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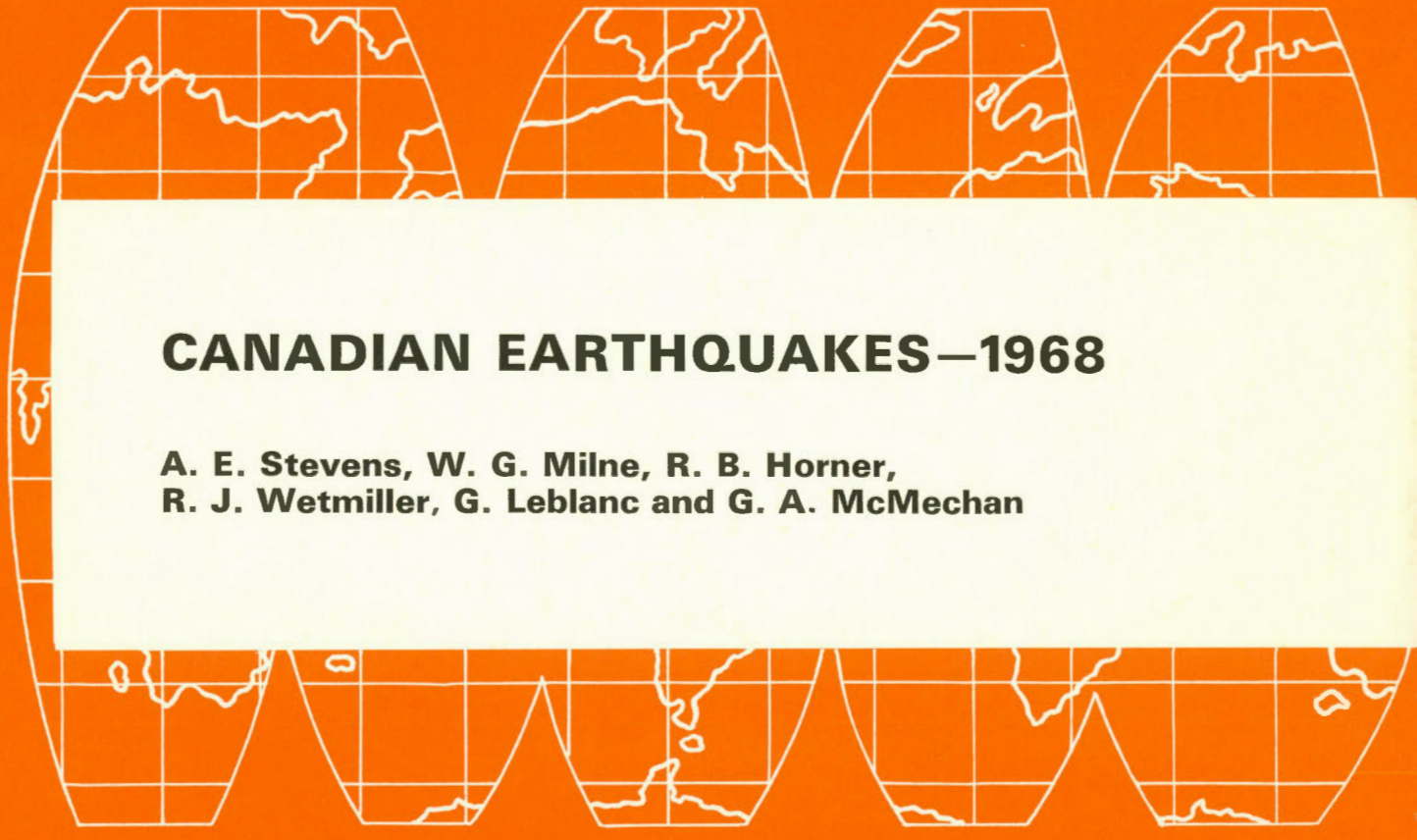

# CANADIAN EARTHQUAKES—1968

A. E. Stevens, W. G. Milne, R. B. Horner,
R. J. Wetmiller, G. Leblanc and G. A. McMechan

Seismological Series Number 71
Ottawa, Canada 1976

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1 Observatory Crescent
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K1A 0E4

1 Place de l'Observatoire
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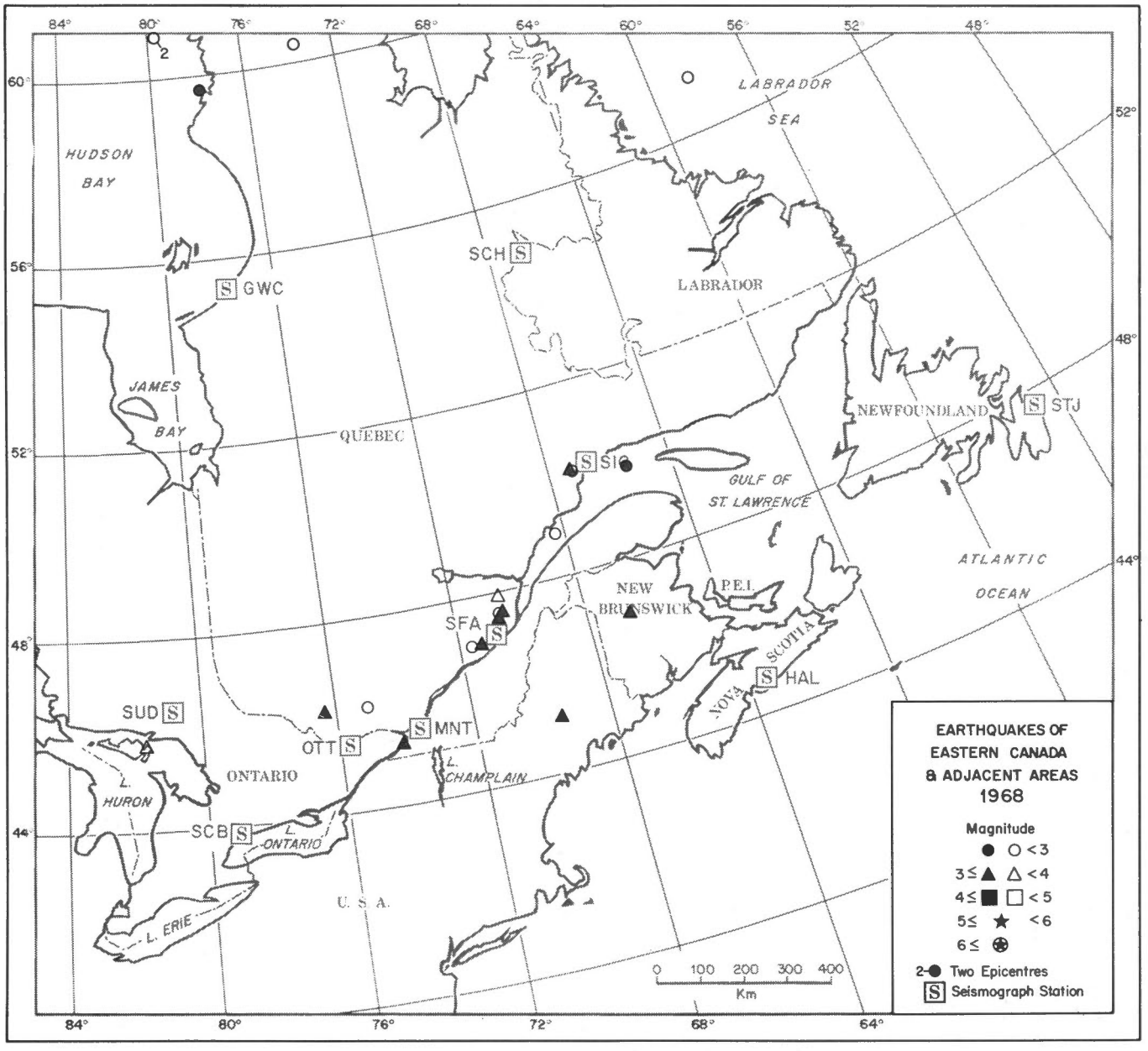


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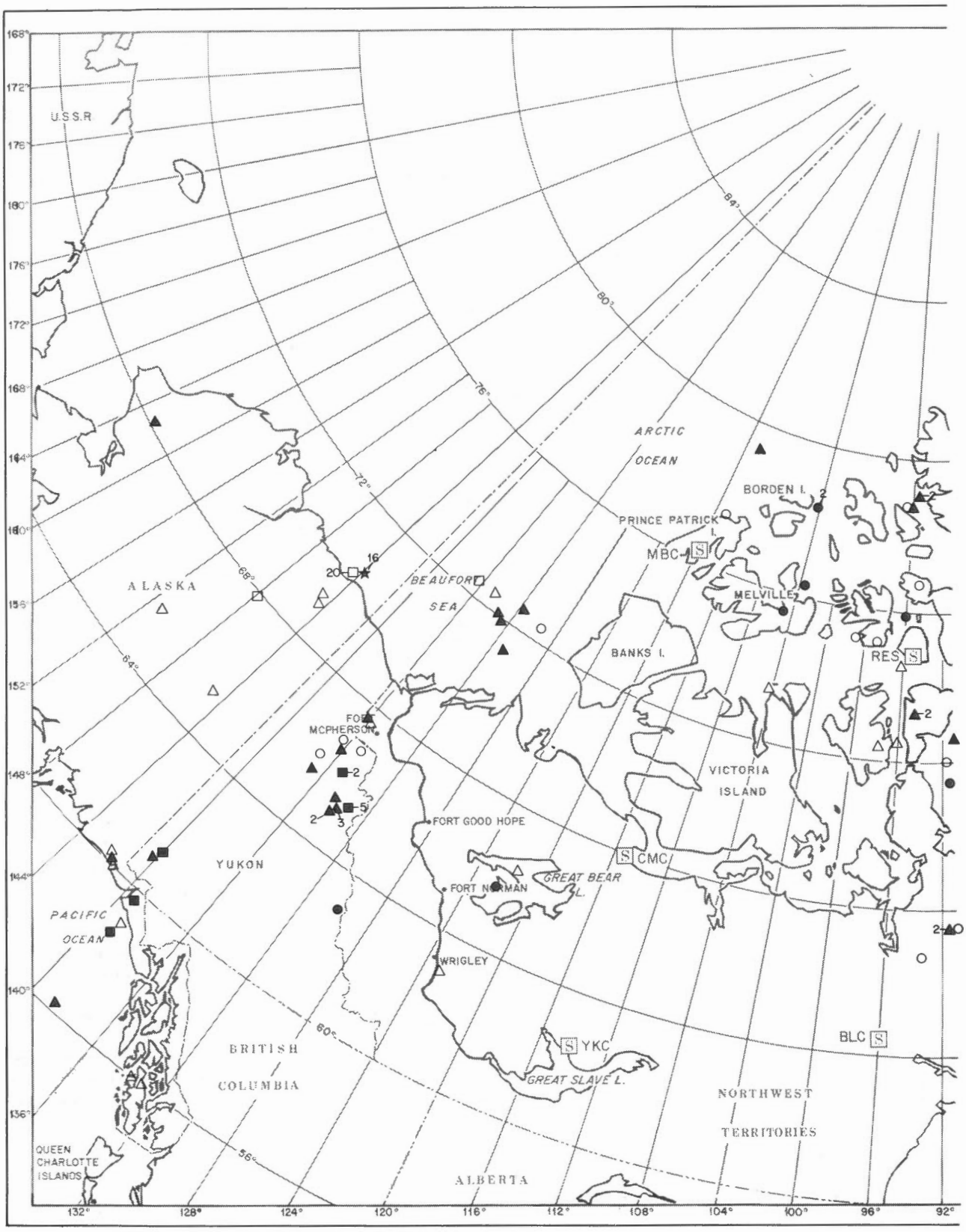


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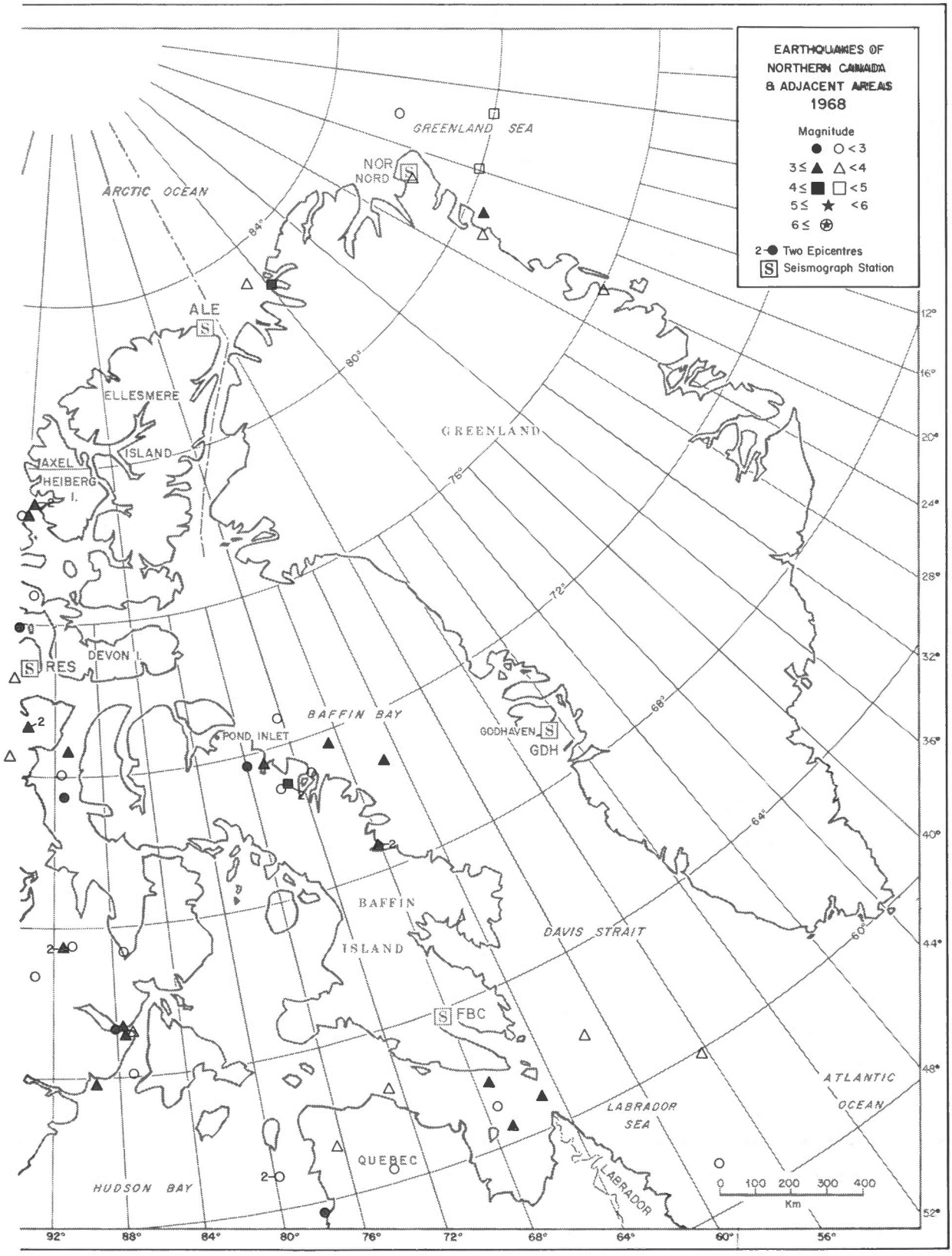


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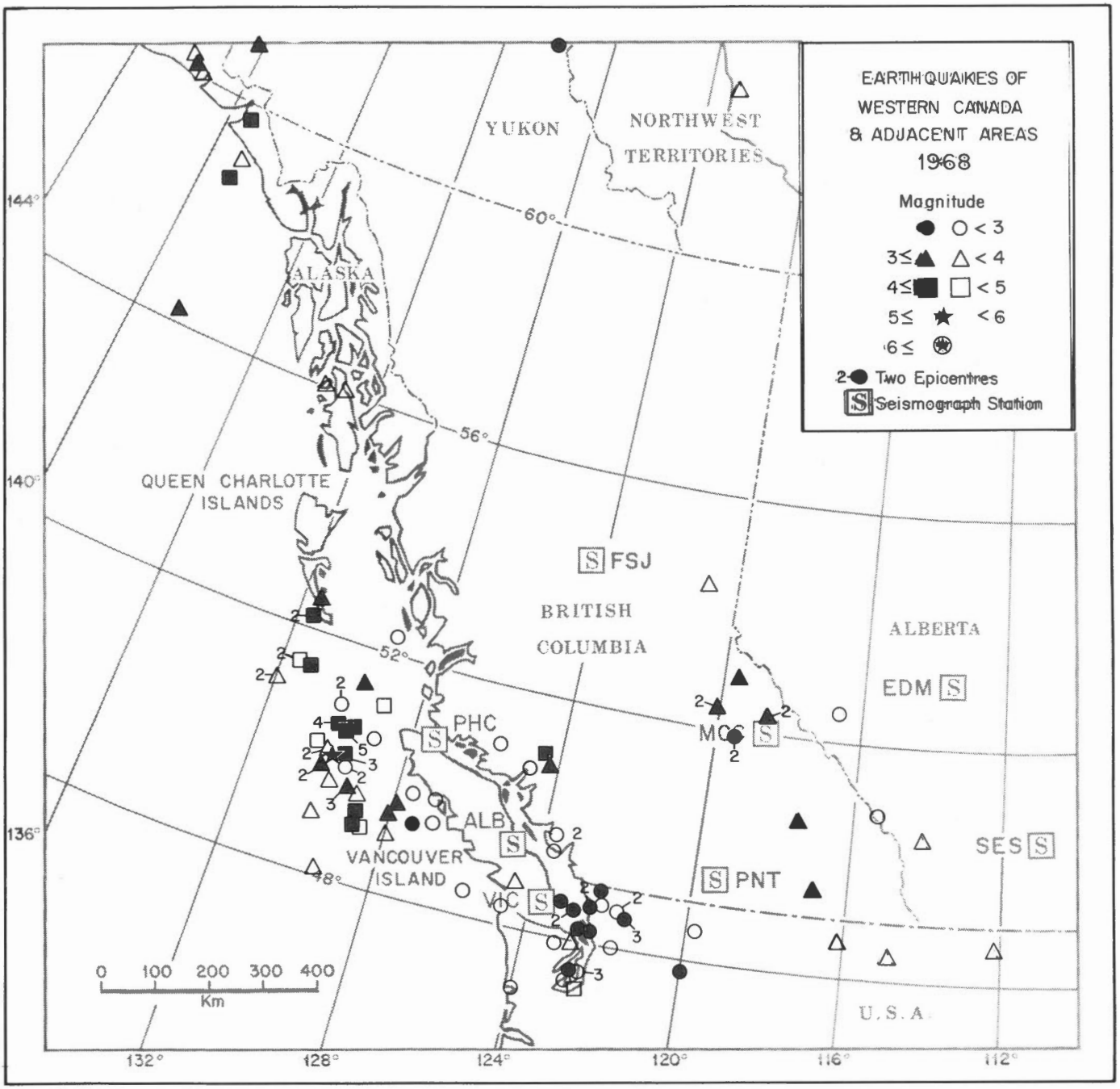


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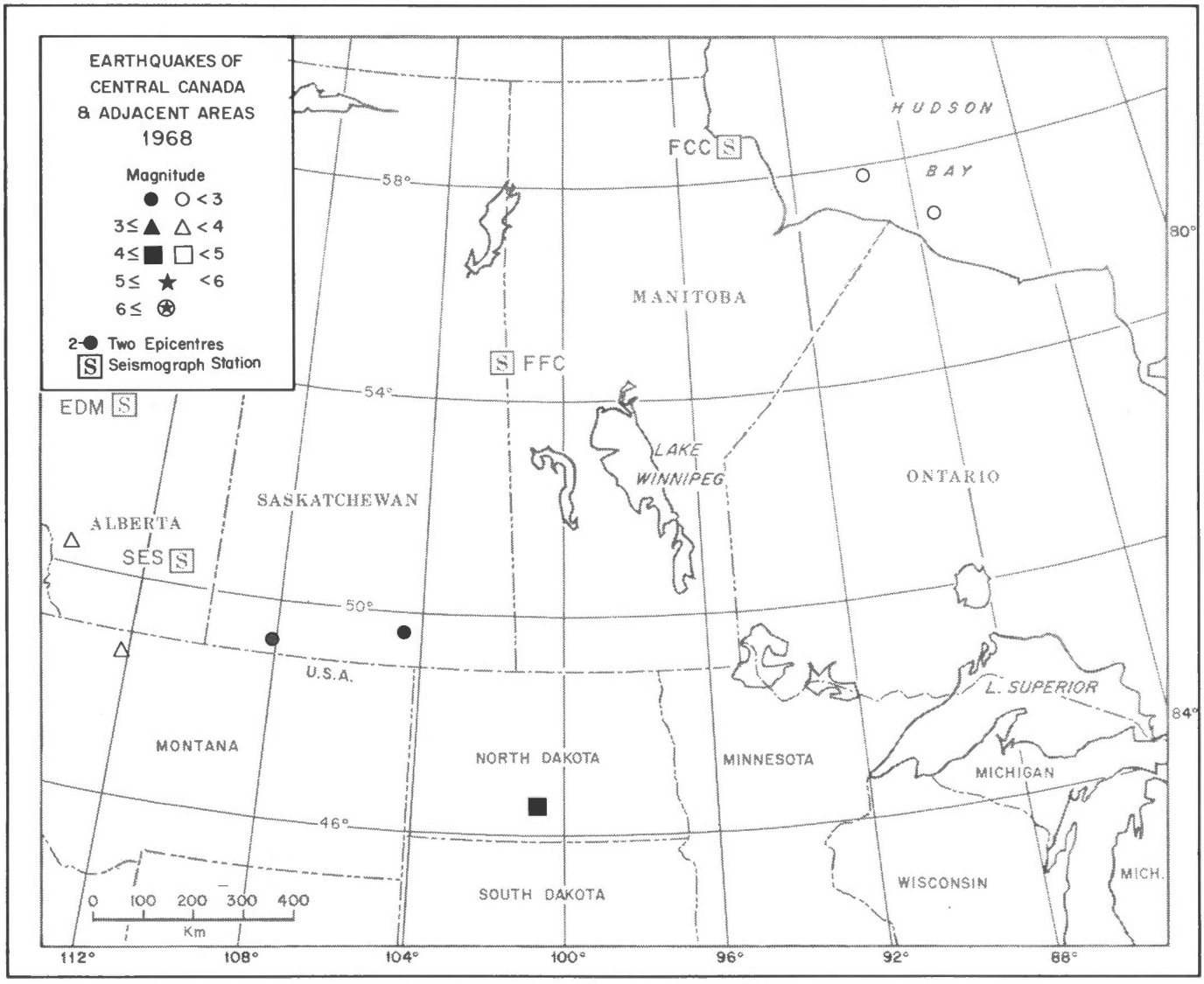


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# CANADIAN EARTHQUAKES—1968

**A. E. Stevens, W. G. Milne, R. B. Horner,
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## I. Introduction

This catalogue continues the annual lists of earthquakes in Canada as prepared by the Division of Seismology and Geothermal Studies, Earth Physics Branch, Department of Energy, Mines and Resources. An enumeration of the previous papers in this series can be found in Appendix 2 of Canadian Earthquakes - 1967 (Stevens *et al.*, 1973), to which should be added Canadian Earthquakes - 1969 (Horner *et al.*, 1974) and Canadian Earthquakes - 1970 (Horner *et al.*, 1975). The preparation and format of the 1968 catalogue follow those of the 1970 catalogue. Eastern, Northern and Central Region events have been analyzed by the Ottawa section and Western Region events by the Victoria section of the Division of Seismology and Geothermal Studies.

