22.5 E	CB		2.8 MM	IV		2000	Turku
217	BAT	19280601	0330	66.0 N	29.4 E	BB		2.9 MM	IV		3000	Kuusamo
218	REN	19290126	21	68.1 N	24.3 E	CB		2.9 MM	IV		3000	Kitilä
219	KAR	19311116	032049	62.5 N	25.8 E	AA		4.5 MM	VI		75000	Laukaa
220	KAR	19311116	1930	62.5 N	25.8 E	BA		3.9 MM	V		25200	Laukaa
221	KAR	19320310	02	62.5 N	23.1 E	BA		2.1 MM	III		300	Peräseinäjoki
222	KAR	19320317	18	63.2 N	23.1 E	BA		2.1 MM	III		300	Kauhava
223	KAR	19320318	0730	63.0 N	22.7 E	BA		3.0 MM	V		2800	Ylihärmä
224	KAR	19320324	1940	62.8 N	22.9 E	BA		2.1 MM	III		300	Seinäjoki
225	KAR	19320324	2340	62.8 N	22.9 E	BA		2.1 MM	IV		300	Seinäjoki

No.	Source	Date		Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
		Y	M D		Lat.	Long.							
226	AHJ	1932	0420	0250	65.8 N	26.6 E	BB		3.3 MM	IV	8000		Ranua
227	BAT	1933	0302	0130	65.6 N	28.3 E	BB		2.7 MM	III	2000		Taivalkoski
228	BAT	1933	0302	1830	66.0 N	29.2 E	BA		2.1 MM	III	300		Kuusamo
229	AHJ	1933	0529	1030	65.0 N	26.5 E	CA		2.1 MM	III	300		Ylikiiminki
230	AHJ	1934	0111	2205	62.0 N	24.0 E	BA		3.4 MM	IV+	9200		Ruovesi
231	AHJ	1934	0207	0230	62.9 N	23.0 E	BB		2.1 MM	III	300		Lapua
232	AHJ	1934	0926	0330	66.8 N	24.4 E	BA		3.4 MM	IV+	8500		Pello
233	AHJ	1934	0926	13	66.6 N	25.3 E	BB		2.2 MM	II+	300		Rovaniemi
234	AHJ	1934	0927	15	66.6 N	25.3 E	BB		2.2 MM	II+	300		Rovaniemi
235	AHJ	1934	1102	1630	62.3 N	27.8 E	BB		3.7 MM	V	15900		Varkaus
236	EKS	1934	1212	2008	60.2 N	23.2 E	AA		3.9 MM	VI	17200		Perniö
237	EKS	1934	1213	1936	60.2 N	23.3 E	AA		3.4 MM	IV+	9800		Perniö
238	EKS	1934	1214	00	60.2 N	23.2 E	CA		2.1 MM	III	300		Perniö
239	EKS	1934	1214	03	60.2 N	23.2 E	CA		2.1 MM	III	300		Perniö
240	EKS	1935	0111	2227	60.2 N	23.2 E	AA		3.8 MM	V+	17200		Perniö
241	EKS	1935	0111	2308	60.2 N	23.2 E	AA		3.5 MM	IV+	12000		Perniö
242	EKS	1935	0112	02	60.2 N	23.2 E	BA		2.1 MM	III	300		Perniö, N
243	HEL	1935	0315	1730	66.1 N	24.0 E	BA		2.6 MM	III+	1700		Karunki
244	HEL	1935	0517	1030	65.9 N	26.5 E	BB		2.1 MM	III	300		Ranua
245	AHJ	1937	0413	0650	66.0 N	29.5 E	BA		2.7 MM	III+	2000		Kuusamo
246	AHJ	1937	0413	12	66.1 N	29.6 E	BA		2.1 MM	III	300		Kuusamo
247	PEN	1938	0103	0525	66.7 N	25.4 E	BB		2.6 MM	V	1000		Rovaniemi
248	AHJ	1941	0707	1440	63.2 N	21.4 E	BB		3.6 MM	V	11700		Raippaluoto
249	AHJ	1951	0821	19	60.6 N	26.2 E	CB		2.6 MM	IV	1200		Lapinjärvi, 4
250	AHJ	1951	0821	21	60.6 N	26.2 E	CB		2.1 MM	IV	300		Lapinjärvi
251	AHJ	1951	0821	23	60.6 N	26.2 E	CB		2.1 MM	IV	300		Lapinjärvi, N
252	AHJ	1951	0822	09	60.6 N	26.2 E	CB		2.1 MM	IV	300		Lapinjärvi
253	AHJ	1951	0822	11	60.6 N	26.2 E	CB		2.1 MM	IV	300		Lapinjärvi
254	AHJ	1952	0207	0220	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi, 3
255	AHJ	1952	0209	1555	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi, N
256	AHJ	1952	0305	0040	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi, N
