

Geophysikalisches Observatorium Collm
der Karl-Marx-Universität Leipzig

Geophysikalische Meßreihen

1 1978

Seismische Registrierungen

Geophysikalisches Observatorium

DDR - 7261 COLLM

Geophysical measuring series
of the
Geophysical Observatory
of the Karl-Marx-University
Leipzig

Geophysikalische MeBreihen
des Geophysikalischen
Observatoriums
der Karl-Marx-Universität
Leipzig

C O L L M

S E I S M I C
R E C O R D S

S E I S M I S C H E
R E G I S T R I E R U N G E N

1st quarter of 1978

1. Quartal 1978

SEISMOLOGICAL STATION COLEM (CII)

GEOGRAPHICAL CO-ORDINATES: LATITUDE = 51°18.6'N; LONGITUDE = 13°00.2'E; ELEVATION = 230 m
FOUNDATION: GREYWACKE OF ORDOVICE

SEISMOGRAPHS AND ITS CONSTANTS:

TYPE	COMPONENT	T_B (s)	D_B	T_G (s)	D_G	r/T_B^2	MAGNIFICATION (STATIC)	MAGNIFICATION (MAXIMAL)	RECORDING SPEED (mm/min)
BENIOFF	Z	0.452	0.65	1.43	1			(38000)	60
VSJ-II	z	2.175	0.537	0.296	1.474			55000	60
HSJ-II NS	n	2.171	0.537	0.294	1.474			60000	60
HSJ-II EW	e	2.171	0.537	0.293	1.474			58000	60
WIECHERT NS	WN	10.0	0.28			0.026	370		15
WIECHERT EW	WE	10.0	0.34			0.020	340		15
HSJ-I NS	N	20.0	0.50	1.10	9.09		1075		15
HSJ-I EW	E	20.0	0.51	1.21	8.24		1120		15
VSJ-I	V	20.0	0.51	1.20	8.35		1090		15

TIME SERVICE:

QUARTZ CLOCK (MINUTE PULSES OF 2 s AND HOUR PULSES OF 20 s; DAILY DIGITAL CONTROL; MAXIMUM ERROR ± 0.2 s)

SUPPLEMENTARY EQUIPMENTS:

- SPECIAL RECORDER WITH VARIABLE AMPLIFICATION FOR ANNOUNCED EXPLOSIONS
- PERMANENT RECORDS WITH CONSIDERABLY REDUCED SENSIVITY FOR THE COMPLETE REGISTRATION OF STRONG EARTHQUAKES
- AUTOMATIC AMPLIFICATION OF RECORDING LIGHT FOR AMPLITUDES GREATER THAN A GIVEN LIMIT

EVALUATION:

- THE FIRST LINE OF EVALUATION OF EACH EVENT CONTAINS
DATE AND (FOR KNOWN FOCI) GEOGRAPHICAL REGION OF EPICENTER (MOSTLY FOLLOWING FLINN & ENGBAHL 1965)
BODY WAVE MAGNITUDE MB WITH THE NUMBER OF USED OBSERVATIONS.
- DETAILED INFORMATION, WITH RESPECT TO GEOGRAPHICAL REGION OR OTHER COMMENTS CAN BE WRITTEN ALSO HERE.
- THE NEXT LINES ARE DIVIDED INTO THE FOLLOWING COLUMNS
- THE NOMENCLATURE OF THE PHASES CORRESPONDS TO THE LIST OF ISC, COMPLETED BY SOME PHASES (pP APPEARS AS AP, sP APPEARS AS XP, MULTIPLE PHASES AS P(1) FOR INSTANCE)
 - TIME OF ONSET IN G.M.T.
 - DIRECTION OF VERTICAL COMPONENT OF THE GROUND MOTION
 - PERIODS, AMPLITUDES, AND EVENTUALLY MAGNITUDES FOR IMPORTANT ONSETS APPEAR IN THE CORRESPONDING LINE IF MEASUREMENT IS POSSIBLE;
 - FOR SHORTPERIODIC WAVES IN THE SEQUENCE OF COMPONENTS z, n, e (PERIOD IN SECONDS/AMPLITUDE IN NANOMETRES)
 - FOR LONGPERIODIC WAVES T, AN, AE, AV (MEAN PERIOD IN SECONDS, AMPLITUDES FOR N, E, V COMPONENTS IN MICROMETRES)
 - MAGNITUDES CAN BE DETERMINED
 - FOR BODY WAVES THROUGH THE EARTH MANTLE (MPV, MPH, MPAV, MPMH, MPPV, MPPH, MSH)
 - FOR SHORTPERIODIC LONGITUDINAL CORE WAVES (MC)
 - FOR MAXIMUM OF SURFACE WAVES (MLH, MLV)
 - FOR STRONG QUAKES SOMETIMES FROM WIECHERT RECORDS (MAG)
 - HYPOCENTER DATA (LATITUDE, LONGITUDE, DEPTH, ORIGIN TIME) OF THE FOLLOWING INSTITUTIONS ARE USED IN GENERAL
 - (U) U.S. NATIONAL EARTHQUAKE INFORMATION SERVICE
 - (B) EUROPEAN-MEDITERRANEAN SEISMOLOGICAL CENTRE
 - (M) ACADEMY OF SCIENCES OF U.S.S.R., INSTITUTE OF PHYSICS OF THE EARTH
 - (I) INTERNATIONAL SEISMOLOGICAL CENTRE
 - (A) INSTITUTE FOR METEOROLOGY AND GEODYNAMICS IN VIENNA, AUSTRIA
 - (C) GEOPHYSICAL INSTITUTE OF THE CZECHOSLOVAK ACADEMY OF SCIENCES
 - (G) NATIONAL OBSERVATORY OF ATHENS, GREECE
 - (P) POLISH ACADEMY OF SCIENCES
 - (S) SEISMOLOGICAL INSTITUTE, UPPSALA, SWEDEN
 - OWN COMMENTS ARE GIVEN WITHOUT MENTION OF SOURCE.
 - MB IS THE BODY WAVE MAGNITUDE GIVEN BY (U). /MB/ IS PRINTED IN FEW OTHER CASES WITH FOCAL DATA OF OTHER INSTITUTIONS.
 - EPICENTRAL DISTANCE D AND STATION AZIMUTH AZ ARE CALCULATED USING THE FIRST EPICENTER INDICATION AND ARE PRINTED ABOVE THESE DATA.
 - D AND AZ ARE CALCULATED ACCORDING TO GEOCENTRIC CO-ORDINATES (D COMMONLY IN DEG, FOR NEAR EVENTS IN km, WITH A MAXIMUM ERROR OF ± 0.1 DEG AND ± 1 km, RESPECTIVELY; AZ IN DEG WITH A MAXIMUM ERROR OF ± 1 DEG).
 - FOR COMPARISON WITH THE FIRST OWN EVALUATION "DISTANCE" AND "DEPTH" ARE GIVEN BELOW THE HYPOCENTER DATA.
 - ROUND BRACKETS INDICATE UNCERTAINTIES.

NUMEROUS EXPLOSIONS AND ROCK BURSTS ARE LEAVED OUT IN THIS BULLETIN BECAUSE OF ITS UNIMPORTANT FORCE.
EVENTUAL INTERRUPTIONS OF RECORDS ARE INDICATED IN THE TIME SEQUENCE.
THE COMPILATION WAS PERFORMED AT THE COMPUTER CENTER OF ZENTRALINSTITUT DER METALLURGIE, LEIPZIG.

1978 JAN 01	LOYALTY ISLANDS REGION			74.2(1) / D=145.1 DEG AZ= 41 21.65;169.3E 75KM H=80 30 26 (I)
I PKP	00 49 54.4E			
E	51 18			
1978 JAN 01	OFF EAST COAST OF KAMCHATKA	MB=4.5(16)		D= 72.6 DEG AZ= 20 52.9N;160.4E 33KM H=83 09 34.3 (U)
I P	03 21 00.5			
1978 JAN 01	CENTRAL YUGOSLAVIA	MB=4.3(1)		D= 8.6 DEG AZ=158 43.2N; 17.4E 33KM H=84 23 46.2 (U) 43.3N; 17.6E 10KM 84 23 46.3 (B)
E PN	04 25 55			
E SN	27 33			
E SG	28 30			
1978 JAN 01	POLAND, LPPER SILESIA			
E SG	06 55 57			
1978 JAN 01	ROMANIA	MB=4.7(55)		D= 10.6 DEG AZ=117 45.7N; 26.5E 136KM H=87 40 14.6 (U) 45.8N; 26.6E 134KM 87 40 16.2 (B) 45.8N; 26.4E 130KM 87 40 15.5 (M)
E P	07 42 43 1.6 / 38			
1978 JAN 01	ADRIATIC SEA	NO MB COMP.		D= 8.6 DEG AZ=166 42.9N; 15.8E 33KM H=89 25 55.7 (U) 43.1N; 15.9E 10KM 89 25 57.0 (B)
E	09 30 08			
E SG	30 33			
1978 JAN 01	NEW HEBRIDES ISLANDS	MB=5.1(23)		D=137.9 DEG AZ= 39 14.65;167.1E 133KM H=13 07 18.6 (U) 14.75;167.2E 33KM 13 07 06.9 (M)
E(PKP)	13 26 31			
1978 JAN 01	FRG, SOUTHWESTERN REGION	NO MB COMP.		D= 4.3 DEG AZ=218 47.9N; 9.1E 33KM H=18 24 22.9 (U) 47.9N; 9.2E 27KM 18 24 22.0 (B)
E SG	18 26 29			
1978 JAN 02				
E	03 07 54			
1978 JAN 02	WESTERN CAUCASUS	MB=5.3(59)		D= 23.5 DEG AZ=102 41.5N; 44.2E 10KM H=86 31 27.5 (U) 41.6N; 44.4E 56KM 86 31 34.9 (B) 41.4N; 44.2E 33KM 86 31 25.8 (M) DISTANCE 24 DEG
I P	06 36 39.8E 1.7 / 190			
I	36 43 1.4 / 330			
I	36 48.9			
E S	40 55			
L	45 T 16 AN 8 AE 3.5 AV 3.5			
LM	46 T 13 AN 8 AE 2 AV 4			PLH =5.4 MLV =5.5
1978 JAN 02	NEW HEBRIDES ISLANDS	MB=5.3(26)		D=142.7 DEG AZ= 39 19.05;169.3E 249KM H=87 11 06.5 (U) 20.15;169.5E 33KM 87 10 31.0 (M)
I PKP	07 30 06.8 1.1 / 26			
E	32 17			
E PP	33 26			
1978 JAN 02				
E	12 16 31			
1978 JAN 02	NORTHERN YUGOSLAVIA	NO MB COMP.		D= 5.7 DEG AZ=166 45.8N; 15.0E 6KM H=15 10 54.6 (U) 45.9N; 14.9E 10KM 15 10 57.2 (B)
E	15 13 43			
E SG	13 57			
1978 JAN 02	ADRIATIC SEA	NO MB COMP.		D= 8.9 DEG AZ=165 42.7N; 16.2E 33KM H=18 05 20.1 (U) 42.6N; 16.2E 10KM 18 05 20.4 (B)
E PN	18 07 28			
E	07 49			
E	08 50			
E	09 30			
E SG	10 15			
1978 JAN 02	KERMADEC ISLANDS REGION	MB=5.2(5)		D=157.0 DEG AZ= 22 29.45;176.6W 33KM H=20 19 52.2 (U) 29.55;179.6E 33KM 20 19 52.4 (M)
E PKP2	20 36 14 1.8 / 33			
1978 JAN 02	ANDREANOF ISLANDS, ALEUTIAN IS.	MB=5.1(64)		D= 77.5 DEG AZ= 7 51.1N;178.1W 33KM H=20 57 38.2 (U) 50.9N;178.0W 40KM 20 57 37.3 (M)
E P	21 09 31			
1978 JAN 02	ADRIATIC SEA	NO MB COMP.		D= 7.5 DEG AZ=169 43.9N; 15.0E 33KM H=21 46 43.2 (U) 44.1N; 15.1E 10KM 21 46 44.3 (B)
E SG	21 50 40			
1978 JAN 03	FIJI ISLANDS REGION	MB=5.1(20)		D=144.9 DEG AZ= 20 17.45;178.6W 520KM H=81 35 14.5 (U)
I PKP	01 53 53.3 1.5 / 87			
1978 JAN 03	OFF EAST COAST OF HONSHU, JAPAN	MB=4.8(20)		D= 79.9 DEG AZ= 37 39.3N;143.3E 14KM H=12 27 18.8 (U) 39.1N;143.4E 33KM 12 27 14.7 (M)
E P	12 39 26			
1978 JAN 03				
E	22 27 10			
E	27 32			
1978 JAN 04	HOKKAIDO, JAPAN, REGION	MB=5.0(55)		D= 76.5 DEG AZ= 36 42.6N;142.1E 103KM H=80 57 25.7 (U) 43.1N;142.2E 130KM 80 57 30.4 (M)
I P	01 09 05.9 1.0 / 21			
E AP	09 34			
1978 JAN 04	RED SEA	MB=4.5(8)		D= 41.0 DEG AZ=137 16.7N; 40.8E 33KM H=85 04 43.1 (U)
E P	05 12 24			
1978 JAN 04	ROMANIA	NO MB COMP.		D= 8.0 DEG AZ=135 45.3N; 21.0E 33KM H=85 31 48.5 (U) 45.4N; 21.1E 10KM 85 31 48.6 (B)
E SN	05 35 08			



INTERRUPTION OF ONE SHORTRPERIODIC RECORD FROM 13M 03M TO 05M 59M (AT JAN 05)

Table with columns for date, location, magnitude (MB), depth (D), distance (D), azimuth (AZ), and hypocenter coordinates (N, E, W, S). Includes entries for events like 'Lomonosov Ridge', 'Costa Rica', 'South Pacific Ocean', 'Southeastern Austria', 'Tonga Islands Region', 'Southern Iran', 'Luzon, Philippine Islands', 'Andreasof Islands, Aleutian Is.', 'Traces, Explosion of 11.5 tons, Czechoslovakia', 'Hokkaido, Japan, Region', 'Kurile Islands', 'Kenai Peninsula, Alaska', 'Traces', 'Traces, Eastern Sea of Japan', 'Azores Islands', 'Poland, Upper Silesia', 'Scotia Sea', 'Mindanao, Philippine Islands', 'Kermadec Islands', 'Eastern Turkey', 'Near West Coast of Colombia', and 'Iran'.

1978 JAN 10 FRG, SOUTHWESTERN REGION
E SG 22 25 42
E 26 08
MB=4.7(20)

1978 JAN 11 KIRGIZ-SINKIANG BORDER REGION
I(P) 01 53 18:9 0.8 / 14
MB=4.5(10)

1978 JAN 11 WESTERN TURKEY
E PP 04 02 03
MB=4.8(30)

1978 JAN 11 04 16 14
INTERRUPTION OF ALL RECORDS FROM 05H 51M TO 10H 11M

1978 JAN 11 ICELAND
I P 11 02 59:00 2.2 / 180
LM 13
MB=4.9(9)

1978 JAN 11 OFF EAST COAST OF HONSHU, JAPAN
I P 13 41 16:0
MB=4.6(1)

1978 JAN 11 ICELAND
E P 16 45 48
MB=3.4(67)

1978 JAN 11 POLAND, UPPER SILESIA
E 19 21 22
E SG 22 07

1978 JAN 11 HOKKAIDO, JAPAN, REGION
I P 20 38 46:50 1.0 / 90
I AP 38 58.0
I XP 39 02:7

1978 JAN 12 POLAND, UPPER SILESIA
E SG 00 55 20
MB=4.9(4)

1978 JAN 12 ICELAND
I P 09 11 48:30 1.9 / 60
MB=4.8(3)

1978 JAN 12 SOUTH OF FIJI ISLANDS
I PKP1 10 42 40:0 0.9 / 17

1978 JAN 12 POLAND, UPPER SILESIA
E SN 18 12 55
E SG 13 16
NO MB COMP. D= 4.0 DEG AZ=104
50.2N; 19.0E 0KM H=18 11 08

1978 JAN 12 TONGA ISLANDS REGION
I PKP 18 24 43:30 1.7 / 155
I APKP 24 54:6
MB=5.2(24)

1978 JAN 12 MEDITERRANEAN SEA
I(P) 20 12 34:20 2.6 / 170
I 12 41:7
LM 18
MB=4.6(27)

1978 JAN 12 POLAND, UPPER SILESIA
E 22 19 36

1978 JAN 13 ICELAND
E P 00 36 08 1.8 / 46
MB=4.7(11)

1978 JAN 13 POLAND, UPPER SILESIA
E 05 44 20
NO MB COMP. D= 3.8 DEG AZ=100
50.5N; 18.9E 0KM H=05 42 12:3

1978 JAN 13 EXPLOSION, CZECHOSLOVAKIA
I PQ 07 58 00.9
I SG 58 13.3
I 58 15.6
E LM 58 23
DISTANCE 100 KM

1978 JAN 13 QUEEN CHARLOTTE ISLAND REGION
E P 08 36 54
MB=5.0(31)

1978 JAN 13 KURILE ISLANDS
I P 10 10 43:60 1.4 / 97
E PP 13 29
MB=5.1(41)

1978 JAN 13 ICELAND
E P 17 13 29 1.7 / 42
MB=4.2(10)

1978 JAN 13 KURILE ISLANDS
E S 20 14 54:30 1.6 / 1050 1.6 / 440 1.2 / 85
E S 24 40
LMH 48
LMV 52
T 16 AN 7.5 AE 8.5
T 17 AN 10 AE 6.5 AV 9.5
MLH =6.3
MLV =6.2

D= 3.9 DEG AZ=219
48.2N; 9.3E 10KM H=22 28 33:8

D= 44.8 DEG AZ= 78
40.2N; 77.2E 36KM H=01 49 02:3
40.3N; 77.2E 33KM H=01 49 03:4

D= 17.8 DEG AZ=135
37.5N; 28.8E 7KM H=03 57 45:4
37.5N; 28.8E 10KM H=03 57 47:2
37.6N; 28.7E 33KM H=03 57 50:2

D= 21.1 DEG AZ=326
66.0N; 16.8W 10KM H=10 58 12:9
65.9N; 17.1W 10KM H=10 58 14:3
66.2N; 16.2W 33KM H=10 58 13:1

D= 79.9 DEG AZ= 37
39.2N; 143.1E 33KM H=13 29 09:1
39.4N; 143.2E 33KM H=13 29 09:8

D= 21.1 DEG AZ=325
66.0N; 17.0W 10KM H=16 41 01:6

D= 77.4 DEG AZ= 34
43.0N; 145.4E 54KM H=20 26 56:1
43.2N; 145.4E 33KM H=20 26 54:2

D= 14.9 DEG AZ= 6
66.0N; 16.9E 10KM H=09 07 02:6

D=149.7 DEG AZ= 25
22.8S; 179.6E 592KM H=10 23 50:9

D= 146.0 DEG AZ= 9
17.5S; 172.1W 23KM H=18 05 03:8
17.5S; 172.9W 33KM H=18 05 03:7

D= 16.9 DEG AZ=153
35.8N; 22.2E 53KM H=20 08 36:9
36.0N; 22.3E 49KM H=20 08 40:6
35.5N; 21.9E 33KM H=20 08 31:4

D= 21.1 DEG AZ=326
66.0N; 16.9W 10KM H=00 31 22:0
66.1N; 15.9W 33KM H=00 31 23:9

D= 3.8 DEG AZ=100
50.5N; 18.9E 0KM H=05 42 12:3

D= 72.3 DEG AZ=339
52.7N; 132.1W 33KM H=08 25 31:6
52.7N; 132.1W 33KM H=08 25 26:0

D= 77.5 DEG AZ= 30
44.5N; 149.8E 35KM H=09 58 50:6
44.9N; 149.8E 33KM H=09 58 52:2

D= 21.2 DEG AZ=325
66.0N; 17.1W 10KM H=17 08 42:3
66.0N; 17.4W 10KM H=17 08 44:2

D= 77.3 DEG AZ= 30
44.7N; 149.7E 52KM H=20 05 03:8
45.1N; 149.6E 33KM H=20 05 03:4

1978 JAN 13 KURILE ISLANDS
I P 21 51 31.40 1.2 / 50
53 48

1978 JAN 13 21 57 11:80 1.0 / 15

1978 JAN 14 CRETE
00 34 36

1978 JAN 14 NEAR S. COAST OF HONSHU, JAPAN
(P) 00 48 40

1978 JAN 14 NEAR S. COAST OF HONSHU, JAPAN
(P) 00 51 10.9E

1978 JAN 14 00 53 20

1978 JAN 14 NEAR S. COAST OF HONSHU, JAPAN
P 00 57 57
AP 58 04.7

1978 JAN 14 NEAR S. COAST OF HONSHU, JAPAN
P 01 00 01 1.6 / 38
00 18

1978 JAN 14 KURILE ISLANDS
P 01 41 52.40 1.5 / 32
41 58

1978 JAN 14 NEAR S. COAST OF HONSHU, JAPAN
P(1) 03 37 00.60 0.8 / 23
P(2) 37 04.9
PM 37 07.3 1.9 / 1150 1.8 / 390 1.8 / 130
T 3.0 AN 1.3 AE 0.9 AV 2.9
MPHV =6.7 MPH =6.6
MPHM =6.9 MPV =6.9

37 16
37 30.8
37 49
38 09.8
40 14.3
2.9 / 1900 5.0 / 970 3.2 / 620
T 5.0 AN 2.5 AE 1.6 AV 3.1
MPPV =6.9 MPPH =6.9
MSH =6.9

47 20
50 07
52.5
PKPPKP 04 03 36 2.7 / 175
(SKPPKP) 06 50
T 16 AN 65 AE 97
LM 11
LXH 14 T 15 AN(94) AE 89 AV(34) MLH =7.4
LMV 19 T 16 AV(71) (MLV =7.2)

FINAL 06 30

1978 JAN 14 04 16 28

1978 JAN 14 04 35 40

1978 JAN 14 NEAR S. COAST OF HONSHU, JAPAN
I P 04 54 19.6C

1978 JAN 14 TRACES; POLAND, UPPER SILESIA
E 07 24 39

1978 JAN 14 KURILE ISLANDS
I P 09 15 07.3 1.5 / 260
LM 52 T 16 AN 1.5 AE 1 AV 1.5

1978 JAN 14 KURILE ISLANDS
I P 09 32 19.00 0.9 / 38

1978 JAN 14 MOLUCCA PASSAGE
E 14 07 02
E 08 21

1978 JAN 14 KERMADEC ISLANDS
E PKIP 15 40 48
E PKP1 40 57
E 41 09
E 41 14
E PKP2 41 19 1.6 / 160
E APKP2 41 30.4
E PP 44 56
E 45 09
E PSK5 55.1
E SS 16 04.9
E SSS 11.1
E LMH 45
E LMV 17 04 T 24 AN 4.5 AE 2.5 AV 3.5 MLH =6.1
T 20 AN 2.5 AE 2.5 AV 3 MLV =6.1

1978 JAN 14 KERMADEC ISLANDS REGION
E PKP2 16 45 42 1.2 / 20

D= 77.6 DEG AZ= 30
44.4N; 149.7E 51KM H=21 39 40:3 (M)
44.7N; 149.9E 33KM H=21 39 38:5 (M)

NO MB COMP; D= 17.9 DEG AZ=151
35.1N; 23.9E 0KM H=00 30 12 (F)
35.1N; 23.2E 00 30 11 (B)

D= 82.2 DEG AZ= 42
34.7N; 139.2E 18KM H=00 36 14:8 (U)
35.5N; 139.2E 33KM H=00 36 23:3 (M)

D= 82.0 DEG AZ= 42
35.0N; 139.4E 10KM H=00 38 43:3 (U)

D= 82.2 DEG AZ= 42
34.7N; 139.3E 18KM H=00 45 33:8 (U)

D= 82.1 DEG AZ= 42
34.8N; 139.2E 7KM H=00 47 38:4 (U)

D= 77.4 DEG AZ= 30
44.5N; 149.5E 52KM H=01 30 02:0 (U)
44.4N; 149.9E 33KM H=01 29 58:1 (M)

D= 82.1 DEG AZ= 42
34.8N; 139.2E 14KM H=03 24 39:0 (U)
35.7N; 139.1E 33KM H=03 24 47:6 (M)
DISTANCE 82 DEG
MULTIPLE SHOCK, MB IS
AN INADEQUATE VALUE

D= 81.9 DEG AZ= 42
34.8N; 138.8E 5KM H=04 41 58:3 (U)
35.3N; 138.8E 33KM H=04 41 59:5 (M)

D= 77.5 DEG AZ= 30
44.5N; 149.7E 51KM H=09 03 16:6 (U)
45.2N; 149.2E 40KM H=09 03 19:6 (M)

D= 77.5 DEG AZ= 30
44.5N; 149.8E 53KM H=09 20 28:3 (U)
44.6N; 150.0E 33KM H=09 20 25:8 (M)

D=103.1 DEG AZ= 70
1.7N; 126.4E 45KM H=13 49 42:9 (U)
2.2N; 126.3E 33KM H=13 49 39:3 (M)

D=157.4 DEG AZ= 24
30.1S; 177.5W 44KM H=15 20 54:2 (U)
29.9S; 178.2W 33KM H=15 20 49:3 (M)
DISTANCE 157 DEG

MC =5.8

14.2(1) D=158.4 DEG AZ= 29
31.6S; 179.1W 250KM H=16 25 40 (T)

Date	Location	Time	Magnitude	Depth (km)	D (DEG)	AZ (DEG)	M (km)	Other Data
1978 JAN 14	NEAR S. COAST OF HONSHU, JAPAN	17 30 48	5.0	16	82.0	42	11	
1978 JAN 14	ICELAND REGION	19 13 30	5.2	63	21.3	326	33	
1978 JAN 14	KERMADEC ISLANDS	19 16 17	5.2	33	157.4	25	33	
1978 JAN 14	SOUTHEASTERN AUSTRIA	19 45 06	5.1	2	4.2	151	8	
1978 JAN 14	KERMADEC ISLANDS	20 05 57	5.4	58	157.6	24	47	
1978 JAN 14	KERMADEC ISLANDS	20 22 54	5.1	2	157.3	24	35	
1978 JAN 14	NEAR S. COAST OF HONSHU, JAPAN	22 44 06	5.5	60	81.9	42	10	
1978 JAN 14	NEAR S. COAST OF HONSHU, JAPAN	22 48 32	5.3	33	82.0	42	13	
1978 JAN 14	SOUTHEASTERN AUSTRIA	22 56 56	5.0	0	7.0	193	33	
1978 JAN 15	IRAN	07 10 10	4.7	8	34.9	113	33	
1978 JAN 15	KERMADEC ISLANDS	07 16 35	5.6	13	157.5	25	17	
1978 JAN 15	SOUTH OF FIJI ISLANDS	08 00 58	5.0	6	150.2	17	33	
1978 JAN 15	NORTH ATLANTIC OCEAN	09 28 51	5.0	6	150.2	17	33	
1978 JAN 15	ROMANIA	10 29 11	4.6	39	10.6	116	14	
1978 JAN 15	KERMADEC ISLANDS	13 37 39	5.6	1	157.8	24	33	
1978 JAN 15		16 28 34	5.6	1	157.8	24	33	
1978 JAN 16	KERMADEC ISLANDS	01 37 02	4.7	2	156.8	25	64	
1978 JAN 16	KURILE ISLANDS	01 46 14	5.2	63	77.4	30	33	
1978 JAN 16	HINDU KUSH REGION	03 27 45	5.3	90	43.1	87	22	
1978 JAN 16	POLAND, UPPER SILESIA	03 56 09	5.1	27	79.9	37	9	
1978 JAN 16	OFF EAST COAST OF HONSHU, JAPAN	05 44 53	5.1	27	79.9	37	9	
1978 JAN 16	FRG, SOUTHWESTERN REGION	14 32 13	5.0	48	51.6	263	23	
1978 JAN 16	FRG, SOUTHWESTERN REGION	14 35 24	5.0	48	51.6	263	23	
1978 JAN 16	FRG, SOUTHWESTERN REGION	15 12 17	5.0	48	51.6	263	23	
1978 JAN 16	FRG, SOUTHWESTERN REGION	15 41 43	5.0	48	51.6	263	23	
1978 JAN 16	NORTH ATLANTIC RIDGE	18 09 16	5.0	48	51.6	263	23	
1978 JAN 16	FRG, SOUTHWESTERN REGION	18 11 39	5.0	48	51.6	263	23	
1978 JAN 16		20 35 42	5.1	27	81.6	50	42	
1978 JAN 16	KYUSHU, JAPAN	21 04 41	5.1	27	81.6	50	42	
1978 JAN 16	NORTHERN ITALY	21 07 41	5.0	0	6.8	203	33	
1978 JAN 16	FIJI ISLANDS REGION	21 26 55	5.0	0	148.5	22	65	
1978 JAN 16	FRG, SOUTHWESTERN REGION	22 58 53	5.0	0	4.0	222	13	
1978 JAN 17	EASTERN TURKEY	00 14 28	4.6	3	23.2	112	43	
1978 JAN 17	ROMANIA	02 31 47	5.0	0	7.7	134	27	
1978 JAN 17	CRETE	04 10 19	4.1	9	19.0	145	52	
1978 JAN 17	TONGA ISLANDS	07 52 52	5.2	19	149.3	11	44	
1978 JAN 17	KURILE ISLANDS	08 10 47	4.9	49	75.9	29	17	
1978 JAN 17	SAN JUAN PROVINCE, ARGENTINA	11 52 09	5.8	48	108.5	243	24	
1978 JAN 17	RED SEA	15 08 11	5.2	55	41.0	138	10	



Date	Region	Time	Mb	D	Depth	AZ	H	Station	Time	Region	Mb	D	Depth	AZ	H	Station
1978 JAN 17	TURKEY-USSR BORDER REGION	19 17 21	Mb=4.7(6)	D= 23.8 DEG	40.9N; 44.1E	AZ=104	14KM	H=19 12 05.5	1978 JAN 20	BANDA SEA	Mb=5.8(44)	D=106.0 DEG	4.28N; 123.4E	AZ= 76	51KM	H=21 31 16.7 (U)
1978 JAN 18	KERMADEC ISLANDS REGION	02 25 31	Mb=2.2(6)	D=154.8 DEG	27.5S; 178.2W	AZ= 24	33KM	H=22 09 18.9	1978 JAN 20			D= 76.1 DEG	47.4N; 154.1E	AZ= 26	33KM	H=25 12 38.9 (U)
1978 JAN 18	CRETE	03 52 42		D= 17.8 DEG	35.2N; 23.5E	AZ=151	10KM	H=23 48 35.7	1978 JAN 21	KURILE ISLANDS	Mb=5.0(41)	D= 82.2 DEG	6.4N; 72.4W	AZ=270	41KM	H=28 19 30.7 (U)
1978 JAN 18	OFF EAST COAST OF KAMCHATKA	08 59 09.4	Mb=4.8(24)	D= 71.9 DEG	53.8N; 161.3E	AZ= 19	46KM	H=28 47 50.1	1978 JAN 21	NORTHERN COLOMBIA	Mb=5.1(46)	D= 82.2 DEG	5.2N; 72.4W	AZ=270	33KM	H=28 19 25.8 (M)
1978 JAN 18	OFF E. COAST OF S. ISLAND, N.Z.	10 15 24	Mb=4.0(1)	D=164.3 DEG	43.0S; 173.3E	AZ= 66	69KM	H=29 54 27.8	1978 JAN 21	FIJI ISLANDS REGION	Mb=4.4(6)	D=145.0 DEG	17.5S; 178.7W	AZ= 20	638KM	H=20 02 55.3 (U)
1978 JAN 18	MEDITERRANEAN SEA	13 44 21	Mb=4.1(2)	D= 18.3 DEG	34.5N; 23.0E	AZ=153	33KM	H=13 39 50.0	1978 JAN 21	LOYALTY ISLANDS REGION	Mb=4.2(1)	D=147.0 DEG	22.6S; 171.8E	AZ= 38	76KM	H=24 44 41.1 (U)
1978 JAN 18	TRACEST SOUTH OF KERMADEC ISLANDS	19 27 54	Mb=2.2(6)	D=160.2 DEG	31.7S; 179.4W	AZ= 32	26KM	H=19 07 16.8	1978 JAN 21			D=147.1 DEG	19.4S; 177.4W	AZ= 18	539KM	H=29 59 03.5 (I)
1978 JAN 18	GANSU PROVINCE, CHINA	20 47 07	Mb=4.7(9)	D= 55.9 DEG	39.7N; 95.3E	AZ= 67	33KM	H=20 37 29.3	1978 JAN 21	FIJI ISLANDS REGION	Mb=5.1(58)	D= 77.1 DEG	42.3N; 143.0E	AZ= 36	82KM	H=20 09 17.4 (U)
1978 JAN 18	KERMADEC ISLANDS	21 32 45	Mb=2.1(4)	D=157.8 DEG	30.5S; 177.3W	AZ= 24	33KM	H=21 12 37.6	1978 JAN 21	HOKKAIDO, JAPAN, REGION	Mb=4.5(14)	D= 82.8 DEG	33.2N; 137.7E	AZ= 44	335KM	H=23 22 44.3 (U)
1978 JAN 19	OFF EAST COAST OF HONSHU, JAPAN	01 58 08	Mb=4.9(15)	D= 79.8 DEG	39.3N; 143.1E	AZ= 37	16KM	H=21 45 59.8	1978 JAN 21	TRACEST NEAR S. COAST OF HONSHU, JAPAN	Mb=4.8(3)	D=146.6 DEG	18.1S; 172.5W	AZ= 10	33KM	H=23 57 26.9 (U)
1978 JAN 19	FIJI ISLANDS REGION	11 02 50.80	Mb=2.1(21)	D=145.2 DEG	17.7S; 178.8W	AZ= 20	505KM	H=10 44 14.6	1978 JAN 22	TONGA ISLANDS REGION	Mb=5.1(10)	D=143.7 DEG	15.3S; 173.5W	AZ= 11	33KM	H=20 33 51.8 (U)
1978 JAN 19	TRACEST WESTERN TURKEY	12 12 11	NO MB COMP.	D= 16.2 DEG	38.9N; 27.9E	AZ=134	10KM	H=12 38 17.5	1978 JAN 22	TONGA ISLANDS		D= 4.2 DEG	47.8N; 16.6E	AZ=145		H=28 07 16 (A)
1978 JAN 19		12 17 42.3		D= 73.8 DEG	5.5S; 68.5E	AZ=121	33KM	H=16 19 22.9	1978 JAN 22	SOUTHEASTERN AUSTRIA	Mb=2.2(60)	D= 77.0 DEG	51.3N; 177.9E	AZ= 10	32KM	H=28 09 28.4 (U)
1978 JAN 19	TRACEST CHAGOS ARCHIPELAGO REGION	16 30 55.5	NO MB COMP.	D= 130.4 DEG	9.8S; 159.5E	AZ= 46	73KM	H=20 24 26.4	1978 JAN 22	RAT ISLANDS, ALEUTIAN ISLANDS		D= 77.0 DEG	51.0N; 177.9E	AZ= 10	33KM	H=28 09 21.4 (M)
1978 JAN 19		17 31 08		D= 16.2 DEG	38.9N; 27.9E	AZ=134	10KM	H=12 38 18.7	1978 JAN 22	FRG, CENTRAL REGION	NO MB COMP.	D= 4.3 DEG	51.7N; 6.2E	AZ=278	0KM	H=23 08 24 (I)
1978 JAN 20	SOLOMON ISLANDS	00 43 37	Mb=2.2(28)	D= 73.8 DEG	5.5S; 68.5E	AZ=121	33KM	H=16 19 22.9	1978 JAN 22			D= 4.3 DEG	47.5N; 16.0E	AZ=152	10KM	H=26 33 32.0 (U)
1978 JAN 20	NEAR COAST OF CHIAPAS, MEXICO	02 25 25	Mb=2.0(36)	D=130.4 DEG	9.8S; 159.5E	AZ= 46	73KM	H=20 24 26.4	1978 JAN 22	THACES		D= 4.3 DEG	47.5N; 16.0E	AZ=152	10KM	H=26 33 32.0 (U)
1978 JAN 20	CHILE-ARGENTINA BORDER REGION	05 31 19	Mb=2.7(41)	D= 130.4 DEG	10.0S; 159.7E	AZ= 46	33KM	H=20 24 14.9	1978 JAN 23	SOUTHEASTERN AUSTRIA	NO MB COMP.	D= 4.3 DEG	47.5N; 16.0E	AZ=152	10KM	H=26 33 32.0 (U)
1978 JAN 20	EXPLOSION, POLAND	11 00 35.5		D= 68.1 DEG	14.3N; 92.1W	AZ=291	64KM	H=22 12 41.3	1978 JAN 23	GDR, VOGTLAND	NO MB COMP.	D= 1.2 DEG	50.1N; 12.7E	AZ=189	0KM	H=28 33 30.1 (I)
1978 JAN 20	LOYALTY ISLANDS REGION	19 18 03.3	Mb=4.8(1)	D=112.0 DEG	34.3S; 70.2W	AZ=242	132KM	H=24 42 57.9	1978 JAN 23	GDR, VOGTLAND		D= 1.2 DEG	50.1N; 12.7E	AZ=189	0KM	H=28 33 30.1 (I)
1978 JAN 20	KURILE ISLANDS	20 51 17	Mb=4.7(6)	D= 76.8 DEG	46.5N; 153.4E	AZ= 27	44KM	H=20 39 28.4	1978 JAN 24			D= 76.8 DEG	46.5N; 153.4E	AZ= 27	44KM	H=20 39 32.1 (M)

Date	Time	Location	Depth (km)	Magnitude	Station	Distance (km)	AZ	ML	MLV	Other
1978 JAN 29	18 22 53	SOUTH OF PANAMA		5.1						
1978 JAN 29	21 53 49	SOUTH OF TONGA ISLANDS	24.85N 175.4W	5.6	PKP1	39KM	17			
1978 JAN 29	53 57.4C		24.85N 175.8W	5.6	PKP2	33KM	17			
1978 JAN 29	54 07.6C			5.6						
1978 JAN 29	54 27			5.6						
1978 JAN 29	55 38			5.6						
1978 JAN 29	22 02 48.4C	NEAR EAST COAST OF KAMCHATKA	53.9N 159.2E	5.3		20KM	20			
1978 JAN 30	03 06		53.8N 159.4E	5.3		33KM	20			
1978 JAN 30	03 46			5.3						
1978 JAN 30	05 09			5.3						
1978 JAN 30	05 11 39	NEAR EAST COAST OF KAMCHATKA	53.9N 159.3E	5.0		32KM	20			
1978 JAN 30	06 15 12	NEAR EAST COAST OF KAMCHATKA	54.0N 159.3E	5.0		33KM	20			
1978 JAN 30	07 11 06	KERMADEC ISLANDS	29.88N 177.2W	5.6	PKP1	39KM	23			
1978 JAN 30	11 20		29.55N 177.8W	5.6	PKP2	33KM	23			
1978 JAN 30	11 36			5.6						
1978 JAN 30	15 13			5.6						
1978 JAN 30	08 22			5.6						
1978 JAN 30	07 37 45.1C	CYPRUS	34.7N 33.8E	4.5		37KM	130			
1978 JAN 30	07 54.9		34.7N 33.9E	4.5		43KM	130			
1978 JAN 30	08 01 55			4.5						
1978 JAN 30	08 06			4.5						
1978 JAN 30	07 59 20.2	EXPLOSION OF 9.3 TONS; CZECHOSLOVAKIA		1.07						
1978 JAN 30	09 38.4			1.07						
1978 JAN 30	11 04 34.3C									
1978 JAN 30	13 28 37	MINDANAO, PHILIPPINE ISLANDS	6.8N 126.9E	5.3		69KM	67			
1978 JAN 30			7.1N 126.8E	5.3		50KM	67			
1978 JAN 30	14 16 22.6C									
1978 JAN 30	18 52 29									
1978 JAN 31	05 50 41.2	KAMCHATKA	53.6N 157.1E	4.7		285KM	22			
1978 JAN 31			53.9N 156.7E	4.7		250KM	22			
1978 JAN 31	06 42 45	GREECE	39.3N 22.9E	4.5		38KM	146			
1978 JAN 31	07 07		39.3N 23.0E	4.5		40KM	146			
1978 JAN 31			39.4N 23.0E	4.5		33KM	146			
1978 JAN 31	07 31 10.0	TAIWAN		7.0			61			
1978 JAN 31				7.0			61			
INTERRUPTION OF SOME RECORDS FROM 10H 13M TO 14H 24M										
1978 JAN 31	20 33 40									
78 FEB 01	03 23 09									
78 FEB 01	05 37 35	POLAND; UPPER SILEBIA								
78 FEB 01	14 10 26	SOUTH OF HONSHU, JAPAN		4.8			42			
78 FEB 01	15 10 09.4C	MURILE ISLANDS		5.1			26			
78 FEB 01	17 28 24.4D	TONGA ISLANDS		4.9			13			
78 FEB 01	18 11 33	GREENLAND SEA		5.2			356			
78 FEB 01	23 38 53.3D	TONGA ISLANDS		5.2			14			
78 FEB 01	23 39 50	KURILE ISLANDS		5.5			30			
78 FEB 02	23 48 40.3C	KURILE ISLANDS		4.8			31			
78 FEB 02	03 09 50									
78 FEB 02	07 02 26.6	NORTHWEST OF KURILE ISLANDS		5.6			52			
78 FEB 02	08 17 00	NEW BRITAIN REGION		4.1			150			
78 FEB 02	09 12									
78 FEB 02	09 46 48	SOUTHEASTERN AUSTRIA								
78 FEB 02	11 15 01	GREECE								
78 FEB 02	12 31 59.1	EXPLOSION OF 9.3 TONS; CZECHOSLOVAKIA								
78 FEB 02	13 04 16.3	KURILE ISLANDS		5.2			31			
78 FEB 02	17 26 13.0									
78 FEB 03	05 46 22									
INTERRUPTION OF ALL LONGPERIODIC RECORDS FROM 05H 55M TO 05H 57M (AT FEB 04)										
78 FEB 03	07 59 16	FIJI ISLANDS REGION		4.8			20			
78 FEB 03	08 08 19									
78 FEB 03	14 21 20									
78 FEB 03	14 47 03	TALAUD ISLANDS		5.7			69			
78 FEB 03	22 12 23	FIJI ISLANDS REGION		4.5			21			
78 FEB 03	23 50 56	POLAND, UPPER SILEBIA								
78 FEB 03	23 57 30.3	BURMA-INDIA BORDER REGION		5.1			81			