Earthquakes are listed in chronological order for each of the four regions of Canada as shown in Figure 5. The Eastern, Northern, Western and Central Regions are covered in Tables 1, 2, 3 and 4, respectively. Subsections of these tables contain the earthquakes located outside Canada.

The extension of the Canadian catalogue to include earthquakes offshore and in neighbouring countries is made for two reasons. Earthquakes near the international boundaries may be felt and/or do damage in Canada; thus they must be included in any practical study of Canadian seismicity. Secondly, an understanding of the patterns of Canadian seismicity requires a consideration of the tectonics of neighbouring areas. In addition, the Northern Region map and table contain events beyond the Region boundaries in northern Alaska and Greenland, which have been located with the Canadian network, but for which epicentres have not been published by the International Seismological Centre (ISC) or the United States Coast and Geodetic Survey (USCGS). The Canadian records are not systematically read for all such events.

Tables 1, 2, 3 and 4 have been changed in this catalogue to include only located earthquakes. In the 1967 and earlier catalogues, unlocated events or those recorded at only one station were included in the chronological list of earthquakes; they are now listed separately by station in Tables 5 to 19. Whenever possible, the probable epicentral region for these events is noted. These lists of unlocated events should not be considered complete. Regional detection of such events is very dependent on instrumental magnification, record quality, noise levels, etc. Thus the detection level varies from station to station and, for a given station, varies somewhat during the year. The lists of unlocated events are useful for indicating relative levels of low magnitude seismic activity near each station.


Figure 5. The four regions of Canada

Epicentres for earthquakes in the Eastern, Northern, Western and Central Regions are plotted in Figures 1 to 4, respectively. Epicentres for all earthquakes in Canada during 1968 with magnitude 4 or greater are shown on one map of Canada (Figure 7). Note that on all maps the earthquake magnitudes are illustrated by means of different symbols instead of different sized circles, as in previous catalogues.

This distinguishes more easily large and minor earthquakes. The symbols may be filled or open as explained in the subsection on epicentral determination.

### 1. Epicentral Determination

In contrast to the method of drawing arcs previously used (Stevens *et al.*, 1972), epicentre solutions of Eastern, Northern and Central Region events in this catalogue are calculated by a version of Geiger's Method using a computer programme developed by R.J. Wetmiller and his colleagues at the Earth Physics Branch. The process, essentially, is to choose a trial epicentre, calculate the residuals between observed arrival times and computed arrival times of Pn, $P_1$, Sn, and Lg or $S_1$ phases at all stations, then refine the trial epicentre so as to reduce the root-mean-square (RMS) residual until an acceptable minimum value is reached. This final solution, if reasonable, becomes the accepted epicentre. In this process, latitude, longitude, origin time and depth can all be varied simultaneously, but unless otherwise stated the focal depth has been held fixed at 18 km (half the assumed crustal thickness). Because of uncertainties in the assumed crustal model and a general paucity of data for most earthquakes, especially at epicentral distances of less than 50 km, better estimates of focal depth cannot be made at present.

The assumed crustal model adopted in these calculations (excluding the Western Region) is essentially that described in the 1966 catalogue (Stevens *et al.*, 1972). The only change is a revision in Sn velocity from 4.75 km/s to 4.7 km/s, constant over the entire distance range of observed Sn arrivals. In general, Sn arrivals are observed later than predicted using a velocity of 4.75 km/s and unpublished travel-time studies suggest this revision. The travel-time equations assume a focal depth of 18 km and a single-layered crust 36 km thick, as follows:

$$P_1 - H = \Delta/6.20$$

$$S_1 - H = \Delta/3.57 \text{ and } Lg - H = \Delta/3.57$$

$$Pn - H = 5.60 + \Delta/8.2$$

$$Sn - H = 9.84 + \Delta/4.7$$

$H$ is the origin time in seconds and $\Delta$ is the epicentral distance in kilometers. For a surface focus, the Pn and Sn intercepts become 7.50 and 13.12 s, respectively.

In the tables, latitude and longitude are given in decimal degrees and origin time to the nearest second. Standard errors are given for these quantities, as well as the root-mean-square (RMS) residual of the epicentre solution. The RMS residual is a measure of the consistency or the goodness-of-fit of the observed arrival times to the computed epicentre for the selected model. The number of stations and number of phases used in each solution are given as an indication of potential accuracy and to supplement standard error information. It is important to note that standard errors are meant to indicate only precision and not accuracy.

For the Western Region only, epicentres in most cases are located by drawing arcs, using the Western crustal model, as described in Canadian Earthquakes - 1966 (Stevens *et al.*, 1972). They are not mathematical solutions and no standard errors are given for origin time, latitude or longitude. In a few cases, numerical solutions have been calculated for Western Region earthquakes and standard errors are given.

The quality factors, "F" and "O", are presented at the right of each epicentre and represent filled or open symbols, respectively, on the epicentre maps. For events in Eastern, Northern and Central Regions (numerical solutions) a filled symbol generally represents an earthquake well recorded at a minimum of three stations with a minimum of two phases at each. The station geometry, in particular, and the RMS value are also considered. The epicentre of an "F" quality solution is uncertain by 20 to 40 km on the average. For Western Region events (graphical solutions), a filled symbol is meant to indicate that the arrival times are a "good fit" for the listed epicentre and may in some cases indicate an uncertainty of less than 20' of arc (or about 40 km).

When available, solutions determined by the ISC and USCGS are also given in the tables. This information is obtained from the 1968 ISC Bulletin, Vol. 1-12. Unless otherwise stated, these epicentres are calculated at a fixed model depth of 33 km. Unrestrained focal depths that result from these calculations should not, in general, be considered accurate; they are not likely more accurate than the general assumption of mid-crustal depths (18 km) assumed in the Canadian epicentre determinations. The ISC and USCGS do not calculate an RMS value but instead calculate the standard deviation of one P observation. This value is given in the tables in the RMS column.

Epicentres occurring within Canada and located by the ISC or USCGS have been recomputed in most cases, using Canadian data augmented by P arrivals of some foreign stations

at distances less than 20° obtained from the ISC Bulletin. For earthquakes occurring outside Canada but within the Regions shown in Figure 5, only the ISC and/or USCGS epicentres, in most cases, are presented.

### 2. *Magnitude Determination*

In previous catalogues magnitudes have been calculated using Richter's local magnitude scale, $M_L$, (Gutenberg and Richter, 1956) extrapolated to distances beyond 600 km when near station data are missing (Stevens *et al.*, 1973). This has resulted in over-calculating magnitudes, in a few cases by as much as $1\frac{1}{2}$ units, especially at the longer distances (Stevens *et al.*, 1973).

As a result, magnitudes of earthquakes east of the Cordillera in the Eastern, Northern and Central Regions have been calculated using the equation proposed by Nuttli (1973) based on Lg waves of about 1-second period in the distance range from 400 to 3000 km from earthquakes in North America east of the Rocky Mountains:

$$m_b = -0.10 + 1.66 \log \Delta + \log (A/T).$$

A is the maximum short-period vertical (SPZ) ground amplitude in microns, T is its period in seconds and $\Delta$ the epicentral distance in kilometers. Throughout this text, $m_b$ magnitudes calculated using Nuttli's equation are designated by "$m_N$" in order to distinguish them from ISC or USCGS $m_b$'s calculated from P-wave amplitudes.

In our use of Nuttli's equation, $\Delta$ is restricted to values greater than 500 km and T to less than or equal to 1.3 seconds. For most of our earthquakes, in fact, Lg waves exhibit periods of 0.3 to 0.7 seconds - somewhat below the period range of 1.0 ±0.3 s defined in Nuttli's equation. For events in the Yukon large enough to be recorded beyond 500 km, $m_N$ was calculated only at stations to the east on the Shield. Nuttli's (1973) equation for epicentral distances less than 500 km does not seem to fit our data, probably due in part to the very short Lg periods observed. Richter's $M_L$ is retained in this case for lack of a more appropriate relation.

Surface-wave magnitudes, $M_S$, may be calculated when an earthquake is large enough (mag ≥ 4) to be recorded on long-period (LP) seismographs. When the period of the LPZ Rayleigh waves lies between 18 and 22 s, the IASPEI equation is used; when their period lies between 3 and 12 s, the equation of Nuttli may be used. (See Nuttli, 1973, for details.) Nuttli $M_S$ is related to $m_N$ by the following empirical relation: $M_S = 1.59\ m_N - 3.6$ (Nuttli and Zollweg, 1974, p. 82). Surface-wave magnitudes were calculated for three Northern Region events in Table 2.

Magnitudes of earthquakes in the Cordillera (Western Region) are calculated using Richter's $M_L$ at distances up to 1300 km, since Nuttli's equations are defined only to the east of the Cordillera.

For events from which Lg is not recorded, such as some of those in the Beaufort Sea, Baffin Bay, Northern Yukon and Northern Alaska, for example, magnitudes are calculated on the $M_L$ scale using maximum SPZ Sn amplitudes over the entire distance range. Since Sn amplitudes are never greater than Lg amplitudes and usually considerably less, it is believed that using Sn in the extended $M_L$ scale does not overestimate magnitude as much as when Lg is used (see Horner *et al.*, 1973). Because Sn amplitude attenuation is not adequately known, these magnitudes should be considered tentative. In such cases, where Lg is absent and $m_b$ magnitudes have been calculated by the ISC or USCGS, their $m_b$ values are given in the tables.

The standard deviation of one magnitude value is given in the tables of Eastern, Northern and Central Region earthquakes along with the number of stations used in computing the average magnitude. It is important to note that the standard deviation is simply a measure of the precision of the calculation (the scatter among individual values) and not a measure of the accuracy of the magnitude value. Similarly, magnitudes given in the tables of unlocated events are quoted to 0.1 unit, but do not imply such accuracy.

The magnitude symbols plotted on the epicentre maps correspond to the magnitudes determined by the Earth Physics Branch, either $M_L$ or $m_N$. When neither is given in the tables, the symbol corresponds to the $m_b$ value determined by the ISC, or by the USCGS if the former is unavailable. When two or more epicentres plot too closely together to be shown as separate events on a map, the symbol plotted corresponds to the largest event.

## II. Canadian Seismograph Network

Figure 6 shows the 27 stations of the Canadian Seismograph Network whose records are used in the preparation of this catalogue. Detailed notes regarding instrumentation and changes in instrument constants, calibrations, etc., can be found in the 1968 *Seismological Bulletin*.

In addition to those stations listed below, a new first-order station was commissioned at Inuvik, N.W.T. (INK, 68.29°N, 133.50° W) on 25 Sept 1968 and operated for three days. Continuous operation was deferred until 22 Feb 1969 for lack of staff.

The magnification levels of the short-period seismographs of the Canadian Seismograph Network during 1968 permitted detection of most events of magnitude $3\frac{1}{2}$ or greater in Canada. In southwestern British Columbia and the upper St. Lawrence Valley areas the relatively closer seismograph spacing permitted location of events as small as magnitude 2.

The following international code letters are used as station abbreviations:

| | |
|---|---|
| ALB | Port Alberni, B.C. |
| ALE | Alert, N.W.T. |
| BLC | Baker Lake, N.W.T. |
| CMC | Coppermine, N.W.T. |
| EDM | Edmonton, Alta. |
| FBC | Frobisher, N.W.T. |
| FCC | Fort Churchill, Man. |
| FFC | Flin Flon, Man. |
| FSJ | Fort St. James, B.C. |
| GWC | Great Whale River, Qué. |
| HAL | Halifax, N.S. |
| MBC | Mould Bay, N.W.T. |
| MCC | Mica Creek, B.C. |
| MNT | Montréal, Qué. |
| OTT | Ottawa, Ont. |
| PHC | Port Hardy, B.C. |
| PNT | Penticton, B.C. |
| RES | Resolute, N.W.T. |
| SCB[1] | Scarborough, Ont. |
| SCH | Schefferville, Qué. |
| SES | Suffield, Alta. |
| SFA | Seven Falls, Qué. |
| SIC[2] | Sept-Iles, Qué. |
| STJ | Saint John's, Nfld. |
| SUD | Sudbury, Ont. |
| VIC | Victoria, B.C. |
| YKC | Yellowknife, N.W.T. |

[1]Intermittent operation during 1968
[2]Not operational from 2 Feb to 12 Mar, 1 to 10 Oct, 1 to 16 Nov 1968; poor quality records throughout the year.

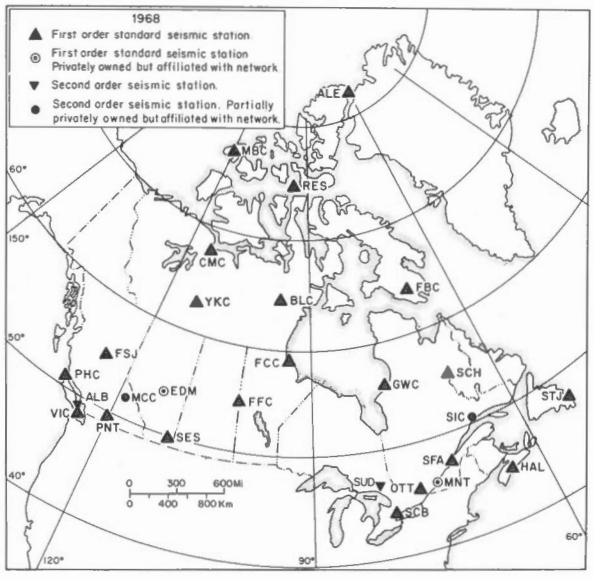


Figure 6. The Canadian Seismograph Network 1968

## III. Explosions

Seismographs of the network record many construction and mining blasts each year. Ideally, all blasts must be separated from earthquakes so that an accurate knowledge of the natural seismic activity in Canada may be obtained. Some of these blasts may have an equivalent seismic magnitude as great as 4; these are generally easy to locate and reject. Most blasts, however, are much smaller and the distinction on seismograms between blasts and earthquakes can be very difficult, especially when the event is recorded at only one station and is not locatable. Consequently, a few of the small unlocated events may be blasts and, on the other hand, some small earthquakes may have inadvertently been rejected as blasts.

While most explosions occur in the urban and mining areas south of 60°N latitude, blasts do occur in northern Canada. This latter activity is gradually increasing as exploration and development of natural resources expand. Some very shallow earthquakes (in any part of Canada) may appear similar to explosions on seismograms. Thus, some but not all of these may be rejected as being man-made events. In 1968 presumed blasts occurred, for example, on northern Somerset Island (22 Mar 14h 58m), N.W.T., and the Grinnell Peninsula of Devon Island (24 Mar 12h 27m), N.W.T., and were not catalogued. Natural earthquakes also occur on both

TABLE 20

A Summary of Earthquakes Reported Felt in Canada in 1968

| Date and Time (GMT) | Magnitude | Epicentral Region | Felt Region |
|---|---|---|---|
| 15 Jan 12:24 | $m_b$ 3.6 | Queen Charlotte Islands, B.C. | Cape St. James (50 km) |
| 31 Aug 08:31 | $M_L$ 3.7 | Kootenay Lake, B.C. | Felt slightly in Trail (70 km) |
| 6 Sept 08:46 | $M_L$ 2.5 | near Bellingham, Washington | Felt slightly in Victoria (90 km) |
| 6 Sept 12:16 | $m_b$ 3.9 | Puget Sound, Washington | Felt in Victoria (70 km) with intensity III to IV |
| 1 Nov 10:24 | $m_b$ 4.5 | Mt. Grenville, B.C. | Felt over 70,000 $km^2$; felt to 150 km south of epicentre (see Figure 9) |
| 3 Nov 20:50 | $m_N$ 3.1 | southwest of Maniwaki, Québec | Felt near epicentre |
| 7 Dec 16:05 | $M_L$ 2.4 | San Juan Islands, Washington | Felt very slightly in Victoria (60 km) |

islands. Some events located very near Port Radium and Fort Franklin on Great Bear Lake, N.W.T., in Feb 1968 were also omitted as a suspected mining blasts.

## IV. Summary of Seismic Activity for 1968

The seismic activity within each of the four Regions during 1968 is discussed below. A total of 478 earthquakes were detected and 277 of these located, 183 earthquakes in Canada and 94 in adjacent areas of the United States and Greenland. The seven earthquakes reported felt in Canada are summarized in Table 20. The Modified Mercalli Intensity Scale of 1931 is used to classify reports of felt earthquakes when possible. The distances given in the table are measured between the instrumental epicentre and the felt location and give an approximate indication of the area over which the earthquake could have been felt. However, not all reports of these or other earthquakes felt in Canada come to the attention of the Earth Physics Branch.

Figure 7 shows 20 earthquakes of magnitude 4 or greater in Canada in 1968, five in the Northern Region, fifteen in the Western Region and none in the Eastern or Central Regions. Most of these earthquakes occur in sparsely settled areas or offshore and this explains, to a large extent, the very few reports of felt earthquakes. The actual "felt area" depends very markedly on local soil conditions, on the energy radiation pattern from the focus and, most importantly, on the population density within about 200 kilometers of the epicentre. All of these may vary considerably from one earthquake to another.

### *1. Eastern Region*

The Eastern Region lies east of 85°W and includes Canada south of 60°N and the United States north of 40°N. Table 1A lists 18 earthquakes in Canada plus one explosion (15 July) in the Atlantic Ocean near Halifax. Table 1B lists one event in the northeastern United States. Epicentres for 21 events are plotted in Figure 1, which also shows the Canadian seismograph stations in the area. Three events near 60°N in the Northern Region are included in Figure 1; one event in the Labrador Sea (17 Mar, $M_L$ 3.5) is plotted only on the Northern Region map. Four unlocated events occurring in the Eastern Region in 1968 are listed in Tables 12 and 13.