257	AHJ	1952	0306	1912	60.6 N	26.2 E	BB		2.3 MM	V	300		Lapinjärvi
258	AHJ	1952	0306	1937	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi
259	AHJ	1952	0306	2000	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi
260	AHJ	1952	0406	0228	60.6 N	26.2 E	BB		2.6 MM	IV	1200		Lapinjärvi
261	AHJ	1952	0406	2230	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi, 2
262	AHJ	1952	0407	22	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi
263	AHJ	1952	0408	01	60.6 N	26.2 E	BB		3.1 MM	IV	5000		Lapinjärvi, 10
264	AHJ	1952	0408	1037	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi
265	AHJ	1952	0422	0630	60.6 N	26.2 E	BB		2.1 MM	IV	300		Lapinjärvi
266	AHJ	1952	1219		60.6 N	26.2 E	-B		2.1 MM	III	300		Lapinjärvi
267	AHJ	1953	0119		60.6 N	26.2 E	-B		2.1 MM	III	300		Lapinjärvi
268	SK	1953	1122	1955	66.0 N	30.0 E	BB		2.1 MM	III	300		Kuusamo
269	AHJ	1954	0319		60.6 N	26.2 E	-B		2.1 MM	III	300		Lapinjärvi, 6
270	AHJ	1955	0131	1625	60.6 N	26.2 E	BB		2.1 MM	III	300		Lapinjärvi
271	VES	1956	0203	1235	61.0 N	25.8 E	BB		2.1 MM	III	300		Lahti
272	VES	1956	0213	0805	61.0 N	25.8 E	BB		2.1 MM	III	300		Lahti
273	AHJ	1956	1009	16	60.6 N	26.2 E	BB		2.1 MM	III	300		Lapinjärvi
274	POR	1956	1224	0636	65.7 N	27.4 E	AB						Ranua
275	POR	1956	1224	0751	65.7 N	27.4 E	AB						Ranua
276	POR	1956	1224	1009	65.7 N	27.4 E	AB						Ranua
277	POR	1956	1224	1046	65.7 N	27.4 E	AB						Ranua
278	POR	1956	1234	1542	65.7 N	27.4 E	AB						Ranua
279	POR	1956	1224	183122	65.7 N	27.4 E	AA		3.3 MM	IV	7500		Ranua
280	POR	1956	1224	1900	65.7 N	27.4 E	BB		2.4 MM	II	300		Ranua
281	POR	1956	1224	2026	65.7 N	27.4 E	AB						Ranua
282	POR	1956	1224	205355	65.7 N	27.4 E	AB		2.4 MI	III			Ranua

No.	Source	Date		Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
		Y	M		Lat.	Long.							
283	VES	1956	1224	2130	69.0 N	27.0 E	BB		2.1 MM	III	300		Inari
284	POR	1956	1225	0049	65.7 N	27.4 E	AB						Ranua
285	POR	1956	1225	0338	65.7 N	27.4 E	AB						Ranua
286	POR	1956	1225	0656	65.7 N	27.4 E	AB		2.4 MI	III			Ranua
287	POR	1956	1225	1419	65.7 N	27.4 E	AB						Ranua
288	PEN	1957	0611	19	60.4 N	26.9 E	BB		2.1 MM	III+	300		Kotka
289	PEN	1957	0612	0015	60.4 N	26.9 E	BB		2.2 MM	II+	300		Kotka
290	PEN	1957	0702	091706	62.8 N	20.8 E	AA						Selkämeri
291	VES	1957	0723	2315	60.3 N	25.7 E	BB		2.2 MM	II+	300		Porvoo
292	PEN	1958	0119	015214	67.60N	23.75E			3.2 MLB	III	500		Muonio
293	PEN	1958	0225	091834	62.25N	20.05E			2.9 MLB				Selkämeri
294	PEN	1958	1208	160642	67.23N	23.58E	AA		2.3 MM	III	800		Kolari
295	PEN	1960	0220	005251	66.61N	28.47E			4.0 MLW	V	22100	KAT1	Salla
296	AHI	1960	0303	205217	66.7 N	29.2 E			2.8 MM	III	2500		Salla
297	PEN	1960	1205	031905	65.14N	29.84E			3.3 MLW	III+	2000		Suomussalmi
298	KAT	1961	0128	1030	67.2 N	24.0 E	BB		2.1 MM	III	300		Kolari