1978 FEB 04 TRACES
E 00 33 42

1978 FEB 04
E 09 41 14

1978 FEB 04
E 11 53 03
E 53 48

1978 FEB 04 NEW HEBRIDES ISLANDS
E PKP 22 02 25

1978 FEB 05 KURILE ISLANDS
I P 01 50 47:8 0.9 / 14

1978 FEB 05 KURILE ISLANDS
E P 02 27 29 0.6 / 12

1978 FEB 05 QUEEN ELIZABETH ISLANDS
E P 16 15 35 2.0 / 37

1978 FEB 05 TRACES MEDITERRANEAN SEA
E(P) 21 31 49

1978 FEB 06 SOUTHERN GREECE
E(P) 00 16 43
E 16 54

1978 FEB 06
E 01 00 30

1978 FEB 06 TRACES
E 02 14 44

1978 FEB 06 KAMCHATKA
I P 03 33 51:6C 1.4 / 50
I 33 57:8
E 34 25
LM 04 10

1978 FEB 06 FRG, SOUTHWESTERN REGION
E SG 06 57 12

1978 FEB 06 SOUTH OF FIJI ISLANDS
I PKP1 21 02 56:5 1.0 / 60
E APKP 04 36

1978 FEB 07 TONGA ISLANDS
E PKP1 03 47 15
E 47 27

1978 FEB 07 NORTHERN ITALY FRIULI
E SG 06 13 03

1978 FEB 07 MOLUCCA SEA
E(P) 07 15 38
E PP 19 50
E 25 25
E(S) 27.3
E(PPS) 30.1
E PKKP2 31 42
E 44 33
LM 08 01 T 18 AN 2.5 AE(6) AV 1.5 MLH =5.9 MLV =5.7 (NO DEPTH CORRECTION)

1978 FEB 07
E 11 20 03

1978 FEB 07 ANDAMAN ISLANDS REGION
I P 12 42 13:7C 1.6 / 90
LM 13 19.7

1978 FEB 07 ANDAMAN ISLANDS REGION
E P 13 45 44 1.3 / 21

1978 FEB 07 ANDAMAN ISLANDS REGION
E P 13 48 35

1978 FEB 07 FIJI ISLANDS REGION
E PKKP 15 31 38
I PKP1 51 41:2 0.9 / 140
I PKP2 51 48:0 0.9 / 95
E 52 02
E APKP 53 58
E(SKP) 54 16
E PP 55 17

1977 FEB 07 ANDAMAN ISLANDS REGION
I P 20 43 27:2 1.7 / 145
I 44 17:5
E 44 37
E(PPP) 48.2
E(S) 53.1
LM 21 20 T 20 AN 2 AE 3 AV 3 MLH =5.7 MLV =5.6

978 FEB 07
P 21 06 08

978 FEB 07 ANDAMAN ISLANDS REGION
(P) 21 12 09 1.4 / 20 MB=4.9(12) D= 74.0 DEG AZ= 90
12.7N; 93.1E 33KM M=21 00 29.3 (U)
14.1N; 93.1E 33KM 21 00 87.7 (M)

978 FEB 07 ANDAMAN ISLANDS REGION
P 21 35 09 MB=4.8(12) D= 74.0 DEG AZ= 90
12.7N; 93.1E 33KM M=21 23 35.4 (U)
12.6N; 93.2E 33KM 21 23 84.3 (M)

978 FEB 07 TRACES
P 22 12 39

978 FEB 08 TAIWAN REGION
P 00 28 00 2.1 / 100 MB=5.5(68) D= 82.9 DEG AZ= 60
24.1N; 122.7E 40KM M=80 15 38.9 (U)
24.6N; 122.8E 33KM 80 15 39.5 (M)

PP (SGS) 31 01
SKPPKP 38.6
LM 01 09 T 10 AN 2.5 AE 3 AV 6 MLH =5.9 MLV =6.0

978 FEB 08 TRACES SOUTH PACIFIC CORDILLERA
(PKP2) 03 46 42 MB=5.3(2) D=166.0 DEG AZ=242
55.9S; 144.6W 33KM M=83 25 30.6 (U)

978 FEB 08 SOUTHERN ITALY
P 04 12 58:7 MB=5.0(2) D= 10.3 DEG AZ=172
(S) 15 09 41.1N; 14.9E 95KM M=84 10 31.8 (U)
16 22 41.1N; 14.9E 10KM 84 10 31.4 (U)

978 FEB 08 TRACES ANDAMAN ISLANDS REGION
AP 04 17 47 /4,5(4) D= 73.7 DEG AZ= 89
13.0N; 93.0E 33KM M=84 06 05.7 (U)

978 FEB 08 WEST OF MACQUARIE ISLAND
PKP1 09 48 59 MB=5.2(3) D=148.6 DEG AZ=115
53.7S; 140.6E 33KM M=89 29 10.5 (U)

978 FEB 08 CZECHOSLOVAKIA
12 13 40
13 48
13 54 SG

978 FEB 08 TRACES EXPLOSION OF 3.7 TONS; CZECHOSLOVAKIA
PG 13 06 26:5 D=120 KM AZ=192
SG 06 43:0 50.25N; 12.66E (U)
07 00:4
L 07 14
SG 07 26 PROBABLY ANOTHER EXPLOSION
07 42

978 FEB 08 SOUTHERN SUMATERA
P 13 18 34 MB=5.4(39) D= 93.2 DEG AZ= 93
4.2S; 102.9E 83KM M=83 05 26.6 (U)
3.8S; 102.8E 33KM 83 05 23.3 (M)

978 FEB 08 TUNISIA
P 16 18 39:6 1.8 / 58 MB=4.9(34) D= 17.2 DEG AZ=191
LM 19 27 34.3N; 9.1E 23KM M=86 14 38.5 (U)
25 T 15 AN 1 AE 1 AV 1.5 34.1N; 9.3E 10KM 86 14 38.0 (U)
34.3N; 9.0E 33KM 86 14 39.2 (M)

978 FEB 08 POLAND, UPPER SILESIA
SG 18 47 13

978 FEB 09
02 48 28

978 FEB 09 TONGA ISLANDS REGION
PKP1 04 44 20 1.5 / 37 MB=5.2(4) D=150.5 DEG AZ= 15
APKP 44 32 22.4S; 175.1W 33KM M=84 24 30.0 (U)

978 FEB 09 KURILE ISLANDS
P 08 13 54:0C 1.9 / 400 MB=5.7(84) D= 77.6 DEG AZ= 30
AP 14 06:5 44.4N; 149.9E 45KM M=88 02 02.0 (U)
S 23 44 46.0N; 148.9E 33KM 88 02 10.3 (M)
LMH 47 T 16 AN 3 AE 4.5 AV 5 MLH =5.9
LHV 51 T 18 MLV =5.9

978 FEB 09 KURILE ISLANDS REGION
AP 08 24 49 MB=5.6(9) D= 77.8 DEG AZ= 30
44.3N; 150.1E 33KM M=88 12 42.7 (U)

978 FEB 09 KURILE ISLANDS
(P) 14 58 30 MB=4.6(4) D= 78.0 DEG AZ= 32
43.1N; 147.8E 51KM M=84 46 32.6 (U)
42.9N; 147.9E 33KM 84 46 24.8 (M)

978 FEB 09 POLAND, UPPER SILESIA
SG 14 59 30

978 FEB 09 CENTRAL YUGOSLAVIA
PN 16 32 26 MB=3.8(1) D= 7.7 DEG AZ=159
32 44 44.1N; 18.9E 20KM M=86 30 37.9 (U)
(SN) 33 40 44.2N; 17.0E 10KM 86 30 39.2 (U)
34 24 44.2N; 18.9E 33KM 86 30 36.1 (M)
34 48:9
LH 35.4 T 8 AN 1 AE 0.9 AV 1 MLH =3.9

978 FEB 09
16 53 31
54 19



Date	Time	Location	Depth (km)	Magnitude	MLH	MLV	Other
1978 FEB 09	17 59 37.80	FIJI ISLANDS REGION	0.9 / 35				
1978 FEB 09	19 47 04.00	SOUTH OF FIJI ISLANDS	0.9 / 48				
1978 FEB 09	21 15 29	EASTERN TURKEY	15 37.1				
1978 FEB 09	21 53 07	KERMADEC ISLANDS	2.3 / 75				
1978 FEB 09	22 05 12	KERMADEC ISLANDS	2.5 / 430				
1978 FEB 09	22 07 46.9	KERMADEC ISLANDS	08 08.0				
1978 FEB 09	22 26 49	KERMADEC ISLANDS					
1978 FEB 09	22 26 49	KYUSHU, JAPAN					
1978 FEB 09	22 32 34	KERMADEC ISLANDS	35 56				
1978 FEB 09	22 38 11	KERMADEC ISLANDS					
1978 FEB 09	22 40 19	TRACES KERMADEC ISLANDS					
1978 FEB 09	22 41 40	KERMADEC ISLANDS	2.3 / 70				
1978 FEB 09	22 56 08	TRACES					
1978 FEB 09	23 04 19	KERMADEC ISLANDS	04 30				
1978 FEB 09	23 15 23	KERMADEC ISLANDS	15 32.10				
1978 FEB 09	23 18 32	GREENLAND SEA					
1978 FEB 09	23 18 43	KERMADEC ISLANDS					
1978 FEB 10	00 08 12	KERMADEC ISLANDS REGION					
1978 FEB 10	01 05 22	KERMADEC ISLANDS REGION					
1978 FEB 10	01 16 16.00	KERMADEC ISLANDS	2.4 / 105				
1978 FEB 10	04 34 47	TRACES KERMADEC ISLANDS					
1978 FEB 10	05 56 10	KERMADEC ISLANDS					
1978 FEB 10	07 21 28.0	CENTRAL ITALY					
1978 FEB 10	17 59 37.80	CRETE	15 58 09				
1978 FEB 10	16 09 33.6	KURILE ISLANDS	0.8 / 20				
1978 FEB 10	17 39 36	NEPAL	43 21				
1978 FEB 10	19 52 31.8	KERMADEC ISLANDS					
1978 FEB 10	20 59 06.50	PAKISTAN	1.1 / 65				
1978 FEB 11	00 11 23		1.3 / 22				
1978 FEB 11	00 25 25	KERMADEC ISLANDS					
1978 FEB 11	01 25 37	KERMADEC ISLANDS REGION	0.9 / 14				
1978 FEB 11	01 36 34	CENTRAL MID-ATLANTIC RIDGE	37 20				
1978 FEB 11	01 44 29	CENTRAL ITALY					
1978 FEB 11	04 32 46	KERMADEC ISLANDS					
1978 FEB 11	06 15 51	TRACES KERMADEC ISLANDS					
1978 FEB 11	06 32 08	NORTH OF SEVERNAYA ZEMLYA					
1978 FEB 11	07 25 01.10	AFGHANISTAN-USSR BORDER REGION	1.7 / 60				
1978 FEB 11	12 12 52	KERMADEC ISLANDS					
1978 FEB 11	12 22 03.00	NEAR ISLANDS, ALEUTIAN ISLANDS	1.4 / 28				
1978 FEB 11	13 03 05	EASTERN GULF OF ADEN	2.5 / 280				
1978 FEB 11	13 32 49	EASTERN GULF OF ADEN					

International Seismological Centre

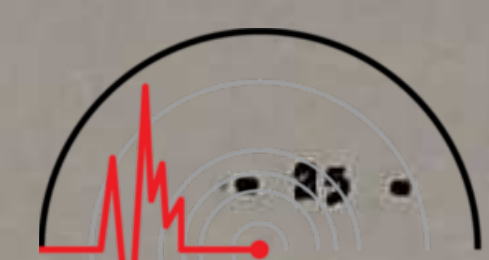
Date	Time	Location	Depth (km)	Magnitude	MLH	MLV	Other
1978 FEB 10	15 58 09	CRETE					
1978 FEB 10	16 09 33.6	KURILE ISLANDS	0.8 / 20				
1978 FEB 10	17 39 36	NEPAL	43 21				
1978 FEB 10	19 52 31.8	KERMADEC ISLANDS					
1978 FEB 10	20 59 06.50	PAKISTAN	1.1 / 65				
1978 FEB 11	00 11 23		1.3 / 22				
1978 FEB 11	00 25 25	KERMADEC ISLANDS					
1978 FEB 11	01 25 37	KERMADEC ISLANDS REGION	0.9 / 14				
1978 FEB 11	01 36 34	CENTRAL MID-ATLANTIC RIDGE	37 20				
1978 FEB 11	01 44 29	CENTRAL ITALY					
1978 FEB 11	04 32 46	KERMADEC ISLANDS					
1978 FEB 11	06 15 51	TRACES KERMADEC ISLANDS					
1978 FEB 11	06 32 08	NORTH OF SEVERNAYA ZEMLYA					
1978 FEB 11	07 25 01.10	AFGHANISTAN-USSR BORDER REGION	1.7 / 60				
1978 FEB 11	12 12 52	KERMADEC ISLANDS					
1978 FEB 11	12 22 03.00	NEAR ISLANDS, ALEUTIAN ISLANDS	1.4 / 28				
1978 FEB 11	13 03 05	EASTERN GULF OF ADEN	2.5 / 280				
1978 FEB 11	13 32 49	EASTERN GULF OF ADEN					



Date	Time	Station	MB	D (DEG)	AZ	H (KM)	Region	Other Data
1978 FEB 11	14 11 02	SOUTH OF PANAMA	MB=4.8(14)	D= 87.5 DEG	AZ=279	33KM		
1978 FEB 11	14 17 28	FRANCE	NO MB COMP?	D= 8.1 DEG	AZ=236	17KM		
1978 FEB 11	21 47 37	SOUTHERN IRAN	MB=5.2(74)	D= 39.2 DEG	AZ=110	50KM		
1978 FEB 11	22 16 30	EAST PAPUA NEW GUINEA REGION	MB=5.3(27)	D= 121.4 DEG	AZ= 56	89KM		
1978 FEB 12	03 52 54	TIMOR	MB=5.8(49)	D= 109.8 DEG	AZ= 79	106KM		
1978 FEB 12	06 23 38	WESTERN AUSTRIA	NO MB COMP?	D= 4.2 DEG	AZ=195	10KM		
1978 FEB 12	09 07 37	SOUTHERN ALASKA	MB=5.4(77)	D= 69.0 DEG	AZ=352	72KM		
1978 FEB 12	14 30 21	TRACES						
1978 FEB 12	18 38 50	TRACES						
1978 FEB 12	19 38 04	KERMADEC ISLANDS	MB=5.3(7)	D= 158.0 DEG	AZ= 25	91KM		
1978 FEB 12	22 16 30	TRACES						
1978 FEB 12	01 27 45	TRACES	MB=4.9(17)	D= 68.6 DEG	AZ=353	131KM		
1978 FEB 12	06 35 09	KERMADEC ISLANDS	MB=5.3(7)	D= 157.6 DEG	AZ= 23	33KM		
1978 FEB 12	07 36 09	ALBANIA	NO MB COMP?	D= 11.5 DEG	AZ=153	33KM		
1978 FEB 12	09 08 11	EXPLOSION OF 6.5 TONS; GERMAN DEMOCRATIC REPUBLIC		D= 10 KM	AZ=311			
1978 FEB 12	13 13 55	NEAR EAST COAST OF KAMCHATKA	MB=5.3(74)	D= 70.1 DEG	AZ= 17	33KM		
1978 FEB 12	17 28 15	KERMADEC ISLANDS REGION	MB=5.3(12)	D= 156.8 DEG	AZ= 28	331KM		
1978 FEB 12	18 30 33	OFF EAST COAST OF KAMCHATKA	MB=5.0(40)	D= 72.8 DEG	AZ= 20	46KM		
1978 FEB 12	19 45 19	TRACES		D= 157.8 DEG	AZ= 27	213KM		
1978 FEB 12	02 42 21	TRACES						
1978 FEB 12	02 44 06	SAMOA ISLANDS REGION	MB=5.2(13)	D= 144.3 DEG	AZ= 9	33KM		
1978 FEB 12	11 39 31	TRACES						
1978 FEB 12	21 44 19	TRACES						
1978 FEB 12	00 09 51	SOUTH OF FIJI ISLANDS	MB=4.8(3)	D= 150.4 DEG	AZ= 17	42KM		
1978 FEB 15	02 54 56	LEEWARD ISLANDS						
1978 FEB 15	03 04 17	QUESTIONABLE EVENT						
1978 FEB 15	03 22 29	EASTERN TURKEY	MB=4.8(34)	D= 21.9 DEG	AZ=111	33KM		
1978 FEB 15	03 32 33	EASTERN TURKEY	MB=4.6(10)	D= 21.9 DEG	AZ=111	33KM		
1978 FEB 15	05 38 12	TRACEST KERMADEC ISLANDS REGION	MB=4.3(1)	D= 157.2 DEG	AZ= 23	35KM		
1978 FEB 15	05 52 41	EASTERN TURKEY	MB=4.5(14)	D= 21.9 DEG	AZ=112	20KM		
1978 FEB 15	08 30 56	ANDAMAN ISLANDS REGION	MB=4.9(30)	D= 73.9 DEG	AZ= 90	33KM		
1978 FEB 15	16 05 47	TONGA ISLANDS	MB=4.8(2)	D= 145.7 DEG	AZ= 11	33KM		
1978 FEB 15	18 07 58	AFGHANISTAN-USSR BORDER REGION	MB=4.8(35)	D= 43.3 DEG	AZ= 85	127KM		
1978 FEB 15	21 12 29	SOUTH OF FIJI ISLANDS	MB=4.1(1)	D= 150.2 DEG	AZ= 17	64KM		
1978 FEB 15	00 28 44	CENTRAL YUGOSLAVIA	MB=5.1(10)	D= 7.9 DEG	AZ=159	33KM		
1978 FEB 15	04 00 05	NEAR WEST COAST OF COLOMBIA	MB=5.5(57)	D= 86.2 DEG	AZ=274	24KM		
1978 FEB 15	07 34 28	TRACEST KERMADEC ISLANDS REGION	MB=5.1(2)	D= 158.5 DEG	AZ= 24	33KM		
1978 FEB 15	12 12 31	OFF COAST OF OREGON	MB=5.0(12)	D= 79.8 DEG	AZ=331	15KM		
1978 FEB 15	12 59 46	EXPLOSION OF 5.7 TONS; CZECHOSLOVAKIA		D= 127 KM	AZ=170			
1978 FEB 15	15 07 34	CARIBBEAN SEA	MB=5.2(7)	D= 79.3 DEG	AZ=285	33KM		
1978 FEB 15	19 19 51							
1978 FEB 15	00 37 22	GDR, VOGTLAND						
1978 FEB 15	01 59 52	EASTER ISLAND BORDILLERA	MB=5.8(19)	D= 155.0 DEG	AZ=244	33KM		
1978 FEB 15	02 41 03	PYRENEES	MB=9.3(4)	D= 12.4 DEG	AZ=235	33KM		
1978 FEB 15	04 01 36	TRACES						
1978 FEB 15	06 46 39	JAN MAYER ISLAND REGION	MB=4.5(25)	D= 21.6 DEG	AZ=343	10KM		
1978 FEB 15	13 00 39	EXPLOSION OF 8.9 TONS; CZECHOSLOVAKIA		D= 144 KM	AZ=126			



Date	Time	Location	Magnitude	Depth (km)	Distance (DEG)	Azimuth (AZ)	Station	Other Data
1978 FEB 17	19 44 04	PYRENEES	4.3	10	12.4	236	ONT.)	
1978 FEB 17	20 42 29	OFF EAST COAST OF KAMCHATKA	4.7	6	76.2	396		
1978 FEB 17	22 34 04.4	AFGHANISTAN-USSR BORDER REGION	5.0	38	43.3	87		
1978 FEB 17	23 25 52	AFGHANISTAN-USSR BORDER REGION	5.0	38	36.7	119		
1978 FEB 18	01 40 12	SOUTHERN SUMATRA	5.5	30	93.5	93		
1978 FEB 18	03 56 25.6	CELEBES SEA	5.1	33	99.6	72		
1978 FEB 18	04 11 54	TONGA ISLANDS	4.2	4	146.2	11		
1978 FEB 18	08 18 24.5	NORTHERN ITALY	4.8	177	4.8	177		
1978 FEB 18	09 03 40	SOUTH OF KERMADEC ISLANDS	5.0	34	160.0	29		
1978 FEB 18	10 17 51	FIJI ISLANDS REGION	4.9	9	147.5	21		
1978 FEB 18	10 25 23.4	NORTHERN YUGOSLAVIA	6.9	158	6.9	158		
1978 FEB 18	10 40 47	SOUTH OF KERMADEC ISLANDS	5.0	2	160.1	30		
1978 FEB 18	17 40 47	NEAR EAST COAST OF HONSHU, JAPAN	5.1	49	80.5	38		
1978 FEB 18	19 36 39	SWITZERLAND	5.0	208	5.0	208		
1978 FEB 19	00 08 25	CERAH	5.8	51	109.1	72		
1978 FEB 19	12 38 04	NEAR COAST OF GUATEMALA	5.1	24	87.8	289		
1978 FEB 19	19 55 26.6	FIJI ISLANDS REGION	5.4	28	148.3	21		
1978 FEB 19	21 36 13	WEST EMILE RISE	5.0	13	128.1	251		
1978 FEB 20	02 15 06	NORTHERN YUGOSLAVIA	6.7	157	6.7	157		
1978 FEB 20	04 49 00.7	NEAR EAST COAST OF HONSHU, JAPAN	6.1	93	79.8	38		
1978 FEB 20	05 05 32.8	NEAR EAST COAST OF HONSHU, JAPAN	4.6	12	79.8	38		
1978 FEB 20	06 59 42.3	KERMADEC ISLANDS	5.1	4	157.8	24		
1978 FEB 20	07 50 51	FIJI ISLANDS	5.0	2	143.2	25		
1978 FEB 20	08 04 49	BANDA SEA	4.4	2	107.6	75		
1978 FEB 20	08 05 16	BANDA SEA	5.6	41	107.6	75		
1978 FEB 20	08 15	KURILE ISLANDS	4.4	2	77.7	33		
1978 FEB 20	08 24	BANDA SEA	5.0	18	107.6	75		
1978 FEB 20	08 33.7	HOKKAIDO, JAPAN, REGION	5.0	18	77.7	34		



1978 FEB 21 JAN HAYEN ISLAND REGION
E 15 45 41

1978 FEB 21 POLAND, UPPER SILESIA
E 19 03 11
E 03 50
E 90 04 11

1978 FEB 21 RED SEA
E P 22 12 26

1978 FEB 22 TONGA ISLANDS REGION
E PKP1 00 45 32 1.6 / 27

1978 FEB 22 TRACES
E 01 24 16

1978 FEB 22 TONGA ISLANDS
E 02 53 38

1978 FEB 22 TONGA ISLANDS
E APKP 03 45 03

1978 FEB 22 GUATEMALA
I P 06 20 16.1C 1.5 / 80
I AP 20 34.9
E (PP) 24.0
E SKS 30 39
E S 30 55
E XS 31 28
E PS 32 10
E SS 36.8
E PKKP1 38 03
E PKPPKP 46 09
LM 53
L 56 T 24 AN 5 AE 6 AV 6.5
T 20 AN 2 AE 5.5 AV 5

1978 FEB 22 BURMA-INDIA BORDER REGION
E P 09 18 14

1978 FEB 22 RYUKYU ISLANDS
I P 18 12 55.3C 1.6 / 320
I AP 13 08.4
E 13 21
E S 23 08
E 23 34
E 31 40
E 35 26
LM 53 T 17 AN 3 AE 2 AV 4.5

1978 FEB 22 GUATEMALA
E 19 44 36
E AP 44 47
E 47 15

1978 FEB 22 SOUTH OF FIJI ISLANDS
E PKIKP 19 56 55
I PKP1 57 01.8C 1.3 / 160
E APKP 57 20 1.5 / 340
I 57 30.8C
E 20 05 35

1978 FEB 22 SOUTHERN IRAN
I P 20 25 33.8C 1.5 / 90
I 25 38.9
E PPP 27 44

1978 FEB 23 KASHMIR-INDIA BORDER REGION
E P 02 10 08

1978 FEB 23 TONGA ISLANDS
E PKP 07 08 12

1978 FEB 23 NEW BRITAIN REGION
I PKP 07 48 15.8 0.9 / 38

1978 FEB 23 SWITZERLAND
E PN 09 50 47
E 51 03
E SN 51 40
E SG 52 18

1978 FEB 23 SOUTH OF FIJI ISLANDS
I PKP1 15 28 04.1 1.0 / 19
I PKP2 28 17.6 1.1 / 21

1978 FEB 23
E PKP 16 36 28 1.1 / 13
E 36 42

MB=4.3(4) D= 21.7 DEG AZ=343
71.1N; 6.3W 33KM H=15 40 47.1
71.1N; 6.4W 10KM 15 40 47.1

MB=4.7(13) D= 41.0 DEG AZ=138
16.5N; 40.4E 33KM H=22 04 42.1
14.2N; 40.1E 33KM 22 04 27.1

MB=4.3(1) D=146.1 DEG AZ= 9
17.6S; 172.0W 33KM H=80 25 51

NO MB COMP; D=144.2 DEG AZ= 13
15.9S; 174.8W 18KM H=83 25 23.9

MB=5.7(84) D= 87.8 DEG AZ=290
14.2N; 91.4W 100KM H=86 07 37.1
14.5N; 91.1W 50KM 86 07 33.1
DISTANCE 87 DEG DEPTH 70 KM

MLH =6.0 MLV =5.9 (NO DEPTH CORRECTION)

MB=5.0(17) D= 66.7 DEG AZ= 81
23.3N; 94.1E 78KM H=89 07 30.1
22.8N; 94.5E 33KM 89 07 21.1

MB=5.9(116) D= 82.8 DEG AZ= 51
29.3N; 130.5E 60KM H=18 00 35.1
29.9N; 130.3E 33KM 18 00 35.1
DISTANCE 82 DEG

MB=5.1(16) D= 87.4 DEG AZ=289
14.1N; 90.6W 102KM H=19 31 41.1

MB=5.6(29) D=150.6 DEG AZ= 17
22.7S; 176.2W 85KM H=19 37 17.1
22.3S; 177.8W 33KM 19 37 08.1

MB=5.1(62) D= 40.2 DEG AZ=108
28.0N; 56.9E 23KM H=20 17 57.1
28.3N; 57.0E (106KM) 20 18 09.1
27.9N; 56.9E 33KM 20 17 57.1

MB=4.9(23) D= 48.3 DEG AZ= 86
33.5N; 76.1E 36KM H=82 01 28.1
33.7N; 75.9E 33KM 82 01 31.1

MB=4.3(2) D=144.8 DEG AZ= 12
16.5S; 174.2W 167KM H=86 48 57.1

MB=5.5(27) D=122.4 DEG AZ= 50
4.3S; 152.8E 57KM H=87 29 25.1
3.9S; 152.8E 33KM 87 29 24.1

NO MB COMP; D= 5.3 DEG AZ=205
46.5N; 9.8E 10KM H=89 49 22.1
46.5N; 9.8E 10KM 89 49 24.1
DISTANCE 57.2 DEG

MB=5.2(18) D=152.9 DEG AZ= 27
26.1S; 179.9E 435KM H=15 08 57.1

1978 FEB 23 UNDERGROUND EXPLOSION
>REBLOCHN<
17 12 17:9C 1.6 / 86
12 39
13 20
14 36

1978 FEB 23 SICILY
P 19 50 56
51 11

1978 FEB 23 FIJI ISLANDS REGION
PKP 21 47 21.6C 0.9 / 35

1978 FEB 23 BURMA-INDIA BORDER REGION
AP 23 29 48:3C 1.1 / 22

1978 FEB 23 SOUTHERN IRAN
P 23 32 23.9C 1.5 / 90
32 30

1978 FEB 24 TRACES
02 40 28

1978 FEB 24 WESTERN TURKEY
02 56 14
56 41
03 01 50

1978 FEB 24 NORTHWEST OF KURILE ISLANDS
P 03 18 12.4

1978 FEB 24 EXPLOSION OF 5.8 TONS; CZECHOSLOVAKIA
PG 06 40 07
SG 40 19.5

1978 FEB 24 NORTH OF ASCENSION ISLAND
P 07 12 46.8 2.1 / 175
12 52.1
14 57
LM 39

1978 FEB 24 SOUTHERN GREECE
P 13 51 02

1978 FEB 24 TRACES
17 54 39

1978 FEB 24 KERMADEC ISLANDS
PKP2) 18 37 08

1978 FEB 24 KERMADEC ISLANDS
PKP2 21 33 03

1978 FEB 25 NEW BRITAIN REGION
PKP 04 48 29.2

1978 FEB 25
P 06 42 27
42 42
07 08

1978 FEB 25 TURKEY-USSR BORDER REGION
P 08 30 41

1978 FEB 25 CENTRAL YUGOSLAVIA
P 18 18 19

1978 FEB 26 KURILE ISLANDS
P 00 17 22:8D 1.0 / 31

1978 FEB 26 JAMAICA REGION
P 05 19 14

1978 FEB 26 EASTER ISLAND REGION
PKP 09 36 07:3C 1.6 / 46
PP 38 44

1978 FEB 26
P 09 48 14

1978 FEB 26
P 10 04 17:3D

1978 FEB 26 PANAMA-COSTA RICA BORDER REGION
P 15 02 28 1.3 / 18

1978 FEB 26
P 21 14 37

MB=5.6(80) D= 81.3 DEG AZ=321
37.1N; 116.1W 0KM H=17 00 00.2 (U)

MB=4.5(3) D= 13.6 DEG AZ=171
37.9N; 15.8E 10KM H=19 47 43.7 (U)
37.4N; 15.2E 16KM 19 47 37.4 (B)

MB=5.0(8) D=145.0 DEG AZ= 20
17.6S; 179.0W 538KM H=21 28 43.8 (U)

MB=5.1(60) D= 67.2 DEG AZ= 81
23.1N; 94.7E 105KM H=23 18 33.2 (U)
22.3N; 95.3E 100KM 23 18 25.8 (M)

MB=5.2(40) D= 40.2 DEG AZ=108
28.1N; 56.9E 24KM H=23 24 47.8 (U)
28.3N; 57.0E 115KM 23 25 00.1 (B)
27.4N; 57.0E 33KM 23 24 39.4 (M)

MB=4.6(11) D= 19.3 DEG AZ=126
37.9N; 32.7E 10KM H=82 51 23.2 (U)
37.8N; 32.6E 10KM 82 51 26.1 (B)
38.7N; 33.8E 33KM 82 51 29.9 (M)

MB=4.9(11) D= 75.1 DEG AZ= 29
47.1N; 149.6E 0KM H=83 06 27 (I)

MB=5.5(65) D=108 KM AZ=138
50.58N; 14.02E (C)

MB=5.5(65) D= 59.8 DEG AZ=210
4.6S; 12.4W 10KM H=87 02 39.6 (U)
4.4S; 12.3W 33KM 87 02 39.1 (M)

MB=5.5(65) D= 16.9 DEG AZ=146
36.6N; 24.6E 10KM H=13 46 58.9 (B)

MB=5.2(3) D=157.9 DEG AZ= 24
30.6S; 177.4W 48KM H=18 16 33.4 (U)

MB=5.2(2) D=158.0 DEG AZ= 24
30.7S; 177.3W 21KM H=21 12 23.5 (U)

MB=5.4(32) D=122.3 DEG AZ= 50
4.2S; 152.8E 43KM H=84 29 36.9 (U)
3.8S; 152.6E 33KM 84 29 37.9 (M)

NO MB COMP; D= 24.3 DEG AZ=104
40.4N; 44.4E 10KM H=88 25 23.6 (U)
40.2N; 44.5E 33KM 88 25 21.7 (M)

MB=5.3(73) D= 9.4 DEG AZ=143
43.5N; 20.8E 10KM H=18 13 46.3 (P)

MB=5.3(73) D= 74.8 DEG AZ= 24
49.3N; 155.6E 44KM H=80 05 46.1 (U)
49.1N; 155.6E 33KM 80 05 43.7 (M)

MB=4.8(15) D= 75.7 DEG AZ=281
18.2N; 76.5W 15KM H=85 07 20.8 (U)

MB=5.9(38) D=133.6 DEG AZ=282
26.6S; 114.6W 33KM H=89 16 52.4 (U)
26.1S; 115.1W 33KM 89 16 54.1 (M)

MB=4.8(13) D= 86.8 DEG AZ=280
8.9N; 82.9W 35KM H=14 49 45.9 (U)

Date	Time	Region	Depth (km)	Magnitude	Coordinates (Lat, Lon)	Other Data
1978 FEB 27	00 33 05	MID-INDIAN RISE		2.0 (8)		
1978 FEB 27	00 55 40	LOYALTY ISLANDS REGION		4.5 (1)		
1978 FEB 27	00 57 11	WEST OF MACQUARIE ISLAND		5.3 (7)		
1978 FEB 27	08 28 15.7					
1978 FEB 27	16 11 00					
1978 FEB 27	18 12 12.3					
1978 FEB 27	18 22 24	NEAR EAST COAST OF HONSHU, JAPAN		4.8 (12)		
1978 FEB 27	19 52 56.3	FIJI ISLANDS REGION				
1978 FEB 28	00 47 17	TRACEST WESTERN TURKEY				
1978 FEB 28	04 28 55.4	TONGA ISLANDS REGION				
1978 FEB 28	16 23 17					
1978 FEB 28	17 16 09	TRACEST PAKISTAN		4.7 (11)		
1978 FEB 28	21 11 51	TRACES				
1978 FEB 28	23 03 00.9D	WESTERN CAUCASUS		4.8 (26)		
78 MAR 01	00 20 09	KURILE ISLANDS				
78 MAR 01	02 07 26	EASTERN GULF OF ADEN				
78 MAR 01	09 16 57					
78 MAR 01	10 01 30	SOUTHERN IRAN				
78 MAR 01	11 16 52.3	KURILE ISLANDS				
78 MAR 01	11 59 24	KURILE ISLANDS				
78 MAR 01	13 43 35					
78 MAR 01	15 57 33.9C	OFF EAST COAST OF HONSHU, JAPAN				
78 MAR 01	20 53 10.5	TONGA ISLANDS				
78 MAR 01	22 55 14	DODECANESE ISLANDS				
78 MAR 01	23 33 03	TURKEY-USSR BORDER REGION				
78 MAR 02	00 18 07					
78 MAR 02	07 47 28	POLAND, UPPER SILESIA				
78 MAR 02	13 27 44.0	EXPLOSION OF 9.5 TONS; GERMAN DEMOCRATIC REPUBLIC				
78 MAR 02	14 46 17	KOMANDORSKY ISLANDS REGION				
78 MAR 02	17 53 08	TONGA ISLANDS REGION				
78 MAR 02	17 56 44	ICELAND REGION				
78 MAR 02	18 42 57.3	TONGA ISLANDS REGION				
78 MAR 02	22 20 41	KOMANDORSKY ISLANDS REGION				
78 MAR 02	23 05 42.7D	KURILE ISLANDS				
78 MAR 03	02 19 44	KERMADEC ISLANDS				
78 MAR 03	02 49 10	WESTERN IRAN				

D= 82.1 DEG AZ=128
16.2S; 67.1E 10KM H=80 20 36
15.3S; 67.8E 33KM H=80 20 42

D= 145.8 DEG AZ= 40
22.0S; 170.2E 33KM H=80 36 02

D= 148.7 DEG AZ=115
53.8S; 140.8E 10KM H=80 37 24

D= 80.7 DEG AZ= 38
38.1N; 142.8E 29KM H=18 10 11
38.3N; 142.8E 33KM H=18 10 13

D= 148.4 DEG AZ= 21
20.9S; 178.4W 612KM H=19 34 14

D= 16.2 DEG AZ=137
38.5N; 27.2E 10KM H=80 43 27

D= 150.6 DEG AZ= 19
22.5S; 174.8W 33KM H=84 09 05

D= 45.5 DEG AZ= 99
28.9N; 66.2E 33KM H=17 07 17
28.8N; 66.1E 33KM H=17 07 14

D= 21.0 DEG AZ= 98
44.3N; 42.7E 10KM H=22 58 14
44.3N; 42.9E 10KM H=22 58 16
44.2N; 42.8E 33KM H=22 58 11

D= 76.9 DEG A7= 27
46.3N; 153.1E 33KM H=80 08 19.7 (U)
46.8N; 152.8E 33KM H=80 08 18.0 (M)

D= 48.4 DEG A7=128
13.2N; 50.2E 33KM H=81 58 45.2 (U)
12.5N; 50.2E 33KM H=81 58 35.5 (M)

D= 40.4 DEG A7=109
27.4N; 56.4E 33KM H=89 53 46.4 (U)
27.8N; 56.4E 66KM H=89 53 54.2 (B)
26.7N; 56.5E 33KM H=89 53 37.4 (M)

D= 76.9 DEG A7= 27
46.3N; 153.1E 33KM H=11 05 82.0 (U)
46.8N; 152.6E 33KM H=11 05 85.9 (M)

D= 76.9 DEG A7= 27
46.3N; 153.1E 33KM H=11 47 34.0 (U)
46.5N; 153.0E 33KM H=11 47 35.0 (M)

D= 83.1 DEG A7= 40
34.8N; 141.7E 32KM H=15 45 89.6 (U)
35.2N; 141.6E 33KM H=15 45 86.5 (M)

D= 143.8 DEG A7= 10
15.4S; 173.3W 33KM H=20 33 59.6 (U)
17.8S; 169.9W 33KM H=20 33 29.6 (M)

D= 18.3 DEG A7=141
36.0N; 27.1E 89KM H=22 51 05.1 (U)
36.2N; 27.8E 105KM H=22 51 10.3 (B)
35.4N; 26.8E 33KM H=22 50 55.3 (M)

D= 23.0 DEG A7=105
41.0N; 42.9E 33KM H=23 27 58.4 (U)
40.9N; 42.9E 33KM H=23 27 53.4 (M)

