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UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION  
ADELAIDE (MT. BONYTHON)

Latitude:  $34^{\circ} 58' 01''$  Longitude:  $138^{\circ} 42' 32''$   
 Height above mean sea level: 2150'  
 Foundation: Sandstone  
 Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.  
 $T_g = 75$  sec. and  $T_g = 0.2$  sec. respectively

| No. | Date 1960           | Phase  | Time (G.M.T.)  | Per | Amplitude |       |       | $\Delta$ Km. | Remarks  |
|-----|---------------------|--|--|-----|-----------|-------|-------|--------------|--|
|     |                     |  |  |     | $A_n$     | $A_e$ | $A_z$ |              |  |
| 1   | Jan. <del>x</del> 1 | eP N Z   | 06 06 52   |     |           |       |       | 6000         | USCGS: $18\frac{1}{2}$ N, $147$ E, Mariana Islands         |
| 2   | <del>x</del> 2      | iP NEZ<br>i Z                                      | 05 16 30.5<br>16 39                                    |     |           |       |       | 6050         | USCGS: $2\frac{1}{2}$ N, $96$ E<br>Off coast of Sumatra    |
| 3   | <del>x</del> 2      | eP NEZ   | 08 40 02   |     |           |       |       | 9900         | USCGS: Sandwich Islands                                    |
| 4   | <del>x</del> 2      | eP NEZ   | 09 31 07   |     |           |       |       |              |  |
| 5   | <del>x</del> 2      | eP NEZ<br>eS NE<br>e(SS) N<br>eL E<br>eL N<br>eL Z | 12 34 27<br>44 52<br>50 20<br>57.3<br>13 02 00<br>02.5 |     |           |       |       | 9250         | USCGS: South Atlantic Ocean,<br>west of Bouvet Island      |
| 6   | <del>x</del> 2      | eP NEZ   | 16 12 53   |     |           |       | -     |              |  |
| 7   | <del>x</del> 2      | iP NEZ   | 23 18 11   |     |           |       |       |              |  |
| 8   | <del>x</del> 3      | eP NEZ   | 00 20 02   |     |           |       |       |              |  |
| 9   | <del>x</del> 3      | eP Z   | 10 46 04   |     |           |       |       |              |  |
| 10  | <del>x</del> 3      | iP NEZ   | 11 16 06   |     |           |       |       |              |  |
| 11  | <del>x</del> 3      | eP N Z   | 21 32 14   |     |           |       |       | 8950         | USCGS: $45$ N, $148$ E,<br>Kurile Islands h about $150$ Km |
| 12  | <del>x</del> 4      | iP NEZ   | 04 13 36   |     |           |       |       |              |  |
| 13  | <del>x</del> 4      | eP Z   | 06 26 25   |     |           |       |       | 3700         | USCGS: $4\frac{1}{2}$ S, $153\frac{1}{2}$ E<br>New Britain |
| 14  | <del>x</del> 4      | eP N Z   | 10 32 02   |     |           |       |       |              |  |
| 15  | <del>x</del> 4      | iP NEZ   | 13 43 58   |     |           |       | +     | 6150         | USCGS: $18$ N, $120\frac{1}{2}$ E<br>Luzon Island, P.I.    |
| 16  | <del>x</del> 4      | eP NEZ   | 13 49 00   |     |           |       |       |              |  |
| 17  | <del>x</del> 4      | iP NEZ   | 19 43 35   |     |           |       |       |              |  |
| 18  | <del>x</del> 5      | eP NEZ   | 06 00 22   |     |           |       |       |              |  |
| 19  | <del>x</del> 5      | eP NEZ<br>e NEZ<br>e NEZ                           | 11 15 30<br>16 15<br>21 38                             |     |           |       |       |              |  |
| 20  | <del>x</del> 6      | eP NEZ   | 07 44 35   |     |           |       |       | 3950         | USCGS: Santa Cruz Is.                                      |
| 21  | <del>x</del> 6      | eP NEZ<br>i Z<br>e(L) NE<br>e(L) Z                 | 13 17 55.5<br>18 07<br>28.1<br>30.6                    |     |           |       |       | 3950         | USCGS: $10\frac{1}{2}$ S, $167$ E,<br>Santa Cruz Is.       |
| 22  | <del>x</del> 6      | eP Z   | 15 03 28   |     |           |       |       |              |  |
| 23  | <del>x</del> 6      | iP NEZ   | 18 56 31   |     |           |       | +     | 7950         | USCGS: $23\frac{1}{2}$ N, $95$ E, Burma                    |
| 24  | <del>x</del> 6      | iP NEZ<br>eS NEZ<br>eL NEZ<br>i E                  | 20 22 29<br>27 56<br>31 50<br>32 22                    |     |           |       | -     | 3200         | USCGS: $6\frac{1}{2}$ S, $133$ E, Banda Sea                |
| 25  | <del>x</del> 7      | iP NEZ<br>i NEZ                                    | 07 59 08<br>59 14                                      |     |           |       |       |              |  |

| No. | Date 1960 | Phase  | Time (G.M.T.)   | Per | Amplitude      |                |                | △ Km. | Remarks   |
|-----|-----------|--|---|-----|----------------|----------------|----------------|-------|---|
|     |           |  |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |   |
| 26  | Jan. ✓ 7  | iP NEZ<br>i(pP) NEZ                                    | 08 25 21<br>25 28   |     |                |                |                | 6550  | USCGS: 6½N, 94E,<br>Nicobar Islands               |
| 27  | × 7       | eP NEZ   | 09 04 13  |     |                |                |                |       |   |
| 28  | × 7       | eP NEZ<br>i Z  | 09 10 41.5<br>10 48   |     |                |                |                |       |   |
| 29  | × 7       | eP Z   | 10 30 16  |     |                |                |                |       |   |
| 30  | × 7       | eP NEZ   | 10 59 48  |     |                |                |                |       |   |
| 31  | × 7       | eP Z   | 11 29 09.5  |     |                |                |                |       |   |
| 32  | × 7       | eP NEZ<br>e Z  | 12 51 21<br>52 05   |     |                |                |                |       |   |
| 33  | × 7       | eP NEZ   | 13 18 49.5  |     |                |                | -              |       |   |
| 34  | ✓ 7       | eP NEZ<br>i NEZ<br>e Z<br>eS NE<br>e E<br>eL N<br>eL Z | 13 41 10<br>41 24<br>44 42<br>51 57<br>14 04 22<br>13.6<br>16.1 |     |                |                |                | 9900  | USCGS: Sandwich Islands<br>Mag. 6¼ - 6½ (Pas.)    |
| 35  | × 7       | eP NEZ   | 14 48 58  |     |                |                |                |       |   |
| 36  | × 7       | eP Z   | 15 04 12  |     |                |                |                |       |   |
| 37  | × 7       | eP NEZ<br>i Z  | 17 28 28<br>28 31   |     |                |                |                |       |   |
| 38  | ✓ 7       | eP NEZ<br>i Z  | 23 27 18<br>27 21   |     |                |                |                | 6500  | USCGS: 6½N, 94½E<br>Nicobar Islands               |
| 39  | × 8       | iP NEZ<br>i Z  | 02 47 41<br>47 44   |     |                |                |                | 9500  | USCGS: 58½S, 26W,<br>Sandwich Islands             |
| 40  | ✓ 8       | eP NEZ   | 11 42 16  |     |                |                |                | 9900  | USCGS: 55S, 27½W,<br>Sandwich Islands             |
| 41  | ✓ 8       | iP NEZ<br>eL NEZ                                       | 14 58 53<br>15 34.3   |     |                |                |                | 9750  | USCGS: 55½S, 27½W,<br>Sandwich Islands            |
| 42  | × 8       | eP Z   | 23 38 11  |     |                |                |                |       |   |
| 43  | × 9       | iP NEZ   | 02 05 00  |     |                |                | -              |       |   |
| 44  | × 9       | iP NEZ   | 04 27 53  |     |                |                | -              |       |   |
| 45  | × 9       | iP NEZ   | 04 33 34  |     |                |                | +              |       |   |
| 46  | × 9       | iP NEZ   | 04 53 29.5  |     |                |                |                |       |   |
| 47  | ✓ 9       | iP NEZ<br>i Z<br>i Z<br>ePP NEZ                        | 07 37 03<br>37 05<br>37 22<br>40 56                             |     |                |                |                | 10650 | USCGS: 36N, 69E,<br>Hindu Kush,<br>h about 150Km. |
| 48  | ✓ 9       | eP NEZ<br>i N Z<br>i N Z<br>i E                        | 07 49 03<br>49 10<br>49 17<br>50 58                             |     |                |                |                | 4050  | USCGS: 1S, 124E, Celebes                          |
| 49  | × 9       | eP N Z   | 15 29 08  |     |                |                |                |       |   |
| 50  | × 9       | iP N Z<br>e Z  | 18 07 32<br>09 19   |     |                |                |                |       |   |
| 51  | × 9       | eP Z   | 22 17 7.5   |     |                |                | -              |       |   |
| 52  | × 10      | eP NEZ   | 03 46 53  |     |                |                |                |       |   |
| 53  | × 10      | eP NEZ   | 05 33 21.5  |     |                |                |                |       |   |
| 54  | × 10      | eP NEZ   | 07 36 36  |     |                |                |                |       |   |
| 55  | ✓ 11      | iP NEZ   | 02 38 11.5  |     |                |                |                | 7100  | USCGS: 28½N, 131E,<br>Ryukyu Islands              |

| No.    | Date<br>1960         | Phase            | Time<br>(G.M.T.)    | Per | Amplitude      |                |                | △ Km. | Remarks   |
|--------|----------------------|------------------|---------------------|-----|----------------|----------------|----------------|-------|---|
|        |                      |                  |                     |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |   |
| 56     | Jan. <del>x</del> 11 | eP NEZ           | 03 00 14            |     |                |                |                | 5700  | USCGS: 13 $\frac{1}{2}$ N, 120 $\frac{1}{2}$ E,<br>off coast of Luzon, P.I.   |
| 57     | <del>x</del> 11      | eP NEZ           | 03 20 59            |     |                |                |                | 7150  | USCGS: 16N, 96 $\frac{1}{2}$ E, Near south<br>coast of Burma  |
| 58     | <del>x</del> 11      | eP NEZ           | 14 59 32            |     |                |                |                | 3100  | USCGS: 9S, 127E,<br>Timor Island region   |
|        |                      | i NEZ            | 15 00 32            |     |                |                |                |       |   |
|        |                      | i NEZ            | 01 57               |     |                |                |                |       |   |
|        |                      | iS NEZ           | 05 00               |     |                |                |                |       |   |
|        |                      | i N              | 08 57               |     |                |                |                |       |   |
|        |                      | i N              | 09 24               |     |                |                |                |       |   |
| 59     | <del>x</del> 11      | iP NEZ<br>i Z    | 22 38 04.5<br>39 31 |     |                |                |                |       |   |
| 60     | <del>x</del> 11      | iP NEZ<br>eL NEZ | 23 00 41<br>12 00   |     |                |                | +              | 3650  | USCGS: 2S, 140 $\frac{1}{2}$ E, Near north<br>coast of New Guinea   |
| 61     | <del>x</del> 11      | iP NEZ           | 02 02 49            |     |                |                |                |       |   |
| 62     | <del>x</del> 12      | iP NEZ<br>eL NEZ | 03 22 09<br>59 30   |     |                |                |                | 9900  | USCGS: 55 $\frac{1}{2}$ S, 27W<br>Sandwich Is. region   |
| 63     | <del>x</del> 12      | eP NEZ           | 08 54 59            |     |                |                |                |       |   |
| 64     | <del>x</del> 12<br>3 | eP NEZ           | 07 32 52            |     |                |                |                | 3,500 | USCGS. New Guinea   |
|        |                      | e NEZ            | 33 47               |     |                |                |                |       |   |
|        |                      | e N              | 39 24               |     |                |                |                |       |   |
|        |                      | e Z              | 39 40               |     |                |                |                |       |   |
|        |                      | e Z              | 42 42               |     |                |                |                |       |   |
|        |                      | i N              | 43 22               |     |                |                |                |       |   |
|        |                      | i N              | 43 54               |     |                |                |                |       |   |
| 65     | <del>x</del> 13      | ePKP NEZ         | 15 59 13            |     |                |                |                | 13450 | USCGS: 16S, 72W,<br>Southern Peru<br>h about 200 Km.<br>Mag. $7\frac{1}{2}$ - $7\frac{3}{4}$ (Berk.)<br>$7\frac{1}{2}$ (Pas.) |
|        |                      | iPP NEZ          | 16 00 41            |     |                |                |                |       |   |
|        |                      | i N              | 01 28               |     |                |                |                |       |   |
|        |                      | iSKS NE          | 06 04               |     |                |                |                |       |   |
|        |                      | i N              | 07 34               |     |                |                |                |       |   |
|        |                      | e N              | 08 20               |     |                |                |                |       |   |
|        |                      | i Z              | 09 20               |     |                |                |                |       |   |
|        |                      | i Z              | 10 26               |     |                |                |                |       |   |
|        |                      | e(PS) E          | 10 46               |     |                |                |                |       |   |
|        |                      | i(PS) N Z        | 10 56               |     |                |                |                |       |   |
|        |                      | i Z              | 13 03               |     |                |                |                |       |   |
|        |                      | iSS NE           | 17 12               |     |                |                |                |       |   |
|        |                      | e E              | 20 14               |     |                |                |                |       |   |
|        |                      | e N              | 20 30               |     |                |                |                |       |   |
|        |                      | e E              | 29 20               |     |                |                |                |       |   |
| eL NEZ | 30 50                |                  |                     |     |                |                |                |       |   |
| 66     | <del>x</del> 13      | iP NEZ           | 16 09 20            |     |                |                |                |       | ? part of No. 65 earthquake   |
| 67     | <del>x</del> 13      | eP N Z           | 16 43 01            |     |                |                |                | 10450 | USCGS: 51 $\frac{1}{2}$ N, 180<br>Andreanof Islands<br>Aleutian Islands.  |
| 68     | <del>x</del> 13      | iP NEZ           | 18 53 54            |     |                |                | +              |       |   |
| 69     | <del>x</del> 14      | iP NEZ           | 02 51 03            |     |                |                |                | 6450  | USCGS: Near north coast of<br>Sumatra   |
|        |                      | i NEZ            | 51 20               |     |                |                |                |       |   |
| 70     | <del>x</del> 14      | eP NEZ           | 06 29 01            |     |                |                |                |       |   |
| 71     | <del>x</del> 14      | eP NEZ           | 07 44 19            |     |                |                |                |       |   |
| 72     | <del>x</del> 14      | iP NEZ           | 10 37 04.5          |     |                |                |                |       |   |
| 73     | <del>x</del> 14      | eP Z             | 13 20 57            |     |                |                |                |       |   |
| 74     | <del>x</del> 14      | eP NEZ           | 13 26 12            |     |                |                |                |       |   |
| 75     | <del>x</del> 14      | eP NEZ           | 13 35 35            |     |                |                |                |       |   |
| 76     | <del>x</del> 14      | eP NEZ<br>e N Z  | 16 05 38.5<br>06 49 |     |                |                | -              | 3700  | USCGS: 3S, 127 $\frac{1}{2}$ E,<br>Ceram Island region  |

| No. | Date 1960            | Phase  | Time (G.M.T.)   | Per | Amplitude      |                |                | △ Km.  | Results |
|-----|----------------------|--|---|-----|----------------|----------------|----------------|--|---------|
|     |                      |  |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 77  | Jan. <del>x</del> 14 | eP NEZ   | 19 09 59  |     |                |                |                |  |         |
| 78  | <del>x</del> 15      | eP NEZ<br>i Z  | 03 08 44.5<br>09 00.5   |     |                |                |                |  |         |
| 79  | <del>x</del> 15      | ePKP NEZ<br>ePP Z<br>e(SKS)N<br>ePKKP Z<br>e(PS) N Z<br>e(PS) E<br>e Z<br>e Z<br>eSS NE<br>e Z<br>e(L) E<br>eL NEZ | 09 49 06<br>49 36<br>56 04<br>59 12<br>10 00 30<br>00 40<br>02 30<br>06 30<br>07 02<br>09 42<br>20 45<br>27.3 |     |                |                | 13350          | USCGS: 15S, 75W,<br>Near coast of<br>southern Peru<br>h about 150Km.<br>Mag. 7 (Pas.) $6\frac{1}{2}$ (Berk.) |         |
| 80  | <del>x</del> 15      | iP NEZ   | 13 40 53  |     |                |                |                |  |         |
| 81  | <del>x</del> 15      | iP NEZ   | 14 39 01  |     |                |                |                |  |         |
| 82  | <del>x</del> 15      | iP NEZ<br>ePP Z  | 23 46 21.5<br>47 49   |     |                |                | 4350           | USCGS: Northern Celebes<br>region  |         |
| 83  | <del>x</del> 16      | eP NEZ<br>eS E<br>eL E<br>eL N Z   | 07 04 31<br>09 05<br>10.3<br>11.2   |     |                |                | 2800           | USCGS: $59\frac{1}{2}$ S, $149\frac{1}{2}$ E<br>About 500 miles southwest<br>of Macquarie Islands            |         |
| 84  | <del>x</del> 16      | eP NEZ<br>eS N<br>i(ScS)N  | 12 37 49.5<br>43 14<br>46 54  |     |                |                | 4500           | USCGS: $20\frac{1}{2}$ S, 178W,<br>Fiji Is. region<br>h about 600Km.   |         |
| 85  | <del>x</del> 16      | iP NEZ<br>eL N   | 15 39 32<br>49.3  |     |                |                | 3650           | USCGS: $22\frac{1}{2}$ S, $173\frac{1}{2}$ E<br>Loyalty Is. region   |         |
| 86  | <del>x</del> 16      | iP NEZ   | 18 45 09.5  |     |                |                | 3750           | USCGS: 13S, $167\frac{1}{2}$ E, New<br>Hebrides Is. region<br>h about 200Km.                                 |         |
| 87  | <del>x</del> 16      | iP Z   | 19 46 36  |     |                |                |                |  |         |
| 88  | <del>x</del> 16      | iP NEZ<br>eL NE<br>eL Z  | 21 48 14.5<br>56.3<br>58.5  |     |                |                | 3600           | USCGS: 10S, $161\frac{1}{2}$ E,<br>Solomon Islands   |         |
| 89  | <del>x</del> 16      | iP NEZ   | 22 01 55  |     |                |                | -              |  |         |
| 90  | <del>x</del> 16      | iP NEZ   | 23 39 02  |     |                |                | 3650           | USCGS: $4\frac{1}{2}$ S, 152E,<br>New Britain  |         |
| 91  | <del>x</del> 17      | iP NEZ   | 02 35 38  |     |                |                | +              |  |         |
| 92  | <del>x</del> 17      | eP NEZ   | 05 07 47  |     |                |                |                |  |         |
| 93  | <del>x</del> 17      | eP NEZ   | 05 20 29.5  |     |                |                |                |  |         |
| 94  | <del>x</del> 17      | (eP) Z   | 12 53 16  |     |                |                | +              |  |         |
| 95  | <del>x</del> 18      | iP NEZ<br>i NEZ  | 09 12 49<br>13 04   |     |                |                | 4600           | USCGS: 5N, $126\frac{1}{2}$ E, Off<br>south coast of Mindanao<br>P.I.  |         |
| 96  | <del>x</del> 18      | eP NEZ   | 14 44 01  |     |                |                | -              |  |         |
| 97  | <del>x</del> 19      | iP NEZ   | 02 29 57  |     |                |                | 9800           | USCGS: 52N, 158E, Near<br>southeast coast of Kamchat-<br>ka. Mag. $6\frac{1}{4}$ - $6\frac{1}{2}$ (Pas.)     |         |
| 98  | <del>x</del> 19      | eP NEZ<br>e EZ<br>i Z<br>iS NEZ<br>e(sS) N<br>iScS NE<br>e N   | 09 21 31<br>23 09<br>24 03<br>26 38<br>29 38<br>30 46<br>32 38  |     |                |                | 4150           | USCGS: 23S, 180. South of<br>Fiji Is. h about 600Km.<br>Mag. 6(Pas.)   |         |

| No. | Date 1960            | Phase    | Time (G.M.T.) | Per | Amplitude      |                |                | △ Km.   | Remarks |
|-----|----------------------|----------|---------------|-----|----------------|----------------|----------------|---|---------|
|     |                      |          |               |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| 99  | Jan. <del>x</del> 19 | eP Z     | 16 20 29.5    |     |                |                | 6550           | USCGS: 24N, 142E, Volcano Is. h about 100Km.            |         |
| 100 | <del>x</del> 19      | eP NEZ   | 19 46 25.5    |     |                |                |                |   |         |
| 101 | <del>x</del> 20      | ePKP Z   | 01 23 27      |     |                |                | 16300          | USCGS: 3½N, 31W, Mid-Atlantic Ocean                     |         |
| 102 | <del>x</del> 20      | iP NEZ   | 20 02 54      |     |                |                |                |   |         |
| 103 | <del>x</del> 21      | iP Z     | 07 55 36      |     |                |                |                |   |         |
| 104 | ✓21                  | eP NEZ   | 10 50 35      |     |                |                | 4550           | USCGS: 16S, 179½E, Fiji Is. h about 600Km.              |         |
|     |                      | e E      | 52 28         |     |                |                |                |   |         |
|     |                      | eL NE    | 11 00.2       |     |                |                |                |   |         |
|     |                      | eL E     | 03.7          |     |                |                |                |   |         |
| 105 | <del>x</del> 21      | eP NEZ   | 15 55 35      |     |                |                |                |   |         |
| 106 | <del>x</del> 21      | iP NEZ   | 16 51 49      |     |                |                | 4750           | USCGS: 6N, 126E, Near south coast of Mindanao, P.I.     |         |
| 107 | <del>x</del> 21      | eP NEZ   | 17 52 06      |     |                |                | 5150           | USCGS: 15½S, 174W, Samoa Is. region. h about 100Km.     |         |
| 108 | <del>x</del> 21      | eP Z     | 20 54 11      |     |                |                |                |   |         |
| 109 | ✓22                  | iP NEZ   | 13 43 08      |     |                |                | 4100           | USCGS: 0, 125E, Molucca Passage                         |         |
|     |                      | i N Z    | 43 29         |     |                |                |                |   |         |
|     |                      | iPP N Z  | 44 30         |     |                |                |                |   |         |
| 110 | <del>x</del> 22      | eP NEZ   | 16 25 21      |     |                |                |                |   |         |
|     |                      | e Z      | 25 48         |     |                |                |                |   |         |
|     |                      | e Z      | 26 14         |     |                |                |                |   |         |
| 111 | <del>x</del> 23      | iP NEZ   | 02 45 34.5    |     |                |                |                |   |         |
|     |                      | i Z      | 46 19.5       |     |                |                |                |   |         |
|     |                      | i E      | 47 01         |     |                |                |                |   |         |
| 112 | ✓23                  | iP NEZ   | 04 47 32      |     |                |                | 3600           | USCGS: 4S, 127½E, Ceram Island region                   |         |
|     |                      | i NEZ    | 48 24         |     |                |                |                |   |         |
|     |                      | iS NEZ   | 52 45         |     |                |                |                |   |         |
|     |                      | e(L) NEZ | 53 46         |     |                |                |                | Mag. 6½ (Pas.)  |         |
| 113 | ✓23                  | iP NEZ   | 06 31 41      |     |                |                | 4750           | USCGS: 17S, 177W. Fiji Is. region. h about 400Km.       |         |
|     |                      | iPcP Z   | 33 21         |     |                |                |                |   |         |
| 114 | ✓23                  | iP NEZ   | 07 37 50      |     |                |                | 3600           | USCGS: 4S, 127½E, Ceram Is. region. Mag. 6¾ (Pas.)      |         |
|     |                      | i N      | 41 30         |     |                |                |                |   |         |
|     |                      | i E      | 42 00         |     |                |                |                |   |         |
|     |                      | iS NEZ   | 43 04         |     |                |                |                |   |         |
|     |                      | (eL) NEZ | 48.2          |     |                |                |                |   |         |
| 115 | <del>x</del> 23      | iP NEZ   | 08 10 43      |     |                |                |                |   |         |
|     |                      | i Z      | 10 57         |     |                |                |                |   |         |
| 116 | <del>x</del> 23      | (eP) NEZ | 08 35 58      |     |                |                |                |   |         |
|     |                      | e NEZ    | 40 30.5       |     |                |                |                |   |         |
| 117 | <del>x</del> 23      | (eP) NEZ | 10 26 33      |     |                |                |                |   |         |
| 118 | <del>x</del> 23      | (eP) NEZ | 12 27 04      |     |                |                |                |   |         |
| 119 | ✓23                  | iP NEZ   | 18 03 04.5    |     |                |                | 3600           | USCGS: 4S, 127½E, Ceram Is. region. Mag. 6½ - 6¾ (Pas.) |         |
|     |                      | i NEZ    | 03 10         |     |                |                |                |   |         |
|     |                      | iS NEZ   | 08 25         |     |                |                |                |   |         |
|     |                      | e NE     | 09 22         |     |                |                |                |   |         |
|     |                      | e(L) Z   | 10 30         |     |                |                |                |   |         |
|     |                      | e(L) NE  | 11 30         |     |                |                |                |   |         |
| 120 | <del>x</del> 24      | iP NEZ   | 01 13 41      |     |                |                |                |   |         |
| 121 | ✓24                  | iP NEZ   | 04 29 38      |     |                |                | 4700           | USCGS: 15½S, 179W, Fiji Islands                         |         |
|     |                      | i Z      | 29 44         |     |                |                |                |   |         |
|     |                      | i N Z    | 29 49         |     |                |                |                |   |         |
|     |                      | i N      | 30 04         |     |                |                |                | Mag. 6¼ - 6½ (Pas.)                                     |         |
|     |                      | e N Z    | 33 00         |     |                |                |                |   |         |
|     |                      | iS NEZ   | 36 00         |     |                |                |                | 6 - 6¼ (Berk.)  |         |

| No.          | Date 1960 | Phase  | Time (G.M.T.)   | Per | Amplitude      |                |                | △ Km.  | Remarks |
|--------------|-----------|--|---|-----|----------------|----------------|----------------|--|---------|
|              |           |  |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 121<br>Cont. | Jan. 24   | i NE<br>(eL) N<br>i E<br>(eL) E<br>(eL) Z      | 37 42<br>39 25<br>39 40<br>41 00<br>42.5              |     |                |                |                |  |         |
| 122          | x24       | eP NEZ<br>e NEZ<br>iS NEZ<br>(eL) NEZ          | 09 20 08<br>20 41<br>24 46<br>26 20                   |     |                |                | 3200           | USCGS: Banda Sea   |         |
| 123          | x24       | eP NEZ   | 21 21 48  |     |                |                |                |  |         |
| 124          | x25       | iP NEZ   | 01 46 16  |     |                |                |                |  |         |
| 125          | ✓25       | eP NEZ   | 16 37 24  |     |                |                | 4650           | USCGS: 16S, 179W,<br>Fiji Islands Mag. $6\frac{1}{4}$ (Pas.)                             |         |
| 126          | ✓26       | iP NEZ   | 20 45 54  |     |                |                |                |  |         |
| 127          | ✓26       | iP NEZ<br>i NEZ<br>iPcP NEZ                    | 22 28 26.5<br>28 28<br>30 50                          |     |                |                | 4050           | USCGS: 30S, 178W<br>Kermadec Islands   |         |
| 128          | x27       | iP NEZ   | 10 14 15  |     |                |                |                |  |         |
| 129          | x27       | eP NEZ   | 18 32 54  |     |                |                |                |  |         |
| 130          | x27       | eP NEZ   | 19 20 38  |     |                |                |                |  |         |
| 131          | x28       | iP NEZ<br>i Z                                  | 01 50 34.5<br>50 40                                   |     |                |                |                |  |         |
| 132          | x28       | eP NEZ<br>e NEZ<br>eS E<br>eS N<br>iS Z<br>i N | 23 38 57<br>39 56<br>40 30<br>40 36<br>40 38<br>40 44 |     |                |                | 805            | Local - Approx 248Km.<br>North of Melbourne  |         |
| 133          | ✓29       | (eP) Z   | 07 58 40  |     |                |                |                |  |         |
| 134          | x29       | iP NEZ<br>e Z<br>iPcP Z<br>i E<br>e(L) NEZ     | 08 16 43<br>17 19<br>19 37<br>25 35<br>27 20          |     |                |                | 3450           | USCGS: 4S, 142 $\frac{1}{2}$ E,<br>New Guinea Felt: Ambunti                              |         |
| 135          | x29       | eP Z   | 17 42 24  |     |                |                |                |  |         |
| 136          | x29       | iP EZ  | 18 53 01  |     |                |                |                |  |         |
| 137          | x30       | eP NEZ   | 00 15 02  |     |                |                |                |  |         |
| 138          | x30       | iP NEZ   | 00 48 58  |     |                |                |                |  |         |
| 139          | x30       | (eP) NEZ                                       | 02 32 40  |     |                |                |                |  |         |
| 140          | x30       | eP NEZ   | 04 17 37  |     |                |                | 4100           | USCGS: Kermadec Islands  |         |
| 141          | x30       | iP NEZ   | 07 21 00  |     |                |                |                |  |         |
| 142          | x30       | eP NEZ   | 11 00 45  |     |                |                |                |  |         |
| 143          | ✓30       | eP NEZ   | 18 47 58  |     |                |                | 6400           | USCGS: 22N, 144E,<br>Mariana Islands region  |         |
| 144          | x31       | iP NEZ<br>i EZ                                 | 04 09 43<br>10 34                                     |     |                |                | 3800           | USCGS: 12 $\frac{1}{2}$ S, 167 $\frac{1}{2}$ E,<br>Santa Cruz Is. h about 200Km.         |         |
| 145          | ✓31       | eP NEZ   | 05 19 18  |     |                |                | 7600           | USCGS: 33 $\frac{1}{2}$ N, 134 $\frac{1}{2}$ N,<br>Near East Coast of Shikoka,<br>Japan. |         |
| 146          | x31       | eP NEZ   | 08 55 36  |     |                |                |                |  |         |
| 147          | x31       | iP Z   | 14 04 26  |     |                |                | 9100           | USCGS: 34N, 91E, Chinghai<br>Province, China.  |         |

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (A.T. BONYTHON)

 Latitude:  $34^{\circ} 58' 01''$ 

 Longitude:  $138^{\circ} 42' 32''$ 

Height above mean sea level:

2150'

Foundation: Sandstone

Instruments: Bonhoff variable reluctance seismometers with three component long and short period paper recorders.