299	HEL	1961	0217	032152	65.1 N	24.0 E			3.6 MLW	III+	4800		Perämeri
300	KAT2	1961	0310	001146	67.4 N	26.5 E	AA		2.2 MM	II+	300		Sodankylä
301	KAT2	1961	0321	1119	66.2 N	28.7 E	BA		2.1 MM	III	300		Kuusamo
302	KOR1	1963	0628	21	66.3 N	29.0 E	BB		2.1 MM	IV	300		Kuusamo
303	KOR1	1963	0729	2014	64.7 N	24.5 E	BB		2.1 MM	III	300		Raah
304	KOR1	1963	0731	00	63.6 N	25.9 E	CB		2.1 MM	III	300		Pyhäjärvi
305	PEN	1963	0801	160210	62.60N	27.92E			3.7 MLW	VI	8900	TAL1	Leppävirta
306	KOR1	1964	0111	1345	62.9 N	27.8 E	BA		2.2 MM	IV	500	TAL1	Kuopio
307	KOR1	1964	0328	0310	62.6 N	22.5 E	BA		2.1 MM	III	300		Kurikka
308	WAH	1964	0722	210820	65.2 N	24.2 E			2.3 ML	III	500		Perämeri
309	PEN	1965	0123	110939	64.95N	23.17E			3.3 MLW	V	7200	KOR2	Perämeri
310	PEN	1965	0320	024454	67.41N	25.85E			3.5 MLW	V	15400	KAT2	Sodankylä
311	KAT2	1966	0205	0424	66.0 N	27.3 E	AB		2.3 MM	III+	300		Ranua
312	KAT2	1967	0110	0910	66.4 N	24.5 E	BA		2.3 MM	III+	300		Ylitornio
313	PEN	1967	0407	160415	67.39N	26.26E			2.4 MLW	III+	1000		Sodankylä
314	PEN	1967	0722	192220	65.94N	26.52E			2.7 MLW	III	800		Ranua
315	PEN	1967	1107	063214	65.99N	26.39E			2.6 MLW	IV	600		Ranua
316	KAT2	1967	1219	1610	66.2 N	25.3 E	BA		2.6 MM	IV+	300		Tervola
317	WAH	1968	0601	202959	63.4 N	21.2 E			2.6 ML				Raippaluoto
318	PEN	1968	0806	211545	65.99N	26.38E			2.6 MLW	III	300		Ranua
319	PEN	1968	0902	213440	66.87N	23.91E			2.2 MLW	III+	300		Pello
320	PEN	1968	0904	170914	66.88N	23.83E			3.4 MLW	IV+	5800		Pello
321	PEN	1969	0113	180452	67.67N	24.66E			2.5 MLW	III	1000		Kitilä
322	PEN	1969	0324	105927	67.20N	26.72E			2.8 MLW	III	1500		Sodankylä
323	PEN	1969	0422	001743	63.51N	22.22E			2.1 MLW	III+	600		Nykarleby
324	WAH	1969	0430	110554	65.8 N	29.1 E			2.3 ML				Kuusamo
325	PEN	1969	0501	003520	65.11N	28.13E			2.4 MI	III			Puolanka
326	PEN	1969	0523	184025	65.98N	27.21E			3.3 MLW	V	6600	TAL2	Ranua
327	WAH	1969	0612	143159	65.8 N	29.5 E			2.7 ML				Kuusamo
328	PEN	1970	0228	224958	66.18N	29.01E			2.3 MLW	III			Kuusamo
329	PEN	1970	0306	120423	65.01N	27.45E			2.3 MLW	III+	600		Puolanka
330	PEN	1970	0328	072805	67.25N	23.56E			2.4 MLW	III			Kolari
331	PEN	1970	0814	160134	65.79N	25.00E			2.0 MLW	III			Simo
332	PEN	1970	1018	180215	65.5 N	29.5 E	BA		2.1 MM	II+	300		Suomussalmi
333	PEN	1970	1029	110215	65.2 N	29.2 E	BA		2.1 MM	II+	300		Suomussalmi
334	PEN	1970	1209	1040	64.67N	24.53E	BA		2.7 MM	III+	1400	KORP	Raah
335	PEN	1971	0223	131314	64.21N	29.20E			2.4 MI	III			Kuhmo
336	PEN	1971	0224	090610	62.32N	27.12E			2.1 MLW	III			Pieksämäki
337	PEN	1971	0312	130250	68.15N	27.00E			2.5 MLW				Sodankylä
338	PEN	1971	0720	115808	63.71N	25.87E							Pyhäjoki
339	PEN	1971	0813	135013	62.80N	20.10E			2.4 MLW				Selkämeri

No.	Source	Date Y M D	Time h m s	Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
				Lat.	Long.							