D= 10 KM AZ=311
51.37N 12.89E

D= 71.4 DEG A7= 17
55.1N; 164.8E 33KM H=14 34 58.5 (U)
55.1N; 164.3E 33KM H=14 34 59.3 (M)
DISTANCE 72 DEG

D= 151.3 DEG A7= 15
23.2S; 174.8W 33KM H=17 33 13.3 (I)

D= 23.7 DEG A7=313
62.5N; 26.1W 10KM H=17 51 29.4 (U)
62.5N; 26.0W 10KM H=17 51 31.4 (B)

D= 151.0 DEG A7= 16
23.0S; 175.1W 33KM H=18 23 06.1 (U)

D= 71.4 DEG AZ= 17
55.1N; 164.8E 33KM H=22 09 22.5 (U)
55.3N; 163.9E 33KM H=22 09 25.1 (M)

D= 77.9 DEG A7= 32
43.3N; 147.8E 33KM H=22 53 46.2 (U)
43.5N; 147.8E 33KM H=22 53 47.1 (M)

D= 157.4 DEG AZ= 25
30.2S; 178.0W 338KM H=82 00 11.7 (U)
28.9S; 176.8W 33KM H=81 59 35.3 (M)

D= 31.8 DEG A7=112
32.9N; 48.8E 33KM H=82 42 47.5 (U)
33.3N; 48.8E 59KM H=82 42 53.9 (B)
32.7N; 48.9E 33KM H=82 42 41.1 (M)



Date	Region	Time	Depth (km)	Magnitude	MLH	MLV	Distance (km)	Azimuth (deg)	Station	Other Data
1978 MAR 03	TONGA ISLANDS REGION	07 54 51.9	1.0	5.2	6.0	5.9	151.4	23.35	PKP1, APKP	D=151.4 DEG 23.35; 179.0W A7=15 33KM H=07 34 51.1
1978 MAR 03	TONGA ISLANDS REGION	08 02 00.4	1.0	5.2	6.0	5.9	151.4	23.38	PKP1, APKP	D=151.4 DEG 23.38; 179.0W A7=15 33KM H=07 42 00.1
1978 MAR 03	KOMANDORSKY ISLANDS REGION	10 06 42	0.6	4.5	6.0	5.9	70.9	55.5N; 164.4E	P, S, SS, SSS, LM, L	D=70.9 DEG 55.5N; 164.4E A7=17 33KM H=09 55 25.1 55.4N; 164.0E 33KM 09 55 26.2
1978 MAR 03	KOMANDORSKY ISLANDS REGION	11 04 38.2	2.0	5.5	6.0	5.9	71.4	55.1N; 163.9E	P, (AP), S, SS, SSS, LM, L	D=71.4 DEG 55.1N; 164.8E A7=17 33KM H=10 53 19.1 55.1N; 163.9E 33KM 10 53 21.1 DISTANCE 71 DEG
1978 MAR 03	TONGA ISLANDS	11 07 45	1.0	5.6	6.0	5.9	143.7	15.35	PKP, E	D=143.7 DEG 15.35; 173.5W A7=11 33KM H=10 48 11.1
1978 MAR 03	CARLSBERG RIDGE	17 40 12	2.3	5.0	6.0	5.9	63.7	3.5N; 63.8E	P, E	D=63.7 DEG 3.5N; 63.8E A7=120 33KM H=17 29 41.2 3.2N; 63.7E 33KM 17 29 35.1
1978 MAR 03	QUESTIONABLE EVENT	20 16 06.4							P, S, L	
1978 MAR 03	POLAND, UPPER SILESIA	20 37 37							E	
1978 MAR 03		22 53 28							E	
1978 MAR 04	SOUTH OF FIJI ISLANDS	04 10 27.6	1.0	5.2	6.0	5.9	150.8	23.9S; 179.8E	PKP1, PKP2, APKP	D=150.8 DEG 23.9S; 179.8E A7=25 513KM H=03 51 33.1
1978 MAR 04	FIJI ISLANDS REGION	04 14 45.7	0.9	4.6	6.0	5.9	146.4	18.8S; 177.9W	PKP1	D=146.4 DEG 18.8S; 177.9W A7=19 615KM H=03 56 10.5
1978 MAR 04	TRACES, ALBANIA	04 22 45					10.3	42.0N; 19.5E	(SQ)	D=10.3 DEG 42.0N; 19.5E A7=152 10KM H=04 16 42.2
1978 MAR 04	TONGA ISLANDS	05 06 18	0.6	5.7	6.0	5.9	150.0	21.9S; 174.9W	PKIP, PKP1, PP, SKKS, SKSP, PS, PPS, SS, SSS, LM, L	D=150.0 DEG 21.9S; 174.9W A7=15 33KM H=04 46 36.1 21.6S; 175.4W 33KM 04 46 38.2 DISTANCE 151 DEG
1978 MAR 04	FIJI ISLANDS REGION	12 27 22.9	1.0	5.0	6.0	5.9	145.5	18.0S; 178.5W	PKP1	D=145.5 DEG 18.0S; 178.5W A7=20 588KM H=12 08 49.1
1978 MAR 04	CZECHOSLOVAKIA	13 02 10					4.8	48.8N; 19.3E	P, S, G	D=4.8 DEG 48.8N; 19.3E A7=119 33KM H=13 00 37.2 48.7N; 19.3E 10KM 13 00 37.1
1978 MAR 04	NEW IRELAND REGION	17 02.2	2.0	6.2	6.0	5.9	122.9	4.7S; 153.1E	PDIF, PKP, PP, PKKP2, SKSP, SKKP, LM	D=122.9 DEG 4.7S; 153.1E A7=50 78KM H=14 58 13.0 4.9S; 152.8E 70KM 14 58 12.7 DISTANCE 122 DEG
1978 MAR 04	POLAND, UPPER SILESIA (QUESTIONABLY)	15 15 06					1.4	49.9N; 12.8E	E	D=1.4 DEG 49.9N; 12.8E A7=185 10KM H=15 45 16.2 DISTANCE 170 KM
1978 MAR 04	CZECHOSLOVAKIA FRO-CZECHOSLOVAKIA BORDER REGION	15 45 41.2					87.7	14.3N; 91.3W	PN, PG, S, SG	D=87.7 DEG 14.3N; 91.3W A7=290 101KM H=17 35 09.4
1978 MAR 04	GUATEMALA	17 47 48	2.5	5.2	6.0	5.9	87.7	14.3N; 91.3W	P, AP	
1978 MAR 05	KERMADEC ISLANDS	01 15 11	1.7	4.4	6.0	5.9	157.8	30.28	PKP2, APKP2	D=157.8 DEG 30.28; 177.2W AZ=24 33KM H=00 54 45.8 (U)
1978 MAR 05		02 53 33		4.5	6.0	5.9	18.0	34.9N; 23.4E	E	D=18.0 DEG 34.9N; 23.4E AZ=151 33KM H=05 26 09.3 (U) 35.2N; 23.6E 79KM 05 26 14.2 (U) 34.5N; 23.5E 33KM 05 25 57.2 (U)
1978 MAR 05	CRETE	05 30 15.3	0.8	4.2	6.0	5.9	16.9	35.7N; 22.1E	P	D=16.9 DEG 35.7N; 22.1E AZ=154 33KM H=10 05 51.4 (U) 35.8N; 22.0E 10KM 10 09 52.4 (U)
1978 MAR 05	MEDITERRANEAN SEA	10 10 08		4.6	6.0	5.9	76.5	47.0N; 154.8E	(PPP)	D=76.5 DEG 47.0N; 154.8E AZ=26 33KM H=10 47 50.4 (U)
1978 MAR 05	KURILE ISLANDS	10 59 38	1.0	4.9	6.0	5.9	145.2	17.7S; 178.7W	P, AP	D=145.2 DEG 17.7S; 178.7W AZ=20 581KM H=13 00 08.2 (U)
1978 MAR 05	TRACES	12 52 51		4.5	6.0	5.9	144.9	17.3S; 178.5W	E	D=144.9 DEG 17.3S; 178.5W AZ=19 553KM H=20 24 16.6 (U)
1978 MAR 05	FIJI ISLANDS REGION	13 18 42.2	1.0	4.2	6.0	5.9	141.8	37.7N; 21.3E	PKP	D=141.8 DEG 37.7N; 21.3E AZ=193 33KM H=23 29 25.8 (U) 37.8N; 21.3E 44KM 23 29 29.1 (U)
1978 MAR 05	FIJI ISLANDS REGION	20 42 54.0		5.4	6.0	5.9	132.2	35.5S; 102.8W	PKP	D=132.2 DEG 35.5S; 102.8W AZ=263 33KM H=00 22 19.2 (U) 35.4S; 104.3W 33KM 00 22 15.4 (U)
1978 MAR 05	SOUTHERN GREECE	23 33 01.7		71.5	6.0	5.9	71.5	55.0N; 164.7E	(P)	D=71.5 DEG 55.0N; 164.7E AZ=17 33KM H=01 18 59.6 (U) 54.9N; 164.5E 33KM 01 18 59.8 (U)
1978 MAR 06	SOUTHERN PACIFIC OCEAN	00 41 30		148.3	6.0	5.9	148.3	21.0S; 178.9W	PKP, (SKP)	D=148.3 DEG 21.0S; 178.9W AZ=22 620KM H=02 19 32.2 (U)
1978 MAR 06	KOMANDORSKY ISLANDS REGION	01 30 18	1.6	4.6	6.0	5.9	148.7	21.2S; 178.2W	P, LH, LH	D=148.7 DEG 21.2S; 178.2W AZ=20 437KM H=09 49 12.1 (U)
1978 MAR 06	FIJI ISLANDS REGION	02 34 11.1	1.1	4.6	6.0	5.9	76.9	38.3N; 134.0E	PKP1, PKP2, APKP	D=76.9 DEG 38.3N; 134.0E AZ=44 417KM H=15 11 38.2 (U) 38.5N; 133.9E (410KM) 15 11 38.0 (U)
1978 MAR 06	FIJI ISLANDS REGION	10 04 09.7	0.8	4.6	6.0	5.9	148.7	21.2S; 178.2W	PKP1	D=148.7 DEG 21.2S; 178.2W AZ=20 437KM H=09 49 12.1 (U)
1978 MAR 06	SEA OF JAPAN	15 22 47.2	1.0	5.1	6.0	5.9	76.9	38.3N; 134.0E	P, AP	D=76.9 DEG 38.3N; 134.0E AZ=44 417KM H=15 11 38.2 (U) 38.5N; 133.9E (410KM) 15 11 38.0 (U)
1978 MAR 06	KOMANDORSKY ISLANDS REGION	18 45 15.8	1.1	5.9	6.0	5.9	71.4	55.1N; 164.1E	P, AP	D=71.4 DEG 55.1N; 164.1E AZ=17 33KM H=18 33 57.1 (U) 55.1N; 164.1E 33KM 18 33 58.1 (U)
1978 MAR 06		22 49 01		83.8	6.0	5.9	83.8	32.0N; 137.6E	E	D=83.8 DEG 32.0N; 137.6E AZ=45 442KM H=02 48 39.4 (U) 31.7N; 137.6E 400KM 02 48 34.6 (U) 32.0N; 137.6E 439KM 02 48 47.6 (U) DISTANCE 84 DEG MULTIPLE SHOCK, MB IS AN INADEQUATE VALUE
1978 MAR 07	SOUTH OF HONSHU, JAPAN	03 00 22.2	1.2	6.9	6.0	5.9	3.8	50.7N; 18.9E	P(1), P(2), I, I, I, AP(2), E(XR), E(PP), E SKS(1), I SKS(2), E S, E, I, I SP, E(PB), I XS, E, E(SS), E SSS, E PKPPKP, E ARKPPKP, E, L(2), LM(2)	D=3.8 DEG 50.7N; 18.9E AZ=97 33KM H=08 14 06.9 (U) DISTANCE 4.0 DEG MLH =6.7 MLV =6.6 (NO DEPTH CORRECTION) NO MB COMP.
1978 MAR 07	POLAND, UPPER SILESIA	08 15 23		3.8	6.0	5.9	3.8	50.7N; 18.9E	P, S, G	D=3.8 DEG 50.7N; 18.9E AZ=97 33KM H=08 14 06.9 (U) DISTANCE 4.0 DEG
1978 MAR 07	TRACES	19 09 20		89.2	6.0	5.9	89.2	1.7S; 99.7E	E	D=89.2 DEG 1.7S; 99.7E AZ=94 33KM H=19 58 45.8 (U) 1.3S; 99.7E 33KM 19 58 47.4 (U)
1978 MAR 07	SOUTHERN SUMATRA	20 11 40.8	1.3	5.2	6.0	5.9	87.7	14.3N; 91.3W	P	



Date	Region	Time	Depth (km)	Magnitude	Location	Coordinates	Distance (km)	Azimuth	Other Data
1978 MAR 07	CRETE	22 38 06:20	2.2 / 290	1.5	1.3 AE	0.9 AV	1.5		MPV =5.1 MPH =5.7 MSH =5.3
1978 MAR 07	CRETE	23 04 20	0.4						
1978 MAR 07	SOUTH SANDWICH ISLANDS REGION	23 50 52	0.1						
1978 MAR 08	FIJI ISLANDS REGION	06 26 42:50	1.1 / 25						
1978 MAR 08	TRACES; LOYALTY ISLANDS REGION	09 33 21							
1978 MAR 08	NEAR EAST COAST OF HONSHU, JAPAN	10 40 07							
1978 MAR 08	WESTERN POLAND	12 19 15							
1978 MAR 08	TRACES; EXPLOSION	12 54 54:5							
1978 MAR 08	TRACES; EXPLOSION; GERMAN DEMOCRATIC REPUBLIC	12 55 12:0							
1978 MAR 08	HUNGARY BUDAPEST REGION	14 12 16							
1978 MAR 08	FIJI ISLANDS REGION	18 55 51:20	0.8 / 21						
1978 MAR 08	MEDITERRANEAN SEA	23 58 39							
1978 MAR 09	FIJI ISLANDS REGION	02 03 12:00	0.9 / 15						
1978 MAR 09	FIJI ISLANDS REGION	14 40 31:5	1.3 / 20						
1978 MAR 09	TRACES	19 33 52							
1978 MAR 09	NEW BRITAIN REGION	22 01 56	2.1 / 14						
1978 MAR 09	KURILE ISLANDS	23 53 46:10	2.1 / 23						
1978 MAR 10	MEDITERRANEAN SEA	00 27 12:5							
1978 MAR 10	QUESTIONABLE EVENT	07 45 58							
1978 MAR 10	POLAND; UPPER SILESIA	08 53 51							
1978 MAR 10	MID-INDIAN RISE	22 26 56							
1978 MAR 10	OFF EAST COAST OF HONSHU, JAPAN	22 33 07.0	1.1 / 18						
1978 MAR 11	MOLUCCA PASSAGE	04 32 01	1.6 / 35						
1978 MAR 11	TONGA ISLANDS	15 01 19							
1978 MAR 11	SOUTHERN ITALY	19 23 59:2	1.2 / 120						
1978 MAR 11	KURILE ISLANDS	21 23 14:00	0.9 / 32						
1978 MAR 12	TRACES; CALIFORNIA-MEXICO BORDER REGION	00 42 57							
1978 MAR 12	SOUTH INDIAN OCEAN	01 54 21	0.8 / 15						
1978 MAR 12	SOUTHERN SINKIANG PROV., CHINA	08 37 37.30	0.9 / 40						
1978 MAR 12	KERMADEC ISLANDS	16 33 05	2.1 / 46						
1978 MAR 12	TRACES; MONGOLIA	16 52 00							
1978 MAR 12	POLAND; UPPER SILESIA	17 14 24							
1978 MAR 12	NEAR EAST COAST OF HONSHU, JAPAN	18 11 51:1	0.9 / 20						
1978 MAR 12	CALIFORNIA-MEXICO BORDER REGION	18 55 06							
1978 MAR 12	FIJI ISLANDS REGION	09 03 55							
1978 MAR 13	FIJI ISLANDS REGION	16 57 22:10	2.1 / 18						
1978 MAR 13	NORTHERN ITALY	17 44 39							
1978 MAR 14	MINDANAO, PHILIPPINE ISLANDS	02 10 40							



1978 MAR 14 TONGA ISLANDS
E PKP1 02 27 54
MB=4.7(1) D=140.3 DEG A7= 14
20.1S;174.8W 66KM H=02 08 13

1978 MAR 14 03 12 47
E
MB=4.7(5) D= 87.6 DEG A7=290
14.1N; 91.0W 153KM H=07 49 49

1978 MAR 14 GUATEMALA
E AP 08 02 50
MB=5.5(82) D= 82.9 DEG A7= 60
24.1N;122.6E 43KM H=20 32 15
24.5N;122.7E 33KM 20 32 13

1978 MAR 14 TAIWAN REGION
I P 20 44 36.0 1.2 / 38
E 46 16
E PP 47 50 T 16 AN 2 AE 3 AV 4,5
E LM 21 25

1978 MAR 14 MASCARENE ISLANDS REGION
E 21 04 52
/4.5(2) D= 85.1 DEG A7=130
20.0S; 66.7E 33KM H=20 52 04

1978 MAR 14 23 57 38
E
/4.8(1) D=153.1 DEG A7= 26
26.2S;179.7W 33KM H=03 33 02

1978 MAR 15 TRACES SOUTH OF FIJI ISLANDS
E PKP2 03 53 08
MB=4.7(18) D= 76.8 DEG A7= 1
52.3N;168.4W 20KM H=15 01 51
51.9N;168.7W 33KM 15 01 46

1978 MAR 15 FOX ISLANDS, ALEUTIAN ISLANDS
E P 15 13 42
D= 57.2 DEG A7=211
1.6S; 13.0W 33KM H=21 50 06

1978 MAR 15 POLAND, UPPER SILESIA
E SG 15 33 30
D= 77.8 DEG A7= 33
42.8N;146.0E (57KM)H=21 54 31
43.9N;145.8E 110KM 21 54 42

1978 MAR 15 NORTH OF ASCENSION ISLAND
E P 21 59 51 1.5 / 22
MB=4.9(13) D= 90.8 DEG A7= 45
26.4N;140.6E 263KM H=22 04 40
26.6N;140.5E 250KM 22 04 39
DISTANCE 88 DEG DEPTH 290 KM

1978 MAR 15 OFF COAST OF HOKKAIDO, JAPAN
I P 22 06 23.3C 1.1 / 40
E XP 07 08
E 09 11
MB=5.3(47)

1978 MAR 15 BONIN ISLANDS REGION
I P 22 17 09.7D 1.2 / 440
E AP 18 19 AV 2,4
E 20 24
E 20 43 T 8 AV 4,0
E SKS 27 12
E S 27 36
E 28 14
E 28 34
E 29 10
E(XS) 29.9
E 33 24
E SS 33 40
E 42.1
E LM 23 04 T 12 AN 4 AE 3 AV 4

1978 MAR 15 TRACES
E 22 50 38

1978 MAR 16 PAKISTAN
E(P) 02 08 17 1.3 / 44
E 08 55
E 09 25
E LM 28 T 19 AN 13 AE 7 AV 4,5

1978 MAR 16 FOX ISLANDS, ALEUTIAN ISLANDS
I P 02 21 26.1C 1.3 / 69
I AP 21 39.4
MLH =5.9 MLV =5.5

1978 MAR 16 BONIN ISLANDS REGION
E P 02 56 30
MB=5.5(67) D= 76.8 DEG A7= 1
52.3N;168.6W 49KM H=02 09 38
52.7N;169.2W 33KM 02 09 39

1978 MAR 16 03 05 34
E
MB=4.5(17) D= 89.2 DEG A7= 45
27.0N;140.1E 480KM H=02 44 27
24.1N;141.0E 33KM 02 43 25

1978 MAR 16 FOX ISLANDS, ALEUTIAN ISLANDS
I P 03 41 49.1D 1.1 / 19
E
MB=5.0(41) D= 76.8 DEG A7= 1
52.3N;168.6W 33KM H=03 29 59
52.3N;168.8W 33KM 03 30 00

1978 MAR 16 SOUTHERN GREECE
I P 05 55 40.2C 1.9 / 43
E
MB=4.9(30) D= 15.7 DEG A7=154
36.8N; 21.6E 58KM H=05 51 57
36.7N; 21.5E 48KM 05 51 58
36.6N; 21.4E 33KM 05 51 48

1978 MAR 16 06 00 02.7D
E
MB=4.2(6) D= 15.8 DEG A7=153
36.8N; 21.7E 65KM H=05 58 13
36.7N; 21.4E 42KM 05 58 12

1978 MAR 16 CENTRAL YUGOSLAVIA
E 06 12 15
E S4 12 27
E SG 12 55
13 36
NO MB COMP. D= 8.8 DEG A7=157
43.1N; 17.8E 33KM H=06 08 40
43.1N; 17.9E 10KM 06 08 39

1978 MAR 16 TONGA ISLANDS REGION
I PKP1 08 41 05.3 1.0 / 25
41 17.8
MB=4.8(5) D=150.7 DEG A7= 16
22.7S;172.4W 95KM H=08 21 21.8 (U)

1978 MAR 16 EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC
I PG 10 57 28.8
57 30.6
D= 10 KM A7=311
51.37N; 12.89E

1978 MAR 16 TONGA ISLANDS REGION
E PKP1 18 20 40 1.1 / 18
MB=5.1(3) D=147.5 DEG A7= 10
19.0S;172.8W 33KM H=18 00 56.9 (U)

1978 MAR 16 CASPIAN SEA
E P 19 53 24
MB=4.6(9) D= 26.7 DEG A7= 98
41.3N; 49.3E 69KM H=19 47 47.8 (U)
41.3N; 49.3E 61KM 19 47 49.4 (B)
41.6N; 49.5E 33KM 19 47 46.8 (M)

1978 MAR 16 TRACES LUZON, PHILIPPINE ISLANDS
E 23 02 57
MB=4.9(15) D= 88.3 DEG A7= 64
17.4N;122.8E 46KM H=22 49 59.4 (U)
17.9N;122.5E 33KM 22 50 01.9 (M)

1978 MAR 16 TUNISIA
E 23 14 49
MB=4.7(1) D= 13.2 DEG A7=197
36.6N; 7.4E 33KM H=23 11 06.3 (U)
36.4N; 7.4E 10KM 23 11 04.9 (B)

1978 MAR 17 NEAR EAST COAST OF KAMCHATKA
I P 03 18 38.2D 1.2 / 25
MB=4.8(16) D= 70.8 DEG A7= 18
55.2N;162.1E 33KM H=03 07 23.9 (U)
55.1N;162.3E 50KM 03 07 25.2 (M)

1978 MAR 17 TONGA ISLANDS REGION
I PKIKP 11 20 24.7C 2.2 / 90
I PKP1 20 30.1C 1.5 / 300
I PKP2 20 36.4 1.6 / 200
E(PP) 24 03
MB=5.7(30) D=150.9 DEG A7= 16
22.9S;175.4W 33KM H=11 00 39.5 (U)
22.8S;176.1W 33KM 11 00 36.0 (M)
DISTANCE 150 DEG

1978 MAR 17 POLAND, UPPER SILESIA
E(PG) 20 55 52
E SG 56 52
MC =5.4

1978 MAR 17 RYUKYU ISLANDS
I(P) 23 16 03.9C 1.0 / 15
MB=4.7(4) D= 83.8 DEG A7= 52
28.3N;130.9E 33KM H=23 03 32.9 (U)

1978 MAR 17 23 49 13.0
I

1978 MAR 18 WEST CHILE RISE
I PKP 09 32 18 1.8 / 49
MB=5.6(22) D=128.5 DEG A7=254
38.2S; 93.8W 33KM H=09 13 14.6 (U)
38.6S; 94.9W 33KM 09 13 09.3 (M)

1978 MAR 19 GUERRERO, MEXICO
I P 01 52 12.8C 1.4 / 40
E 52 22
E 52 59
E PP 55 48 T 15 AN 2.1 AE 3.3 AV 5.8 MPPH =6.8 MPPV =6.8
E PPP 57 50
E SKKS 02 02 56
E S 03 20
E 03 30
E PS 04 26
E SS 09.5
E LM 36 T 18 AN 11 AE 14 AV 16.5 MLH =6.6 MLV =6.5

1978 MAR 19 UNDERGROUND EXPLOSION
I P 03 54 34.6C 0.7 / 26
E PN 56 07
MB=5.2(40) D= 39.9 DEG A7= 66
50.0N; 77.8E 0KM H=03 46 57.4 (U)

1978 MAR 19 CENTRAL ITALY
E 09 36 38
E SG 37 29
E 37 48
NO MB COMP. D= 8.8 DEG A7=179
42.5N; 13.3E 25KM H=09 32 32.0 (U)
42.5N; 13.3E 10KM 09 32 33.1 (B)

1978 MAR 19 10 08 34
E P

1978 MAR 19 FIJI ISLANDS REGION
I PKP 14 57 55.3C 1.6 / 120
MB=5.1(21) D=145.1 DEG A7= 20
17.6S;178.9W 540KM H=14 39 18.0 (U)

1978 MAR 19 KURILE ISLANDS
I P 15 01 24.3C 1.2 / 85
MB=5.2(71) D= 75.2 DEG A7= 25
48.8N;155.2E 61KM H=14 49 47.8 (U)
49.4N;154.5E 70KM 14 49 52.5 (M)

1978 MAR 19 NORTH OF ASCENSION ISLAND
I P 18 53 31.2 2.1 / 150
E AP 53 42
E LM 19 17
E 20
MB=5.4(60) D= 58.0 DEG A7=214
1.5S; 15.6W 33KM H=18 43 40.8 (U)
0.3N; 13.8W 33KM 18 43 50.5 (M)

1978 MAR 19 WESTERN POLAND
E PG 20 30 14
E SG 30 38
MB=5.3(92) D= 76.9 DEG A7= 36
42.4N;142.7E 75KM H=07 19 27.8 (U)
42.7N;142.7E 90KM 07 19 30.9 (M)

1978 MAR 20 HOKKAIDO, JAPAN REGION
I P 07 31 13.9C 1.1 / 32
MB=5.7(94) D= 84.3 DEG A7= 41
36.0N;139.7E 66KM H=10 24 13.6 (U)
36.6N;139.7E 90KM 10 24 18.5 (M)

1978 MAR 20 HONSHU, JAPAN
I P 10 36 23.1 1.2 / 160
E 36 43
I PP 39 28.8 1.2 / 58
E PPP 41 22



Date	Time	Location	Depth (km)	Magnitude	Other Data
1978 MAR 20	15 53 09.6	CENTRAL MID-ATLANTIC RIDGE	2.0 / 90	5.7 (47)	D= 61.9 DEG A7=230 0.8N; 29.8W 33KM H=15 42 47.1 2.0N; 29.8W 33KM H=15 42 47.1 DISTANCE 63 DEG
1978 MAR 20	18 20 01.40	CENTRAL MID-ATLANTIC RIDGE	2.9 / 320	5.7 (60)	D= 61.8 DEG A7=230 0.8N; 29.7W 33KM H=18 09 43.1 1.2N; 29.7W 33KM H=18 09 43.1 DISTANCE 82 DEG
1978 MAR 20	22 07 28	TRACES			
1978 MAR 20	23 31 22	TRACES			
1978 MAR 20	23 47 40.00	0.9 / 13			
1978 MAR 21	02 42 42	TRACES; WESTERN TURKEY		3.9 (2)	D= 19.2 DEG A7=131 37.0N; 31.0E 114KM H=82 38 24.2 37.0N; 31.0E 104KM H=82 38 23.3
1978 MAR 21	13 11 08				
1978 MAR 21	13 55 21	LUZON, PHILIPPINE ISLANDS	1.2 / 28	5.3 (49)	D= 88.4 DEG A7= 64 17.1N;122.4E 43KM H=13 42 32.5 17.1N;122.5E 33KM H=13 42 28.6
1978 MAR 21	15 44 12.40	NEAR EAST COAST OF SAMCHATKA	1.3 / 90	5.1 (60)	D= 71.7 DEG A7= 20 53.9N;160.5E 57KM H=15 32 54.6 54.0N;160.3E 50KM H=15 32 55.0
1978 MAR 21	17 09 15	TRACES; NEAR EAST COAST OF HONSHU, JAPAN		4.6 (5)	D= 78.9 DEG A7= 37 40.1N;142.5E 61KM H=16 57 03.5
1978 MAR 21	18 12 37	NEW HEBRIDES ISLANDS		5.2 (6)	D=140.8 DEG A7= 40 17.5S;167.9E 27KM H=17 53 07.9
1978 MAR 21	19 33 38	NEW HEBRIDES ISLANDS		5.4 (12)	D=140.9 DEG A7= 40 17.6S;167.8E 23KM H=19 14 05.9 17.3S;167.7E 33KM H=19 14 03.2
1978 MAR 21	23 14 15	SAKHALIN ISLAND	1.5 / 33	5.2 (31)	D= 73.5 DEG A7= 35 46.0N;141.8E 33KM H=23 02 42.8 46.7N;141.4E 33KM H=23 02 43.1
1978 MAR 22	01 02 26.00	KURILE ISLANDS THIS QUAKE IS THE BEGINNING OF AN AFTERSHOCK SEQUENCE DENOTED BY ***	2.4 / 2400	6.3 (97)	D= 77.7 DEG AZ= 31 44.0N;149.0E 33KM H=80 50 32.2 44.8N;148.8E 70KM H=80 50 40.8 DISTANCE 77 DEG
1978 MAR 22	02 39				
1978 MAR 22	05 24				
1978 MAR 22	06 40				
1978 MAR 22	12 14				
1978 MAR 22	12 30				
1978 MAR 22	17.9				
1978 MAR 22	34				
1978 MAR 22	41				
1978 MAR 22	04				
1978 MAR 22	01 09 09.20	KURILE ISLANDS REGION	1.2 / 38	5.2 (10)	D= 77.8 DEG AZ= 31 43.9N;149.0E 33KM H=80 97 14.3
1978 MAR 22	01 10 46.30				
1978 MAR 22	01 18 36	TRACES; KURILE ISLANDS			
1978 MAR 22	01 25 29.20	KURILE ISLANDS REGION	1.1 / 32	5.1 (50)	D= 77.2 DEG AZ= 31 44.4N;148.6E 33KM H=81 06 29.8
1978 MAR 22	01 35 48.20	KURILE ISLANDS	1.3 / 63	5.4 (63)	D= 77.9 DEG AZ= 31 43.8N;149.0E 33KM H=81 13 30.2 44.2N;149.1E 33KM H=81 13 32.2
1978 MAR 22	02 16 34	KURILE ISLANDS	1.2 / 31	5.1 (32)	D= 77.8 DEG AZ= 31 44.0N;149.2E 33KM H=81 23 53.4 44.2N;149.2E 33KM H=81 23 54.1
1978 MAR 22	02 17 22				
1978 MAR 22	02 48 22	KURILE ISLANDS			
1978 MAR 22	02 48 38				
1978 MAR 22	02 44 33.00	KURILE ISLANDS	2.4 / 100	5.6 (79)	D= 77.5 DEG AZ= 31 44.4N;148.9E 66KM H=82 31 83.0 44.2N;149.2E 33KM H=82 31 28.9
1978 MAR 22	04 47.22				
1978 MAR 22	03 02 18.30	KURILE ISLANDS			
1978 MAR 22	02 33.9				
1978 MAR 22	06 35 51	KURILE ISLANDS REGION			
1978 MAR 22	08 37 11.9	KURILE ISLANDS	1.0 / 33		
1978 MAR 22	37 25.6				
1978 MAR 22	11 57 54	KURILE ISLANDS			
1978 MAR 22	12 36 41	POLAND, UPPER SILESIA			
1978 MAR 22	37 28				
1978 MAR 22	13 50 12.2	TRACES, EXPLOSION; BRG, CENTRAL REGION			
1978 MAR 22	50 40				
1978 MAR 22	14 07 11.3	KURILE ISLANDS REGION	0.8 / 21	4.8 (15)	D= 77.8 DEG AZ= 31 43.9N;149.0E 39KM H=13 55 16.5 (U)
1978 MAR 22	07 27				
1978 MAR 22	14 30 50.30				
1978 MAR 22	16 47 18				
1978 MAR 22	18 07 25.0	TRACES			
1978 MAR 22	19 35 12.5	KURILE ISLANDS			
1978 MAR 22	21 25 04	KURILE ISLANDS			
1978 MAR 22	21 46 26.70	KURILE ISLANDS	2.5 / 810		
1978 MAR 22	46 29.1		(1.0) / 370		
1978 MAR 22	46 40				
1978 MAR 22	46 58				
1978 MAR 22	49 20				
1978 MAR 22	56 14				
1978 MAR 22	22 02.0				
1978 MAR 22	17				
1978 MAR 22	21 50 35.40				
1978 MAR 22	22 22 41.7	KURILE ISLANDS	1.0 / 23	5.0 (30)	D= 77.8 DEG AZ= 31 44.0N;149.2E 33KM H=22 10 46.9 (U) 44.6N;149.0E 60KM H=22 10 52.8 (M)
1978 MAR 22	22 52 14				
1978 MAR 23	00 30 39	KURILE ISLANDS			
1978 MAR 23	00 34 21				
1978 MAR 23	00 36 13	KURILE ISLANDS			
1978 MAR 23	00 37 03.80	KURILE ISLANDS			
1978 MAR 23	37 13				
1978 MAR 23	00 42 54.20	KURILE ISLANDS			
1978 MAR 23	52 41				
1978 MAR 23	57				
1978 MAR 23	01 02.0				
1978 MAR 23	15				
1978 MAR 23	21				
1978 MAR 23	00 44 32.60	KURILE ISLANDS	(1.5 / 42)	5.6 (26)	D= 77.6 DEG AZ= 31 44.0N;148.8E 54KM H=80 36 35.4 (U)
1978 MAR 23	00 48 26.90	KURILE ISLANDS	1.2 / 200	5.6 (26)	D= 77.6 DEG AZ= 31 44.2N;149.3E 35KM H=80 39 41.0 (U) 44.3N;149.0E 35KM H=80 39 41.7 (M)
1978 MAR 23	48 43.7				
1978 MAR 23	00 51 34.60	KURILE ISLANDS	1.8 / 160		
1978 MAR 23	51 49				
1978 MAR 23	00 56 58.1	KURILE ISLANDS	0.8 / 20		
1978 MAR 23	57 12				



1978 MAR 23 KURILE ISLANDS
I P 00 38 27:4C 1.3 / 78
E(XP) 38 48

1978 MAR 23 KURILE ISLANDS
E P 01 01 42

1978 MAR 23
E P 01 04 19

1978 MAR 23 KURILE ISLANDS
I P 01 06 18:1C 1.1 / 50

1978 MAR 23 KURILE ISLANDS
I P 01 09 17:8C 0.8 / 18
E 09 30

1978 MAR 23 KURILE ISLANDS
I P 01 16 38:2C 1.3 / 57
I AP 16 51:9

1978 MAR 23 KURILE ISLANDS
E P 01 24 11
E AP 24 24

1978 MAR 23 KURILE ISLANDS
E AP 01 36 06

1978 MAR 23 TRACEST KURILE ISLANDS
E P 01 39 08

1978 MAR 23
E 01 57 29

1978 MAR 23 KURILE ISLANDS REGION
I P 02 01 28:7C 1.2 / 280
I 01 43:4
E S 11 18
LMH 32 T 20 AN 25 AE 22

1978 MAR 23 KURILE ISLANDS
I P 02 06 23:1 1.2 / 18
E AP 06 39

1978 MAR 23 KURILE ISLANDS
I P 02 11 20:3 0.9 / 15

1978 MAR 23 CENTRAL ITALY
E L 02 11 26

1978 MAR 23 TRACEST KURILE ISLANDS
E(P) 02 45 41

1978 MAR 23 KURILE ISLANDS
I P 02 48 51:7C(1.0) / 420
E S 58 38

1978 MAR 23 KURILE ISLANDS REGION
E P 02 59 15

1978 MAR 23 KURILE ISLANDS
E P 03 11 19

1978 MAR 23 KURILE ISLANDS
I P 03 20 29:1D 1.2 / 32

1978 MAR 23 KURILE ISLANDS
I P 03 26 16:2C(1.0) / 390
E AP 26 30

1978 MAR 23 KURILE ISLANDS
I P 03 27 08.9 (1.5 / 480)
I 27 15:9 (0.9 / 1070)
E(S) 27 36:1
LMH 37 01
T 20 AN 215 AE 340
T 15 AN 305 AE 180

1978 MAR 23
E 03 33 25

1978 MAR 23 KURILE ISLANDS REGION
I P 03 36 19:6C 2.3 / 360
E AP 36 32

1978 MAR 23
E P 03 41 32

1978 MAR 23 KURILE ISLANDS
E P 04 00 11
I AP 00 24:5

1978 MAR 23 KURILE ISLANDS
I P 04 01 20:4C 1.0 / 75
I AP 01 33:5

MB=5.3(30) D= 77.6 DEG AZ= 31
44.1N;149.1E 47KM H=80 46 39:1
44.2N;149.4E 33KM 00 46 32:6

1/4.6(4) / D= 77.5 DEG AZ= 31
44.1N;148.8E 33KM H=80 49 48:2

MB=5.2(31) D= 77.5 DEG AZ= 31
44.3N;149.1E 49KM H=80 54 28:6
44.2N;149.3E 33KM 00 54 23:7

1/5.1(13) / D= 77.7 DEG AZ= 31
44.1N;149.2E 33KM H=80 57 23:2

MB=5.3(37) D= 77.5 DEG AZ= 31
44.3N;149.1E 33KM H=81 04 44:8
44.2N;149.3E 33KM 81 04 44:1

MB=4.8(8) D= 77.4 DEG AZ= 31
44.3N;149.0E 33KM H=81 12 17:5

MB=4.5(6) D= 77.5 DEG AZ= 31
44.2N;148.9E 47KM H=81 24 02:3

1/4.7(4) / D= 77.3 DEG AZ= 31
44.5N;149.0E 33KM H=81 27 15:9

MB=5.8(72) D= 77.8 DEG AZ= 31
43.9N;148.9E 33KM H=81 49 33:8
43.9N;148.8E 33KM 01 49 35:0

MLH =6.4

MB=5.2(9) D= 77.6 DEG AZ= 31
44.1N;148.9E 33KM H=81 54 29:8

1/4.5(6) / D= 76.0 DEG AZ= 31
45.7N;148.3E 33KM H=81 59 36

MB=3.5(1) D= 77.7 DEG AZ=190
43.7N; 11.2E 10KM H=82 06 28:0
43.6N; 11.3E 10KM 82 06 29:1

1/4.6(4) / D= 76.6 DEG AZ= 31
44.8N;147.8E 33KM H=82 33 49

MB=5.8(81) D= 77.4 DEG AZ= 31
44.2N;148.7E 50KM H=82 37 00:9
44.3N;148.8E 33KM 82 36 59:3

1/4.8(5) / D= 78.0 DEG AZ= 31
43.8N;149.4E 33KM H=82 47 17

MB=4.6(4) D= 77.5 DEG AZ= 31
44.3N;149.1E 33KM H=82 59 25:5

1/4.7(9) / D= 77.6 DEG AZ= 31
44.2N;149.1E 39KM H=83 08 36:1

MB=5.9(74) D= 77.5 DEG AZ= 31
44.3N;149.1E 33KM H=83 14 23:3
44.2N;149.2E 33KM 83 14 17:6

MB=6.4(34) D= 76.7 DEG AZ= 31
44.9N;148.4E 33KM H=83 15 20:3
43.3N;150.0E 33KM 83 15 09:0
DISTANCE 77 DEG

MLH =7.6

MB=5.5(24) D= 77.8 DEG AZ= 31
43.9N;149.1E 33KM H=83 24 25:2

MB=4.6(6) D= 77.7 DEG AZ= 31
44.0N;149.1E 33KM H=83 48 16:2

MB=5.3(31) D= 77.5 DEG AZ= 30
44.4N;149.5E 33KM H=83 49 27:7

1978 MAR 23 KURILE ISLANDS
I P 04 02 43:5 (1.8) / 1400
E S 12 32

1978 MAR 23 04 05 07 1.3 / 51

1978 MAR 23 04 06 13

1978 MAR 23 KURILE ISLANDS
E P 04 07 17

1978 MAR 23 04 08 23

1978 MAR 23 KURILE ISLANDS
E P 04 09 19
E(XP) 09 32

1978 MAR 23 KURILE ISLANDS
E P 04 15 23

1978 MAR 23 KURILE ISLANDS
E P 04 21 12

1978 MAR 23 KURILE ISLANDS
E P 04 23 39
E(XP) 23 52

1978 MAR 23 KURILE ISLANDS
E P 04 25 33
I AP 25 45.7

1978 MAR 23
E 04 26 45

1978 MAR 23 KURILE ISLANDS
I P 04 32 05:5 1.1 / 22

1978 MAR 23 KURILE ISLANDS
I P 04 37 18:4C 1.4 / 72

1978 MAR 23 KURILE ISLANDS
E P 04 43 28

1978 MAR 23 KURILE ISLANDS
E P 04 46 06

1978 MAR 23 KURILE ISLANDS
I P 04 48 37:0C

1978 MAR 23 KURILE ISLANDS
I P 05 00 09:7C 1.1 / 25
I AP 00 22:8

1978 MAR 23 TRACES
E P 05 10 35

1978 MAR 23 KURILE ISLANDS
I P 05 24 47.6C 1.2 / 41
E AP 25 01

1978 MAR 23 KURILE ISLANDS
I P 05 27 23 0.9 / 15

1978 MAR 23 KURILE ISLANDS
E P 05 31 24

1978 MAR 23 KURILE ISLANDS
E P 05 34 55

1978 MAR 23 KURILE ISLANDS
E P 05 35 12
I AP 35 25.6

1978 MAR 23
E P 05 42 07

1978 MAR 23 TRACES
E 05 45 00

1978 MAR 23 KURILE ISLANDS REGION
E AP 05 46 42

1978 MAR 23 KURILE ISLANDS
I P 05 50 23:1D
I AP 50 37:0

1978 MAR 23
E P 05 53 22
E 53 36

1978 MAR 23 KURILE ISLANDS
I P 05 54 42:5D 1.0 / 29
E AP 54 56

D= 77.5 DEG AZ= 30
44.4N;149.6E 50KM H=83 50 52:5 (U)
45.6N;149.1E 50KM 03 50 59:2 (M)