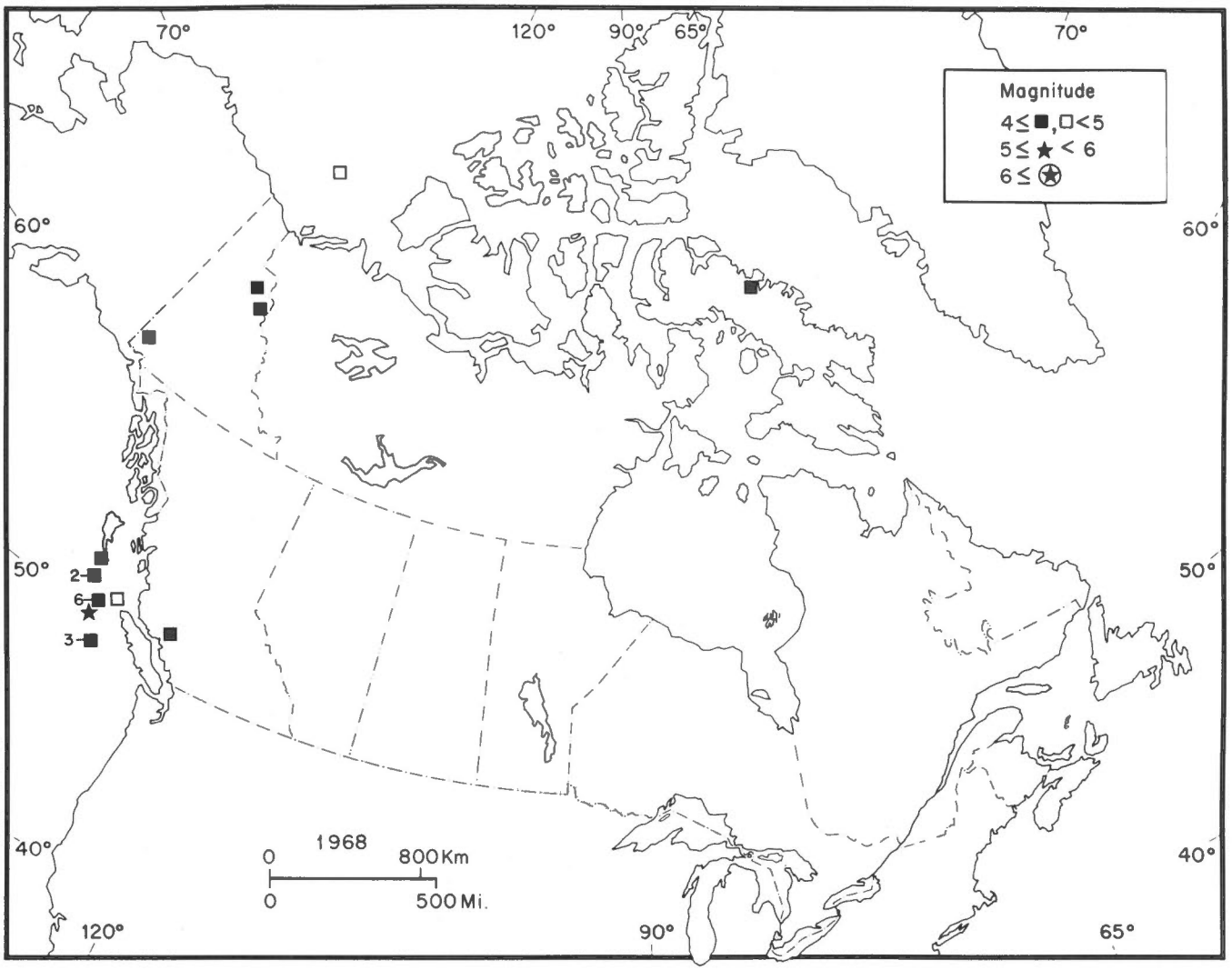


Figure 7. Earthquakes in Canada during 1968 with magnitude 4 or greater

Only minor seismic activity was recorded in Eastern Canada in 1968. Three of the four largest events ($m_N$3.5-3.6, 11 Apr, 29 Sept and 20 Oct) occurred in the St. Lawrence Valley, which continued to be the most active area in the Eastern Region in 1968.

## 2. Northern Region

The Northern Region lies north of 60°N and extends west into Alaska to 145°W and east into northern Greenland. Five events west of 145°W and nine events in Greenland are included, which have been located by the Canadian network, but epicentres had not been published by the USCGS or the ISC.

Table 2 lists 143 earthquakes, including 45 in Alaska (Table 2B) and 10 in or near Greenland (Table 2C). Epicentres for 151 events are plotted in Figure 2, which also shows the seismograph stations in the area. Nine events near 60°N in the Eastern and Western Regions are included in Figure 2; one event north of Greenland (8 June) is not plotted. In addition, 132 unlocated events are listed by station in chronological order in Tables 5 to 11. Several of these earthquakes are associated with larger located events and wherever possible the epicentral region is noted. Two-thirds of the unlocated events were detected at either RES or MBC, and most of these occurred within 400 km of one of the two stations.

Figure 2 shows that the northern and central Yukon contains nearly one-quarter of the 88 earthquakes located in the Northern Region in Canada. The largest earthquake in northern Canada, $m_N$4.5, was located in the southwestern Yukon (16 Feb). Other areas of

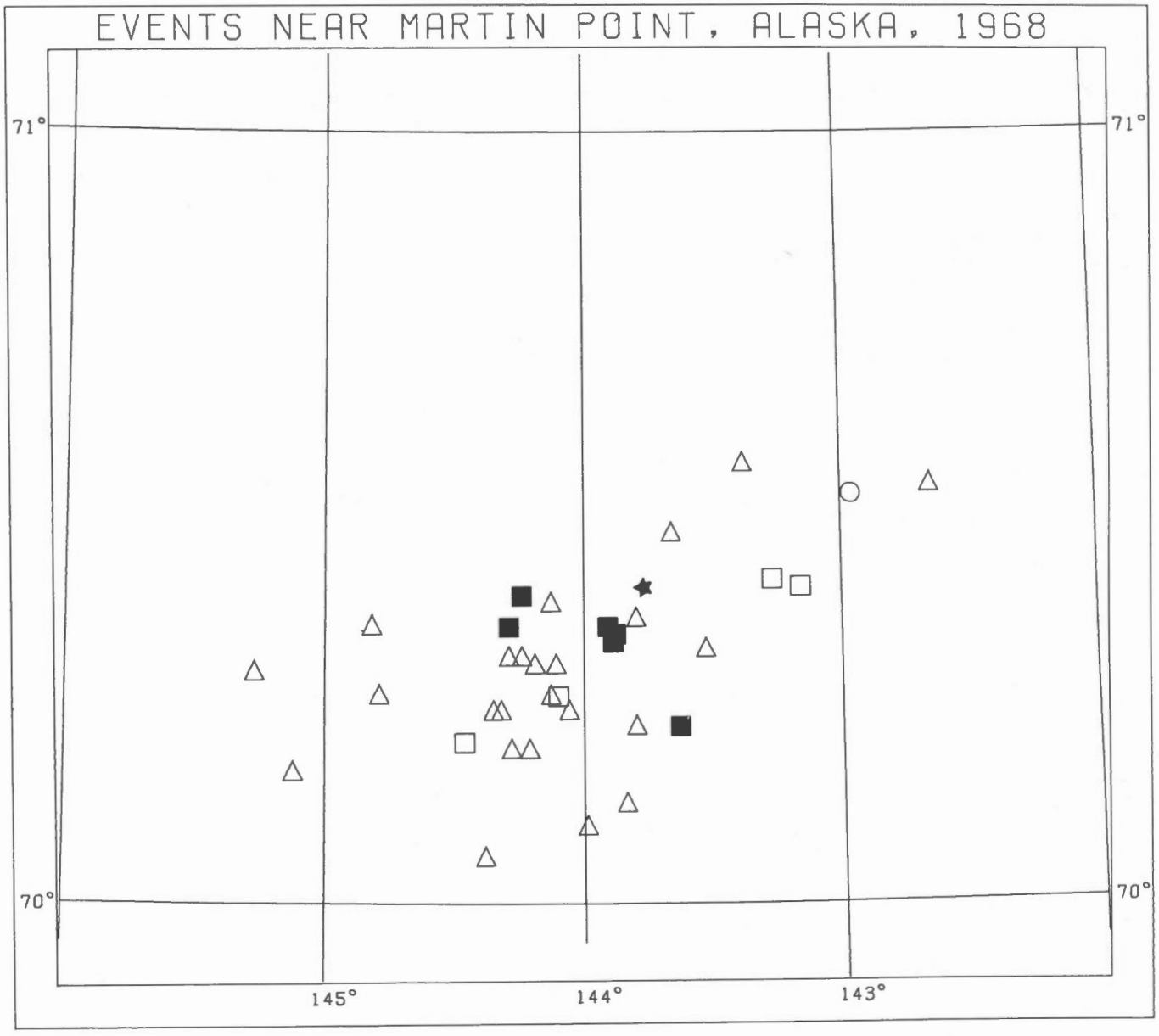


Figure 8

notable seismic activity were Baffin Island, northern Québec, northern Hudson Bay and the Beaufort Sea. No earthquakes were reported felt. Figure 7 shows the location of the five largest earthquakes in northern Canada in 1968 (22 Jan 03h $m_N$4.3, 27 Jan 18h $M_L$4.0, 26 Apr $M_L$4.2, 6 Aug $M_L$4.4).

Numerous earthquake swarms were recorded at ALE in 1968, some with the characteristic 28-second S-P interval indicating a probable source region near the northern coast of Greenland about 240 km east of ALE (Stevens *et al.*, 1973). Other swarms may originate on the oceanic ridges north of Greenland. These events are not routinely read at ALE since they are too small to be detected at RES and Greenland data are routinely available only for larger events.

Thirty-six of the 45 events located in Alaska occurred near 70°N, 144°W on the northeast coast of Alaska near Martin Point. Seven of these events were located also by the ISC and USCGS. The individual epicentres plotted in Figure 8 scatter over one-half degree in latitude and two and one-half degrees in longitude. The 7 events denoted by solid symbols represent the more reliable epicentral solutions. Their scatter is only 0.2 degree in latitude and 0.7 degree in longitude, equivalent to about 25 km. More than half of the epicentres are included

TABLE 21

EARTHQUAKES KNOWN NEAR 70N, 144W PRIOR TO 1968

| DATE 1965 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG |
|---|---|---|---|---|---|---|---|---|
| FEB 14 | | | | | | | | |
| ISC | 08 49 55.(1) | 69.93 N(0.07) | 145.7 W(0.23) | 2.0 | | 13 | 13 | |
| USCGS | 08 49 55. | 69.9 N | 145.9 W | 1.6 | MB=4.7 | 10 | 10 | 2 |
| | NORTHEASTERN ALASKA, WEST OF MARTIN POINT | | | | | | | |
| DEC 8 | 16 22 30.(0) | 69.28 N(0.02) | 143.64 W(0.08) | 0.2 | ML=4.1(0.3) | 4 | 6 | 2 |
| | NORTHEASTERN ALASKA, SOUTH OF MARTIN POINT | | | | | | | |
| DEC 8 | 16 24 56.(1) | 69.25 N(0.03) | 143.32 W(0.14) | 0.3 | ML=4.0(0.1) | 3 | 5 | 2 |
| | NORTHEASTERN ALASKA, SOUTH OF MARTIN POINT | | | | | | | |
| DEC 8 | 17 13 39.(1) | 69.44 N(0.06) | 142.98 W(0.17) | 1.5 | ML=4.3(0.2) | 6 | 11 | 4 |
| ISC | 17 13 37.(1) | 69.6 N(0.11) | 143.4 W(0.38) | 2.5 | MB=4.1 | 7 | 7 | 3 |
| | NORTHEASTERN ALASKA, SOUTH OF MARTIN POINT | | | | | | | |

in the range 70.3°N ±0.1°, 144.0°W ±0.4°. Most of the remaining epicentres were based on few data and their computed coordinates may be unduly influenced by uncertainties in arrival times.

The magnitudes of the Martin Point events were determined using maximum $S_n$ amplitudes in the $M_L$ scale since the Lg phase was not observed. (See section I.2.) For 7 of the 36 events $m_b$ magnitudes were also available and for one event MS could be calculated.

The largest event ($m_b$4.7, MS4.9) occurred on 22 Jan 23h, preceded by three foreshocks on the same day and followed by 11 aftershocks in the next four days. Nineteen additional shocks were located in the next 43 days. More earthquakes were detected in this 48-day period, but not located, since the records were not read systematically for all events of magnitude near $M_L$3.0 or less. At the nearest Canadian stations (MBC $\Delta \sim 1000$ km, CMC $\Delta \sim$ 1200 km) such events were recorded with a signal-to-noise amplitude ratio near unity or less. However, enough events were located to show that a significant number of minor earthquakes did occur on or near the coast of northeastern Alaska about 100 km west of the Canadian border in an area where few earthquakes were previously known. Two more minor earthquakes were located in the same area in April and November.

No earthquakes of magnitude 6 or greater are known to have occurred north of 66°N in Alaska prior to 1968. From 1961 to 1967 no earthquakes of magnitude 5 or greater are known to have occurred in this area. Earthquakes in northern Alaska of magnitude less than 5 could not be located before the mid-1960's due to the lack of suitably located and equipped seismograph stations in Alaska and northwestern Canada (Stevens and Milne, 1974).

The only earthquakes prior to 1968 known to have occurred in Alaska near 70° ±2.5°N, 143.5° ±2.5°W, are the four events of 1966 listed in Table 21 (ISC, 1966; Stevens *et al.*, 1972). The solutions for the three earthquakes on 8 Dec have been recomputed using the current crustal model instead of the model used in the 1966 catalogue. The decrease in $S_n$ velocity from 4.75 km/s to 4.7 km/s moved the recomputed epicentres about 50 km east-northeast of the positions given in the 1966 catalogue.

The occurrence of 34 minor earthquakes in a 7-week period in early 1968 should not be regarded as abnormal activity in a previously nearly aseismic area. The events are very likely typical of the normal long-term seismicity of northeastern Alaska, which was previously largely undetected.

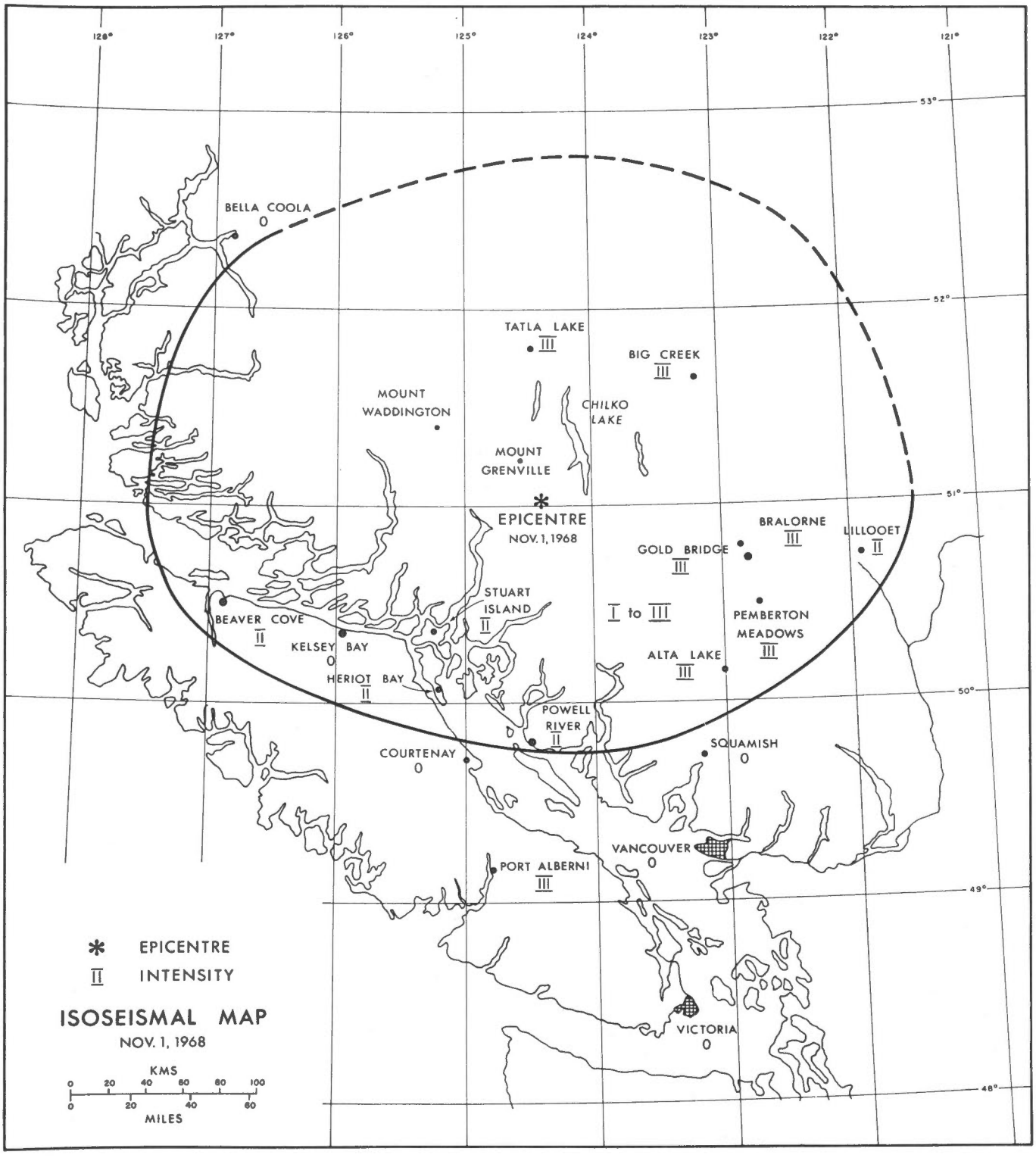


Figure 9. Observed intensities from the Mt. Grenville, B.C., earthquake of Nov. 1, 1968

### 3. *Western Region*

The Western Region lies west of 113°W and includes Canada and Alaska south of 60°N, Montana, Idaho and Washington north of 48°N, and the Puget Sound area of Washington north of 47°N between 121°W and 126°W. The boundary extends westward under the Pacific Ocean between 48°N and 60°N to include earthquakes that are located along tectonic features from the Juan de Fuca Ridge to Dixon Entrance north of the Queen Charlotte Islands. Earthquakes that occur along the coast of southeastern Alaska west of 145°W are not included. In the region of the Gulf Islands, B.C., and the San Juan Islands, Washington, at the southern end of the Strait of Georgia, the true epicentres of some earthquakes that are in the Canadian section of Table 3 may be in the United States, and vice versa. Similarly, some of the unlocated events recorded at PNT, SES or VIC may originate in the United States. Readings from some United States seismograph stations, including those at Longmire and Newport, Washington, and Hungry Horse, Montana, were used as additional data in calculating some epicentres in Table 3.

Table 3 lists 109 events of the Western Region, 73 in Canada (Table 3A) and 36 in the United States (Table 3B) - 28 in Washington, six in southeastern Alaska, one in Montana and one in Idaho. There were 53 events located west of Vancouver Island and 20 events scattered elsewhere throughout British Columbia and western Alberta. Epicentres of these events are plotted in Figure 3, which also shows the Canadian seismograph stations in the area. Six events near 60°N in the Northern Region and one event near 113°W in the Central Region are included in Figure 3.

Tables 14 to 19 list in chronological order by station 65 unlocated events. More than half were recorded at PHC and most of those occurred in the active area west of Vancouver Island.

Six earthquakes were reported felt in British Columbia in 1968, as indicated in Table 20. The earthquake on 1 Nov 10h, magnitude $m_b$4.5, was felt over 70,000 sq km in an area centred on Mt. Grenville about 200 km north of Vancouver. The intensities reported are shown on the isoseismal map of Figure 9, where a zero indicates "not felt". The area is sparsely settled, and no intensity greater than III was reported. An earthquake of magnitude $M_S$5.5 was located near this epicentre on 31 Jan 1942 (Milne, 1956) and earthquakes of lesser magnitude have occurred in this vicinity.

The largest earthquakes in Western Canada in 1968 occurred west of Vancouver Island, one on 1 Feb 07h ($m_b$5.2) and the other on 2 Mar 03h ($M_L$4.5). All the earthquakes of magnitude 4 or greater (see Figure 7) occurred off the west coast, except the shock of 1 Nov 10h near Mt. Grenville on the British Columbia mainland.

### 4. *Central Region*

The Central Region lies north of 49°N and south of 60°N and between 85°W and 113°W and includes Saskatchewan, Manitoba and parts of Alberta and Ontario. Table 4 lists six events, four in Canada (Table 4A) and two in the United States (Table 4B). Epicentres for these events are plotted in Figure 4, which also shows the Canadian seismograph stations in the area. One event from the Western Region near 114°W is included in Figure 4.

No earthquakes were detected in the Central Region prior to 1964, in 1967 or in 1969 with the exception of a moderate earthquake on 15 May 1909 felt widely on the southern Canadian Prairies and adjacent United States (Horner *et al.*, 1974). A number of small events were located in southwestern Hudson Bay in 1965, 1966, 1968 and 1970. The earthquake of 22 June 1968 ($m_N$2.8) occurred near Cape Tatnam, Manitoba, where four events occurred in November and December 1965 and six in May 1966. The earthquake of 19 Jan 1968 ($m_N$2.4) occurred north of Fort Severn, Ontario, where one event ($m_N$2.5) was located in February 1970 (Horner *et al.*, 1975). The ten events of 1965 and 1966 ranged in (apparent) magnitude from "$M_L$"3.6 to 4.8. However, when these events were re-evaluated on the Nuttli scale (see section I.2, p. 3), the magnitudes ranged from $m_N$2.9 to 3.9.