340	PEN	19711010	052906	61.87N	21.92E			2.5 MLW				Siikainen
341	PEN	19711128	063923	65.81N	28.15E			2.4 MLW				Posio
342	PEN	19711212	000105	66.06N	29.14E			2.6 MLW				Kuusamo
343	PEN	19720109	185331	66.95N	25.76E			2.4 MLW				Ranua
344	PEN	19720128	131122	65.62N	25.43E			2.8 MLW	IV	1600		Kuivaniemi
345	PEN	19720801	175223	62.07N	20.79E			1.9 MLW	III+	300		Selkämeri
346	PEN	19721002	194605	68.27N	24.24E			2.0 MLW				Enontekiö
347	PEN	19730522	174554	68.71N	23.63E			2.2 MLW				Enontekiö
348	PEN	19730707	083238	60.4 N	19.8 E							Åland
349	PEN	19730910	214109	65.68N	28.84E			2.7 MLW				Kuusamo
350	PEN	19731210	200350	66.59N	25.91E			3.6 MLW	V	5800	KAT3	Rovaniemi
351	PEN	19731210	200756	66.64N	25.71E			2.9 MLW	IV	2300	KAT3	Rovaniemi
352	PEN	19740304	134329	65.49N	29.28E			2.5 MLW	IV+	6800	KOR3	Suomussalmi
353	PEN	19740621	063108	65.59N	27.31E			3.6 MLW	V+	5300	KOR3	Ranua
354	PEN	19740710	071722	68.04N	28.12E			2.8 MLW				Sodankylä
355	PEN	19741106	052259	65.69N	27.30E			2.4 MLW	IV	800	KOR3	Pudasjärvi
356	PEN	19750113	153856	65.90N	28.36E			2.4 MLW				Posio
357	PEN	19750829	044226	65.82N	24.57E			2.4 MLW	IV	1500		Kemi
358	PEN	19750930	004712	66.13N	28.90E			2.1 MLW	IV	1000	KOR4	Kuusamo
359	PEN	19751016	141526	62.52N	27.55E							Leppävirta
360	PEN	19760217	231250	66.71N	29.00E			2.6 MLW	III			Salla
361	PEN	19760219	052902	65.62N	29.48E			3.3 MLW	V	13500	KOR4	Kuusamo
362	PEN	19760409	111938	64.79N	22.40E			1.8 MLW				Perämeri
363	PEN	19760513	001353	68.32N	23.59E			2.3 MLW				Enontekiö
364	PEN	19760811	192556	61.58N	24.23E							Orivesi
365	PEN	19761003	072657	67.78N	27.38E			2.6 MLW				Sodankylä
366	PEN	19761216	155933	67.91N	26.39E			2.5 MLW				Sodankylä
367	PEN	19761225	124746	65.95N	28.71E							Kuusamo
368	WAH	19770129	093608	64.3 N	27.0 E			2.6 ML				Vuolijoki
369	WAH	19770601	103848	65.8 N	30.0 E			3.2 ML	IV+	6800	YLI	Kuusamo
370	WAH	19770601	121639	65.9 N	29.8 E			2.5 ML	IV	2800		Kuusamo
371	WAH	19770620	014157	64.7 N	28.9 E			2.2 ML				Hyrnsalmi
372	WAH	19770710	061004	62.0 N	24.8 E			2.3 ML				Kuovesi
373	WAH	19770714	061454	65.8 N	29.4 E			2.1 ML	III	300		Kuusamo
374	WAH	19771106	071554	68.2 N	26.4 E			2.5 ML				Sodankylä
375	WAH	19771107	003432	68.8 N	27.5 E			3.5 ML	V+	18200	KAT4	Inari
376	WAH	19780217	135427	60.8 N	23.7 E			1.4 MLH	III			Forssa
377	WAH	19780418	193017	68.2 N	27.5 E							Sodankylä
378	WAH	19780624	154408	64.0 N	27.4 E							Sonkajärvi
379	WAH	19780704	164924	63.7 N	22.0 E			2.3 ML				Perämeri
380	WAH	19780704	164930	63.7 N	22.0 E			2.6 ML				Perämeri
381	WAH	19780817	130244	69.2 N	26.8 E			2.4 ML				Inari
382	WAH	19781002	023331	70.1 N	27.8 E			2.0 ML				Utsjoki
383	WAH	19790217	173122	63.09N	23.86E		15	3.8 ML	VI	32200	AHJ2	Lappajärvi