1/4.8(4) / D= 77.8 DEG AZ= 30
44.2N;149.8E 33KM H=83 57 22:8 (I)

MB=4.9(12) D= 77.4 DEG AZ= 30
44.5N;149.5E 33KM H=84 03 30:4 (U)

1/4.2(3) / D= 76.1 DEG AZ= 31
45.4N;147.9E 33KM H=84 09 27 (I)

1/4.5(4) / D= 77.9 DEG AZ= 31
43.9N;149.4E 33KM H=84 11 42 (I)

MB=4.9(10) D= 77.6 DEG AZ= 31
44.2N;149.4E 33KM H=84 13 39:8 (U)

1/4.7(7) / D= 78.0 DEG AZ= 30
44.0N;149.9E 33KM H=84 20 09:7 (I)

MB=5.2(30) D= 77.6 DEG AZ= 30
44.3N;149.6E 33KM H=84 25 25:1 (U)
44.3N;149.9E 33KM 84 25 19:0 (M)

MB=4.5(5) D= 77.5 DEG AZ= 31
44.1N;148.8E 33KM H=84 34 12:6 (U)

MB=4.6(5) D= 77.5 DEG AZ= 30
44.4N;149.4E 33KM H=84 36 43:5 (U)

MB=4.8(10) D= 77.7 DEG AZ= 30
44.2N;149.5E 43KM H=84 48 16:2 (U)

MB=5.0(17) D= 77.7 DEG AZ= 30
44.2N;149.6E 43KM H=85 12 54:2 (U)
44.1N;149.8E 33KM 85 12 47:0 (M)

MB=4.3(4) D= 77.6 DEG AZ= 31
44.2N;149.2E 33KM H=85 19 31:3 (U)

1/4.6(5) / D= 77.2 DEG AZ= 30
44.6N;149.2E 33KM H=85 23 04 (I)

MB=5.0(9) D= 77.7 DEG AZ= 31
44.1N;149.2E 41KM H=85 23 16:9 (U)
44.2N;149.1E 33KM 85 23 17:5 (M)

1/4.6(2) / D= 77.7 DEG AZ= 31
43.9N;148.8E 33KM H=85 34 33:8 (I)

MB=4.9(14) D= 77.5 DEG AZ= 31
44.3N;149.2E 41KM H=85 38 30:8 (U)
44.5N;149.3E 33KM 85 38 31:1 (M)

MB=4.9(6) D= 77.9 DEG AZ= 30
44.1N;149.8E 33KM H=85 42 46:2 (U)



1978 MAR 23 TRACES DODECANESE ISLANDS
E P 06 00 28

1978 MAR 23 KURILE ISLANDS
I P 06 13 56:1D 2.8 / 40

1978 MAR 23 KURILE ISLANDS
I P 06 17 38:1 2.4 / 92

1978 MAR 23
E P 06 24 21

1978 MAR 23
E P 06 43 39

1978 MAR 23 KURILE ISLANDS
E P 06 46 20

1978 MAR 23 KURILE ISLANDS REGION
I P 07 15 51:4D 2.0 / 32

1978 MAR 23 FOX ISLANDS, ALBUTIAN ISLANDS
E P(1) 07 35 04 C
I P(2) 35 08:2D 2.0 / 140
LH 08 13

1978 MAR 23 KURILE ISLANDS
I P 07 41 22:8C

1978 MAR 23 KURILE ISLANDS
I P 07 44 07:8C 1.5 / 92

1978 MAR 23 KURILE ISLANDS
E P 07 47 27

1978 MAR 23 KURILE ISLANDS
I P 08 03 58:4 1.2 / 37

1978 MAR 23 TRACES
E P 08 05 44

1978 MAR 23 KURILE ISLANDS
I P 08 26 22:7C 1.1 / 290

1978 MAR 23 KURILE ISLANDS
E P 09 05

1978 MAR 23 KURILE ISLANDS
E P 09 02 54

1978 MAR 23
E P 09 05 04

1978 MAR 23 KURILE ISLANDS
I P 09 07 19:8D 1.4 / 32

1978 MAR 23 KURILE ISLANDS
E P 09 31 03

1978 MAR 23 KURILE ISLANDS
I P 10 00 46:0

1978 MAR 23 KURILE ISLANDS
E P 10 03 58

1978 MAR 23 TRACES
E P 10 05 27

1978 MAR 23 KURILE ISLANDS
E P 11 04 13

1978 MAR 23 TRACES
E P 11 11 17

1978 MAR 23 TRACES NORTHWEST OF KURILE ISLANDS
E P 11 18 07

1978 MAR 23 KURILE ISLANDS
I P 11 38 29:7

1978 MAR 23 KURILE ISLANDS
E P 13 04 26

NO MB COMP. D= 19.4 DEG
36.4N; 25.5E AZ=144
36.4N; 25.8E 100KM M=05 56 29:1

/4.7(6) / D= 76.7 DEG AZ= 30
45.3N;149.5E 33KM M=06 02 09:3

D= 77.7 DEG AZ= 30
44.3N;149.7E 33KM M=06 05 43:9

D= 77.5 DEG AZ= 31
44.3N;149.2E 50KM M=06 34 27:1

D= 77.8 DEG AZ= 31
43.9N;148.9E 33KM M=07 03 56:3

D= 77.0 DEG AZ= 2
52.0N;169.5W 23KM M=07 23 13:4

/4.9(5) / D= 76.7 DEG AZ= 31
45.0N;148.7E 33KM M=07 29 34

D= 77.5 DEG AZ= 31
44.1N;148.8E 48KM M=07 32 15:7

/4.5(4) / D= 77.1 DEG AZ= 31
44.5N;148.4E 33KM M=07 35 35:9

D= 77.3 DEG AZ= 30
44.5N;149.3E 49KM M=07 52 07:9

D= 77.5 DEG AZ= 31
44.3N;149.1E 48KM M=08 14 31:9

D= 77.8 DEG AZ= 31
44.0N;149.2E 33KM M=08 50 58:9

D= 77.4 DEG AZ= 31
44.2N;148.7E 41KM M=08 55 26:8

D= 77.7 DEG AZ= 31
44.0N;149.1E 49KM M=09 19 09:2

D= 77.5 DEG AZ= 30
44.4N;149.5E 33KM M=09 48 52:1

D= 77.7 DEG AZ= 31
44.1N;149.4E 44KM M=09 52 05:5

D= 77.6 DEG AZ= 30
44.4N;149.7E 51KM M=10 52 20:5

/4.7(3) / D= 74.8 DEG AZ= 30
46.8N;147.7E 33KM M=11 06 20:3

D= 77.6 DEG AZ= 30
44.4N;149.7E 48KM M=11 26 37:1

/4.5(4) / D= 76.6 DEG AZ= 30
45.3N;149.3E 33KM M=12 52 86

1978 MAR 23 KURILE ISLANDS
I P 13 22 44:0

1978 MAR 23 KURILE ISLANDS
I P 13 34 51:9D 1.0 / 42

1978 MAR 23
I P 13 50 38.4D

1978 MAR 23 KURILE ISLANDS
I P 14 01 36:8C 1.0 / 80

1978 MAR 23
I P 14 15 12.0C

1978 MAR 23 KURILE ISLANDS
E P 14 19 11

1978 MAR 23 TRACES KURILE ISLANDS
E P 14 30 36

1978 MAR 23 KURILE ISLANDS
E P 15 19 13

1978 MAR 23 KURILE ISLANDS
E P 15 21 13

1978 MAR 23 KURILE ISLANDS
I P 15 28 45:8C 1.3 / 20

1978 MAR 23 KURILE ISLANDS
E P 15 54 15

1978 MAR 23 KURILE ISLANDS
I P 16 34 54:9D 0.9 / 32

1978 MAR 23 TRACES
E P 16 36 46

1978 MAR 23 UNDERGROUND EXPLOSION
I P 16 42 18:3C 1.5 / 66

1978 MAR 23
E P 16 51 27

1978 MAR 23 TRACES KURILE ISLANDS
E P 17 02 00

1978 MAR 23 KURILE ISLANDS
I P 17 04 28:4C 1.0 / 120

1978 MAR 23
I P 17 04 52:2 1.1 / 70

1978 MAR 23 TRACES
E P 17 21 41

1978 MAR 23
E P 17 36 54

1978 MAR 23 KURILE ISLANDS
E P 17 39 02 1.0 / 17

1978 MAR 23
E P 17 39 30 1.3 / 19

1978 MAR 23 TRACES KURILE ISLANDS
E P 17 45 55

1978 MAR 23 QUESTIONABLE EVENT
I P 18 11 09:8

1978 MAR 23 KURILE ISLANDS
E P 18 40 45

1978 MAR 23 CENTRAL YUGOSLAVIA
E P 18 47 38

1978 MAR 23 KURILE ISLANDS
I P(1) 19 24 17:1C

1978 MAR 23
I P(2) 24 18.6D(1.3) / 520

AV 0.1 MPV =6.6
MSH =6.8
MLH =7.1
MLV =6.9

D= 77.6 DEG AZ= 30
44.4N;149.7E 33KM M=13 10 50:0 (U)

D= 77.6 DEG AZ= 30
44.4N;149.7E 43KM M=13 22 58:3 (U)

D= 77.6 DEG AZ= 30
44.7N;149.6E 33KM 13 22 59:1 (M)

D= 77.6 DEG AZ= 30
44.3N;149.4E 50KM M=13 49 44:5 (U)

D= 77.7 DEG AZ= 31
44.1N;149.3E 33KM M=14 07 15:5 (U)

D= 77.8 DEG AZ= 30
44.1N;149.6E 33KM M=14 18 59:7 (U)

D= 77.6 DEG AZ= 31
44.2N;149.2E 33KM M=15 07 15:7 (U)

D= 77.6 DEG AZ= 31
44.1N;149.0E 44KM M=15 09 16:9 (U)

D= 77.0 DEG AZ= 31
44.8N;149.0E 33KM M=15 16 54:4 (U)

D= 77.7 DEG AZ= 30
44.3N;149.9E 33KM M=15 42 19:5 (U)

D= 77.7 DEG AZ= 30
44.3N;149.8E 33KM M=16 22 59:3 (U)

D= 81.3 DEG AZ=321
37.1N;116.1W 0KM M=16 30 00:2 (U)

D= 77.5 DEG AZ= 31
44.3N;149.2E 33KM M=16 50 07:5 (U)

D= 77.6 DEG AZ= 30
44.3N;149.6E 46KM M=16 52 55:2 (U)

D= 77.9 DEG AZ= 31
44.0N;149.5E 33KM M=17 27 01:1 (M)

/4.2(4) / D= 77.9 DEG AZ= 30
44.0N;149.7E 33KM M=17 33 56:4 (U)

D= 77.5 DEG AZ= 31
44.2N;148.9E 33KM M=18 28 51:9 (U)

D= 8.1 DEG AZ=101
43.6N; 18.7E 33KM M=18 49 56:3 (U)

D= 77.7 DEG AZ= 30
44.3N;149.7E 33KM M=19 12 23:6 (U)



1978 MAR 23 KURILE ISLANDS
E P (1) 19 32 53
I P (2) 32 55:4 1.4 / 61
E AP 33 08

1978 MAR 23 KURILE ISLANDS
E P 19 51 48

1978 MAR 23 KURILE ISLANDS
I P 19 58 18:7C 1.4 / 120
I AP 58 31:3

1978 MAR 23 KURILE ISLANDS
I P 20 33 07:0 1.0 / 60
I AP 33 19:7

1978 MAR 23 EASTERN KAZAKH SSR
I P 21 21 18:2D 1.1 / 25

1978 MAR 23 SOUTH OF FIJI ISLANDS
I PKP1 22 03 51:2C 1.3 / 70
I PKP2 04 02:0 1.5 / 66
E APKP 05 42
E 05 50
E 07 00
E PKS 07 13
E (PP) 07 27

1978 MAR 23 KURILE ISLANDS
E P 22 31 14

1978 MAR 23 KURILE ISLANDS
I P 22 32 13:3C

1978 MAR 23 KURILE ISLANDS
I P 23 44 54:9 1.6 / 90
E AP 45 07
E 48 52

1978 MAR 24 NORTH ATLANTIC OCEAN
I P 00 52 53:8C 1.7 / 310
E S 01 01 16
LM 16 T 16 AN 3 AE 4.5 AV 5.5
E PKPPKP 22 14

1978 MAR 24 KURILE ISLANDS
E P 01 54 44

1978 MAR 24 KURILE ISLANDS
I P 02 01 33:2D

1978 MAR 24 SOUTH OF FIJI ISLANDS
I PKP1 02 58 13:0
I PKP2 58 19:5

1978 MAR 24 KURILE ISLANDS
E P 04 11 16

1978 MAR 24 KURILE ISLANDS
E 07 24 47

1978 MAR 24 KURILE ISLANDS
I P 07 57 32:0D 0.7 / 17
I AP 57 43:6

1978 MAR 24 KURILE ISLANDS
E AP 09 25 47

1978 MAR 24 TRACES KURILE ISLANDS
E P 11 39 12

1978 MAR 24 KURILE ISLANDS
I P 11 47 04:2D

1978 MAR 24 KURILE ISLANDS
E P 13 30 02

1978 MAR 24 KURILE ISLANDS
I P 14 35 09:8
E AP 35 21

1978 MAR 24 KURILE ISLANDS
I P 18 42 00:3
E AP 42 15

1978 MAR 24 CZECHOSLOVAKIA
QUESTIONABLE EVENT
E PQ 18 53 31
E SQ 53 50

1978 MAR 24 TONGA ISLANDS
E PKP 18 57 44

1978 MAR 24 KURILE ISLANDS
I P (1) 19 59 48:2C (1.1 / 89)
I P (2) 59 46:6
I 59 55 (1.1 / 2200)
I (CONT.) 20 00 19:9

MB=5.2(21) D= 77.7 DEG AZ= 30
44.3N;149.8E 33KM H=19 21 00:1
44.4N;150.1E 33KM 19 20 55:2

MB=5.4(54) D= 77.6 DEG AZ= 30
44.4N;149.7E 33KM H=19 46 24:4
44.8N;149.7E 33KM 19 46 26:1

MB=5.2(39) D= 77.6 DEG AZ= 30
44.3N;149.8E 45KM H=20 21 13:8
44.8N;149.1E 33KM 20 21 11:1

MB=4.7(14) D= 43.6 DEG AZ= 72
44.5N; 79.4E 33KM H=21 13 15:8
44.7N; 79.0E 33KM 21 13 12:3

MB=5.5(19) D=151.7 DEG AZ= 25
24.8S;179.9W 475KM H=21 44 50:2

4.6(4)/ D= 76.4 DEG AZ= 30
45.4N;148.8E 33KM H=22 19 28

4.5(4)/ D= 77.7 DEG AZ= 30
44.2N;149.6E 33KM H=22 20 17

MB=5.2(49) D= 77.6 DEG AZ= 30
44.4N;149.9E 42KM H=23 33 01:7
44.4N;150.0E 33KM 23 32 55:1

MB=6.1(103) D= 61.6 DEG AZ=283
29.8N; 67.4W 20KM H=08 42 36:3
29.3N; 67.8W 33KM 80 42 31:2

4.5(2)/ D= 76.5 DEG AZ= 31
45.2N;148.7E 33KM H=01 42 54

MB=4.4(3) D= 77.3 DEG AZ= 31
44.4N;149.0E 33KM H=01 49 39:6

4.3(2)/ D=149.6 DEG AZ= 20
22.0S;177.7W 251KM H=02 38 53

4.7(4)/ D= 77.3 DEG AZ= 31
44.2N;148.3E 33KM H=03 59 23:4

MB=4.7(6) D= 77.7 DEG AZ= 31
44.0N;148.9E 46KM H=07 12 45:0

4.7(5)/ D= 77.1 DEG AZ= 30
44.9N;149.5E 38KM H=07 45 41

MB=4.4(5) D= 77.6 DEG AZ= 31
44.2N;149.4E 33KM H=09 13 41:1
44.9N;148.9E 33KM 09 13 52:6

4.2(4)/ D= 77.0 DEG AZ= 30
44.9N;149.4E 33KM H=11 27 20:1

MB=4.4(5) D= 77.5 DEG AZ= 30
44.5N;149.7E 33KM H=11 35 09:7

MB=4.3(3) D= 77.6 DEG AZ= 30
44.4N;149.8E 33KM H=13 18 08:1

MB=4.8(12) D= 77.5 DEG AZ= 31
44.1N;148.8E 40KM H=14 23 16:8

MB=4.9(33) D= 77.5 DEG AZ= 31
44.1N;148.8E 48KM H=18 30 08:4
43.8N;148.9E 33KM 18 30 00:6

4.7(2)/ D=149.2 DEG AZ= 14
17.0S;175.1W 33KM H=18 38 09

MB=6.5(81) D= 77.5 DEG AZ= 31
44.2N;148.9E 33KM H=19 47 50:7
45.5N;148.3E 60KM 19 48 00:7

(CONT.)
E PP 20 02
E PPPP 05 46
E S 09 33
E SCS 10 05
E SS 15.4
E SSS 19.6
E PKPPKP 26 56
33 27 15
T 12 AN 44 AE 38.5
T 29
T 18 AN 425 AE 410

1978 MAR 24 20 08 28:3C 1.1 / 46
I P KURILE ISLANDS REGION
I AP 20 10 39:3

1978 MAR 24 20 12 13 0.9 / 200
I P KURILE ISLANDS REGION
I AP 12 25:5

1978 MAR 24 20 15 53.1
I P HOKKAIDO, JAPAN, REGION
I P 20 16 30.7
I AP 16 43.3

1978 MAR 24 20 19 54
I P KURILE ISLANDS REGION
E AP 20 07

1978 MAR 24 20 21 34
I P KURILE ISLANDS
I P 20 25 07.6C
I AP 25 20.6

1978 MAR 24 20 26 18:1
I P KURILE ISLANDS
E AP 26 31

1978 MAR 24 20 27 46 1.3 / 37
E P
E 27 54

1978 MAR 24 20 28 28.6 1.3 / 69
I P KURILE ISLANDS
I AP 28 39.6

1978 MAR 24 20 30 03.2 1.1 / 52
I P KURILE ISLANDS

1978 MAR 24 20 31 21
E P

1978 MAR 24 20 43 04
E P KURILE ISLANDS REGION
E AP 43 14

1978 MAR 24 20 43 39.4C 1.1 / 33
I P
E AP 43 51

1978 MAR 24 20 50 14
E P KURILE ISLANDS REGION

1978 MAR 24 20 53 29
E P KURILE ISLANDS

1978 MAR 24 20 56 42
E

1978 MAR 24 20 58 13:0
I P KURILE ISLANDS REGION

1978 MAR 24 21 00 06
E P KURILE ISLANDS REGION

1978 MAR 24 21 00 44
E P

1978 MAR 24 21 01 15
E P

1978 MAR 24 21 03 57
E P TRACES

1978 MAR 24 21 13 55:1C 1.2 / 390
I P ALHA-ATA REGION
I 14 02
E PP 15 41
E(S) 20 38
LMH 29
LMH 33 T 11 AN 73 AE 145

MLH =8.0 MAG =7.9

1/5.5(9)/ D= 77.7 DEG AZ= 31
43.8N;148.5E 33KM H=19 58 30:9 (I)

MB=5.6(34) D= 77.8 DEG AZ= 31
43.7N;148.6E 44KM H=20 00 20:5 (U)

1/5.1(6)/ D= 75.8 DEG AZ= 34
44.5N;144.6E 33KM H=20 04 46 (I)

MB=4.8(4) D= 77.9 DEG AZ= 31
43.9N;149.4E 33KM H=20 07 56:5 (U)

(H=20 13 27 (S))

H=20 14 25 (S)

MB=5.2(29) D= 77.3 DEG AZ= 31
44.3N;148.7E 33KM H=20 16 36:1 (U)

MB=5.1(29) D= 76.2 DEG AZ= 30
45.6N;148.8E 33KM H=20 18 17:8 (U)

MB=5.5(7) D= 77.7 DEG AZ= 31
43.9N;148.8E 33KM H=20 31 09:0 (U)

MB=5.0(26) D= 77.7 DEG AZ= 31
43.9N;148.6E 33KM H=20 38 20:5 (U)

1/5.0(11)/ D= 77.6 DEG AZ= 31
44.1N;149.1E 54KM H=20 41 37 (I)

1/4.9(4)/ D= 77.9 DEG AZ= 31
43.7N;148.8E 33KM H=20 46 16:7 (I)

MB=4.9(18) D= 77.7 DEG AZ= 31
43.9N;148.7E 33KM H=20 48 11:7 (U)

MB=6.2(74) D= 44.1 DEG AZ= 74
42.8N; 78.8E 33KM H=21 05 48:2 (U)
42.9N; 78.6E 33KM 21 05 48:8 (M)
DISTANCE 45 DEG

MLH =7.2

1978 MAR 24 E P 21 23 08	...	MB=5.4(26)	D= 77.6 DEG AZ= 31 44.1N;148.9E 33KM H=21 13 43.4
1978 MAR 24 I P I AP 21 25 36 25 52	...		
1978 MAR 24 E P 21 27 00	...	MB=5.1(6)	D= 77.4 DEG AZ= 31 44.1N;148.4E 33KM H=21 24 07.9
1978 MAR 24 E AP 21 36 16	...	MB=5.2(18)	D= 77.5 DEG AZ= 31 44.1N;148.8E 33KM H=21 25 18.3
1978 MAR 24 E P 21 37 11	...	/5.4(R)/	D= 78.8 DEG AZ= 31 43.1N;149.8E 33KM H=21 26 25
1978 MAR 24 E(P) 21 38 17	...		
1978 MAR 24 I P 21 38 28.7	...	/4.8(5)/	D= 75.8 DEG AZ= 31 45.4N;147.1E 50KM H=21 30 31
1978 MAR 24 E P 21 42 16	...	MB=4.8(11)	D= 77.7 DEG AZ= 31 43.9N;148.7E 43KM H=21 45 40.8
1978 MAR 24 I P 21 42 42	...		
1978 MAR 24 E P 21 37 35 0.9 / 22 I AP 97 46.6	...	/4.7(7)/	D= 78.1 DEG AZ= 30 43.8N;149.7E 0KM H=21 48 33
1978 MAR 24 E P 22 00 28	...		
1978 MAR 24 E P 22 00 41	...	/5.1(17)/	D= 77.8 DEG AZ= 30 44.2N;149.8E 33KM H=21 49 11.1
1978 MAR 24 E P 22 01 05	...		
1978 MAR 24 I P 22 01 37:0C 1.1 / 105	...		H=22 49 43
OR ANOTHER POSSIBILITY			
1978 MAR 24 I P 22 01 37:0C 1.1 / 105	...	/5.4(21)/	D= 80.7 DEG AZ= 30 41.5N;151.5E 33KM H=21 49 26.7
1978 MAR 24 I P 22 02 46:8C 1.0 / 100	...	MB=5.4(30)	D= 77.4 DEG AZ= 31 44.3N;149.0E 33KM H=21 50 54.3
1978 MAR 24 I P 22 04 28:4D I AP 04 40:8	...	/4.7(7)/	D= 78.3 DEG AZ= 32 43.1N;148.3E 42KM H=21 52 32
1978 MAR 24 I P 22 08 22:9C	...		
1978 MAR 24 I P 22 09 18:3D	...	MB=5.2(2)	D= 77.8 DEG AZ= 31 43.8N;148.8E 33KM H=21 57 22.1
1978 MAR 24 I P 22 10 16:2 0.9 / 30 E AP 10 28	...	MB=5.0(13)	D= 77.1 DEG AZ= 31 44.5N;148.4E 33KM H=21 58 25.1
1978 MAR 24 I P 22 11 32:8C I AP 11 39:0	...	MB=5.2(19)	D= 77.3 DEG AZ= 31 44.4N;148.8E (33KM)H=21 59 41.8
1978 MAR 24 E P 22 12 54	...		
1978 MAR 24 E P 22 16 43 I AP 16 57:0	...	MB=4.6(5)	D= 77.7 DEG AZ= 31 43.9N;148.6E 48KM H=22 04 50.3
1978 MAR 24 I P(1) I P(2) E AP 22 20 50:9C 20 52:6 1.4 / 210 21 03	...	MB=5.6(68)	D= 77.6 DEG AZ= 31 44.1N;149.0E 45KM H=22 08 58.3 44.3N;149.1E 33KM 22 08 52.1
1978 MAR 24 I P 22 36 39:1C 1.3 / 28	...	MB=4.9(16)	D= 77.6 DEG AZ= 30 44.4N;149.8E 33KM H=22 24 44.7 44.8N;149.8E 33KM 22 24 47.1
1978 MAR 24 I P 22 47 26:2C 1.2 / 35	...	MB=4.9(20)	D= 77.5 DEG AZ= 31 44.0N;148.5E 38KM H=22 35 83.7 44.0N;149.2E 33KM 22 35 26.1
1978 MAR 24 E P E AP 22 37 28 37 39	...	MB=4.7(6)	D= 77.5 DEG AZ= 31 44.0N;148.5E 33KM H=22 45 33.5
1978 MAR 24 E P 23 02 97	...	/4.5(5)/	D= 77.7 DEG AZ= 30 44.3N;149.9E 33KM H=22 51 01.8

1978 MAR 24 E P 23 05 33 05 48	KURILE ISLANDS
1978 MAR 24 E(P) E 23 06 07 06 24	KURILE ISLANDS REGION
1978 MAR 24 E P E AP 23 10 02 10 14	KURILE ISLANDS
1978 MAR 24 I P 23 11 05:9D 1.3 / 35	KURILE ISLANDS
1978 MAR 24 E P E AP 23 13 55 14 06	KURILE ISLANDS
1978 MAR 24 I P I AP 23 27 38:3C 1.3 / 82 27 50:8	KURILE ISLANDS
1978 MAR 24 I P I AP 23 51 58:0 1.3 / 47 52 10:8	KURILE ISLANDS
1978 MAR 25 I P 00 08 28:5	KURILE ISLANDS
1978 MAR 25 E P I AP 00 24 09 24 21.7	KURILE ISLANDS
1978 MAR 25 E P E AP 00 36 09 36 21	
1978 MAR 25 E P 00 38 36	
1978 MAR 25 E P 00 41 46	KURILE ISLANDS REGION
1978 MAR 25 I P I AP 00 49 31.2 49 44.8	KURILE ISLANDS REGION
1978 MAR 25 I P I AP 00 50 07:0C 0.9 / 89 50 17.4	KURILE ISLANDS REGION
1978 MAR 25 E P 00 54 16	KURILE ISLANDS REGION
1978 MAR 25 E P E 00 56 34 56 45	KURILE ISLANDS
1978 MAR 25 I P 01 10 58:8D	KURILE ISLANDS
1978 MAR 25 I P I AP 01 20 24:8D 20 37:0	KURILE ISLANDS
1978 MAR 25 E P E AP 01 36 55:6C 1.1 / 25 37 11	KURILE ISLANDS
1978 MAR 25 E P I AP 01 43 27 43 39:8	KURILE ISLANDS REGION
1978 MAR 25 E(P) E AP 01 43 51 44 05	KURILE ISLANDS
1978 MAR 25 E P 01 47 18	
1978 MAR 25 I P 01 52 19:8C	KURILE ISLANDS
1978 MAR 25 I P I AP 01 52 57:8C 1.0 / 63 53 09.4	KURILE ISLANDS
1978 MAR 25 E P 01 59 46 1.3 / 19	KURILE ISLANDS
1978 MAR 25 E 02 04 08	
1978 MAR 25 E P 02 33 27	TRACEST ALMA-ATA REGION



International
Seismological
Centre

MB=5.0(16)	D= 77.7 DEG AZ= 31 44.0N;148.9E 46KM H=22 53 38.7 (U) 43.8N;149.2E 33KM 22 58 30.5 (M)
MB=4.6(7)	D= 77.8 DEG AZ= 31 43.9N;149.1E 33KM H=22 58 06.9 (U)
MB=4.9(13)	D= 77.5 DEG AZ= 31 44.3N;149.2E 33KM H=22 59 12.8 (U)
MB=4.9(9)	D= 77.4 DEG AZ= 31 44.3N;149.0E 33KM H=23 02 81.7 (U)
MB=5.4(55)	D= 77.6 DEG AZ= 31 44.1N;148.9E 45KM H=23 15 45.6 (U) 44.9N;148.7E 80KM 23 15 52.9 (M)
MB=5.0(37)	D= 77.6 DEG AZ= 31 44.1N;149.1E 47KM H=23 40 85.6 (U) 45.6N;148.3E 50KM 23 40 14.5 (M)
/4.6(5)/	D= 77.3 DEG AZ= 31 44.3N;148.5E 33KM H=23 56 35.9 (I)
MB=4.8(4)	D= 77.7 DEG AZ= 31 44.0N;148.9E 45KM H=20 12 15.6 (U)
/4.3(4)/	D= 77.9 DEG AZ= 30 44.3N;150.4E 33KM H=20 29 52.0 (I)
MB=4.8(15)	D= 77.8 DEG AZ= 31 43.8N;148.9E 33KM H=20 37 39.4 (U)
MB=5.3(33)	D= 77.8 DEG AZ= 31 43.7N;148.6E 37KM H=20 38 12.5 (U)
/4.0(1)/	D= 77.7 DEG AZ= 31 43.9N;148.8E 33KM H=20 42 20 (I)
MB=5.0(29)	D= 77.7 DEG AZ= 31 44.0N;149.0E 33KM H=20 44 40.2 (U) 43.7N;149.4E 33KM 20 44 32.6 (M)
MB=4.3(5)	D= 77.5 DEG AZ= 30 44.4N;149.5E 47KM H=20 59 06.2 (U)
MB=4.5(8)	D= 77.6 DEG AZ= 31 44.0N;148.7E 43KM H=21 08 31.7 (U)
MB=5.0(30)	D= 77.5 DEG AZ= 31 44.2N;148.9E 57KM H=21 25 04.6 (U) 44.0N;149.3E 33KM 21 24 55.3 (M)
MB=5.0(13)	D= 77.9 DEG AZ= 31 43.8N;149.2E 33KM H=21 31 31.2 (U) 44.3N;149.2E 33KM 21 31 34.3 (M)
(M=21 32 10)(S)	
MB=4.6(9)	D= 77.7 DEG AZ= 30 44.3N;149.7E 33KM H=21 40 16.5 (U) 43.9N;149.4E 33KM 21 40 16.2 (M)
MB=5.3(57)	D= 77.6 DEG AZ= 31 43.9N;148.4E 41KM H=21 41 04.6 (U) 43.7N;148.3E 33KM 21 41 03.6 (M)
MB=4.6(8)	D= 77.5 DEG AZ= 31 44.0N;148.4E 33KM H=21 47 52.6 (U)
MB=4.9(19)	D= 44.2 DEG AZ= 74 42.8N; 78.7E 29KM H=22 25 19.2 (U) 43.0N; 78.6E 33KM 22 25 16.3 (M)



1978 MAR 25 KURILE ISLANDS
E P 02 39 22
1978 MAR 25 KURILE ISLANDS
I P 02 51 36:00
1978 MAR 25 RED SEA
I P 03 02 47:3 1.7 / 30
E AP 02 52
1978 MAR 25 KURILE ISLANDS
E P 03 06 44
I AP 06 50:0
1978 MAR 25 KURILE ISLANDS
E P 03 07 03
1978 MAR 25 KURILE ISLANDS
E P 03 43 50
E AP 43 58
1978 MAR 25 KURILE ISLANDS
E P 03 44 48
1978 MAR 25 TRACES: KURILE ISLANDS
E 03 55 47
1978 MAR 25 KURILE ISLANDS
E P 04 04 26
E AP 04 30
1978 MAR 25 KURILE ISLANDS
E P 04 54 22
1978 MAR 25 KURILE ISLANDS
E P 05 27 48
I AP 28 00:9
1978 MAR 25 KURILE ISLANDS
I P 05 36 36:7 1.4 / 63
I AP 36 48:8
E 37 06
1978 MAR 25 NORTH PACIFIC OCEAN
E P 05 49 54
E AP 50 06
1978 MAR 25 KURILE ISLANDS
I P 05 57 44:0C 1.2 / 35
1978 MAR 25 KURILE ISLANDS
E P 06 38 09
1978 MAR 25 KURILE ISLANDS
I P 07 21 55:00
1978 MAR 25 KURILE ISLANDS
E P 07 29 13
E AP 29 26
1978 MAR 25 KURILE ISLANDS
I P 07 44 38:6
1978 MAR 25 TRACES
E 07 54 08
1978 MAR 25 KURILE ISLANDS
I P 08 06 19:8C 1.2 / 28
E 06 37
1978 MAR 25 KURILE ISLANDS
I P 08 13 40:6C 0.8 / 46
I AP 13 53:2
1978 MAR 25 KURILE ISLANDS
I P 08 33 18:3D 1.1 / 18
1978 MAR 25 TRACES: NORTHWEST OF KURILE ISLANDS
E P 08 43 01
1978 MAR 25 KURILE ISLANDS
I P 09 00 43:6 1.0 / 19
I AP 00 56:2
1978 MAR 25 KURILE ISLANDS
I P 09 07 15:9D
1978 MAR 25 KURILE ISLANDS
I P 09 25 52:8C 1.0 / 28
I AP 26 05
1978 MAR 25 TRACES: ANDAMAN ISLANDS REGION
E 09 33 38

1978 MAR 25 TRACES
E P 10 03 55
1978 MAR 25 KURILE ISLANDS
I P 10 08 49:2D
1978 MAR 25 KURILE ISLANDS REGION
I P 11 11 55:3C 1.5 / 50
1978 MAR 25 TRACES: KURILE ISLANDS
I P 11 31 11:4
1978 MAR 25 KURILE ISLANDS
E P 11 52 21
LH 12 26
L 30
1978 MAR 25 TRACES: OFF COAST OF HOKKAIDO, JAPAN
E(P) 12 45 21
1978 MAR 25 KURILE ISLANDS
I P 13 02 23:8
I AP 02 35:6
1978 MAR 25 KERMADEC ISLANDS REGION
E PKP2 13 09 15
1978 MAR 25 KURILE ISLANDS
E P 14 05 57
1978 MAR 25 KURILE ISLANDS REGION
I AP 14 33 41:1C 1.1 / 23
1978 MAR 25 KURILE ISLANDS
E 14 53 21
1978 MAR 25 KURILE ISLANDS
E AP 15 14 11
1978 MAR 25 KURILE ISLANDS
I P 15 21 01:7 1.3 / 17
1978 MAR 25 FIJI ISLANDS REGION
I PKP1 15 28 08:3C 1.0 / 13
1978 MAR 25 KURILE ISLANDS REGION
I P 15 33 39:2
1978 MAR 25
E P 15 34 54
1978 MAR 25 KURILE ISLANDS
I P 17 07 05:4D 1.3 / 61
E AP 07 18
E 10 20
1978 MAR 25 POLAND, UPPER SILESIA
E SQ 17 54 27
1978 MAR 25 KURILE ISLANDS
I P 18 21 55:4 1.0 / 20
E AP 22 09
1978 MAR 25 TRACES
E 18 40 06
1978 MAR 25 FIJI ISLANDS REGION
I PKIKP 19 44 39:8D 1.8 / 81
I PKP1 44 44:7D 1.3 / 435
I PKP2 44 50:0C 1.1 / 170
I 46 10:7
E APKP 46 57
E PP 48 16
1978 MAR 25 KURILE ISLANDS
I AP 21 06 49:6
1978 MAR 25 NORTH PACIFIC OCEAN
I(P) 23 32 56:8 1.1 / 16
1978 MAR 26 KURILE ISLANDS REGION
I P 00 04 07:6 1.3 / 140
I AP 04 20:8
E S 13 58
LHM 36 T 21 AN 7.5 AE 11
LM 38 T 17 AN 5.5 AE 9
LMV 42 T 15 AN 3.5 AE 5 AV 3
1978 MAR 26 MOLUCCA SEA
E PP 00 23 33
E 27 52
1978 MAR 26 FIJI ISLANDS REGION
I PKP1 00 37 19:8C 1.3 / 33
I PKP2 37 25:3C 1.5 / 42
E 38 04
E APKP 00 39 42

MB=4.2(1) D= 76.9 DEG AZ= 31
44.7N;148.8E 33KM H=02 27 18:1
MB=4.3(3) D= 77.4 DEG AZ= 31
44.3N;148.9E 33KM H=02 39 41:9
MB=5.0(34) D= 41.0 DEG AZ=138
16.5N; 40.3E 10KM H=02 55 04:2
15.4N; 40.0E 33KM 02 54 54:7
/4.6(8) D= 77.1 DEG AZ= 31
44.4N;148.4E 33KM H=02 54 58
MB=4.3(4) D= 76.6 DEG AZ= 32
44.7N;147.5E 33KM H=03 01 59:7
MB=4.5(4) D= 77.8 DEG AZ= 31
44.0N;149.4E 42KM H=03 32 46:4
/4.1(3) D= 76.9 DEG AZ= 31
44.7N;148.5E 33KM H=03 43 51
MB=4.7(6) D= 77.4 DEG AZ= 31
44.1N;148.5E 33KM H=03 52 32:8
NO MB COMP. D= 77.5 DEG AZ= 31
44.0N;148.3E 33KM H=04 42 29
MB=4.6(12) D= 77.6 DEG AZ= 31
44.1N;148.9E 45KM H=05 15 55:2
MB=5.4(54) D= 77.8 DEG AZ= 31
44.0N;149.3E 33KM H=05 24 41:3
44.1N;149.3E 33KM 05 24 36:9
/4.1(2) D= 79.2 DEG AZ= 31
(42.8N;150.3E 33KM H=05 37 51
MB=4.9(21) D= 77.8 DEG AZ= 31
44.0N;148.4E 42KM H=05 45 51:4
44.0N;148.7E 33KM 05 45 49:8
/4.1(2) D= 77.0 DEG AZ= 31
44.6N;148.4E 33KM H=06 26 18:8
MB=4.9(26) D= 77.6 DEG AZ= 31
44.0N;148.8E 44KM H=07 10 02:6
44.1N;148.7E 33KM 07 10 01:6
MB=4.3(6) D= 77.5 DEG AZ= 31
44.2N;149.0E 44KM H=07 17 20:6
MB=4.3(3) D= 77.5 DEG AZ= 30
44.4N;149.5E 33KM H=07 32 44:9
1978 MAR 25 TRACES
E 18 40 06
1978 MAR 25 FIJI ISLANDS REGION
I PKIKP 19 44 39:8D 1.8 / 81
I PKP1 44 44:7D 1.3 / 435
I PKP2 44 50:0C 1.1 / 170
I 46 10:7
E APKP 46 57
E PP 48 16
1978 MAR 25 KURILE ISLANDS
I AP 21 06 49:6
1978 MAR 25 NORTH PACIFIC OCEAN
I(P) 23 32 56:8 1.1 / 16
1978 MAR 26 KURILE ISLANDS REGION
I P 00 04 07:6 1.3 / 140
I AP 04 20:8
E S 13 58
LHM 36 T 21 AN 7.5 AE 11
LM 38 T 17 AN 5.5 AE 9
LMV 42 T 15 AN 3.5 AE 5 AV 3
1978 MAR 26 MOLUCCA SEA
E PP 00 23 33
E 27 52
1978 MAR 26 FIJI ISLANDS REGION
I PKP1 00 37 19:8C 1.3 / 33
I PKP2 37 25:3C 1.5 / 42
E 38 04
E APKP 00 39 42