The small earthquake of 11 Oct 1968 ($m_N$2.8) occurred in extreme southeastern Saskatchewan near the epicentre of a somewhat larger event ($m_N$3.7) in July 1972. The location of the moderate 1909 event is not well defined; one possible location is also extreme southeastern Saskatchewan (Horner *et al.*, 1973).

Figure 10 shows the earthquakes known in the Central Region from 1964 to 1970. It is an update of Figure 12 in *Canadian Earthquakes - 1969* and includes the epicentres of 1970. In the adjacent United States only epicentres north of 47°N have been plotted.

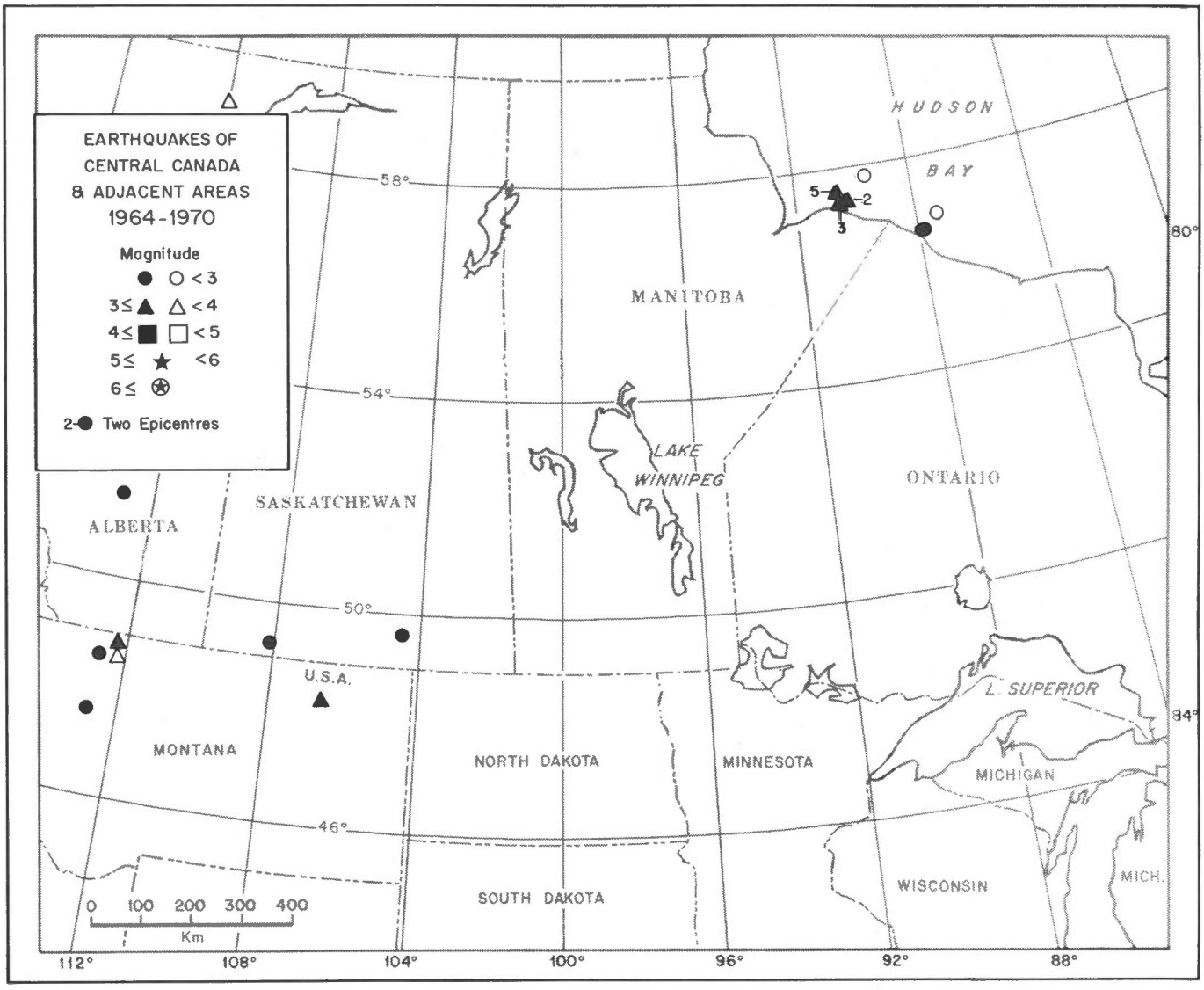


Figure 10. Earthquakes of Central Canada and adjacent areas 1964 - 1970

## V. Revisions

In addition to revisions published in this and earlier catalogues, about 25 other events in eastern North America have been examined to date and revised either in date, location, magnitude or intensity. These alterations have been made to the master tape file of earthquakes in or near Canada in the period 1563 to 1974 which may be purchased from the Division of Seismology and Geothermal Studies, EPB, EMR, Ottawa. Information on the unpublished alterations is available on request.

### *Northern Region*

1952 - 26 and 27 Nov. Smith located five earthquakes in extreme northwestern Québec from data of stations in southeastern Canada, which were not published in the Eastern Canada catalogue (Smith, 1966) since they lay north of 60°N. These epicentres were not available when the first catalogues of Arctic seismicity were published (Meidler, 1962; Smith, 1961). Since these events have been included in the card and tape files of Canadian earthquakes, their epicentral coordinates as determined by Smith are given here, with Nuttli magnitudes $m_N$ (see section I.2, p. 3), calculated from Smith's amplitude data at Kirkland Lake and Shawinigan Falls.

The main shock occurred on 26 Nov at 07:46:20 - $m_N$4.7, with three foreshocks at 00:08:26 - $m_N$4.4, 00:14:54 - $m_N$4.3 and 00:26:11 - $m_N$4.4 and one aftershock on 27 Nov at 04:32:24 - $m_N$4.6. The coordinates for all five events were 61.4°N ±1.0°, 79.0°W ±3.0°.

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TABLE 1

EARTHQUAKES IN EASTERN CANADA AND ADJACENT AREAS
1968

(F=FILLED, O=OPEN SYMBOL ON EPICENTRE MAPS)

A. CANADIAN EPICENTRES

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| JAN 13 | 03 10 26.(4) | 57.16 N(0.12) | 58.50 W(0.36) | 2.7 | MN=2.6(0.5) | 4 | 7 | 4 | O |
| | OFF NORTHEAST COAST OF LABRADOR, NORTHEAST OF NAIN | | | | | | | | |
| | PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| JAN 26 | 00 03 13.(2) | 49.88 N(0.06) | 65.40 W(0.12) | 1.5 | MN=2.8(0.1) | 4 | 8 | 3 | F |
| | LOWER ST. LAWRENCE RIVER, 80 KM SE OF SEPT-ILES QUEBEC | | | | | | | | |
| FEB 2 | 02 13 16.(1) | 47.58 N(0.06) | 70.55 W(0.11) | 2.3 | MN=2.7(0.1) | 6 | 9 | 2 | O |
| | ST. LAWRENCE VALLEY, NEAR BAIE-ST-PAUL QUEBEC | | | | | | | | |
| FEB 4 | 22 56 38.(1) | 59.70 N(0.06) | 77.87 W(0.10) | 2.8 | MN=2.4(0.1) | 5 | 11 | 4 | F |
| | NORTHWESTERN QUEBEC, SOUTHWEST OF POVUNGNITUK | | | | | | | | |
| | PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| MAR 14 | 22 01 50.(1) | 48.32 N(0.03) | 68.22 W(0.05) | 0.7 | MN=2.6( ) | 4 | 5 | 1 | O |
| | LOWER ST. LAWRENCE RIVER, NORTH OF MONT-JOLI QUEBEC | | | | | | | | |
| MAR 17 | 17 01 33.(4) | 59.88 N(0.09) | 56.40 W(0.42) | 1.4 | ML=3.5(0.5) | 3 | 5 | 3 | O |
| | LABRADOR SEA | | | | | | | | |
| | PLOTTED ON NORTHERN REGION MAP | | | | | | | | |
| MAR 29 | 23 30 14.(2) | 50.12 N(0.11) | 67.14 W(0.27) | 2.2 | MN=2.5( ) | 3 | 5 | 1 | O |
| | LOWER ST. LAWRENCE VALLEY, NEAR PORT-CARTIER QUEBEC | | | | | | | | |
| MAR 30 | 15 28 59.(0) | 47.94 N(0.04) | 70.49 W(0.07) | 0.9 | MN=3.1( ) | 5 | 7 | 1 | O |
| | ST. LAWRENCE VALLEY, NEAR LA MALBAIE QUEBEC | | | | | | | | |
| APR 11 | 09 18 33.(1) | 47.50 N(0.05) | 70.44 W(0.11) | 2.7 | MN=3.5(0.1) | 8 | 17 | 4 | F |
| | ST. LAWRENCE VALLEY, NEAR LA MALBAIE QUEBEC | | | | | | | | |
| MAY 20 | 00 58 13.(0) | 46.16 N(0.03) | 75.01 W(0.02) | 0.7 | ML=1.7(0.2) | 4 | 6 | 2 | O |
| | SOUTHWESTERN QUEBEC, SOUTHWEST OF LABELLE | | | | | | | | |
| MAY 27 | 19 21 56.(0) | 46.90 N(0.03) | 66.66 W(0.04) | 1.5 | ML=3.3( ) | 6 | 14 | 1 | F |
| | NORTH-CENTRAL NEW BRUNSWICK, 80 KM WEST OF NEWCASTLE | | | | | | | | |
| JUL 15 | 19 10 18.(2) | 44.34 N(0.10) | 63.06 W(0.09) | 3.2 | MN=4.0(0.2) | 8 | 16 | 4 | F |
| USCGS | 19 10 16.(1) | 44.28 N( 9KM) | 63.14 W( 7KM) | 1.6 | MB=4.0 | 23 | 23 | 3 | |
| | DEPTH RESTRICTED TO 1 KM (EPB) AND 0 KM (USCGS) | | | | | | | | |
| | DETONATION OF SHIP COLLAMER WITH 273 TONS OF EXPLOSIVES | | | | | | | | |
| | 55 KM SOUTHEAST OF HALIFAX N.S. | | | | | | | | |
| | COLLAMER SUNK ON 5 MAR 1942 IN 560 FT (0.2 M) OF WATER | | | | | | | | |
| | AT POSITION 44.292 N 63.174 W WITH 100 TONS OF TNT AND | | | | | | | | |
| | 173 TONS OF 37 AND 75 MM SHELLS. ALL BELIEVED DETONATED | | | | | | | | |
| | ON 15 JUL 1968 AT 19 10 GMT. SEE CAN J EARTH SCI VOL 8, | | | | | | | | |
| | PAGE 243, 1971. (NOT PLOTTED ON FIGURES 1 OR 7) | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| JUL 24 | 23 16 37.(1) | 47.01 N(0.08) | 71.30 W(0.08) | 2.1 | ML=3.1(0.3) | 5 | 10 | 3 | F |
| | ST. LAWRENCE VALLEY, NORTH OF QUEBEC CITY | | | | | | | | |
| SEP 29 | 10 04 48.(1) | 50.14 N(0.04) | 67.22 W(0.08) | 2.6 | MN=3.6(0.3) | 7 | 15 | 5 | F |
| | LOWER ST LAWRENCE VALLEY, NEAR PORT-CARTIER QUEBEC | | | | | | | | |
| OCT 10 | 20 10 41.(4) | 45.80 N(0.10) | 81.66 W(0.18) | 0.7 | ML=3.4( ) | 3 | 4 | 1 | 0 |
| | DEPTH RESTRICTED TO 1 KM | | | | | | | | |
| | NEAR EASTERN END OF MANITOULIN ISLAND IN GEORGIAN BAY, ONTARIO. POSSIBLE BLAST | | | | | | | | |
| OCT 19 | 10 37 16.(1) | 45.30 N(0.06) | 74.12 W(0.03) | 0.9 | MN=3.2(0.1) | 5 | 9 | 2 | F |
| ISC | 10 37 17.(1) | 45.5 N(0.10) | 74.2 W(0.12) | 2.5 | | 9 | 9 | | |
| USCGS | 10 37 17. | 45.4 N | 74.0 W | 0.7 | | 7 | 7 | | |
| | NEAR VALLEYFIELD QUEBEC, SOUTHWEST OF MONTREAL | | | | | | | | |
| | REPORTED FELT IN N.Y. STATE. INTENSITY V NEAR CHAZY N.Y. | | | | | | | | |
| | SEE REFERENCE - UNITED STATES EARTHQUAKES 1968, PAGE 14 | | | | | | | | |
| OCT 20 | 02 36 58.(1) | 47.47 N(0.03) | 70.57 W(0.05) | 1.8 | MN=3.6(0.2) | 8 | 14 | 4 | F |
| | ST. LAWRENCE VALLEY, NEAR BAIE-ST-PAUL QUEBEC | | | | | | | | |
| NOV 3 | 20 50 49.(1) | 46.17 N(0.04) | 76.30 W(0.05) | 2.0 | MN=3.1(0.3) | 7 | 12 | 3 | F |
| | SOUTHWESTERN QUEBEC, SOUTHWEST OF MANIWAKI. FELT | | | | | | | | |
| NOV 7 | 21 29 04.(0) | 47.00 N(0.00) | 71.59 W(0.00) | 0.0 | ML=1.9(0.3) | 3 | 4 | 2 | 0 |
| | ST. LAWRENCE VALLEY, NORTHWEST OF QUEBEC CITY | | | | | | | | |

B. UNITED STATES EPICENTRES

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SEP 23 | 15 38 50.(1) | 45.17 N(0.05) | 69.45 W(0.04) | 1.9 | MN=3.3( ) | 5 | 15 | 1 | F |
| | CENTRAL MAINE, SOUTH OF MOOSEHEAD LAKE | | | | | | | | |

TABLE 2

EARTHQUAKES IN NORTHERN CANADA AND ADJACENT AREAS
1968

(F=FILLED, O=OPEN SYMBOL ON EPICENTRE MAPS)