 $T_g = 75 \text{ sec. and } T_g = 0.2 \text{ sec. respectively}$ 

| No. | Date<br>1960        | Phase     | Time<br>(G.M.T.) | Per | Amplitude |       |       | $\Delta$ Km.  | Remarks |
|-----|---------------------|-----------|------------------|-----|-----------|-------|-------|---|---------|
|     |                     |           |                  |     | $A_n$     | $A_e$ | $A_z$ |   |         |
| 1   | Feb. <del>x</del> 1 | iP NEZ    | 15 31 15         |     |           |       | +     |   |         |
| 2   | <del>x</del> 2      | iP NEZ    | 23 47 26         |     |           |       | +     | USCGS: 2N, 126E, Molucca Passage  |         |
|     |                     | i(PP) NEZ | 48 53            |     |           |       |       |   |         |
| 3   | <del>✓</del> 3      | iP NEZ    | 02 27 25.5       |     |           |       | -     | 3600 USCGS: 37S, 179E, Off coast of North Island, New Zealand.                      |         |
|     |                     | iPcP Z    | 30 17            |     |           |       |       |   |         |
|     |                     | e(ScP) Z  | 33 49            |     |           |       |       |   |         |
|     |                     | e N       | 34.5             |     |           |       |       |   |         |
|     |                     | e E       | 35.5             |     |           |       |       |   |         |
| 4   | <del>x</del> 3      | eP NEZ    | 09 08 59         |     |           |       |       |   |         |
| 5   | <del>x</del> 3      | iP NEZ    | 10 50 19.5       |     |           |       | -     |   |         |
| 6   | <del>x</del> 3      | iP NEZ    | 11 57 22         |     |           |       | +     | 3650 USCGS: 5S, 153E, New Britain.  |         |
| 7   | <del>✓</del> 3      | iP NEZ    | 13 00 56         |     |           |       | +     | 8650 USCGS: 43N, $138\frac{1}{2}$ E, Off west coast of Hokkaido, Japan.             |         |
| 8   | <del>x</del> 3      | iP NEZ    | 13 34 54         |     |           |       | -     | 3500 USCGS: 7S, $154\frac{1}{2}$ E, Solomon Is. Depth slightly greater than normal. |         |
| 9   | <del>x</del> 3      | iP N Z    | 13 51 05         |     |           |       | -     |   |         |
| 10  | <del>x</del> 3      | eP NEZ    | 14 37 01         |     |           |       |       | 5000 USCGS: 19S, $173\frac{1}{2}$ W, Tonga Is.                                      |         |
| 11  | <del>x</del> 4      | iP NEZ    | 02 09 04         |     |           |       |       |   |         |
| 12  | <del>✓</del> 4      | iP NEZ    | 03 53 10.5       |     |           |       | -     | 3700 USCGS: $4\frac{1}{2}$ S, $153\frac{1}{2}$ E, New Ireland region.               |         |
|     |                     | i NE      | 53 30            |     |           |       |       |   |         |
|     |                     | i Z       | 53 49            |     |           |       |       |   |         |
|     |                     | i NE      | 55 28            |     |           |       |       |   |         |
|     |                     | i(S) NEZ  | 58 24            |     |           |       |       |   |         |
|     |                     | i Z       | 59 05            |     |           |       |       |   |         |
|     |                     | i E       | 04 00 00         |     |           |       |       |   |         |
|     |                     | i Z       | 00 04            |     |           |       |       |   |         |
|     |                     | i E       | 00 38            |     |           |       |       |   |         |
|     |                     | eL N      | 00.9             |     |           |       |       |   |         |
|     |                     | eL EZ     | 01.5             |     |           |       |       |   |         |
| 13  | <del>✓</del> 4      | iP NEZ    | 09 33 58         |     |           |       |       | 3700 USCGS: 5S, 154E, New Ireland region h about 100 Km.                            |         |
|     |                     | i Z       | 34 07            |     |           |       |       |   |         |
|     |                     | iS NEZ    | 39 07            |     |           |       |       |   |         |
|     |                     | e Z       | 41 06            |     |           |       |       |   |         |
|     |                     | eL NEZ    | 42.3             |     |           |       |       |   |         |
| 14  | <del>✓</del> 4      | iP Z      | 10 33 38         |     |           |       |       | 10050 USCGS: $35\frac{1}{2}$ N, 78E, Northern India. h about 100 Km.                |         |
| 15  | <del>x</del> 4      | eP NEZ    | 11 07 59         |     |           |       |       | 3700 USCGS: $4\frac{1}{2}$ S, $153\frac{1}{2}$ E, New Britain.                      |         |
|     |                     | i Z       | 08 37.5          |     |           |       |       |   |         |
| 16  | <del>✓</del> 4      | eP NEZ    | 17 02 12         |     |           |       |       | 8200 USCGS: 39N, 143E, Off east coast of Honshu, Japan.                             |         |
| 17  | <del>✓</del> 4      | eP NEZ    | 20 45 35         |     |           |       |       | 4600 USCGS: $18\frac{1}{2}$ S, 178W, Fiji Islands h about 600 Km.                   |         |
| 18  | <del>x</del> 5      | iP NEZ    | 05 46 27         |     |           |       | -     | 3700 USCGS: $4\frac{1}{2}$ S, $153\frac{1}{2}$ E, New Britain.                      |         |
|     |                     | e NEZ     | 46 45            |     |           |       |       |   |         |
|     |                     | i Z       | 46 57            |     |           |       |       |   |         |
|     |                     | i Z       | 48 09            |     |           |       |       |   |         |

| No. | Date 1960            | Phase   | Time (G.M.T.)  | Per | Amplitude      |                |                | △ Km. | Remarks  |
|-----|----------------------|---|--|-----|----------------|----------------|----------------|-------|--|
|     |                      |   |  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |  |
| 19  | Feb. <del>5</del> ✓5 | eP NEZ  | 08 54 38   |     |                |                |                | 7550  | USCGS: 32½ N, 131½ E, Near coast of Kyushu, Japan. |
| 20  | <del>6</del> ✓6      | eP N Z<br>i N Z   | 01 20 56<br>26 38  |     |                |                |                |       |  |
| 21  | <del>6</del> ✓6      | iP N Z  | 01 35 52   |     |                |                |                |       |  |
| 22  | <del>6</del> ✓6      | iP NEZ  | 17 13 31   |     |                |                | +              | 8950  | USCGS: 31½ N, 91E, Tibet.                          |
| 23  | <del>6</del> ✓6      | iP NEZ<br>i NEZ   | 17 18 49<br>19 00  |     |                |                | -              | 4750  | USCGS: 6S, 104E, Near East coast of Sumatra.       |
| 24  | <del>7</del> ✓7      | iP NEZ  | 01 29 52   |     |                |                | +              |       |  |
| 25  | <del>7</del> ✓7      | eP Z  | 02 21 28   |     |                |                |                |       |  |
| 26  | <del>7</del> ✓7      | iP NEZ<br>iScP Z<br>i Z<br>i N<br>iS NEZ<br>e N<br>iScS N                                 | 10 14 59<br>19 31<br>16 36<br>16 44<br>20 36<br>22 10<br>23 50   |     |                |                | +              | 4700  | USCGS: 5N, 123E, Celebes Sea. h about 600 Km.      |
| 27  | <del>7</del> ✓7      | iP NEZ  | 11 25 30   |     |                |                |                | 5200  | USCGS: 15½ S, 173½ W Samoa Islands region.         |
| 28  | <del>7</del> ✓7      | iP NEZ<br>e Z   | 21 15 11<br>15 46  |     |                |                |                |       |  |
| 29  | <del>8</del> ✓8      | eP Z  | 04 12 03   |     |                |                |                | 3500  | USCGS: Solomon Islands.                            |
| 30  | <del>8</del> ✓8      | iP NEZ<br>i N   | 09 26 18<br>26 48  |     |                |                | -              | 3700  | USCGS: 5S, 155E, Solomon Islands h about 100 Km.   |
| 31  | <del>8</del> ✓8      | iP NEZ<br>i(S) E<br>i N<br>e E<br>eL N<br>eL Z  | 12 58 13<br>13 08 46<br>10 24<br>21 18<br>25.8<br>38.5   |     |                |                | -              | 9400  | USCGS: 58S, 67W, Drake Passage.                    |
| 32  | <del>8</del> ✓8      | eP NEZ  | 17 50 07   |     |                |                |                | 5150  | USCGS: 3S, 102½ E, Sumatra.                        |
| 33  | <del>9</del> ✓9      | iP NEZ<br>i Z<br>i NEZ<br>eS E<br>eS N Z<br>i N   | 02 00 11<br>00 23<br>00 40<br>06 00<br>06 15<br>09 45  |     |                |                | +              | 3250  | USCGS: 6½ S, 129½ E, Banda Sea.                    |
| 34  | <del>9</del> ✓9      | iP NEZ  | 03 06 10.5   |     |                |                |                | 3700  | USCGS: 5S, 155E, Solomon Is.                       |
| 35  | <del>9</del> ✓9      | iP NEZ<br>i Z<br>i N<br>i E<br>iS N<br>i E<br>i E<br>i E<br>i NE<br>i NE<br>i N<br>eL NEZ | 12 02 48<br>02 56<br>07 14<br>07 32<br>08 00<br>08 04<br>09 06<br>09 56<br>10 06<br>13 58<br>14 40<br>17.3 |     |                |                |                | 3600  | USCGS: 4S, 128E, Banda Sea.                        |
| 36  | <del>9</del> ✓9      | iP NEZ  | 13 54 57.5   |     |                |                | -              |       |  |
| 37  | <del>9</del> ✓9      | iP NEZ<br>i Z<br>iPcP Z   | 16 40 55<br>40 57<br>44 02   |     |                |                | -              | 3350  | USCGS: 6S, 147E Near north coast of New Guinea.    |
| 38  | <del>10</del> ✓10    | iP NEZ<br>i(PcP) Z<br>eS NE<br>eL NEZ   | 00 02 24.5<br>05 04<br>07 46<br>09 20  |     |                |                | +              | 3600  | USCGS: 4S, 128E, Ceram Mag. 6½ - 6¾ (Pas.)         |



| No. | Date<br>1960         | Phase  | Time<br>(G.M.T.)   | Per | Amplitude      |                |                | △ Km. | Remarks  |
|-----|----------------------|--|--|-----|----------------|----------------|----------------|-------|--|
|     |                      |  |  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |  |
| 39  | Feb. <del>x</del> 10 | iP NEZ<br>e Z  | 01 22 18<br>23 20  |     |                |                | -              | 3650  | USCGS: 3 1/2 S, 128E,<br>Ceram.                                      |
| 40  | <del>x</del> 10      | iP NEZ   | 01 38 53   |     |                |                | -              |       |  |
| 41  | <del>x</del> 10      | iP NEZ<br>i Z<br>i Z   | 02 05 41<br>05 50<br>06 14   |     |                |                | -              | 3650  | USCGS: 3 1/2 S, 128E,<br>Ceram.                                      |
| 42  | <del>x</del> 10      | iP NEZ<br>i Z  | 02 46 41<br>52 33  |     |                |                |                |       |  |
| 43  | <del>x</del> 10      | eP NEZ   | 12 37 05   |     |                |                |                |       |  |
| 44  | <del>x</del> 10      | iP NEZ<br>iPcP Z   | 15 51 30<br>54 10  |     |                |                |                | 3750  | USCGS: 4 1/2 S, 154 1/2 E, Solomon<br>Islands region. h about 100Km. |
| 45  | <del>x</del> 10      | iP Z   | 18 59 03   |     |                |                |                |       |  |
| 46  | <del>x</del> 10      | e(P) N Z   | 22 12 29   |     |                |                |                |       |  |
| 47  | <del>✓</del> 10      | eP NEZ<br>i N<br>i(ScS)N<br>eL N<br>eL EZ  | 23 28 36<br>37 03<br>38 28<br>42.5<br>44.2                                       |     |                |                |                | 5200  | USCGS: 15 1/2 S, 173W,<br>Samoa Islands region.                      |
| 48  | <del>x</del> 11      | iP NEZ   | 04 05 56   |     |                |                |                | 4200  | USCGS: 25S, 179W. Pacific Ocean                                      |
| 49  | 11                   | iP NEZ   | 04 33 47   |     |                |                |                | 3950  | USCGS: 14S, 170 1/2 E, New Hebrid<br>es region. h about 450Km.       |
| 50  | <del>x</del> 11      | iP NEZ   | 08 35 27   |     |                |                | -              | 3650  | USCGS: 6S, 155E, Solomon Is.<br>h about 100Km.                       |
| 51  | <del>x</del> 11      | iP Z   | 10 42 18   |     |                |                | +              |       |  |
| 52  | <del>✓</del> 11      | eP NEZ   | 13 20 00   |     |                |                |                |       |  |
| 53  | <del>✓</del> 11      | iP NEZ<br>i Z<br>i Z<br>i Z<br>i NE<br>eL NE<br>eL Z                               | 21 02 59<br>03 26<br>03 52<br>10 30<br>12 33<br>14.3<br>15.00                    |     |                |                |                | 3800  | USCGS: 11 1/2 S, 166 1/2 E,<br>Santa Cruz Islands.                   |
| 54  | <del>x</del> 11      | eP NEZ<br>i Z  | 23 28 47<br>29 06  |     |                |                |                |       |  |
| 55  | <del>x</del> 12      | iP NEZ   | 01 36 26   |     |                |                |                | 3700  | USCGS: 4 1/2 S, 153 1/2 E,<br>New Ireland.                           |
| 56  | <del>x</del> 12      | iP NEZ   | 04 46 06.5   |     |                |                |                |       |  |
| 57  | <del>x</del> 12      | iP NEZ   | 05 38 52   |     |                |                |                |       |  |
| 58  | <del>x</del> 12      | eP NEZ   | 16 45 03   |     |                |                | +              |       |  |
| 59  | <del>x</del> 13      | iP NEZ<br>i NEZ  | 03 03 05.5<br>04 49  |     |                |                | -              |       |  |
| 60  | <del>x</del> 13      | eP NEZ   | 05 29 58   |     |                |                |                |       |  |
| 61  | <del>x</del> 13      | iP NEZ   | 15 45 31   |     |                |                |                |       |  |
| 62  | <del>✓</del> 13      | iP NEZ<br>i(pP) NEZ<br>iPP NEZ<br>iPcP Z<br>i(S) NE<br>i E<br>e N<br>i N<br>eL NEZ | 15 48 26<br>48 29<br>49 54<br>50 46<br>54 04<br>57 06<br>57 13<br>58 21<br>16 00 |     |                |                | +              | 4150  | USCGS: 1 1/2 N, 127 1/2 E,<br>Halmahera.                             |
| 63  | <del>x</del> 14      | iP NEZ<br>i NEZ<br>i Z   | 12 59 38<br>59 42<br>59 45   |     |                |                | -              | 4050  | USCGS: 23 1/2 S, 179E,<br>South of Fiji Is.<br>h about 500Km.        |

| No. | Date<br>1960       | Phase  | Time<br>(G.M.T.)   | Per | Amplitude      |                |                | △ Km. | Remarks  |
|-----|--------------------|--|--|-----|----------------|----------------|----------------|-------|--|
|     |                    |  |  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |  |
| 64  | Feb. <del>14</del> | iP NEZ<br>iPcP Z   | 15 47 03<br>49 20  |     |                |                | -              | 3300  | USCGS: 29S, 177W,<br>Kermadec Islands.                           |
| 65  | <del>14</del>      | iP NEZ   | 16 50 15   |     |                |                |                |       |  |
| 66  | <del>14</del>      | iP NEZ<br>e Z  | 20 37 23<br>37 52  |     |                |                | +              | 3700  | USCGS: 5S, 154 1/2 E,<br>Solomon Islands.                        |
| 67  | <del>14</del>      | eP NEZ   | 21 13 43   |     |                |                |                | 6000  | USCGS: 18 1/2 N, 145 1/2 E, Mariana<br>Islands. h about 200Km.   |
| 68  | <del>15</del>      | iP NEZ<br>e NEZ  | 05 24 09.5<br>25 33  |     |                |                | -              | 4700  | USCGS: 18S, 177 1/2 W, Fiji Is.<br>h about 350Km.                |
| 69  | <del>15</del>      | iP NEZ<br>iPcP Z   | 22 25 47<br>28 04  |     |                |                | -              | 4200  | USCGS: 29 1/2 S, 176 1/2 W,<br>Kermadec Islands.                 |
| 70  | <del>16</del>      | eP NEZ<br>i Z  | 01 16 49<br>16 54  |     |                |                |                | 4200  | USCGS: 29 1/2 S, 176 1/2 W,<br>Kermadec Islands.                 |
| 71  | <del>16</del>      | eP NEZ   | 05 09 41   |     |                |                |                | 6000  | USCGS: 18 1/2 N, 146E,<br>Mariana Islands.                       |
| 72  | <del>16</del>      | iP NEZ<br>i Z<br>i(PcP) Z  | 05 28 44<br>29 39<br>31 12   |     |                |                | -              | 3800  | USCGS: 32 1/2 S, 176 1/2 W,<br>Kermadec Islands.                 |
| 73  | <del>17</del>      | iP NEZ   | 00 09 26   |     |                |                |                | 4950  | USCGS: Tonga Islands.  |
| 74  | ✓ 17               | eP NEZ<br>e Z<br>e NE<br>e Z<br>e E<br>i N<br>i Z<br>eL NEZ<br>eL N            | 16 55 56<br>56 42<br>04 00<br>04 08<br>05 40<br>06 00<br>06 48<br>08.5<br>09 00              |     |                |                |                | 3350  | USCGS: 5S, 142 1/2 E, New Guinea.                                |
| 75  | <del>17</del>      | eP NEZ   | 20 32 54   |     |                |                |                |       |  |
| 76  | <del>17</del>      | iP NEZ   | 21 16 49   |     |                |                |                |       |  |
| 77  | <del>18</del>      | iP NEZ<br>e  | 05 16 56<br>22 12  |     |                |                |                |       |  |
| 78  | <del>18</del>      | iP NEZ<br>i Z  | 14 42 55<br>53 18  |     |                |                |                |       |  |
| 79  | <del>18</del>      | iP NEZ   | 20 44 28   |     |                |                |                | 8050  | USCGS: China-Burma-India Border                                  |
| 80  | ✓ 19               | iP NEZ<br>i EZ<br>ipP Z<br>i Z<br>iPP Z<br>i Z<br>i Z<br>i N<br>i N E<br>e NEZ | 10 49 51<br>49 59<br>50 44<br>50 56<br>53 46<br>54 55<br>58 42<br>11 01 38<br>02 03<br>03 00 |     |                |                |                | 10550 | USCGS: 36N, 70 1/2 E,<br>Hindu Kush,<br>h about 200Km.           |
| 81  | <del>19</del>      | iP NEZ   | 20 15 41   |     |                |                | -              |       |  |
| 82  | <del>20</del>      | iP NEZ<br>(i) E  | 07 13 07<br>18 40  |     |                |                | -              |       |  |
| 83  | ✓ 21               | iP NEZ<br>i NEZ<br>i Z<br>eL NEZ   | 00 52 42<br>52 56<br>53 43<br>59 00  |     |                |                |                | 3050  | USCGS: 42S, 173E, South Island.<br>New Zealand.<br>h about 60Km. |
| 84  | ✓ 21               | eP NEZ   | 08 33 07   |     |                |                |                | 16300 | USCGS: 36N, 4 1/2 E, Northern<br>Algeria.                        |
| 85  | ✓ 21               | iP NEZ<br>iS NE  | 09 46 19<br>51 44  |     |                |                |                | 4500  | USCGS: 20S, 178 1/2 W, Fiji Is.<br>h about 600Km.                |

| No. | Date<br>1960       | Phase  | Time<br>(G.M.T.)  | Per   | Amplitude      |                |                | $\Delta$ Km.   | Remarks |
|-----|--------------------|--|---|---|----------------|----------------|----------------|--|---------|
|     |                    |  |   |   | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 86  | Feb. <del>21</del> | eP<br>e  | NEZ<br>NEZ  | 10 52 51<br>58 19   |                |                |                |  |         |
| 87  | <del>21</del>      | iP   | NEZ   | 11 21 15  |                |                |                |  |         |
| 88  | <del>21</del>      | iP<br>iPP  | NEZ<br>Z  | 22 50 38<br>52 09   |                |                | 4250           | USCGS: 2 $\frac{1}{2}$ N, 128 $\frac{1}{2}$ E,<br>Halmahera.   |         |
| 89  | <del>22</del>      | iP<br>i<br>iS<br>iScS                                  | NEZ<br>Z<br>E<br>E  | 01 01 23<br>01 27<br>06 49.5<br>10 22   |                |                | 4500           | USCGS: 20S, 178 $\frac{1}{2}$ W,<br>Fiji Islands.<br>h about 600Km.                                  |         |
| 90  | <del>22</del>      | iP   | NEZ   | 07 06 25<br>07 52   |                |                |                |  |         |
| 91  | <del>22</del>      | iP   | NEZ   | 08 41 14.5  |                |                | -              | 4500 USCGS: 18S, 179 $\frac{1}{2}$ W. Fiji Is.<br>h about 600Km.                                     |         |
| 92  | <del>22</del>      | iP   | Z   | 20 46 11.5  |                |                | -              |  |         |
| 93  | <del>23</del>      | iP   | Z   | 11 38 12  |                |                | 4550           | USCGS: 19S, 178W, Fiji Is.<br>h about 500Km.   |         |
| 94  | <del>23</del>      | eP<br>iPP<br>i<br>e<br>i<br>e<br>eL<br>eL              | NEZ<br>Z<br>N Z<br>Z<br>Z<br>Z<br>NE<br>Z                   | 16 11 18<br>11 34<br>12 38<br>14 09<br>17 54<br>18 07<br>19.8<br>22.6                               |                |                | 3600           | USCGS: 6S, 154 $\frac{1}{2}$ E,<br>Solomon Islands.<br>Mag. 6 - 6 $\frac{1}{4}$ (Pas.)               |         |
| 95  | <del>24</del>      | iP   | Z   | 00 09 23  |                |                |                |  |         |
| 96  | <del>24</del>      | eP   | Z   | 15 38 59.5  |                |                |                |  |         |
| 97  | <del>24</del>      | iP<br>i<br>i<br>i(PP)<br>i<br>iS<br>i<br>e<br>e(L)     | NEZ<br>NEZ<br>NEZ<br>NEZ<br>E<br>N<br>Z<br>N<br>NEZ         | 21 43 30<br>43 41<br>44 27<br>44 41<br>48 14<br>48 38<br>48 42<br>49 40<br>53 00                    |                |                | 3550           | USCGS: 7 $\frac{1}{2}$ S, 156E,<br>Solomon Islands.<br>Mag. 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (Pas.) |         |
| 98  | <del>25</del>      | iP<br>i  | NEZ<br>N Z  | 12 54 24<br>54 29   |                |                | 5350           | USCGS: 11N, 124E,<br>Cebu, Phillipines.  |         |
| 99  | <del>25</del>      | eP   | N Z   | 21 02 21  |                |                | 3500           | USCGS: 7S, 154E, Solomon Is.<br>h about 300Km.   |         |
| 100 | <del>25</del>      | eP<br>i<br>e   | NEZ<br>NEZ<br>NEZ   | 23 36 57<br>39 35<br>42 47  |                |                |                |  |         |
| 101 | <del>26</del>      | iP<br>e<br>i   | NEZ<br>Z<br>NEZ   | 01 13 10.5<br>13 36<br>19 12  |                |                | 3750           | USCGS: 2 $\frac{1}{2}$ S, 128E,<br>Ceram Sea.  |         |
| 102 | <del>26</del>      | iP<br>i<br>eS<br>e<br>i<br>i<br>e<br>i<br>e<br>i<br>eL | NEZ<br>NEZ<br>N<br>NEZ<br>Z<br>N<br>N<br>Z<br>Z<br>E<br>NEZ | 02 15 15.5<br>15 26<br>20 37<br>22 06<br>23 58<br>25 34<br>26 22<br>26 35<br>27 00<br>27 30<br>29.4 |                |                | -              | 3750 USCGS: 1S, 138E,<br>New Guinea.   |         |
| 103 | <del>26</del>      | eP   | NEZ   | 05 31 16  |                |                |                |  |         |

| No. | Date<br>1960            | Phase |     | Time<br>(G.M.T.) | Per | Amplitude      |                |                | $\Delta$ Km. | Remarks   |  |
|-----|-------------------------|-------|-----|------------------|-----|----------------|----------------|----------------|--------------|---|--|
|     |                         |       |     |                  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |              |   |  |
| 104 | Feb. <del>26</del> ✓ 26 | iP    | NEZ | 06 40 48         |     |                |                |                | 4900         | USCGS: 20S, 174W, Tonga Is.   |  |
| 105 | <del>26</del>           | eP    | N Z | 18 08 34         |     |                |                |                |              |   |  |
| 106 | ✓ 27                    | eP    | NEZ | 09 02 59         |     |                |                |                | 3900         | USCGS: 30 $\frac{1}{2}$ S, 179 $\frac{1}{2}$ W,<br>Kermadec Islands.          |  |
|     |                         | iPcP  | Z   | 05 30            |     |                |                |                |              |   |  |
|     |                         | eS    | NE  | 08 44            |     |                |                |                |              |   |  |
|     |                         | eL    | NEZ | 11 00            |     |                |                |                |              |   |  |
| 107 | <del>27</del>           | iP    | NEZ | 09 13 35         |     |                |                | -              | 4900         | USCGS: 6 $\frac{1}{2}$ S, 102 $\frac{1}{2}$ E, Off<br>south coast of Sumatra. |  |
|     |                         | i     | Z   | 13 46            |     |                |                |                |              |   |  |
| 108 | <del>27</del>           | iP    | NEZ | 12 37 30         |     |                |                |                |              |   |  |
| 109 | <del>27</del>           | eP    | N Z | 14 04 54         |     |                |                |                |              |   |  |
| 110 | <del>27</del>           | eP    | N Z | 14 29 40         |     |                |                |                | 3600         | USCGS: 7S, 156E, Solomon Is.<br>h about 150Km.                                |  |
| 111 | <del>27</del>           | iP    | N Z | 17 11 09         |     |                |                |                |              |   |  |
| 112 | <del>27</del>           | iP    | NEZ | 23 13 24.5       |     |                |                | -              | 4450         | USCGS: 2N, 123E,<br>Celebes Sea.  |  |
|     |                         | i     | NEZ | 13 40            |     |                |                |                |              |   |  |
| 113 | <del>28</del>           | eP    | NEZ | 01 25 48         |     |                |                |                |              |   |  |
| 114 | <del>28</del>           | iP    | NEZ | 14 58 45         |     |                |                |                |              |   |  |
| 115 | <del>28</del>           | iP    | NEZ | 15 48 22.5       |     |                |                |                |              |   |  |
| 116 | <del>28</del>           | iP    | Z   | 22 20 56         |     |                |                |                |              |   |  |
| 117 | ✓ 28                    | iP    | NEZ | 23 12 11.5       |     |                |                | -              | 3550         | USCGS: 3S, 142E,<br>New Guinea.   |  |
|     |                         | i     | NEZ | 12 18            |     |                |                |                |              |   |  |
|     |                         | eS    | N   | 17 24            |     |                |                |                |              |   |  |
|     |                         | eL    | NEZ | 22.7             |     |                |                |                |              |   |  |
| 118 | <del>28</del>           | eP    | NEZ | 23 58 57         |     |                |                |                | 3550         | USCGS: 3S, 142 $\frac{1}{2}$ E, Near north<br>coast of New Guinea.            |  |
| 119 | ✓ 29                    | iP    | NEZ | 05 31 50         |     |                |                |                | 5750         | USCGS: 14N, 120E, Near south-<br>west coast of Luzon, P.I.,<br>h about 150Km. |  |
| 120 | <del>29</del>           | eP    | N Z | 07 47 12         |     |                |                |                |              |   |  |
| 121 | <del>29</del>           | eP    | NEZ | 08 45 56         |     |                |                |                | 7950         | USCGS: 23 $\frac{1}{2}$ N, 94 $\frac{1}{2}$ E,<br>Western Burma.              |  |
| 122 | <del>29</del>           | eP    | NEZ | 08 56 43         |     |                |                |                |              |   |  |
| 123 | <del>29</del>           | iP    | NEZ | 09 00 34         |     |                |                |                |              |   |  |
| 124 | <del>29</del>           | eP    | N Z | 09 24 17         |     |                |                |                |              |   |  |
| 125 | <del>29</del>           | eP    | Z   | 10 44 38         |     |                |                |                |              |   |  |
| 126 | <del>29</del>           | iP    | NEZ | 20 07 04.5       |     |                |                |                | -            |   |  |

Margaret Mansfield.