International Seismological Centre

1978 MAR 26 KURILE ISLANDS REGION *** MB=5.0(25) D= 77.6 DEG AZ= 31
 I P 01 04 54:8D 1.3 / 31 43.9N;148.4E 43KM H=80 53 00:7
 E AP 05 05 43.7N;148.7E 33KM 00 52 53:2

1978 MAR 26 TRACES MB=4.8(19) D= 77.7 DEG AZ= 31
 E P 02 38 54 44.0N;149.0E 33KM H=02 51 55:2
 I P 03 03 50:9C 43.8N;149.4E 33KM 02 51 48:4
 E AP 04 05

1978 MAR 26 UNDERGROUND EXPLOSION MB=5.5(78) D= 40.2 DEG AZ= 66
 I P 04 04 36:6C 1.0 / 105 49.7N; 78.1E 0KM H=03 56 57:6
 E PN 06 09
 E(SKS) 14 56

1978 MAR 26 KURILE ISLANDS *** MB=4.6(5) D= 77.7 DEG AZ= 30
 E P 04 18 36 44.2N;149.8E 33KM H=04 06 41:1
 E AP 18 50

1978 MAR 26 TRACES MB=4.8(8) D= 77.6 DEG AZ= 31
 E P 04 25 43 43.9N;148.3E 47KM H=04 48 39:8
 E P 05 00 32 44.3N;148.4E 33KM 04 48 39:8

1978 MAR 26 NORTH PACIFIC OCEAN /4.5(6)/ D= 79.8 DEG AZ= 29
 I P 05 51 18:0 (43.1N)153.1E 33KM H=05 39 14

1978 MAR 26 KURILE ISLANDS *** MB=5.4(62) D= 77.5 DEG AZ= 30
 I P 06 12 09:3C 1.3 / 150 44.5N;149.7E 33KM H=06 00 16:6
 44.9N;149.8E 33KM 06 00 18:4

1978 MAR 26 KURILE ISLANDS *** MB=4.9(37) D= 77.5 DEG AZ= 30
 I P 07 21 50:2C 1.3 / 54 44.5N;149.7E 41KM H=07 09 57:7
 44.5N;149.8E 33KM 07 09 51:8

1978 MAR 26 KURILE ISLANDS *** MB=4.8(7) D= 77.5 DEG AZ= 30
 I P 07 47 54:3D 1.1 / 17 44.5N;149.7E 33KM H=07 36 00:2
 44.7N;149.8E 33KM 07 36 01:4

1978 MAR 26 FIJI ISLANDS REGION MB=5.0(18) D=148.6 DEG AZ= 21
 I PKP1 08 04 52:9D 2.0 / 51 21.2S;178.8W 565KM H=07 46 08:7
 I PKP2 04 58:0
 E 07 07

1978 MAR 26 ALMA-ATA REGION MB=5.0(29) D= 44.2 DEG AZ= 74
 I P 08 59 32:3D 42.8N; 78.8E 24KM H=08 51 23:8
 E 09 01 33 43.0N; 78.8E 33KM 08 51 22:1

1978 MAR 26 KURILE ISLANDS *** /4.3(4)/ D= 77.5 DEG AZ= 30
 I P 09 43 29:0C 44.5N;149.7E 33KM H=09 31 31:3

1978 MAR 26 KURILE ISLANDS *** MB=4.8(9) D= 77.6 DEG AZ= 31
 I P 10 41 23:3D 44.0N;148.6E 33KM H=10 29 29:2
 I AP 41 34:0D

1978 MAR 26 TONGA ISLANDS REGION MB=5.1(3) D=150.3 DEG AZ= 14
 E PKP1 11 06 21 22.1S;174.5W 45KM H=10 46 28:6

1978 MAR 26 KURILE ISLANDS *** MB=5.1(41) D= 77.5 DEG AZ= 30
 E P 11 13 38 1.1 / 36 44.4N;149.4E 45KM H=11 01 45:9
 I AP 13 50:9 44.9N;149.2E 33KM 11 01 47:8

1978 MAR 26 TRACES MB=5.1(38) D= 77.7 DEG AZ= 31
 E P 11 49 19 44.0N;148.9E 48KM H=14 54 00:2
 E P 12 10 10 44.0N;148.9E 33KM 14 53 53:1

1978 MAR 26 NORTHERN ITALY FRIULI NO MB COMP. D= 4.9 DEG AZ=178
 E SG 12 15 29 46.4N; 13.2E 10KM H=12 12 49:8

1978 MAR 26 LOYALTY ISLANDS REGION NO MB COMP. D=148.6 DEG AZ= 39
 I PKP 14 39 21:3C 21.6S;170.8E 141KM H=14 19 59:3

1978 MAR 26 KURILE ISLANDS *** MB=5.1(28) D= 77.7 DEG AZ= 31
 I P 15 05 53:4 44.0N;148.9E 48KM H=14 54 00:2
 I AP 06 06:9 44.0N;148.9E 33KM 14 53 53:1

1978 MAR 26 KURILE ISLANDS *** MB=4.9(28) D= 77.5 DEG AZ= 31
 I P 17 51 04:4C 1.3 / 25 44.3N;149.1E 51KM H=17 39 13:0
 E P 20 47 07 44.7N;149.1E 33KM 17 39 14:5

1978 MAR 26 KURILE ISLANDS *** MB=4.8(157) D= 77.7 DEG AZ= 31
 E P 20 58 04 44.0N;149.0E 33KM H=20 35 11:6
 E AP 58 15 44.2N;149.0E 33KM 20 35 13:3

1978 MAR 26 TRACES KURILE ISLANDS *** MB=4.7(111) D= 77.7 DEG AZ= 30
 E P 21 15 01 44.2N;149.5E 37KM H=20 46 09:6
 44.4N;149.4E 33KM 20 46 10:8

1978 MAR 26 TRACES KURILE ISLANDS *** MB=5.3(13) D= 77.5 DEG AZ= 31
 E P 21 15 01 44.2N;148.9E 33KM H=21 03 07:0



1978 MAR 26 OFF EAST COAST OF KAMCHATKA MB=5.5(81) D= 72.6 DEG AZ= 18
 I P 21 16 23:2 1.5 / 90 53.5N;163.0E 34KM H=21 04 58:9 (U)
 E 16 28 53.7N;162.6E 0KM 21 05 00:6 (M)

1978 MAR 26 TONGA ISLANDS REGION MB=5.0(3) D=150.3 DEG AZ= 14
 E PKP1 21 44 33 22.1S;174.3W 33KM H=21 24 42:6 (U)

1978 MAR 26 KURILE ISLANDS REGION *** MB=4.7(5) D= 77.7 DEG AZ= 31
 E P 23 14 34 43.9N;148.8E 33KM H=23 02 38:3 (U)

1978 MAR 26 KURILE ISLANDS *** MB=4.8(12) D= 77.5 DEG AZ= 31
 E P 23 23 20 44.1N;148.7E 44KM H=23 11 27:2 (U)
 E AP 23 33 D 44.1N;148.9E 33KM 23 11 26:1 (M)

1978 MAR 27 KURILE ISLANDS REGION *** MB=5.2(81) D= 77.8 DEG AZ= 31
 I P 00 08 39 C 1.3 / 50 43.9N;149.0E 42KM H=23 56 45:3 (U)
 E AP 08 51 44.2N;149.1E 33KM 23 56 45:1 (M)

1978 MAR 27 I(AP) 00 09 27:2

1978 MAR 27 E P 01 06 31

1978 MAR 27 KURILE ISLANDS REGION *** MB=4.7(10) D= 77.7 DEG AZ= 31
 I P 02 53 15 43.8N;148.5E 36KM H=24 41 20:1 (U)
 43.6N;148.9E 33KM 24 41 17:3 (M)

1978 MAR 27 KURILE ISLANDS *** /4.3(4)/ D= 76.3 DEG AZ= 31
 E P 04 51 18 45.1N;147.6E 33KM H=24 39 31:0 (U)

1978 MAR 27 FIJI ISLANDS REGION MB=5.5(27) D=148.1 DEG AZ= 20
 I PK1KP 07 32 24:2 20.5S;178.0W 550KM H=07 13 43:6 (U)
 I PKP1 32 28.2D 1.0 / 175 DISTANCE 148 DEG DEPTH 560 KM
 I PKP2 32 32.3 1.0 / 72
 E APKP 34 38
 E PKS 35 58

1978 MAR 27 TRACES SOUTH OF FIJI ISLANDS /4.4(7)/ D=151.8 DEG AZ= 26
 E PKP1 10 49 01 25.0S;179.8E 511KM H=10 30 03:4 (U)

1978 MAR 27 TIMOR MB=5.9(58) D=110.4 DEG AZ= 78
 E 10 54 16 8.6S;125.1E 69KM H=10 36 06:0 (U)
 E(PKP) 54 42 8.5S;125.0E 70KM 10 36 06:3 (M)
 E 54 55

1978 MAR 27 KURILE ISLANDS *** MB=4.5(5) D= 77.7 DEG AZ= 31
 E AP 19 03 21 44.0N;149.1E 39KM H=18 51 13:9 (U)
 44.2N;149.5E 33KM 18 51 12:9 (M)

1978 MAR 27 KURILE ISLANDS *** MB=4.7(10) D= 77.6 DEG AZ= 31
 E P 21 00 27 44.1N;148.9E 46KM H=20 48 34:4 (U)
 I AP 00 40:6C 1.3 / 38 44.0N;149.2E 33KM 20 48 31:3 (M)

1978 MAR 27 NORTHERN ITALY FRIULI NO MB COMP. D= 5.0 DEG AZ=179
 E SG 21 18 06 46.3N; 13.1E 10KM H=21 15 23:0 (B)
 46.4N; 13.1E 10KM 21 15 21:4 (U)

1978 MAR 28 CENTRAL ITALY NO MB COMP. D= 8.5 DEG AZ=182
 E SN 03 58 19 42.8N; 12.7E 10KM H=03 54 39:7 (U)
 E 58 33 42.8N; 12.7E 10KM 03 54 42:0 (B)
 E SG 59 24

1978 MAR 28 KURILE ISLANDS *** MB=4.4(5) D= 77.7 DEG AZ= 31
 E AP 05 16 50 44.0N;149.0E 33KM H=05 04 44:7 (U)

1978 MAR 28 KURILE ISLANDS *** MB=4.5(9) D= 77.6 DEG AZ= 31
 E P 10 57 32 44.0N;148.8E 54KM H=10 45 40:8 (U)
 E AP 57 45 44.0N;149.1E 33KM 10 45 37:8 (M)

1978 MAR 28 KURILE ISLANDS REGION *** MB=5.0(25) D= 77.8 DEG AZ= 31
 I P 11 12 56:6C 1.1 / 22 43.9N;149.1E 33KM H=11 01 01:8 (U)
 I AP 13 12:6 43.8N;149.2E 33KM 11 00 56:0 (M)

1978 MAR 28 KURILE ISLANDS *** MB=4.9(10) D= 77.3 DEG AZ= 31
 I P 14 00 41:2D 1.1 / 32 44.2N;148.4E 45KM H=13 48 50:0 (U)
 44.1N;148.6E 33KM 13 48 47:8 (M)

1978 MAR 28 E 14 22 44

1978 MAR 28 NEW HEBRIDES ISLANDS MB=4.9(8) D=144.4 DEG AZ= 39
 I PKP 19 08 06:7 0.6 / 19 20.6S;169.8E 144KM H=18 48 48:3 (U)

1978 MAR 28 E P 19 52 24

1978 MAR 28 KURILE ISLANDS MB=5.7(101) D= 75.1 DEG AZ= 25
 I P 20 28 43:9C 1.0 / 270 48.8N;154.9E 53KM H=20 17 05:8 (U)
 I 29 22:5 49.2N;154.5E 50KM 20 17 08:0 (M)
 E FPP 32 16:6
 E 33 11
 E 37.8
 LM 21 04 T 20 AN 6 AE 6 AV 7.5 MLH =6.0 MLV =5.9

1978 MAR 28 KURILE ISLANDS *** MB=5.2(81) D= 77.4 DEG AZ= 31
 I P 21 25 08:7 1.1 / 82 44.1N;148.9E 43KM H=21 13 16:4 (U)
 44.1N;148.8E 33KM 21 13 08:8 (M)

1978 MAR 28 KURILE ISLANDS
E P 22 23 45 ***

1978 MAR 28 KURILE ISLANDS
I P 22 24 08:8C 1.3 / 105
I AP 24 23:70 2.1 / 320
LMH 97
LMV 23 03

1978 MAR 28 LOYALTY ISLANDS REGION
I PKP1 23 09 45:5D 1.3 / 23
I APK 09 54:8

1978 MAR 29 KURILE ISLANDS
E P 02 32 35 ***
I AP 92 45:8

1978 MAR 29 NEW BRITAIN REGION
E PKP 04 21 09
E 23 02
LM 05 15 T 14 AN 1.5 AE 2 AV 2.5

1978 MAR 29 SOUTH OF KERMADEC ISLANDS
E (PKP2) 10 20 08
E 20 27

1978 MAR 29 SOUTH OF FIJI ISLANDS
I PKP1 12 56 26:7D 0.9 / 90
I PKP2 56 33:70 1.2 / 31
E APK 98 51

1978 MAR 29 SAKHALIN ISLAND
E P 14 21 37

1978 MAR 29 TONGA ISLANDS
I PKP1 14 28 09:9D 1.7 / 65
E 28 35

1978 MAR 29 NORTHERN AUSTRIA
E SG 14 41 49

1978 MAR 29 KURILE ISLANDS
E P 16 18 14 ***

1978 MAR 29 NEW HEBRIDES ISLANDS
I PKP 17 15 10:4C 1.2 / 50
I APK 15 34:8
I SKP 18 43:0D 1.9 / 250
E 18 58
E SKS 20 11
E (SKKS) 22 09
24 44

1978 MAR 29 BONIN ISLANDS REGION
I P 18 04 14.0 1.2 / 39
E 04 27:5
E PP 06 36
E 07 43
15 49

1978 MAR 29 FRG, CENTRAL REGION
E SG 21 54 04
54 11

1978 MAR 29 TONGA ISLANDS
E PKIP 22 20 10
I PKP1 20 14:7 1.7 / 195
LMV 23 34

1978 MAR 29 WESTERN AUSTRIA
E SH 23 35 07
E SG 35 32

1978 MAR 30 WESTERN AUSTRIA
E PP 00 02 05
E SH 02 36
E SG 03 00

1978 MAR 30 POLAND, UPPER SILESIA
E 02 08 04

1978 MAR 30 KURILE ISLANDS
I P 02 49 32:2C 1.1 / 80 ***

MB=2.4(89)
MB=5.3(5)
MB=4.6(15)
MB=5.4(34)
MB=5.3(5)
MB=5.3(18)
MC =4.9
MB=4.8(12)
MB=5.0(8)
MB=4.7(5)
MB=5.9(46)
MB=5.5(64)
MB=4.4(1)
MB=5.4(27)
NO MB COMP;
NO MB COMP;
MB=5.1(53)

74.4(5) / D= 76.9 DEG AZ= 30
44.9N;149.8E 33KM M=22 11 53 (U)

D= 77.8 DEG AZ= 30
44.1N;149.5E 33KM M=22 12 14 (U)
45.0N;149.8E 50KM 22 12 21 (U)

D=146.8 DEG AZ= 41
23.25;170.1E 53KM M=22 50 07 (U)
22.68;170.2E 33KM 22 50 04 (U)

D= 77.8 DEG AZ= 30
44.1N;149.5E 33KM M=02 40 39 (U)
44.2N;149.7E 33KM 02 40 35 (U)

D=121.9 DEG AZ= 55
6.18;148.8E 64KM M=04 02 20 (U)
5.98;148.3E 33KM 04 02 12 (U)

D=159.7 DEG AZ= 30
33.08;178.0W 33KM M=09 59 34 (U)

D=149.2 DEG AZ= 23
22.05;179.5W 604KM M=12 37 44 (U)

D= 73.8 DEG AZ= 34
46.2N;141.7E 37KM M=14 10 07 (U)
46.1N;141.7E 33KM 14 10 03 (U)

D=149.8 DEG AZ= 14
21.68;174.4W 33KM M=14 08 21 (U)

D= 77.4 DEG AZ= 30
44.4N;149.3E 51KM M=16 06 22 (U)

D=143.2 DEG AZ= 40
19.68;169.1E 94KM M=16 55 40 (U)
19.68;168.8E 33KM 16 55 41 (U)
DISTANCE 143 DEG DEPTH 100 KM

D= 89.2 DEG AZ= 44
27.9N;141.8E 22KM M=17 51 18 (U)
28.2N;141.6E 33KM 17 51 22 (U)

D= 4.1 DEG AZ=261
50.5N; 6.8E 10KM M=21 51 57 (U)
50.6N; 6.8E 10KM 21 51 58 (U)

D=150.0 DEG AZ= 13
21.8S;174.0W 33KM M=22 00 26 (U)
21.6S;174.0W 33KM 22 00 22 (U)

D= 4.2 DEG AZ=197
47.3N; 11.2E 10KM M=28 33 28 (U)
47.3N; 11.4E 10KM 28 33 29 (U)

D= 4.2 DEG AZ=197
47.3N; 11.2E 10KM M=00 00 46 (U)
47.4N; 11.3E 10KM 00 00 48 (U)

D= 77.8 DEG AZ= 31
44.5N;149.1E 47KM M=02 37 42 (U)
44.6N;149.2E 33KM 02 37 40 (U)

1978 MAR 30 KURILE ISLANDS
E P 03 08 47

OR ANOTHER POSSIBILITY

1978 MAR 30 HOKKAIDO, JAPAN REGION
E P 03 08 47

1978 MAR 30
LM 03 48

1978 MAR 30 POLAND, UPPER SILESIA
E SG 03 35 32

1978 MAR 30 FIJI ISLANDS REGION
I PKP1 03 47 25:4D 0.8 / 24
I PKP2 47 29:8 0.8 / 18

1978 MAR 30 KURILE ISLANDS
I P 05 28 26:5D 0.8 / 26
E AP 28 39

1978 MAR 30 KURILE ISLANDS REGION
I P 11 14 01:0C 1.0 / 27

1978 MAR 30
E P 12 19 57

1978 MAR 30 KURILE ISLANDS
I P 12 44 24:9D 1.0 / 17
I 44 38:5

1978 MAR 30 TRACES, KURILE ISLANDS REGION
E P 16 38 16

1978 MAR 30 KYUSHU, JAPAN
E P 16 41 33

1978 MAR 30 GUATEMALA
I P 19 42 54:2 1.0 / 26

1978 MAR 31 SOUTHERN ALASKA
I P 00 48 55:1C 1.3 / 37
E AP 49 17

1978 MAR 31 LUZON, PHILIPPINE ISLANDS
E P 03 35 07

1978 MAR 31 NORTHERN SINKIANG PROV., CHINA
E P 04 07 04

1978 MAR 31 SOUTH OF FIJI ISLANDS
I PKP1 04 24 01:0C 0.8 / 13

1978 MAR 31 SOLOMON ISLANDS
E PKP 07 20 53
LM 08 17

1978 MAR 31 TRACES
E P 08 25 46

1978 MAR 31
E (PP) 08 55 27

1978 MAR 31 MARIANA ISLANDS
E (PP) 09 11 31

1978 MAR 31 SOUTH OF HONSHU, JAPAN
I P 13 49 29:8 1.1 / 40
E AP 49 46

1978 MAR 31 EXPLOSION, CZECHOSLOVAKIA
I PG 15 14 45:1
E 15 04
I SG 15 07:0

1978 MAR 31 POLAND, UPPER SILESIA
E 18 24 09

1978 MAR 31
E 18 34 34

1978 MAR 31 BURMA-INDIA BORDER REGION
E P 19 31 05

MB=4.9(5)
MC =4.6
MB=4.9(23)
MB=4.9(22)
MB=4.5(10)
MB=5.1(18)
MB=5.1(59)
MB=5.3(30)
MB=4.7(16)
MB=5.4(28)
MB=4.8(17)
MB=5.0(15)
MB=4.8(17)
MB=5.0(15)
MB=4.6(21)

74.5(4) / D= 75.5 DEG AZ= 32
45.4N;146.8E 33KM M=02 57 05 (U)

D=148.1 DEG AZ= 20
20.68;178.2W 530KM M=03 28 41 (U)

D= 77.8 DEG AZ= 30
44.1N;149.5E 44KM M=05 16 32 (U)
44.1N;149.7E 33KM 05 16 25 (U)

74.6(7) / D= 77.6 DEG AZ= 31
43.9N;148.4E 49KM M=11 02 09 (U)

D= 77.7 DEG AZ= 31
44.1N;149.4E 46KM M=12 32 31 (U)
44.3N;149.6E 33KM 12 32 29 (U)

D= 78.6 DEG AZ= 30
43.4N;150.0E 33KM M=16 26 19 (U)
43.6N;149.9E 33KM 16 26 13 (U)

74.8(2) / D= 80.1 DEG AZ= 48
33.1N;131.5E 33KM M=16 29 25 (U)

D= 86.5 DEG AZ=290
15.0N; 90.3W 33KM M=19 30 12 (U)

D= 66.6 DEG AZ=352
61.8N;151.4W 90KM M=00 38 13 (U)
61.2N;151.1W 33KM 00 38 03 (U)

D= 89.8 DEG AZ= 68
14.6N;120.0E 57KM M=03 22 16 (U)
14.9N;119.9E 33KM 03 22 15 (U)

D= 46.3 DEG AZ= 71
43.3N; 82.8E 33KM M=03 58 39 (U)
43.4N; 82.7E 33KM 03 58 36 (U)

74.8(2) / D=151.2 DEG AZ= 26
24.4S;179.7E 449KM M=04 05 01 (U)

D=125.3 DEG AZ= 49
6.5S;154.9E 44KM M=07 01 55 (U)
6.2S;154.7E 33KM 07 01 50 (U)

D= 98.1 DEG AZ= 45
19.2N;144.8E 397KM M=08 54 32 (U)

D= 84.1 DEG AZ= 42
33.1N;140.5E 68KM M=13 37 04 (U)

DISTANCE 170 KM

November 1980

Dr. B. Tittel
H. Merkel
Dr. S. Wendt

Geophysikalisches Observatorium Collm
der Karl-Marx-Universität Leipzig



Geophysikalische Meßreihen

2 1978

Seismische Registrierungen

Geophysikalisches Observatorium

DDR - 7261 COLLM

Geophysical measuring series
of the
Geophysical Observatory
of the Karl-Marx-University
Leipzig

Geophysikalische Meßreihen
des Geophysikalischen
Observatorium
der Karl-Marx-Universität
Leipzig

C O L L M

S E I S M I C
R E C O R D S

S E I S M I S C H E
R E G I S T R I E R U N G E N

2nd quarter of 1978

2. Quartal 1978

L 790/80 III/18/445

SEISMOLOGICAL STATION COLLM (OIL)

GEOGRAPHICAL CO-ORDINATES: LATITUDE = 51°18.6'N; LONGITUDE = 13°00.2'E; ELEVATION = 230 m
FOUNDATION: GREYWACKE OF ORDOVICE

SEISMOGRAPHS AND ITS CONSTANTS:

TYPE	COMPONENT	T_s (s)	D_s	T_g (s)	D_g	r/T_s^2	MAGNIFICATION (STATIC)	MAGNIFICATION (MAXIMAL)	RECORDING SPEED (mm/min)
BENIOFF	Z	0.452	0.65	1.43	1			(38000)	60
VSJ-II	z	2.175	0.537	0.296	1.474			55000	60
HSJ-II NS	n	2.171	0.537	0.294	1.474			60000	60
HSJ-II EW	e	2.171	0.537	0.293	1.474			58000	60
WIECHERT NS	WN	10.0	0.28			0.026	370		15
WIECHERT EW	WE	10.0	0.34			0.020	340		15
HSJ-I NS	N	20.0	0.50	1.10	9.09		1075		15
HSJ-I EW	E	20.0	0.51	1.21	8.24		1120		15
VSJ-I	V	20.0	0.51	1.20	8.35		1090		15

TIME SERVICE:

QUARTZ CLOCK (MINUTE PULSES OF 2 s AND HOUR PULSES OF 20 s; DAILY DIGITAL CONTROL; MAXIMUM ERROR ± 0.2 s)

SUPPLEMENTARY EQUIPMENTS:

- SPECIAL RECORDER WITH VARIABLE AMPLIFICATION FOR ANNOUNCED EXPLOSIONS
- PERMANENT RECORDS WITH CONSIDERABLY REDUCED SENSIVITY FOR THE COMPLETE REGISTRATION OF STRONG EARTHQUAKES
- AUTOMATICAL AMPLIFICATION OF RECORDING LIGHT FOR AMPLITUDES GREATER THAN A GIVEN LIMIT

EVALUATION:

- THE FIRST LINE OF EVALUATION OF EACH EVENT CONTAINS
DATE AND (FOR KNOWN FOCI) GEOGRAPHICAL REGION OF EPICENTER (MOSTLY FOLLOWING FLINN & ENGDahl 1965)
BODY WAVE MAGNITUDE MB WITH THE NUMBER OF USED OBSERVATIONS.
- DETAILED INFORMATION, WITH RESPECT TO GEOGRAPHICAL REGION OR OTHER COMMENTS CAN BE WRITTEN ALSO HERE.
THE NEXT LINES ARE DIVIDED INTO THE FOLLOWING COLUMNS
- THE NOMENCLATURE OF THE PHASES CORRESPONDS TO THE LIST OF ISC, COMPLETED BY SOME PHASES (pP APPEARS AS AP, sP APPEARS AS XP, MULTIPLE PHASES AS P(1) FOR INSTANCE)
 - TIME OF ONSET IN G.M.T.
 - DIRECTION OF VERTICAL COMPONENT OF THE GROUND MOTION
 - PERIODS, AMPLITUDES, AND EVENTUALLY MAGNITUDES FOR IMPORTANT ONSETS APPEAR IN THE CORRESPONDING LINE IF MEASUREMENT IS POSSIBLE;
- FOR SHORTPERIODIC WAVES IN THE SEQUENCE OF COMPONENTS z, n, e (PERIOD IN SECONDS/AMPLITUDE IN NANOMETRES)
FOR LONGPERIODIC WAVES T, AN, AE, AV (MEAN PERIOD IN SECONDS, AMPLITUDES FOR N, E, V COMPONENTS IN MICROMETRES)
- MAGNITUDES CAN BE DETERMINED
 - FOR BODY WAVES THROUGH THE EARTH MANTLE (MPV, MPH, MPMV, MPMH, MPPV, MPPH, MSH)
 - FOR SHORTPERIODIC LONGITUDINAL CORE WAVES (MC)
 - FOR MAXIMUM OF SURFACE WAVES (MLH, MLV)
 - FOR STRONG QUAKES SOMETIMES FROM WIECHERT RECORDS (MAG)
- HYPOCENTER DATA (LATITUDE, LONGITUDE, DEPTH, ORIGIN TIME) OF THE FOLLOWING INSTITUTIONS ARE USED IN GENERAL
 - (U) U.S. NATIONAL EARTHQUAKE INFORMATION SERVICE
 - (B) EUROPEAN-MEDITERRANEAN SEISMOLOGICAL CENTRE
 - (M) ACADEMY OF SCIENCES OF U.S.S.R., INSTITUTE OF PHYSICS OF THE EARTH
 - (I) INTERNATIONAL SEISMOLOGICAL CENTRE
 - (A) INSTITUTE FOR METEOROLOGY AND GEODYNAMICS IN VIENNA, AUSTRIA
 - (C) GEOPHYSICAL INSTITUTE OF THE CZECHOSLOVAK ACADEMY OF SCIENCES
 - (G) NATIONAL OBSERVATORY OF ATHENS, GREECE
 - (P) POLISH ACADEMY OF SCIENCES
 - (S) SEISMOLOGICAL INSTITUTE, UPPSALA, SWEDEN
- OWN COMMENTS ARE GIVEN WITHOUT MENTION OF SOURCE.
- MB IS THE BODY WAVE MAGNITUDE GIVEN BY (U). /MB/ IS PRINTED IN FEW OTHER CASES WITH FOCAL DATA OF OTHER INSTITUTIONS.
 - EPICENTRAL DISTANCE D AND STATION AZIMUTH AZ ARE CALCULATED USING THE FIRST EPICENTER INDICATION AND ARE PRINTED ABOVE THESE DATA.
D AND AZ ARE CALCULATED ACCORDING TO GEOCENTRIC CO-ORDINATES (D COMMONLY IN DEG, FOR NEAR EVENTS IN km, WITH A MAXIMUM ERROR OF ± 0.1 DEG AND ± 1 km, RESPECTIVELY; AZ IN DEG WITH A MAXIMUM ERROR OF ± 1 DEG).
 - FOR COMPARISON WITH THE FIRST OWN EVALUATION "DISTANCE" AND "DEPTH" ARE GIVEN BELOW THE HYPOCENTER DATA.
 - ROUND BRACKETS INDICATE UNCERTAINTIES.

NUMEROUS EXPLOSIONS AND ROCK BURSTS ARE LEAVED OUT IN THIS BULLETIN BECAUSE OF ITS UNIMPORTANT FORCE.

EVENTUAL INTERRUPTIONS OF RECORDS ARE INDICATED IN THE TIME SEQUENCE.

THE COMPILATION WAS PERFORMED AT THE COMPUTER CENTER OF ZENTRALINSTITUT DER METALLURGIE, LEIPZIG.

1978 APR 01	TRACES			
	00 42 13			
1978 APR 01	GREECE-ALBANIA BORDER REGION			
	00 57 24		D= 12.8 DEG AZ=156 39.9N 19.9E 10KM M=00 52 17.9 (B)	
1978 APR 01	TONGA ISLANDS REGION	MB=5.2(15)		
	PKP1 01 51 27.4C 1.7 / 76		D=150.2 DEG AZ= 13 22.05N 174.0W 33KM M=01 31 56.6 (B)	
1978 APR 01	ANDAMAN ISLANDS REGION		/4.9(5)/	
	P 09 47 51		D= 72.7 DEG AZ= 89 14.1N 92.7E 0KM M=09 36 20 (B)	
1978 APR 01	SOUTH OF HONSHU, JAPAN	MB=5.0(16)		
	P 10 02 01.0D 1.1 / 24 02 27		D= 84.9 DEG AZ= 42 32.4N 140.9E 51KM M=09 49 50.3 (B)	
1978 APR 01	WESTERN TURKEY			
	E 10 10 24		D= 18.7 DEG AZ=136 36.5N 28.9E 10KM M=10 05 54.7 (B)	
THE QUAKES DENOTED BY *** ARE BELONGING TO THE AFTERSHOOK SEQUENCE STARTING 1978 MAR 22				
1978 APR 01	KURILE ISLANDS REGION	***	MB=5.2(51)	
	P 10 11 10.6C 1.6 / 70 14 50 LM 49		D= 77.5 DEG AZ= 30 44.7N 150.3E 33KM M=09 59 17.5 (B) 45.2N 150.0E 33KM 09 59 20.1 (M)	
1978 APR 01	KURILE ISLANDS	***	/4.3(3)/	
	P 10 20 20.2		D= 76.9 DEG AZ= 30 45.2N 149.9E 40KM M=10 08 29.4 (B)	
1978 APR 01	KURILE ISLANDS REGION	***	MB=4.8(14)	
	P 11 03 39.5 1.4 / 23 AP 03 52		D= 77.2 DEG AZ= 30 44.9N 150.0E 33KM M=10 51 47.2 (B) 44.5N 150.6E 33KM 10 51 44.2 (M)	
1978 APR 01	TRACES			
	E 12 33 49			
1978 APR 01	KURILE ISLANDS REGION	***	MB=4.9(20)	
	P 12 36 31.7C		D= 77.4 DEG AZ= 30 44.7N 150.2E 37KM M=12 44 38.2 (B) 45.0N 150.4E 33KM 12 44 38.5 (M)	
1978 APR 01	FIJI ISLANDS REGION		MB=5.0(21)	
	PKP1 17 28 24.7 1.0 / 46 PKP2 28 28.0C 1.1 / 28		D=147.7 DEG AZ= 19 20.05N 177.6W 383KM M=17 09 23.3 (B)	
1978 APR 02	SOUTH OF HONSHU, JAPAN		MB=4.4(4)	
	P 00 04 07.5		D= 84.2 DEG AZ= 43 32.5N 139.4E 212KM M=23 51 58.4 (B)	
1978 APR 02	TRACES			
	E 00 59 24			
1978 APR 02	SOUTH OF FIJI ISLANDS		/4.9(2)/	
	(PKP) 05 33 51.5		D=150.2 DEG AZ= 22 (22.95N 178.8W 589KM M=05 14 54 (B))	
1978 APR 02	FRG, CENTRAL REGION NEAR DORSTEN			(GRF)
	E 06 00 58			
1978 APR 02	NORTHERN CHILE		MB=5.3(48)	
	E AP 09 21 10 1.5 / 17		D=100.0 DEG AZ=252 19.15N 69.3W 86KM M=09 07 07.1 (B)	
1978 APR 02	KURILE ISLANDS REGION	***	MB=4.7(8)	
	E P 09 41 30		D= 77.4 DEG AZ= 30 44.8N 150.3E 43KM M=09 29 39.2 (B) 45.1N 150.3E 33KM 09 29 35.4 (M)	
1978 APR 02	NORTHERN ITALY	FRIULI	NO MB COMP,	
	E PN 18 24 38 E PQ 24 55 E SN 25 29 E SQ 25 59		D= 5.0 DEG AZ=178 46.3N 13.3E 10KM M=18 23 22.2 (B) 46.2N 13.4E 20KM 18 23 20.8 (B)	
1978 APR 02	CORSICA		NO MB COMP,	
	E SB 20 15 03		D= 9.3 DEG AZ=197 42.3N 9.4E 20KM M=20 10 19.2 (B) 42.2N 9.5E 6KM 20 10 17.8 (B)	
1978 APR 03				
	E 01 54 32			
1978 APR 03	SOUTH OF PANAMA		MB=4.8(21)	
	E P 03 19 38		D= 88.6 DEG AZ=274 3.4N 78.9W 33KM M=03 06 45.4 (B)	
1978 APR 03	KURILE ISLANDS	***	/4.5(4)/	
	E P 03 39 40		D= 76.8 DEG AZ= 31 45.1N 147.9E 40KM M=03 27 54 (B)	
1978 APR 03	OFF EAST COAST OF HONSHU, JAPAN		MB=5.0(40)	
	E P 03 48 15		D= 78.8 DEG AZ= 36 40.6N 143.5E 33KM M=03 36 14.4 (B) 40.8N 143.6E 33KM 03 36 14.9 (M)	
1978 APR 03	CORSICA		MB=4.1(2)	
	E PN 06 28 58 E 29 06 E 29 17 E 30 12 E SN 30 48 E 31 42 E(SQ) 32.1 LMH 32.5 LMV 33.3		D= 9.5 DEG AZ=197 42.3N 9.4E 19KM M=06 26 42.4 (B) 42.2N 9.6E 10KM 06 26 43.9 (B) DISTANCE 9.5 DEG T 12 AN 1.5 AE 3 AV 1.5 MLH =4.3 T 11	



Date	Time	Location	Depth (D)	Latitude (N)	Longitude (E)	Depth (H)	Magnitude (M)	Other
1978 APR 03	07 55 14	SOUTH ATLANTIC RIDGE	28.75	10.7W		33KM	M=07 42 54	
1978 APR 03	09 28 43.7	KURILE ISLANDS	77.6	148.9E		50KM	M=09 16 51.9	
1978 APR 03	10 03 17	WEST IRIAN	112.8	133.9E		33KM	M=09 48 35.0	
1978 APR 03	10 51 02.7	NORTHERN ITALY	5.0	13.2E		10KM	M=10 49 47.2	
1978 APR 03	11 47 39	SOUTHERN PACIFIC OCEAN	131.2	100.8W		33KM	M=11 28 27.8	
1978 APR 03	14 36 16.5	NORTHERN ITALY	5.0	13.2E		36KM	M=14 35 00.1	
1978 APR 03	18 10 49							
1978 APR 03	23 32 46							
1978 APR 04	00 49 41	TIBET	52.5	82.3E		27KM	M=00 40 29.2	
1978 APR 04	02 20 51	POLAND, UPPER BIELESIA						
1978 APR 04	07 09 38	MINDANAO, PHILIPPINE ISLANDS	97.5	123.8E		43KM	M=06 56 06.3	
1978 APR 04	10 01 35.5							
1978 APR 04	14 28 13	MINDANAO, PHILIPPINE ISLANDS	97.5	123.8E		46KM	M=14 14 30.1	
1978 APR 04	18 55 17							
1978 APR 04	19 52 42	TRACES, SAN JUAN PROVINCE, ARGENTINA	108.3	67.6W		10KM	M=19 33 51.4	
1978 APR 04	21 24 04.9	NORTH OF PANAMA	82.9	78.0W		35KM	M=21 11 41.8	
1978 APR 05	02 01 28	KURILE ISLANDS REGION	78.1	151.0E		33KM	M=01 49 31.9	
1978 APR 05	03 57 17							
1978 APR 05	04 39 19	TRACES, PAPUA NEW GUINEA						
1978 APR 05	04 54 25.0	SOUTHERN GREECE						
1978 APR 05	05 11 35	TRACES, GREECE						
1978 APR 05	07 20 42	QUESTIONABLE EVENT						
1978 APR 05	08 03 30.5	OFF EAST COAST OF HONSHU, JAPAN						
1978 APR 05	09 37 39	KURILE ISLANDS	77.0	148.9E		44KM	M=09 29 38	
1978 APR 05	10 11 53.0	TRACES, EXPLOSION OF 15 TONS, CZECHOSLOVAKIA						
1978 APR 05	12 14 46	CZECHOSLOVAKIA, LITTLE CARPATHIANS						
1978 APR 05	14 14 33.5	KURILE ISLANDS	77.5	149.4E		49KM	M=14 02 41.5	
1978 APR 05	15 46 59	NEAR EAST COAST OF HONSHU, JAPAN	82.5	141.1E		40KM	M=15 34 38.2	
1978 APR 05	16 16 27.7	KURILE ISLANDS REGION	77.7	148.6E		40KM	M=16 04 33.4	
1978 APR 05	17 55 57	KENYA	56.5	36.9E		25KM	M=17 46 10.5	
1978 APR 05	18 50 24	FIJI ISLANDS REGION	142.6	178.5W		389KM	M=18 31 35.0	
1978 APR 05	18 53 27							
1978 APR 05	23 45 36.9	FIJI ISLANDS REGION	146.7	177.8W		542KM	M=23 27 00.0	
1978 APR 06	08 51 42	HOKKAIDO, JAPAN; REGION	77.6	142.5E		46KM	M=08 39 43.9	
1978 APR 06	10 27 05.8	NORTHERN ITALY	5.1	13.3E		10KM	M=10 25 48.5	
1978 APR 06	12 49 58	NEAR EAST COAST OF HONSHU, JAPAN	82.5	141.0E		27KM	M=11 37 37.8	
1978 APR 06	13 32							
1978 APR 06	14 52 19							
1978 APR 06	15 18 21							
1978 APR 06	15 35 09.4	KURILE ISLANDS	77.4	148.4E		49KM	M=15 23 13.2	
1978 APR 06	15 35 42.9	KURILE ISLANDS	78.1	148.8E		30KM	M=15 23 47.5	