A. CANADIAN EPICENTRES

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| JAN 2 | 18 11 01.(2) | 75.88 N(0.10) | 95.95 W(0.31) | 3.0 | MN=2.7(0.3) | 7 | 10 | 6 | F |
| | NORTH OF CORNWALLIS ISLAND NWT. MAIN SHOCK AFTERSHOCK(S) RECORDED AT RES (SEE TABLE 11) | | | | | | | | |
| JAN 16 | 19 07 34.(2) | 64.06 N(0.09) | 87.22 W(0.20) | 3.4 | MN=2.5(0.0) | 4 | 8 | 3 | 0 |
| | ROES WELCOME SOUND NWT | | | | | | | | |
| JAN 18 | 17 59 20.(2) | 66.70 N(0.13) | 93.36 W(0.42) | 0.7 | ML=1.8( ) | 2 | 4 | 1 | 0 |
| | NORTHWEST OF WAGER BAY NWT | | | | | | | | |
| JAN 19 | 07 44 30.(3) | 78.75 N(0.16) | 96.67 W(0.78) | 1.6 | MN=2.2( ) | 2 | 6 | 1 | 0 |
| | WEST OF AXEL HEIBERG ISLAND NWT | | | | | | | | |
| JAN 20 | 08 15 04.(2) | 66.48 N(0.11) | 136.04 W(0.27) | 2.6 | MN=3.3(0.3) | 6 | 14 | 5 | F |
| ISC | 08 15 04.(1) | 67.1 N(0.14) | 136.4 W(0.25) | 3.3 | MB=3.9 | 11 | 11 | 3 | |
| USCGS | 08 15 01. | 67.8 N | 136.9 W | 1.8 | MB=4.1 | 7 | 7 | 4 | |
| | NORTHERN YUKON, NORTH OF PEEL RIVER | | | | | | | | |
| JAN 22 | 03 01 39.(1) | 70.37 N(0.05) | 73.22 W(0.17) | 4.3 | MN=4.3(0.3) | 22 | 47 | 17 | F |
| | NUTTLI MS=3.6(0.5) FROM 10 STATIONS, EQUIVALENT TO MN4.5 NORTHERN BAFFIN ISLAND, SOUTHWEST OF CAPE ACAIR | | | | | | | | |
| JAN 22 | 15 14 16.(1) | 72.58 N(0.05) | 72.50 W(0.21) | 0.5 | ML=2.8(0.8) | 3 | 4 | 2 | 0 |
| | WESTERN BAFFIN BAY, EAST OF CAPE MACCULLOCH | | | | | | | | |
| JAN 23 | 12 26 43.(1) | 65.43 N(0.06) | 133.56 W(0.14) | 1.1 | MN=2.8(0.4) | 4 | 9 | 3 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| JAN 27 | 07 06 35.(3) | 65.36 N(0.13) | 134.88 W(0.42) | 1.6 | ML=3.5(0.3) | 3 | 6 | 3 | 0 |
| | NORTHERN YUKON, NEAR PEEL RIVER FORESHOCK OF EVENT OF 27 JAN 18H | | | | | | | | |
| JAN 27 | 18 17 54.(1) | 66.03 N(0.05) | 135.02 W(0.17) | 1.0 | ML=4.0(0.4) | 6 | 10 | 5 | F |
| | NORTHERN YUKON, NEAR PEEL RIVER. MAIN SHOCK | | | | | | | | |
| JAN 31 | 13 56 26.( ) | 77.4 N( ) | 118.6 W( ) | | ML=2.2( ) | 2 | 3 | 1 | 0 |
| | 130 KM FROM MOULD BAY NWT. MAIN SHOCK EPICENTRAL COORDINATES UNCERTAIN. TWO FORESHOCKS AND ONE AFTERSHOCK RECORDED AT MBC (SEE TABLE 10) | | | | | | | | |
| FEB 5 | 18 45 52.(2) | 60.87 N(0.11) | 79.82 W(0.16) | 3.3 | MN=2.1(0.1) | 4 | 7 | 4 | 0 |
| | OFF NE COAST OF HUDSON BAY, NW OF POVUNGNITUK QUEBEC PLOTTED ALSO ON EASTERN REGION MAP | | | | | | | | |
| FEB 5 | 21 17 23.(2) | 60.89 N(0.13) | 79.75 W(0.19) | 4.1 | MN=2.1(0.1) | 4 | 7 | 4 | 0 |
| | OFF NE COAST OF HUDSON BAY, NW OF POVUNGNITUK QUEBEC PLOTTED ALSO ON EASTERN REGION MAP | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| FEB 10 | 02 05 08.(1) | 65.72 N(0.04) | 122.29 W(0.13) | 1.5 | MN=2.7(0.2) | 5 | 13 | 4 | F |
| | GREAT BEAR LAKE NWT, NORTHEAST OF FORT FRANKLIN | | | | | | | | |
| FEB 10 | 05 01 44.(5) | 70.38 N(0.19) | 73.88 W(0.64) | 6.0 | MN=2.5(0.2) | 6 | 8 | 4 | 0 |
| | NORTHERN BAFFIN ISLAND, NEAR CAPE ADAIR | | | | | | | | |
| FEB 13 | 01 40 08.(3) | 72.33 N(0.16) | 91.56 W(0.54) | 4.2 | MN=2.2( ) | 4 | 5 | 1 | 0 |
| | GULF OF BOOTHIA NWT | | | | | | | | |
| FEB 14 | 08 31 45.(1) | 79.05 N(0.07) | 95.30 W(0.41) | 1.5 | MN=2.2( ) | 4 | 6 | 1 | 0 |
| | NEAR SOUTHWESTERN AXEL HEIBERG ISLAND NWT | | | | | | | | |
| FEB 16 | 02 42 34.(1) | 61.19 N(0.04) | 139.99 W(0.06) | 3.1 | MN=4.5(0.2) | 27 | 48 | 8 | F |
| ISC | 02 42 33.(0) | 61.06 N(0.04) | 140.09 W(0.07) | 1.7 | MB=4.2 | 53 | 53 | 8 | |
| USCGS | 02 42 33. | 61.1 N | 140.2 W | 1.3 | MB=4.4 | 34 | 34 | 9 | |
| | NUTTLI MS=3.8(0.3) FROM 12 STATIONS, EQUIVALENT TO MN4.7 | | | | | | | | |
| | SOUTHWESTERN YUKON, ST. ELIAS MOUNTAINS | | | | | | | | |
| FEB 20 | 22 17 59.(1) | 73.27 N(0.05) | 94.54 W(0.22) | 3.9 | MN=3.2(0.2) | 11 | 25 | 7 | F |
| | NORTHERN SOMERSET ISLAND NWT. MAIN SHOCK | | | | | | | | |
| | ONE AFTERSHOCK RECORDED AT RES (SEE TABLE 11) | | | | | | | | |
| FEB 22 | 00 41 34.(1) | 76.30 N(0.07) | 107.32 W(0.21) | 2.8 | MN=2.4(0.1) | 5 | 15 | 2 | F |
| | NEAR NORTHEAST COAST OF MELVILLE ISLAND NWT | | | | | | | | |
| FEB 25 | 11 25 42.(1) | 75.50 N(0.07) | 108.82 W(0.22) | 2.7 | MN=2.5( ) | 4 | 10 | 1 | F |
| | EASTERN MELVILLE ISLAND NWT | | | | | | | | |
| MAR 1 | 02 41 07.(2) | 71.68 N(0.06) | 76.04 W(0.24) | 2.9 | MN=2.7(0.2) | 8 | 13 | 6 | F |
| | NORTHERN BAFFIN ISLAND, NEAR COUTTS INLET | | | | | | | | |
| MAR 9 | 10 25 52.(3) | 71.06 N(0.12) | 71.15 W(0.46) | 2.9 | MN=2.6(0.1) | 3 | 7 | 2 | 0 |
| | BAFFIN ISLAND, SOUTH OF CAPE ADAIR | | | | | | | | |
| MAR 12 | 17 32 38.(0) | 75.20 N(0.02) | 100.93 W(0.05) | 0.5 | MN=2.2(0.4) | 4 | 8 | 2 | 0 |
| | SOUTHERN BATHURST ISLAND NWT | | | | | | | | |
| MAR 18 | 12 29 05.(1) | 71.45 N(0.04) | 91.36 W(0.16) | 2.4 | MN=2.4(0.1) | 7 | 12 | 3 | F |
| | GULF OF BOOTHIA NWT. MAIN SHOCK | | | | | | | | |
| | ONE FORESHOCK RECORDED AT RES (SEE TABLE 11) | | | | | | | | |
| MAR 22 | 22 40 11.(6) | 75.15 N(0.30) | 98.75 W(0.64) | 4.1 | MN=2.5(0.3) | 4 | 7 | 2 | 0 |
| | SOUTHERN BATHURST ISLAND NWT | | | | | | | | |
| MAR 24 | 11 21 31.(4) | 71.31 N(0.16) | 73.42 W(0.52) | 2.8 | MN=2.6(0.3) | 3 | 5 | 4 | 0 |
| | NORTHERN BAFFIN ISLAND, SOUTHWEST OF CAPE ADAIR | | | | | | | | |
| MAR 30 | 10 02 07.(2) | 66.73 N(0.10) | 136.36 W(0.26) | 1.7 | MN=2.5(0.1) | 3 | 8 | 2 | 0 |
| | NORTHERN YUKON, RICHARDSON MOUNTAINS | | | | | | | | |
| APR 2 | 05 33 15.(1) | 60.92 N(0.08) | 140.22 W(0.12) | 1.9 | MN=3.6(0.4) | 7 | 15 | 2 | F |
| ISC | 05 33 16.(0) | 61.16 N(0.06) | 139.93 W(0.10) | 2.0 | | 25 | 25 | | |
| USCGS | 05 33 15. | 61.1 N | 139.9 W | 1.6 | MB=3.8 | 18 | 18 | 6 | |
| | SOUTHWESTERN YUKON, ST. ELIAS MOUNTAINS | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |
| APR 4 | 00 33 30.(2) | 71.92 N(0.04) | 132.68 W(0.36) | 1.1 | ML=3.8(0.2) | 4 | 8 | 4 | F |
| | BEAUFORT SEA | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| APR 9 | 14 01 38.(1) | 79.31 N(0.05) | 117.96 W(0.46) | 1.7 | ML=3.8(0.1) | 7 | 14 | 3 | F |
| | ARCTIC OCEAN, NORTHWEST OF BORDEN ISLAND | | | | | | | | |
| APR 16 | 00 03 23.(4) | 61.82 N(0.09) | 61.40 W(0.31) | 2.3 | MN=3.3(0.2) | 6 | 10 | 4 | 0 |
| | LABRADOR SEA, NEAR ENTRANCE TO HUDSON STRAIT | | | | | | | | |
| APR 26 | 15 49 26.(2) | 65.37 N(0.07) | 133.28 W(0.21) | 1.3 | ML=4.2(0.1) | 5 | 10 | 4 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| APR 28 | 13 51 32.(1) | 65.08 N(0.04) | 87.53 W(0.08) | 2.6 | MN=3.2(0.2) | 10 | 22 | 7 | F |
| | ROES WELCOME SOUND NWT | | | | | | | | |
| APR 28 | 16 40 08.(1) | 72.63 N(0.04) | 90.99 W(0.22) | 2.6 | MN=3.0(0.0) | 6 | 13 | 2 | F |
| | PRINCE REGENT INLET NWT | | | | | | | | |
| MAY 2 | 05 32 35.(3) | 72.49 N(0.13) | 96.01 W(0.26) | 1.4 | MN=3.1(0.1) | 4 | 6 | 3 | 0 |
| | NEAR WEST COAST OF SOMERSET ISLAND NWT | | | | | | | | |
| MAY 2 | 07 33 30.(1) | 65.26 N(0.07) | 88.18 W(0.07) | 1.8 | MN=2.9(0.3) | 6 | 10 | 3 | F |
| | WAGER BAY NWT | | | | | | | | |
| MAY 9 | 11 30 03.(1) | 72.37 N(0.06) | 97.65 W(0.28) | 2.5 | MN=3.1(0.3) | 5 | 12 | 5 | 0 |
| | PRINCE OF WALES ISLAND NWT | | | | | | | | |
| MAY 17 | 05 05 15.(2) | 72.48 N(0.06) | 131.53 W(0.45) | 1.7 | ML=3.2( ) | 5 | 10 | 1 | F |
| | BEAUFORT SEA | | | | | | | | |
| MAY 17 | 21 07 17.(1) | 65.18 N(0.07) | 133.85 W(0.17) | 1.7 | MN=3.5(0.2) | 6 | 13 | 5 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| MAY 19 | 01 53 09.(2) | 61.32 N(0.09) | 76.39 W(0.19) | 2.8 | MN=3.1(0.2) | 5 | 7 | 5 | 0 |
| | NORTHERN QUEBEC, NORTHEAST OF POVUNGNITUK | | | | | | | | |
| MAY 28 | 11 41 11.(1) | 67.51 N(0.06) | 136.03 W(0.16) | 1.6 | MN=3.4(0.3) | 6 | 15 | 4 | F |
| | NWT-YUKON BORDER, NEAR FORT MCPHERSON | | | | | | | | |
| JUN 4 | 05 57 46.(3) | 66.80 N(0.12) | 134.91 W(0.38) | 1.8 | MN=2.9(0.2) | 5 | 8 | 2 | 0 |
| | EAST-CENTRAL YUKON, NORTH OF PEEL RIVER | | | | | | | | |
| JUN 12 | 21 57 02.(1) | 65.59 N(0.07) | 136.75 W(0.17) | 1.4 | MN=3.2(0.2) | 5 | 11 | 4 | F |
| | EAST-CENTRAL YUKON, NEAR PEEL RIVER | | | | | | | | |
| JUN 13 | 10 56 07.(0) | 76.72 N(0.02) | 94.64 W(0.16) | 0.8 | ML=2.4( ) | 4 | 7 | 1 | 0 |
| | DEVON ISLAND, GRINNELL PENINSULA NWT | | | | | | | | |
| JUN 17 | 12 39 32.(1) | 65.01 N(0.09) | 134.12 W(0.21) | 1.8 | MN=3.0(0.2) | 5 | 11 | 4 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| JUN 21 | 23 30 26.(1) | 65.20 N(0.06) | 133.87 W(0.16) | 1.0 | MN=3.2(0.2) | 5 | 10 | 4 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| JUN 25 | 06 01 05.(1) | 65.38 N(0.04) | 134.35 W(0.10) | 0.8 | MN=3.2(0.2) | 5 | 11 | 3 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| JUN 29 | 20 17 05.(1) | 65.34 N(0.06) | 133.67 W(0.19) | 0.8 | MN=2.9(0.2) | 3 | 6 | 2 | 0 |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| AUG 3 | 17 26 56.(4) | 62.94 N(0.07) | 122.95 W(0.33) | 0.7 | MN=3.2( ) | 2 | 4 | 1 | 0 |
| | MACKENZIE VALLEY, NEAR WRIGLEY NWT | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| AUG 6 | 09 09 54.(3) BEAUFORT SEA | 72.39 N(0.08) | 136.33 W(0.56) | 1.7 | ML=4.4(0.2) | 5 | 7 | 5 | 0 |
| AUG 10 | 04 11 44.(1) NEAR ROES WELCOME SOUND NWT. MAIN SHOCK ONE AFTERSHOCK RECORDED AT BLC (SEE TABLE 6) | 63.79 N(0.06) | 89.49 W(0.11) | 3.0 | MN=3.3(0.1) | 7 | 15 | 6 | F |
| AUG 13 | 19 13 17.(1) WESTERN BAFFIN BAY, NEAR CLYDE INLET | 70.58 N(0.05) | 65.38 W(0.23) | 1.4 | MN=3.6(0.3) | 3 | 8 | 3 | F |
| AUG 16 | 04 58 15.(1) RICHARDSON MOUNTAINS, NEAR FORT MCPHERSON NWT | 67.56 N(0.04) | 135.70 W(0.10) | 0.3 | MN=3.1(0.2) | 2 | 5 | 2 | 0 |
| AUG 17 | 06 48 27.(3) EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | 65.36 N(0.10) | 133.28 W(0.28) | 1.4 | MN=3.1(0.3) | 2 | 6 | 2 | 0 |
| AUG 18 | 20 22 42.(1) GREAT BEAR LAKE NWT | 66.35 N(0.01) | 121.49 W(0.13) | 0.2 | MN=3.1( ) | 2 | 4 | 1 | 0 |
| AUG 20 | 03 24 07.(1) UNGAVA BAY, NEAR HUDSON STRAIT | 60.41 N(0.03) | 67.02 W(0.12) | 2.2 | MN=3.4(0.3) | 6 | 16 | 5 | F |
| AUG 22 | 11 20 44.(0) BARROW STRAIT, SOUTHWEST OF RESOLUTE NWT | 74.55 N(0.02) | 96.06 W(0.06) | 0.2 | MN=3.4(0.2) | 3 | 4 | 2 | 0 |
| SEP 5 | 16 03 54.(2) ENTRANCE TO HUDSON STRAIT, NEAR UNGAVA BAY | 60.95 N(0.06) | 64.96 W(0.33) | 2.6 | MN=3.3(0.0) | 3 | 8 | 2 | F |
| SEP 11 | 07 08 27.(1) HUDSON STRAIT, NEAR UNGAVA BAY | 61.72 N(0.03) | 67.31 W(0.15) | 1.7 | MN=3.3( ) | 4 | 8 | 1 | F |
| SEP 28 | 16 36 48.(1) WAGER BAY NWT | 65.32 N(0.04) | 87.70 W(0.08) | 2.9 | MN=3.7(0.2) | 11 | 27 | 10 | F |
| OCT 4 | 04 29 13.(4) VISCOUNT MELVILLE SOUND NWT | 73.40 N(0.20) | 108.25 W(0.85) | 3.2 | MN=3.0( ) | 3 | 4 | 1 | 0 |
| OCT 6 | 01 35 39.(6) BEAUFORT SEA | 72.35 N(0.19) | 129.38 W(1.31) | 2.0 | ML=2.7( ) | 3 | 4 | 1 | 0 |
| OCT 9 | 21 47 01.(1) HUDSON STRAIT NWT | 62.45 N(0.04) | 72.76 W(0.10) | 1.7 | MN=3.1(0.2) | 4 | 8 | 3 | 0 |
| OCT 18 | 19 25 10.(1) EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | 65.23 N(0.06) | 133.48 W(0.16) | 1.2 | MN=3.0( ) | 4 | 9 | 1 | F |
| OCT 22 | 17 30 49.(4) NORTHERN QUEBEC, NEAR KLOTZ LAKE PLOTTED ALSO ON EASTERN REGION MAP | 60.36 N(0.15) | 73.77 W(0.57) | 3.1 | MN=2.8( ) | 3 | 4 | 1 | 0 |
| OCT 26 | 15 35 28.(2) NORTHERN SOMERSET ISLAND NWT | 73.29 N(0.06) | 94.45 W(0.44) | 2.1 | MN=2.9(0.6) | 3 | 7 | 2 | F |
| OCT 31 | 06 28 44.(1) COMMITTEE BAY NWT | 67.32 N(0.04) | 87.33 W(0.09) | 0.8 | MN=2.7(0.4) | 3 | 4 | 3 | 0 |
| NOV 10 | 07 39 14.(1) ROES WELCOME SOUND NWT. MAIN SHOCK ONE FORESHOCK RECORDED AT BLC (SEE TABLE 6) | 65.16 N(0.06) | 87.08 W(0.10) | 2.7 | MN=3.1(0.1) | 8 | 12 | 6 | 0 |

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|---|---|---|---|---|---|---|---|---|---|
| NOV 10 | 14 58 51.(1) | 78.36 N(0.05) | 108.15 W(0.10) | 0.5 | MN=2.6( ) | 3 | 7 | 1 | 0 |
| | PRINCE GUSTAF ADOLF SEA, WEST OF ISACHSEN NWT | | | | | | | | |
| NOV 11 | 19 45 02.(1) | 79.03 N(0.05) | 95.12 W(0.35) | 1.6 | ML=3.8( ) | 4 | 8 | 1 | F |
| | NEAR SOUTHWESTERN AXEL HEIBERG ISLAND NWT | | | | | | | | |
| NOV 11 | 21 02 10.(1) | 61.06 N(0.04) | 67.36 W(0.24) | 1.5 | MN=2.7( ) | 3 | 5 | 1 | 0 |
| | HUDSON STRAIT NWT. MAIN SHOCK | | | | | | | | |
| | ONE AFTERSHOCK RECORDED AT FBC AND SCH (SEE TABLE 8) | | | | | | | | |
| NOV 16 | 04 07 51.(1) | 78.37 N(0.08) | 108.16 W(0.14) | 0.8 | MN=2.6( ) | 3 | 7 | 1 | F |
| | PRINCE GUSTAF ADOLF SEA, WEST OF ISACHSEN NWT | | | | | | | | |
| NOV 27 | 22 08 32.(1) | 65.17 N(0.06) | 134.17 W(0.18) | 1.3 | MN=3.3( ) | 5 | 9 | 1 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| DEC 2 | 01 31 18.(1) | 71.52 N(0.05) | 74.65 W(0.18) | 2.4 | MN=3.7(0.4) | 9 | 17 | 8 | F |
| | NORTHEASTERN BAFFIN ISLAND, NEAR BUCHAN GULF | | | | | | | | |
| DEC 7 | 11 07 18.(3) | 72.11 N(0.06) | 133.22 W(0.58) | 1.3 | ML=3.2(0.3) | 3 | 6 | 3 | F |
| | BEAUFORT SEA | | | | | | | | |
| DEC 9 | 13 32 43.(1) | 71.63 N(0.05) | 69.07 W(0.17) | 1.0 | MN=3.0( ) | 3 | 7 | 1 | F |
| | WESTERN BAFFIN BAY, EAST OF CAPE ADAIR | | | | | | | | |
| DEC 12 | 16 49 15.(3) | 68.52 N(0.10) | 68.35 W(0.37) | 3.3 | MN=3.1(0.3) | 5 | 9 | 5 | 0 |
| | EASTERN BAFFIN ISLAND, HOME BAY | | | | | | | | |
| DEC 13 | 04 51 03.(1) | 68.65 N(0.04) | 68.27 W(0.16) | 1.9 | MN=3.2(0.3) | 7 | 12 | 7 | F |
| | EASTERN BAFFIN ISLAND, HOME BAY | | | | | | | | |
| DEC 14 | 16 45 23.(9) | 66.04 N(0.37) | 136.94 W(1.04) | 3.5 | MN=2.5( ) | 2 | 5 | 1 | 0 |
| | NORTHERN YUKON, NEAR PEEL RIVER | | | | | | | | |
| DEC 19 | 16 49 18.(1) | 67.47 N(0.04) | 91.41 W(0.10) | 2.6 | MN=3.8(0.3) | 8 | 20 | 6 | F |
| | NORTH OF WAGER BAY NWT. MAIN SHOCK | | | | | | | | |
| DEC 19 | 19 10 58.(2) | 65.38 N(0.10) | 133.57 W(0.24) | 1.8 | MN=2.9( ) | 3 | 8 | 1 | F |
| | EAST-CENTRAL YUKON, SOUTH OF PEEL RIVER | | | | | | | | |
| DEC 20 | 04 21 40.(3) | 67.51 N(0.07) | 90.81 W(0.82) | 1.5 | MN=2.2(0.0) | 3 | 4 | 2 | 0 |
| | NORTH OF WAGER BAY. AFTERSHOCK OF EVENT OF 19 DEC 16H | | | | | | | | |
| DEC 20 | 08 52 59.(2) | 67.55 N(0.07) | 91.40 W(0.17) | 2.7 | MN=2.6(0.1) | 6 | 8 | 5 | 0 |
| | NORTH OF WAGER BAY. AFTERSHOCK OF EVENT OF 19 DEC 16H | | | | | | | | |
| DEC 20 | 18 53 19.(4) | 78.75 N(0.15) | 95.87 W(0.81) | 2.9 | ML=3.4( ) | 4 | 9 | 1 | F |
| | AMUND RINGNES ISLAND NWT | | | | | | | | |
| DEC 20 | 19 08 01.(2) | 62.95 N(0.10) | 130.06 W(0.22) | 2.6 | MN=2.9(0.2) | 6 | 15 | 3 | F |
| | YUKON-NWT BORDER, WEST OF WRIGLEY | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |
| DEC 29 | 14 23 34.(9) | 72.40 N(0.18) | 134.52 W(1.78) | 3.2 | ML=3.2(0.4) | 4 | 5 | 2 | 0 |
| | BEAUFORT SEA | | | | | | | | |
| DEC 29 | 19 37 25.(4) | 71.29 N(0.10) | 130.99 W(0.81) | 2.6 | ML=3.5(0.2) | 4 | 7 | 4 | F |
| | BEAUFORT SEA | | | | | | | | |