384	WAH	19790217	174058	63.08N	23.92E		10	2.6 ML	IV	15700	AHJ2	Lappajärvi
385	WAH	19790507	062022	68.05N	26.07E			2.5 ML				Sodankylä
386	WAH	19790602	034531	62.26N	29.01E		0	2.3 ML				Heinävesi
387	WAH	19790718	194241	65.45N	24.43E		3	1.9 ML				Perämeri
388	WAH	19790722	160459	64.56N	25.25E			2.4 MI	III			Vihanti
389	WAH	19791010	074416	68.44N	23.70E		3	2.9 ML	IV	1800	KAT	Enontekiö
390	WAH	19791018	143246	64.36N	26.03E		6	2.0 MC				Rantsila
391	WAH	19800317	221554	66.52N	28.89E			2.5 ML				Kuusamo
392	WAH	19800528	103645	67.60N	24.27E			3.1 ML	IV+	7900	KAT	Kittilä
393	HBL	19800725	034638	65.15N	27.36E		11	2.3 ML	III			Pudasjärvi
394	HBL	19800729	093221	68.58N	23.45E			2.5 ML				Enontekiö
395	HBL	19801025	164500	64.44N	24.78E		3	2.3 ML				Vihanti
396	HBL	19801128	000133	64.78N	29.20E			2.2 ML	III			Suomussalmi



No.	Source	Date		Time		Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
		Y	M	D	h	m	s							
397	HEL	1981	03	05	07	20	32	66.92N	23.94E		2.4 ML			Pello
398	WAH	1981	03	27	22	00	42	61.98N	29.75E		2.1 ML			Kesälahti
399	HEL	1981	06	22	18	53	18	59.76N	22.41E		3.1 ML			Hitis
400	WAH	1981	06	22	19	27	38	59.45N	22.66E	7	2.6 ML			Hitis
401	HEL	1981	08	09	10	29	17	68.40N	23.50E	6	2.4 ML			Enontekiö
402	HEL	1982	01	31	03	38	51	68.70N	23.06E		3.1 ML			Enontekiö
403	HEL	1982	02	03	07	08	42	67.31N	23.85E		2.7 ML			Kolari
404	HEL	1982	03	24	14	55	40	66.82N	27.18E	3	2.5 ML			Kemijärvi
405	HEL	1982	04	15	05	32	09	65.32N	24.79E	6	1.5 ML			Perämeri
406	HEL	1982	06	23	01	43	28	66.07N	28.40E		2.1 ML			Posio
407	HEL	1982	07	21	04	59	47	60.90N	26.18E		2.9 ML	700		Iiti
408	HEL	1982	12	05	16	03	04	65.85N	28.24E	22	1.7 ML			Kuusamo
409	HEL	1983	01	04	20	51	02	68.55N	22.62E		3.4 ML			Karesuvanto
410	HEL	1983	04	03	15	38	10	65.79N	27.25E	0		5000	KAT	Kuusamo
411	HEL	1983	04	07	03	54	43	66.94N	26.14E	2	2.7 ML			Rovaniemi
412	HEL	1983	04	28	23	48	13	64.20N	22.43E		1.5 ML			Perämeri
413	HEL	1983	05	15	14	24	17	65.61N	27.30E	4	2.8 ML	300		Pudasjärvi
414	HEL	1983	08	25	23	36	32	63.28N	22.55E		2.6 ML	700		Rovainen
415	HEL	1983	10	07	03	30	41	63.86N	29.77E	7	1.7 MC			Kuhmo
416	HEL	1983	11	26	12	33	38	65.93N	28.58E		2.9 ML	700		Kuusamo
417	HEL	1983	12	27	20	14	03	65.94N	28.51E		2.2 ML			Kuusamo
418	HEL	1984	01	17	09	11	09	65.94N	28.61E	6	2.6 ML	300		Kuusamo
419	HEL	1984	01	23	07	11	40	65.96N	28.64E	6	2.4 MI			Kuusamo
420	HEL	1984	02	07	16	24	26	65.93N	28.53E		2.4 MC			Kuusamo
421	HEL	1984	02	10	12	16	26	65.9 N	28.3 E					Kuusamo
422	HEL	1984	03	15	22	38	08	62.49N	21.25E		1.6 ML			Närpes
423	HEL	1984	04	07	13	43	15	66.17N	24.13E		2.5 ML	600		Tornio
424	HEL	1984	05	14	08	31	02	65.92N	28.54E		2.5 ML			Kuusamo
425	HEL	1984	05	19	10	19	40	65.91N	28.65E		2.8 ML	300		Kuusamo
426	HEL	1984	05	19	10	40	48	65.96N	28.63E					Kuusamo