D.J. Sutton.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01" Longitude: 138° 42' 32"

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

 $T_g = 75 \text{ sec.}$  and  $T_g = 0.2 \text{ sec.}$  respectively

| No. | Date<br>1960         | Phase   | Time<br>(G.M.T.)  | Per | Amplitude      |                |                | △ Km.   | Remarks |
|-----|----------------------|---|---|-----|----------------|----------------|----------------|---|---------|
|     |                      |   |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| 1   | March <del>x</del> 1 | iPKP NEZ  | 00 00 17  |     |                |                | 16850          | USCGS: 30N, 9W. Morocco<br>10,000 dead, 25000 wounded.                                      |         |
| 2   | <del>x</del> 1       | iP NEZ  | 03 33 44  |     |                |                |                |   |         |
| 3   | <del>x</del> 1       | eP NEZ  | 06 32 00  |     |                |                |                |   |         |
| 4   | <del>x</del> 1       | iP NEZ  | 14 56 28  |     |                | -              |                |   |         |
| 5   | <del>x</del> 1       | eP NEZ  | 20 07 31  |     |                |                |                |   |         |
| 6   | <del>x</del> 1       | eP NEZ  | 22 01 25  |     |                |                |                |   |         |
| 7   | <del>x</del> 3       | eP NEZ  | 01 08 49  |     |                |                | 3600           | USCGS: 7S, 156E. Solomon Is.  |         |
| 8   | <del>x</del> 3       | eP NEZ  | 08 33 48  |     |                |                |                |   |         |
| 9   | <del>x</del> 3       | iP NEZ  | 10 12 35  |     |                |                |                |   |         |
| 10  | ✓3                   | eP NEZ  | 14 17 36  |     |                |                | 3100           | USCGS: 11½ S, 122½ E,<br>Timor Island region.   |         |
| 11  | <del>x</del> 3       | iP NEZ  | 19 24 59.5  |     |                | -              |                |   |         |
| 12  | ✓4                   | eP NEZ  | 02 36 06  |     |                |                |                |   |         |
| 13  | ✓4                   | iP NEZ<br>i(PcP)N Z<br>iS NE  | 04 03 45<br>04 17<br>12 24  |     |                |                | 7400           | USCGS: 31N, 129E, Near south<br>coast of Kyushu, Japan.<br>h about 100Km.<br>Mag. 6½ (Pas.) |         |
| 14  | ✓4                   | eP NEZ  | 21 15 52  |     |                |                | 6600           | USCGS: 7½ N, 94E, Nicobar Is.   |         |
| 15  | <del>x</del> 5       | iP NEZ<br>iS NEZ  | 03 40 15.5<br>40 26   |     |                |                |                | Local Earthquake.   |         |
| 16  | ✓5                   | iP NEZ  | 11 37 36  |     |                | -              | 9300           | USCGS: 29N, 81E, Nepal.   |         |
| 17  | ✓5                   | iP NEZ<br>i Z<br>i Z<br>iPP N Z<br>iS NEZ<br>i Z<br>e Z<br>i N<br>(eL) NE<br>(eL) Z | 13 56 29<br>56 32<br>56 58<br>57 54<br>14 02 14<br>04 44<br>06 06<br>06 14<br>07.3<br>08 00 |     |                |                | 4100           | USCGS: 1N, 129E,<br>Halmahera<br>Mag. 6¾ (Pas.)   |         |
| 18  | <del>x</del> 5       | iP NEZ  | 14 19 32  |     |                |                |                |   |         |
| 19  | <del>x</del> 5       | iP NEZ  | 14 41 19  |     |                |                |                |   |         |
| 20  | <del>x</del> 5       | iP N Z  | 14 57 18  |     |                |                |                |   |         |
| 21  | <del>x</del> 5       | eP NEZ  | 15 26 35  |     |                |                |                |   |         |
| 22  | <del>x</del> 5       | iP NEZ<br>i NEZ<br>i(PP) NEZ<br>i N Z   | 15 57 05<br>57 11<br>58 40<br>16 06 22  |     |                |                | 4100           | USCGS: 1N, 129E<br>Halmahera aftershock.  |         |
| 23  | <del>x</del> 5       | iP NEZ  | 16 14 25  |     |                | -              |                |   |         |
| 24  | ✓6                   | iP NEZ<br>i N Z   | 02 29 19<br>29 24   |     |                |                | 4100           | USCGS: 1N, 129E,<br>Halmahera aftershock  |         |

| No.      | Date 1960 | Phase   | Time (G.M.T.)   | Per | Amplitude      |                |                | △ Km.   | Remarks |
|----------|-----------|---|---|-----|----------------|----------------|----------------|---|---------|
|          |           |   |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| Cont. 24 | March 6   | i E<br>iPP N Z<br>eL E<br>eL N<br>eL Z                                    | 29 37<br>30 47<br>44.00<br>45.5<br>46.3   |     |                |                |                |   |         |
| 25       | ×6        | iP NEZ  | 09 17 02  |     |                |                |                |   |         |
| 26       | ×6        | eP Z  | 20 43 25  |     |                |                |                |   |         |
| 27       | ×7        | eP Z  | 00 17 42  |     |                |                |                |   |         |
| 28       | ✓7        | iP NEZ<br>i NEZ<br>iPP NEZ<br>e Z<br>iPcP Z<br>i N<br>iS NEZ              | 05 20 37.5<br>20 42<br>22 03<br>22 36<br>22 49<br>23 30<br>26 22                  |     |                |                | 4300           | USCGS: 1½ N, 125½ E, Celebes.   |         |
| 29       | ×7        | eP NEZ  | 07 06 12  |     |                |                |                |   |         |
| 30       | ×7        | iP NEZ  | 09 44 40.5  |     |                |                | + 3550         | USCGS: 10S, 160½ E, Solomon Is.   |         |
| 31       | ×7        | eP Z  | 11 44 44  |     |                |                | 6650           | USCGS: 23½ N, 123½ E, Ryukyu Islands.   |         |
| 32       | ×7        | eP N Z  | 13 30 18  |     |                |                |                |   |         |
| 33       | ×7        | eP Z  | 14 53 19  |     |                |                |                |   |         |
| 34       | ×7        | eP NEZ  | 23 10 08  |     |                |                |                |   |         |
| 35       | ×8        | iP NEZ  | 06 34 45  |     |                |                |                |   |         |
| 36       | ×8        | eP NEZ  | 11 58 39  |     |                |                | 4300           | USCGS: 65S, 179½ E, Antarctic Ocean.  |         |
| 37       | ✓8        | iP NEZ<br>e Z<br>iPcP Z<br>iS Z<br>i Z<br>i N<br>iPcS NE<br>eL NE<br>eL Z | 16 39 47.5<br>40 24<br>42 30<br>44 36<br>44 40<br>44 42<br>46 11<br>47.00<br>48.7 |     |                |                | 3600           | USCGS: 16½ S, 168½ E, New Hebrides Islands, h about 250Km.<br>Mag. 7 - 7¼ (Pas.)<br>7 (Berk.) |         |
| 38a      | ×8        | (iP) Z  | 16 50 56  |     |                |                |                | ? part of previous earthquake.  |         |
| 38       | ×8        | eP NEZ<br>i Z<br>i Z<br>e Z<br>e Z<br>e Z                                 | 17 11 08<br>11 12<br>13 16<br>15 00<br>19 03<br>22 03                             |     |                |                |                | ? Impulses clouded by previous earthquake.  |         |
| 39       | ×8        | eP Z  | 19 34 49  |     |                |                |                |   |         |
| 40       | ×9        | eP Z  | 01 11 48  |     |                |                | 3450           | USCGS: 5½ S, 148½ E, New Britain. h about 150Km.  |         |
| 41       | ×9        | eP NEZ<br>iS NEZ  | 04 24 20<br>25 17   |     |                |                |                | Local earthquake.   |         |
| 42       | ×9        | eP NEZ  | 19 50 22  |     |                |                | 3600           | USCGS: 7S, 156½ E, Solomon Is.  |         |
| 43       | ✓10       | eP Z  | 00 46 22  |     |                |                |                |   |         |
| 44       | ×10       | eP Z  | 02 35 57  |     |                |                |                |   |         |
| 45       | ×10       | eP NE   | 02 45 58  |     |                |                |                |   |         |
| 46       | ×10       | eP NEZ  | 09 18 59  |     |                |                | - 4950         | USCGS: 7½ N, 126E, Mindanao, Phillipine Islands.  |         |
| 47       | ✓10       | eP NEZ  | 09 51 29  |     |                |                | 3600           | USCGS: 10S, 161E, Solomon Is.   |         |

| No. | Date<br>1960  | Phase  | Time<br>(G.M.T.)  | Per | Amplitude      |                |                | △ Km.  | Remarks |
|-----|---------------|--|---|-----|----------------|----------------|----------------|--|---------|
|     |               |  |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 48  | March 10      | iP NEZ   | 13 52 58  |     |                |                | 5200           | USCGS: 15S, 174W,<br>Samoa Islands region.                               |         |
| 49  | <del>10</del> | iP NEZ   | 15 30 50  |     |                | +              |                |  |         |
| 50  | <del>10</del> | eP N Z   | 19 03 44.5  |     |                |                |                |  |         |
| 51  | <del>10</del> | eP NEZ   | 20 55 05  |     |                |                |                |  |         |
| 52  | <del>10</del> | eP N Z   | 22 49 06  |     |                |                |                |  |         |
| 53  | <del>11</del> | eP NEZ   | 13 20 20  |     |                |                | 6000           | USCGS: 18 $\frac{1}{2}$ N, 145E, Mariana Is.<br>h about 200Km.           |         |
| 54  | <del>11</del> | eP NEZ<br>i NEZ  | 17 58 10<br>58 36   |     |                |                |                | Local earthquake.  |         |
| 55  | <del>12</del> | eP N Z   | 01 37 25.5  |     |                | +              |                | USCGS: 4S, 152 $\frac{1}{2}$ E, Near coast<br>of New Britain. h = 150Km. |         |
| 56  | <del>12</del> | eP NEZ<br>i Z  | 02 21 23<br>21 30   |     |                |                | 4050           | USCGS: 29 $\frac{1}{2}$ S, 178W,<br>Kermadec Islands.                    |         |
| 57  | <del>12</del> | eP NEZ<br>i NEZ  | 19 30 07<br>30 43.6   |     |                |                |                | ? Local earthquake.  |         |
| 58  | 12            | iP NEZ<br>e(PP) N<br>i E<br>e Z<br>iS NE<br>i Z<br>i N<br>eL NEZ<br>i N<br>i NEZ | 20 37 04<br>37 56<br>38 20<br>41 30<br>42 08<br>44 05<br>45 48<br>48.3<br>48 24<br>04 09 57 |     |                |                | 3500           | USCGS: 6S, 152E, New Britain<br>Mag. 6 $\frac{1}{2}$ (Pas.)              |         |
| 59  | <del>13</del> | iP NEZ   | 04 09 57  |     |                |                |                |  |         |
| 60  | <del>14</del> | iP NEZ   | 09 30 56  |     |                |                |                |  |         |
| 61  | <del>15</del> | iP NEZ<br>i Z<br>i Z<br>e N Z<br>ePP NEZ   | 09 08 19<br>08 25<br>08 27<br>08 46<br>09 47  |     |                |                | 4250           | USCGS: 2N, 127 $\frac{1}{2}$ E,<br>Molucca Passage.                      |         |
| 62  | 15            | iP NEZ   | 19 38 40  |     |                |                | 4400           | USCGS: 20 $\frac{1}{2}$ S, 179W, Fiji Is.<br>region. h about 600Km.      |         |
| 63  | <del>15</del> | iP NEZ   | 21 42 21  |     |                |                |                |  |         |
| 64  | <del>15</del> | iP NEZ   | 00 45 42  |     |                |                |                |  |         |
| 65  | 16            | iP NEZ<br>eL NE<br>eL Z  | 17 47 53<br>18 03.3<br>04.3   |     |                |                | 5200           | USCGS: 15 $\frac{1}{2}$ S, 173 $\frac{1}{2}$ W,<br>Samoa Islands region. |         |
| 66  | <del>16</del> | eP NEZ<br>i Z  | 19 23 11<br>25 55   |     |                |                |                |  |         |
| 67  | <del>17</del> | iP NEZ   | 00 09 28  |     |                |                |                |  |         |
| 68  | <del>17</del> | eP NEZ<br>e Z  | 15 13 49<br>18 40   |     |                |                |                |  |         |
| 69  | <del>17</del> | iP Z   | 17 16 39.5  |     |                |                |                |  |         |
| 70  | <del>17</del> | eP NEZ   | 19 29 11  |     |                |                |                |  |         |
| 71  | <del>18</del> | iP NEZ   | 07 17 57  |     |                |                |                |  |         |
| 72  | <del>18</del> | iP NEZ   | 10 42 07  |     |                |                | 3700           | USCGS: 10 $\frac{1}{2}$ S, 163E, Solomon<br>Islands.                     |         |
| 73  | <del>18</del> | eP NEZ   | 12 23 16.5  |     |                |                | 3650           | USCGS: 4 $\frac{1}{2}$ S, 152E,<br>New Britain. h about 150Km.           |         |
| 74  | <del>18</del> | eP NEZ<br>e NEZ  | 13 00 15<br>06 00   |     |                |                |                |  |         |

| No. | Date 1960           | Phase  | Time (G.M.T.)  | Per | Amplitude      |                |                | △ Km.  | Remarks |
|-----|---------------------|--|--|-----|----------------|----------------|----------------|--|---------|
|     |                     |  |  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 75  | <del>March</del> 19 | eP NEZ   | 04 38 42   |     |                |                |                |  |         |
| 76  | 19                  | iP NEZ<br>i(pP) NEZ<br>iPP NEZ   | 09 28 19<br>28 26<br>29 48   |     |                | +              | 4350           | USCGS: 2½ N, 127E,<br>Molucca Passage.   |         |
| 77  | 19                  | iP NEZ<br>i NEZ<br>i Z<br>i Z<br>i N<br>i E<br>i Z<br>e NEZ<br>i N Z<br>eL NEZ     | 19 22 03.5<br>22 44<br>22 50<br>23 00<br>24 00<br>25 28<br>27 22<br>28 14<br>29 46<br>31.2 |     |                | -              | 3550           | USCGS: 3S, 138E,<br>New Guinea.  |         |
| 78  | 20                  | iP NEZ<br>i NEZ  | 07 35 01<br>35 13  |     |                |                | 5650           | USCGS: ½N, 99½ E, Near east<br>coast of Sumatra.   |         |
| 79  | 20                  | eP NEZ   | 11 04 15.5   |     |                |                |                |  |         |
| 80  | 20                  | eP NEZ<br>i Z<br>i N<br>i(PP) N Z<br>i Z<br>i E<br>iS N<br>i E<br>eSS NE<br>eL NEZ | 17 19 10<br>19 19<br>19 43<br>22 04<br>24 12<br>28 43<br>28 52<br>29 14<br>33 24<br>40.00  |     |                |                | 8300           | USCGS: 40N, 143½ E. Off north<br>east coast of Honshu, Japan.<br>h about 60Km.<br>5 foot seismic sea wave at<br>Miyako.<br>Mag. 7(Pas.) 7-7¼ (Berk.) |         |
| 81  | 21                  | eP NEZ   | 01 58 14   |     |                |                | 5200           | USCGS: 16S, 173W,<br>Tonga Islands region.   |         |
| 82  | 21                  | iP NEZ   | 08 44 53   |     |                |                |                |  |         |
| 83  | 21                  | eP NEZ   | 09 30 03   |     |                |                | 8300           | USCGS: 40N, 143E, Near east<br>coast of Honshu, Japan.   |         |
| 84  | 21                  | eP NEZ   | 11 48 48.5   |     |                |                | 5200           | USCGS: 16½ S, 172½ W,<br>Samoa Island region.  |         |
| 85  | 21                  | iP NEZ<br>i N Z<br>i Z<br>i N Z  | 16 44 27<br>44 36<br>44 43<br>44 47  |     |                | -              | 3750           | USCGS: 4½ S, 154E,<br>New Ireland region.  |         |
| 86  | 22                  | iP NEZ<br>i N Z<br>i N Z<br>iS NE<br>e Z<br>e(L) NEZ<br>i(ScS)N                    | 02 37 13.5<br>37 18<br>37 24<br>42 04<br>42 34<br>43 54<br>47 58                           |     |                | -              | 3150           | USCGS: 61½ S, 154E,<br>About 400 miles northwest of<br>Balleny Islands.  |         |
| 87  | 22                  | eP NEZ   | 12 33 12   |     |                |                |                |  |         |
| 88  | 22                  | eP N Z   | 13 54 31   |     |                |                | 3050           | USCGS: 60½ S, 153E,<br>Northwest of Balleny Islands.   |         |
| 89  | 22                  | iP N Z   | 20 08 23.5   |     |                |                |                |  |         |
| 90  | 22                  | iP NEZ   | 21 20 17   |     |                |                | 4650           | USCGS: Near coast of western<br>Java. h about 150Km.   |         |
| 91  | 23                  | eP NEZ<br>i N<br>i Z<br>e N<br>iS NE<br>i N<br>e NEZ                               | 00 35 05<br>35 28<br>35 34<br>37 24<br>44 39<br>45 48<br>47 00                             |     |                |                | 8250           | USCGS: 39½ N, 143E,<br>Near east coast of Honshu,<br>Japan.<br>Mag. 6¾ - 7 (Berk.)<br>6½ - 6¾ (Pas.)   |         |



| No.   | Date<br>1960 | Phase | Time<br>(G.M.T.) | Per        | Amplitude      |                |                | △ Km. | Remarks   |
|-------|--------------|-------|------------------|------------|----------------|----------------|----------------|-------|---|
|       |              |       |                  |            | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |   |
| Cont. | March 23     | eSS   | NE               | 49 24      |                |                |                |       |   |
| 91    | ✓ 23         | eL    | NEZ              | 01 00 00   |                |                |                |       |   |
| 92    | ✓ 23         | eP    | NEZ              | 01 18 54.5 |                |                |                | 8250  | USCGS: 39½ N, 143E, Near east coast of Honshu, Japan.               |
| 93    | ✗ 23         | iP    | NEZ              | 01 37 36   |                |                |                |       |   |
|       |              | i     | Z                | 37 38      |                |                |                |       |   |
|       |              | i     | Z                | 39 18      |                |                |                |       |   |
|       |              | i     | N Z              | 40 15      |                |                |                |       |   |
| 94    | ✗ 23         | iP    | NEZ              | 01 42 12   |                |                |                |       |   |
|       |              | i     | Z                | 43 06.5    |                |                |                |       |   |
|       |              | i     | Z                | 47 42      |                |                |                |       |   |
| 95    | ✗ 23         | eP    | Z                | 09 43 30   |                |                |                |       |   |
|       |              | i     | Z                | 43 50      |                |                |                |       |   |
| 96    | ✗ 23         | eP    | N Z              | 10 21 20   |                |                |                |       |   |
| 97    | ✓ 23         | eP    | Z                | 20 15 27.5 |                |                |                | 8350  | USCGS: 32½ N, 103½ E, Szechwan Province, China.                     |
| 98    | ✓ 23         | eP    | NEZ              | 22 34.5    |                |                |                | 8250  | USCGS: 39½ N, 143E, Near east coast of Honshu, Japan. Mag. 6 (Pas.) |
| 99    | ✓ 23         | eP    | NEZ              | 23 18 44   |                |                |                |       |   |
|       |              | e     | NEZ              | 19 13      |                |                |                |       |   |
| 100   | ✗ 24         | iP    | NEZ              | 21 00 16   |                |                |                |       |   |
| 101   | ✓ 25         | iP    | NEZ              | 02 36 10.5 |                |                | +              | 4600  | USCGS: 19S, 177½ W, Fiji Islands, h about 400Km.                    |
|       |              | ePP   | Z                | 38 00      |                |                |                |       |   |
|       |              | iS    | NE               | 41 55      |                |                |                |       |   |
| 102   | ✗ 25         | eP    | NEZ              | 06 35 25   |                |                |                |       |   |
|       |              | e     | NEZ              | 46 48      |                |                |                |       |   |
| 103   | ✗ 25         | eP    | NEZ              | 08 57 11   |                |                |                |       |   |
| 104   | ✗ 26         | eP    | Z                | 09 18 01   |                |                |                |       |   |
| 105   | ✗ 26         | eP    | Z                | 11 34 35   |                |                |                |       |   |
| 106   | ✗ 26         | eP    | N Z              | 14 40 19.5 |                |                | -              |       |   |
| 107   | ✗ 26         | eP    | NEZ              | 22 58 42.5 |                |                |                |       |   |
| 108   | ✓ 27         | iP    | NEZ              | 03 55 02   |                |                |                | 3600  | USCGS: 13½ S, 166E, New Hebrides Is. Mag. 6¼ (Berk.)                |
|       |              | i     | Z                | 55 15      |                |                |                |       |   |
|       |              | i     | N                | 59 44      |                |                |                |       |   |
|       |              | iS    | NE               | 04 00 18   |                |                |                |       |   |
|       |              | eL    | NEZ              | 03.1       |                |                |                |       |   |
| 109   | ✓ 27         | eP    | NEZ              | 09 04 30   |                |                |                | 3600  | USCGS: 13½ S, 166½ E, New Hebrides Is. Mag. 6½ (Berk.)              |
|       |              | i     | Z                | 04 39      |                |                |                |       |   |
|       |              | i     | Z                | 04 23      |                |                |                |       |   |
|       |              | i     | Z                | 05 52      |                |                |                |       |   |
|       |              | iS    | NE               | 09 54      |                |                |                |       |   |
|       |              | eL    | NEZ              | 11 42      |                |                |                |       |   |
| 110   | ✗ 27         | iP    | NEZ              | 17 31 49   |                |                |                | 4050  | USCGS: 30½ S, 178W, Kermadec Islands.                               |
| 111   | ✗ 27         | eP    | NEZ              | 19 41 58   |                |                |                | 3650  | USCGS: 13S, 166E, New Hebrides Islands.                             |
| 112   | ✓ 27         | iP    | NEZ              | 23 34 10   |                |                |                | 3400  | USCGS: 37½ S, 177E, Off coast of North Island, New Zealand.         |
|       |              | i     | Z                | 34 58      |                |                |                |       |   |
|       |              | i     | E                | 35 13      |                |                |                |       |   |
| 113   | ✓ 28         | eP    | NEZ              | 06 42 36   |                |                |                | 3550  | USCGS: 13½ S, 165E, New Hebrides Is. h about 300Km.                 |
| 114   | ✓ 28         | iP    | EZ               | 06 46 06   |                |                |                | 3550  | USCGS: 13½ S, 166E, New Hebrides Islands.                           |
|       |              | i     | Z                | 46 12      |                |                |                |       |   |

| No. | Date<br>1960 | Phase  | Time<br>(G.M.T.)   | Fer | Amplitude      |                |                | △ Km.   | Remarks |
|-----|--------------|--|--|-----|----------------|----------------|----------------|---|---------|
|     |              |  |  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| 115 | March ✓28    | iP NEZ<br>i Z  | 06 49 20<br>49 26  |     |                |                | 3550           | USCGS: 13½ S, 166E,<br>New Hebrides Islands.  |         |
| 116 | ✗28          | eL NE<br>eL Z  | 06 50.8<br>53.6  |     |                |                |                |   |         |
| 117 | ✓28          | eP NEZ<br>i Z<br>i Z<br>iPcP Z<br>i NEZ                          | 12 45 36<br>45 37.5<br>45 41  <br>47 37.5<br>48 26.5                     |     |                | -              | 4550           | USCGS: 23S, 176W,<br>Tonga Islands region.<br>N Long period reading<br>obliterated. |         |
| 118 | ✗29          | iP NEZ<br>i Z  | 00 17 44<br>17 57  |     |                |                | 4000           | USCGS: 33½ S, 177½ W,<br>Kermadec Islands region.                                   |         |
| 119 | ✓29          | iP NEZ<br>i Z<br>iS NEZ<br>eL NEZ                                | 06 37 19<br>37 23<br>42 27<br>43.3                                       |     |                |                | 3450           | USCGS: 17S, 167E, New Hebrides<br>Islands.<br>Mag. 6¾ (Pas.) 6¼-6½ (Berk.)          |         |
| 120 | ✓29          | iF NEZ   | 07 39 47   |     |                |                | 5700           | USCGS: 0, 98E,<br>Off coast of Sumatra.   |         |
| 121 | ✗29          | eP NEZ   | 14 20 07.5   |     |                |                |                |   |         |
| 122 | ✗29          | eP Z   | 14 31 51   |     |                |                | 3450           | USCGS: 17S, 167½ E,<br>New Hebrides Islands.  |         |
| 123 | ✗29          | eP NEZ   | 16 09 15   |     |                |                |                |   |         |
| 124 | ✗29          | eP N Z   | 16 49 44   |     |                |                |                |   |         |
| 125 | ✓29          | eP NEZ<br>e(PP) NEZ<br>eS NE<br>e Z<br>eL NE<br>eL Z             | 22 16 31<br>17 33<br>21 28<br>23 24<br>26.5<br>27.0                      |     |                |                | 3350           | USCGS: 6S, 147E,<br>East coast of New Guinea.                                       |         |
| 126 | ✓30          | eP NEZ<br>e(PP) Z<br>eS NE<br>eL N<br>i E<br>e Z<br>eL E<br>eL Z | 10 56 23<br>57 36<br>11 01 38<br>04 00<br>04 23<br>05 00<br>05.8<br>06.8 |     |                |                | 3550           | USCGS: 13½ S, 166E,<br>New Hebrides Islands.<br>Mag. 6 (Berks.)                     |         |
| 127 | ✗30          | iP NEZ<br>i Z<br>i Z   | 14 20 07.5<br>20 14<br>20 17   |     |                | +              | 5150           | USCGS: 3½ S, 102E,<br>Near coast of Sumatra.  |         |
| 128 | ✓30          | iP NEZ<br>i E<br>i(S) N<br>e(L) N<br>e(L) E<br>e(L) Z            | 15 26 06.5<br>26 12<br>30 36<br>33.6<br>35.8<br>37.5                     |     |                |                | 3650           | USCGS: 22½ S, 174E,<br>Loyalty Islands region.                                      |         |
| 129 | ✗30          | eP NEZ<br>i Z  | 20 03 49<br>03 50  |     |                |                |                |   |         |
| 130 | ✗30          | (eP) NEZ   | 22 49 31   |     |                |                |                |   |         |
| 131 | ✓31          | eP NEZ<br>iPcP Z   | 00 48 59.5<br>50 03  |     |                |                | 6000           | USCGS: 18½ N, 146E,<br>Mariana Is. h about 250Km.                                   |         |
| 132 | ✗31          | eP Z   | 02 59 18.5   |     |                |                |                |   |         |

Margaret Mansfield.

D.J. Sutton.