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B. UNITED STATES EPICENTRES

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| JAN 22 | 09 49 04.(5) | 70.53 N(0.20) | 142.96 W(0.88) | 1.4 | ML=2.9( ) | 2 | 4 | 1 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | FORESHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 22 | 09 51 24.(2) | 70.20 N(0.05) | 144.28 W(0.33) | 0.8 | ML=3.8(0.2) | 4 | 6 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | FORESHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 22 | 14 04 52.(1) | 70.35 N(0.06) | 143.88 W(0.14) | 2.5 | ML=4.3(0.3) | 17 | 24 | 6 | F |
| ISC | 14 04 49.(1) | 70.41 N(0.08) | 144.2 W(0.22) | 2.5 | | 19 | 19 | | |
| USCGS | 14 04 49. | 70.3 N | 143.8 W | 1.1 | MB=4.5 | 11 | 11 | 2 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | FORESHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 22 | 23 44 34.(1) | 70.41 N(0.05) | 143.77 W(0.14) | 2.3 | ML=5.3(0.2) | 32 | 41 | 11 | F |
| | MS=4.9(0.1) FROM 10 STATIONS, LFZ PERIODS 18-20S | | | | | | | | |
| ISC | 23 44 30.(0) | 70.36 N(0.03) | 144.0 W(0.10) | 1.7 | MB=4.4 | 94 | 94 | 13 | |
| USCGS | 23 44 30. | 70.3 N | 144.4 W | 0.9 | MB=4.7 | 46 | 46 | 13 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |
| | LARGEST AMONG 36 EVENTS OFF MARTIN POINT IN 1968 | | | | | | | | |
| JAN 23 | 00 13 25.(0) | 70.23 N(0.01) | 143.80 W(0.05) | 0.1 | ML=3.2(0.3) | 3 | 5 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 00 31 28.(3) | 70.57 N(0.10) | 143.38 W(0.42) | 0.7 | ML=3.3(0.0) | 2 | 4 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 02 23 10.(1) | 70.20 N(0.04) | 144.21 W(0.15) | 0.3 | ML=3.2(0.3) | 2 | 4 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 02 35 26.(3) | 70.37 N(0.10) | 143.80 W(0.49) | 1.1 | ML=3.6(0.2) | 3 | 5 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 02 36 52.(3) | 70.36 N(0.10) | 144.38 W(0.42) | 1.3 | ML=3.6(0.2) | 4 | 6 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 08 00 54.(1) | 70.31 N(0.03) | 144.19 W(0.16) | 0.4 | ML=3.6(0.1) | 3 | 6 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 08 30 45.(1) | 70.40 N(0.04) | 144.24 W(0.12) | 1.9 | ML=4.1(0.1) | 12 | 19 | 4 | F |
| ISC | 08 30 44.(1) | 70.34 N(0.06) | 144.2 W(0.19) | 1.8 | | 10 | 10 | | |
| USCGS | 08 30 45. | 70.3 N | 144.4 W | 1.3 | MB=3.6 | 9 | 9 | 1 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 23 | 20 57 52.(1) | 70.36 N(0.06) | 144.29 W(0.18) | 2.2 | ML=4.3(0.2) | 15 | 22 | 5 | F |
| ISC | 20 57 49.(0) | 70.39 N(0.04) | 143.9 W(0.11) | 1.1 | | 15 | 15 | | |
| USCGS | 20 57 49. | 70.4 N | 143.9 W | 0.8 | MB=4.2 | 10 | 10 | 1 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| JAN 24 | 10 53 31.(4) | 70.17 N(0.12) | 145.12 W(0.61) | 2.0 | ML=3.7(0.3) | 4 | 7 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 25 | 16 56 37.(4) | 70.36 N(0.13) | 144.82 W(0.65) | 1.8 | ML=3.6(0.2) | 3 | 6 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 26 | 04 56 16.(3) | 70.48 N(0.10) | 143.66 W(0.51) | 1.2 | ML=3.6(0.2) | 3 | 5 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 22 JAN 23H | | | | | | | | |
| JAN 30 | 09 28 33.(2) | 70.25 N(0.06) | 144.32 W(0.31) | 1.0 | ML=3.8(0.1) | 4 | 7 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |
| JAN 30 | 09 30 18.(0) | 70.25 N(0.00) | 144.35 W(0.02) | 0.0 | ML=3.5(0.2) | 3 | 4 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 30 JAN 09H28M | | | | | | | | |
| FEB 1 | 20 47 28.(2) | 70.32 N(0.06) | 144.29 W(0.27) | 0.8 | ML=3.4(0.3) | 4 | 7 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| FEB 5 | 04 07 21.(3) | 70.32 N(0.09) | 144.24 W(0.48) | 1.7 | ML=3.9(0.1) | 4 | 8 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| FEB 6 | 16 36 22.(1) | 70.36 N(0.07) | 143.91 W(0.18) | 2.3 | ML=4.5(0.2) | 15 | 23 | 7 | F |
| ISC | 16 36 21.(1) | 70.43 N(0.10) | 144.4 W(0.35) | 2.9 | MB=4.0 | 25 | 25 | 5 | |
| USCGS | 16 36 19. | 70.5 N | 145.2 W | 1.1 | MB=4.2 | 12 | 12 | 4 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |
| FEB 6 | 18 42 54.(2) | 70.39 N(0.06) | 144.13 W(0.31) | 1.3 | ML=3.9(0.1) | 5 | 9 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 6 FEB 16H | | | | | | | | |
| FEB 10 | 17 29 00.(1) | 70.34 N(0.08) | 143.89 W(0.18) | 2.1 | ML=4.3( ) | 11 | 15 | 1 | F |
| ISC | 17 28 58.(0) | 70.37 N(0.02) | 143.87 W(0.08) | 0.7 | | 10 | 10 | | |
| USCGS | 17 28 58. | 70.4 N | 144.1 W | 0.1 | MB=4.3 | 7 | 7 | 1 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | FORESHOCK OF EVENT OF 10 FEB 17H29M19S | | | | | | | | |
| FEB 10 | 17 29 19.(2) | 70.23 N(0.11) | 143.63 W(0.30) | 3.0 | ML=4.3(0.2) | 10 | 15 | 5 | F |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |
| FEB 10 | 17 36 12.(5) | 70.25 N(0.14) | 144.06 W(0.79) | 2.4 | ML=3.5(0.2) | 4 | 7 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 10 FEB 17H29M19S | | | | | | | | |
| FEB 10 | 17 39 50.(4) | 70.54 N(0.14) | 142.65 W(0.69) | 2.7 | ML=3.9(0.1) | 5 | 8 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 10 FEB 17H29M19S | | | | | | | | |
| FEB 12 | 21 05 09.(2) | 70.27 N(0.06) | 144.79 W(0.37) | 0.9 | ML=3.6(0.2) | 4 | 6 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | FORESHOCK OF EVENT OF 13 FEB 00H | | | | | | | | |
| FEB 13 | 00 59 02.(2) | 70.42 N(0.09) | 143.27 W(0.39) | 2.7 | ML=4.1(0.2) | 9 | 16 | 5 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| FEB 18 | 21 14 51.(4) | 70.31 N(0.12) | 144.11 W(0.63) | 2.2 | ML=3.2(0.2) | 4 | 8 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| FEB 20 | | | | | | | | | |
| ISC | 02 45 50.(1) | 60.14 N(0.09) | 141.8 W(0.13) | 2.6 | MB=3.9 | 22 | 22 | 5 | F |
| USCGS | 02 45 49. | 60.0 N | 142.0 W | 1.3 | MB=3.9 | 15 | 15 | 5 | |
| | SOUTHEASTERN ALASKA. FELT AT YAKATAGA | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |
| FEB 21 | 21 58 08.(2) | 70.30 N(0.08) | 145.27 W(0.40) | 1.4 | ML=3.7(0.2) | 4 | 8 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |
| FEB 21 | 23 06 39.(3) | 70.33 N(0.09) | 143.53 W(0.44) | 1.4 | ML=3.3(0.2) | 4 | 7 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 21 FEB 21H | | | | | | | | |
| FEB 28 | 06 19 32.(4) | 70.10 N(0.13) | 143.99 W(0.64) | 2.3 | ML=3.3(0.2) | 4 | 8 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | FORESHOCK OF EVENT OF 28 FEB 08H | | | | | | | | |
| FEB 28 | 08 36 16.(2) | 70.41 N(0.10) | 143.16 W(0.42) | 2.4 | ML=4.1(0.3) | 7 | 13 | 5 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT. MAIN SHOCK | | | | | | | | |
| FEB 28 | 22 57 56.(4) | 70.13 N(0.13) | 143.84 W(0.64) | 1.8 | ML=3.3(0.2) | 3 | 6 | 3 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 28 FEB 08H | | | | | | | | |
| MAR 9 | 13 55 37.(1) | 70.27 N(0.04) | 144.10 W(0.19) | 0.7 | ML=4.2(0.1) | 4 | 8 | 4 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| MAR 11 | | | | | | | | | |
| ISC | 15 50 32.(1) | 60.27 N(0.08) | 142.1 W(0.11) | 1.8 | MB=3.6 | 10 | 10 | 3 | 0 |
| | SOUTHEASTERN ALASKA. | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |
| MAR 24 | 16 25 21.(2) | 69.21 N(0.08) | 144.75 W(0.36) | 1.4 | ML=3.5(0.3) | 4 | 8 | 2 | 0 |
| | NORTHEASTERN ALASKA, SOUTHWEST OF MARTIN POINT | | | | | | | | |
| APR 25 | 10 33 50.(1) | 70.21 N(0.03) | 144.46 W(0.11) | 0.5 | ML=4.4(0.1) | 6 | 11 | 5 | 0 |
| ISC | 10 33 52.(1) | 70.5 N(0.11) | 144.2 W(0.35) | 3.6 | | 20 | 20 | | |
| USCGS | 10 33 51. | 70.3 N | 143.8 W | 0.6 | MB=4.3 | 10 | 10 | 2 | |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| JUL 16 | 18 02 27.( ) | 67.35 N( ) | 147.77 W( ) | 0.0 | MN=4.5(0.2) | 2 | 3 | 2 | 0 |
| | NORTHERN ALASKA, BROOKS RANGE | | | | | | | | |
| SEP 22 | | | | | | | | | |
| ISC | 13 32 35.(1) | 60.04 N(0.04) | 141.5 W(0.12) | 0.9 | | 10 | 10 | | 0 |
| USCGS | 13 32 34. | 59.9 N | 141.5 W | 1.1 | MB=3.9 | 11 | 11 | 4 | |
| | SOUTHEASTERN ALASKA, NEAR YUKON BORDER | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |
| NOV 24 | 22 09 53.(3) | 70.27 N(0.12) | 144.13 W(0.52) | 1.2 | ML=3.7(0.3) | 3 | 5 | 2 | 0 |
| | NORTHEAST COAST OF ALASKA, OFF MARTIN POINT | | | | | | | | |
| DEC 16 | 11 21 21.(4) | 65.60 N(0.22) | 151.09 W(0.39) | 2.5 | MN=3.4( ) | 3 | 6 | 1 | 0 |
| | CENTRAL ALASKA, YUKON RIVER | | | | | | | | |
| DEC 17 | 06 49 08.(1) | 68.12 N(0.04) | 162.43 W(0.27) | 1.5 | ML=3.9( ) | 10 | 14 | 1 | F |
| | NORTHWESTERN ALASKA, BROOKS RANGE | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF STN | DATA PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| DEC 26 | 10 54 55.(1) | 68.39 N(0.04) | 144.50 W(0.15) | 0.3 | ML=3.6(0.2) | 2 | 4 | 2 | 0 |
| | NORTHEASTERN ALASKA, SOUTHWEST OF MARTIN POINT | | | | | | | | |
| DEC 30 | 13 52 40.(3) | 65.25 N(0.17) | 144.83 W(0.29) | 2.6 | MN=3.6( ) | 5 | 10 | 1 | 0 |
| | EASTERN ALASKA, YUKON RIVER | | | | | | | | |
| | | | C. GREENLAND EPICENTRES | | | | | | |
| JAN 4 | 19 43 08.(2) | 79.52 N(0.08) | 17.83 W(0.31) | 0.7 | ML=3.8(0.1) | 3 | 6 | 2 | F |
| | NORTHEAST COAST OF GREENLAND, SOUTH OF NORD | | | | | | | | |
| JAN 23 | 13 49 18.( ) | 82.3 N( ) | 7.1 W( ) | | ML=2.7( ) | 2 | 3 | 1 | 0 |
| | ARCTIC OCEAN, NORTHEAST OF NORD | | | | | | | | |
| MAR 13 | 18 11 36.(2) | 83.09 N(0.19) | 51.74 W(1.24) | 1.4 | ML=3.6(0.4) | 4 | 5 | 2 | 0 |
| | OFF NORTHERN GREENLAND, LINCOLN SEA | | | | | | | | |
| MAY 18 | 06 25 05.(1) | 80.33 N(0.07) | 12.09 W(0.53) | 0.5 | ML=4.0( ) | 3 | 5 | 1 | 0 |
| | NEAR NORTHEAST COAST OF GREENLAND | | | | | | | | |
| MAY 22 | 02 10 20.(2) | 80.32 N(0.31) | 3.83 W(1.55) | 1.1 | ML=4.2(0.1) | 3 | 6 | 2 | 0 |
| | NEAR NORTHEAST COAST OF GREENLAND | | | | | | | | |
| JUN 8 | 19 16 54.(6) | 87.37 N(0.25) | 46.89 E(8.66) | 2.5 | ML=3.8( ) | 3 | 5 | 1 | 0 |
| | ARCTIC OCEAN, NORTH OF GREENLAND. NOT PLOTTED | | | | | | | | |
| JUN 23 | 13 23 30.(7) | 81.5 N(0.7 ) | 17.2 W(1.4 ) | 3.2 | ML=3.9(0.0) | 4 | 6 | 2 | 0 |
| | NORTHEAST COAST OF GREENLAND, NEAR NORD | | | | | | | | |
| JUL 29 | 23 15 19.(3) | 79.31 N(0.18) | 20.65 W(0.45) | 1.3 | MN=3.1( ) | 2 | 5 | 1 | 0 |
| | NORTHEAST COAST OF GREENLAND | | | | | | | | |
| OCT 1 | 23 10 26.(2) | 82.73 N(0.27) | 47.87 W(0.69) | 4.2 | | 7 | 13 | 0 | F |
| ISC | 23 10 27.(1) | 82.3 N(0.23) | 47.7 W(0.59) | 3.5 | MB=4.1 | 19 | 19 | 6 | |
| USCGS | 23 10 27. | 82.3 N | 49.7 W | 0.4 | MB=4.2 | 5 | 5 | 7 | |
| | NORTHWEST COAST OF GREENLAND | | | | | | | | |
| DEC 9 | 19 53 22.(3) | 75.93 N(0.15) | 20.32 W(0.97) | 1.4 | MN=3.2( ) | 2 | 5 | 1 | 0 |
| | EAST COAST OF GREENLAND | | | | | | | | |

TABLE 3

EARTHQUAKES IN WESTERN CANADA AND ADJACENT AREAS
1968

(F=FILLED, O=OPEN SYMBOL ON EPICENTRE MAPS)