427	HEL	1984	05	25	03	48	45	65.95N	28.63E					Kuusamo
428	HEL	1984	05	25	08	45	52	65.9 N	28.5 E					Kuusamo
429	HEL	1984	05	25	13	18	01	65.92N	28.59E		3.2 ML	600		Kuusamo
430	HEL	1984	05	26	20	34	18	65.93N	28.60E		3.2 ML	800		Kuusamo
431	HEL	1984	05	26	20	37	52	66.00N	28.75E	9	2.4 MI			Kuusamo
432	HEL	1984	05	26	23	00	54	65.99N	28.76E	8	2.4 MI			Kuusamo
433	HEL	1984	05	28	20	09	21	65.99N	28.79E	12	1.8 ML			Kuusamo
434	HEL	1984	05	29	09	17	30	65.94N	28.59E		2.3 MC			Kuusamo
435	HEL	1984	05	29	09	28	50	65.93N	28.57E		2.0 MC			Kuusamo
436	HEL	1984	05	29	13	12	01	65.93N	28.57E		2.7 ML			Kuusamo
437	HEL	1984	05	29	21	52	36	65.96N	28.66E					Kuusamo
438	HEL	1984	06	21	12	53	42	65.99N	28.76E					Kuusamo
439	HEL	1984	06	21	14	24	25	65.93N	28.58E					Kuusamo
440	HEL	1984	06	21	22	00	40	65.99N	28.75E					Kuusamo
441	HEL	1984	06	29	00	46	16	65.97N	28.71E					Kuusamo
442	HEL	1984	07	08	05	50	08	65.94N	28.59E	3				Kuusamo
443	HEL	1984	07	08	06	37	48	65.92N	28.56E		2.4 MC			Kuusamo
444	HEL	1984	08	02	18	53	21	65.94N	28.58E		2.2 MC			Kuusamo
445	HEL	1984	08	03	22	32	54	65.94N	28.58E	1	2.4 MC			Kuusamo
446	HEL	1984	08	03	22	42	08	65.94N	28.55E		2.8 ML			Kuusamo
447	HEL	1984	08	03	23	06	22	65.93N	28.54E		2.5 MC			Kuusamo
448	HEL	1984	08	04	05	04	08	65.94N	28.58E		2.0 MC			Kuusamo
449	HEL	1984	08	04	07	37	24	65.95N	28.65E	6	2.3 MC			Kuusamo
450	HEL	1984	08	08	14	07	46	65.72N	29.27E	10	2.3 MC			Kuusamo
451	HEL	1984	08	16	14	50	38	66.01N	29.47E	10	2.4 MI			Kuusamo
452	HEL	1984	09	19	11	25	27	65.61N	29.56E					Kuusamo
453	HEL	1984	09	25	01	59	28	65.82N	28.24E		1.9 MC			Kuusamo

No.	Source	Date		Time		Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality
		Y	M	D	h	m	s							
454	HEL	1984	1224	080226	65.94N	28.55E				2.2 ML				Kuusamo
455	HBL	198503	12	183024	68.38N	23.65E				3.0 ML	IV+	9000	KAT	Enontekiö
456	HEL	198504	17	181118	67.51N	27.28E			11	2.4 ML	IV		KAT	Savukoski
457	HBL	198506	24	073838	65.03N	27.70E			4	1.7 MC				Puolanka
458	HEL	198506	28	161120	68.19N	26.75E			2	2.1 ML				Sodankylä
459	HBL	198507	11	154704	66.86N	25.81E			6	2.2 MC				Rovaniemi
460	HEL	198507	26	060330	65.06N	27.50E			0	2.4 ML				Puolanka
461	HEL	198508	23	023638	64.74N	25.01E			7	1.4 MC				Ruukki
462	HEL	198509	06	070538	66.04N	28.25E			0	2.0 MC				Posio
463	IVO	198509	24	192347	60.42N	26.46E			4	0.3 ML				Ahvenk.lahti
464	HEL	198510	10	104137	65.75N	29.09E			2	1.8 MC				Kuusamo
465	HEL	198512	04	044525	62.24N	27.72E			3	1.8 MC	III			Joroinen
466	HBL	198512	26	055944	65.62N	28.57E				2.2 ML				Taivalkoski
467	HEL	198602	21	040530	63.11N	27.39E			14	1.5 MC				Taivalkoski
468	HBL	198604	13	205414	66.31N	26.42E			11	1.4 MC				Ranua
469	HEL	198605	02	081833	61.09N	24.00E			8	1.7 MC	III			Kalvola