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UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01" Longitude: 138° 42' 32"  
Height above mean sea level: 2150'  
Foundation: Sandstone  
Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.  
T<sub>g</sub> = 75 sec. and T<sub>g</sub> = 0.2 sec. respectively

| No. | Date 1960. | Phase  | Time (G.M.T.)   | Per | Amplitude      |                |                | △ Km.   | Remarks |
|-----|------------|--|---|-----|----------------|----------------|----------------|---|---------|
|     |            |  |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| 1   | April ✓ 1  | iP ✓ NEZ   | 03 01 39  |     |                |                | 4350           | USCGS: 22S, 179½ W, Fiji Is. region. h about 650 Km.                |         |
| 2   | ✗ 1        | eP NEZ<br>eS NEZ   | 07 25 57<br>26 51   |     |                |                |                | Local Earthquake.   |         |
| 3   | ✗ 1        | iP NEZ<br>e NEZ  | 23 09 39.5<br>14 42   |     |                |                |                |   |         |
| 4   | ✗ 2        | eP NEZ<br>i Z  | 06 48 28<br>48 30.5   |     |                |                | 6000           | USCGS: 18½ N, 146E, Mariana Is.                                     |         |
| 5   | ✗ 2        | iP NEZ<br>ePP NEZ<br>e NEZ                                       | 23 09 33.5<br>10 49<br>16 22                                      |     |                |                | 3750           | USCGS: 11S, 113E, Off south coast of Java.                          |         |
| 6   | ✓ 3        | iP ✓ NEZ<br>e NEZ  | 05 20 06<br>32 12   |     |                |                | 7000           | USCGS: 28N, 139½ E, Bonin Is. region. h about 550Km.                |         |
| 7   | ✗ 3        | eP NEZ   | 09 58 33  |     |                |                | 3400           | USCGS: 6S, 148½ E, New Britain.                                     |         |
| 8   | ✓ 4        | iP ✓ NEZ<br>i Z<br>eL N<br>eL E                                  | 08 02 40<br>03 12<br>12.8<br>13.7                                 |     |                |                | 3600           | USCGS: 10S, 161½ E, Solomon Islands. h about 100 Km.                |         |
| 9   | ✗ 4        | eP Z   | 10 27 04  |     |                |                | 3800           | USCGS: 1S, 145½ E, Bismarck Archipelago.                            |         |
| 10  | ✗ 4        | iP NEZ   | 12 52 06  |     |                |                | 3600           | USCGS: 5S, 152E, New Britain h about 100 Km.                        |         |
| 11  | ✓ 5        | eP ✓ NEZ<br>eL ✓ N<br>eL Z                                       | 07 30 16<br>08 02.7<br>03.4                                       |     |                |                | 9250           | USCGS: 61S, 26W, Sandwich Is.                                       |         |
| 12  | ✓ 5        | iP ✓ NEZ   | 12 48 46  |     |                |                | 9200           | USCGS: 60½ S, 25W, Sandwich Is.                                     |         |
| 13  | ✗ 5        | eP NEZ   | 14 48 58  |     |                |                |                |   |         |
| 14  | ✗ 6        | iP NEZ   | 12 58 39  |     |                |                |                |   |         |
| 15  | ✗ 6        | eP NEZ   | 13 07 09  |     |                |                |                |   |         |
| 16  | ✗ 6        | eP NEZ<br>i Z  | 17 06 09<br>06 13.5   |     |                |                |                |   |         |
| 17  | ✓ 7        | iP ✓ NEZ<br>i Z<br>iPcP Z<br>iS NEZ<br>i Z<br>e(SS) E<br>iScS NE | 13 54 01<br>54 06<br>56 08<br>59 10<br>59 33<br>14 02 42<br>03 19 |     |                |                | 4150           | USCGS: 24S, 179½ W, Fiji Is. region. Mag. 6 (Berk.) h about 500 Km. |         |
| 18  | ✗ 7        | iP NEZ<br>e Z  | 20 12 12<br>12 23   |     |                |                | 5250           | USCGS: 12N, 143½ E, Mariana Islands.                                |         |
| 19  | ✓ 8        | iP ✓ NEZ   | 00 03 24  |     |                |                | 4550           | USCGS: 21S, 177W, Tonga Is. h about 200Km. Mag. 6.(Berk.)           |         |
| 20  | ✗ 8        | iP NEZ   | 03 29 20.5  |     |                |                |                |   |         |
| 21  | ✗ 8        | eP Z   | 07 28 36  |     |                |                |                |   |         |
| 22  | ✗ 8        | eP NEZ   | 08 41 47  |     |                |                | 3350           | USCGS: 6S, 147E, New Guinea.  |         |

| No. | Date<br>1960 | Phase                                      | Time<br>(G.M.T.)                    | Per | Amplitude      |                |                | Δ Km.   | Remarks |
|-----|--------------|--|-------------------------------------|-----|----------------|----------------|----------------|---|---------|
|     |              |  |                                     |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| 23  | April X9     | iP Z                                       | 19 41 16                            |     |                |                |                |   |         |
| 24  | X9           | eP NEZ<br>eS NEZ                           | 21 27 59<br>30 35                   |     |                |                |                | Regional (?)  |         |
| 25  | X10          | iP NEZ                                     | 02 30 35                            |     |                |                |                |   |         |
| 26  | X10          | eP N Z                                     | 04 58 08                            |     |                |                | 5300           | USCGS: 12½ N, 143½ E, Mariana Is. region. h about 100 Km. |         |
| 27  | X10          | eP NEZ                                     | 13 17 52                            |     |                |                | 7000           | USCGS: Bonin Islands.                                     |         |
| 28  | X10          | eP Z                                       | 15 48 43                            |     |                |                |                |   |         |
| 29  | X10          | iP NEZ                                     | 15 57 12                            |     |                |                |                |   |         |
| 30  | X10          | iP NEZ                                     | 16 05 07.5                          |     |                |                |                |   |         |
| 31  | X11          | eP NEZ                                     | 17 48 10.5                          |     |                |                |                |   |         |
| 32  | X12          | eP NEZ                                     | 02 55 03.5                          |     |                |                |                |   |         |
| 33  | X12          | eP Z                                       | 21 52 45                            |     |                |                | 3750           | USCGS: 3½ S, 152E, New Ireland.                           |         |
| 34  | X13          | iP NEZ<br>i N Z                            | 14 02 14.5<br>04 20                 |     |                |                |                |   |         |
| 35  | X14          | eP NEZ<br>eS NEZ                           | 00 40 38<br>41 12                   |     |                |                |                | Local earthquake  |         |
| 36  | X14          | iP NEZ<br>e NEZ<br>i Z                     | 12 49 39.5<br>51 41<br>53 24        |     |                |                |                | Pronounced Microseisms.                                   |         |
| 37  | X14          | eP NEZ                                     | 21 26 33                            |     |                |                |                |   |         |
| 38  | X14          | eP NEZ                                     | 21 42 25                            |     |                |                |                |   |         |
| 39  | ✓15          | eP ✓ NEZ                                   | 11 50 36                            |     |                |                |                |   |         |
| 40  | ✓15          | eP ✓ NEZ<br>iS ✓ NE<br>eL ✓ NE<br>eL ✓ Z   | 22 11 42<br>16 57<br>19.3<br>22.3   |     |                |                | 3600           | USCGS: 13½ S, 166E, New Hebrides Is. Mag. 6½ (Pas.)       |         |
| 41  | X17          | eP NEZ                                     | 01 13 25                            |     |                |                |                |   |         |
| 42  | ✓17          | iP ✓ NEZ                                   | 21 56 27                            |     |                |                | 4350           | USCGS: 20S, 180, Fiji. h about 500 Km.                    |         |
| 43  | ✓18          | eP ✓ NEZ<br>i(PP) ✓ Z                      | 08 16 55<br>18 30.5                 |     |                |                | 7000           | USCGS: 28N, 139½ E, Bonin Is. region. h about 450 Km.     |         |
| 44  | X18          | iP NEZ                                     | 15 41 52.5                          |     |                |                |                |   |         |
| 45  | X19          | eP Z                                       | 00 13 04                            |     |                |                |                |   |         |
| 46  | X19          | iP NEZ                                     | 14 53 08                            |     |                |                |                |   |         |
| 47  | X20          | eP NEZ<br>eL E                             | 21 43 14<br>54.2                    |     |                |                | 3600           | USCGS: 2½ S, 140E, Near north coast of New Guinea.        |         |
| 48  | X21          | iP Z                                       | 13 07 07                            |     |                |                |                |   |         |
| 49  | X21          | eP NEZ                                     | 16 30 05                            |     |                |                | 4800           | USCGS: 20½ S, 174W, Tonga Is.                             |         |
| 50  | X22          | eP NEZ                                     | 15 05 27.5                          |     |                |                | 4050           | USCGS: 30½ S, 177½ W, Kermadec Islands.                   |         |
| 51  | X22          | eP Z                                       | 16 23 50                            |     |                |                |                |   |         |
| 52  | X22          | eP Z                                       | 18 56 08.5                          |     |                |                | 5500           | USCGS: 12½ N, 123½ E, Masbate, Phillipine Islands.        |         |
| 53  | ✓22          | eP ✓ NEZ<br>e ✓ N                          | 20 34 27<br>45 39                   |     |                |                | 5000           | USCGS: 17½ S, 174½ W, Tonga Is. h about 200 Km.           |         |
| 54  | ✓24          | iP ✓ NEZ<br>i ✓ Z<br>iPP ✓ NEZ<br>iScP ✓ Z | 03 28 50<br>28 57<br>30 35<br>33 44 |     |                |                | 4150           | USCGS: 6S, 113½ E, Java Sea. h about 600 Km.              |         |

| No.         | Date<br>1960 | Phase   | Time<br>(G.M.T.)  | Per | Amplitude      |                |                | △ Km.  | Remarks |
|-------------|--------------|---|---|-----|----------------|----------------|----------------|--|---------|
|             |              |   |   |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 54<br>Cont. | April 24     | iS NEZ<br>iSS N<br>i(ScS) E<br>eL NEZ                           | 33 53<br>37 12<br>37 53<br>44.0                                 |     |                |                |                |  |         |
| 55          | × 27         | iP Z  | 11 12 24  |     |                |                | 3650           | USCGS: 9S, 160E, Solomon Is.                                 |         |
| 56          | × 27         | eL E<br>eL N<br>eL Z  | 17 30.5<br>32.3<br>32.5   |     |                |                | 3550           | USCGS: 3½ S, 146½ E,<br>Bismarck Sea.                        |         |
| 57          | × 27         | iP NEZ  | 22 01 49  |     |                |                |                |  |         |
| 58          | ✓ 27         | iP NEZ  | 22 53 24  |     |                | +              | 6150           | USCGS: 18N, 120E, Off coast of<br>Luzon, Phillipine Islands. |         |
| 59          | × 28         | eP NEZ  | 12 12 42.5  |     |                | +              |                |  |         |
| 60          | × 28         | eP NEZ  | 13 13 21  |     |                | -              |                |  |         |
| 61          | ✓ 29         | iP NEZ<br>e Z   | 02 28 28.5<br>29 17   |     |                |                | 9700           | USCGS: 56½ S, 26W,<br>Sandwich Islands.                      |         |
| 62          | × 29         | eP NEZ  | 02 48 59.5  |     |                |                |                |  |         |
| 63          | × 29         | eP NEZ<br>i Z   | 03 55 58.5<br>56 11   |     |                |                | 9950           | USCGS: 55½ S, 25W,<br>Sandwich Islands.                      |         |
| 64          | × 29         | eP EZ   | 04 19 28.5  |     |                |                |                |  |         |
| 65          | × 29         | iP NEZ  | 09 23 32  |     |                |                | 4250           | USCGS: 0, 121½ E, Celebes.                                   |         |
| 66          | ✓ 29         | eP NEZ  | 10 00 51.5  |     |                | -              | 4250           | USCGS: 0, 122E, Celebes.                                     |         |
| 67          | ✓ 29         | iP Z  | 10 01 02<br>10 08 56  |     |                |                |                |  |         |
| 68          | ✓ 29         | iP NEZ  | 10 09 34  |     |                |                |                |  |         |
| 69          | ✓ 29         | eP NEZ<br>e Z   | 10 13 39<br>13 46   |     |                |                | 4250           | USCGS: 0, 122E, Celebes.                                     |         |
| 70          | × 29         | eP NEZ  | 11 38 11  |     |                |                | 4250           | USCGS: 0, 122E, Celebes.                                     |         |
| 71          | × 29         | iP NEZ  | 13 23 56.5  |     |                |                |                |  |         |
| 72          | ✓ 29         | iP NEZ<br>i E<br>i Z  | 13 40 41.5<br>41 10<br>42 11                                    |     |                | -              | 4250           | USCGS: 0, 122E, Celebes.                                     |         |
| 73          | ✓ 29         | iP NEZ  | 13 45 33  |     |                |                | 4000           | USCGS: 30S, 178½ W, Kermadec Is                              |         |
| 74          | × 29         | iP NEZ  | 14 52 46  |     |                |                | 3650           | USCGS: Kermadec Islands Region.                              |         |
| 75          | × 29         | iP NEZ<br>i NEZ   | 14 53 58.5<br>57 52   |     |                |                |                |  |         |
| 76          | × 29         | iP NEZ  | 19 03 06  |     |                |                | 4200           | USCGS: ½ S, 121½ E, Celebes.                                 |         |
| 77          | × 29         | iP NEZ  | 19 20 21.5  |     |                | -              |                |  |         |
| 78          | ✓ 29         | iP NEZ<br>i NEZ<br>i Z<br>iPcP Z<br>iS NEZ<br>eSS NEZ<br>eL NEZ | 19 39 35.5<br>39 39<br>39 46<br>41 52<br>45 37<br>47 50<br>53.5 |     |                |                | 4250           | USCGS: 0, 122E, Celebes.                                     |         |
| 79          | ✓ 29         | iP NEZ<br>eL NEZ  | 20 51 50.5<br>21 08.5   |     |                | -              | 4250           | USCGS: 0, 121½ E, Celebes.                                   |         |
| 80          | × 30         | eP NEZ  | 00 27 33.5  |     |                | +              | 4250           | USCGS: 0, 122E, Celebes.                                     |         |
| 81          | × 30         | eP Z  | 02 28 18  |     |                |                |                |  |         |
| 82          | × 30         | eP N Z  | 03 56 15  |     |                |                |                |  |         |

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MT. BONYTHON)

 Latitude :  $34^{\circ} 58' 01''$ 

 Longitude :  $138^{\circ} 42' 32''$ 

Height above mean sea level :

2150'

Foundation : Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

 $T_g = 75 \text{ sec. and } T_g = 0.2 \text{ sec. respectively}$ 

| No. | Date<br>1960       | Phase             | Time<br>(G.M.T.)   | Per | Amplitude |       |       | $\Delta$ Km. | Remarks   |
|-----|--------------------|-------------------|--|-----|-----------|-------|-------|--------------|---|
|     |                    |                   |  |     | $A_n$     | $A_e$ | $A_z$ |              |   |
| 1   | May <del>x</del> 1 | iP                | N Z 04 19 12   |     |           |       |       | 4250         | USCGS: 0, 122E, Celebes.  |
| 2   | <del>x</del> 1     | iP<br>i           | NEZ<br>Z 17 54 34<br>55 40                                 |     |           |       |       |              |   |
| 3   | <del>x</del> 2     | iP<br>e<br>i<br>e | NEZ<br>NEZ<br>Z<br>NEZ 02 44 33<br>45 06<br>45 32<br>50 41 |     |           |       | +     |              |   |
| 4   | <del>x</del> 2     | iP                | NEZ 04 43 15   |     |           |       |       |              |   |
| 5   | <del>x</del> 2     | iP                | NEZ 05 19 09   |     |           |       | -     | 4200         | USCGS: $\frac{1}{2}$ S, 121E, Celebes.  |
| 6   | <del>x</del> 2     | eP                | Z 07 34 37.5   |     |           |       |       |              |   |
| 7   | <del>x</del> 2     | eP                | Z 10 48 50   |     |           |       |       | 5500         | USCGS: Samar Is. Phillipine Is.   |
| 8   | <del>x</del> 2     | eP<br>e           | NEZ<br>Z 11 58 57<br>12 00 50                              |     |           |       |       | 4250         | USCGS: 0, 121 $\frac{1}{2}$ E, Celebes.   |
| 9   | <del>x</del> 2     | iP<br>i<br>i<br>i | NEZ<br>N<br>N<br>N 12 17 35<br>18 24<br>19 17<br>22 16     |     |           |       | -     | 4250         | USCGS: 0, 121 $\frac{1}{2}$ E, Celebes.<br>Pronounced microseisms for the<br>2nd. |
| 10  | <del>x</del> 2     | eP<br>e           | N Z<br>Z 14 49 43<br>49 56                                 |     |           |       |       |              |   |
| 11  | <del>x</del> 2     | iP                | NEZ 17 58 33   |     |           |       | -     |              |   |
| 12  | <del>x</del> 2     | eP<br>e           | N Z<br>N Z 20 09 20<br>10 46.5                             |     |           |       |       |              |   |
| 13  | <del>x</del> 2     | eP                | N Z 20 38 42   |     |           |       |       | 4150         | USCGS: Kermadec Is. region.   |
| 14  | <del>x</del> 3     | eP                | N Z 08 06 50   |     |           |       |       | 8150         | USCGS: 29N, 99 $\frac{1}{2}$ E, China.  |
| 15  | <del>x</del> 3     | eP                | N Z 08 14 30   |     |           |       |       | 4150         | USCGS: 24S, 179 $\frac{1}{2}$ W,<br>Tonga Islands region.                         |
| 16  | <del>x</del> 3     | eP                | NEZ 13 29 31   |     |           |       |       | 4250         | USCGS: 0, 121 $\frac{1}{2}$ E, Celebes.   |
| 17  | <del>x</del> 3     | eP                | N Z 22 33 23   |     |           |       |       | 7450         | USCGS: 32N, 140E, South of<br>Honshu, Japan. h about 150Km.                       |
| 18  | <del>x</del> 4     | iP                | NEZ 00 04 34.5   |     |           |       | -     |              |   |
| 19  | <del>x</del> 9     | eP<br>i           | Z<br>Z 01 36 50<br>37 26                                   |     |           |       | -     |              |   |
| 20  | <del>x</del> 9     | iP<br>i           | NEZ<br>Z 04 09 15<br>09 25                                 |     |           |       |       |              |   |
| 21  | <del>x</del> 9     | eP                | Z 09 05 51   |     |           |       |       | 3550         | USCGS: 7S, 155E, Solomon Island   |
| 22  | <del>x</del> 9     | eP                | Z 16 47 20   |     |           |       |       | 16700        | USCGS: 6 $\frac{1}{2}$ N, 33 $\frac{1}{2}$ W, Atlantic Oc                         |
| 23  | <del>x</del> 10    | iP                | NEZ 01 29 18.5   |     |           |       | +     |              |   |
| 24  | <del>x</del> 10    | oP                | NEZ 10 26 01   |     |           |       |       | 4550         | USCGS: 20S, 177 $\frac{1}{2}$ W, Fiji Is.<br>region. h about 500 Km.              |
| 25  | <del>x</del> 10    | oP                | NEZ 11 08 59   |     |           |       | -     | 9800         | USCGS: 55 $\frac{1}{2}$ S, 26W, Sandwich Is.                                      |
| 26  | <del>x</del> 10    | oP                | NEZ 12 46 20   |     |           |       |       |              |   |

| No. | Date<br>1960 | Phase   |     | Time<br>(G.M.T.) | Por | Amplitude      |                |                | △ Km. | Remarks   |
|-----|--------------|---------|-----|------------------|-----|----------------|----------------|----------------|-------|---|
|     |              |         |     |                  |     | A <sub>n</sub> | A <sub>o</sub> | A <sub>z</sub> |       |   |
| 27  | May 10       | iP      | NEZ | 23 28 55.5       |     |                |                |                | 7700  | USCGS: 34N, 131 $\frac{1}{2}$ E, Near coast of Western Honshu, Japan.<br>h about 100 Km.  |
| 28  | 11           | iP      | NEZ | 11 54 15         |     |                |                |                |       |   |
| 29  | 11           | iP      | NEZ | 18 42 33         |     |                |                |                | 3600  | USCGS: 3S, 131E, Ceram Sea.<br>Microseisms pronounced.<br>Mag. 6 $\frac{1}{2}$ (Pas.)   |
|     |              | iS      | NE  | 47 46            |     |                |                |                |       |   |
|     |              | eL      | NEZ | 50.00            |     |                |                |                |       |   |
| 30  | 12           | iP      | Z   | 22 00 31         |     |                |                | -              |       |   |
| 31  | 13           | oP      | Z   | 20 53 28         |     |                |                |                | 3900  | USCGS: 32 $\frac{1}{2}$ S, 179W, Kermadec Islands region.   |
| 32  | 13           | iP      | N Z | 23 53 47         |     |                |                | -              |       |   |
| 33  | 15           | oP      | NEZ | 03 04 18         |     |                |                |                | 3550  | USCGS: 3S, 140E, Near north coast of New Guinea.  |
| 34  | 15           | oP      | Z   | 13 40 39.5       |     |                |                |                | 6750  | USCGS: 24N, 121 $\frac{1}{2}$ E, Near east coast of Formosa.  |
| 35  | 17           | eP      | NEZ | 10 20 12         |     |                |                |                |       | Local Earthquake.   |
|     |              | eS      | NEZ | 20 39            |     |                |                |                |       |   |
| 36  | 17           | oP      | NEZ | 15 51 12         |     |                |                |                | 4550  | USCGS: Tonga Islands region.  |
| 37  | 18           | oP      | NEZ | 06 45 42         |     |                |                |                | 7150  | USCGS: 29N, 130E, Ryukyu Islands.<br>h about 100 Km.  |
|     |              | ePP     | Z   | 48 04            |     |                |                |                |       |   |
|     |              | i(S)    | N   | 54 18            |     |                |                |                |       |   |
|     |              | e       | N   | 01.5             |     |                |                |                |       |   |
|     |              | eL      | NEZ | 07 06.2          |     |                |                |                |       |   |
|     |              | o(P'P') | Z   | 14 42            |     |                |                |                |       |   |
| 38  | 18           | iP      | NEZ | 08 16 16         |     |                |                | -              | 4250  | USCGS: Colobos.   |
|     |              | ePP     | NEZ | 17 46            |     |                |                |                |       |   |
| 39  | 19           | oP      | NEZ | 10 22 42.5       |     |                |                | -              | 7350  | USCGS: 17S, 66E, Mascarene Is. region.  |
|     |              | c       | Z   | 23 08            |     |                |                |                |       |   |
|     |              | c       | NE  | 31.5             |     |                |                |                |       |   |
| 40  | 19           | eP      | NEZ | 22 17 53         |     |                |                |                |       |   |
|     |              | e       | NEZ | 27 00            |     |                |                |                |       |   |
| 41  | 20           | oP      | NEZ | 00 29 54         |     |                |                | -              | 3600  | USCGS: 3 $\frac{1}{2}$ S, 147 $\frac{1}{2}$ E, New Guinea.  |
|     |              | eL      | NEZ | 41 00            |     |                |                |                |       |   |
| 42  | 20           | eP      | NEZ | 11 18 04         |     |                |                | -              | 2750  | USCGS: 28S, 167 $\frac{1}{2}$ E, Norfolk Island.<br>Mag. 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (Pas.)   |
|     |              | ePP     | Z   | 18 37            |     |                |                |                |       |   |
|     |              | e       | N   | 19 52            |     |                |                |                |       |   |
|     |              | i(S)    | NE  | 22 30            |     |                |                |                |       |   |
|     |              | eL      | Z   | 24.5             |     |                |                |                |       |   |
| 43  | 20           | oP      | NEZ | 17 21 22         |     |                |                |                |       |   |
| 44  | 21           | iP      | NEZ | 08 26 18         |     |                |                |                | 5900  | USCGS: 15 $\frac{1}{2}$ N, 121 $\frac{1}{2}$ E, Luzon Is., Phillipine Island.   |
| 45  | 21           | eP      | NEZ | 10 17 06         |     |                |                |                | 11250 | USCGS: 37 $\frac{1}{2}$ S, 73 $\frac{1}{2}$ W, Near coast of Chile. Many casualties and extensive property damage at Concepcion and surrounding area.<br>Mag. 7 $\frac{1}{4}$ - 7 $\frac{1}{2}$ (Berk.) |
|     |              | e(PP)   | N Z | 21 04            |     |                |                |                |       |   |
|     |              | iSKS    | NE  | 27 26            |     |                |                |                |       |   |
|     |              | i(PS)   | NEZ | 30 12            |     |                |                |                |       |   |
|     |              | L(PPS)  | NEZ | 30 48            |     |                |                |                |       |   |
|     |              | o(SS)   | N   | 36 00            |     |                |                |                |       |   |
|     |              | eL      | NEZ | 50 00            |     |                |                |                |       |   |
| 46  | 21           | (eP)    | NEZ | 10 33 15         |     |                |                |                |       |   |
| 47  | 22           | eP      | NEZ | 01 03 32.5       |     |                |                | -              |       |   |
|     |              | e       | NEZ | 11.3             |     |                |                |                |       |   |
| 48  | 22           | oP      | Z   | 10 46 48         |     |                |                |                | 11250 | USCGS: 37 $\frac{1}{2}$ S, 73W. Near coast of Chile.<br>Mag. 7 $\frac{1}{4}$ - 7 $\frac{1}{2}$ (Pas.)7(Berk.)   |

| No. | Date 1960           | Phase  |     | Time (G.M.T.) | Per | Amplitude      |                |                | △ Km.  | Remarks |
|-----|---------------------|--------|-----|---------------|-----|----------------|----------------|----------------|--|---------|
|     |                     |        |     |               |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 49  | May <del>X</del> 22 | iP     | NEZ | 11 06 05      |     |                | -              | 6250           | USCGS: ? 19N, 121 1/2 E, Babuyan Is. h about 200 Km.                               |         |
| 50  | <del>X</del> 22     | eP     | NEZ | 13 21 09.5    |     |                |                |                |  |         |
| 51  | <del>X</del> 22     | eP     | NEZ | 15 26 54      |     |                |                |                |  |         |
| 52  | ✓ 22                | eP     | NEZ | 19 10 00?     |     |                |                | 11200          | USCGS: 38S, 73 1/2 W, Near coast of Chile. Mag. 7 3/4 (Berk.)                      |         |
|     |                     | iPP    | Z   | 14 09         |     |                |                |                |  |         |
|     |                     | e(SKS) | NE  | 20 29         |     |                |                |                | Record of No. 52 and 53 confused because of superposition of two earthquakes.      |         |
|     |                     | i      | NE  | 21 48         |     |                |                |                |  |         |
|     |                     | i      | NE  | 23 08         |     |                |                |                |  |         |
|     |                     | (eL)   | NEZ | 45.00         |     |                |                |                |  |         |
| 53  | ✓ 22                | eP     | NEZ | 19 24 44?     |     |                |                | 11200          | USCGS: 38S, 73 1/2 W, Near coast of Chile. Mag. 8 1/4 - 8 1/2 (Pas.) 8 1/2 (Berk.) |         |
|     |                     | (eL)   | NEZ | 20 00.00      |     |                |                |                | Surface waves have periods of 180 seconds approx.                                  |         |
| 54  | ✓ 23                | eP     | NEZ | 00 35 32      |     |                |                |                |  |         |
| 55  | ✓ 23                | eP     | NEZ | 07 22 27      |     |                | -              | 10100          | USCGS: 48S, 77W, Off coast of Chile.   |         |
| 56  | <del>X</del> 23     | eP     | Z   | 10 33 30      |     |                |                |                |  |         |
|     |                     | eL     | NEZ | 11 28.3       |     |                |                |                |  |         |
| 57  | <del>X</del> 23     | eP     | NEZ | 16 17 43      |     |                |                |                |  |         |
| 58  | <del>X</del> 24     | iP     | NEZ | 06 36 32.5    |     |                |                |                |  |         |
|     |                     | i      | NEZ | 38 00         |     |                |                |                |  |         |
| 59  | ✓ 24                | eP     | NEZ | 14 51 50      |     |                |                | 2650           | USCGS: 44 1/2 S, 167 1/2 E, South Island, New Zealand.                             |         |
|     |                     | iS     | NEZ | 56 16         |     |                |                |                | Mag. 6 3/4 - 7 (Pas.) 6 1/4 - 6 1/2 (Berk.)  |         |
|     |                     | eL     | NEZ | 59 00         |     |                |                |                | Seismic event?   |         |
| 60  | <del>X</del> 24     | eP     | NEZ | 15 07 14      |     |                |                |                |  |         |
| 61  | <del>X</del> 24     | eP     | NEZ | 20 29 33.5    |     |                |                |                |  |         |
| 62  | ✓ 24                | eP     | NEZ | 20 45 48      |     |                |                | 9950           | USCGS: 50 1/2 S, 74W, Southern Chile.  |         |
| 63  | <del>X</del> 24     | eP     | NEZ | 22 52 36      |     |                |                |                |  |         |
| 64  | <del>X</del> 24     | iP     | NEZ | 23 40 33.5    |     |                |                |                |  |         |
| 65  | <del>X</del> 25     | eP     | NEZ | 02 43 02.5    |     |                | -              | 2700           | USCGS: 44S, 168E, Near coast of South Island, N.Z.                                 |         |
|     |                     | eL     | NEZ | 50 00         |     |                |                |                |  |         |
| 66  | <del>X</del> 25     | iP     | NEZ | 06 01 40      |     |                |                |                |  |         |
| 67  | ✓ 25                | eP     | NEZ | 08 48 01.5    |     |                |                | 10400          | USCGS: 45S, 76W, Off coast of Chile. Mag. 6 3/4 (Pas.) 6 1/4 - 6 1/2 (Berk.)       |         |
|     |                     | ePP    | N Z | 51 52         |     |                |                |                |  |         |
|     |                     | e      | N   | 58 38         |     |                |                |                |  |         |
|     |                     | eL     | NEZ | 09 18.00      |     |                |                |                |  |         |
| 68  | <del>X</del> 25     | iP     | NEZ | 09 36 00      |     |                |                |                |  |         |
| 69  | <del>X</del> 25     | eP     | NEZ | 10 20 51      |     |                |                |                |  |         |
|     |                     | eL     | NEZ | 35.00         |     |                |                |                |  |         |
| 70  | ✓ 25                | eP     | NEZ | 13 45 38.5    |     |                | -              | 4100           | USCGS: 1N, 129 1/2 E, Halmahera.   |         |
|     |                     | e      | N Z | 47 04         |     |                |                |                |  |         |
|     |                     | eS     | N   | 51 24         |     |                |                |                |  |         |
|     |                     | e      | E   | 55 04         |     |                |                |                |  |         |
|     |                     | eL     | NEZ | 14 00.0       |     |                |                |                |  |         |
| 71  | <del>X</del> 25     | iP     | N Z | 14 24 00.5    |     |                |                |                |  |         |
| 72  | <del>X</del> 25     | eP     | NEZ | 14 34 55      |     |                | +              | 4100           | USCGS: 1N, 128 1/2 E, Halmahera.   |         |
|     |                     | ePP    | N Z | 36 16         |     |                |                |                |  |         |
|     |                     | eL     | NEZ | 49 00         |     |                |                |                |  |         |
| 73  | ✓ 25                | iP     | NEZ | 15 05 52      |     |                |                | 4250           | USCGS: 22S, 179 1/2 W, Fiji. h about 600Km.  |         |
|     |                     | e      | Z   | 07 32         |     |                |                |                |  |         |
|     |                     | i      | NE  | 14 58         |     |                |                |                |  |         |



| No. | Date<br>1960  | Phase                                       | Time<br>(G.M.T.) | Per                        | Amplitude      |                |                | △ Km. | Remarks   |
|-----|---------------|---|------------------|----------------------------|----------------|----------------|----------------|-------|---|
|     |               |   |                  |                            | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |   |
| 74  | May 25        | iP  | NEZ              | 15 11 52                   |                |                | -              |       |   |
| 75  | <del>25</del> | eP  | NEZ              | 17 06 59                   |                |                |                |       |   |
| 76  | <del>25</del> | eP  | NEZ              | 17 34 35                   |                |                |                |       |   |
| 77  | <del>25</del> | eP  | NEZ              | 17 38 08                   |                |                |                |       |   |
| 78  | <del>25</del> | (eP)  | NEZ              | 23 21 27                   |                |                |                |       |   |
| 79  | 26            | ePKP<br>eSKP                                | Z<br>EZ          | 05 29 30<br>32 52          |                |                |                | 14650 | USCGS: 40N, 20E, Albania-Greece border. Mag. $6\frac{1}{2}$ (Pas.)                              |
| 80  | <del>26</del> | eP  | EZ               | 07 01 26                   |                |                | -              |       |   |
| 81  | <del>26</del> | eP  | NEZ              | 16 31 22                   |                |                |                |       | Microseisms heavy.  |
| 82  | 26            | iP  | N Z              | 20 17 05.5                 |                |                |                | 8350  | USCGS: 27N, 93E, Eastern India.   |
| 83  | 27            | eP  | NEZ              | 00 31 29                   |                |                |                | 3500  | USCGS: 22S, 172E, Loyalty Islands region.   |
| 84  | <del>27</del> | eP  | Z                | 13 08 09                   |                |                |                |       |   |
| 85  | <del>27</del> | (eP)  | Z                | 20 16 16                   |                |                |                | 3600  | USCGS: $5\frac{1}{2}$ S, 153E, New Britain region. h about 150 Km.                              |
| 86  | <del>29</del> | eP  | NEZ              | 20 04 58                   |                |                |                |       |   |
| 87  | <del>30</del> | eP<br>e                                     | NEZ<br>Z         | 10 32 22<br>35 58          |                |                |                |       |   |
| 88  | <del>30</del> | eP  | NEZ              | 16 15 18                   |                |                | +              |       |   |
| 89  | <del>30</del> | iP  | NEZ              | 21 54 09.5                 |                |                |                |       |   |
| 90  | 31            | ePKP <sub>1</sub><br>i<br>iPKP <sub>2</sub> | NEZ<br>Z<br>NEZ  | 11 22 13<br>22 22<br>22 38 |                |                |                | 17200 | USCGS: 18N, 62W, Leeward Is. Mag. $5\frac{3}{4}$ (Berk.) $6\frac{1}{2}$ - $6\frac{3}{4}$ (Pas.) |
| 91  | <del>31</del> | iP<br>i                                     | NEZ<br>NEZ       | 13 17 32<br>17 44          |                |                |                |       |   |
| 92  | <del>31</del> | (eP)  | NEZ              | 13 20 20.5                 |                |                |                |       |   |
| 93  | <del>31</del> | eP<br>iS                                    | NEZ<br>NEZ       | 20 06 46<br>07 11          |                |                |                |       | Local earthquake.   |
| 94  | 31            | iP<br>i                                     | NEZ<br>Z         | 21 07 14.5<br>09 18        |                |                | +              | 4450  | USCGS: $5\frac{1}{2}$ S, $109\frac{1}{2}$ E, Java Sea. h about 600 Km.                          |
| 95  | 31            | (eP)  | NEZ              | 21 12 45                   |                |                |                |       |   |

Margaret Mansfield.