A. CANADIAN EPICENTRES

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| JAN 15 | 12 24 14. | 52.2 N | 131.6 W | | ML=4.3 | 7 | 10 | 4 | F |
| ISC | 12 24 29.(3) | 52.18 N(0.07) | 130.5 W(0.30) | 1.7 | | 17 | 17 | | |
| USCGS | 12 24 28. | 52.1 N | 130.5 W | 1.5 | MB=3.6 | 11 | 11 | 4 | |
| | QUEEN CHARLOTTE ISLANDS. FELT AT CAPE ST. JAMES | | | | | | | | |
| JAN 15 | 14 29 20. | 52.2 N | 131.6 W | | ML=3.9 | 2 | 3 | 2 | O |
| | QUEEN CHARLOTTE ISLANDS | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 15 JAN 12H | | | | | | | | |
| FEB 1 | 03 05 01. | 50.2 N | 130.4 W | | ML=4.2 | 3 | 3 | 1 | O |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| FEB 1 | 03 15 07. | 50.1 N | 130.1 W | | ML=3.1 | 3 | 4 | 2 | O |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| FEB 1 | 04 46 00. | 50.1 N | 130.0 W | | ML=3.0 | 2 | 3 | 1 | O |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| FEB 1 | 07 58 04. | 50.0 N | 129.9 W | | | 9 | 11 | 0 | F |
| ISC | 07 58 03.(0) | 49.96 N(0.02) | 129.86 W(0.05) | 1.5 | MB=5.2 | 121 | 121 | 15 | |
| USCGS | 07 58 04. | 50.0 N | 129.8 W | 1.0 | MB=5.4 | 61 | 61 | 27 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| FEB 4 | 16 43 53. | 51.9 N | 119.5 W | | ML=2.5 | 4 | 4 | 1 | F |
| | NEAR YELLOWHEAD HIGHWAY, WEST OF MICA CREEK B.C. | | | | | | | | |
| FEB 4 | 16 49 52. | 51.9 N | 119.5 W | | ML=1.9 | 1 | 2 | 1 | O |
| | NEAR YELLOWHEAD HIGHWAY, WEST OF MICA CREEK B.C. | | | | | | | | |
| | AFTERSHOCK OF EVENT OF 4 FEB 16H43M | | | | | | | | |
| FEB 15 | 18 27 30. | 51.3 N | 129.7 W | | ML=3.8 | 8 | 9 | 3 | F |
| ISC | 18 27 31.(3) | 51.55 N(0.05) | 130.1 W(0.11) | 1.8 | | 31 | 31 | | |
| USCGS | 18 27 30. | 51.6 N | 130.3 W | 1.6 | MB=4.2 | 19 | 19 | 10 | |
| | QUEEN CHARLOTTE SOUND | | | | | | | | |
| FEB 27 | 06 39 52. | 50.1 N | 129.6 W | | ML=4.0 | 6 | 7 | 2 | F |
| ISC | 06 39 53.(1) | 50.15 N(0.03) | 129.59 W(0.09) | 1.1 | | 26 | 26 | | |
| USCGS | 06 39 53. | 50.1 N | 129.5 W | 0.8 | MB=4.3 | 15 | 15 | 6 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| MAR 1 | | | | | | | | | |
| ISC | 09 40 19.(1) | 49.57 N(0.09) | 129.3 W(0.17) | 2.6 | | 22 | 22 | | F |
| USCGS | 09 40 18. | 49.6 N | 129.2 W | 1.6 | MB=3.7 | 10 | 10 | 5 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| MAR 2 | 03 14 45. | 49.2 N | 128.9 W | | ML=4.5 | 16 | 16 | 5 | F |
| ISC | 03 14 45.(0) | 49.16 N(0.04) | 129.25 W(0.07) | 2.2 | MB=5.1 | 104 | 104 | 9 | |
| USCGS | 03 14 45. | 49.2 N | 129.1 W | 1.2 | MB=5.1 | 42 | 42 | 12 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| MAR 2 | 17 10 28. | 49.3 N | 128.1 W | | ML=3.2 | 4 | 5 | 2 | F |
| ISC | 17 10 25.(1) | 49.13 N(0.06) | 128.7 W(0.15) | 2.7 | | 35 | 35 | | |
| USCGS | 17 10 23. | 49.0 N | 128.8 W | 1.5 | MB=4.2 | 12 | 12 | 8 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| MAR 4 | 20 19 47. | 49.3 N | 127.4 W | | ML=2.5 | 4 | 5 | 2 | F |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| MAR 6 | 18 29 58. | 52.5 N | 116.7 W | | ML=2.2 | 2 | 3 | 1 | 0 |
| | WESTERN ALBERTA, NORTHEAST OF MT. STEWART | | | | | | | | |
| MAR 8 | 03 49 07. | 50.5 N | 129.8 W | | ML=3.1 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| MAR 8 | 11 25 25. | 50.0 N | 129.5 W | | ML=3.1 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| MAR 14 | 21 05 19. | 50.8 N | 115.4 W | | ML=2.9 | 3 | 4 | 2 | 0 |
| | ALBERTA-B.C. BORDER, SOUTH OF CANMORE | | | | | | | | |
| MAR 23 | 04 52 09. | 50.6 N | 129.9 W | | ML=3.3 | 3 | 4 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| APR 15 | 02 06 53. | 49.7 N | 123.7 W | | ML=2.6 | 3 | 5 | 3 | 0 |
| | SECHELT PENINSULA B.C. | | | | | | | | |
| APR 17 | 06 28 17. | 50.9 N | 130.1 W | | ML=2.7 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| APR 17 | 12 56 00. | 49.8 N | 127.6 W | | ML=1.9 | 2 | 3 | 1 | 0 |
| | OFF WEST COAST OF VANCOUVER ISLAND, WEST OF NOOTKA ISLAND | | | | | | | | |
| APR 18 | 11 42 37. | 50.8 N | 130.1 W | | ML=2.6 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| APR 23 | 05 39 16. | 50.4 N | 129.7 W | | ML=2.7 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| APR 25 | 09 58 26. | 50.6 N | 130.0 W | | ML=4.3 | 9 | 10 | 5 | F |
| ISC | 09 58 28.(2) | 50.91 N(0.04) | 129.67 W(0.10) | 2.1 | MB=4.5 | 51 | 51 | 4 | |
| USCGS | 09 58 28. | 50.7 N | 129.8 W | 1.2 | MB=4.4 | 24 | 24 | 9 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| APR 28 | 22 14 00. | 49.7 N | 123.8 W | | ML=2.5 | 3 | 4 | 2 | 0 |
| | SECHELT PENINSULA B.C. | | | | | | | | |
| MAY 21 | 05 07 57. | 50.8 N | 124.3 W | | ML=3.4 | 8 | 8 | 5 | F |
| | NEAR BUTE INLET B.C. | | | | | | | | |
| JUN 13 | 08 51 16. | 51.4 N | 131.5 W | | ML=4.5 | 8 | 10 | 5 | 0 |
| ISC | 08 51 29.(2) | 51.47 N(0.05) | 129.90 W(0.10) | 2.1 | | 38 | 38 | | |
| USCGS | 08 51 29. | 51.5 N | 129.8 W | 1.4 | MB=4.1 | 18 | 18 | 6 | |
| | SOUTH OF QUEEN CHARLOTTE ISLANDS | | | | | | | | |
| JUN 13 | 10 08 40. | 51.4 N | 131.5 W | | ML=2.1 | 1 | 2 | 1 | 0 |
| | SOUTH OF QUEEN CHARLOTTE ISLANDS AFTERSHOCK OF EVENT OF 13 JUNE 08H51M | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| JUN 15 | 00 42 42. | 50.0 N | 129.7 W | | ML=2.7 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| JUN 18 | 05 37 57. | 51.1 N | 129.0 W | | ML=4.1 | 6 | 7 | 5 | 0 |
| ISC | 05 37 54.(2) | 50.87 N(0.09) | 130.1 W(0.17) | 2.0 | MB=3.8 | 12 | 12 | 3 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| JUL 6 | 11 54 15. | 50.5 N | 129.0 W | | ML=2.0 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| JUL 14 | 03 32 36. | 50.6 N | 117.5 W | | ML=3.7 | 4 | 5 | 3 | F |
| | EAST OF UPPER ARROW LAKE B.C. | | | | | | | | |
| JUL 14 | 07 04 49. | 49.5 N | 127.9 W | | ML=3.5 | 4 | 6 | 3 | F |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| JUL 16 | 01 47 19. | 50.5 N | 129.8 W | | ML=4.0 | 8 | 9 | 4 | F |
| ISC | 01 47 23.(3) | 50.69 N(0.05) | 129.3 W(0.13) | 1.7 | MB=4.0 | 26 | 26 | 3 | |
| USCGS | 01 47 22. | 50.6 N | 129.4 W | 0.9 | MB=4.0 | 13 | 13 | 7 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| JUL 16 | 23 39 30. | 49.0 N | 130.0 W | | ML=3.2 | 5 | 5 | 5 | 0 |
| | WEST OF VANCOUVER ISLAND. DATA FIT THE LOCATION VERY POORLY | | | | | | | | |
| JUL 23 | 09 39 19. | 50.5 N | 130.0 W | | ML=3.2 | 2 | 4 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| JUL 26 | 22 23 30. | 52.3 N | 118.7 W | | ML=3.3 | 5 | 6 | 4 | F |
| | NORTH OF MICA CREEK B.C. | | | | | | | | |
| JUL 27 | 04 52 32. | 52.3 N | 118.7 W | | ML=3.0 | 1 | 2 | 1 | 0 |
| | NORTH OF MICA CREEK B.C. AFTERSHOCK OF EVENT OF 26 JULY 22H | | | | | | | | |
| JUL 28 | 21 16 49. | 50.5 N | 129.7 W | | ML=4.0 | 10 | 11 | 5 | F |
| ISC | 21 16 52.(2) | 50.58 N(0.06) | 129.4 W(0.21) | 1.6 | MB=4.1 | 22 | 22 | 3 | |
| USCGS | 21 16 52. | 50.5 N | 129.5 W | 1.2 | MB=4.0 | 13 | 13 | 9 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| AUG 4 | 06 11 57. | 52.5 N | 131.5 W | | | 23 | 24 | 0 | F |
| ISC | 06 12 00.(1) | 52.6 N(0.15) | 131.3 W(0.29) | 3.4 | | 15 | 15 | | |
| USCGS | 06 12 00. | 52.6 N | 131.1 W | 1.0 | MB=3.7 | 7 | 7 | 7 | |
| | QUEEN CHARLOTTE ISLANDS | | | | | | | | |
| AUG 10 | 21 10 40. | 52.9 N | 119.6 W | | ML=3.2 | 4 | 5 | 3 | F |
| | WEST OF VALEMOUNT B.C. | | | | | | | | |
| AUG 11 | 10 49 29. | 49.4 N | 123.7 W | | ML=2.7 | 4 | 6 | 3 | 0 |
| | SECHELT PENINSULA B.C. | | | | | | | | |
| AUG 12 | 13 31 00. | 51.0 N | 132.0 W | | ML=3.7 | 2 | 3 | 1 | 0 |
| | SOUTH OF QUEEN CHARLOTTE ISLANDS | | | | | | | | |
| AUG 15 | 13 43 28. | 50.4 N | 114.2 W | | ML=3.3 | 4 | 4 | 1 | 0 |
| | SOUTHWESTERN ALBERTA, SOUTH OF CALGARY PLOTTED ALSO ON CENTRAL REGION MAP | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| AUG 31 | 08 31 18. | 49.4 N | 116.9 W | | ML=3.7 | 12 | 13 | 3 | F |
| ISC | 08 31 19.(1) | 49.48 N(0.07) | 117.0 W(0.13) | 2.2 | | 10 | 10 | | |
| USCGS | 08 31 18. | 49.5 N | 116.9 W | 1.4 | | 6 | 6 | | |
| | KOOTENAY LAKE B.C. FELT SLIGHTLY IN TRAIL | | | | | | | | |
| SEP 15 | 12 37 19. | 49.9 N | 129.5 W | | ML=2.9 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| SEP 22 | 03 51 51. | 51.4 N | 131.2 W | | ML=4.4 | 9 | 9 | 8 | F |
| ISC | 03 51 56.(0) | 51.52 N(0.05) | 130.73 W(0.09) | 1.6 | MB=4.5 | 34 | 34 | 4 | |
| USCGS | 03 51 55. | 51.5 N | 130.9 W | 1.2 | MB=4.3 | 25 | 25 | 9 | |
| | SOUTH OF QUEEN CHARLOTTE ISLANDS | | | | | | | | |
| SEP 26 | 15 20 16. | 49.0 N | 128.0 W | | ML=3.0 | 4 | 5 | 3 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| SEP 28 | 21 40 37. | 54.4 N | 120.9 W | | ML=3.1 | 4 | 5 | 3 | 0 |
| | EAST-CENTRAL BRITISH COLUMBIA, NE OF PRINCE GEORGE | | | | | | | | |
| OCT 3 | 05 53 06. | 49.9 N | 129.5 W | | ML=2.6 | 3 | 4 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 3 | 06 11 07. | 49.8 N | 129.8 W | | ML=3.1 | 5 | 6 | 2 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 3 | 06 19 02. | 49.8 N | 130.1 W | | ML=3.9 | 15 | 17 | 3 | F |
| ISC | 06 19 06.(1) | 49.83 N(0.06) | 129.7 W(0.11) | 2.3 | | 31 | 31 | | |
| USCGS | 06 19 06. | 49.9 N | 129.5 W | 1.3 | MB=4.0 | 14 | 14 | 8 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 3 | 08 25 16. | 49.6 N | 129.1 W | | ML=2.6 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 3 | 13 46 52. | 49.5 N | 129.2 W | | ML=2.6 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 6 | 15 32 26. | 49.6 N | 129.8 W | | ML=3.2 | 2 | 3 | 1 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 7 | 14 43 49. | 49.8 N | 127.0 W | | ML=2.2 | 3 | 4 | 2 | 0 |
| | ALONG WEST COAST OF VANCOUVER ISLAND, NEAR NOOTKA ISLAND | | | | | | | | |
| OCT 10 | 18 26 04. | 49.4 N | 126.9 W | | ML=1.7 | 2 | 3 | 1 | 0 |
| | ALONG WEST COAST OF VANCOUVER ISLAND, NEAR NOOTKA ISLAND | | | | | | | | |
| OCT 14 | 14 10 33. | 50.5 N | 130.1 W | | ML=3.1 | 3 | 4 | 2 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| OCT 18 | 11 04 31. | 52.3 N | 129.2 W | | ML=2.6 | 3 | 4 | 2 | 0 |
| | QUEEN CHARLOTTE SOUND | | | | | | | | |
| OCT 26 | 12 34 38. | 50.4 N | 129.8 W | | ML=3.2 | 2 | 3 | 2 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| NOV 1 | 10 24 36. | 51.0 N | 124.5 W | | | 28 | 28 | 0 | F |
| ISC | 10 25 00.(0) | 50.95 N(0.03) | 124.14 W(0.08) | 2.4 | | 77 | 77 | | |
| USCGS | 10 24 59. | 51.0 N | 124.2 W | 1.5 | MB=4.5 | 32 | 32 | 12 | |
| | SOUTHWESTERN B.C., NEAR MT. GRENVILLE. FELT ALMOST FAR SOUTH AS VANCOUVER. (SEE TEXT AND FIGURE 9) | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| NOV 1 | 18 35 41. | 48.4 N | 125.7 W | | ML=2.0 | 2 | 4 | 2 | 0 |
| | WEST OF SOUTHERN VANCOUVER ISLAND | | | | | | | | |
| NOV 2 | 02 13 54. | 51.0 N | 132.0 W | | ML=3.0 | 3 | 3 | 1 | 0 |
| | SOUTH OF QUEEN CHARLOTTE ISLANDS | | | | | | | | |
| NOV 8 | 12 51 13. | 49.5 N | 129.0 W | | ML=3.3 | 6 | 7 | 5 | 0 |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| NOV 13 | 11 59 39. | 52.3 N | 120.1 W | | ML=3.2 | 5 | 11 | 3 | F |
| | WELLS GRAY PROVINCIAL PARK B.C. | | | | | | | | |
| NOV 17 | 21 11 34. | 49.0 N | 128.9 W | | ML=4.4 | 4 | 4 | 1 | F |
| ISC | 21 11 34.(3) | 49.00 N(0.03) | 128.79 W(0.06) | 1.3 | | 47 | 47 | | |
| USCGS | 21 11 35. | 49.00 N | 128.9 W | 1.2 | MB=4.4 | 31 | 31 | 10 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| NOV 20 | 08 24 48. | 50.6 N | 129.6 W | | ML=4.2 | 4 | 3 | 1 | F |
| ISC | 08 24 49.(3) | 50.72 N(0.05) | 129.33 W(0.10) | 1.8 | MB=4.2 | 37 | 37 | 4 | |
| USCGS | 08 24 48. | 50.6 N | 129.6 W | 1.3 | MB=4.2 | 21 | 21 | 6 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| NOV 22 | 11 34 21. | 48.7 N | 124.5 W | | ML=3.1 | 3 | 4 | 2 | 0 |
| | SOUTHERN VANCOUVER ISLAND | | | | | | | | |
| NOV 22 | 11 59 25. | 49.0 N | 128.7 W | | | 2 | 4 | 0 | 0 |
| ISC | 11 59 28.(1) | 49.11 N(0.07) | 128.6 W(0.15) | 2.6 | | 28 | 28 | | |
| USCGS | 11 59 26. | 49.0 N | 128.7 W | 0.9 | MB=4.0 | 11 | 11 | 7 | |
| | WEST OF VANCOUVER ISLAND | | | | | | | | |
| DEC 4 | 15 22 05. | 50.7 N | 124.8 W | | ML=2.9 | 4 | 5 | 4 | 0 |
| | NEAR BUTE INLET B.C. | | | | | | | | |
| DEC 13 | 08 50 08. | 52.4 N | 120.2 W | | ML=3.7 | 5 | 5 | 5 | 0 |
| USCGS | 08 50 08. | 51.5 N | 119.5 W | 0.1 | MB=4.5 | 6 | 6 | 2 | |
| | WELLS GRAY PROVINCIAL PARK B.C. | | | | | | | | |
| DEC 27 | 16 13 39. | 51.0 N | 125.7 W | | ML=2.6 | 5 | 6 | 4 | 0 |
| | NEAR KNIGHT INLET B.C. | | | | | | | | |

## B. UNITED STATES EPICENTRES

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| JAN 04 | | | | | | | | | |
| ISC | 17 08 45. | 56.0 N | 133.0 W | | MB=3.4 | 2 | 2 | 2 | 0 |
| | SOUTHEASTERN ALASKA | | | | | | | | |
| | PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| JAN 20 | 09 21 47. | 47.5 N | 122.7 W | | ML=2.5 | 3 | 4 | 2 | F |
| | PUGET SOUND | | | | | | | | |
| MAR 6 | 13 15 12. | 47.4 N | 122.5 W | | ML=2.3 | 4 | 5 | 2 | 0 |
| | PUGET SOUND | | | | | | | | |
| APR 12 | 10 26 08. | 48.6 N | 116.2 W | | ML=3.6 | 5 | 5 | 1 | 0 |
| | NORTHERN IDAHO, NEAR B.C. BORDER | | | | | | | | |
| APR 13 | 03 10 03. | 48.6 N | 123.2 W | | ML=2.1 | 3 | 5 | 3 | F |
| | SAN JUAN ISLANDS | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| APR 18 | 23 16 18. | 48.6 N | 121.8 W | | ML=2.5 | 3 | 4 | 1 | 0 |
| | WESTERN WASHINGTON, NEAR MT. BAKER | | | | | | | | |
| MAY 12 | 17 27 33. | 48.6 N | 122.5 W | | ML=2.5 | 5 | 6 | 3 | F |
| | SAN JUAN ISLANDS | | | | | | | | |
| JUN 13 | 08 09 26. | 48.3 N | 124.7 W | | ML=2.2 | 3 | 5 | 2 | 0 |
| | NORTHWESTERN WASHINGTON, NEAR CAPE FLATTERY | | | | | | | | |
| JUN 15 | 23 52 25. | 48.6 N | 122.8 W | | ML=2.0 | 3 | 4 | 1 | 0 |
| | SAN JUAN ISLANDS | | | | | | | | |
| JUN 19 | | | | | | | | | |
| USCGS | 05 51 43. | 47.2 N | 122.5 W | | MB=4.0 | | | | 0 |
| | WASHINGTON, NEAR SEATTLE. FELT WITH INTENSITY IV NEAR EPICENTRE | | | | | | | | |
| JUN 25 | 13 01 14. | 47.9 N | 123.2 W | | ML=2.3 | 4 | 5 | 1 | 0 |
| | PUGET SOUND | | | | | | | | |
| JUN 28 | 18 04 42. | 56.0 N | 133.6 W | | ML=3.9 | 3 | 4 | 1 | 0 |
| | SOUTHEASTERN ALASKA<br>PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| JUL 7 | 02 44 30. | 59.0 N | 139.0 W | | ML=3.0 | 3 | 4 | 1 | 0 |
| | SOUTHEASTERN ALASKA, SOUTHEAST OF YAKUTAT<br>PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| JUL 11 | 14 10 27. | 48.0 N | 121.8 W | | ML=2.2 | 3 | 4 | 2 | 0 |
| | WESTERN WASHINGTON | | | | | | | | |
| JUL 19 | 19 28 14. | 48.9 N | 122.3 W | | ML=2.6 | 4 | 6 | 3 | F |
| | WESTERN WASHINGTON, NEAR BELLINGHAM | | | | | | | | |
| JUL 23 | 23 05 29. | 48.4 N | 114.9 W | | ML=3.1 | 2 | 3 | 1 | 0 |
| | NORTHERN MONTANA, NEAR FLATHEAD LAKE | | | | | | | | |
| AUG 23 | 15 20 02. | 48.6 N | 122.6 W | | ML=1.7 | 2 | 3 | 2 | 0 |
| | SAN JUAN ISLANDS | | | | | | | | |
| AUG 27 | | | | | | | | | |
| ISC | 17 42 34.(0) | 58.64 N(0.07) | 139.1 W(0.11) | 2.0 | MB=4.1 | 32 | 32 | 5 | F |
| USCGS | 17 42 33. | 58.6 N | 139.2 W | 1.1 | MB=4.3 | 18 | 18 | 9 | |
| | SOUTHEASTERN ALASKA, SOUTHEAST OF YAKUTAT<br>PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| AUG 29 | | | | | | | | | |
| ISC | 22 43 35.(1) | 59.7 N(0.17) | 139.3 W(0.27) | 4.3 | | 14 | 14 | | F |
| USCGS | 22 43 40. | 59.7 N | 139.7 W | 0.8 | MB=4.4 | 7 | 7 | 1 | |
| | SOUTHEASTERN ALASKA, NEAR YAKUTAT<br>PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| SEP 6 | 08 46 37. | 48.7 N | 122.2 W | | ML=2.5 | 4 | 5 | 2 | 0 |
| | WASHINGTON, NEAR BELLINGHAM<br>FELT SLIGHTLY IN VICTORIA<br>ONE FORESHOCK RECORDED AT VIC (SEE TABLE 18) | | | | | | | | |

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| SEP 6 | 12 16 30. | 47.9 N | 122.8 W | | ML=3.9 | 19 | 24 | 8 | 0 |
| ISC | 12 16 31.(0) | 48.01 N(0.02) | 122.76 W(0.05) | 1.2 | MB=3.9 | 28 | 28 | 3 | |
| USCGS | 12 16 31. | 48.0 N | 122.7 W | 1.1 | MB=3.9 | 18 | 18 | 4 | |
| | PUGET SOUND. FELT IN SEATTLE AREA | | | | | | | | |
| | INTENSITY III TO IV IN VICTORIA | | | | | | | | |
| SEP 25 | 20 09 37. | 48.5 N | 122.9 W | | ML=2.8 | 4 | 5 | 2 | F |
| USCGS | 20 09 34. | 47.8 N | 122.7 W | | MB=2.5 | | | | |
| | PUGET SOUND. AFTERSHOCK OF EVENT OF 6 SEPT 12H | | | | | | | | |
| | FELT WITH INTENSITY IV NEAR EPICENTRE | | | | | | | | |
| OCT 7 | 07 50 55. | 48.2 N | 122.4 W | | ML=2.5 | 4 | 5 | 3 | F |
| | SAN JUAN ISLANDS | | | | | | | | |
| OCT 9 | 13 44 04. | 48.5 N | 121.6 W | | ML=2.3 | 4 | 5 | 2 | F |
| | WESTERN WASHINGTON | | | | | | | | |
| OCT 11 | 02 43 50. | 48.5 N | 121.7 W | | ML=2.8 | 6 | 8 | 3 | F |
| | WESTERN WASHINGTON | | | | | | | | |
| OCT 11 | 06 18 50. | 48.6 N | 121.7 W | | ML=2.1 | 3 | 4 | 2 | 0 |
| | WESTERN WASHINGTON | | | | | | | | |
| OCT 14 | 04 45 54. | 48.5 N | 121.7 W | | ML=2.3 | 3 | 4 | 2 | F |
| | WESTERN WASHINGTON | | | | | | | | |
| NOV 4 | 11 19 38. | 47.5 N | 122.5 W | | ML=2.4 | 3 | 5 | 4 | 0 |
| | WASHINGTON, NEAR SEATTLE | | | | | | | | |
| NOV 9 | 12 28 59. | 48.1 N | 129.5 W | | ML=3.0 | 4 | 4 | 2 | 0 |
| | OFF COAST OF WASHINGTON | | | | | | | | |
| NOV 12 | 04 01 31. | 47.5 N | 122.4 W | | ML=1.9 | 3 | 5 | 4 | 0 |
| | WASHINGTON, NEAR SEATTLE | | | | | | | | |
| NOV 13 | 21 15 28. | 47.0 N | 124.0 W | | ML=2.6 | 3 | 4 | 3 | 0 |
| | WASHINGTON, WEST COAST OF OLYMPIC PENINSULA | | | | | | | | |
| NOV 16 | | | | | | | | | |
| ISC | 14 03 22.(1) | 56.2 N(0.13) | 138.7 W(0.20) | 3.1 | MB=3.8 | 21 | 21 | 5 | F |
| USCGS | 14 03 22. | 56.3 N | 138.5 W | 1.3 | MB=4.2 | 13 | 13 | 8 | |
| | OFF COAST OF SOUTHEASTERN ALASKA | | | | | | | | |
| | PLOTTED ALSO ON NORTHERN REGION MAP | | | | | | | | |
| NOV 22 | 00 33 32. | 48.5 N | 119.8 W | | ML=2.5 | 3 | 3 | 2 | 0 |
| | NORTH-CENTRAL WASHINGTON | | | | | | | | |
| NOV 28 | 10 30 29. | 47.3 N | 122.8 W | | ML=2.7 | 2 | 5 | 2 | 0 |
| | PUGET SOUND | | | | | | | | |
| DEC 7 | 16 05 56. | 48.2 N | 122.7 W | | ML=2.4 | 4 | 5 | 4 | F |
| | SAN JUAN ISLANDS. FELT VERY SLIGHTLY IN VICTORIA | | | | | | | | |
| DEC 20 | 01 05 53. | 47.8 N | 120.0 W | | ML=2.9 | 5 | 6 | 5 | F |
| | NORTH-CENTRAL WASHINGTON | | | | | | | | |

TABLE 4

EARTHQUAKES IN CENTRAL CANADA AND ADJACENT AREAS
1968

(F=FILLED, O=OPEN SYMBOL ON EPICENTRE MAPS)

A. CANADIAN EPICENTRES

| DATE 1968 | H-TIME (GMT) HR MN SEC | LATITUDE DEG | LONGITUDE DEG | RMS SEC | MAGNITUDE | NO. OF DATA STN | PHA | MAG | |
|---|---|---|---|---|---|---|---|---|---|
| JAN 19 | 04 38 02.(2) | 56.85 N(0.12) | 87.31 W(0.13) | 3.0 | MN=2.4(0.2) | 4 | 9 | 3 | O |
| | SOUTHWESTERN HUDSON BAY, NORTH OF FORT SEVERN | | | | | | | | |
| JUN 22 | 19 01 02.(2) | 57.78 N(0.14) | 89.50 W(0.18) | 3.5 | MN=2.8(0.1) | 4 | 7 | 3 | O |
| | SOUTHWESTERN HUDSON BAY, NORTHEAST OF CAPE TATNAM | | | | | | | | |
| SEP 11 | 12 00 06.(2) | 49.25 N(0.14) | 108.14 W(0.09) | 2.0 | MN=2.7( ) | 3 | 10 | 1 | F |
| | SASKATCHEWAN-MONTANA BORDER, SOUTHWEST OF SWIFT CURRENT | | | | | | | | |
| OCT 11 | 12 28 04.(4) | 49.61 N(0.18) | 104.49 W(0.18) | 3.1 | MN=2.8(0.2) | 4 | 11 | 2 | F |
| | SOUTHERN SASKATCHEWAN, WEST OF WEYBURN | | | | | | | | |

B. UNITED STATES EPICENTRES

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MAR 21 | 11 24 02.( ) | 48.60 N( ) | 112.20 W( ) | | ML=3.3( ) | 5 | 6 | 2 | O |
| | MONTANA, EAST OF FLATHEAD LAKE | | | | | | | | |
| | PLOTTED ALSO ON WESTERN REGION MAP | | | | | | | | |
| JUL 8 | 16 50 14.(2) | 46.52 N(0.09) | 100.76 W(0.07) | 3.2 | MN=4.0(0.1) | 8 | 23 | 8 | F |
| ISC | 16 50 14.(1) | 46.68 N(0.08) | 100.7 W(0.13) | 3.7 | | 24 | 24 | | |
| USCGS | 16 50 12. | 46.5 N | 100.6 W | 1.5 | MB=4.4 | 7 | 7 | 4 | |
| | NORTH DAKOTA, SOUTH OF BISMARCK. INTENSITY IV NEAR | | | | | | | | |
| | EPICENTRE. FIRST INSTRUMENTALLY-LOCATED EARTHQUAKE IN | | | | | | | | |
| | NORTH DAKOTA AND ONE OF FEW EVER FELT | | | | | | | | |
| | SEE REFERENCE - UNITED STATES EARTHQUAKES 1968, PAGE 15 | | | | | | | | |