470	HEL	198605	10	060028	65.69N	29.20E				1.4 MC				Kuusamo
471	HEL	198606	05	034052	64.93N	26.12E			16	1.4 MC				Ylikiminki
472	HBL	198608	10	043007	69.13N	27.05E			1	2.6 ML				Inari
473	HEL	198609	05	204814	62.03N	21.10E				1.4 MC				Pohjanlahti
474	HBL	198610	05	212703	67.23N	24.22E			3	2.1 ML				Kolari
475	HEL	198701	14	013533	69.03N	27.00E				1.3 MC				Inari
476	HBL	198702	06	004723	67.36N	26.48E			9	1.6 MC				Sodankylä
477	IVO	198702	14	134523	60.62N	26.23E				0.7 ML	III			Lapinjärvi
478	IVO	198702	14	134948	60.62N	26.22E				0.3 ML				Lapinjärvi
479	IVO	198702	15	181447	60.62N	26.22E				1.2 ML	III+			Lapinjärvi
480	IVO	198703	12	055958	60.36N	26.81E				0.1 ML				Kaunissaari
481	IVO	198703	16	021232	60.42N	26.78E				0.4 ML				Kaunissaari
482	HBL	198703	22	144429	65.81N	29.15E								Kuusamo
483	HBL	198704	04	101320	65.30N	29.24E				1.4 MC				Suomussalmi
484	IVO	198704	09	125446	60.77N	26.11E				0.9 ML				Artjärvi
485	HEL	198704	18	004354	63.20N	22.54E				1.3 MC				Alahärmä
486	HEL	198704	30	135844	67.72N	24.79E				2.5 ML	IV		KAT	Kittilä
487	IVO	198705	19	165830	60.36N	26.80E				0.1 ML				Kaunissaari
488	IVO	198708	25	223717	60.45N	26.49E				0.1 ML				Ahvenk.lahti
489	IVO	198708	25	223735	60.45N	26.49E				0.3 ML				Ahvenk.lahti
490	IVO	198708	26	020038	60.46N	26.49E				0.2 ML				Ahvenk.lahti
491	IVO	198708	26	211754	60.46N	26.49E				0.2 ML				Ahvenk.lahti
492	HEL	198711	12	055256	68.19N	26.57E			8	3.1 ML	IV		KAT	Vuotos
493	SLU	198803	22	202833	67.46N	24.28E			5	2.3 MLH				Kittilä
494	HEL	198804	21	073124	67.36N	26.24E			8	1.9 MC				Sodankylä
495	IVO	198805	16	204624	60.29N	26.51E				0.2 ML				Orregrund
496	IVO	198806	04	044210	60.63N	26.24E				0.3 ML				Lapinjärvi
497	HEL	198806	07	204913	65.78N	29.87E			13	2.9 ML	IV			Kuusamo
498	HEL	198807	28	111807	65.94N	28.94E			12	1.3 ML				Kuusamo
499	HEL	198808	03	005103	67.63N	24.63E								Kittilä
500	HEL	198811	07	195004	67.70N	27.05E			11					Sodankylä
501	HEL	198901	27	114159	65.90N	29.00E								Kuusamo
502	HEL	198902	21	002153	69.52N	27.63E				2.6 ML	III			Kevo
503	HEL	198902	21	025403	65.36N	29.37E			11	3.2 ML	IV+	12500	MUS	Suomussalmi
504	HEL	198903	08	215720	66.01N	29.95E			11	2.1 ML				Kuusamo
505	HEL	198905	22	121502	63.19N	21.42E				2.7 ML	IV	2800	MUS	Vaasa
506	IVO	198905	29	004051	60.45N	26.51E				0.2 ML				Ahvenk.lahti
507	IVO	198906	09	014631	60.46N	26.50E				0.3 ML				Ahvenk.lahti
508	IVO	198906	09	015559	60.46N	26.50E				0.1 ML				Ahvenk.lahti
509	IVO	198906	20	232556	60.47N	26.48E				0.1 ML				Ahvenk.lahti
510	IVO	198906	20	235542	60.47N	26.48E				0.5 ML				Ahvenk.lahti

No.	Source	Date		Time		Location		Prec. TL	Depth km	Magnitude	Intensity	Felt area kmxkm	Mref.	Locality							
		Y	M	D	h	m	s								Lat.	Long.					