D.J. Sutton.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MOUNT BONYTHON)

 Latitude:  $34^{\circ} 58' 01''$ 

 Longitude:  $138^{\circ} 42' 32''$ 

Height above mean sea level:

215'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

 $T_g = 75$  sec. and  $T_g = 0.2$  sec. respectively

| No. | Date<br>1966 | Phase          | Time<br>(G.M.T.)                     | Per                                      | Amplitude |       |       | $\Delta$ km. | Remarks  |
|-----|--------------|----------------|--------------------------------------|--|-----------|-------|-------|--------------|--|
|     |              |                |                                      |  | $A_n$     | $A_e$ | $A_z$ |              |  |
| 1.  | June         | $\times 1$     | (oP) Z                               | 07 44 34                                 |           |       |       |              |  |
| 2   |              | $\times 2$     | iP NEZ                               | 01 59 57                                 |           |       |       | 4,800        | USCGS: Near South coast of Mindanao, Phillipine Islands.   |
| 3   |              | $\times 2$     | eP Z                                 | 04 00 00                                 |           |       |       |              |  |
| 4   |              | $> 2$          | iP NEZ<br>i Z                        | 06 11 23<br>11 30                        |           |       |       | 10,300       | USCGS: $46\frac{1}{2}S, 74W,$<br>Southern Chile,<br>Mag. $6\frac{3}{4}$ (Pas.)                         |
| 5   |              | $\times 2$     | iP NEZ                               | 07 16 47                                 |           |       |       |              |  |
| 6   |              | $\checkmark 2$ | eP NEZ<br>eS NEZ<br>iScP Z<br>eL NEZ | 07 53 37.5<br>58 44<br>08 00 13<br>01.00 |           |       |       | 3,550        | USCGS: $5\frac{1}{2}S, 151\frac{1}{2} E,$<br>New Britain. Mag.<br>$6\frac{1}{2} - 6\frac{3}{4}$ (Pas.) |
| 7   |              | $\checkmark 2$ | iP NEZ<br><del>iP</del> Z            | 19 06 01.5<br>10 50                      |           |       |       | 4,450        | USCGS: $20\frac{1}{2}S, 178\frac{1}{2}W,$<br>Fiji Islands. h<br>about 550 Km.                          |
| 8   |              | $\times 2$     | iP NEZ                               | 20 41 55                                 |           |       |       |              |  |
| 9   |              | $\times 2$     | eP NEZ                               | 23 26 10                                 |           |       |       |              |  |
| 10  |              | $\times 3$     | iP NEZ                               | 03 29 46.5                               |           |       |       |              |  |
| 11  |              | $\times 3$     | eP NEZ                               | 07 44 38                                 |           |       |       | 3,500        | USCGS: $5\frac{1}{2}S, 151E,$<br>New Britain.  |
| 12  |              | $\checkmark 3$ | iP NEZ<br>iS N -                     | 13 21 36<br>27 03                        |           |       |       | 4,600        | USCGS: $17\frac{1}{2}S, 179\frac{1}{2}W.$<br>Fiji Is. h about<br>600Km. Mag. 6 (Pas.)                  |
| 13  |              | $\checkmark 3$ | iP NEZ<br>e Z<br>i EZ<br>iS NE       | 13 30 36<br>32 10<br>32 34<br>36 04      |           |       |       | - 4,550      | USCGS: $17\frac{1}{2}S 179W.$<br>Fiji Is. h about<br>600Km. Mag. 6 (Pas.)                              |
| 14  |              | $\checkmark 3$ | eP EZ                                | 13 48 33                                 |           |       |       |              |  |
| 15  |              | $\checkmark 3$ | eP NEZ                               | 14 21 03                                 |           |       |       |              |  |
| 16  |              | $\checkmark 3$ | eP NEZ                               | 16 29 48                                 |           |       |       | 8,500        | USCGS: $41\frac{1}{2}N, 141\frac{1}{2}E,$<br>Near south coast of<br>Hokkaido, Japan h<br>about 100Km.  |
| 17  |              | $\times 4$     | eP NEZ                               | 10 24 12                                 |           |       |       | 6,550        | USCGS: $24N, 143 E,$<br>Vocano Islands region  |
| 18  |              | $\times 4$     | eP NEZ<br>eS NEZ<br>i Z              | 12 44 36<br>46 04<br>46 17               |           |       |       |              |  |

| No. | Date 1960 | Phase    | Time (G.M.T.) | Per | Amplitude      |                |                | Δ Km.  | Remarks |
|-----|-----------|----------|---------------|-----|----------------|----------------|----------------|--|---------|
|     |           |          |               |     | * <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 19  | June 5    | eP NEZ   | 06 13 12      |     |                |                |                |  |         |
| 20  | 5         | eP NEZ   | 19 37 40      |     |                |                | 4,100          | USCGS: 31 $\frac{1}{2}$ S, 177W, Kermadec Islands.   |         |
| 21  | 6         | eP NEZ   | 06 09 14      |     |                |                | 10,450         | USCGS: 45 $\frac{1}{2}$ S, 73 $\frac{1}{2}$ W, Near Coast of Chile Mag. 6 $\frac{3}{4}$ (Pas.) 6 $\frac{3}{4}$ (Pas.) 6 $\frac{3}{4}$ -7 (Berk). |         |
|     |           | i Z      | 10 00         |     |                |                |                |  |         |
|     |           | e NZ     | 10 51         |     |                |                |                |  |         |
|     |           | e V      | 13 22         |     |                |                |                |  |         |
|     |           | i E      | 15 28         |     |                |                |                |  |         |
|     |           | e E      | 16 08         |     |                |                |                |  |         |
|     |           | eSKS N   | 19 52         |     |                |                |                |  |         |
|     |           | e E      | 20 32         |     |                |                |                |  |         |
| 22  | 6         | iP NEZ   | 23 36 39      |     |                |                | 4,150          | USCGS: 23 $\frac{1}{2}$ S, 180 South of Fiji Is. h about 600 km.   |         |
| 23  | 7         | eP NEZ   | 05 32 55      |     |                |                | 4,450          | USCGS: 17S, 98E. Indian Ocean.   |         |
| 24  | 7         | eP NEZ   | 11 07 24.5    |     |                |                |                |  |         |
|     |           | i Z      | 10 55         |     |                |                |                |  |         |
| 25  | 7         | eP Z     | 13 10 12      |     |                |                | 9,950          | USCGS: 53N, 158 $\frac{1}{2}$ E, Near East Coast of Kamchatka.   |         |
| 26  | 7         | iP NEZ   | 13 34 53      |     |                |                | 4,550          | USCGS: 20S, 177 $\frac{1}{2}$ W, Fiji Is. h about 500 Km.  |         |
| 27  | 7         | eP NEZ   | 16 09 33      |     |                |                |                | fewer failure from 03-08-54 7th to 05-22-55 7th.   |         |
| 28  | 9         | eP NEZ   | 04 56 32      |     |                |                |                |  |         |
| 29  | 9         | eP NEZ   | 11 30 16      |     |                |                | 3,500          | USCGS: 18S, 169E, New Hebrides Is. Mag. 5 $\frac{3}{4}$ -6 (Berk)  |         |
|     |           | eS NEZ   | 35 22         |     |                |                |                |  |         |
|     |           | eL NEZ   | 38 00         |     |                |                |                |  |         |
| 30  | 9         | eP Z     | 15 15 35      |     |                |                |                |  |         |
| 31  | 10        | eP NEZ   | 12 05 11.5    |     |                |                | 3,250          | USCGS: 6 $\frac{1}{2}$ S, 131E, Banda Sea.   |         |
|     |           | eS NEZ   | 11 00         |     |                |                |                |  |         |
| 32  | 11        | eP NEZ   | 13 31 17.5    |     |                |                |                |  |         |
| 33  | 11        | eP NEZ   | 15 20 07      |     |                |                | 3,200          | USCGS: 9S, 152 $\frac{1}{2}$ E, D'Entrecasteaux Is. Mag. 6 (Berk.)   |         |
|     |           | i N Z    | 22 32         |     |                |                |                |  |         |
|     |           | e Z      | 24 13         |     |                |                |                |  |         |
|     |           | iS NEZ   | 25 00         |     |                |                |                |  |         |
|     |           | i Z      | 25 16         |     |                |                |                |  |         |
|     |           | e Z      | 26.3          |     |                |                |                |  |         |
| 34  | 11        | eP NEZ   | 16 43 42      |     |                |                | 3,200          | USCGS: 9 $\frac{1}{2}$ S, 152 $\frac{1}{2}$ E, D'Entrecasteaux Is.   |         |
|     |           | e Z      | 46.3          |     |                |                |                |  |         |
|     |           | iS NEZ   | 48 34         |     |                |                |                |  |         |
|     |           | eL NEZ   | 53 00         |     |                |                |                |  |         |
| 35  | 11        | eP NEZ   | 17 13 55      |     |                |                | 3,200          | USCGS: D'Entrecasteaux Is.   |         |
| 36  | 12        | iP NEZ   | 04 03 12      |     |                |                | 4,100          | USCGS: 22 $\frac{1}{2}$ S, 179E, South of Fiji Is. h about 600 Km.   |         |
|     |           | eS NE    | 08 20         |     |                |                |                |  |         |
| 37  | 12        | iP NEZ   | 05 03 10      |     |                |                |                |  |         |
|     |           | e NEZ    | 03 20         |     |                |                |                |  |         |
| 38  | 12        | eP NEZ   | 07 04 50      |     |                |                | 4,000          | USCGS: 29 $\frac{1}{2}$ S, 179W, Kermadec Is. h about 250 Km.  |         |
|     |           | iPeP NEZ | 07 10.5       |     |                |                |                |  |         |
| 39  | 12        | eP NEZ   | 14 07 15      |     |                |                |                |  |         |
| 40  | 12        | eP Z     | 15 22 47.5    |     |                |                | 3,500          | USCGS: 22 $\frac{1}{2}$ S, 172E, Loyalty Is. region.   |         |



| No. | Time | Type | Loc | Time (T.)  | Per | Amplitude      |                |                | Δ Km   | Remarks |
|-----|------|------|-----|------------|-----|----------------|----------------|----------------|--|---------|
|     |      |      |     |            |     | A <sub>n</sub> | A <sub>o</sub> | A <sub>z</sub> |  |         |
| 41  | x 12 | eP   | Z   | 17 09 29.5 |     |                |                |                |  |         |
| 42  | ✓ 13 | eP   | EZ  | 06 00 29   |     |                |                | 10,300         | USCGS: 44 $\frac{1}{2}$ S, 76 $\frac{1}{2}$ W, off coast of southern Chile.  |         |
| 43  | x 13 | eP   | NEZ | 11 59 38   |     |                |                |                |  |         |
| 44  | x 15 | eP   | NEZ | 19 46 44   |     |                |                |                |  |         |
| 45  | ✓ 15 | iP   | NEZ | 22 56 44.5 |     |                |                | 4,000          | USCGS: 32S, 177 $\frac{1}{2}$ W, Kermadec  |         |
| 46  | ✓ 15 | iP   | NEZ | 23 34 34   |     |                |                | 3,900          | USCGS: 1 $\frac{1}{2}$ S 133E, Western New Guinea.   |         |
|     |      | e    | NEZ | 38 26      |     |                |                |                |  |         |
|     |      | e    | E   | 42 24      |     |                |                |                |  |         |
|     |      | e    | N   | 45 45      |     |                |                |                |  |         |
|     |      | eL   | NE  | 48.3       |     |                |                |                |  |         |
|     |      | eL   | Z   | 49.4       |     |                |                |                |  |         |
| 47  | x 16 | eP   | Z   | 09 11 44   |     |                |                | 3,600          | USCGS: 35S, 179E, off north-east coast of North I. N.Z.  |         |
| 48  | ✓ 16 | eP   | N Z | 10 31 36   |     |                |                | 8,000          | USCGS: 2S, 69E, Indian Ocean.  |         |
| 49  | x 16 | eP   | Z   | 11 46 07.5 |     |                |                |                |  |         |
| 50  | x 16 | iP   | N Z | 17 20 44   |     |                |                |                |  |         |
| 51  | x 17 | iP   | NEZ | 02 51 59.5 |     |                |                |                |  |         |
| 52  | x 17 | eP   | NEZ | 08 51 44   |     |                |                |                |  |         |
| 53  | x 17 | eP   | NEZ | 10 40 47   |     |                |                |                |  |         |
| 54  | x 17 | eP   | N Z | 14 36 37   |     |                |                |                |  |         |
| 55  | x 17 | eP   | Z   | 16 26 22   |     |                |                |                |  |         |
| 56  | ✓ 17 | eP   | Z   | 16 49 02   |     |                |                | 10,750         | USCGS: 52 $\frac{1}{2}$ N, 173 $\frac{1}{2}$ W, Andreanof Islands, Aleutian Islands, Mag. 6-6 $\frac{1}{4}$ (Pas.) |         |
| 57  | x 17 | eP   | NEZ | 17 58 18   |     |                |                |                |  |         |
| 58  | x 17 | iP   | NEZ | 23 10 36   |     |                |                |                |  |         |
| 59  | x 17 | eP   | NEZ | 23 18 16   |     |                |                |                |  |         |
| 60  | x 18 | eP   | NEZ | 02 39 43   |     |                |                |                |  |         |
|     |      | eL   | NEZ | 56 00      |     |                |                |                |  |         |
| 61  | x 18 | eP   | NEZ | 06 25 10   |     |                |                |                |  |         |
| 62  | x 18 | eP   | Z   | 14 19 12   |     |                |                |                |  |         |
| 63  | x 18 | eP   | Z   | 15 51 51   |     |                |                |                |  |         |
| 64  | x 18 | eP   | NEZ | 19 00 45   |     |                |                |                |  |         |
| 65  | x 18 | iP   | NEZ | 23 40 44   |     |                |                | 5,000          | USCGS: Near south coast of Sumatra.  |         |
|     |      | i    | NEZ | 40 56.5    |     |                |                |                |  |         |
| 66  | x 19 | iP   | NEZ | 02 31 52   |     |                |                | 7,100          | USCGS: Andaman Islands.  |         |
| 67  | x 19 | iP   | NEZ | 09 50 11   |     |                |                | 3,600          | USCGS: 10S, 161E, Solomon Is.  |         |
| 68  | ✓ 19 | eP   | NEZ | 12 29 11.5 |     |                |                | 4,750          | USCGS: 15S, 178 $\frac{1}{2}$ W, Fiji Is. region h about 500 Km.   |         |
| 69  | ✓ 19 | eP   | Z   | 12 46 47   |     |                |                | 8,900          | USCGS: 44 $\frac{1}{2}$ N, 149E, Kurile Is.  |         |
| 70  | ✓ 19 | eP   | NEZ | 17 27 55   |     |                |                | 8,100          | USCGS: 142 $\frac{1}{2}$ E Bonin Islands.  |         |
| 71  | ✓ 20 | eP   | Z   | 02 15 10   |     |                |                | 11,200         | USCGS: 38E, 73 $\frac{1}{2}$ W, near coast of Chile Mag. 7 (pas.) 7 $\frac{1}{2}$ (Berk.)                          |         |
|     |      | iPP  | N Z | 19 17      |     |                |                |                |  |         |
|     |      | e    | N   | 19 50      |     |                |                |                |  |         |
|     |      | e    | N   | 20 40      |     |                |                |                |  |         |
|     |      | iSKS | NEZ | 25 40      |     |                |                |                |  |         |
|     |      | eFS  | NE  | 28 04      |     |                |                |                |  |         |
|     |      | eSS  | NE  | 37 30      |     |                |                |                |  |         |
|     |      | eL   | NEZ | 45 00      |     |                |                |                |  |         |
|     |      | eSSS | NE  | 37 30      |     |                |                |                |  |         |
|     | x 20 | iP   | NEZ | 03 28 08   |     |                |                |                |  |         |

| No. | Date<br>1963 | Phase      | Time<br>(G.M.T.) | Per | Amplitude      |                |                | Δ Km.  | Remarks |
|-----|--------------|------------|------------------|-----|----------------|----------------|----------------|--|---------|
|     |              |            |                  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 72  | X 20         | eP NEZ     | 08 05 57         |     |                |                |                |  |         |
| 73  | X 20         | eP Z       | 09 29 28         |     |                |                |                |  |         |
| 74  | X 20         | eP N Z     | 11 58 05         |     |                |                |                |  |         |
| 75  | X 20         | eP NEZ     | 12 11 47.5       |     |                |                | 3,650          | USCGS: 33, 129E, Ceram Is.   |         |
| 77  | ✓ 20         | (eP) NEZ   | 13 14 03.5       |     |                |                | 11,100         | USCGS: 39 $\frac{1}{2}$ S, 73W, Chile  |         |
|     |              | eFP NEZ    | 17 42            |     |                |                |                | Mag. 6 $\frac{3}{4}$ (Pas.) 7 (Berk).  |         |
|     |              | e Z        | 18 46            |     |                |                |                |  |         |
|     |              | iSKS NE    | 24 08            |     |                |                |                |  |         |
|     |              | e(f) E     | 25 07            |     |                |                |                |  |         |
|     |              | iPS NEZ    | 26 40            |     |                |                |                |  |         |
|     |              | e N        | 30 04            |     |                |                |                |  |         |
|     |              | eSS NE     | 32 04            |     |                |                |                |  |         |
|     |              | eSSS) NE   | 35 44            |     |                |                |                |  |         |
|     |              | i N        | 39 36            |     |                |                |                |  |         |
|     |              | eL N Z     | 46.2             |     |                |                |                |  |         |
|     |              | eL E       | 49.00            |     |                |                |                |  |         |
| 78  | X 21         | iP NEZ     | 12 51 10         |     |                |                | 4,400          | USCGS: 3N, 126 $\frac{1}{2}$ E, Mount Passage.   |         |
|     |              | i Z        | 51 27.5          |     |                |                |                |  |         |
| 79  | X 21         | iP NEZ     | 18 16 33         |     |                |                | 4,550          | USCGS: 19S, 178W, Fiji Is. h about 400 km.   |         |
| 80  | ✓ 21         | eP NEZ     | 21 46 16         |     |                | *              | 9,150          | USCGS: 61S, 21W, Sandwich Is. region.  |         |
|     |              | eL N Z     | 22 17.7          |     |                |                |                |  |         |
| 81  | ✓ 22         | eP NEZ     | 16 25 00.5       |     |                |                | 10,000         | USCGS: 12N, 57 $\frac{1}{2}$ E Arabian Sea.  |         |
| 82  | X 22         | eP Z       | 21 46 05         |     |                |                |                |  |         |
| 83  | X 23         | iP NEZ     | 12 14 20.5       |     |                | -              | 3,350          | USCGS: 127 $\frac{1}{2}$ E, Timor Is. region   |         |
|     |              | e NEZ      | 15 01            |     |                |                |                |  |         |
|     |              | eS NEZ     | 20 06            |     |                |                |                |  |         |
| 84  | X 24         | eP NEZ     | 03 06 39.5       |     |                |                |                |  |         |
| 85  | X 24         | eP NEZ     | 22 41 57         |     |                |                | 4,100          | USCGS: 30S, 177 $\frac{1}{2}$ W, Kermadec Is.  |         |
|     |              | i(PcP) Z   | 44 17            |     |                |                |                |  |         |
| 86  | X 25         | eP NEZ     | 00 07 17.5       |     |                |                | 3,700          | USCGS: 8S, 118E, Sumbawa Is. region.   |         |
| 87  | X 25         | iP NEZ     | 00 12 31         |     |                |                |                |  |         |
|     |              | i Z        | 14 00            |     |                |                |                |  |         |
| 88  | X 25         | eP Z       | 00 49 46         |     |                |                |                |  |         |
| 89  | ✓ 25         | eP NEZ     | 02 09 51         |     |                |                | 4,150          | USCGS: 30 $\frac{1}{2}$ S, 177W, Kermadec Is.  |         |
|     |              | i(PcP) NEZ | 12 10            |     |                |                |                |  |         |
|     |              | eL NEZ     | 21.00            |     |                |                |                |  |         |
| 90  | X 25         | iP , Z     | 10 32 56.5       |     |                |                |                |  |         |
| 91  | ✓ 25         | ePKP NEZ   | 14 13 03         |     |                |                | 15,500         | USCGS: 6 $\frac{1}{2}$ N, 72 $\frac{1}{2}$ W, Columbia   |         |
|     |              | e Z        | 13 08            |     |                |                |                |  |         |
|     |              | e Z        | 13 49            |     |                |                |                |  |         |
|     |              | i Z        | 16 28            |     |                |                |                |  |         |
| 92  | ✓ 25         | eP NEZ     | 14 48 21.5       |     |                |                |                |  |         |
| 93  | ✓ 25         | iP NEZ     | 14 49 01         |     |                |                | 4,100          | USCGS: 30 $\frac{1}{2}$ S, 177W, Kermadec Is. Mag. 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas.) 5 $\frac{3}{4}$ Berk. |         |
|     |              | e(P) EZ    | 50 34            |     |                |                |                |  |         |
|     |              | i(PcP) EZ  | 51 22            |     |                |                |                |  |         |
|     |              | eS E       | 54 48            |     |                |                |                |  |         |
|     |              | eL NEZ     | 57 00            |     |                |                |                |  |         |
| 94  | X 25         | eP NEZ     | 15 06 10         |     |                |                | 4,150          | USCGS: 30S, 177W, Kermadec Is.   |         |
| 95  | X 25         | iP NEZ     | 18 06 43         |     |                |                |                |  |         |
| 96  | X 25         | iP NEZ     | 21 36 31         |     |                |                |                |  |         |

| No. | Time<br>1960 | Phase             | Time<br>(G.M.T.) | Per | Amplitude |       |       | $\Delta$ Km.  | Remarks |
|-----|--------------|-------------------|------------------|-----|-----------|-------|-------|---|---------|
|     |              |                   |                  |     | $A_n$     | $A_e$ | $A_z$ |   |         |
| 97  | X26          | eP NEZ            | 04 15 42         |     |           |       |       |   |         |
| 98  | X26          | iP NEZ            | 09 43 32         |     |           |       |       |   |         |
| 99  | X26          | eP NEZ            | 15 57 29         |     |           |       | 6,450 | USCGS: 265 71E INDIR Oo.                                |         |
| 100 | X26          | eP NEZ            | 16 58 45         |     |           |       |       |   |         |
| 101 | X27          | eP <del>NEZ</del> | 15 12 68.5       |     |           |       |       |   |         |
| 102 | ✓27          | eP NEZ            | 16 57 25         |     |           |       |       |   |         |
|     |              | i Z               | 17 03 42         |     |           |       |       |   |         |
|     |              | <del>P</del> NEZ  | 07.7             |     |           |       |       |   |         |
| 103 | X27          | iP NEZ            | 19 16 20         |     |           |       | -     |   |         |
| 104 | X28          | iP NEZ            | 01 09 31         |     |           |       |       | -   |         |
|     |              | i NEZ             | 12 54.5          |     |           |       |       | -   |         |
|     |              | i NEZ             | 21 12            |     |           |       |       | -   |         |
| 105 | X28          | eP Z              | 08 30 24.5       |     |           |       | -     |   |         |
| 106 | X28          | iP NEZ            | 16 14 25.5       |     |           |       | 4,800 | USCGS: Tonga Is. Region.                                |         |
| 107 | X28          | iP Z              | 16 10 07         |     |           |       |       |   |         |
| 108 | ✓29          | iP NEZ            | 04 36 26         |     |           |       | 4,150 | USCGS: 30S, 177 <sup>1</sup> / <sub>2</sub> W, Kermadec |         |
|     |              | <del>iP</del> NEZ | 38 46            |     |           |       |       | Is.   |         |
|     |              | <del>CL</del> NEZ | 48.00            |     |           |       |       |   |         |
| 109 | X29          | iP NEZ            | 17 03 58         |     |           |       |       |   |         |
| 110 | X30          | iP NEZ            | 05 50 04         |     |           |       |       |   |         |

Margaret Mansfield.

D.J. Sutton.