1978 APR 06 NEAR EAST COAST OF HONSHU, JAPAN
 I P 16 36 51:7D 1.7 / 50
 I 36 58:5
 E PP 40 00
 LM 17 18

MB=5.2(33) D= 82.5 DEG AZ= 41
 35.2N1141.0E 38KM H=16 24 31.0
 36.1N1140.8E 50KM 16 24 37.7

1978 APR 06 KIRGIZ SSB
 E P 19 22 38

MB=4.7(8) D= 42.7 DEG AZ= 78
 41.5N1 75.1E 23KM H=19 14 40.4
 41.6N1 75.0E 33KM 19 14 38.4

1978 APR 06 KURILE ISLANDS
 I P 22 26 43:8D

MB=5.6(81) D= 82.5 DEG AZ= 41
 35.2N1141.0E 31KM H=23 29 52.7
 35.7N1140.7E 33KM 23 29 50.3
 DISTANCE 83 DEG

1978 APR 07 NEAR EAST COAST OF HONSHU, JAPAN
 APR 07 23 42 13:2 1.5 / 90

MLH =6.3 MLV =6.4
 MB=4.7(4) D= 82.7 DEG AZ= 40
 35.1N1141.3E 19KM H=00 01 22.9

00 24 T 14 AN 9.5 AE 5.5 AV 11

1978 APR 07 NEAR EAST COAST OF HONSHU, JAPAN
 E P 00 13 46

MB=4.5(5) D= 77.3 DEG AZ= 30
 44.9N1150.2E 27KM H=03 10 17.3

1978 APR 07 KURILE ISLANDS REGION
 I P 03 22 11:1C
 I AP 22 24:8

NO MB COMP; D=146.5 DEG AZ= 40
 22.7S1170.4E 38KM H=07 04 12.3

1978 APR 07 LOYALTY ISLANDS REGION
 E PKP 07 23 48 1.2 / 36
 E 24 12
 E 24 30

MB=5.8(110) D= 77.4 DEG AZ= 30
 44.4N1149.3E 50KM H=07 44 56.2
 45.0N1149.2E 60KM 07 45 00.1
 DISTANCE 77 DEG

1978 APR 07 KURILE ISLANDS
 I P 07 56 46.9C 1.2 / 98
 I 56 48.5 1.3 / 330
 E AP 57 03
 I 57 17.1
 E PPP 08 01 34
 E S 06 32
 E PPS 07 32
 LM 30
 LH 34

MLH =5.5 MLV =5.6
 MB=5.1(1) D=146.6 DEG AZ= 40
 22.7S1170.7E 33KM H=08 05 09.8

1978 APR 07 LOYALTY ISLANDS REGION
 E PKP 08 24 48
 E 25 36

MB=5.3(58) D= 77.5 DEG AZ= 30
 44.4N1149.4E 34KM H=08 29 56.0
 44.3N1149.7E 33KM 08 29 48.9

1978 APR 07 KURILE ISLANDS
 I P(1) 08 41 48.8C 1.3 / 37
 I P(2) 41 53:8 1.3 / 120
 I 42 26.9
 LM 09 20

1978 APR 07 EXPLOSION OF 11.5 TONS GERMAN DEMOCRATIC REPUBLIC
 I PG 13 35 29:6
 I SG 35 31:2
 I 35 37:4

D= 10 KM AZ=311
 51.37N1 12:89E

1978 APR 07 KURILE ISLANDS
 E P 13 53 09
 I AP 53 21.3 1.0 / 20

MB=4.5(6) D= 77.8 DEG AZ= 30
 44.1N1149.7E 33KM H=13 41 13.5

1978 APR 07 SWITZERLAND
 E SG 14 51 41

NO MB COMP; D= 5.6 DEG AZ=225
 47.2N1 7.2E 24KM H=14 48 56.5

1978 APR 07 KAMCHATKA
 I P 15 45 47:8C 1.2 / 31

MB=5.0(49) D= 73.4 DEG AZ= 23
 51.1N1156.6E 141KM H=15 34 80.9
 50.8N1156.8E 150KM 15 34 29.3

1978 APR 07 TRACES
 E 16 10 47

1978 APR 07 NEAR EAST COAST OF HONSHU, JAPAN
 I P 16 33 35:0 1.2 / 26
 I AP 33 49:0

MB=5.0(29) D= 81.9 DEG AZ= 41
 35.7N1140.6E 37KM H=16 21 20.6
 36.2N1140.3E 50KM 16 21 23.0

1978 APR 07 NORTHERN SUMATEBA
 E AP 23 00 41 2.2 / 84

MB=5.3(38) D= 83.4 DEG AZ= 93
 3.2N1 96.5E 22KM H=22 48 07.6
 3.3N1 96.4E 33KM 22 48 09.4

1978 APR 07 TRACES
 E 23 48 03

1978 APR 08 TONGA ISLANDS REGION
 I PKP1 02 16 46:7C 1.2 / 26
 E 16 56

MB=4.7(4) D=150.8 DEG AZ= 16
 22:6S1175.2W 33KM H=01 56 56.9

1978 APR 08 SOUTHERN GREECE
 I P 06 26 14:2D 1.4 / 46
 E 26 47

MB=4.5(25) D= 16.1 DEG AZ=149
 37.0N1 28.3E 43KM H=06 22 27.0
 37.0N1 28.5E 69KM 06 22 22.8
 36.9N1 28.3E 38KM

1978 APR 08 SOUTH OF HONSHU, JAPAN
 I P 10 19 54:0 1.6 / 54
 E AP 20 06
 E 20 20

MB=5.2(48) D= 86.5 DEG AZ= 42
 30.9N1141.7E 33KM H=10 07 13.3
 31.2N1141.9E 33KM 10 07 09.8

1978 APR 08 TAIWAN REGION
 P 10 38 33:5C 2.0 / 170
 AP1 38 39:1
 39 29
 41 45
 LM 11 20 T 15 AN 1 AE 1.5 AV 1.5

1978 APR 08 POLAND, UPPER SILESIA
 POSSIBLY SUPERPOSED BY ANOTHER QUAKE IN SPAIN NO MB COMP,
 PN 15 18 12
 PQ 18 28
 19 06
 19 23

1978 APR 08 KURILE ISLANDS
 P 16 31 36

1978 APR 08 17 48 32

1978 APR 09 POLAND, UPPER SILESIA
 SG 02 10 03

1978 APR 09 SOUTH OF FIJI ISLANDS
 PKP1 04 53 52:0C 1.2 / 43
 APKP 55 32

1978 APR 09 KURILE ISLANDS
 (P) 09 17 26

1978 APR 09 OFF EAST COAST OF HONSHU, JAPAN
 P 15 46 53 C

1978 APR 09 SOUTHERN ITALY
 (P) 21 04 37

1978 APR 09 22 53 18

1978 APR 10 03 27 53

1978 APR 10 07 51 08

1978 APR 10 NORTHERN ITALY
 (SN) 09 59 42
 (SG) 10 00 28

1978 APR 10 KURILE ISLANDS
 I P 10 25 59:2C

1978 APR 10 KERMADEC ISLANDS
 E PKP2 10 48 40

1978 APR 10 SOUTH OF SUMBAWA ISLAND
 E PDIF 21 06 35 T 9
 07 15
 09 31
 09 45
 10 54 T 12 AN 0.5 AE 2.5 AV 4.2
 11 00
 17 15
 17 49
 18.7 T 11 AN 3.1
 20.4
 21.6
 22 01.1C
 22 15
 26.0
 26 13
 29 52
 30 26
 52 T 28 AN 23.5 AE 11
 22 02 T 20 AN 3 AE 10.5 AV 15

MB=6.7(71) AV 1.3 MPV =7.0
 MPPH =6.9 MPPV =6.8
 MSH =6.7

1978 APR 10 POLAND, UPPER SILESIA
 E SG 21 40 38

1978 APR 11 01 06 49

1978 APR 11 EAST PAPUA NEW GUINEA REGION
 I PKP 03 00 41:4 1.6 / 38
 E PP 02 34
 E PS 12 26
 LM 58 T 1R AN 1 AE 1 AV 1.5

1978 APR 11 UNIMAK ISLAND REGION
 I P 05 24 37:2C 1.4 / 80
 I AP 24 47:0
 E 24 56
 E(S) 34 30
 LM 06 09 T 15 AN 1.5 AE 1.5 AV 1

MB=5.7(64)

D= 83.2 DEG AZ= 62
 22.7N1121.1E 25KM H=10 26 08.8 (U)
 23.0N1121.1E 33KM 10 26 11.3 (M)

D= 3.8 DEG AZ=100
 50.5N1 18.9E 33KM H=15 17 15.6 (U)

MB=4.6(18)

D= 77.5 DEG AZ= 30
 44.4N1149.5E 33KM H=16 19 42.5 (U)
 44.6N1149.5E 33KM 16 19 43.6 (M)

MB=5.2(7)

D=149.4 DEG AZ= 21
 22.0S1178.5W 457KM H=04 34 54.7 (U)

/4.4(6)/

D= 77.1 DEG AZ= 31
 44.6N1148.8E 43KM H=09 05 38.9 (U)

MB=4.6(8)

D= 80.2 DEG AZ= 37
 39.0N1143.5E 31KM H=15 34 44.7 (U)

MB=5.9(3)

D= 13.5 DEG AZ=170
 38.0N1 16.8E 13KM H=21 01 21.0 (U)

NO MB COMP,

D= 7.4 DEG AZ=191
 44.0N1 11.1E 23KM H=09 56 31.0 (U)
 44.0N1 10.9E 10KM 09 56 31.7 (B)

MB=4.8(10)

D= 77.9 DEG AZ= 32
 43.3N1147.8E 43KM H=10 14 04.3 (U)
 43.3N1147.7E 33KM 10 13 58.8 (M)

MB=5.0(3)

D=157.2 DEG AZ= 25
 30.0S1177.8W 41KM H=10 28 17.8 (U)

MB=6.7(71)

D=107.4 DEG AZ= 87
 11.4S1116.7E 33KM H=20 52 18.9 (U)
 10.3S1116.5E 30KM 20 52 26.0 (M)
 DISTANCE 100 DEG



1978 APR 15 POLAND, UPPER SILESIA
E SG 20 57 55

1978 APR 15 SICILY
E P 23 32 22

1978 APR 15 / SICILY
APR 16 23 36 53:40 0.8 / 42

I P 36 59:8
I(PP) 37 10:8
I PPP 37 21:2
I 37 32:8
I 39.1
E(S) 39.2
E 39.37
E SS 39.8
E SSS 40.9
L 41
LM 42
LM 46
T 10 AN 24 AE 85
T 13 AN 51.5 AE 79 AV(61)
T 16 AN 30 AE 73.5 AV 33

MB=4.1(1)

MB=5.5(76)

D=13.2 DEG AZ=172
38.2N; 15.2E 37KM H=23 29 12.7
38.3N; 15.1E 10KM 23 29 12.7
D=13.0 DEG AZ=173
38.4N; 15.1E 14KM H=23 33 47.2
38.2N; 15.1E 18KM 23 33 49.2
38.4N; 15.0E 33KM 23 33 48.7
DISTANCE 13.5 DEG

MLH =6.0

NO MB COMP, D=145.6 DEG AZ= 22
18.3S; 179.6W 681KM H=81 04 00.7

1978 APR 16 FIJI ISLANDS REGION
I PKP1 01 22 28:1E

1978 APR 16 TRACES
E 04 31 15

1978 APR 16 SICILY
E PP 06 23 18

MB=4.3(2)

D=13.4 DEG AZ=171
38.0N; 15.6E 33KM H=86 20 02.2
38.5N; 14.8E 10KM 86 20 01.0
37.7N; 16.0E 33KM 86 20 01.9

MB=4.9(41)

D=71.7 DEG AZ=352
56.7N; 152.8W 24KM H=89 50 52.2
56.2N; 153.1W 33KM 89 50 51.5

1978 APR 16 KODIAK ISLAND REGION
E P 10 02 14

1978 APR 16
E SG 16 00 20

1978 APR 16 KURILE ISLANDS
E P 19 16 03 0.6 / 13
E AP 16 16

MB=4.8(16)

D=77.6 DEG AZ= 31
44.2N; 149.2E 43KM H=19 04 10.4
44.4N; 149.3E 33KM 19 04 10.1

MB=4.6(31)

D=21.7 DEG AZ=346
71.6N; 3.4W 10KM H=19 39 07.4
71.9N; 3.6W 10KM 19 39 06.5
71.5N; 2.5W 33KM 19 39 08.6

1978 APR 16 JAN MAYEN ISLAND REGION
E P 19 39 58 1.5 / 55

1978 APR 16 TRACES KURILE ISLANDS
E(P) 20 35 27

MB=4.5(4)

D=76.4 DEG AZ= 31
45.1N; 148 E 40KM H=20 23 51

1978 APR 16 TRACES JAN MAYEN ISLAND REGION
E P 20 55 16

1978 APR 16 CENTRAL YUGOSLAVIA
E PN 23 21 55
E PG 23 34
E 24 18
I SG 25 02.5

MB=4.1(7)

D= 9.7 DEG AZ=143
43.2N; 20.9E 33KM H=23 19 59.7
43.3N; 21.0E 10KM 23 19 56.1
42.9N; 20.7E 33KM 23 19 29.8
DISTANCE 9.5 DEG

1978 APR 17 UNIHAK ISLAND REGION
E P 06 01 30

MB=4.8(17)

D=74.9 DEG AZ=358
54.1N; 164.0W 33KM H=85 49 51.1
52.8N; 164.2W 33KM 85 49 44.0

1978 APR 17
E 13 31 55
E 32 23

1978 APR 18 TRACES SOUTH OF TONGA ISLANDS
E PKP1 02 43 52

MB=5.6(35)

D=153.6 DEG AZ= 16
25.6S; 174.8W 33KM H=82 25 51.2

1978 APR 18 SOUTH OF FIJI ISLANDS
I PKIP 08 06 19:30 1.7 / 29
I PKP1 06 26:30 1.1 / 130
I PKP2 06 37:8 1.5 / 62
E 07 52
I APKP 08 40:5

MC =5.1

D=151.6 DEG AZ= 29
25.2S; 178.4E 566KM H=87 47 35.8
25.5S; 178.7E 500KM 87 47 28.6
DISTANCE 152.5 DEG DEPTH 970 KM

1978 APR 18 TRACES, EXPLOSION
I PG 11 00 43:5
I SG 01 11:5

DISTANCE 240 KM

1978 APR 18 KURILE ISLANDS
I P 11 55 32:20 1.1 / 59
I AP 55 46:8
LM 12 27
LM 34
T 20 AN 1.5 AE 2
T 16 AN 1.5 AE 2.5 AV 2.5

MB=5.5(80)

D=77.6 DEG AZ= 31
44.2N; 149.2E 33KM H=11 48 87.8
44.8N; 148.7E 75KM 11 48 49.7

1978 APR 18 PHILIPPINE ISLANDS REGION
I P 17 41 06:10 1.5 / 34
I AP 41 38:6
I APP 45 43:2
E SKS 51.5
E S 52.6
E XS 53.2
E SP 54 01
E(PKKP1) 57 21
(CONT.)

MB=6.0(87)

D=100.9 DEG AZ= 68
5.1N; 127.4E 128KM H=17 27 50.4
5.3N; 127.3E 130KM 17 27 51.2
DISTANCE 101 DEG DEPTH 600 KM

(CONT.)

PKKP2) 17 57 47
SS 59.7
PCPPKP 18 01 42
LH 23
LMH 29
LMV 34
T 16 AN 2.5 AE 2
T 20 AN 2 AE 3 AV 2.5
T 19 AN 2.5 AE 3 AV 3

1978 APR 18 TRACES CERAM
PP 13 10 14

1978 APR 19 KURILE ISLANDS
P 04 13 30.40 1.0 / 28
AP 13 36.6

1978 APR 19 SOUTH ATLANTIC RIDGE
P 04 45 45

1978 APR 19 LOYALTY ISLANDS REGION
PKP 05 22 42

1978 APR 19
07 38 36

1978 APR 19 SOUTH OF HONSHU, JAPAN
P 07 45 32:30 1.4 / 27
LM 08 29

1978 APR 19 POLAND, UPPER SILESIA
PG 08 04 50
SG 05 45

1978 APR 19 NEAR EAST COAST OF HONSHU, JAPAN
P 11 30 04 E

1978 APR 19 POLAND, UPPER SILESIA
SG 12 40 41
41 05:0

1978 APR 19 SOUTH OF FIJI ISLANDS
PKIP 17 06 41
PKP1 06 46:7 0.9 / 58
08 51
APKP 08 56:0

1978 APR 19 INDIA-CHINA BORDER REGION
P 17 12 07

1978 APR 19 KURILE ISLANDS
P 22 36 53 0.8 / 17

1978 APR 20
04 14 26

1978 APR 20 TRACES SOLOMON ISLANDS
PKP 07 37 46

1978 APR 20
09 10 24:70

1978 APR 20 TRACES
11 35 10

1978 APR 20 KURILE ISLANDS
P 13 52 34 1.2 / 22
AP 52 47

1978 APR 20
13 53 03

1978 APR 20 TRACES
15 08 16

1978 APR 20 TRACES
18 29 16.7

1978 APR 20 SOUTH OF FIJI ISLANDS
PKP1 19 37 53:90 0.9 / 28
PKP2 18 02:2 1.0 / 12

1978 APR 20 SOLOMON ISLANDS
PKP 21 57 32

1978 APR 20 KURILE ISLANDS
P 22 31 06:2 1.0 / 90

1978 APR 20 FRG, CENTRAL REGION
NEAR RECKLINGHAUSEN
23 32 58
33 04

MLH =5.9 (NO DEPTH CORRECTION)
MLV =5.9 (NO DEPTH CORRECTION)

MB=5.2(25) D=108.7 DEG AZ= 72
3.8S; 128.4E 140KM H=17 51 26.2 (U)
3.9S; 128.4E 33KM 17 51 14.0 (M)

MB=5.0(54) D=77.6 DEG AZ= 31
44.2N; 149.1E 33KM H=84 01 33.8 (U)
44.3N; 149.3E 33KM 84 01 33.7 (M)

NO MB COMP, D=70.7 DEG AZ=206
15.9S; 12.9W 33KM H=84 34 30.7 (U)

NO MB COMP, D=145.4 DEG AZ= 40
21.7S; 169.8E 33KM H=85 03 06.7 (U)

MB=5.1(36) D=86.5 DEG AZ= 42
30.9N; 141.7E 33KM H=87 32 50.5 (U)
31.2N; 141.5E 33KM 87 32 47.5 (M)

NO MB COMP, D= 4.2 DEG AZ=194
(50.1N; 19.3E 8KM H=83 03 42.3 (U))

MB=4.6(6) D=81.3 DEG AZ= 40
36.5N; 140.7E 61KM H=10 47 52.3 (U)

MB=5.0(19) D=150.6 DEG AZ= 25
23.6S; 1180 532KM H=16 47 54.5 (U)
DEPTH 550 KM

MB=4.9(33) D=62.6 DEG AZ= 79
27.7N; 92.7E 31KM H=17 01 45.5 (U)
27.7N; 92.7E 33KM 17 01 44.0 (M)

MB=4.7(14) D=77.5 DEG AZ= 30
44.4N; 149.4E 33KM H=22 25 00.7 (U)
44.4N; 149.5E 33KM 22 25 00.0 (M)

MB=5.2(15) D=128.9 DEG AZ= 47
5.0S; 157.6E 27KM H=17 18 39.5 (U)
8.7S; 157.6E 33KM 17 18 36.1 (M)

MB=4.7(19) D=77.3 DEG AZ= 31
44.4N; 149.0E 33KM H=13 40 41.3 (U)
44.1N; 149.5E 33KM 13 40 32.8 (M)

MB=4.9(4) D=150.0 DEG AZ= 25
23.1S; 179.6E 597KM H=19 39 08.2 (U)

MB=5.2(22) D=128.8 DEG AZ= 47
5.0S; 157.6E 30KM H=21 38 27.4 (U)
8.4S; 157.6E 33KM 21 38 22.0 (M)

MB=5.2(93) D=76.1 DEG AZ= 28
46.8N; 151.9E 96KM H=22 19 28.6 (U)
47.0N; 151.7E 110KM 22 19 30.8 (M)

(GRB)



Date	Location	Time	Depth (km)	Magnitude	Latitude	Longitude	Distance (km)	Azimuth	Station	MLH	MLV	Notes
1978 APR 26	KURILE ISLANDS	17 54 37.6C		4.0(15)								
1978 APR 26	KURILE ISLANDS	18 47 20.7C 1.0 / 27		4.0(46)								
1978 APR 26	KURILE ISLANDS	18 50 32.4E 1.1 / 4R		4.2(38)								
1978 APR 26	KURILE ISLANDS	19 29 T 15 AN 1.5 AE 1 AV 1.5		4.9(3)								
1978 APR 26	KURILE ISLANDS	19 38 00		4.7(25)								
1978 APR 26	SOUTH OF FIJI ISLANDS	20 40 05.9E 0.9 / 54		4.9(52)								
1978 APR 26	KODIAK ISLAND REGION	01 52 39		4.7(9)								
1978 APR 27	GREECE	08 36 44		4.9(23)								
1978 APR 27	SOUTH OF TONGA ISLANDS	18 16 17 2.1 / 37		4.7(70)								
1978 APR 27	KURILE ISLANDS	23 37 32		4.0(55)								
1978 APR 28	SOUTHERN ITALY	03 21 57		4.2(61)								
1978 APR 28	NEAR NORTH COAST OF COLOMBIA	04 40 28.9C 1.7 / 32		4.0(29)								
1978 APR 29	SOUTHERN SUMATERA	02 40 08.5 1.6 / 27		4.2(29)								
1978 APR 29	POLAND, UPPER SILESIA	04 24 23		4.0(29)								
1978 APR 29	SOLOMON ISLANDS	04 40 18 1.4 / 34		4.0(29)								
1978 APR 29	KURILE ISLANDS REGION	15 45 36 1.0 / 28		4.0(29)								
1978 APR 29	TRACES	17 11 53		4.0(29)								
1978 APR 29	TONGA ISLANDS	18 43 56		4.0(29)								
1978 APR 29	TRACES	18 48 29		4.0(29)								
1978 APR 29	TAINAN REGION	19 37 43		4.0(29)								
1978 APR 29	SICILY	23 52 08.70 0.8 / 18		4.0(29)								
1978 APR 30	NORTHERN ITALY	02 06 17		4.0(29)								
1978 APR 30	FRG, CENTRAL REGION	05 24 37.6		4.0(29)								
1978 APR 30	SOUTHEASTERN AUSTRIA	06 58 20		4.0(29)								
1978 APR 30	FIJI ISLANDS REGION	14 13 56.1D 0.9 / 25		4.0(29)								
1978 APR 30	TONGA ISLANDS REGION	17 29 30.4C 1.0 / 19		4.0(29)								
1978 APR 30	CENTRAL ITALY	17 39 50		4.0(29)								
1978 APR 30	NEW HEBRIDES ISLANDS	19 18 17		4.0(29)								
1978 APR 30	TRACES	19 42 07		4.0(29)								
1978 APR 30	FRG, SOUTHWESTERN REGION	23 29 19		4.0(29)								

NO MB COMP, D=145.6 DEG AZ# 11
17.2S;178.3W 33KM H=18 24 13.8 (P)

D= 82.5 DEG AZ# 60
24.7N;122.7E 18KM H=19 29 20.9 (U)
24.6N;122.9E 33KM 19 29 21.3 (M)
DISTANCE 82.5 DEG

D= 12.5 DEG AZ#177
38.8N; 13.9E 442KM H=23 49 21.5 (U)
31.3N; 23.1E 10KM 23 47 02.8 (W)

D= 5.1 DEG AZ#178
46.2N; 13.2E 10KM H=22 04 42.9 (B)
46.2N; 13.1E 10KM 22 04 41.8 (U)

D= 3.8 DEG AZ#262
50.6N; 7.1E 10KM H=25 23 26.6 (W)
50.2N; 6.5E 10KM 25 23 30.1 (U)

D= 3.7 DEG AZ#155
47.9N; 15.3E H=26 56 21 (A)

D=147.4 DEG AZ# 19
19.8S;178.0W 604KM H=13 55 17.5 (U)

/4.7(1) D=150.6 DEG AZ# 16
22.6S;175.5W 33KM H=17 09 39.7 (E)

D= 7.5 DEG AZ#178
43.8N; 13.4E 33KM H=17 35 48.7 (U)

D=138.1 DEG AZ# 39
14.8S;167.3E 141KM H=18 59 07.5 (U)
14.8S;167.1E 33KM 18 58 49.2 (M)

D= 4.8 DEG AZ#230
48.1N; 7.6E 6KM H=23 26 39.6 (U)
48.1N; 7.6E 15KM 23 26 39.7 (B)

D= 77.5 DEG AZ= 31
44.3N;149.3E 33KM H=17 42 45.7
44.6N;149.3E 33KM H=17 42 45.7

D= 77.6 DEG AZ= 31
44.2N;149.1E 33KM H=18 35 26.7
44.7N;148.9E 30KM H=18 35 31.3

D= 77.7 DEG AZ= 31
44.1N;149.2E 33KM H=18 38 36.9
44.3N;149.1E 33KM H=18 38 37.9

D= 77.7 DEG AZ= 31
44.1N;149.2E 33KM H=19 26 05.0

D=150.6 DEG AZ= 26
23.8S;179.4E 490KM H=20 21 14.6

D= 71.8 DEG AZ=352
56.6N;152.7W 33KM H=21 41 17.1
56.5N;153.1W 33KM H=21 41 17.1

D= 13.8 DEG AZ=150
39.0N; 21.9E 30KM H=18 33 29.1
39.1N; 22.0E 39KM H=18 33 32.7
39.0N; 21.7E 33KM H=18 33 28.7

D=153.3 DEG AZ= 18
25.5S;175.9W 33KM H=17 56 05.1

D= 77.3 DEG AZ= 30
44.5N;149.3E 34KM H=22 55 39.1
44.6N;149.5E 33KM H=22 55 34.7

D= 12.3 DEG AZ=108
39.2N; 16.3E 130KM H=23 18 59

D= 78.1 DEG AZ=274
11.9N; 72.6W 62KM H=24 28 34.2
12.1N; 72.8W 33KM H=24 28 32.0

D= 95.2 DEG AZ= 93
5.9S;104.0E 30KM H=22 26 48.9
5.7S;103.9E 30KM H=22 26 49.9

D=130.8 DEG AZ= 44
9.8S;160.5E 46KM H=24 21 10.4
9.7S;160.2E 33KM H=24 21 04.4
DISTANCE 130 DEG

D= 77.6 DEG AZ= 30
44.6N;150.3E 30KM H=15 34 03.2
44.6N;150.3E 33KM H=15 34 02.6

T 15 AN 18 AE 9.5
T 14 AN 7.5 AE 8 AV 10.5
MLH =6.0
MLV =6.4

FRUII
NO MB COMP,
NO MB COMP,
NO MB COMP,

FIJI ISLANDS REGION
PKP1 14 13 56.1D 0.9 / 25
PKP2 13 59.8

TONGA ISLANDS REGION
PKP1 17 29 30.4C 1.0 / 19

NEW HEBRIDES ISLANDS
PKP 19 18 17

FRG, SOUTHWESTERN REGION
SG 23 29 19

SOUTHERN ITALY
PKP1 14 13 56.1D 0.9 / 25
PKP2 13 59.8

SOUTHERN SUMATERA
E APP 44 12
E 46 58
LM 03 35

SOLOMON ISLANDS
E PKP 04 40 18 1.4 / 34
E PP 42 34
I SKP 43 41.8
E 44 29
E SKS 47 17
E SKKS 49 26
LM 05 41

KURILE ISLANDS REGION
E 15 45 36 1.0 / 28
E 46 13

TRACES
17 11 53

Date	Time	Location	Magnitude	Depth (km)	Distance (DEG)	Azimuth (AZ)	Station	Other Data
1978 MAY 01	01 06 13	NORTHERN ITALY	4.3		5.1	143	NO MB COMP.	
1978 MAY 01	01 53 28	CRETE	5.5		18.7	146	MB=4.3(16)	
1978 MAY 01	04 41 59	FIJI ISLANDS REGION	5.5		147.0	18	MC = 4.9	
1978 MAY 01	06 25 33	KURILE ISLANDS	5.2		77.8	31	MB=5.1(63)	
1978 MAY 01	07 06 00	SOUTH OF FIJI ISLANDS	5.2		150.9	25	MB=5.2(17)	
1978 MAY 01	09 25 33	POLAND, UPPER SILEZIA	5.5		110.9	79	MB=5.5(31)	
1978 MAY 01	12 00 27	TIMOR	4.9		88.0	45	MB=4.9(45)	
1978 MAY 01	15 24 41	BONIN ISLANDS REGION	4.5		76.8	30	MB=4.5(3)	
1978 MAY 01	16 43 41	KURILE ISLANDS	5.1		77.8	31	MB=5.1(52)	
1978 MAY 01	18 11 01	KURILE ISLANDS REGION	5.1		77.8	31	NO MB COMP.	
1978 MAY 01	18 11 13	KURILE ISLANDS REGION	5.1		77.8	31	NO MB COMP.	
1978 MAY 01	22 01 58	HOKKAIDO, JAPAN; REGION	4.6		77.3	45	MB=4.6(30)	
1978 MAY 02	05 26 54	KURILE ISLANDS	4.8		75.7	27	MB=4.8(45)	
1978 MAY 02	06 13 32	SOUTH OF HONSHU, JAPAN	4.6		85.0	45	MB=4.6(20)	
INTERRUPTION OF ONE SHORTPERIODIC RECORD FROM 13H 40M TO 05H 59M (AT MAY 03)								
1978 MAY 02	21 42 17	SOUTH SANDWICH ISLANDS REGION	5.8		113.8	201	MB=5.8(12)	
1978 MAY 03	00 21 18	TALAUD ISLANDS	5.7		102.0	69	MB=5.7(44)	
1978 MAY 03	08 00 55	FIJI ISLANDS REGION	5.4		149.1	19	MB=5.4(31)	
1978 MAY 03	10 31 22	NORTH ATLANTIC RIDGE	4.5		28.1	286	MB=4.5(12)	
1978 MAY 03	12 48 57	POLAND, UPPER SILEZIA	3.9		5.1	143		
1978 MAY 03	22 33 41	ICELAND	3.9		18.7	146		
1978 MAY 04	00 04 08	FIJI ISLANDS REGION	3.2		147.0	18		
1978 MAY 04	00 09 05	WESTERN AUSTRIA	3.2		77.8	31		
1978 MAY 04	07 52 05	EXPLOSION OF 4.3 TONS; CZECHOSLOVAKIA	4.5		88.0	45		
1978 MAY 04	16 26 10	SOUTHERN IBAN	4.5		76.8	30		
1978 MAY 04	17 54 56	POLAND, UPPER SILEZIA	5.5		110.9	79		
1978 MAY 04	18 34 59	KURILE ISLANDS	5.3		77.7	31		
1978 MAY 04	21 52 45	KURILE ISLANDS	5.0		77.7	31		
1978 MAY 05	02 15 27	KURILE ISLANDS	5.0		77.7	31		
1978 MAY 05	04 34 59	SOUTHEASTERN AUSTRIA	5.0		77.8	31		
1978 MAY 05	04 58 49	TRACES, EXPLOSION; CZECHOSLOVAKIA	5.2		65.0	392		
1978 MAY 05	05 43 14	CENTRAL ALASKA	5.2		65.0	392		
1978 MAY 05	09 38 18	CENTRAL YUGOSLAVIA	5.0		77.3	45		
1978 MAY 05	10 46 45	POLAND, UPPER SILEZIA (QUESTIONABLY)	4.6		75.7	27		
1978 MAY 05	10 53 21	SOUTH OF FIJI ISLANDS	4.6		85.0	45		
1978 MAY 05	10 53 42	MOLUCCA PASSAGE	5.2		103.7	71		
1978 MAY 05	11 02 15	TRACES, EXPLOSION OF 9.6 TONS; CZECHOSLOVAKIA	5.8		113.8	201		
1978 MAY 05	19 08 03	POLAND, UPPER SILEZIA	4.9		137.5	39		
1978 MAY 05	20 14 03	TRACES; NEW HEBRIDES ISLANDS	4.9		137.5	39		
1978 MAY 05	21 10 55	TRACES; CALIFORNIA-MEXICO BORDER REGION	4.8		85.2	318		
1978 MAY 06	03 05 18	SVALBARD REGION	4.6		28.9	357		
1978 MAY 06	07 28 03		4.5		28.1	286		



Date	Time	Location	Magnitude	Depth (km)	D (DEG)	AZ (DEG)	H (KM)	Other Data
1978 MAY 06	09 14 29		M _b =5.2(74)					
1978 MAY 06	11 24 21.5	PAKISTAN	M _b =2.1 / 1.5					
1978 MAY 06	12 00 13.3	TRACES, EXPLOSION OF 12.7 TONSI CZECHOSLOVAKIA						
1978 MAY 06	17 35 23							
1978 MAY 06	19 42 29							
1978 MAY 06	22 58 50.5		M _b =4.1(5)					
1978 MAY 07	02 33 11	TRACES, NORTH ATLANTIC RIDGE	M _b =4.6(24)					
1978 MAY 07	09 51 32	SOUTH OF HONSHU, JAPAN	M _b =5.0(33)					
1978 MAY 07	10 40 55	PAKISTAN	M _b =4.6(3)					
1978 MAY 07	12 36 24	SAMOA ISLANDS REGION	NO MB COMP.					
1978 MAY 07	15 34 12	WESTERN AUSTRIA	M _b =4.7(7)					
1978 MAY 07	22 54 55	TRACES, CENTRAL MID-ATLANTIC RIDGE	M _b =4.7(8)					
1978 MAY 08	00 18 53	KAMCHATKA						
1978 MAY 08	03 43 47	POLAND, UPPER SILESIA						
1978 MAY 08	05 39 21							
1978 MAY 08	05 40 57	POLAND, UPPER SILESIA						
1978 MAY 08	13 36 23.0	NEAR EAST COAST OF KAMCHATKA	M _b =4.0(2)					
1978 MAY 08	13 48 29.2	POLAND, UPPER SILESIA	NO MB COMP.					
1978 MAY 08	14 42 19	GREECE	M _b =4.2(11)					
1978 MAY 08	15 07 17	GREECE	M _b =4.0(3)					
1978 MAY 08	16 55 09	NEW HEBRIDES ISLANDS	M _b =5.4(11)					
1978 MAY 08	18 38 52	KURILE ISLANDS	M _b =4.6(8)					
1978 MAY 08	19 25 05	NEW HEBRIDES ISLANDS	M _b =5.1(4)					
1978 MAY 08	21 51 43							
1978 MAY 09	00 44 54							
1978 MAY 09	07 42 20	NEAR EAST COAST OF KAMCHATKA						
1978 MAY 09	09 49 10	SOUTH OF TONGA ISLANDS	M _b =4.9(3)					
1978 MAY 09	11 45 03							
1978 MAY 09	16 00 05							
1978 MAY 09	18 15 37.5	TONGA ISLANDS REGION	M _b =5.4(13)					
1978 MAY 10	01 36 33	KURILE ISLANDS	M _b =4.5(4)					
1978 MAY 10	01 40 08	CENTRAL YUGOSLAVIA	M _b =4.8(10)					
1978 MAY 10	04 03 36	BONIN ISLANDS REGION	M _b =5.0(47)					
1978 MAY 10	09 10 08							
1978 MAY 10	12 57 03.6							
1978 MAY 10	13 16 03	GREECE	M _b =4.1(18)					
1978 MAY 10	15 48 37.1	NEAR EAST COAST OF HONSHU, JAPAN	M _b =5.5(60)					
1978 MAY 10	17 43 33	TRACES						
1978 MAY 10	18 51 16	SOUTH OF PANAMA	M _b =4.6(3)					
1978 MAY 10	18 54 39	SICILY	NO MB COMP.					
1978 MAY 10	20 16 45							
1978 MAY 10	20 57 38.9	KURILE ISLANDS	M _b =4.6(19)					
1978 MAY 11	00 35 29.7	ANDREANOF ISLANDS, ALEUTIAN IS.	M _b =5.6(97)					
1978 MAY 11	01 02 37							
1978 MAY 11	02 50 06	SICILY	M _b =4.5(4)					
1978 MAY 11	06 11 15	ICELAND REGION	M _b =4.8(45)					
1978 MAY 11	10 03 02	SOUTHERN IRAN	M _b =4.5(29)					
1978 MAY 11	11 22 55	TONGA ISLANDS REGION	M _b =5.0(6)					
1978 MAY 11	17 19 02							



Date	Time	Location	MB	D	AZ	H	M	Other
1978 MAY 11	18 38 09	CHIAPAS, MEXICO	4.9(35)	88.9	290	13.9N	92.2W	59KM
1978 MAY 11	22 04	OFF COAST OF CHIAPAS, MEXICO		10.2N	93.9W	33KM		
1978 MAY 12	04 44 10	TAIWAN REGION	4.5(4)	83.4	61	23.2N	122.2E	29KM
1978 MAY 12	05 24 58	ETHIOPIA	4.8(8)	44.8	140	13.0N	40.0E	33KM
1978 MAY 12	06 28 12	FIJI ISLANDS REGION	4.5(1)	146.7	19	19.2S	177.8W	620KM
1978 MAY 12	11 06 51	TRACES, EXPLOSION OF 8.9 TONS, CZECHOSLOVAKIA	5.1(35)	290	160	48.85N	14.35E	
1978 MAY 12	12 26 44	CENTRAL ALASKA		65.9	351	62.3N	149.4W	67KM
1978 MAY 12	20 04 18	NEAR EAST COAST OF HONSHU, JAPAN	5.3(76)	81.7	40	36.3N	141.4E	37KM
1978 MAY 13	02 40 18	NEAR COAST OF CHIAPAS, MEXICO	4.8(23)	88.2	290	14.1N	92.0W	68KM
1978 MAY 13	03 48 56	NEW HEBRIDES ISLANDS	3.3(10)	140.2	40	17.0S	167.5E	15KM
1978 MAY 13	06 21 45			17.0S	168.2E	33KM		
1978 MAY 13	07 17 17			137.9	39	14.5S	167.3E	160KM
1978 MAY 13	07 24 56	NEW HEBRIDES ISLANDS	6.7(56)	14.5S	167.0E	150KM		
1978 MAY 13	08 41 58	GREECE	4.1(1)	12.8	142	40.7N	23.3E	33KM
1978 MAY 13	17 00 43	TONGA ISLANDS	5.4(25)	143.6	10	15.2S	173.4W	33KM
1978 MAY 13	22 58 06	TONGA ISLANDS REGION	5.0(2)	150.6	14	22.4S	174.2W	33KM
1978 MAY 13	23 14 52	WINDWARD ISLANDS		41.5	29			
1978 MAY 14	06 42 31	KURILE ISLANDS	4.8(24)					
1978 MAY 14	08 45 37	TRACES MEXICOMBUATEMALA BORDER REGION	4.8(29)					
1978 MAY 14	12 26 46	BALLENY ISLANDS REGION	5.2(5)	156.6	131	61.5S	158.3E	33KM
1978 MAY 14	13 39 42							
1978 MAY 14	15 30 48							
1978 MAY 14	17 53 38	NEAR EAST COAST OF HONSHU, JAPAN	5.1(56)	78.7	37	40.2N	142.4E	47KM
1978 MAY 14	18 45 19	SOUTH SANDWICH ISLANDS REGION	5.4(7)	112.3	202	56.8S	25.5W	33KM
1978 MAY 14	22 48 09	BRITISH COLUMBIA	4.8(25)	68.7	331	52.7N	118.7W	10KM
1978 MAY 14	22 53 12	NORTHERN ITALY LOMBARDY						
1978 MAY 15	00 55 38	NEW HEBRIDES ISLANDS	5.6(19)	144.6	40	20.9S	169.7E	95KM
1978 MAY 15	07 37 19	CENTRAL MID-ATLANTIC RIDGE	4.7(5)	60.9	228	0.8N	27.8W	33KM
1978 MAY 15	10 20 29	TRACES						
1978 MAY 15	03 48 36	AFGHANISTAN-USSR BORDER REGION	4.7(10)	41.8	86	37.7N	69.9E	12KM
1978 MAY 16	05 34 20	CENTRAL YUGOSLAVIA	NO MB COMP.	9.0	152	43.2N	18.7E	33KM
1978 MAY 16	06 38 46.6	SOUTH OF FIJI ISLANDS	NO MB COMP.	150.0	25	23.1S	179.5E	33KM
1978 MAY 16	07 47 41.2	HOKKAIDO, JAPAN, REGION	5.7(99)	77.6	37	41.0N	141.3E	32KM
1978 MAY 16	08 25	ALBANIA	3.5(1)	11.6	149	41.1N	20.9E	10KM
1978 MAY 16	08 35 53.5	HOKKAIDO, JAPAN, REGION	5.8(101)	77.6	37	41.0N	141.3E	32KM
1978 MAY 16	08 52 07.4							
1978 MAY 16	09 08							
1978 MAY 16	23 22 54.3	NEW HEBRIDES ISLANDS	5.0(13)	137.7	39	14.3S	167.4E	207KM
1978 MAY 17	01 40 09	CENTRAL YUGOSLAVIA	NO MB COMP.	9.0	152	43.2N	18.7E	33KM