511	IVO	1989	07	14	12	08	24	60.40N	26.81E						Kaunissaari						
512	IVO	1989	07	15	00	26	54	60.42N	26.81E						Kaunissaari						
513	IVO	1989	07	21	12	49	27	60.28N	25.79E						Porvoo						
514	IVO	1989	07	21	13	01	01	60.27N	25.88E						Porvoo						
515	HEL	1989	08	04	13	30	41	65.82N	29.20E		12	1.4	MC		Kuusamo						
516	IVO	1989	08	06	14	22	18	60.41N	26.81E						Kaunissaari						
517	HEL	1989	11	10	07	06	18	64.95N	27.07E		2	2.4	ML		Särkijärvi						
518	IVO	1989	11	14	22	04	46	60.40N	26.81E						Kaunissaari						
519	IVO	1989	11	14	22	31	58	60.40N	26.81E						Kaunissaari						
520	IVO	1989	11	14	22	40	40	60.41N	26.81E						Kaunissaari						
521	IVO	1989	11	24	17	25	52	60.40N	26.82E						Kaunissaari						
522	HEL	1990	02	06	22	33	19	63.14N	22.22E						Vöyri						
523	HEL	1990	02	06	22	55	43	63.23N	22.34E			800	MUS		Vöyri						
524	HEL	1990	08	16	13	24	17	65.82N	24.22E						Pohjanlahti						
525	HEL	1990	10	28	02	26	11	66.98N	24.15E						Pello						
526	HEL	1990	11	09	19	02	19	65.08N	27.48E					20	3.0	ML	III+	450	MUS		Puolanka

Abbreviations: Y = year, M = month, D = day, h = hour, m = minute, s = second, Prec. = precision of T = time (A: error <= 5 min, B: error <= 30 min, C: error > 30 min, - : not possible to evaluate), of L = location (A: error <= 0.2 degree, B: error <= 1 degree, C: error > 1 degree, for instrumental location the precision is AA, not marked), Mref. = reference for special macroseismic studies (see below), ? = after source: possibly non-seismic; elsewhere: uncertain evaluation, N = multiple shocks of uncertain number.

References: AHJ: parameter re-evaluation by Ahjos<sup>1</sup>, AHJ2: Ahjos (1979), BAT: Båth (1956), EKS: Ekström (1939), HEL: regional bulletins or annual reports of Institute of Seismology, University of Helsinki, IVO: Saari (1991), KAR: Karjalainen (1936), KAT: macroseismic study by Kataja<sup>2</sup> KAT1: Kataja (1961), KAT2: Kataja et al. (1968), KAT3: Kataja and Korhonen (1976), KAT4: Kataja (1982), KOR1: Korhonen and Talvitie (1964), KOR2: Korhonen (1966), KOR3: Korhonen and Saviaro (1977), KOR4: Korhonen (1978), Korp: field work by Korhonen<sup>1</sup> and Porkka, MOB1: Moberg (1891), MOB2: Moberg (1901), MUS: Mustila and Korhonen (1991), NES: newspaper report, PEN: Penttilä (1978), POR: Porkka and Vesänen (1958), REN: Renqvist (1930), ROS1: Rosberg (1904), ROS2: Rosberg (1912), SK: Siren and Koroleff (1954), SLU: Slunga (1989), TAL1: Talvitie (1971), TAL2: Talvitie et al. (1974), VES: Vesänen and Porkka (1959), WAH: Wahlström and Ahjos (1984), YLI: macroseismic study by Yliniemi<sup>3</sup>.

<sup>1</sup> Institute of Seismology, University of Helsinki

<sup>2</sup> Geophysical Observatory, Sodankylä

<sup>3</sup> Geophysics Department, University of Oulu