210

Copy 11/13  
AUG  
SEPT 60

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION  
ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01" Longitude: 138° 42' 32"  
Height above mean sea level: 2150'  
Stratification: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_E = 75$  sec. and  $T_S = 0.2$  sec. respectively.

| No. | Date 1960 | Phase     | Time (G.M.T.) | Per | Amplitude |       |       | $\Delta$ Km.   | Remarks |
|-----|-----------|-----------|---------------|-----|-----------|-------|-------|--|---------|
|     |           |           |               |     | $A_n$     | $A_e$ | $A_z$ |  |         |
| 1   | Aug. x1   | eP NEZ    | 09 57 17      |     |           |       | 3450  | USCGS: 5.4S, 131.0E Sunda Sea, h about 85Km.                                 |         |
|     |           | e NEZ     | 57 48         |     |           |       |       |  |         |
| 2   | x1        | eP NZ     | 15 26 29      |     |           |       | 6050  | USCGS: 3.7N, 98.0E, near coast of Sumatra. h about 25Km.                     |         |
| 3   | x1        | eP NEZ    | 20 27 01.5    |     |           | *     |       |  |         |
| 4   | x1        | eP NEZ    | 21 34 55      |     |           |       |       |  |         |
| 5   | ✓2        | eP NEZ    | 05 13 36      |     |           | *     | 3500  | USCGS: 22.2S, 171.5E. Loyalty Is. Mag. 6.2 (Pas.) 6.4 (Derk.) h about 108Km. |         |
|     |           | iPP E     | 14 40         |     |           |       |       |  |         |
|     |           | iS NEZ    | 18 35         |     |           |       |       |  |         |
|     |           | e NEZ     | 20 48         |     |           |       |       |  |         |
|     |           | i NE      | 21 51         |     |           |       |       |  |         |
|     |           | eL NEZ    | 23 00         |     |           |       |       |  |         |
|     |           | i (SS) NE | 24 02         |     |           |       |       |  |         |
| 6   | ✓2        | iP NEZ    | 09 37 44      |     |           | -     | 4200  | USCGS: 28.2S, 176.6W. Kermadec Is. h about 61Km.                             |         |
|     |           | e Z       | 39 59         |     |           |       |       |  |         |
|     |           | eL NEZ    | 50.5          |     |           |       |       |  |         |
| 7   | x2        | eP NEZ    | 10 13 37      |     |           |       | 4200  | USCGS: 28.4S, 176.8W Kermadec Is. h about 92Km.                              |         |
| 8   | x3        | iP NEZ    | 05 50 22      |     |           |       |       |  |         |
| 9   | x3        | iP NEZ    | 18 32 53      |     |           | *     |       |  |         |
| 10  | x3        | eP NEZ    | 21 59 08      |     |           |       |       |  |         |
| 11  | x4        | eP NEZ    | 03 15 30.5    |     |           |       |       |  |         |
| 12  | ✓4        | eP NEZ    | 07 48 04      |     |           | *     | 10300 | USCGS: 51.4N, 179.1E, Rat Is. Aleutian Is. Mag. 6-6.4 (Pas.)                 |         |
|     |           | iS E      | 59 06         |     |           |       |       |  |         |
|     |           | eSS E     | 08 05.00      |     |           |       |       |  |         |
|     |           | eL NEZ    | 09.5          |     |           |       |       |  |         |
| 13  | x4        | eP Z      | 13 04 09.5    |     |           |       |       |  |         |
| 14  | x4        | eP Z      | 14 34 15      |     |           |       |       |  |         |
| 15  | x5        | iP Z      | 06 13 20      |     |           |       |       |  |         |
| 16  | ✓5        | eP NEZ    | 16 49 14.5    |     |           | -     | 9600  | USCGS: 50.1N, 156.8E, off south coast of Kamohatka. h about 42Km.            |         |
| 17  | x5        | eP NEZ    | 16 32 39.5    |     |           |       | 3550  | USCGS: 9.5S, 118.8E, Sumba Is. h about 64Km.                                 |         |
| 18  | x6        | eP NEZ    | 04 24 36      |     |           |       |       |  |         |
|     |           | i Z       | 24 48.5       |     |           |       |       |  |         |
| 19  | x6        | eP NEZ    | 22 18 39      |     |           |       |       |  |         |
|     |           | e NEZ     | 19 45         |     |           |       |       |  |         |
| 20  | x7        | eP NEZ    | 12 34 06      |     |           |       |       |  |         |
| 21  | ✓9        | eP NEZ    | 05 39 12      |     |           |       |       |  |         |
| 22  | ✓1        | eP NEZ    | 16 53 53      |     |           |       | 4200  | USCGS: 24.5S, 177.1E, Tonga I region. h about 100Km.                         |         |
|     |           | iPP E     | 53 37         |     |           |       |       |  |         |
|     |           | i N       | 17 03 11      |     |           |       |       |  |         |
|     |           | i S       | 05 58         |     |           |       |       |  |         |

| Phase  | Time<br>(G.M.T.)  | Per | Amplitude |       |       | $\Delta$ Km. | Remarks  |
|--|---|-----|-----------|-------|-------|--------------|--|
|  |   |     | $A_n$     | $A_e$ | $A_z$ |              |  |
| ✓ 9 eP NEZ<br>(i) N<br>e(S) E<br>iScS E<br>eL NEZ                | 23 43 34<br>47 20<br>49 08<br>53 33<br>56 00                      |     |           |       | *     | 3700         | USCGS: 11.5S, 166.3E. Santa Cruz Is. h about 80Km.                   |
| × 10 iP NEZ  | 01 10 14  |     |           |       |       |              |  |
| × 10 iP NEZ  | 06 03 25.5  |     |           |       |       |              |  |
| × 0 eP NEZ   | 10 31 51  |     |           |       |       |              |  |
| × 1 iP NEZ   | 02 13 16  |     |           |       |       |              |  |
| ✓ 11 eP NEZ  | 02 44 08  |     |           |       | *     |              |  |
| ✓ 11 eP NEZ<br>i Z   | 03 00 37<br>03 51   |     |           |       | *     | 4250         | USCGS: 0.0, 121.6E. Celebes. h about 46Km.                           |
| ✓ 11 iP NEZ<br>i N Z<br>i (pPP) Z<br>iPcS E<br>iS NEZ            | 04 52 45<br>58 50<br>05 00 42<br>04 18<br>05 21                   |     |           |       | *     | 5050         | USCGS: 8.8N, 126.1E. Mindanao, Philippine Islands. h about 79Km.     |
| × 11 iP NEZ  | 10 33 55.5  |     |           |       |       |              |  |
| × 2 eP NEZ<br>i Z  | 23 28 21<br>28 59   |     |           |       |       |              |  |
| ✓ 13 eP NEZ<br>iPcP Z  | 07 22 44<br>22 59   |     |           |       | *     | 8450         | USCGS: 40.6N, 142.0E. Near east coast of Honshu, Japan.              |
| × 13 iP Z  | 13 29 11  |     |           |       | -     |              |  |
| ✓ 13 eP NEZ<br>ePT NEZ<br>e N<br>iPS N Z<br>i N<br>i Z<br>eL NEZ | 14 28 38<br>32 35<br>38 40<br>41 35<br>48 34<br>53 47<br>15 01 00 |     |           |       |       | 11000        | USCGS: 39.7S, 74.8W. Near coast of southern Chile. h about 61Km.     |
| × 13 eP NEZ  | 17 50 32  |     |           |       |       |              |  |
| ✓ 14 eP NEZ<br>i Z   | 04 27 38<br>28 09   |     |           |       |       |              |  |
| × 14 eP NEZ  | 08 52 08.5  |     |           |       |       |              |  |
| × 14 iP Z  | 13 30 41  |     |           |       | *     |              |  |
| × 15 iP Z  | 14 46 44  |     |           |       | *     |              | USCGS: 7.2S, 146.2E; near north coast of New Guinea. h about 200 Km. |
| × 15 eP NEZ  | 09 52 44  |     |           |       |       |              |  |
| × 15 eP NEZ  | 06 55 10  |     |           |       |       |              |  |
| × 15 eP Z  | 14 29 40  |     |           |       |       |              |  |
| × 15 iP NEZ  | 08 19 38  |     |           |       |       | 3350         | USCGS: 6.2S, 147.2E, near east coast of New Guinea. h about 30Km.    |
| × 14 iP NEZ<br>iPP N<br>o NEZ                                    | 22 33 46<br>34 33<br>39 49  |     |           |       | -     | 3150         | USCGS: 7.6S, 128.8E. Timor Is. region. h about 63Km.                 |
| × 15 eP NEZ  | 23 10 15  |     |           |       |       |              |  |
| × 15 iP Z  | 05 20 01  |     |           |       |       |              |  |
| × 17 eP NEZ  | 14 25 57  |     |           |       |       |              |  |
| × 17 iP NEZ<br>E   | 18 15 10.5<br>27 00   |     |           |       | *     | 3650         | USCGS: 1.7S, 138.6E. Near north coast of New Guinea. h about 45Km.   |



| Year | Day     | Phase   | Time<br>(G.M.T.) | Per | Amplitude      |                |                | △ Km.  | Remarks |
|------|---------|---------|------------------|-----|----------------|----------------|----------------|--|---------|
|      |         |         |                  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 1960 | Aug. 18 | eP NEZ  | 02 44 00         |     |                |                |                |  |         |
|      | 18      | iP NEZ  | 15 05 28.5       |     |                |                |                | Local earthquake.  |         |
|      |         | i Z     | 05 35            |     |                |                |                |  |         |
|      |         | iS NEZ  | 05 59.5          |     |                |                |                |  |         |
|      | 18      | iP NEZ  | 17 08 00.5       |     |                |                |                |  |         |
|      | 18      | eP NEZ  | 22 50 30         |     |                |                | 3800           | USCGS: 11.4S, 166.2E. Santa Cruz Islands. h about 62Km.                |         |
|      | 19      | iP Z    | 03 20 00         |     |                |                |                |  |         |
|      | 19      | eP NEZ  | 05 52 03         |     |                |                |                |  |         |
|      | 19      | eP NEZ  | 08 19 22         |     |                |                |                |  |         |
|      | 19      | eP NEZ  | 12 51 23.5       |     |                |                | 6900           | USCGS: 27.0N, 140.1E. Bouin Islands region. h about 263Km.             |         |
|      |         | epP Z   | 52 51            |     |                |                |                |  |         |
|      | 19      | eP NEZ  | 17 16 41.5       |     |                |                | 10100          | USCGS: 54.1N, 160.6E. Near east coast of Kamohatka. h about 25Km.      |         |
|      | 20      | eP Z    | 04 44 02         |     |                |                |                |  |         |
|      | 20      | eP NEZ  | 10 11 42.5       |     |                |                |                |  |         |
|      | 20      | eP Z    | 15 59 25         |     |                |                |                |  |         |
|      | 20      | iP NEZ  | 22 30 06         |     |                |                | 4350           | USCGS: 0.5N, 122.0E. Northern Celebes. h about 59Km.                   |         |
|      |         | i N Z   | 30 29            |     |                |                |                |  |         |
|      |         | ePP NEZ | 31 50            |     |                |                |                |  |         |
|      |         | eS NEZ  | 35 56            |     |                |                |                |  |         |
|      |         | i N     | 38 45            |     |                |                |                |  |         |
|      | 21      | eP NEZ  | 00 24 17         |     |                |                | 3450           | USCGS: 4.3S, 143.3E. New Guinea. h about 39Km.                         |         |
|      |         | iS N    | 29 14            |     |                |                |                |  |         |
|      |         | eL NEZ  | 34.00            |     |                |                |                |  |         |
|      | 21      | iP NEZ  | 01 05 30         |     |                |                | 3500           | USCGS: 5.5S, 149.5E. New Britain. h about 177Km.                       |         |
|      |         | iS N    | 19 24            |     |                |                |                |  |         |
|      |         | eL NEZ  | 23.00            |     |                |                |                |  |         |
|      | 21      | eP NEZ  | 03 41 02.5       |     |                |                | 8550           | USCGS: 26.4N, 88.6E. Nepal-India border. h about 81Km.                 |         |
|      | 21      | iP NEZ  | 12 57 10.5       |     |                |                | 4650           | USCGS: 4.9N, 125.1E. Near south coast of Mindanao, P.I. h about 211Km. |         |
|      |         | e NEZ   | 57 48            |     |                |                |                |  |         |
|      |         | iS NEZ  | 13 03 13         |     |                |                |                |  |         |
|      |         | iScS NE | 06 50            |     |                |                |                |  |         |
|      |         | eL NE   | 09.8             |     |                |                |                |  |         |
|      | 21      | eP NEZ  | 13 53 24.5       |     |                |                |                |  |         |
|      | 21      | eP NEZ  | 14 05 47         |     |                |                |                |  |         |
|      | 21      | iP NEZ  | 17 13 13.5       |     |                |                | 4750           | USCGS: 7.2N, 127.8E, off coast of Mindanao, P.I. h about 200Km.        |         |
|      | 21      | eP EZ   | 17 29 15         |     |                |                | 5000           | USCGS: 15.3S, 176.0W, Fiji Is. region. h about 24Km.                   |         |
|      | 22      | eP NEZ  | 18 31 02         |     |                |                |                | Local earthquake.  |         |
|      |         | iS NEZ  | 31 30            |     |                |                |                |  |         |
|      | 23      | eP NEZ  | 13 44 53         |     |                |                |                |  |         |
|      | 23      | eP NEZ  | 22 52 10         |     |                |                | 5100           | USCGS: 14.5S, 176.4W, Fiji Is. region. Mag. 6(Pas.) h about 56Km.      |         |
|      |         | eL NEZ  | 23 00 06         |     |                |                |                |  |         |
|      | 24      | iP NEZ  | 04 33 06         |     |                |                | 3450           | USCGS: 6.2S, 150.4E, New Britain. h about 66Km.                        |         |
|      | 24      | eP NEZ  | 05 57 14         |     |                |                | 4950           | USCGS: 19.0S, 174.1W, Tonga Is. h about 42Km.                          |         |
|      | 24      | iP NEZ  | 19 39 08.5       |     |                |                | 8000           | USCGS: 24.4N, 95.0E. Burma-India border. h about 145Km.                |         |
|      |         | i(P) Z  | 27 35.5          |     |                |                |                |  |         |

| Date<br>1950 | Phase              | Time<br>(G.M.T.)     | Per                                   | Amplitude      |                |                | $\Delta$ Km. | Remarks  |
|--------------|--------------------|----------------------|---------------------------------------|----------------|----------------|----------------|--------------|--|
|              |                    |                      |                                       | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |              |  |
| x 25 Aug.    | eP<br>e<br>eL      | NEZ<br>NEZ<br>NEZ    | 11 53 14<br>53 29<br>59.5             |                |                |                | 3050         | USCGS: 11.1S, 123.7E, Timor Is. region. h about 79Km.            |
| ✓ 26         | eP<br>eL           | NEZ<br>NEZ           | 18 37 47<br>42.5                      |                |                | *              | 3650         | USCGS: 13.5S, 165.9E. New Hebrides Is. h about 56Km.             |
| x 27         | iP                 | NEZ                  | 12 58 0.5                             |                |                | *              | 4350         | USCGS: 22.4S, 179.1W. Tonga Is. region. h about 155Km.           |
| ✓ 27         | iP                 | NEZ                  | 18 28 34                              |                |                |                | 9550         | USCGS: 49.9N, 153.7E. Kurile Is. h about 220Km.                  |
| x 27         | eP                 | NEZ                  | 19 31 15                              |                |                |                |              |  |
| x 28         | iP                 | NEZ                  | 00 31 21                              |                |                |                |              |  |
| ✓ 30         | eP                 | NEZ                  | 07 07 28.5                            |                |                |                |              |  |
| x 30         | eP                 | NEZ                  | 10 17 47.5                            |                |                |                | 3550         | USCGS: 3.5S, 134.2E, New Guinea. h about 31Km.                   |
| x 30         | iP                 | N Z                  | 19 13 27                              |                |                | *              |              |  |
| x 30         | eP<br>i<br>i<br>eS | NEZ<br>Z<br>E<br>NEZ | 21 23 51.5<br>23 59<br>24 12<br>24 23 |                |                |                |              | Local earthquake, Ungarra, Eyre Peninsula, S.A.                  |
| x 31         | iP<br>i<br>iS      | NEZ<br>Z<br>NEZ      | 02 15 30.5<br>15 37<br>16 01          |                |                |                |              |  |
| x 31         | eP<br>iS           | NEZ<br>Z             | 08 23 38<br>24 23                     |                |                |                |              | Local earthquake.  |
| ✓ 31         | eP<br>iS<br>i      | NEZ<br>NEZ<br>Z      | 13 37 10<br>37 40<br>37 42            |                |                |                |              | Ditto.   |
| x 31         | eP                 | NEZ                  | 17 31 03                              |                |                |                | 5750         | USCGS: 13.7N, 120.1E. Near coast of Mindanao, P.I. h about 22Km. |
| x 31         | eP<br>iS           | NEZ<br>NEZ           | 23 28 04<br>28 35                     |                |                |                |              | Local.   |

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UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

Latitude:  $34^{\circ} 58' 01''$

Longitude:  $138^{\circ} 42' 32''$

Height above mean sea level:

2150"

Foundation: Sandstone

Instruments: denioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$  sec. and  $T_g = 0.2$  sec. respectively

| No. | Date 1960 | Phase                             | Time (G.M.T.)                          | Per   | Amplitude |       |       | $\Delta$ Km. | Remarks  |
|-----|-----------|-----------------------------------|--|---|-----------|-------|-------|--------------|--|
|     |           |                                   |  |   | $A_n$     | $A_e$ | $A_z$ |              |  |
| 1   | Sept. ✓   | eP<br>a<br>eL                     | NEZ<br>NEZ<br>NEZ                      | 07 42 02<br>43 38.5<br>54.5                             |           |       |       | 4200         | USCGS: 27.6S, 176.9W<br>h about 500Km.<br>Tonga Islands region.                                    |
| 2   | ✗         | eP<br>eS                          | NEZ<br>NEZ                             | 09 15 42<br>16 13                                       |           |       |       |              | Local Earthquake.  |
| 3   | ✓         | eP<br>iS<br>eL                    | NEZ<br>NEZ<br>NEZ                      | 09 34 40<br>39 50<br>42.00                              |           |       |       | 3500         | USCGS: 16.8S, 167.6E<br>h about 63Km.<br>New Hebrides Is. Mag. 6 (Pas.)                            |
| 4   | ✓         | eP<br>eS<br>eL                    | NEZ<br>NEZ<br>NEZ                      | 10 41 24<br>46 30<br>50.00                              |           |       |       | 3500         | USCGS: 16.5S, 167.6E,<br>h about 27Km.<br>New Hebrides Is. Mag. 6 (Pas.)                           |
| 5   | ✗         | eP                                | NEZ                                    | 12 05 18.5  |           |       |       | 4350         | USCGS: 27.7S, 176.2W<br>h about 92Km. Kermadec Is. reg.  |
| 6   | ✗         | eP                                | NEZ                                    | 13 37 45.5  |           |       |       |              |  |
| 7   | ✗         | eL                                | NEZ                                    | 16 34.3   |           |       |       |              |  |
| 8   | ✓         | eP                                | NEZ                                    | 18 49 07  |           |       |       | 4500         | USCGS: 15.8S, 179.2E.<br>h about 33Km. Fiji Is.  |
| 9   | ✓         | eP<br>eL                          | NEZ<br>NEZ                             | 20 09 52<br>21.5  |           |       |       |              |  |
| 10  | ✓         | eP                                | NEZ                                    | 10 58 37  |           |       |       | 3600         | USCGS: 15.2S, 167.4E<br>h about 163Km. New Hebrides Is.  |
| 11  | ✗         | eP<br>eS                          | NEZ<br>NEZ                             | 11 17 43<br>18 11                                       |           |       |       |              | Local Earthquake.  |
| 12  | ✓         | eP                                | NEZ                                    | 13 57 46  |           |       |       | 8200         | USCGS: 28.7N, 98.3E<br>h about 48Km. Tibet.  |
| 13  | ✓         | iP<br>iP<br>iS<br>iScP<br>i<br>eL | NEZ<br>NEZ<br>NEZ<br>NEZ<br>NEZ<br>NEZ | 12 47 26.5<br>48 57<br>52 10<br>53 09<br>54 36<br>58.00 |           |       |       | 3600         | USCGS: 6.1S, 154.5E<br>h about 457Km. Solomon Is.<br>Mag. - $6\frac{1}{2}$ - $6\frac{3}{4}$ (Pas.) |
| 14  | ✗         | iP                                | NEZ                                    | 15 24 16  |           |       | *     | 4500         | USCGS: 20.1S, 178.6W,<br>h about 645Km. Fiji Islands.  |
| 15  | ✗         | eP                                | NEZ                                    | 20 45 05  |           |       |       | 1800         | USCGS: 48.5S, 126.3E<br>h about 30Km. South of Australia   |
| 16  | ✗         | eP                                | NEZ                                    | 20 59 45  |           |       |       |              |  |
| 17  | ✓         | eP                                | NEZ                                    | 23 58 35  |           |       |       | 8900         | USCGS: 44.6N, 149.1E,<br>h about 27Km. Kurile Islands.<br>Mag. $6\frac{1}{4}$ (Pas.)               |
| 18  | ✗         | iP                                | NEZ                                    | 05 03 6.5   |           |       | -     |              |  |
| 19  | ✗         | iP                                | NEZ                                    | 08 59 30.5  |           |       |       |              |  |
| 20  | ✗         | eP<br>i                           | NEZ<br>NEZ                             | 09 39 51<br>40 21                                       |           |       |       |              | Local Earthquake.  |
| 21  | ✗         | iP<br>i                           | NEZ<br>NEZ                             | 11 36 09<br>36 21                                       |           |       |       |              |  |

| No. | Date 1960 | Phase                                  | Time (G.M.T.)  | Por | Amplitude      |                |                | △ Km.  | Remarks |
|-----|-----------|--|--|-----|----------------|----------------|----------------|--|---------|
|     |           |  |  |     | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |         |
| 22  | Sept. 4   | iP                                     | Z 11 44 24.  |     |                |                |                |  |         |
| 23  | 4         | iP<br>i                                | NEZ 13 07 19.5<br>Z 07 37  |     |                |                | 4750           | USCGS: 5.8N, 125.1E<br>h about 204Km. Near south coast of Mindanao, P.I. |         |
| 24  | 4         | eP                                     | NEZ 16 19 35   |     |                | *              |                |  |         |
| 25  | 4         | eP                                     | NEZ 17 14 52   |     |                | -              |                |  |         |
| 26  | 5         | iP                                     | NEZ 09 46 09   |     |                | *              | 2100           | USCGS: 48.9S, 121.2E<br>h about 89Km. Sth of Australia                   |         |
| 27  | 5         | eP                                     | NEZ 18 10 41.5   |     |                | -              |                |  |         |
| 28  | 6         | iP                                     | NEZ 07 37 17   |     |                | -              |                |  |         |
| 29  | 6         | eP                                     | NEZ 11 21 53.5   |     |                |                |                |  |         |
| 30  | 6         | eP<br>eL                               | NEZ 14 09 14<br>NEZ 09 20  |     |                |                | 3400           | USCGS: 20.4S, 169.4E<br>h about 35Km. Loyalty Is.<br>Mag. 6½ - 6½ (Pas.) |         |
| 31  | 6         | eP                                     | NEZ 16 35 30   |     |                |                | 3250           |  |         |
| 32  | 7         | eP                                     | NEZ 03 57 09   |     |                |                |                |  |         |
| 33  | 8         | iP<br>ePP<br>iS                        | NEZ 11 15 37.5<br>Z 17 22<br>N 21 54                                       |     |                | *              | 4700           | USCGS: 6.2N, 126.2E<br>h about 47Km. Near east coast of Mindanao, P.I.   |         |
| 34  | 8         | iP                                     | Z 12 39 44   |     |                | -              |                |  |         |
| 35  | 8         | eP                                     | Z 14 44 54   |     |                |                | 9950           | USCGS: 52.5N, 158.8E<br>h about 29Km. Kamchatka.                         |         |
| 36  | 8         | iP                                     | NEZ 17 10 01.5   |     |                | *              |                |  |         |
| 37  | 9         | eP                                     | Z 08 11 03.5   |     |                | -              |                |  |         |
| 38  | 9         | eP                                     | Z 08 41 16   |     |                | *              | 5400           | USCGS: 13.3N, 144.7E<br>h about 148Km. Mariana Is.                       |         |
| 39  | 10        | iP                                     | NEZ 05 16 37.5   |     |                | -              |                |  |         |
| 40  | 10        | eP<br>i(P)<br>iScP<br>iS<br>iScS<br>eL | NEZ 10 51 51<br>Z 53 42<br>Z 56 28<br>NEZ 57 26<br>N 11 00 45<br>NEZ 08.00 |     |                | *              | 4600           | USCGS: 4.0N, 122.6E,<br>h about 629Km. Celebes Sea.                      |         |
| 41  | 10        | iP                                     | Z 12 00 15   |     |                | *              |                |  |         |
| 42  | 10        | eP<br>iPcP                             | NEZ 14 11 00<br>Z 13 48  |     |                |                | 3650           | USCGS: 11.2S, 163.1E<br>h about 48Km. Solomon Is.                        |         |
| 43  | 10        | iP                                     | Z 14 04 57.5   |     |                | -              |                |  |         |
| 44  | 10        | iP                                     | NEZ 15 55 23   |     |                | *              | 6550           | USCGS: 6.6N, 93.8E<br>h about 29Km. Nicobar Is.                          |         |
| 45  | 11        | eP                                     | NEZ 01 14 07   |     |                |                |                |  |         |
| 46  | 11        | iP                                     | NEZ 02 31 26   |     |                | *              |                |  |         |
| 47  | 11        | eP                                     | NEZ 03 40 26   |     |                |                |                |  |         |
| 48  | 11        | eP                                     | NEZ 09 55 44   |     |                |                |                |  |         |
| 49  | 11        | iP<br>i(P)                             | NEZ 10 58 37.5<br>EZ 59 44.5   |     |                | *              | 3800           | USCGS: 33.5S, 179.1W,<br>h about 76Km. Kermadec Is. reg.                 |         |
| 50  | 11        | eP<br>ipP                              | NEZ 00 43 47<br>Z 44 01  |     |                | *              | 6050           | USCGS: 16.9N, 122.3E<br>h about 50Km. Luzon, P.I.                        |         |
| 51  | 11        | iPKP                                   | NEZ 02 13 14   |     |                | -              | 17100          | USCGS: 19.6N, 70.3W,<br>h about 103Km. Dominican Rep.                    |         |
| 52  | 11        | eP                                     | NEZ 05 30 09   |     |                |                |                |  |         |

| No. | Date<br>1960          | Phase                     | Time<br>(G.M.T.)         | Per                                    | Amplitude      |                |                | △ Km. | Remarks  |
|-----|-----------------------|---------------------------|--------------------------|--|----------------|----------------|----------------|-------|--|
|     |                       |                           |                          |  | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |  |
| 53  | Sept. <del>x</del> 14 | iP                        | NEZ                      | 16 31 15.5                             |                |                | -              | 4550  | USCGS: 17.5S, 178.9W<br>h about 562Km. Fiji Is. reg.   |
| 54  | <del>✓</del> 14       | eP                        | Z                        | 23 26 40                               |                |                |                | 4800  | USCGS: 20.9S, 174.1W<br>h about 25Km. Tonga Is.  |
| 55  | <del>x</del> 15       | eP                        | NEZ                      | 03 37 36                               |                |                | -              | 3450  | USCGS: 16.5S, 167.3E<br>h about 69Km. New Hebrides Is.   |
| 56  | <del>x</del> 15       | iP                        | N Z                      | 05 25 15.5                             |                |                | -              |       |  |
| 57  | <del>✓</del> 15       | iP<br>iS                  | NEZ<br>N Z               | 18 06 52<br>14 26                      |                |                | -              | 6200  | USCGS: 21.4N, 142.9E<br>h about 361Km. Volcano Is. reg.  |
| 58  | <del>x</del> 16       | iP                        | Z                        | 14 01 01                               |                |                |                |       |  |
| 59  | <del>✓</del> 17       | eP                        | N Z                      | 08 06 27                               |                |                | *              | 9450  | USCGS: 49.3N, 155.4E<br>h about 35Km. Kurile Is.   |
| 60  | <del>✓</del> 17       | iP                        | N Z                      | 08 18 08                               |                |                | -              | 9450  | USCGS: 49.4N, 155.2E<br>h about 28Km. Kurile Is.<br>Mag. 6 (Pas.)  |
| 61  | <del>x</del> 17       | eP<br>iPcP                | NEZ<br>Z                 | 13 05 13.5<br>08 01                    |                |                | *              | 3550  | USCGS: 6.3S, 154.4E,<br>h about 134Km. Solomon Is.   |
| 62  | <del>x</del> 17       | eP                        | NE                       | 16 00 57                               |                |                |                | 3400  | USCGS: 6.3S, 148.8E<br>h about 79Km. New Britain<br>Vertical short-period not<br>operating between 14h.- 20m.<br>G.M.T. 22h. - 06m. G.M.T.<br>17th Sept. |
| 63  | <del>✓</del> 17       | iP<br>eL                  | NE<br>NEZ                | 20 04 13<br>14.3                       |                |                |                | 4750  | USCGS: 20.9S, 174.5W<br>h about 28Km. Tonga Is.<br>Mag. 6 (Pas.)   |
| 64  | <del>✓</del> 18       | iP<br>e(pP)<br>i(S)<br>eL | NEZ<br>NEZ<br>NEZ<br>NEZ | 09 46 27<br>46 56<br>52 08<br>10 00 00 |                |                | -              | 3250  | USCGS: 6.8S, 129.2E,<br>h about 83Km. Banda Sea.   |
| 65  | <del>✓</del> 19       | iP                        | NEZ                      | 03 48 53.5                             |                |                |                | 5950  | USCGS: 15.6N, 120.0E<br>h about 97Km. Luzon Is. P.I.   |
| 66  | <del>x</del> 19       | eP<br>i                   | NEZ<br>Z                 | 04 08 11.5<br>08 31                    |                |                |                | 5950  | USCGS: 15.5N, 120.0E<br>h about 25Km. Near west coast<br>of Luzon, Phillipine Islands.   |
| 67  | <del>x</del> 19       | eP                        | Z                        | 16 52 32                               |                |                |                | 3750  | USCGS: 11.5S, 166.1E<br>h about 232Km. Santa Cruz Is.  |
| 68  | <del>✓</del> 20       | iP<br>iPcP<br>i           | NEZ<br>Z<br>Z            | 03 11 06<br>13 55<br>17 17             |                |                | *              | 3450  | USCGS: 36.9S, 177.2E<br>h about 91Km. Off north coast<br>of New Zealand.   |
| 69  | <del>x</del> 20       | eP<br>e                   | NEZ<br>NEZ               | 03 42 46<br>42 51                      |                |                |                | 4100  | USCGS: 28.2S, 177.9W,<br>h about 47Km. Kermadec Is.  |
| 70  | <del>x</del> 20       | eP                        | NEZ                      | 05 04 02.                              |                |                | -              |       |  |
| 71  | <del>x</del> 20       | iP                        | NEZ                      | 20 12 30.5                             |                |                | -              |       |  |
| 72  | <del>x</del> 20       | eP                        | Z                        | 20 22 44                               |                |                | -              |       |  |
| 73  | <del>x</del> 21       | eP                        | Z                        | 02 54 33                               |                |                |                | 3200  | USCGS: 8.1S, 149.4E<br>h about 115Km. Eastern New Gui<br>nea.  |
| 74  | <del>x</del> 21       | eP<br>i                   | NEZ<br>Z                 | 07 32 16<br>32 22                      |                |                |                | 4100  | USCGS: 27.9S, 177.8W<br>h about 249Km. Kermadec Is.  |
| 75  | <del>x</del> 21       | eP                        | Z                        | 08 11 21                               |                |                | -              |       |  |
| 76  | <del>✓</del> 21       | iP                        | NEZ                      | 16 18 20                               |                |                | -              | 7000  | USCGS: 26.5N, 124.8E<br>h about 207Km. East China Sea.   |
| 77  | <del>x</del> 22       | eL                        | NEZ                      | 09 57 00                               |                |                |                |       | USCGS: Belgian Congo.  |
| 78  | <del>x</del> 22       | eP                        | Z                        | 11 28 27.5                             |                |                |                |       |  |