TABLE 5

UNLOCATED EVENTS RECORDED AT ALE

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JAN 30 | 00 57 22. | 65 | ML=1.3 | |
| JAN 30 | 20 18 37. | 125 | ML=1.2 | |
| FEB 16 | 20 07 07. | 754 | MN=2.7 | |
| FEB 16 | 20 50 25. | 1338 | MN=3.3 | POSSIBLY WESTERN GREENLAND |
| JUN 02 | 02 48 50. | 301 | ML=2.8 | |
| JUN 08 | 21 09 30. | 184 | ML=1.9 | |
| JUN 20 | 23 02 43. | 63 | ML=0.9 | |
| JUN 21 | 02 02 01. | 677 | MN=2.7 | POSSIBLY GREENLAND |
| JUL 08 | 00 11 29. | 219 | ML=2.5 | |
| JUL 12 | 05 16 47. | 801 | ML=3.7 | ARCTIC OCEAN |
| JUL 21 | 18 26 03. | 247 | ML=2.7 | |
| AUG 10 | 17 36 53. | 383 | ML=3.1 | ARCTIC OCEAN |
| AUG 11 | 01 49 57. | 636 | ML=3.8 | |
| AUG 12 | 06 26 37. | 582 | MN=3.3 | POSSIBLY GREENLAND |
| AUG 13 | 12 43 20. | 108 | ML=2.3 | |
| SEP 08 | 23 12 35. | 765 | MN=4.4 | PROBABLY GREENLAND |
| SEP 14 | 03 45 05. | 1483 | MN=3.4 | PROBABLY GREENLAND |
| SEP 27 | 02 06 39. | 1272 | MN=3.8 | PROBABLY EASTERN GREENLAND |
| SEP 30 | 19 55 54. | 377 | ML=2.7 | |
| OCT 10 | 01 14 23. | 1005 | MN=3.2 | EASTERN GREENLAND |
| OCT 16 | 23 22 35. | 129 | ML=2.3 | NORTHERN ELLESMERE ISLAND NWT OR NW GREENLAND |
| OCT 28 | 02 50 23. | 48 | ML=1.1 | NORTHERN ELLESMERE ISLAND NWT, SE OF ALE |
| DEC 30 | 09 50 16. | 246 | ML=2.0 | NORTHERN ELLESMERE ISLAND NWT OR NW GREENLAND |

TABLE 6

UNLOCATED EVENTS RECORDED AT BLC

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JUL 05 | 10 35 05. | 182 | ML=1.8 | |
| AUG 10 | 04 24 05. | 307 | ML=2.1 | NEAR ROES WELCOME SOUND NWT<br>AFTERSHOCK OF EVENT OF 10 AUG 04H11M |
| NOV 08 | 16 41 39. | 409 | ML=3.2 | ROES WELCOME SOUND NWT<br>FORESHOCK OF EVENT OF 10 NOV 07H |

TABLE 7

UNLOCATED EVENTS RECORDED AT CMC

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| FEB 24 | 14 08 02. | 338 | ML=1.7 | |

TABLE 8

UNLOCATED EVENTS RECORDED AT FBC

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JAN 13 | 00 38 07. | 768 | ML=3.2 | PROBABLY DAVIS STRAIT |
| JAN 20 | 18 42 55. | 313 | ML=1.7 | |
| JAN 23 | 04 24 43. | 482 | ML=2.5 | POSSIBLY DAVIS STRAIT |
| JAN 31 | 14 27 24. | 159 | ML=1.1 | SOUTHERN BAFFIN ISLAND |
| FEB 14 | 07 35 38. | 858 | MN=2.1 | PROBABLY NORTHERN BAFFIN ISLAND |
| FEB 14 | 08 04 50. | 799 | MN=2.1 | PROBABLY NORTHERN BAFFIN ISLAND |
| FEB 18 | 03 01 38. | 350 | ML=1.5 | |
| FEB 23 | 23 14 28. | 196 | ML=1.5 | SOUTHERN BAFFIN ISLAND |
| FEB 25 | 02 39 46. | 201 | ML=1.5 | SOUTHERN BAFFIN ISLAND |
| MAR 03 | 09 41 04. | 189 | ML=1.3 | SOUTHERN BAFFIN ISLAND |
| MAR 07 | 11 12 19. | 150 | ML=1.6 | SOUTHERN BAFFIN ISLAND |
| MAR 08 | 04 46 55. | 190 | ML=2.4 | SOUTHERN BAFFIN ISLAND |
| MAR 31 | 09 08 15. | 201 | ML=1.7 | SOUTHERN BAFFIN ISLAND |
| JUL 05 | 13 19 46. | 224 | ML=2.1 | |
| JUL 06 | 09 43 21. | 306 | ML=2.3 | |
| JLL 20 | 06 25 05. | 306 | ML=3.0 | |
| AUG 17 | 02 01 35. | 150 | ML=2.0 | SOUTHERN BAFFIN ISLAND |
| NOV 12 | 18 11 23. | 277 | ML=2.3 | HUDSON STRAIT NWT. 660 KM FROM SCH AFTERSHOCK OF EVENT OF 11 NOV 21H |

TABLE 9

UNLOCATED EVENTS RECORDED AT INK

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| SEP 27 | 16 03 59. | 247 | ML=2.5 | INK OPERATED ONLY THE LAST 3 DAYS OF SEPTEMBER IN 1968 |

TABLE 10

UNLOCATED EVENTS RECORDED AT MBC

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JAN 31 | 13 51 48. | 138 | ML=1.3 | FORESHOCK OF EVENT OF 31 JAN 13H56M26S |
| JAN 31 | 13 54 16. | 125 | ML=0.8 | FORESHOCK OF EVENT OF 31 JAN 13H56M26S |
| JAN 31 | 13 56 45. | 135 | ML=1.9 | AFTERSHOCK OF EVENT OF 31 JAN 13H56M26S |
| FEB 1 | 16 19 31. | 312 | ML=2.1 | EASTERN MELVILLE ISLAND NWT. 420 KM FROM RES |
| FEB 19 | 05 06 21. | 338 | ML=1.9 | EASTERN MELVILLE ISLAND NWT. 370 KM FROM RES |
| FEB 19 | 14 14 25. | 375 | ML=2.0 | EITHER LOUGHEED ISLAND (77N,106W) OR VISCOUNT MELVILLE SOUND (74N,108W) NWT. 390 KM FROM RES |
| FEB 20 | 12 21 27. | 108 | ML=0.9 | |
| FEB 24 | 09 43 09. | 133 | ML=0.9 | |
| FEB 27 | 01 51 57. | 259 | ML=1.8 | |
| FEB 28 | 01 30 03. | 328 | ML=1.5 | NEAR EASTERN MELVILLE ISLAND NWT. 400 KM FROM RES |
| FEB 28 | 03 35 06. | 387 | ML=2.7 | EITHER NORTHWESTERN VICTORIA ISLAND OR NORTH OF BORDEN ISLAND NWT. 600 KM FROM RES |
| FEB 29 | 13 35 46. | 159 | ML=0.8 | |
| MAR 02 | 02 35 16. | 315 | ML=1.8 | EASTERN MELVILLE ISLAND NWT. 345 KM FROM RES |
| MAR 10 | 21 57 34. | 174 | ML=0.6 | |
| MAR 20 | 20 49 02. | 275 | ML=1.2 | EASTERN MELVILLE ISLAND NWT. 370 KM FROM RES |
| APR 21 | 15 06 41. | 184 | ML=1.5 | |
| APR 22 | 06 30 10. | 218 | ML=1.6 | |
| MAY 08 | 08 19 25. | 103 | ML=1.6 | |
| MAY 09 | 12 55 38. | 61 | ML=1.8 | |
| MAY 17 | 20 35 57. | 113 | ML=1.7 | |
| MAY 22 | 08 12 43. | 62 | ML=1.2 | |
| MAY 27 | 02 00 14. | 33 | ML=1.8 | |
| JUN 10 | 04 22 46. | 47 | ML=1.6 | |
| SEP 01 | 12 13 52. | 20 | ML=0.9 | |
| OCT 01 | 19 42 44. | 116 | ML=1.0 | |
| OCT 20 | 19 41 41. | 106 | ML=1.3 | |
| DEC 20 | 16 18 23. | 127 | ML=1.2 | |

TABLE 11

UNLOCATED EVENTS RECORDED AT RES

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JAN 02 | 19 18 38. | 157 | ML=1.3 | PROBABLY AFTERSHOCK OF EVENT OF 2 JAN 18H |
| JAN 04 | 15 14 42. | 157 | ML=2.3 | NORTH OF CORNWALLIS ISLAND NWT AFTERSHOCK OF EVENT OF 2 JAN 18H |
| JAN 05 | 12 39 03. | 56 | ML=0.8 | NEAR SOUTH COAST OF CORNWALLIS ISLAND NWT |
| JAN 06 | 03 55 52. | 537 | MN=2.1 | POSSIBLY NORTH OR SOUTH OF RES |
| JAN 07 | 12 14 02. | 215 | ML=1.4 | |
| JAN 23 | 17 17 12. | 378 | ML=2.2 | |
| FEB 7 | 20 34 29. | 449 | ML=2.3 | PROBABLY EAST OR NORTH OF RES |
| FEB 17 | 04 57 24. | 680 | ML=2.5 | POSSIBLY EAST OF RES. NO LG PHASE OBSERVED |
| FEB 18 | 14 12 14. | 493 | ML=2.3 | POSSIBLY EAST OF RES |
| FEB 18 | 22 18 32. | 262 | ML=2.0 | |
| FEB 19 | 16 16 06. | 133 | ML=0.3 | |
| FEB 21 | 10 13 32. | 133 | ML=1.3 | NORTHERN SOMERSET ISLAND NWT AFTERSHOCK OF EVENT OF 20 FEB 22H |
| FEB 23 | 11 52 41. | 33 | ML=1.3 | |
| FEB 23 | 13 25 44. | 159 | ML=0.4 | |
| FEB 23 | 21 19 40. | 186 | ML=1.1 | |
| FEB 24 | 15 07 53. | 210 | ML=0.6 | |
| MAR 03 | 04 32 33. | 471 | ML=2.1 | EITHER ELLEF RINGNES ISLAND (79N,101W) OR NORTHERN VICTORIA ISLAND (73N,108W) NWT. 550 KM FROM MBC |
| MAR 05 | 00 30 16. | 47 | ML=1.0 | EAST OR WEST OF RES |
| MAR 08 | 17 27 35. | 142 | ML=1.6 | |
| MAR 18 | 10 26 58. | 324 | ML=1.5 | GULF OF BOOTHIA NWT FORESHOCK OF EVENT OF 18 MAR 12H |
| MAR 24 | 13 21 38. | 295 | ML=1.9 | WEST OF RES |
| MAR 26 | 21 27 29. | 393 | ML=2.0 | |
| MAR 31 | 11 29 21. | 181 | ML=1.1 | |
| APR 02 | 20 05 36. | 23 | ML=1.5 | |
| APR 04 | 19 24 47. | 99 | ML=1.2 | |
| APR 04 | 20 00 02. | 63 | ML=1.7 | |
| APR 09 | 05 26 19. | 352 | ML=2.4 | |
| APR 14 | 20 17 04. | 487 | ML=2.7 | |
| APR 21 | 03 21 47. | 454 | ML=2.6 | NEAR EITHER AXEL HEIBERG ISLAND OR VICTORIA ISLAND NWT. 730 KM FROM MBC |
| APR 22 | 15 08 47. | 1814 | MN=3.1 | GREENLAND. NEAR EITHER 79N,20W OR 84N,6W (ALE NOT OPERATING) |
| APR 23 | 11 12 27. | 60 | ML=0.5 | |
| MAY 18 | 20 15 21. | 109 | ML=1.7 | |
| MAY 24 | 05 04 42. | 215 | ML=2.3 | |
| JUN 04 | 07 04 43. | 181 | ML=1.4 | |
| JUN 04 | 21 19 24. | 206 | ML=2.1 | |
| JUL 02 | 07 51 13. | 133 | ML=1.4 | |
| JUL 03 | 10 30 16. | 97 | ML=1.7 | |
| JUL 05 | 12 03 49. | 265 | ML=2.1 | |
| JUL 06 | 12 43 31. | 266 | ML=2.1 | POSSIBLY BATHURST ISLAND |
| JUL 08 | 21 16 09. | 91 | ML=1.1 | |
| JUL 12 | 20 10 22. | 91 | ML=2.1 | |

TABLE 11 (CONTINUED)

UNLOCATED EVENTS RECORDED AT RES

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JUL 13 | 20 13 46. | 74 | ML=1.7 | |
| JUL 14 | 22 04 54. | 108 | ML=1.3 | |
| JUL 23 | 09 42 10. | 601 | MN=2.5 | POSSIBLY NORTHERN BAFFIN ISLAND |
| JUL 25 | 18 42 34. | 264 | ML=2.7 | EITHER ON (76N,102W) OR NEAR (75N,104W) BATHURST ISLAND. 470 KM FROM MBC |
| JUL 26 | 13 13 34. | 65 | ML=1.6 | |
| AUG 04 | 03 20 55. | 130 | ML=2.4 | |
| AUG 04 | 10 43 00. | 211 | ML=1.7 | |
| AUG 06 | 16 37 35. | 449 | ML=3.3 | POSSIBLY EAST OF RES |
| AUG 13 | 07 04 18. | 87 | ML=1.8 | |
| AUG 15 | 11 23 16. | 104 | ML=2.1 | |
| OCT 04 | 22 24 26. | 144 | ML=1.6 | |
| OCT 11 | 12 29 09. | 191 | ML=1.5 | |
| OCT 13 | 15 46 13. | 58 | ML=1.7 | |
| OCT 21 | 16 03 46. | 437 | ML=2.9 | POSSIBLY NORTH OF RES |
| OCT 30 | 07 19 28. | 184 | ML=1.3 | |
| NOV 01 | 22 07 17. | 74 | ML=1.6 | POSSIBLY SOUTH OF RES |
| NOV 02 | 02 32 20. | 74 | ML=1.8 | POSSIBLY SOUTH OF RES |
| DEC 23 | 05 21 59. | 101 | ML=1.3 | |

TABLE 12

UNLOCATED EVENTS RECORDED AT OTT

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| SEP 29 | 17 22 08. | 44 | ML=2.0 | OTTAWA VALLEY QUEBEC, NORTHEAST OF OTT |

TABLE 13

UNLOCATED EVENTS RECORDED AT SFA

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| SEP 19 | 10 27 24. | 28 | ML=1.3 | |
| SEP 26 | 04 51 46. | 65 | ML=1.8 | POSSIBLY NEAR LA MALBAIE QUEBEC |
| DEC 20 | 20 02 12. | 59 | ML=1.9 | LOWER ST LAWRENCE RIVER NEAR QUEBEC CITY ABOUT 240 KM FROM MNT |

TABLE 14

UNLOCATED EVENTS RECORDED AT MCC

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JAN 01 | 22 49 28. | 61 | ML=2.4 | |
| MAR 06 | 22 17 08. | 45 | ML=1.5 | |
| MAR 07 | 06 00 58. | 54 | ML=1.5 | |
| APR 10 | 23 51 20. | 69 | ML=1.9 | |

TABLE 15

UNLOCATED EVENTS RECORDED AT SES

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JUL 10 | 22 07 19. | 182 | ML=2.5 | |
| JUL 11 | 10 10 26. | 152 | ML=2.2 | |

TABLE 16

UNLOCATED EVENTS RECORDED AT FSJ

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JUL 30 | 21 06 07. | 415 | ML=3.6 | |
| SEP 16 | 22 38 03. | 428 | ML=2.2 | |

TABLE 17

UNLOCATED EVENTS RECORDED AT PNT

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JUL 23 | 19 07 48. | 116 | ML=1.6 | EAST OF PNT |
| AUG 01 | 10 58 02. | 44 | ML=2.4 | |
| AUG 01 | 11 05 45. | 45 | ML=2.7 | |

TABLE 18

UNLOCATED EVENTS RECORDED AT VIC

| DATE 1958 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| MAR 06 | 15 00 06. | 102 | ML=1.3 | 104 KM FROM ALB |
| APR 18 | 04 11 02. | 26 | ML=2.0 | NORTHWEST OF VIC |
| MAY 04 | 20 03 22. | 87 | ML=2.3 | 129 KM FROM LONGMIRE |
| MAY 24 | 16 29 25. | 59 | ML=1.7 | |
| JUN 13 | 08 00 00. | 102 | ML=1.9 | NORTHWESTERN WASHINGTON, NEAR CAPE FLATTERY FORESHOCK OF EVENT OF 13 JUNE 08H09M |
| JUN 13 | 13 26 41. | 61 | ML=1.7 | |
| JUN 13 | 20 29 14. | 96 | ML=2.2 | |
| JUN 15 | 09 49 05. | 53 | ML=1.7 | |
| JUL 17 | 19 48 34. | 33 | ML=1.6 | |
| JUL 19 | 15 11 56. | 62 | ML=2.0 | |
| SEP 04 | 19 03 20. | 29 | ML=1.0 | |
| SEP 16 | 03 04 46. | 52 | ML=2.1 | |
| SEP 24 | 21 33 25. | 30 | ML=1.3 | |

TABLE 19

UNLOCATED EVENTS RECORDED AT PHC

| DATE 1968 | H-TIME(GMT) HR MN SEC | DELTA KM | MAGNITUDE | REMARKS |
|---|---|---|---|---|
| JAN 24 | 04 25 36. | 176 | ML=2.7 | |
| FEB 01 | 04 05 39. | 186 | ML=2.6 | |
| FEB 01 | 19 29 16. | 209 | ML=2.9 | |
| FEB 01 | 22 01 03. | 222 | ML=2.8 | |
| FEB 01 | 22 18 40. | 171 | ML=2.5 | |
| FEB 04 | 10 39 06. | 142 | ML=2.5 | |
| MAR 02 | 18 53 55. | 189 | ML=2.7 | |
| MAR 08 | 03 56 36. | 170 | ML=2.6 | |
| MAR 08 | 08 26 20. | 167 | ML=2.8 | |
| MAR 14 | 17 33 00. | 196 | ML=2.5 | |
| MAR 24 | 03 08 08. | 171 | ML=2.6 | |
| APR 07 | 01 01 43. | 130 | ML=2.4 | MOST EVENTS IN THIS TABLE WITH |
| APR 22 | 23 19 18. | 168 | ML=2.6 | DELTA 160 - 230 KM PROBABLY |
| APR 23 | 05 46 28. | 171 | ML=2.6 | ORIGINATED WEST OF VANCOUVER ISLAND |
| MAY 11 | 02 28 56. | 187 | ML=2.2 | |
| MAY 26 | 23 31 07. | 186 | ML=2.3 | |
| JUN 06 | 20 47 19. | 171 | ML=2.9 | |
| JUN 09 | 23 24 55. | 63 | ML=2.0 | |
| JUN 11 | 01 20 51. | 225 | ML=2.8 | |
| JUN 11 | 08 05 33. | 206 | ML=2.7 | |
| JUN 11 | 16 55 57. | 210 | ML=2.8 | |
| JUN 18 | 08 04 55. | 203 | ML=2.8 | |
| JUN 19 | 05 11 30. | 200 | ML=2.6 | |
| JUN 30 | 10 49 04. | 210 | ML=2.8 | |
| JUL 07 | 09 28 41. | 200 | ML=2.9 | |
| JUL 08 | 04 46 49. | 220 | ML=2.1 | |
| JUL 13 | 03 57 41. | 207 | ML=2.1 | |
| JUL 14 | 18 16 26. | 196 | ML=2.6 | |
| JUL 16 | 01 13 45. | 81 | ML=2.1 | |
| AUG 01 | 03 35 48. | 146 | ML=2.7 | |
| AUG 30 | 01 07 42. | 179 | ML=3.0 | |
| AUG 30 | 05 21 22. | 165 | ML=2.7 | |
| SEP 07 | 02 46 18. | 140 | ML=2.2 | |
| SEP 08 | 01 41 26. | 190 | ML=2.3 | |
| SEP 14 | 03 23 22. | 176 | ML=2.5 | |
| OCT 03 | 04 40 08. | 182 | ML=2.4 | |
| NOV 15 | 20 27 56. | 160 | ML=2.8 | |
| NOV 16 | 04 39 29. | 170 | ML=3.3 | |
| NOV 21 | 07 44 14. | 160 | ML=2.7 | |
| DEC 02 | 12 30 09. | 45 | ML=2.5 | |
| DEC 08 | 13 03 02. | 115 | ML=2.4 | |