Date	Location	Time	Magnitude	D (DEG)	AZ (DEG)	Distance (KM)	Depth (KM)	Notes
1978 MAY 17	SOUTHERN YUGOSLAVIA	06 46 05	3.0	9.2	154	0	0	
1978 MAY 17	NEAR ISLANDS, ALEUTIAN ISLANDS	08 57 10:2 57 17:8	2.5	74.4	14	0	0	
1978 MAY 17	OFF EAST COAST OF HONSHU, JAPAN	09 04 50:2 05 11 08 11	4.2	83.5	41	0	0	
1978 MAY 17	ICELAND REGION	09 49 04	5.1	23.6	313	0	0	
1978 MAY 17	FIJI ISLANDS REGION	10 21 16 21 17:5 21 38 23 17	3.1	145.6	19	0	0	
1978 MAY 17	NEAR EARTHQUAKE	10 34 42 35 44	3.3	109	137	0	0	
1978 MAY 17	EXPLOSION OF 24.4 TONN CZECHOSLOVAKIA	11 26 09:9 26 23:2	3.3	148.5	12	0	0	
1978 MAY 17	TONGA ISLANDS	23 43 14.3	3.9	14.3	150	0	0	
1978 MAY 18	GREECE	00 22 21 22 42	5.0	9.7	143	0	0	
1978 MAY 18	CENTRAL YUGOSLAVIA	02 39 28:3 41 00 41 40 42 21	4.7	72.4	266	0	0	
1978 MAY 18	WINDWARD ISLANDS	03 36 21	5.3	143.6	40	0	0	
1978 MAY 18	NEW HEBRIDES ISLANDS	05 12 48	5.3	150.0	24	0	0	
1978 MAY 18	SOUTH OF FIJI ISLANDS	07 29 04:9 29 13 31 21	4.8	150.0	24	0	0	
1978 MAY 18	POLAND, UPPER SILESIA	08 36 11 36 50 37 07	NO MB COMP.	4.2	100	0	0	
1978 MAY 18	NORTHEASTERN CHINA	12 44 42 44 55.0 53 33	5.4	69.7	50	0	0	
1978 MAY 18	FIJI ISLANDS	16 10 01.1	3.6	145.0	24	0	0	
1978 MAY 18	TURKMEN SSR	17 20 47	5.0	31.1	95	0	0	
1978 MAY 18	TURKMEN SSR	17 20 57 21 11 33.3	5.1	30.9	96	0	0	
1978 MAY 18		19 20 07						
1978 MAY 18		19 25 58						
1978 MAY 18	PAPUA NEW GUINEA	21 10 00	4.1					
1978 MAY 18	TRACEY SOUTH INDIAN OCEAN	22 52 50	4.9					
1978 MAY 18		23 37 40						
1978 MAY 19		00 33 31						
1978 MAY 19	EXPLOSION CZECHOSLOVAKIA	07 00 30:3 00 45 00 56						
1978 MAY 19		12 36 22						
1978 MAY 19	YUNAN PROVINCE, CHINA	13 10 03	4.9					
1978 MAY 19	GREECE	14 53	4.7					
1978 MAY 20	YUNAN PROVINCE, CHINA	01 51 58	4.7					
1978 MAY 20	NORTHERN YUGOSLAVIA	03 59 47	4.8					
1978 MAY 20	NORTHEASTERN CHINA	06 12 58 41 45	4.8					
1978 MAY 20	CHAGOS ARCHIPELAGO REGION	07 26 51:3D 1.8 / 39	5.3					
1978 MAY 20	NEAR COAST OF PERU	13 24 07 34 44 37.7 14 05	4.1					
1978 MAY 20	EASTERN TURKEY	18 50 16	4.1					
1978 MAY 20		19 38 33:4C 1.1 / 13						
1978 MAY 20	POLAND, UPPER SILESIA	19 57 19	4.9					
1978 MAY 20	FIJI ISLANDS REGION	21 37 07:1C 0.9 / 16	5.3					
1978 MAY 20	KERMADEC ISLANDS	22 11 13:6 1.3 / 18	5.3					
1978 MAY 21		00 27 54						
1978 MAY 21	POLAND, UPPER SILESIA	02 44 18	4.5					
1978 MAY 21	FIJI ISLANDS REGION	06 52 58:2D 0.8 / 18	NO MB COMP.					
1978 MAY 21	TONGA ISLANDS	07 16 56	5.3					
1978 MAY 21	MINDANAO, PHILIPPINE ISLANDS	07 36 42 40 53	4.9					
1978 MAY 21	SOUTH OF FIJI ISLANDS	10 33 41:7C 1.0 / 34 53 52 55 40	4.8					
1978 MAY 21	FIJI ISLANDS REGION	11 33 51	4.8					
1978 MAY 21	NEAR EAST COAST OF HONSHU, JAPAN	12 20 41:2C 1.0 / 32 20 55:8	5.2					
1978 MAY 21	TRACEY KODIAK ISLAND REGION	15 06 57	4.7					



1978 MAY 21 NEAR EAST COAST OF KAMCHATKA
E P 17 50 27

MB=4.4(7)

1978 MAY 21 CRETE
E P 23 27 16

MB=4.2(2)

1978 MAY 22 PAKISTAN
E P 02 43 20

MB=4.6(19)

1978 MAY 22 IRAN
I P 06 25 23.9C 2.1 / 28
I 25 27.8

MB=5.0(49)

1978 MAY 22 TRACES: KERMADEC ISLANDS REGION
E PKP2 07 16 16

MB=5.5(3)

1978 MAY 22 EASTERN SEA OF JAPAN
I P 07 43 35.6C 2.9 / 145
I AP 43 44.2
E S 53.2

MB=5.6(101)

LHM 08 14 T 15 AN 2.5 AE 3.5
LMV 19 T 12 AN 2 AE 2 AV 2.5 MLH =5.9
MLV =5.8

1978 MAY 22
E P 08 06 26
E 06 35

1978 MAY 22
E 11 48 51
E SG 49 11

1978 MAY 22 EXPLOSION: GERMAN DEMOCRATIC REPUBLIC
I PG 13 34 30.2
I SG 34 31.8

1978 MAY 22 KURILE ISLANDS
E P 14 44 45
E 44 59

1978 MAY 22 POLAND, UPPER SILESBIA
E PG 15 16 46
E SG 17 40

1978 MAY 22 TRACES
E 16 09 32
LM 54

1978 MAY 22 TONGA ISLANDS
E PKP1 18 18 40
E APKP 19 29

1978 MAY 22 TRACES
E(P) 18 41 39

1978 MAY 22 KURILE ISLANDS
I P 19 46 15.3 1.2 / 12

1978 MAY 22 FIJI ISLANDS REGION
E PKP 20 21 04
E 21 11
E 24 14

1978 MAY 22 WESTERN POLAND
E PG 20 36 21
E 36 44
E SG 36 51

1978 MAY 22 TRACES
E 22 45 22

1978 MAY 23 WESTERN POLAND
E(PQ) 04 31 16
E 31 36
E 31 44
E(SQ) 31 49

1978 MAY 23 NEW HEBRIDES ISLANDS
E PKP 05 23 11

1978 MAY 23
E 06 18 07
E 18 55
E SG 19 40

1978 MAY 23 KYUSHU, JAPAN
I P 08 02 25.9C 1.0 / 1990
I 02 39.6
E AP 03 09
I 03 16.5
E PP 05 38
E 09.8
E S 12 23 T 15 AN 5.0 AE 9.4

(CONT.)

D= 69.9 DEG AZ= 18
36.0N 141.9E 97KM
35.9N 141.9E 100KM
D= 27.7 DEG AZ=152
39.2N 139.1E 33KM
35.1N 139.1E 30KM
D= 45.7 DEG AZ= 96
29.9N 140.8E 38KM
30.0N 140.8E 38KM
D= 37.1 DEG AZ=105
31.8N 136.2E 34KM
31.8N 136.2E 44KM
31.7N 136.2E 38KM
D= 50.7 DEG AZ= 27
31.6S 178.1W 33KM
D= 74.7 DEG AZ= 38
43.4N 139.0E 31KM
43.9N 138.6E 33KM
DISTANCE 74 DEG

D= 10 KM AZ=314
51.37N 127.89E

D= 77.8 DEG AZ= 31
44.6N 148.6E (81KM) H=4 32 59
44.0N 149.3E 33KM [4 32 45]

NO MB COMP. D= 37.9 DEG AZ=103
50.3N 18.9E DKM H=15 19 27

D= 147.6 DEG AZ= 15
19.5S 175.4W 209KM H=17 59 18

D= 75.5 DEG AZ= 25
50.1N 153.4E 238KM H=19 39 07
50.3N 153.4E 250KM [9 39 07]

D= 142.5 DEG AZ= 17
14.7S 177.6W 330KM H=20 02 13
15.5S 177.5W 33KM [20 01 35]

D= 139.4 DEG AZ= 39
16.1S 167.6E 47KM H=25 03 47
16.0S 167.4E 33KM [25 03 47]

D= 81.1 DEG AZ= 51
31.1N 130.1E 161KM H=27 58 20
31.4N 130.2E 150KM [27 58 20]
DISTANCE 82 DEG DEPTH 170

(CONT.)
08 13 22
17 46
19.0
21 04
21 32
22.4
24.0
28 54
29 09
32 18
39
49 18
1978 MAY 23 11 03 19
1978 MAY 23 IRAN 11 38 53.5 1.2 / 27
P 39 10
AP 41 13
1978 MAY 23 FIJI ISLANDS REGION 12 37 51.1 1.0 / 18
PKP1 37 55:6
PKP2
1978 MAY 23 KURILE ISLANDS 15 34 46.1 1.1 / 20
P 34 57
AP
1978 MAY 23 EASTER ISLAND CORDILLERA 19 28 38:30 1.6 / 56
PKP1
1978 MAY 23 HOKKAIDO, JAPAN: REGION 20 23 30:10 1.2 / 125
P 23 34:5
AP 23 48:4
(PP) 26 08
(PPP) 28 08
1978 MAY 23 EASTER ISLAND CORDILLERA 21 25 17
PKP1 25 21:5 1.5 / 35
1978 MAY 23 FIJI ISLANDS REGION 22 57 31
PKP
1978 MAY 23 / GREECE 23 37 14 2.0 / 215
MAY 24
P 37 26
PP 37 46
39 36
39 45
39 54
40 04
40 32
42
T 10 AN 40 AE 52.5 AV(48.5) MLH =6.0
FINAL 01
1978 MAY 24 SOUTHERN SUMATERA 02 04 25
AP
1978 MAY 24 NEAR COAST OF PAKISTAN 02 34 53.1 1.2 / 38
P 05 02
05 38
1978 MAY 24 GREECE 02 15 33 2.0 / 50
P PPPP 15 56
17 30
S 17 55
SS 1P 17
SSSS 40 32
LM 42
T 9 AN 2.5 AE 2.5 AV 2.5 MLH =4.7
1978 MAY 24 NEAR EAST COAST OF KAMCHATKA 03 31 46
P
1978 MAY 24 GREECE 06 30 31
P 04 40
L
1978 MAY 24 ANDREANOF ISLANDS, ALEUTIAN IS. 05 28 48.70 1.1 / 140
P 38 39
S 39 36
PPS 44.1
SS 47 03
PKPKPK 07 03
LM 07 10
T 16 AN 27.5 AE 11 AV 32.5 MLH =6.7 MLV =6.8
1978 MAY 24 ANDREANOF ISLANDS, ALEUTIAN IS. 06 45 09.9C 1.0 / 19
P

T 16 AN 8 AE 11.5 AV 8.5 MLH =6.4 MLV =6.2 (NO DEPTH CORRECTION)

MB=5.0(37) D= 37.0 DEG AZ=105
31.9N 136.2E 25KM H=11 31 43.2 (U)
32.0N 136.2E 51KM 11 31 48.4 (B)
31.7N 136.4E 33KM 11 31 39.4 (M)

14.5(5) D=147.8 DEG AZ= 20
20.3S 178.4W 584KM H=12 19 08.3 (U)

MB=4.9(30) D= 77.6 DEG AZ= 31
44.2N 149.2E 33KM H=15 22 52.0 (U)
44.1N 149.3E 33KM 15 22 45.9 (M)

MB=5.0(3) D=150.6 DEG AZ=247
53.2S 118.3W 33KM H=19 08 48.2 (U)
53.9S 120.5W 33KM 19 08 46.9 (M)

MB=5.6(96) D= 77.4 DEG AZ= 34
42.7N 144.7E 78KM H=20 11 42.5 (U)
43.2N 144.8E 100KM 20 11 45.6 (M)

MB=4.9(2) D=150.6 DEG AZ=248
52.9S 118.5W 33KM H=21 05 27.5 (U)
53.9S 118.9W 33KM 21 05 30.3 (M)

MB=4.9(6) D=143.8 DEG AZ= 16
15.1S 176.8W 33KM H=22 37 58.9 (U)

MB=5.7(93) D= 12.7 DEG AZ=142
40.8N 23.3E 10KM H=23 34 11.4 (U)
40.7N 23.3E 12KM 23 34 14.0 (B)
40.8N 23.3E 33KM 23 34 10.5 (M)
DISTANCE 13 DEG

MB=5.1(4) D= 94.8 DEG AZ= 93
5.3S 102.8E 33KM H=21 50 58.8 (U)

MB=5.1(51) D= 48.5 DEG AZ=104
23.8N 65.4E 30KM H=21 56 10.2 (U)
24.1N 65.6E 33KM 21 56 08.7 (M)

MB=4.8(34) D= 12.8 DEG AZ=142
40.7N 23.4E 10KM H=22 12 27.9 (U)
40.7N 23.4E 10KM 22 12 30.3 (B)
40.4N 23.4E 33KM 22 12 27.4 (M)
DISTANCE 13 DEG

MB=4.5(8) D= 71.0 DEG AZ= 19
54.8N 161.2E 33KM H=23 20 30.5 (U)

MB=4.3(28) D= 12.8 DEG AZ=142
40.7N 23.3E 10KM H=25 57 27.0 (U)
40.7N 23.4E 10KM 25 57 28.8 (B)
40.8N 23.3E 33KM 25 57 30.4 (M)

MB=5.0(93) D= 77.3 DEG AZ= 8
51.2N 179.2W 25KM H=26 16 55.4 (U)
51.5N 179.5W 33KM 26 16 58.6 (M)
DISTANCE 76 DEG

MB=5.0(45) D= 77.5 DEG AZ= 8
51.1N 179.1W 33KM H=26 33 17.6 (U)

AV 8.4 MPV =6.4

MB=6.3(108)

MSH =6.5

1978 MAY 24 E P	ANDREANOF ISLANDS, ALEUTIAN IS. 07 32 46	MB=4.9(30)	D=77.2 DEG 51.3N/179.3W 50.6N/179.1W	AZ= 8 33KM 33KM	H=87 20 54 87 20 40	1978 MAY 26 E P	VOLCANO ISLANDS REGION 23 24 04	MB=5.1(24)	D= 92.8 DEG AZ= 45 24.5N/142.7E 33KM H=23 10 55.4 (U) 24.4N/142.5E 33KM 23 10 50.3 (M)
1978 MAY 24 E P	ANDREANOF ISLANDS, ALEUTIAN IS. 09 35 49	MB=4.8(22)	D= 77.3 DEG 51.2N/179.2W 50.8N/179.2W	AZ= 8 33KM 33KM	H=89 23 50 89 23 50	1978 MAY 27 E P	VOLCANO ISLANDS REGION 00 11 31.3	MB=3.8(73)	D= 92.7 DEG AZ= 45 24.3N/142.7E 33KM H=23 58 22.0 (U) 24.6N/142.5E 30KM 23 58 26.2 (M) DISTANCE 93 DEG
1978 MAY 24 E P	TRACEST ANDREANOF ISLANDS, ALEUTIAN IS. 09 37 36	MB=4.3(4)	D= 77.2 DEG 51.4N/179.1W	AZ= 8 33KM	H=89 23 50	1978 MAY 27 E P	1.8 / 148 T 18 AN 1.8 AE 1.8 AV 3.5	MPPH =6.9 MPPV =6.7	
1978 MAY 24 I P I AP	ANDREANOF ISLANDS, ALEUTIAN IS. 10 04 55.8C 0.9 / 21 05 07:2	MB=5.2(77)	D= 77.4 DEG 51.1N/179.2W 51.8N/179.7W	AZ= 8 33KM 60KM	H=89 23 46 89 23 50	1978 MAY 27 E P	01 01	MLH =6.9 MLV =6.9	
1978 MAY 24 E E	QUESTIONABLE EVENT 13 44 42 45 04					1978 MAY 27 E P	VOLCANO ISLANDS REGION 02 18 48	MB=5.0(19)	D= 92.8 DEG AZ= 45 24.2N/142.8E 33KM H=22 09 38.3 (U) 24.3N/142.7E 33KM 22 09 39.0 (M)
1978 MAY 24 E P E(PP)	AFGHANISTAN-USSR BORDER REGION 22 21 52 23 47	MB=4.7(23)	D= 43.4 DEG 36.5N/ 71.4E 37.0N/ 71.3E	AZ= 86 69KM 100KM	H=22 13 56 22 14 00	1978 MAY 27 E P	03 45 38 45 50 46 21 47 16	MB=5.2(63)	D= 53.9 DEG AZ=122 11.0N/ 57.3E 33KM H=23 36 16.0 (U) 10.9N/ 57.3E 33KM 23 36 16.0 (M)
1978 MAY 25 E P	ANDREANOF ISLANDS, ALEUTIAN IS. 00 01 29	MB=4.5(18)	D= 77.3 DEG 51.2N/179.3W 50.8N/178.7W	AZ= 8 33KM 33KM	H=83 49 37 83 49 35	1978 MAY 27 E P	07 46 38	MB=4.5(7)	D= 82.4 DEG AZ= 58 25.8N/124.2E 152KM H=27 34 52.0 (U)
1978 MAY 25 E(PKP) E SKP	SANTA CRUZ ISLANDS 00 54 21 57 45	MB=5.1(10)	D=136.0 DEG 12.7S/166.7E	AZ= 38 121KM	H=20 39 09	1978 MAY 27 E P	10 30 27 34 12 41.1 48.0	MLH =6.0 MLV =6.0	D= 92.8 DEG AZ= 45 24.2N/142.8E 33KM H=20 17 16.7 (U) 24.3N/142.6E 33KM 20 17 17.8 (M) DISTANCE 93 DEG
1978 MAY 25 E	02 55 13					1978 MAY 27 E P	11 20	MB=4.9(17)	D= 82.5 DEG AZ= 61 24.0N/121.8E 33KM H=23 44 10.7 (U) 24.9N/121.7E 33KM 23 44 16.7 (M)
1978 MAY 25 E P E	HOKKAIDO, JAPAN; REGION 02 55 26 55 36	MB=4.9(33)	D= 77.8 DEG 41.2N/142.2E 41.9N/142.1E	AZ= 37 47KM 60KM	H=22 43 33 82 43 39	1978 MAY 27 E P	13 56 33 57 04 14 37	MB=5.4(46)	
1978 MAY 25 E PKP1	TONGA ISLANDS 03 41 36	NO MB COMP.	D=148.4 DEG 20.3S/175.4W	AZ= 15 225KM	H=23 22 13	1978 MAY 27 E P	15 12 16	MB=5.2(23)	D=102.2 DEG AZ= 72 1.2N/124.3E 230KM H=16 39 42.6 (U) 1.4N/124.1E 180KM 16 39 38.6 (M)
1978 MAY 25 E P	KURILE ISLANDS 12 53 45 0.9 / 17	MB=4.7(17)	D= 77.6 DEG 44.3N/149.6E 44.4N/149.6E	AZ= 38 30KM 33KM	H=12 41 50 12 41 51	1978 MAY 27 E P	16 53 13	MB=5.2(28)	D=102.2 DEG AZ= 72 1.2N/124.3E 230KM H=16 39 42.6 (U) 1.4N/124.1E 180KM 16 39 38.6 (M)
1978 MAY 25 E P	MOLUCCA SEA 22 34 50	MB=5.5(42)	D=103.8 DEG 0.1S/125.2E 0.8N/124.9E	AZ= 72 54KM 50KM	H=22 20 51 22 20 56	1978 MAY 27 E P	17 24 47	MB=5.0(6)	D=149.7 DEG AZ= 14 21.5S/174.3W 33KM H=17 16 55.1 (U)
1978 MAY 25 E E	22 38 22 39 09					1978 MAY 27 E P	17 36 43.5		
1978 MAY 25 E P	TRACEST SOUTHEAST ASIA 23 34 01	MB=4.8(13)	D= 72.8 DEG 19.3N/ 99.1E 19.2N/ 99.4E	AZ= 81 8KM 33KM	H=23 22 20 23 22 31	1978 MAY 27 E P	18 30 13	MB=4.9(5)	D=149.8 DEG AZ= 14 21.6S/174.4W 33KM H=27 45 00.6 (U)
1978 MAY 26 I PKP I APKP	LOYALTY ISLANDS 02 00 51.7 1.9 / 105 01 04:7	MB=5.5(13)	D=144.1 DEG 20.9S/168.6E 20.3S/178.2E	AZ= 41 33KM 33KM	H=21 41 19 21 41 14	1978 MAY 27 E P	20 45 13	MB=4.5(4)	D=156.5 DEG AZ= 22 28.9S/178.7W 68KM H=29 03 40.1 (U)
1978 MAY 26 E P	HOKKAIDO, JAPAN; REGION 10 31 14	MB=4.6(15)	D= 77.0 DEG 41.7N/141.2E	AZ= 37 140KM	H=10 19 34	1978 MAY 28 E P	08 04 49		
1978 MAY 26 E	11 35 08					1978 MAY 28 E P	09 23 55		
1978 MAY 26 I PKP	12 29 32.9C 1.0 / 33					1978 MAY 28 E P	14 23 34		
1978 MAY 26 LM	NEAR N. COAST OF WEST IRIAN 13 41					1978 MAY 28 E P	19 22 51 34		
1978 MAY 26 I P I E(PP) E S E L E L	EASTERN CAUCASUS 13 48 57.0 1.0 / 1000 49 10:5 49 24 53 16 53 28 57 26 59	MB=5.6(99)	D= 24.6 DEG 42.0N/ 46.8E 42.0N/ 46.7E 41.9N/ 46.9E	AZ= 99 38KM 57KM 70KM	H=23 43 38 23 43 41 23 43 40	1978 MAY 28 E P	21 58 45	MB=4.5(28)	D= 27.4 DEG AZ=301 57.2N/ 38.6W 25KM H=29 17 07.3 (U) 57.4N/ 38.4W 33KM 29 17 04.7 (M)
1978 MAY 26 I PKP E SQ	FRG, CENTRAL REGION EVENTUALLY EXPLOSION 14 24 08.1 24 38		D= 2.4 DEG 51.3N/ 9.2E (50.8N) 9.1E	AZ=271 (10KM 10KM)	H=24 23 23 24 23 23	1978 MAY 28 E P	21 58 45	MB=5.0(1)	D=163.9 DEG AZ= 41 38.3S/179.5E 52KM H=21 37 55 (M)
1978 MAY 26 E P	VOLCANO ISLANDS REGION 17 16 06	MB=5.0(23)	D= 92.8 DEG 24.3N/142.8E 24.4N/142.8E	AZ= 45 33KM 33KM	H=27 08 56 27 08 57	1978 MAY 29 E P	00 38 40 01 34	MB=5.6(31)	D=113.2 DEG AZ= 61 1.8S/139.1E 15KM H=20 19 15.9 (U) 1.9S/139.4E 33KM 20 19 12.0 (M)
1978 MAY 26 E E	18 26 15 27 09					1978 MAY 29 E P	03 20 10.9E 1.4 / 52 45	MB=5.2(66)	D= 66.8 DEG AZ=270 17.7N/ 61.6W 46KM H=23 09 22.3 (U) 18.3N/ 61.8W 33KM 23 09 18.1 (M)
1978 MAY 26 E	CZECHOSLOVAKIA OSTRAVA REGION 19 13 39					1978 MAY 29 E P	05 04 36.8C 0.6 / 25	MB=4.7(30)	D= 40.2 DEG AZ= 65 49.9N/ 78.2E 10KM H=24 36 57.4 (U)

1978 MAY 29 E	TRACES 10 54 35								
1978 MAY 29 E PQ I L	EXPLOSION OF 1.3 TONS; GERMAN DEMOCRATIC REPUBLIC 10 59 42 59 47:3			D= 17 KM AZ=135 31.20N; 13;18E		1978 MAY 31 E	02 43 26		
1978 MAY 29 I PQ I L	EXPLOSION OF 9 TONS; GERMAN DEMOCRATIC REPUBLIC 11 00 06.6 00 09:8			D= 10 KM AZ=311 51.37N; 12;89E		1978 MAY 31 E PQ E SO	02 55 46 56 39	POLAND, UPPER SILESIA	
1978 MAY 29 I PQ I SO	TRACES, EXPLOSION; FRG 13 06 09.5 06 36:4 06 42:3			NO MB COMP. D= 178 DEG AZ=298 50.9N; 10;2E OKM H=13 03 84		1978 MAY 31 E	03 10 14		
1978 MAY 29 E P	TRACES OFF EAST COAST OF HONSHU, JAPAN 13 28 12	MB=4.6(8)		D= 79;1 DEG AZ= 35 40.8N;144;7E 21KM H=13 14 00		1978 MAY 31 E SO	09 37 44	POLAND, UPPER SILESIA 15 15 01	
1978 MAY 29 E P	KURILE ISLANDS 15 15 16	MB=4.8(13)		D= 77;8 DEG AZ= 30 44.3N;149;5E 38KM H=15 03 22 44.4N;149;7E 33KM 15 03 17		1978 MAY 31 E PKP1	19 04 18	SOUTH OF FIJI ISLANDS	4.7(1)/ D=149.7 DEG AZ= 20 22.15;177;5W 550KM H=18 45 27 (1)
1978 MAY 29 E	15 24 13					1978 MAY 31 E P	22 42 03	OFF EAST COAST OF HONSHU, JAPAN	MB=4.6(6) D= 84.3 DEG AZ= 42 33.1N;141;0E 49KM H=22 29 35;2 (U)
1978 MAY 29 E P	KURILE ISLANDS 15 57 04	MB=4.6(4)		D= 77;5 DEG AZ= 30 44.4N;149;5E 33KM H=15 49 10		1978 MAY 31 E	23 03 28		
1978 MAY 29 E(PKP) E(PP) LM	OFF COAST OF SOUTHERN CHILE 17 39 34 41 24 18 35	MB=5.5(14)	T 17 AN 1 AE 1 AV 1,5	D=124;5 DEG AZ=239 44.9S; 79;4W 33KM H=17 20 24					
1978 MAY 29 E P	SICILY 18 50 46			D= 15;0 DEG AZ=174 36.4N; 15;0E 10KM H=18 47 15					
1978 MAY 29 E	19 45 06								
1978 MAY 29 I PKP1 E ARKP	SOUTH OF FIJI ISLANDS 22 55 28.8 1.0 / 24 57 40	MB=5.1(7)		D=150;2 DEG AZ= 24 23.1S;179;7W 586KM H=22 36 31					
1978 MAY 30 E P	SICHUAN PROVINCE, CHINA 04 08 22	MB=4.9(33)		D= 66;0 DEG AZ= 67 32.8N;104;4E 33KM H=03 57 37 32.7N;104;4E 33KM 03 57 37					
1978 MAY 30 I P	KURILE ISLANDS 07 09 42.2C 1.1 / 130	MB=5.4(64)		D= 77;3 DEG AZ= 31 44.5N;149;2E 38KM H=06 57 50 44.4N;149;3E 33KM 06 57 49					
1978 MAY 30 E SKP	SOLOMON ISLANDS 08 25 41	MB=4.9(7)		D=131;4 DEG AZ= 44 10.1S;161;2E 53KM H=08 03 11					
1978 MAY 30 E PKP1	SOUTH OF FIJI ISLANDS 13 24 42	MB=4.4(1)		D=154;4 DEG AZ= 22 26.9S;177;5W 127KM H=13 04 55					
1978 MAY 30 E(P)	TAIWAN REGION 15 21 32	MB=5.0(15)		D= 82;3 DEG AZ= 60 24.4N;122;0E 2KM H=15 09 04 24.6N;122;1E 33KM 15 09 10					
1978 MAY 30 E PKP E(PP)	SAMOA ISLANDS REGION 19 17 19 20 29	MB=5.1(15)		D=143;8 DEG AZ= 10 15;3S;172;9W 38KM H=18 57 42 14;6S;172;9W 33KM 18 57 37					
1978 MAY 30 I P E E E S LM	ARABIAN SEA 20 26 36;8 26 39 1.8 / 130 26 51 30.0 34 10 54	MB=5;3(75)	T 13 AN 1,5 AE 1,5 AV 2	D= 53;9 DEG AZ=122 11.1N; 57;3E 33KM H=20 17 15 10.9N; 57;3E 33KM 20 17 14					
1978 MAY 31 E	TRACES 00 42 41								
1978 MAY 31 I P I AP E E E PP E APP E SKS E PS E PKP1 LM	NEAR COAST OF NICARAGUA 01 19 57.6 1.8 / 62 20 17:9 20 57 22 09 23 10 23 26 23 42 30 24 31 40 37 54 53	MB=5.4(81)		D= 86;4 DEG AZ=286 12.8N; 87;2W 76KM H=01 07 22 12;1N; 87;6W 33KM 01 07 09 DISTANCE 89 DEG DEPTH 75 KI					
1978 MAY 31 E PKP1 E	TONGA ISLANDS REGION 02 29 59 1.9 / 47 31 12	MLH =6.0 MLV =5.9 (NO DEPTH CORRECTION)	T 22 AN 4,5 AE 5 AV 5	D=150;6 DEG AZ= 15 22.5S;174;7W (33KM H=02 18 08)					
1978 MAY 31 E P	MINDANAO, PHILIPPINE ISLANDS 02 39 54	MB=5.2(19)		D= 98;4 DEG AZ= 67 7.6N;128;5E 144KM H=02 26 55 7.5N;128;6E 33KM 02 26 18					



1978 JUN 01 01 12 28:0C 0.6 / 20
TADZHIK-SINKIANG BORDER REGION
I P
E PP
14 19

1978 JUN 01 02 27 05
CHAGOS ARCHIPELAGO REGION
I P
E P
04 41 06:1C 1.7 / 90
43 37
LM 05 36

1978 JUN 01 09 22(44) D 1.0 / 18
SOUTH OF FIJI ISLANDS
I PKP1

1978 JUN 01 11 06 16 1.0 / 18
TRACEST SOUTH OF KERMADEC ISLANDS
E

1978 JUN 01 19 42 08
KURILE ISLANDS
I P
23 49 04:7 1.2 / 31

1978 JUN 02 04 08 19
E

1978 JUN 02 08 25 08
E

1978 JUN 02 11 45 04
ADMIRALTY ISLANDS REGION
E PDIF
I PKP 48 49:8 1.0 / 19
E 49 42
E PP 50 08
E PPP 52 26
E (PS) 59 30
LM 12 40

1978 JUN 02 12 54 54
NORTH OF ASCENSION ISLAND
E P
E PP 57 03

1978 JUN 02 16 35 25
ALASKA PENINSULA
E P

1978 JUN 02 19 23 05
NORTH ATLANTIC RIDGE
E P
LM 33

1978 JUN 02 20 53 18
VANCOUVER ISLAND REGION
E P
E 53 38
E S 54 09
LM 21 02 48
29 T 16 AN 1 AE 0.5 AV 1

1978 JUN 02 22 34 25:7
GREECE
I P
E PPP 34 42
E 35 44
E 38 32
LM 39 T 11 AN 2.5 AE 3 AV 2

INTERRUPTION OF ONE LONGPERIODIC RECORD FROM 23H 20M TO 07H 17M (AT JUN 05)

1978 JUN 03 03 13 11:1 1.2 / 33
FIJI ISLANDS REGION
I PKP1
I PKP2 13 17:0

1978 JUN 03 05 17 29
SOUTH PACIFIC CORDILLERA
E (PKP)
E APKP2 18 23

1978 JUN 03 09 34 37
POLAND, UPPER SILEZIA
E SQ

1978 JUN 03 09 46 13
KURILE ISLANDS
E P

1978 JUN 03 12 06 11
VANCOUVER ISLAND REGION
E P

1978 JUN 03 18 03(11)
E

1978 JUN 03 19 02(47)
SOUTH OF PANAMA
E P

1978 JUN 03 20 15(57)
SOUTHERN HONSHU, JAPAN
E P
E S 15(59) C 1.2 / 75
LMH 26.1
50 T 14 AN 5.5 AE 4

MB=4.7(52) D= 44.0 DEG AZ= 83
38.3N; 74.0E 190KM H=81 04 84.8
38.5N; 78.0E 180KM H=81 04 86.7

MB=5.3(61) D= 74.0 DEG AZ= 128
7.18; 68.0E 33KM H=04 28 28.4
7.18; 68.1E 33KM H=04 29 19.9

MB=4.9(14) D= 150.6 DEG AZ= 28
23:68; 179.9W 524KM H=89 03 49.9

MB=4.8(43) /4.9(2) D= 160.3 DEG AZ= 25
32.95; 178.8W 12KM H=19 28 07

MB=3.9(70) D= 77.4 DEG AZ= 31
44.4N; 149.2E 33KM H=23 37 12.1
44.2N; 149.4E 33KM H=23 37 10.3

MB=4.9(38) D= 59.6 DEG AZ= 210
4.4S; 12.3W 21KM H=12 44 48.3
4.1S; 12.1W 33KM H=12 44 47.2

MB=4.4(24) D= 74.8 DEG AZ= 357
54.2N; 162.5W 21KM H=16 23 45.1

MB=4.4(28) D= 28.7 DEG AZ= 271
43.8N; 28.6W 10KM H=19 17 06.1
43.7N; 28.4W 10KM H=19 17 09.4

MB=5.1(75) D= 73.4 DEG AZ= 335
50.3N; 127.7W 21KM H=20 41 43.7
50.3N; 128.3W 33KM H=20 41 40.1

MB=4.6(46) D= 12.7 DEG AZ= 142
40.7N; 23.2E 19KM H=22 31 24.4
40.8N; 23.3E 20KM H=22 31 27.1
40.8N; 23.1E 33KM H=22 31 22.4

MB=5.1(13) D= 148.6 DEG AZ= 22
21.3S; 179.2W 634KM H=82 54 32.2

NO MB COMP. D= 163.7 DEG AZ= 239
57.1S; 140.9W 33KM H=84 57 12.5
58.5S; 142.5W 33KM H=84 57 19.1

MB=4.6(15) D= 76.4 DEG AZ= 32
44.6N; 146.6E 150KM H=89 34 57.5

MB=4.6(12) D= 73.4 DEG AZ= 335
50.3N; 127.6W 30KM H=21 54 59.1

MB=4.9(15) D= 88.5 DEG AZ= 278
6.2N; 82.3W 33KM H=18 49 54.4

MB=5.2(71) D= 79.0 DEG AZ= 47
35.1N; 132.6E 4KM H=20 05 52.5
35.4N; 132.7E 33KM H=20 05 57.4

MLH = 6.1

1978 JUN 05 21 15(19) 2.1 / 16
SOUTHERN HONSHU, JAPAN
E P

1978 JUN 05 21 33(22) C 1.3 / 26
SOUTHERN HONSHU, JAPAN
E P
E PPI 34(57)
E S 36(53)
LMH 22 05 T 16 AN 2 AE 2

1978 JUN 05 21 44(59)
PHILIPPINE ISLANDS REGION
E

1978 JUN 06 10 03(08)
ALASKA PENINSULA
E P
E SKS 13.8
LMH 47

1978 JUN 06 12 17(33) C 1.0 / 17
NEAR EAST COAST OF HONSHU, JAPAN
I P

1978 JUN 06 18 52(20) 1.0 / 15
NEAR EAST COAST OF HONSHU, JAPAN
I P
E 52(34)

1978 JUN 06 19 37 24:5 1.5 / 390
UZBEK SSR
I P
I 37 35:0
E PP 38 39
E (PCP) 39 44
E (S) 43.2
E SS 45.6
LMH 55 T 12 AN 10 AE 10.2
FINAL 21

1978 JUN 06 23 48 44
E

1978 JUN 06 07 16 41
EASTERN SIBERIA
E P
E 16 45 1.2 / 31

1978 JUN 06 21 12 24
EASTERN SIBERIA
E(P)

1978 JUN 06 04 09 59.7C 1.2 / 42
NEAR EAST COAST OF KAMCHATKA
I P
E AP 10 26
E S 19.6
LMH 47 T 16 AN 1 AE 1 AV 1.5

1978 JUN 06 11 12 16
TONGA ISLANDS
E PKP1

1978 JUN 06 23 32 47
E

1978 JUN 07 00 00 32
E

1978 JUN 07 00 37 49
TONGA ISLANDS REGION
E PKP1
E 38 04

1978 JUN 07 01 07 48
TRACES
E

1978 JUN 07 02 45 03
CENTRAL YUGOSLAVIA
E

1978 JUN 07 04 57 27
KERMADEC ISLANDS
E PKP2

1978 JUN 07 05 53 26:2C 0.9 / 22
HOKKAIDO, JAPAN, REGION
I P
E AP 53 48

1978 JUN 07 07 26 51
LIBYA
E P

1978 JUN 07 07 42 12
TAIWAN REGION
E P
E AP 42 24

1978 JUN 07 08 13 44
ECUADOR
E P

1978 JUN 07 08 23 54.1C 0.9 / 27
SOUTH OF FIJI ISLANDS
I PKP1

1978 JUN 07 10 38 25
NICOBAR ISLANDS REGION
E P
I AP 38 34:6
E 38 45

1978 JUN 07 13 23 19
POLAND, UPPER SILEZIA
E SQ

MB=4.9(16) D= 78.9 DEG AZ= 46
35.2N; 132.7E 19KM H=21 03 11.5 (U)
35.8N; 132.4E 33KM H=21 03 18.1 (M)

MB=5.2(43) D= 79.0 DEG AZ= 47
35.1N; 132.6E 5KM H=21 20 56.8 (U)
34.9N; 132.8E 33KM H=21 20 52.8 (M)

MB=5.2(38) D= 85.9 DEG AZ= 64
19.3N; 121.2E 48KM H=89 50 32.0 (U)
19.3N; 121.5E 33KM H=89 50 29.6 (M)

MB=5.0(36) /4.0(20) D= 72.3 DEG AZ= 357
56.6N; 161.0W (247KM H=12 06 40) (F)

MB=6.0(108) D= 81.4 DEG AZ= 40
36.5N; 141.0E 50KM H=18 40 07.6 (U)
36.6N; 140.9E 50KM H=18 40 08.2 (M)

MLH = 6.0 D= 36.2 DEG AZ= 87
40.4N; 63.6E 33KM H=19 30 23.4 (U)
40.6N; 63.7E 33KM H=19 30 18.1 (M)
DISTANCE 36 DEG

MB=5.1(35) D= 65.9 DEG AZ= 17
60.1N; 160.3E 33KM H=87 05 56.3 (U)
60.2N; 160.1E 33KM H=87 05 52.8 (M)

MB=4.6(15) D= 65.8 DEG AZ= 17
60.2N; 160.4E 33KM H=21 01 38.1 (U)
60.2N; 160.4E 33KM H=21 01 38.1 (M)