- 4 -

| No. | Phase   | Time<br>(G.M.T.)                             | Per | Amplitude |       |       | $\Delta$ Km. | Remarks  |
|-----|---|--|-----|-----------|-------|-------|--------------|--|
|     |   |  |     | $A_n$     | $A_e$ | $A_z$ |              |  |
| 29  | <del>x</del> 23 iP Z                              | 05 31 46                                     |     |           |       |       | 8200         | USCGS: 27.6N, 96.2E<br>h about 81Km. India.  |
| 30  | <del>x</del> 23 eP NEZ                            | 06 12.2                                      |     |           |       |       |              |  |
| 31  | <del>x</del> 23 iP NEZ                            | 16 02 23                                     |     |           |       | -     | 4150         | USCGS: 23.7S, 179.5W,<br>h about 473Km. Tonga Is.                                  |
| 32  | <del>x</del> 24 eP Z                              | 13 58 13                                     |     |           |       |       | 3750         | USCGS: 12.4S, 166.7E<br>h about 39Km. Santa Cruz Is.                               |
| 33  | <del>x</del> 27 eP NEZ                            | 03 45 05                                     |     |           |       |       |              |  |
| 34  | <del>x</del> 27 eP NEZ<br>i Z                     | 07 24 33.5<br>24 44                          |     |           |       |       | 3750         | USCGS: 00.9S, 134.5E<br>h about 107Km. Western New<br>Guinea.                      |
| 35  | <del>x</del> 27 eP NEZ<br>iS Z                    | 15 14 30<br>15 0                             |     |           |       |       |              | Local Earthquake.  |
| 36  | <del>x</del> 27 eP Z                              | 16 16 46                                     |     |           |       | *     |              |  |
| 37  | <del>x</del> 27 iP NEZ                            | 17 12 50.5                                   |     |           |       | -     |              |  |
| 38  | ✓27 eP NEZ  | 18 44 36                                     |     |           |       |       | 5550         | USCGS: 14.4N, 145.8E<br>h about 109Km. Mariana Is.                                 |
| 39  | ✓28 eP NEZ  | 05 41 34                                     |     |           |       |       |              |  |
| 40  | <del>x</del> 28 iP NEZ                            | 09 15 51.5                                   |     |           |       |       |              |  |
| 41  | <del>x</del> 28 iP NEZ                            | 17 41 52                                     |     |           |       | -     | 4550         | USCGS: 18.0S, 178.8W<br>h about 705Km. Fiji Is.                                    |
| 42  | <del>x</del> 29 iP NEZ                            | 02 43 20                                     |     |           |       |       |              |  |
| 43  | ✓29 eP NEZ<br>i Z<br>i(ScP) Z<br>iS NEZ<br>eL NEZ | 11 27 38<br>29 02<br>31 58<br>34 46<br>36 44 |     |           |       |       | 6050         | USCGS: 18.9N, 144.7E<br>h about 469Km. Mariana Is.<br>Mag. 6(berk.) 6½ - 6½ (Pas.) |
| 44  | <del>x</del> 30 eP NZ                             | 21 10 54.5                                   |     |           |       |       | 3650         | USCGS: 11.1S, 162.9E,<br>h about 31Km. Solomon Is.                                 |

Margaret Mansfield
D.J. Sutton

N.B. Seismograph not functioning from 09h. - 35m. G.M.T. to 11h. - 20m. G.M.T.  
Mon. 12th Sept. Tues. 13th Sept.

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OCT Copy

-DEC 60

UNIVERSITY OF TORONTO, SEISMOLOGICAL BUILDING

STATION NO. 100-1000

Latitude: 34° 55' 01"  
 Height above mean sea level:  
 Foundation: Sandstone

Longitude: 135° 42' 32"  
 2150'

Equipment: Benioff variable reluctance seismometers with three component long and short period paper recorders.  
 $T_g = 75$  sec. and  $T_s = 0.2$  sec. respectively

| Date<br>Time | Phase       | Time<br>(G.M.T.) | Amplitude       |                 |                 | $\Delta$ Km. | Remarks   |
|--------------|-------------|------------------|-----------------|-----------------|-----------------|--------------|---|
|              |             |                  | A <sub>11</sub> | A <sub>22</sub> | A <sub>33</sub> |              |   |
| x 01         | 1P NEZ      | 03 12 09.5       |                 |                 |                 | 7,950        | USCGS: 23.3 N, 94.6E<br>Burma h about 67 Km.  |
| x            | eP NEZ      | 04 50 26         |                 |                 |                 |              |   |
| x            | 1P NEZ      | 06 34 47.5       |                 |                 |                 | 4,750        | USCGS: 6.1N, 124.5E<br>Mindanae, Philippines<br>h about 54 Km.                      |
|              | 1 NEZ       | 35 24.5          |                 |                 |                 |              |   |
|              | 1 NEZ       | 39 41            |                 |                 |                 |              |   |
|              | 1 (PeS) NEZ | 40 25            |                 |                 |                 |              |   |
| x 1          | 1P NEZ      | 17 21 23         |                 |                 |                 |              | Local Earthquake.   |
|              | 1S NEZ      | 21 30            |                 |                 |                 |              |   |
| x 2          | eP NEZ      | 02 15 22         |                 |                 |                 | 3,200        | USCGS: 61.05, 23.3W. h about<br>Sandwich I. 77 Km.                                  |
| x 2          | 1P NEZ      | 04 50 11         |                 |                 |                 |              |   |
| x 2          | eP NEZ      | 10 25 38         |                 |                 |                 | 3,700        | USCGS: 11.3S, 165.7E h about<br>Santa Cruz Is. 100 Km                               |
| x 2          | 1P NEZ      | 16 39 35.5       |                 |                 |                 | 4,400        | USCGS: 3.1N, 127.7E, h about<br>Molucca Passage. 31 Km.                             |
|              | 1 Z         | 41 01            |                 |                 |                 |              |   |
| ✓ 2          | 1P NEZ      | 18 18 03         |                 |                 |                 | 7,500        | USCGS: 18.6 N, 94.9E. h about<br>Burma. 104 Km.                                     |
|              | 1PP NEZ     | 19 20            |                 |                 |                 |              |   |
| x 3          | eP NEZ      | 10 18 31         |                 |                 |                 | 3,500        | USCGS: 3.3S, 137.8E h about<br>Western New Guinea. 29 Km.                           |
|              | 1 NEZ       | 27 14            |                 |                 |                 |              |   |
| ✓ 3          | eP NEZ      | 19 58 54         |                 |                 |                 | 4,900        | USCGS: 05.7S, 103.0E h about<br>Off Coast of Sumatra. 51 Km.                        |
|              | eL NEZ      | 26 13.3          |                 |                 |                 |              |   |
| ✓ 4          | eP NEZ      | 09 57 28         |                 |                 |                 | 3,500        | USCGS: 7.5S, 155.3E h about<br>Solomon Islands. 134 Km.                             |
|              | e N         | 10 02 36         |                 |                 |                 |              |   |
|              | eL NEZ      | 07 02            |                 |                 |                 |              |   |
| x 5          | eP NEZ      | 12 43 45         |                 |                 |                 |              |   |
| x 5          | 1P NEZ      | 21 15 16         |                 |                 |                 |              |   |
| x 6          | 1P NEZ      | 06 14 36         |                 |                 |                 | 4,000        | USCGS: 27.3S, 179.8E. h about<br>Kermadec Is. region. 506 Km.                       |
| x 6          | eP NEZ      | 16 53 05         |                 |                 |                 | 4,900        | USCGS: 5.7S, 103.0E h about<br>Off Coast of Sumatra. 167 Km.                        |
| ✓ 7          | 1P NEZ      | 15 21 20.5       |                 |                 |                 | 3,150        | USCGS: 7.4S, 130.7E h about<br>45 Km.   |
|              | 1S NEZ      | 29 06            |                 |                 |                 |              |   |
|              | (eL) NEZ    | 18.00            |                 |                 |                 |              | Banda Sea. Mag $6\frac{1}{2}$ - $6\frac{3}{2}$ (Berkl)<br>$6\frac{3}{2}$ - 7 (Pal). |

| No. | Date<br>-560. | Phase   | Time<br>(G.M.T.)                              | Amplitude      |                |                | Δ Km.  | Remarks. |
|-----|---------------|---|---|----------------|----------------|----------------|--|----------|
|     |               |   |   | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |          |
| 18  | Oct ✓ 8       | iP NEZ<br>ipP Z<br>eS NEZ<br>iScS NEZ<br>(eL) NEZ | 06 03 47<br>05 58<br>12 37<br>13 05<br>16.5   |                |                | 8,400          | USCGS: 40.0N, 129.7E, h about 608 Km.<br>Sea of Japan Mag. 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas.)<br>6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Berk.) |          |
| 19  | × 8           | eP NZ   | 09 28 42                                      |                |                |                |  |          |
| 20  | × 8           | eP Z<br>eL NEZ                                    | 17 40 15<br>49.8                              |                |                | 3,450          | USCGS: -35.9S 176.9E h about 176 Km.<br>Near coast of New Zealand.   |          |
| 21  | ✓ 8           | iP NEZ  | 20 50 14                                      |                |                | 6,900          | USCGS: 7.9N 92.9E h about 84 Km.<br>Nicobar Islands  |          |
| 22  | ✓ 9           | iP NEZ<br>i Z<br>i Z<br>iPP N<br>i NEX            | 09 12 15<br>12 38<br>12 54<br>15 06<br>21 47  |                |                | 8,450          | USCGS: 40.8N, 141.2E. h about 155 Km.<br>Near Coast of Northern Honshu, Japan. Mag. 6 $\frac{1}{4}$ Pas<br>6 Pal.                              |          |
| 23  | ✓ 9           | iP NEZ  | 09 59 41                                      |                |                | 5,200          | USCGS: 15.1S, 174.0W, h about 129 Km.<br>Samoa Is. region.   |          |
| 24  | × 9           | iP NZ   | 17 55 39                                      |                |                |                |  |          |
| 25  | × 10          | eP Z  | 21 52 45                                      |                |                |                |  |          |
| 26  | × 11          | eP Z  | 04 52 43                                      |                |                | 3,700          | USCGS: 12.5S, 166.4E. h about 25 Km.<br>Santa Cruz Is. region.   |          |
| 27  | × 11          | eP NZ   | 18 37 16                                      |                |                | 7,350          | USCGS: 16.1S, 67.1E h about 100 Km.<br>Hascarene Is. region.   |          |
| 28  | × 12          | eP NEZ  | 02 29 47.5                                    |                |                |                |  |          |
| 29  | × 12          | eP NEZ  | 10 02 38.5                                    |                |                | 3,650          | USCGS: 2.1S, 140.5E h about 19 Km.<br>Near Coast of New Guinea.  |          |
| 30  | × 12          | iP NEZ  | 17 18 29                                      |                |                | 3,250          | USCGS: 6.8S, 130.1E. h about 25 Km.<br>Banda Sea.  |          |
| 31  | × 12          | eP NEZ<br>i(PcP) Z                                | 18 35 39<br>38 38                             |                |                | 3,400          | USCGS: 6.1S, 148.6E h about 119 Km.<br>New Britain reg.  |          |
| 32  | ✓ 13          | eP NEZ<br>i Z<br>i N<br>i N<br>eL NEZ             | 15 05 38.5<br>05 53<br>16 09<br>16 41<br>37.6 |                |                | 10,200         | USCGS: 54.8N, 161.2E. h about 35 Km.<br>Kamchatka. Mag 6 $\frac{3}{4}$ (Pas)<br>6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Berk).                       |          |
| 33  | × 13          | eP NEZ  | 12 46 14                                      |                |                | 3,700          | USCGS: 3.8S, 152.4E. h about 213 Km.<br>New Ireland region.  |          |
| 34  | × 13          | iP NEZ<br>i Z<br>i N                              | 18 46 53<br>47 00<br>52 04                    |                |                |                |  |          |
| 35  | × 14          | iP NEZ  | 01 06 35                                      |                |                | 5,150          | USCGS: 10.1N, 125.3E,<br>Near coast of Leyte,<br>Phillipine Is. h about 171 Km.  |          |
|     |               | No records from 0230 GMT                          |   |                |                |                |  |          |
| 36  | × 15          | eP NEZ  | 03 00 01                                      |                |                | 3,600          | USCGS: 11.0S, 162.5E<br>Solomon Is. Reg. h about 139 Km.   |          |



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| No. | Date<br>(Oct) | Phase                        | Time<br>(G.M.T.)             | Amplitude                                       |                |                | $\Delta$ Km | Remarks.   |
|-----|---------------|------------------------------|------------------------------|---|----------------|----------------|-------------|--|
|     |               |                              |                              | A <sub>n</sub>                                  | A <sub>e</sub> | A <sub>z</sub> |             |  |
| 37  | x 5           | iP                           | NEZ                          | 11 40 00.5                                      |                |                | 6,650       | USCGS: 23.1N, 123.4E<br>Off coast of Formosa h about<br>60 Km.                             |
| 38  | x 5           | iP                           | NZ                           | 12 18 00.5                                      |                |                | 3,650       | USCGS: 7.7S, 157.5E h about<br>Solomon Is. 366Km   |
| 39  | x 6           | iP                           | NZ                           | 05 00 26  |                |                |             |  |
| 40  | x 7           | iP                           | NEZ                          | 07 02 46  |                |                |             |  |
| 41  | x 8           | iP                           | NEZ                          | 00 07 05.5                                      |                |                | 3,950       | USCGS: 25.3S, 178.4E. h about<br>South of Fiji Is. 636 Km.                                 |
| 42  | x 8           | iP                           | NEZ                          | 16 14 30.5                                      |                |                |             |  |
| 43  | ✓ 20          | iP<br>iPcP<br>e(S)<br>i<br>e | NEZ<br>Z<br>EZ<br>NEZ<br>NEZ | 11 12 38<br>15 18.5<br>18 02<br>19 03.5<br>21.3 |                |                | 3,750       | USCGS: 11.0S, 164.9E. h about<br>Santa Cruz Is. reg. 40 Km.<br>Mag. 6½ (Pas.) 5½-6 (Berk.) |
| 44  | x 20          | eP                           | NEZ                          | 12 56 21  |                |                |             |  |
| 45  | x 20          | eP                           | NEZ                          | 12 56 21  |                |                |             |  |
| 45  | x 21          | iP                           | NEZ                          | 02 10 01  |                |                |             |  |
| 46  | x 21          | iP<br>i<br>e<br>e            | NEZ<br>Z<br>NE<br>Z          | 06 31 20<br>32 16<br>37 30<br>37 45             |                |                | 3,350       | USCGS: 6.9S, 127.6E. h about<br>Banda Sea. 134Km   |
| 47  | x 21          | eP<br>e                      | NEZ<br>NEZ                   | 14 49 46<br>51 50                               |                |                |             | Regional?  |
| 48  | ✓ 22          | iP<br>i<br>i<br>e            | NEZ<br>Z<br>NE<br>NEZ        | 08 28 22<br>28 40<br>33 33<br>36.00             |                |                | 3,550       | USCGS: 10.3S, 161.2E. h about<br>Solomon Is. reg. 93 Km.<br>6½-7(Pas.) 6(Pal.)             |
| 49  | ✓ 24          | iP<br>i<br>e<br>i<br>eL      | NEZ<br>NEZ<br>NE<br>N<br>N   | 05 18 26.5<br>23 33<br>27 10<br>27 50<br>29.00  |                |                | 3,600       | USCGS: 15.0S, 167.4E. h about<br>New Hebrides Is. Reg. 145 Km.                             |
| 50  | x 24          | eP                           | NEZ                          | 17 15 22  |                |                | 3,450       | USCGS: 6.0S, 150.6E. H about<br>New Britain Reg. 122 Km                                    |
| 51  | x 26          | iP                           | NEZ                          | 07 24 37  |                |                |             |  |
| 52  | x 26          | iP                           | NEZ                          | 17 41 31  |                |                | 4,600       | USCGS: 17.8B, 178.6W. h about<br>Fiji Is. region. 589 Km.                                  |
| 53  | x 27          | eP                           | NEZ                          | 11 00 57  |                |                | 7,750       | USCGS: 16.3N 121.3E. h about<br>Luzon, Philippine Is. 54 Km.                               |
| 54  | x 27          | iP                           | NEZ                          | 13 28 29  |                |                |             |  |
| 55  | x 27          | iP<br>i                      | NEZ<br>Z                     | 14 54 44<br>55 01                               |                |                | 4,750       | USCGS: 6.2S, 104.0E. h about<br>Near south coast of 160 Km<br>Sumatra.                     |
| 56  | x 27          | iP                           | NEZ                          | 19 42 19  |                |                | 3,550       | USCGS: 6.3S, 154.7E h about<br>Solomon Is. reg. 118 Km.                                    |

| No. | Date<br>1960<br>(Oct.) | Phase |     | Time<br>(G.M.T.) | Amplitude      |                |                | △ Km  | Remarks   |
|-----|------------------------|-------|-----|------------------|----------------|----------------|----------------|-------|---|
|     |                        |       |     |                  | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |   |
| 57  | ✓27                    | iP    | NEZ | 22 35 56.5       |                |                |                | 5,100 | USCGS: 15.25, 175.0W,<br>Samoa Is. reg. h about 253Km   |
|     |                        | i     | Z   | ✓36 01           |                |                |                |       |   |
| 58  | ✗28                    | iP    | NEZ | 02 37 02         |                |                |                |       |   |
| 59  | ✗28                    | eP    | NEZ | 11 20 29         |                |                |                | 4,450 | USCGS: 2.1N 124.0E<br>Celebes Sea. h about 25 Km.   |
| 60  | ✓28                    | iP    | NEZ | 13 30 58         |                |                |                | 9,800 | USCGS: 52.0N, 157.4E.<br>Kamchatka. h about 96 Km.  |
|     |                        | ipP   | Z   | 31 26            |                |                |                |       |   |
|     |                        | isP   | Z   | 31 35            |                |                |                |       |   |
|     |                        | e(PP) | Z   | 34 24            |                |                |                |       |   |
|     |                        | iSKS  | N   | 41 12            |                |                |                |       |   |
|     |                        | iS    | NE  | 41 35            |                |                |                |       |   |
|     |                        | isS   | E   | 42 20            |                |                |                |       |   |
|     |                        | e     | NE  | 44.00            |                |                |                |       |   |
| 61  | ✓29                    | iP    | NEZ | 09 46 10         |                |                |                | 5,200 | USCGS: 15.8S, 172.9W,<br>Samoa Is. reg. h about 99Km.<br>Mag. 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (pal.) |
| 62  | ✗30                    | iP    | Z   | 04 29 15.5       |                |                |                |       |   |
| 63  | ✓30                    | eP    | NEZ | 15 57 49         |                |                |                | 3,950 | USCGS: 1.0S, 127.0E.<br>Spice Is. h about 32 Km.  |
| 64  | ✗31                    | iP    | NEZ | 06 39 12         |                |                |                |       |   |
| 65  | ✗31                    | eP    | NEZ | 12 46 10.5       |                |                |                |       |   |

Yours faithfully,

D.J. Sutton

J. Pearce.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01"

Longitude: 138° 42' 32"

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$  sec. and  $T_g = 0.2$  sec. respectively

| Time | Phase   | Time (G.M.T.) | Per        | Amplitude      |                |                | Δ Km. | Remarks   |
|------|---------|---------------|------------|----------------|----------------|----------------|-------|---|
|      |         |               |            | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |       |   |
| ✓    | eP      | NEZ           | 08 59 48   |                |                |                | 11200 | USCGS: 38.4S, 74.4W<br>h about 97Km. Near coast of Chile.<br>Mag. $6\frac{3}{4}$ - 7 (Berk.) $7\frac{1}{4}$ - $7\frac{1}{2}$ (Pas.)<br>$6\frac{1}{2}$ - $6\frac{3}{4}$ (Pal.) |
| ✓    | eP      | NEZ           | 09 01 26   |                |                |                |       |   |
| x    | eP      | NEZ           | 10 17 08.5 |                |                |                |       |   |
|      |         | Z             | 17 23      |                |                |                |       |   |
| x    | eP      | NEZ           | 00 05 16   |                |                |                | 4150  | USCGS: 30.2S, 177.7W,<br>h about 43Km. Kermadec Is.   |
| ✓    | eP      | NEZ           | 17 21 31   |                |                |                | 3750  | USCGS: 10.9S, 164.9E<br>h about 25Km. Santa Cruz Is.  |
|      | e (PoP) | Z             | 24 12      |                |                |                |       |   |
|      | eS      | NEZ           | 26 54      |                |                |                |       |   |
|      | eL      | NEZ           | 32.00      |                |                |                |       |   |
| x 2  | eP      | NEZ           | 18 18 06   |                |                |                | 5000  | USCGS: 44.8S, 80.2E<br>h about 23Km. South Indian Ocean.  |
|      |         | Z             | 18 12      |                |                |                |       |   |
|      |         | Z             | 18 24      |                |                |                |       |   |
| x 3  | eP      | NEZ           | 02 08 06   |                |                |                |       |   |
|      | e       | E             | 17.5       |                |                |                |       |   |
| x 3  | eP      | Z             | 07 47 34   |                |                |                |       |   |
| x 4  | eP      | NEZ           | 14 25 08   |                |                |                | 4000  | USCGS: 1.1S, 126.5E<br>h about 25Km. Spice Is. region   |
| x 5  | eP      | Z             | 01 02 16   |                |                |                | 7350  | USCGS: 30.5N, 130.9E<br>h about 74Km. Kyushu, Japan.  |
|      | eP      | Z             | 02 30      |                |                |                |       |   |
| x 6  | eP      | NEZ           | 05 31 12   |                |                |                |       |   |
|      | e       | NEZ           | 36 25      |                |                |                |       |   |
| ✓    | eP      | NEZ           | 04 51 14.5 |                |                |                | 10000 | USCGS: 53.0N, 159.8E,<br>h about 32Km. Near east coast of Kamchatka.<br>Mag. $5\frac{1}{2}$ - $5\frac{3}{4}$ (Pal.),<br>$6 - 6\frac{1}{4}$ (Berk.), $6\frac{1}{4}$ (Pas.)     |
| ✓    | eP      | NEZ           | 06 21 58   |                |                |                | 4050  | USCGS: 31.0S, 177.7W<br>h about 184Km. Kermadec Is. region.<br>Mag. $5\frac{3}{4}$ - 6 (Berk.), $6\frac{1}{2}$ (Pas.)   |
|      | e (PoP) | NEZ           | 24 20      |                |                |                |       |   |
|      | eS      | NE            | 27 48      |                |                |                |       |   |
|      | e       | N             | 30 32      |                |                |                |       |   |
|      | e       | N             | 32 20      |                |                |                |       |   |
|      | eL      | NEZ           | 33.5       |                |                |                |       |   |
| x 7  | eP      | NEZ           | 06 49 34.5 |                |                |                | 6100  | USCGS: 16.8N, 119.9E<br>h about 98Km. Near coast of Luzon, Phillipine Is.   |
| x    | eP      | NEZ           | 10 24 34   |                |                |                |       |   |
|      | e       | Z             | 26 56      |                |                |                |       |   |
| x    | eP      | NEZ           | 14 04 09   |                |                |                |       |   |
|      | eL      | NEZ           | 17 14.3    |                |                |                |       |   |
| x    | eP      | Z             | 11 09 09.5 |                |                |                |       |   |

| Date   | Time | Phase  | Time (G.M.T.) | Por        | Amplitude      |                |                | △ Km. | Remarks  |
|--------|------|--------|---------------|------------|----------------|----------------|----------------|-------|--|
|        |      |        |               |            | A <sub>u</sub> | A <sub>e</sub> | A <sub>z</sub> |       |  |
| 18 Nov | X8   | eP     | NEZ           | 15 08 53   |                |                |                |       | Local Earthquake.  |
|        |      | eS     | NEZ           | 00 25      |                |                |                |       |  |
|        | X9   | LP     | Z             | 19 54 04   |                |                | *              | 3450  | USCGS: 18.4S, 168.3E<br>h about 25Km. New Hebrides Islands region.   |
|        | X9   | LP     | NEZ           | 20 34 34.5 |                |                | *              | 3600  | USCGS: 2.6S, 139.4E<br>h about 25Km. Near coast of New Guinea.   |
|        | ✓10  | LP     | NEZ           | 03 30 26.5 |                |                | *              | 9250  | USCGS: 60.7S, 24.8W<br>h about 37Km. Sandwich Is.<br>Mag. $6\frac{1}{4}$ - $6\frac{1}{2}$ (Pal.).                          |
|        |      | PP     | Z             | 33 38      |                |                |                |       |  |
|        |      | eS     | E             | 40 48      |                |                |                |       |  |
|        |      | e(SSS) | E             | 52 02      |                |                |                |       |  |
|        |      | eL     | EZ            | 04 05.00   |                |                |                |       |  |
|        | ✓10  | LP     | NEZ           | 10 55 21.5 |                |                | -              | 8300  | USCGS: 32.7N, 103.4E<br>h about 47Km. Szechwan Province China, Mag. $6\frac{1}{4}$ - $6\frac{1}{2}$ (Pal.)                 |
|        |      | eL     | EZ            | 11 25.00   |                |                |                |       |  |
|        | ✓10  | LP     | NEZ           | 14 51 16   |                |                | *              | 3600  | USCGS: 2.6S, 139.4E<br>h about 25Km. Near coast of New Guinea, Mag. $6\frac{3}{4}$ (Pas.).                                 |
|        |      | eS     | Z             | 51 34      |                |                |                |       |  |
|        |      | eL     | EZ            | 56 22      |                |                |                |       |  |
|        |      | eL     | N Z           | 15 00 00   |                |                |                |       |  |
|        | X9   | eP     | NEZ           | 16 36 30   |                |                |                | 3500  | USCGS: 22.0S, 171.6E<br>h about 128Km. Loyalty Is. reg.  |
|        | X9   | LP     | NEZ           | 18 42 47   |                |                |                |       |  |
|        | X11  | LP     | NEZ           | 06 21 25.5 |                |                | -              | 4450  | USCGS: 19.6S, 179.1W<br>h about 707Km. Fiji Is. reg.   |
|        | X    | eP     | NEZ           | 23 03 52   |                |                |                |       | Local earthquake, Cummins  |
|        |      | eS     | NEZ           | 04 26      |                |                |                |       | No vertical short-period from 12th-14th inclusive.   |
|        | ✓13  | LP     | NEZ           | 06 44 20   |                |                |                | 4200  | USCGS: 1.4N, 127.2E<br>h about 59Km. Molucca Passage.  |
|        |      | PP     | Z             | 45 44      |                |                |                |       |  |
|        |      | eS     | EZ            | 49 57      |                |                |                |       |  |
|        |      | eL     | EZ            | 52 00      |                |                |                |       |  |
|        | ✓13  | eP     | NEZ           | 09 34 06   |                |                |                | 10820 | USCGS: 51.1N, 168.8W<br>h about 65Km. Fox Is., Aleutian Is. Mag. 7(Pas.)<br>$7\frac{1}{4}$ (Berk.), $6\frac{3}{4}$ (Pal.). |
|        |      | PP     | Z             | 38 06      |                |                |                |       |  |
|        |      | eS     | E             | 44 42      |                |                |                |       |  |
|        |      | eS     | E             | 45 38      |                |                |                |       |  |
|        |      | eL     | Z             | 46 44      |                |                |                |       |  |
|        |      | eL     | E             | 52 08      |                |                |                |       |  |
|        |      | eL     | NEZ           | 10 00.00   |                |                |                |       |  |
|        | X    | eP     | NE            | 09 31 18   |                |                |                | 10750 | No vertical short period<br>No north long period<br>Local earthquake.  |
|        |      | eL     | NE            | 31 50      |                |                |                |       |  |
|        | X    | eP     | NEZ           | 02 12 25.5 |                |                |                | 2080  | USCGS: 53.5S, 140.7E<br>h about 21Km. Antarctic Ocean, South of Australia.   |
|        |      | eL     | NE            | 29.5       |                |                |                |       |  |
|        | X    | eP     | NEZ           | 04 21 27   |                |                |                | 2080  | USCGS: 53.5S, 140.3E<br>h about 100Km. Antarctic Ocean, South of Australia.  |
|        | X    | eP     | N Z           | 06 31 48   |                |                |                | 5050  | USCGS: 62.5S, 161.7W<br>h about 46Km. Antarctic Ocean.   |
|        |      | eL     | EZ            | 06 42.00   |                |                |                |       |  |
|        | ✓13  | LP     | NEZ           | 09 17 16   |                |                | *              | 7950  | USCGS: 23.2N, 94.3E<br>h about 103Km. Near Burma-India Border.   |
|        | X    | eP     | NEZ           | 05 11 15   |                |                |                |       |  |
|        | X    | eP     | NEZ           | 04 15 04   |                |                | -              | 4050  | USCGS: 30.8S, 177.7W<br>h about 71Km. Kermadec Is. reg.  |
|        |      | eL     | Z             | 17 26      |                |                |                |       |  |
|        | X    | eP     |               | 05 03 13   |                |                |                |       | Welt in Brisbane, Queensland.  |
|        |      | eL     |               | 06 14      |                |                |                |       |  |

| No. | Date<br>1960         | Phase                               | Time<br>(G.M.T.)              | Per  | Amplitude      |                |                | △ Km.   | Remarks |
|-----|----------------------|-------------------------------------|-------------------------------|--|----------------|----------------|----------------|---|---------|
|     |                      |                                     |                               |  | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |   |         |
| 38  | Nov. <del>x</del> 17 | iP<br>i                             | N Z<br>N Z                    | 05 33 29<br>34 54  |                |                | -              |   |         |
| 39  | <del>x</del> 18      | iP<br>e(PP)<br>e(S)                 | N Z<br>Z<br>Z                 | 15 28 58<br>29 30<br>35 00                               |                |                | -              | 3280 USCGS: 6.3S, 130.0E<br>h about 68Km. Banda Sea.  |         |
| 40  | <del>x</del> 19      | iP                                  | N Z                           | 07 11 57.5   |                |                | -              | 4550 USCGS: 17.6S, 179.0W<br>Fiji Is. h about 594Km.  |         |
| 41  | ✓<br>✓               | eP                                  | NEZ                           | 12 24 47   |                |                | -              | 4850 USCGS: 8.6N, 137.6E<br>h about 27Km. Caroline Is. reg.   |         |
| 42  | <del>x</del> 20      | eL                                  | EZ                            | 22 32.5  |                |                |                |   |         |
| 43  | ✓<br>✓               | iP                                  | N Z                           | 04 35 17.5   |                |                |                |   |         |
| 44  | <del>x</del> 21      | eL                                  | EZ                            | 03 56.5  |                |                |                | 5000 Short period not operating<br>from 0530GMT 22nd Nov.-until<br>0145GMT 23rd Nov.<br>USCGS: 19.2S, 173.1W<br>h about 25Km. Tonga Is. reg.                              |         |
| 45  | ✓<br>✓               | iP<br>eL                            | EZ<br>EZ                      | 06 32 44<br>50.00  |                |                |                | 7500 USCGS: 35.9S, 52.3E<br>h about 21Km. Indian Ocean,<br>north of Crozet Islands.<br>Mag. $6\frac{3}{4}$ (Pas.).  |         |
| 46  | ✓<br>✓               | eP<br>e<br>e                        | N Z<br>Z<br>N                 | 04 17 31<br>17 55<br>22 21                               |                |                |                | 3700 USCGS: 4.9S, 153.8E<br>h about 516Km. New Britain<br>region.   |         |
| 47  | ✓<br>✓               | eP<br>ePP<br>eL                     | N Z<br>N Z<br>N Z             | 14 19 59<br>21 45<br>29.00                               |                |                |                | 4500 USCGS: 24.2S, 176.1W<br>h about 28Km. South of Tonga Is.<br>region.<br>Mag. $6\frac{3}{4}$ (Pas.), Berk, $6\frac{3}{4}$ -7(Pal.).                                    |         |
| 48  | ✓<br>✓               | iP<br>iS                            | N Z<br>EZ                     | 16 59 50<br>17 05 50                                     |                |                | *              | 4550 USCGS: 46N, 125.8E<br>h about 143Km. Near Mindanao,<br>Phillipine Islands.   |         |
| 49  | <del>x</del> 22      | eP                                  | N Z                           | 17 36 30   |                |                |                | 4450 USCGS: 24.5S, 176.4W<br>h about 171Km. South of Tonga<br>Is. region.   |         |
| 50  | ✓<br>✓               | eP                                  | N Z                           | 18 04 13   |                |                |                | 4500 USCGS: 24.0S, 176.3W<br>h about 51Km. South of Tonga<br>Is. region.  |         |
| 51  | <del>x</del> 23      | iP                                  | N Z                           | 21 21 04   |                |                | *              | 4280 USCGS: 22.1S, 179.5W<br>h about 631Km. South of Fiji Is.   |         |
| 52  | <del>x</del> 24      | eP                                  | N Z                           | 23 24 33   |                |                |                | 5650 USCGS: 13.1N, 120.2E<br>h about 89Km. Near coast of<br>Mindoro, P.I.   |         |
| 53  | ✓<br>✓               | iP<br>i<br>iS<br>iScP<br>eL<br>iScS | N Z<br>N<br>E<br>E<br>EZ<br>E | 04 56 45<br>57 01<br>05 02 01<br>03 11<br>06.00<br>07 10 |                |                |                | 3650 USCGS: 4.6S, 153.0E<br>h about 87Km. New Britain reg.<br>mag. $6\frac{1}{4}$ (Pas.).   |         |
| 54  | ✓<br>✓               | eP<br>ePP<br>i<br>eL                | NEZ<br>EZ<br>Z<br>EZ          | 07 00 17<br>02 02<br>02 38<br>06 00                      |                |                |                | 4500 USCGS: 24.2S, 176.1W<br>h about 23Km. South of Tonga<br>Is. region.<br>Mag. $7\frac{1}{4}$ (Pas.), $7\frac{1}{4}$ - $7\frac{1}{2}$ (Berk.)<br>$7\frac{1}{4}$ (Pal.). |         |
| 55  | ✓                    | eP                                  | N Z                           | 08 33 53   |                |                |                | 4450 USCGS: 24.5S, 175.9W<br>h about 25Km. South of Tonga<br>Is. region.  |         |

| Station | Time<br>(G. M. T.) | Mag        | Amplitude      |                |                | $\Delta$ Km. | Remarks  |
|---------|--------------------|------------|----------------|----------------|----------------|--------------|--|
|         |                    |            | A <sub>N</sub> | A <sub>E</sub> | A <sub>Z</sub> |              |  |
| x       | 12 25 26           |            |                |                | +              | 3650         | USCGS: 10 70, 162 11.<br>H about 5100. Location in mag.  |
| x 26    | N Z                | 13 24 43   |                |                |                | 2130         | USCGS: 53 03, 141 50<br>H about 2500. Antarctic Ocean,<br>south of Australia                                   |
|         | N Z                | 28 3       |                |                |                |              |  |
|         | N Z                | 41 7       |                |                |                |              |  |
| x       | N Z                | 07 25 34   |                |                | -              | 3280         | USCGS: 23 33, 179 71.<br>H about 5000. South of Fiji Is.   |
| x       | N Z                | 11 02 04   |                |                |                |              |  |
| x       | N Z                | 13 16 21   |                |                |                | 3320         | USCGS: 4 51, 116 42<br>H about 1000. Near coast of<br>New Guinea   |
| x       | N Z                | 17 01 18   |                |                |                |              |  |
| x       | N Z                | 27 25 01   |                |                |                |              |  |
|         | N Z                | 15 0       |                |                |                |              |  |
| x       | N Z                | 04 52 46.5 |                |                |                |              |  |
| x       | N Z                | 06 21 34.5 |                |                |                | 1330         | USCGS: 2 15, 118 48<br>H about 3000. South Sea   |
|         | N Z                | 28 5       |                |                |                |              |  |
| ✓       | N Z                | 14 17 14   |                |                |                | 6950         | USCGS: 26 50, 126 12<br>H about 14700. Ryukyu Islands.<br>H long period and E short period<br>not functioning. |
|         |                    |            |                |                |                |              | Margaret Mansfield<br>D.J. Sutton  |

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01"

Longitude: 138° 42' 32"

Height above mean sea level

2150'

Foundation: Sandstone

 Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.  
 $T_g = 75$  sec. and  $T_g = 0.2$  sec. respectively

| NO. | Date 1960. | Phase                                  | Time (G.M.T.)                                       | Amplitude      |                |                | $\Delta$ Km. | Remarks.  |
|-----|------------|--|---|----------------|----------------|----------------|--------------|---|
|     |            |  |   | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |              |   |
| 1   | Dec. X1    | eP NZ<br>e NZ<br>e NZ                  | 09 44 19<br>44.46<br>49.7                           |                |                |                | 3,270        | USCGS 6.9S, 128.9E<br>Banda Sea. h about 32Km   |
| 2   | X1         | eP NZ<br>e Z<br>iS E                   | 10 17 52<br>18 13<br>22 40 <sup>pp</sup>            |                |                |                | 3,350        | USCGS 5.7S 145.9E<br>Near Coast of New Guinea<br>h about 45 Km.   |
| 3   | X2         | eP NZ                                  | 04 43 45  |                |                |                | 3,500        | USCGS 6.6S 152.5E New<br>Britain reg. h about 33K   |
| 4   | ✓2         | ePKP NZ<br>e N<br>e NZ<br>e NZ<br>eL Z | 09 29 24<br>38.2<br>40.1<br>43 45<br>10 04.5        |                |                |                | 12,750       | USCGS 24.5S 69.9W Near<br>coast of Chile Felt:<br>Antofagasta. Mag. 7-7½<br>(Berk.), 6½-7(Pal.) h<br>about 37 Km. |
| 5   | ✓2         | iPP Z                                  | 09 57 20  |                |                |                | 12,750       | USCGS 24.3S 69.8W Near<br>coast of Chile. h about<br>64 Km. Mag. 6½ (Pas.)  |
| 6   | X2         | eP NZ                                  | 17 53 26  |                |                |                | 6,750        | USCGS 25.7N, 129.2E<br>Hyukyu Is. h about 81Km  |
| 7   | X2         | eP NZ                                  | 19 48 39  |                |                |                | 4,400        | USCGS 41.6S, 88.3E Sout<br>Indian Ocean. h about<br>35 Km.  |
| 8   | ✓3         | eP NZ<br>e EZ<br>eS EZ<br>eL NEZ       | 04 36 45 <sup>A</sup><br>37 49<br>47 07<br>05 08.00 |                |                |                | 9,450        | USCGS 42.8N 104.5E<br>Outer Mongolia Mag. 7(Pa.<br>7(Berk) 6½-6¾ (Pal.) h<br>about 35Km.                          |
| 9   | X3         | eP Z                                   | 09 22 18  |                |                |                | 6,500        | USCGS 21.1N 121.1E<br>Off South coast of<br>Formosa. h about 35 Km  |
| 10  | X4         | eP NEZ<br>ePP Z<br>e EZ                | 15 54 54<br>56 34<br>16 02 00                       |                |                |                | 4,450        | USCGS 1.1N 120.6E<br>Northern Celebes. h<br>about 46 Km.  |
| 11  | X5         | eP NEZ                                 | 00 02 22  |                |                |                |              |   |
| 12  | X6         | iP NZ                                  | 18 28 15  |                |                |                | 5,350        | USCGS 11.5N, 125.5E<br>Samar, Philippini Is.<br>h about 25 Km.  |
| 13  | ✓6         | eP/ NZ                                 | 21 42 35  |                |                |                | 5,270        | USCGS 2.6S, 101.5E<br>Sumatra. h about 54Km   |
| 14  | X7         | eP Z                                   | 03 06 14  |                |                |                | 3,850        | USCGS 35.7S 179.6N<br>North Is., New Zealan<br>reg. h about 25 Km.  |

| No. | Date 1960.    | Phase                          | Time (G.M.T.)                       | Amplitude     |               | Remarks.   |
|-----|---------------|--------------------------------|-------------------------------------|---------------|---------------|--|
|     |               |                                |                                     | $\frac{A}{N}$ | $\frac{A}{Z}$ |  |
| 15  | Dec 7         | iP NEZ<br>ePP Z                | 16 26 38<br>26 48                   |               | + 4,500       | USCGS 1.2N 121.8E h about 40 Km Celebes sea.   |
| 16  | <del>8</del>  | eP Z                           | 01 07 54                            |               | 3,820         | USCGS 35.8S 179.6W h=about 81 Km North Island New Zealand region                                     |
| 17  | 8             | iP EZ<br>ePP EZ<br>iS E<br>i E | 01 30 52<br>32 15<br>36 08<br>39 57 | 5 A           | + 4,400       | USCGS 21.8S 179.4W h about 685Km Fiji Is. region.  |
| 18  | <del>8</del>  | eP Z                           | 10 09 11                            |               | + 4,900       | USCGS 7.8N, 127.2E h about 25 km Mindanao, Philippine Is.  |
| 19  | <del>8</del>  | eP Z                           | 14 39 45                            |               | 3,650         | USCGS 30.2S, 178.2W h about 70Km Kermadec Is. region.  |
| 20  | <del>8</del>  | iP Z                           | 15 47 10                            |               | -             |  |
| 21  | <del>8</del>  | eP Z<br>i Z                    | 19 20 33<br>20 44                   | 5             | 5,100         | USCGS 9.8N, 125.5E h about 77Km Leyte Philippine Is.   |
| 22  | <del>8</del>  | iP EZ<br>eL E                  | 21 42 31<br>48.5                    |               | + 3,350       | USCGS 6.2S, 129.6E h about 25Km Banda Sea.   |
| 23  | <del>9</del>  | eP Z                           | 00 44 02                            |               | 4,650         | USCGS 20.4S, 176.2W h about 137Km Tonga Islands.   |
| 24  | 10            | iP Z                           | 14 02 16                            |               | - 4,350       | USCGS 1.5N, 124.3E h about 292Km Celebes Sea.  |
| 25  | <del>10</del> | eP Z                           | 18 31 14                            |               |               |  |
| 26  | 11            | iP Z<br>e EZ                   | 00 07 20<br>14 00                   |               | + 3,500       | USCGS 22.1S, 171.4E h about 144Km Loyalty Is. Region.  |
| 27  | 11            | iP EZ<br>i Z<br>ePP NZ         | 03 25 27<br>25 30<br>27 00          | A             | + 4,200       | USCGS 1.6N, 126.4E h about 52Km Molucca Passage  |
| 28  | <del>11</del> | eP Z                           | 08 26 03                            |               |               |  |
| 29  | <del>11</del> | eP Z                           | 18 02 54                            | 5             |               |  |
| 30  | 11            | iP EZ<br>iS Z<br>eL EZ         | 18 59 26<br>19 04 40<br>05.5        | A             | + 3,550       | USCGS 15.7S, 166.9E h about 133Km New Hebrides Is. region Mag $6\frac{1}{4}$ - $6\frac{1}{2}$ (Pas.) |
| 31  | <del>11</del> | eP Z<br>i Z                    | 21 55 21<br>57 16                   | 5             |               |  |
| 32  | <del>12</del> | iP Z                           | 10 09 26                            | 5             | + 2,750       | USCGS 28.8S, 167.6E h about 54Km Near Norfolk Is.  |
| 33  | <del>12</del> | iP Z                           | 14 50 34                            |               | -             |  |
| 34  | 13            | eP Z<br>ePP Z<br>eL Z          | 07 41 27<br>41 48<br>52,00          |               | 2,600         | USCGS 52.1S, 160.9E h about 29Km Macquarie Is. Mag $7\frac{1}{4}$ (Pas) $7$ (Pal)                    |
| 35  | <del>13</del> | eP Z                           | 09 10 53                            |               | 4,700         | USCGS 21.8S, 175.5W h about 84Km Tonga Is.   |
| 36  | 13            | eP Z                           | 10 15 48                            |               | 6,950         | USCGS 27.7N, 142.4E h about 28 Km Bonin Is. region   |
| 37  | <del>14</del> | eP Z                           | 00 27 36                            |               | 3,820         | USCGS 10.7S, 165.2E h about 54Km   |



| No. | Date<br>1960. | Phase                  | Time<br>(G.M.T.)             | Amplitude |        |        | Δ Km  | Remarks. |
|-----|---------------|------------------------|------------------------------|-----------|--------|--------|---|----------|
|     |               |                        |                              | A<br>n    | A<br>e | A<br>z |   |          |
| 38  | Dec. 14       | iP Z                   | 01 04 07                     | -         | -      | -      | 3,750 USCGS 10.8S, 165.4E h about 65Km Santa Cruz Is.   |          |
| 39  | x14           | iP Z<br>e Z            | 14 28 31.5<br>15 02 30       | -         | -      | -      | 2,550 USCGS 51.9S, 160.7E h about 77Km Macquaire Is. region.                                    |          |
| 40  | ✓14           | eP Z<br>eS Z           | 23 58 55<br>00 04.6          | -         | -      | -      | 4,400 USCGS 2.9N, 126.5E h about 77Km Molucca Pas. Mag6 <sup>2</sup> <sub>4</sub> (Pas) (Berk). |          |
| 41  | x15           | iP Z                   | 18 40 39                     | -         | -      | -      | 4,700 USCGS 18.1S, 178.5W h about 700Km Fiji Is.  |          |
| 42  | x16           | eP Z                   | 05 14 57                     | -         | -      | -      | 3,450 USCGS 4.2S, 139.9E h about 194Km New Guinea.  |          |
| 43  | x16           | iP Z                   | 10 21 28                     | +         | -      | -      |   |          |
| 44  | ✓17           | iP Z<br>iS EZ<br>eL EZ | 10 44 18.5<br>49 57<br>52.00 | +         | +      | +      | 4,400 USCGS 6.4S, 109.3E h about 295Km Java Sea   |          |
| 45  | x17           | eP Z                   | 11 32 31                     | -         | -      | -      |   |          |
| 46  | x17           | iP Z                   | 13 33 39                     | +         | -      | -      | 5,000 USCGS 11.1N, 141.3E h about 25Km Mariana Is region  |          |
| 47  | x18           | iP Z                   | 05 17 48                     | +         | -      | -      | 3,600 USCGS 14.8S, 167.6E h about 93Km New Hebrides Is. reg.                                    |          |
| 48  | ✓18           | iP Z<br>e EZ           | 18 29 01<br>35 00            | -         | -      | -      | 5,000 USCGS 8.5N, 129.9E h about 36Km Mindanao, Philippine Is.                                  |          |
| 49  | x18           | iP Z                   | 19 12 27                     | +         | -      | -      |   |          |
| 50  | x19           | eP Z<br>i Z            | 10 04 17.5<br>04 22          | -         | -      | -      |   |          |
| 51  | x19           | eP Z                   | 13 07 00                     | -         | -      | -      | 3,900 USCGS 10.7S, 166.9E h about 96Km Santa Cruz Is.   |          |
| 52  | x19           | iP NZ                  | 19 08 04                     | -         | -      | -      | 5,150 USCGS 11.3N, 141.2E h about 77Km Mariana Is.  |          |
| 53  | x19           | eP Z                   | 22 20 40                     | -         | -      | -      | 3,750 USCGS 12.6S, 166.8E h about 66Km Santa Cruz Is.   |          |
| 54  | x19           | eP Z                   | 22 53 10                     | -         | -      | -      |   |          |
| 55  | x20           | eP Z                   | 06 14 50.5                   | -         | -      | -      | 6,900 USCGS 25.1N, 122.9E h about 60Km Near North coast of Formosa                              |          |
| 56  | x20           | eP NZ                  | 16 57 17.5                   | -         | -      | -      |   |          |
| 57  | x20           | eP Z                   | 19 08 09.5                   | -         | -      | -      |   |          |
| 58  | x20           | iP NZ                  | 21 36 07                     | -         | -      | -      |   |          |
| 59  | x21           | eP NZ                  | 00 03 10.5                   | -         | -      | -      |   |          |
| 60  | x21           | eP NZ<br>eS NZ         | 09 40 15<br>40 50            | -         | -      | -      | Local   |          |
| 61  | x21           | eP NZ                  | 10 12 40                     | -         | -      | -      |   |          |

| No. | Date<br>1960.   | Phase  | time<br>(G.M.T.)  | Amplitude |       | $\Delta$ Km | Remarks.   |
|-----|-----------------|--|---|-----------|-------|-------------|--|
|     |                 |  |   | $A_e$     | $A_z$ |             |  |
| 62  | <del>X</del> 21 | iP NZ  | 14 26 19  |           | -     |             |  |
| 63  | <del>X</del> 21 | eP NZ<br>eL  | 21 02 14<br>22 43.7   |           |       | 5,000       | USCGS 11.2N, 141.3E h about 77km<br>Maraina Is. region.                    |
| 64  | ✓22             | eP NZ  | 03 12 36  |           |       | 6,820       | USCGS 9.8N, 94.2E h about 60Km<br>Nicobar Is region.                       |
| 65  | ✓22             | eP NZ<br>i Z   | 06 38 31.5<br>40 52   |           |       | 4,100       | USCGS 30.8S, 177.1W h about 46Km<br>Kermadec Is. region                    |
| 66  | <del>X</del> 22 | eP NZ<br>eL NE   | 14 19 40<br>34 00   |           |       | 4,350       | USCGS 27.8S, 176.1W h about 60Km<br>Kermadec Is. region.                   |
| 67  | ✓22             | iP NEZ<br>i Z<br>i EZ<br>i Z<br>iS EZ<br>iScP Z<br>i Z<br>i E<br>eL EZ | 21 08 30<br>08 57<br>09 48<br>10 13<br>13 07<br>14 12<br>15 10<br>15 40<br>16.7 |           | -     | 3,550       | USCGS 6.8S, 155.3E h about 469Km<br>Solomon Is. Mag. 5 $\frac{1}{2}$ (Pa.) |
| 68  | <del>X</del> 23 | eP NZ  | 04 32 33  |           |       |             |  |
| 69  | ✓23             | iP NEZ<br>i Z  | 09 50 05<br>50 15   |           | +     | 5,150       | USCGS 3.3S, 101.9E h about 134Km<br>Near Coast of Sumatra.                 |
| 70  | ✓23             | iP NEZ<br>i Z  | 10 56 12<br>56 18   |           | +     | 5,000       | USCGS 8.2N, 125.7E h about 67Km<br>Mindanao, Philippine Is.                |
| 71  | <del>X</del> 23 | eP NZ  | 15 55 18  |           |       | 5,050       | USCGS 8.8N 125.7E h about 120Km<br>Mindanao, Philippines Is.               |
| 72  | <del>X</del> 23 | eP NZ  | 16 21 01  |           |       | 3,750       | USCGS 10.6S, 164.3E h about 82Km<br>Santa Cruz Is.                         |
| 73  | <del>X</del> 23 | eP NZ  | 19 14 03.5  |           |       | 3,650       | USCGS 27.8S, 177.2W h about 261Km<br>Kermadec Is. region.                  |
| 74  | <del>X</del> 23 | eP NZ<br>ipP Z   | 19 39 59<br>40 08.5   |           |       | 5,900       | USCGS 15.6N, 121.7E h about 69Km<br>Near East coast of Luzon PI            |
| 75  | <del>X</del> 24 | eP NZ  | 04 06 14  |           |       | 7,200       | USCGS 17.6S, 66.6E h about 100K<br>Indian Ocean.                           |
| 76  | <del>X</del> 24 | iP NZ  | 05 50 47  |           | -     |             |  |
| 77  | <del>X</del> 24 | iP NEZ<br>iPP Z<br>iS NEZ  | 16 43 33<br>43 42<br>44 32  |           | -     | 550         | USCGS 38.4S, 143.6E h about 77Km<br>Victoria Australia.                    |
| 78  | <del>X</del> 25 | eP NZ  | 01 18 46  |           |       |             |  |
| 79  | <del>X</del> 25 | eP NZ  | 05 56 34  |           |       | 3,750       | USCGS 10.7S 164.7E h about 60Km<br>Santa Cruz Is. region.                  |
| 80  | <del>X</del> 25 | eP NZ  | 05 31 22  |           |       | 7,100       | USCGS 29.0N 142.8E h about 25Km<br>Bonin Is.                               |
| 81  | <del>X</del> 25 | eP NZ  | 11 17 44  |           |       |             |  |

| No. | Date<br>1960.   | Phase  | Time<br>(G.M.T.)                          | Amplitude      |                |                | $\Delta$ Km | Remarks.   |
|-----|-----------------|--|---|----------------|----------------|----------------|-------------|--|
|     |                 |  |   | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |             |  |
| 82  | <del>X</del> 26 | eP NZ<br>(i) Z   | 01 03 48<br>05 36                         |                |                |                | 4,450       | USCGS 23.7S, 176.9W h about 59K<br>Tonga Is. region.   |
| 83  | ✓26             | iP NZ<br>ipP Z   | 01 55 46.5<br>56 08                       |                |                |                | 7,650       | USCGS 3.8N, 136.2E h about 109<br>Near South coast of Honshu K<br>Japan.   |
| 84  | ✓26             | eP NZ<br>ipP Z<br>eS NZ<br>e NZ                          | 04 45 16<br>45 30<br>55 44<br>56 30       |                |                |                | 9,650       | USCGS 57.4S, 26.2W h about 25K<br>Sandwich Is. Mag. 5 $\frac{1}{4}$ (Pal).   |
| 85  | <del>X</del> 26 | eP NZ<br>e Z   | 13 48 25<br>53 00                         |                |                |                | 2,600       | USCGS 49.4S, 164.3E h about 37<br>South of South Is., New K<br>Zealand.  |
| 86  | <del>X</del> 27 | eP NZ  | 02 35 33                                  |                |                |                |             |  |
| 87  | <del>X</del> 27 | iP NZ<br>i Z   | 11 55 13<br>55 30                         |                |                | +              |             |  |
| 88  | <del>X</del> 28 | iP NZ  | 02 04 41.5                                |                |                |                |             |  |
| 89  | <del>X</del> 28 | iP NZ  | 18 00 34.5                                |                |                | -              |             |  |
| 90  | <del>X</del> 28 | iP NZ  | 18 10 17                                  |                |                | +              |             |  |
| 91  | <del>X</del> 28 | eP NZ  | 22 27 07.5                                |                |                |                |             |  |
| 92  | ✓29             | iP NZ  | 06 02 13.5                                |                |                | +              |             |  |
| 93  | ✓29             | eP EZ<br>ePP EZ<br>S <sub>2</sub> ScP EZ<br>e EZ<br>eL E | 06 10 18<br>12 06<br>15.6<br>20.5<br>24.3 |                |                |                | 5,000       | USCGS 18.4S, 174.7W h about 10<br>Tonga Islands. K   |
| 94  | ✓29             | eP NZ  | 10 50 00.5                                |                |                |                | 10,500      | USCGS 44.8S, 75.6W h about 30K<br>Near coast of southern Chile<br>Mag. 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas.) 5 $\frac{3}{4}$ -6(Berk)(Pal) |
| 95  | <del>X</del> 29 | iP EZ  | 11 48 35                                  |                |                | +              |             |  |
| 96  | <del>X</del> 29 | eP NEZ<br>e EZ   | 12 09 26.5<br>11 21                       |                |                |                |             | Regional   |
| 97  | <del>X</del> 29 | eP NEZ<br>e EZ<br>e EZ                                   | 13 48 42<br>14 01 26<br>02 08             |                |                |                | 3,280       | USCGS 5.5S, 146.1E h about 57K<br>Near north coast of New Guinea   |
| 98  | <del>X</del> 29 | iP NZ  | 19 58 14.5                                |                |                | +              |             |  |
| 99  | <del>X</del> 30 | iP NEZ   | 00 31 15.5                                |                |                | +              |             |  |
| 100 | <del>X</del> 30 | eP NZ  | 05 35 38                                  |                |                |                | 3,400       | USCGS 9.6S, 121.0E h about 53K<br>Sawoe Sea.   |
| 101 | <del>X</del> 30 | iP NZ  | 08 14 20                                  |                |                | +              |             |  |
| 102 | <del>X</del> 31 | eP NZ  | 00 15 15.5                                |                |                |                | 4,050       | USCGS 29.9S, 177.9W h about 70K<br>Kermadec Is. region.  |
| 103 | <del>X</del> 31 | eP Z   | 09 01 0                                   |                |                |                |             |  |
| 104 | <del>X</del> 31 | eP NEZ<br>e E  | 16 11 50<br>18.5                          |                |                |                | 3,550       | USCGS 7.8S, 120.1E h about 25K<br>Flores Sea   |

| No. | Date<br>1960        | Phase                    | Time<br>(G.M.T.)             | Amplitude      |                |                | Remarks  |
|-----|---------------------|--------------------------|------------------------------|----------------|----------------|----------------|--|
|     |                     |                          |                              | A <sub>n</sub> | A <sub>e</sub> | A <sub>z</sub> |  |
| 105 | Dec <del>x</del> 31 | eP NEZ<br>eeP Z<br>e NEZ | 20 05 07<br>05 29.5<br>10 34 |                |                |                | 3,359<br>USCGS 6.6S, 129.1E h about<br>Banda Sea. 112Km    |
| 106 | <del>x</del> 31     | 1P NZ                    | 31 12 17.5                   |                | -              |                | 3,600<br>USCGS 5.0S, 151.4E h about<br>New Britain. 138 Km |

N long period and E short period  
not functioning.

Yours faithfully,

J. Pearce.

D.J.Sutton.