MB=5.4(85) D= 73.5 DEG AZ= 22
51.2N; 157.6E 66KM H=83 58 33.0 (U)
51.6N; 157.3E 33KM H=83 58 31.7 (M)

MB=4.7(5) D= 148.0 DEG AZ= 15
20.0S; 175.5W 267KM H=10 52 59.0 (U)

MB=4.1(1) D= 150.5 DEG AZ= 15
22.4S; 174.8W 33KM H=00 17 59.5 (U)

NO ME COMP. D= 9.0 DEG AZ= 152
43.2N; 18.8E 10KM H=82 40 38.9 (U)

MB=5.1(8) D= 157.5 DEG AZ= 26
30.4S; 178.2W 127KM H=84 37 15.5 (U)

MB=4.9(51) D= 77.2 DEG AZ= 36
42.2N; 142.9E 69KM H=85 41 38.7 (U)
42.3N; 143.1E 100KM H=85 41 41.3 (M)

MB=4.1(8) D= 25.5 DEG AZ= 176
25.8N; 15.1E 33KM H=87 21 21.5 (U)

MB=4.5(5) D= 84.0 DEG AZ= 63
21.8N; 121.3E 33KM H=87 29 43.3 (U)

MB=4.9(27) D= 91.4 DEG AZ= 271
0.7S; 78.3W 12KM H=88 00 34.2 (U)

MB=5.0(53) /4.8(1) D= 150.3 DEG AZ= 26
23.5S; 179.5E 548KM H=88 05 02.3 (U)

D= 79.6 DEG AZ= 93
6.3N; 94.2E 33KM H=10 26 19.9 (U)
6.1N; 94.3E 33KM H=10 26 17.6 (M)

1978 JUN 07 CHILE-ARGENTINA BORDER REGION
E PP 14 26 44
MB=5,3(46)
D=102,6 DEG AZ=248
23,6S; 67,8W 114KM
24,1S; 68,5W 38KM
M=14 08 46,5
14 08 56,8

1978 JUN 07
E 23 37 17
MB=4,6(23)
D= 36,3 DEG AZ= 87
40,4N; 68,7E 33KM
40,9N; 68,7E 38KM
M=02 31 33,5
02 31 53,0

1978 JUN 08 UZBEK SSR
E P 02 38 36
MB=4,2(2)
D=150,0 DEG AZ= 18
22,2S; 178,4W 190KM
M=09 45 50,5

1978 JUN 08 SOUTH OF FIJI ISLANDS
E PKP1 10 05 01
MB=4,6(4)
D= 77,5 DEG AZ= 30
44,4N; 149,6E 33KM
M=13 40 17,0

1978 JUN 08 KURILE ISLANDS
E P 13 52 11
MB=5,3(60)
D= 87,4 DEG AZ= 43
29,6N; 141,2E 66KM
29,6N; 141,1E 50KM
M=16 02 45,0
16 02 43,6

1978 JUN 08 SOUTH OF HONSHU, JAPAN
I P 16 15 26,5 C 1,1 / 20
I 15 45,5
E APP 19 09
MB=4,8(4)
D= 77,2 DEG AZ= 32
43,9N; 147,3E 94KM
M=19 58 31,5

1978 JUN 08 TRACES
E 18 20 16
NO MB COMP,
D=159,8 DEG AZ= 32
33,3S; 179,7W 104KM
M=23 34 13,7

1978 JUN 08 KURILE ISLANDS
I P 20 10 17,8 0,8 / 18
MB=4,9(42)
D= 68,0 DEG AZ=269
16,2N; 61,8W 111KM
M=23 43 50,7

1978 JUN 08 SOUTH OF KERMADEC ISLANDS
I PKP2 23 54 39,6 1,5 / 32
E APKP2 55 07
MB=4,6(13)
D= 26,4 DEG AZ= 99
41,0N; 48,5E 33KM
41,3N; 48,5E 33KM
M=00 13 40,7
00 13 38,9

OR ANOTHER POSSIBILITY

1978 JUN 08 LEEWARD ISLANDS
I P 23 54 39,6 1,5 / 32
E AP 55 07
MB=4,6(2)
D= 77,6 DEG AZ= 31
44,0N; 148,8E 33KM
M=00 45 21,8

1978 JUN 09 EASTERN CAUCASUS
E 00 19 30
NO MB COMP,
D=145,2 DEG AZ= 40
21,6S; 169,7E 33KM
M=05 59 51,0

1978 JUN 09 KURILE ISLANDS
E P 00 57 19
MB=4,9(50)
D= 76,7 DEG AZ= 1
52,4N; 168,7W 33KM
52,1N; 168,6W 33KM
M=22 08 11,0
22 08 03,6

1978 JUN 09
E 02 01 22
MB=5,3(2)
D=122,9 DEG AZ= 50
4,9S; 152,7E 60KM
M=00 21 04,6

1978 JUN 09
E 02 28 15
NO MB COMP,

1978 JUN 09 LOYALTY ISLANDS REGION
I PKP 06 19 25,1 0,6 / 14
MB=4,9(29)
D= 89,0 DEG AZ=273
2,9N; 78,9W 33KM
M=04 29 46,1

1978 JUN 09 FOX ISLANDS, ALEUTIAN ISLANDS
E P 22 20 00
MB=4,4(21)
D= 15,4 DEG AZ=118
42,5N; 31,5E 33KM
42,4N; 31,5E 22KM
42,4N; 31,5E 33KM
M=05 35 05,3
05 35 06,3
05 35 05,4

1978 JUN 10 NEW BRITAIN REGION
E 00 40 21
NO MB COMP,
D=145,8 DEG AZ= 23
18,8S; 179,5E 495KM
M=02 05 04

1978 JUN 10
E 00 58 39
MB=4,7(29)
D= 89,0 DEG AZ=273
2,9N; 78,9W 33KM
M=04 29 46,1

1978 JUN 10
E P 01 16 39
MB=4,5(4)
D=145,0 DEG AZ= 20
17,5S; 178,9W 534KM
M=05 40 00,6

1978 JUN 10 FIJI ISLANDS
E PKP 02 23 29
MB=4,5(4)
D=143,8 DEG AZ=203
50,12N; 12,23E

1978 JUN 10 NEAR WEST COAST OF COLOMBIA
E(P) 04 42 46
MB=4,4(21)
D= 15,4 DEG AZ=118
42,5N; 31,5E 33KM
42,4N; 31,5E 22KM
42,4N; 31,5E 33KM
M=05 35 05,3
05 35 06,3
05 35 05,4

1978 JUN 10 BLACK SEA
E(P) 05 38 49
MLH = 8,0

1978 JUN 10 FIJI ISLANDS REGION
I PKP 05 58 38,5 1,3 / 45
MB=5,4(56)
D= 80,1 DEG AZ= 38
38,5N; 142,2E 44KM
38,5N; 142,2E 33KM
M=09 18 56,9
09 18 55,7

1978 JUN 10 TRACES, EXPLOSION OR 9,2 TONS, CZECHOSLOVAKIA
I PQ 10 00 36,5
I SG 00 54,0

1978 JUN 10
E 10 50 33

1978 JUN 10 POLAND, UPPER SILEBBIA
E 11 39 46
MB=9,5(51)
D= 4,4 DEG AZ=83
50,6N; 8,1E 5KM
50,6N; 8,1E 14KM
M=08 58 21,3 (U)
08 58 20,3 (U)

1978 JUN 10 POLAND, UPPER SILEBBIA
E 13 42 53
D=101,7 DEG AZ= 85
6,18N; 14,2E 528KM
6,28N; 14,3E 479KM
M=07 38 19,9 (U)
07 38 19,3 (U)

1978 JUN 10 PRG, CENTRAL REGION
E 14 00 40
MB=4,8(46)
D= 67,5 DEG AZ=349
60,3N; 148,9W 20KM
60,8N; 148,9W 33KM
M=09 38 10,2 (U)
09 38 14,8 (U)

1978 JUN 10 BALI SEA
E 17 55 29
E APP 57 18
E PKP 18 01 02
E SB 04,8
MB=5,9(70)
D= 40,5 DEG AZ= 65
49,9N; 78,8E 0KM
M=02 56 57,7 (U)

1978 JUN 10 SOUTHERN ALASKA
E P 19 46 06 C 2.1 / 14
MB=5,19(70)
D= 40,5 DEG AZ= 65
49,9N; 78,8E 0KM
M=02 56 57,7 (U)

1978 JUN 10
E 23 05 30
UNDERGROUND EXPLOSION
I P 03 04 40,1 C 1.1 / 210
I PKP 06 08,9
I PN 06 13
E APP 16 22
E 18 21
E LN 21,5
T 10 AN 1 AE 0,5 AV 1
MLH 45,0 MLV =5,1

1978 JUN 11 NEAR EAST BOAST OF KAMCHATKA
E P 04 56 58
MB=4,4(8)
D= 70,1 DEG AZ= 18
56,0N; 162,9E 33KM
55,9N; 162,9E 33KM
M=04 49 47,8 (U)
04 49 47,1 (U)

1978 JUN 11 TALAUD ISLANDS
I P 10 35 46,8 C 2.1 / 24
MB=5,6(50)
D=100,8 DEG AZ= 68
4,7N; 128,6E 78KM
4,7N; 128,4E 33KM
M=00 22 05,1 (U)
00 22 00,8 (U)

1978 JUN 11 TONGA ISLANDS
I PKP 14 47 26,4 D
I 47 29,7 2,7 / 70
E ARKP 47 41
E 48 11
E(PKS) 51,2
MB=5,6(34)
D=143,7 DEG AZ= 11
15,3S; 173,6W 33KM
15,0S; 173,8W 33KM
M=14 27 55,3 (U)
14 27 51,4 (U)

1978 JUN 11 VANCOUVER ISLAND REGION
E P 15 07 08 1,5 / 27
E 07 26
E(PP) 10 16
E S 16 48
E PS 17,4
E SS 21,5
E SSS 25,3
L 36
LM 41
T 20 AN 9,5 AE 9,5 AV 7
T 19 AN 16,5 AE 6,5 AV 15,5
MLH =6,4 MLV =6,4

1978 JUN 11 NORTHERN ITALY
E(SG) 17 35 03
NO MB COMP,
D= 6,8 DEG AZ=187
44,6N; 12,9E 10KM
44,5N; 12,9E 10KM
M=07 31 15,1 (U)
07 31 15,3 (U)

1978 JUN 12 SOUTHERN SUMATERA
I P 00 19 34,9 1,3 / 28
E AP 19 45
E 23 05
E(PKPP) 37 02
MB=5,7(29)
D= 93,8 DEG AZ= 93
5,1S; 102,8E 33KM
5,0S; 102,7E 33KM
M=00 06 18,9 (U)
00 06 14,6 (U)

1978 JUN 12
E 03 32 56
NO MB COMP,

1978 JUN 12
E 06 48 20
D= 80,5 DEG AZ= 38
38,2N; 142,0E 45KM
38,6N; 142,0E 50KM
M=08 06 10,9 (U)
08 06 13,1 (U)

1978 JUN 12 NEAR EAST BOAST OF HONSHU, JAPAN
E P 08 18 18 2,7 / 190
E AP 18 30
MB=5,7(81)
D= 80,3 DEG AZ= 38
38,2N; 142,0E 44KM
38,4N; 142,0E 33KM
M=08 14 26,4 (U)
08 14 26,1 (U)

1978 JUN 12 NEAR EAST BOAST OF HONSHU, JAPAN
I P(1) 08 26 34,1 C 1,4 / 320
I P(2) 26 41,2 0,9 / 1300
E PP(1) 29 31
E PP(2) 29 40
E PPP) 31 50
E S 33,4
E(PB) 36 36
E 37 12
E(SS) 38,5
E SSS 41,5
E PKPPK 49,8
LMH 53 41
L 58
FINAL 09 05
T 24 AN 560 AE 570
MLH = 8,0

1978 JUN 12 NEAR EAST BOAST OF HONSHU, JAPAN
E P 09 25 03,8 C 1,5 / 62
E AP 25 15
MPH =7,4 MPV =7,2
MPRM =7,3 MPPV =7,1
AN INADEQUATE VALUE

1978 JUN 12
E 09 25 03,8 C 1,5 / 62
D= 80,1 DEG AZ= 38
38,5N; 142,2E 44KM
38,5N; 142,2E 33KM
M=09 18 56,9 (U)
09 18 55,7 (U)

1978 JUN 12 NEAR EAST COAST OF HONSHU, JAPAN
E P 09 52 37
I AP 52 50:2
1978 JUN 12 NEAR EAST COAST OF HONSHU, JAPAN
E P 11 26 27

1978 JUN 12 CENTRAL ITALY
E SN 17 30 36
E SQ 31 27
1978 JUN 12 GREECE
E E 17 48 23
E L 51 51
E L 52.5

1978 JUN 12 NEAR S. COAST OF SOUTHERN HONSHU
E P 17 57 31
1978 JUN 12 NORTHERN ITALY FRIULI
I PN 22 25 21:1
I SN 26 16:1
E SQ 26 44

1978 JUN 12 GREECE
E(PPP) 23 40 03
E E 41 20
E E 43 26
E L 44 08
LM 44.5

1978 JUN 13 SOUTHERN HONSHU, JAPAN
I P 18 36 14.6D 1.0 / 27
E AP 37 38

1978 JUN 13 NEAR EAST COAST OF KAMCHATKA
E P 19 52 18 1.4 / 27

1978 JUN 13 NEAR EAST COAST OF HONSHU, JAPAN
E P 20 57 26 1.3 / 15

1978 JUN 13 HOKKAIDO, JAPAN, REGION
I P 23 29 24:5C 1.0 / 88
I AP 29 36:2
I XP 29 40:9

1978 JUN 14 NEAR EAST COAST OF HONSHU, JAPAN
I P 11 46 27:4C 1.9 / 349
I AP 46 39:4
E PP 49 28
E(PPP) 51 09
E 52 16
E S 56 27
E SGS 56 42
LHM 12 24 T 29 AN 68 AE 24
LMV 25 T 18 AV 28 (MLH =6.9)
(MLV =6.8)

1978 JUN 14 MINDANAO, PHILIPPINE ISLANDS
HEAVILY SUPERPOSED BY PRECEDING QUAKE
I P 12 45 58:4D 1.9 / 92
E E 49 16
E E 52 19
E E 52 33
E S 57 12
E SS 13 03.9
LM 31
L 35 T(18) AN(41) AE(46.5)AV(66) (MLH =7.2 MLV =7.2)

1978 JUN 14 MINDANAO, PHILIPPINE ISLANDS
E P 13 47 26
E AP 47 48
E PP 51 20
LM 14 32 T(20) AN(17) AE(28) AV(30) (MLH =6.8 MLV =6.8)(NO DEPTH CORRECTION)

1978 JUN 14 KASHMIR-INDIA BORDER REGION
E P 16 20 57
E 21 06
E 21 22
E(PPP) 23 37
LM 45 (MLH =5.0 MLV =5.0)

1978 JUN 14 IRAN-USSR BORDER REGION
E AP 16 32 18
E PP 32 30
E(PPP) 33 20
E(SGS) 33 31
L 40 13 (MLH =4.8 MLV =4.8)

1978 JUN 14
E 20 54 35

1978 JUN 14
E 22 39 39

MB=4.9(30)
D= 80.1 DEG AZ=38
38.5N;142.0E 46KM
38.6N;142.1E 33KM M=89 48 80.1
M=89 48 29.1

MB=4.9(13)
D= 80.74 DEG AZ=38
38.2N;142.2E 45KM
38.1N;142.3E 33KM M=11 14 18.1
M=11 14 16.1

NO MB COMP;
D= 7.5 DEG AZ=186
43.8N; 12.0E 17KM
(44.0N; 11.7E) 29KM M=17 27 07.1
M=17 27 10.1

MB=4.1(8)
D= 12.8 DEG AZ=142
40.7N; 23.3E 20KM
40.7N; 23.4E 10KM
40.9N; 23.3E 33KM M=17 44 48.1
M=17 44 49.1

MB=4.5(4)
D= 81.8 DEG AZ=45
33.7N;136.4E 397KM M=17 45 53.1

NO MB COMP;
D= 5.0 DEG AZ=179
46.3N; 13.1E 10KM
46.3N; 13.1E 10KM M=22 24 05.4
M=22 24 04.4

MB=4.2(10)
D= 12.7 DEG AZ=142
40.8N; 23.2E 27KM
40.8N; 23.3E 10KM
41.2N; 23.8E 33KM M=23 36 43.1
M=23 36 43.1
M=23 36 52.1

MB=4.8(63)
D= 80.1 DEG AZ=44
35.4N;135.6E 366KM
35.8N;135.6E 390KM M=18 24 43.4
M=18 24 47.4

MB=4.7(30)
D= 70.0 DEG AZ=18
56.1N;162.4E 33KM
55.9N;162.9E 33KM M=19 41 07.9
M=19 41 00.9

MB=4.9(26)
D= 80.4 DEG AZ=39
38.1N;141.9E 42KM
38.3N;141.9E 33KM M=20 45 18.4
M=20 45 18.5

MB=5.3(77)
D= 77.5 DEG AZ=34
42.9N;145.4E 41KM
43.1N;145.5E 33KM M=23 17 32.5
M=23 17 31.1
DEPTH 45 M

MB=6.0(85)
MPV =6.0
MPV =6.3
D= 80.4 DEG AZ=38
38.3N;142.4E 40KM
38.5N;142.3E 33KM M=11 34 20.1
M=11 34 19.1
DISTANCE 79 LEG

MB=6.1(80)
n= 95.5 DEG AZ=70
8.2N;122.4E 24KM
8.4N;122.5E 33KM M=12 32 33.1
M=12 32 35.1
DISTANCE (96) DEG

MB=6.0(39)
D= 49.4 DEG AZ=87
32.3N; 76.5E 18KM
32.5N; 76.5E 33KM M=16 12 06.1
M=16 12 10.1

MB=4.8(24)
D= 33.1 DEG AZ=97
38.0N; 56.3E 20KM
38.2N; 56.9E 33KM M=16 29 34.1
M=16 29 32.1



1978 JUN 15 WESTERN TURKEY
E P 00 30 12
E PP 30 22 T 18 AN 1.3 AE 1 AV 1.5
LM 36

1978 JUN 15 NORTH ATLANTIC RIDGE
E P 00 50 22
E L 01 12
1978 JUN 15 GREECE-BULGARIA BORDER REGION
E LQ2 01 15 47
E 17 30
E S 17 45

1978 JUN 15 NEAR E. COAST OF USSR
I P 03 30 02:2E 1.6 / 130
E 30 10:0
I 30 18
E PCP 31 25
E AP 32 45
E(PP) 34 30
E S 39 00
E SGS 39 25
E SSS 49.3

1978 JUN 15 SOUTH OF FIJI ISLANDS
I PKP1 05 18 20:0 0.8 / 16

1978 JUN 15 SOUTH OF PANAMA
I P 08 31 24:5 1.5 / 37
E 31 40
E PP 34 55
E SKS 41 54
E S 42 13
E(SS) 48 20
LM 09 05 T 20 AN 2 AE 2.5 AV 3 MLH =5.7 MLV =5.7

1978 JUN 15 KURILE ISLANDS
I P 09 40 48:3C 1.2 / 130
E 41 03
E 41 33
E S 50 36
LM 10 20 T 16 AN 2 AE 1.5 AV 2.5

1978 JUN 15 BANDA SEA
I P 13 49 03:4 0.9 / 17
E(AP) 49 48
E SKP 52 23 0.9 / 15
I PKP2 14 00 07:0 1.4 / 17

1978 JUN 15 NEAR EAST COAST OF HONSHU, JAPAN
I P 15 15 47:1C 1.3 / 84
E S 26 20
LM 54 T 16 AN 1.3 AE 1 AV 2.5 MLH =5.5 MLV =5.6

1978 JUN 15 WESTERN POLAND
I PQ 15 56 27:1
I 56 32:5
I SG 56 54

1978 JUN 15 TADZHIK SSR
E P 17 07 58
E PP 09 36

1978 JUN 16 POLAND, UPPER SILEZIA
E SG 01 53 29

1978 JUN 16 STRAITS OF GIBRALTAR
E(P) 02 38 30
LMV 48

1978 JUN 16
E 03 51 16

1978 JUN 16 SOUTHERN GREECE
E(P) 04 32 34
LM 39

1978 JUN 16 OFF EAST COAST OF HONSHU, JAPAN
I AP 05 45 43:7C 1.9 / 90
E PP 45 53:8
LM 48 48
T 14 AN 6.5 AE 6.5 AV 7 MLH =6.5 MLV =6.8

1978 JUN 16 OFF EAST COAST OF HONSHU, JAPAN
E P 05 54 56

1978 JUN 16 EXPLOSION OF 10.0 TONS CZECHOSLOVAKIA
I PQ 08 08 23:7
I SQ 08 35:8
I L 08 45

1978 JUN 16 MINDANAO, PHILIPPINE ISLANDS
E P 08 10 22:3C 2.0 / 280
E PPP 14 25
E 16 32
LM 09 01

MB=4.4(33)
D= 14.6 DEG AZ=130
40.8N; 27.7E 36KM
40.8N; 27.8E 30KM
41.0N; 27.8E 33KM M=80 26 43.3 (U)
M=80 26 44.6 (U)
M=80 26 42.6 (M)

MB=5.0(44)
D= 60.9 DEG AZ=249
10.9N; 48.3W 33KM
10.9N; 48.7W 33KM M=80 40 11.2 (U)
M=80 40 09.5 (M)

MB=3.4(1)
D= 12.1 DEG AZ=141
41.4N; 23.1E 10KM M=81 10 41.3 (U)

MB=5.2(78)
D= 78.3 DEG AZ=40
43.4N;135.4E 375KM
43.6N;135.5E 390KM M=83 19 09.5 (U)
M=83 19 11.2 (M)
DISTANCE (72) DEG

MB=4.9(1)
D=150.5 DEG AZ=22
23.2S;178.7W 369KM M=84 59 11.6 (U)

MB=5.3(66)
D= 88.8 DEG AZ=278
6.1N; 82.7W 33KM M=88 18 31.3 (U)
DISTANCE 89 DEG

MB=5.7(79)
D= 77.8 DEG AZ=31
44.0N;149.2E 63KM
44.4N;149.2E 33KM M=89 28 57.2 (U)
M=89 28 55.2 (M)

MB=5.8(55)
D=111.7 DEG AZ=74
7.3S;128.9E 155KM
7.1S;128.9E 160KM M=93 30 45.6 (U)
M=93 30 46.8 (M)

MB=5.4(77)
D= 80.4 DEG AZ=39
38.0N;141.8E 42KM
38.1N;141.8E 33KM M=95 03 38.7 (U)
M=95 03 38.0 (M)
DISTANCE 220 KM

MB=9.4(26)
D= 42.0 DEG AZ=83
36.2N; 71.7E 52KM
36.4N; 71.5E 33KM M=17 00 10.6 (U)
M=17 00 06.5 (M)

MB=4.7(12)
D= 21.1 DEG AZ=232
36.2N; 7.7W 33KM
36.1N; 7.6W 10KM M=82 33 41.4 (U)
M=82 33 41.5 (M)

MB=4.2(1)
D= 14.7 DEG AZ=152
38.0N; 21.8E 33KM
37.3N; 20.9E 10KM M=84 29 07.5 (U)
M=84 28 54.7 (M)

MB=5.5(67)
D= 80.8 DEG AZ=57
38.2N;143.3E 34KM
38.7N;143.0E 50KM M=85 33 32.0 (U)
M=85 33 37.0 (M)
DISTANCE 81 DEG

MB=4.7(7)
D= 80.9 DEG AZ=37
38.1N;143.4E 33KM M=85 42 43.4 (U)

MB=6.0(91)
D= 99 KM AZ=142
50.60N; 13.86E

MB=8.0(91)
D= 98.0 DEG AZ=67
7.9N;126.3E 139KM
8.0N;126.3E 160KM M=87 57 00.1 (U)
M=87 57 02.6 (M)

1978 JUN 16 OFF EAST COAST OF HONSHU, JAPAN 08 48 07:11 1.6 / 27 I P E P I AP	MB=4.9(20)	D= 80.8 DEG AZ= 37 38.2N;143.3E 33KM H=88 33 55.2 (U) 38.5N;148.2E 33KM 88 33 57.3 (M)	DISTANCE 220 KM
1978 JUN 16 WESTERN POLAND 09 19 49 E P I SG	MB=5.2(45)	D= 80.7 DEG AZ= 37 38.3N;148.3E 33KM H=10 19 17.6 (U) 38.4N;143.2E 33KM 10 15 13.6 (M)	
1978 JUN 16 OFF EAST COAST OF HONSHU, JAPAN 10 27 29:40 1.3 / 30 I P I AP E (PP)	MB=4.9(21)	D= 80.5 DEG AZ= 37 38.5N;143.2E 33KM H=11 58 33.6 (U) 38.8N;142.6E 33KM 11 58 31.8 (M)	
1978 JUN 16 OFF EAST COAST OF HONSHU, JAPAN 12 01 16 E	MB=5.0(31)	D= 80.8 DEG AZ= 38 38.2N;143.2E 33KM H=23 24 21.9 (U) 38.5N;142.9E 33KM 23 24 24.8 (M)	
1978 JUN 16 OFF EAST COAST OF HONSHU, JAPAN 12 10 44 0.9 / 15 E P	MB=5.0(43)	D= 77.7 DEG AZ= 31 44.1N;149.2E 37KM H=10 30 54.6 (U) 44.1N;149.3E 33KM 10 30 54.0 (M)	
1978 JUN 17 KURILE ISLANDS 10 42 48:60 1.0 / 34 I P E	MB=4.9(15)	D=145.9 DEG AZ= 12 17.6S;174.3W 105KM H=14 21 22.3 (U)	
1978 JUN 17 GERMAN DEMOCRATIC REPUBLIC EISLEBEN 11 41 17:6 I P I SG	MB=6.6(48)	D=145.6 DEG AZ= 9 17.1S;172.3W 33KM H=15 11 53.5 (U) 17.0S;172.4W 33KM 15 11 54.2 (M)	
1978 JUN 17 TONGA ISLANDS 14 40 51:10 1.2 / 92 I PKP1 E APKP	MB=6.6(48)		AV 33.4
1978 JUN 17 TONGA ISLANDS REGION 15 31 09:60 1.5 / 150 I PKMP I PKP1			AV 33.4
1978 JUN 17 TONGA ISLANDS REGION 15 50 51.9 0.9 / 21 E			AV 33.4
1978 JUN 17 SAMOA ISLANDS REGION 16 29 57:2 1.3 / 17 E			AV 6.5 MPPV = 6.6
1978 JUN 17 AEGEAN SEA 21 23 07 E	MB=4.3(11)		MLH = 7.0 MLV = 7.2
1978 JUN 17 SOUTH OF FIJI ISLANDS 23 30 57:30 1.5 / 69 I PKP1 I PKP2 E APKP E (PP)	MB=5.6(43)		NU MB COMP,
1978 JUN 18 ICELAND REGION 02 39 06 E P	MB=4.1(5)		AV 6.5 MPPV = 6.6
1978 JUN 18 TONGA ISLANDS 09 54 35 E PKP E APKP E	MB=4.4(2)		MLH = 7.0 MLV = 7.2
1978 JUN 18 NEAR EAST COAST OF HONSHU, JAPAN 13 12 09:0 1.2 / 39 I AP E (SKS) LM	MB=5.1(52)		

1978 JUN 18 SOUTHERN IRAN E P	MB=4.7(30)	D= 40.9 DEG AZ=109 27.4N; 56.6E 33KM H=19 26 26.8 (U) 27.7N; 56.9E 96KM 19 26 36.5 (B) 27.3N; 56.6E 33KM 19 26 25.3 (M)
1978 JUN 19 NEAR EAST COAST OF HONSHU, JAPAN E P E LMH	MB=4.9(16)	D= 80.8 DEG AZ= 38 38.0N;142.8E 33KM H=82 58 52.6 (U) 38.1N;142.9E 33KM 82 58 53.1 (M)
1978 JUN 19 GREECE E P E L LM	MB=4.0(8)	D= 12.8 DEG AZ=142 40.7N; 23.4E 10KM H=93 12 54.5 (U) 40.7N; 23.4E 10KM 93 12 56.6 (B)
1978 JUN 19 POLAND, UPPER SILESIA E	MB=4.8(21)	D= 80.3 DEG AZ= 38 38.4N;142.4E 28KM H=87 30 10.0 (U) 38.3N;142.6E 33KM 87 30 09.4 (M)
1978 JUN 19 NEAR EAST COAST OF HONSHU, JAPAN E P	MB=4.8(21)	D= 12.7 DEG AZ=142 40.7N; 23.2E 10KM H=10 31 05.4 (U) 40.8N; 23.3E 13KM 10 31 07.9 (B) 41.0N; 23.3E 33KM 10 31 10.1 (M) DISTANCE 13 DEG
1978 JUN 19 GREECE E P E PPP E E S E SSS E SSSS LM	MB=5.3(31)	D= 12.7 DEG AZ=142 40.7N; 23.2E 10KM H=10 31 05.4 (U) 40.8N; 23.3E 13KM 10 31 07.9 (B) 41.0N; 23.3E 33KM 10 31 10.1 (M) DISTANCE 13 DEG
1978 JUN 19 GREECE E P E LM	MB=4.6(38)	D= 12.7 DEG AZ=142 40.7N; 23.2E 10KM H=10 48 10.8 (U) 40.7N; 23.3E 10KM 10 48 12.6 (B) 40.7N; 23.2E 33KM 10 48 13.7 (M)
1978 JUN 19 KURILE ISLANDS I P	MB=4.6(3)	D= 74.9 DEG AZ= 27 48.0N;151.7E 70KM H=11 42 48.9 (U)
1978 JUN 19 SOUTHERN GREECE E(P)	MB=4.6(3)	D= 15.9 DEG AZ=149 37.3N; 23.5E 08KM H=16 15 14.9 (U) 36.6N; 23.3E 10KM 16 15 05.7 (B)
1978 JUN 19 TRACES; CELEBES SEA E P	MB=4.9(26)	D=100.6 DEG AZ= 71 3.2N;124.3E 395KM H=16 34 36.7 (U) 3.0N;124.4E 33KM 16 34 00.7 (M)
1978 JUN 19 ANDREANOF ISLANDS, ALEUTIAN IS. I P	MB=4.9(43)	D= 77.2 DEG AZ= 5 51.7N;174.2W 33KM H=19 05 03.2 (U) 51.5N;174.1W 33KM 19 05 01.9 (M)
1978 JUN 19 E		
1978 JUN 19 I PKP		
1978 JUN 20 E		
1978 JUN 20 ALASKA PENINSULA E P	MB=4.6(32)	D= 71.8 DEG AZ=354 56.9N;157.1W 99KM H=92 30 08.6 (U)
1978 JUN 20 TONGA ISLANDS REGION I PKP1 E APKP	MB=5.0(5)	D=146.0 DEG AZ= 9 17.5S;172.0W 33KM H=87 57 23.4 (U)
1978 JUN 20 SOUTHERN YUGOSLAVIA MONTENEGRO E		
1978 JUN 20 GREECE I P E PP	MB=6.1(80)	D= 12.7 DEG AZ=142 40.7N; 23.2E 3KM H=70 33 21.0 (U) 40.8N; 23.3E 15KM 70 33 25.1 (B) 40.7N; 23.1E 33KM 70 33 19.6 (M) DISTANCE 13 DEG
1978 JUN 20 GREECE E SSS E	MB=5.8(6)	D= 12.7 DEG AZ=143 40.7N; 23.1E 10KM H=80 37 37.6 (U) 40.7N; 23.1E 39KM 80 37 42.0 (B)
1978 JUN 20 GREECE E(P)	MB=4.1(9)	D= 12.7 DEG AZ=142 40.8N; 23.2E 10KM H=20 49 23.0 (U) 40.8N; 23.3E 10KM 20 49 24.7 (B)
1978 JUN 20 E		
1978 JUN 20 GREECE E P	MB=4.3(30)	D= 12.7 DEG AZ=142 40.7N; 23.2E 10KM H=21 51 03.6 (U) 40.7N; 23.3E 10KM 21 51 06.0 (B) 40.8N; 23.1E 33KM 21 51 08.0 (M)

1978 JUN 21 00 03 50 1.1 / 14
E PKP

1978 JUN 21 02 29 50 1.2 / 18
E P

1978 JUN 21 TRACES
E 03 15 57

1978 JUN 21 GREECE
E 03 23 38
E 27 27
LM 28

1978 JUN 21 GREECE
E 06 03 20
E LM 07 12

1978 JUN 21 NORTHERN ITALY
E PN 06 16 58
E 18 06
E(SG) 18 28

1978 JUN 21
E 07 47 51

1978 JUN 21 KURILE ISLANDS
E P 09 06 25

1978 JUN 21 NEAR EAST COAST OF HONSHU, JAPAN
I P 11 06 27:8C 1.0 / 180
I AP 06 44:4
I 08 33

1978 JUN 21 NORTHWEST OF KURILE ISLANDS
I P 11 21 32.4C 1.3 / 365
I AP 23 02
I 23 09
E XP 23 47
I XPP 26 26
I S 30 27
E SCS 31 02
E PS 32 12
E XS 33 08
E(SSS) 39.4
E SSSS 40.8
E PKPPKP 49 11
LM 55 T 15 AN 2 AE 2.5 AV 2

1978 JUN 21 OFF EAST COAST OF HONSHU, JAPAN
I P 12 01 20:0C 1.0 / 27
I AP 01 28:8

1978 JUN 21 GREECE
E P 12 32 45
LM 37.3 T 8 AN 1 AE 1.5 AV 1

1978 JUN 21 GREECE
E 12 41 45

1978 JUN 21 KIRGIZ-SINKIANG BORDER REGION
I P 17 36 11.6C 1.0 / 40
I 36 16.5
E(PP) 38 08

1978 JUN 21 GREECE
E P 18 55 07
E 55 13
E LM 59 25

1978 JUN 21 NORTHERN ITALY
I SG 22 46 42:5

1978 JUN 21 ICELAND
E P 23 34 26 1.4 / 26
LM 44

1978 JUN 22 HUNGARY
I PN 02 35 09:8
I 35 20:5
E S82 36 45:5
E(SG) 37 06
LM 37 28
38.3 T 10 AN 8 AE 6 AV 4

1978 JUN 22 HUNGARY
E SG 02 47 10
E 48 02

1978 JUN 22
E(P) 02 50 21

MB=4;2(8)
D= 12.7 DEG AZ=142
40.7N; 23.2E 10KM M=83.28 26.1 (U)
40.7N; 28.3E 10KM M=83.28 26.1 (U)

MB=4;2(16)
D= 12.7 DEG AZ=142
40.8N; 28.3E 10KM M=86.08 06.4 (U)
40.7N; 28.4E 10KM M=86.08 06.4 (U)
41.2N; 28.3E 10KM M=86.08 10.3 (U)

NO MB COMP;
D= 5.75 DEG AZ=107
46.0N; 12.1E 10KM M=86.19 87.2 (U)
46.1N; 12.1E 10KM M=86.19 88.7 (U)
DISTANCE 57.0 DEG

14.2(6)
D= 76.8 DEG AZ= 27
47.3N; 153.1E 148KM M=88.98 53.9 (U)

MB=9;7(83)
D= 80.2 DEG AZ= 38
38.3N; 141.8E 52KM M=10.98 22.6 (U)
38.7N; 141.6E 50KM M=10.98 24.3 (U)

MB=3;9(99)
D= 73.7 DEG AZ= 29
48.3N; 148.6E 377KM M=11.18 38.2 (U)
48.2N; 149.1E 400KM M=11.18 39.4 (U)
DISTANCE 72 DEG DEPTH 400 KM

MB=5;1(49)
D= 80.7 DEG AZ= 38
38.2N; 143.1E 33KM M=11.49 08.9 (U)
38.9N; 143.0E 33KM M=11.49 12.8 (U)

MB=4;6(46)
D= 12.6 DEG AZ=143
40.8N; 23.0E 10KM M=12.29 44.0 (U)
40.8N; 23.2E 16KM M=12.29 46.5 (U)
41.0N; 23.0E 33KM M=12.29 49.5 (U)

NO MB COMP;
D= 12.4 DEG AZ=143
40.9N; 22.7E 10KM M=12.38 52.1 (U)

MB=5;0(54)
D= 45.6 DEG AZ= 75
41.5N; 79.4E 33KM M=17.27 54.9 (U)
41.5N; 79.4E 33KM M=17.27 50.1 (U)

MB=4.3(15)
D= 12.7 DEG AZ=142
40.7N; 23.2E 10KM M=18.52 04.1 (U)
40.7N; 23.3E 10KM M=18.52 06.0 (U)
40.5N; 23.3E 33KM M=18.52 00.2 (U)

NO MB COMP;
D= 5.5 DEG AZ=187
45.9N; 12.0E 10KM M=22.45 46.1 (U)
46.0N; 12.1E 10KM M=22.45 47.7 (U)

MB=4.1(11)
D= 20.7 DEG AZ=322
64.8N; 17.4W 10KM M=23.29 43.5 (U)

MB=4.6(16)
D= 7.0 DEG AZ=128
46.7N; 21.1E 10KM M=22.35 24.0 (U)
46.8N; 21.2E 10KM M=22.35 25.8 (U)
46.8N; 21.1E 33KM M=22.35 22.4 (U)

MLH = 4.5
D= 5.4 DEG AZ=128
47.8N; 19.4E 10KM M=22.44 12.9 (U)

1978 JUN 22 HUNGARY
E PN 02 59 40
E PG 03 00 19
E(SN) 01 02
E 01 40
E SG 02 04
E LM 02 48

1978 JUN 22 03 22 39
E

1978 JUN 22 MINDANAO, PHILIPPINE ISLANDS
E P 04 17 46 1.4 / 18 MB=5;4(34)
D= 97.6 DEG AZ= 66
8.7N; 126.7E 47KM M=84.04 15.2 (U)
8.8N; 126.4E 33KM M=84.04 09.4 (M)

1978 JUN 22 NEAR EARTHQUAKE
E 04 43 02 (A)

1978 JUN 22 HUNGARY
E PN 05 32 44 MB=3;2(1)
E 34 18
E 35 23
D= 6.9 DEG AZ=126
47.0N; 21.2E 10KM M=85.31 00.6 (U)
46.8N; 21.1E 10KM M=85.30 59.9 (U)
46.6N; 21.0E 33KM M=85.31 00.4 (M)

1978 JUN 22 MINDANAO, PHILIPPINE ISLANDS
I P 06 51 21:7 1.5 / 22 MB=5;5(44)
D= 97.7 DEG AZ= 66
8.5N; 126.6E 59KM M=86.37 51.5 (U)
8.7N; 126.4E 33KM M=86.37 44.7 (M)

1978 JUN 22 TRACES
E 07 32 44

1978 JUN 22 07 36 16
E

1978 JUN 22 GERMAN DEMOCRATIC REPUBLIC
EISLEBEN
I PG 07 49 34.2
I SG 49 48.1 0.4 / 37

1978 JUN 22 CENTRAL MID-ATLANTIC RIDGE
I P 08 43 22:0 2.6 / 140 MB=5;2(40)
E PR 45 30
E PRP 47 16
E S 51 45
LM 09 09 T 16 AN 1 AE 0.5 AV 1.5 MLH = 5.1 MLV = 5.2
D= 60.6 DEG AZ=228
1.1N; 27.7W 33KM M=88.33 11.5 (U)
2.7N; 27.9W 33KM M=88.33 14.5 (M)
DISTANCE 62 DEG

1978 JUN 22 TRACES
E P 11 03 48

1978 JUN 22 11 21 35
E

1978 JUN 22 12 22 48
E

1978 JUN 22 KURILE ISLANDS REGION
E P 13 49 54 NO MB COMP, D= 77.8 DEG AZ= 31
43.8N; 148.7E 40KM M=13.38 02 (U)

1978 JUN 22 OFF EAST COAST OF KAMCHATKA
E P 16 47 40 1.3 / 25 MB=4;8(21)
E 48 09
D= 78.7 DEG AZ= 20
52.8N; 160.4E 49KM M=16.36 17.1 (U)
52.8N; 160.4E 50KM M=16.36 16.8 (M)

1978 JUN 22 OFF EAST COAST OF KAMCHATKA
E P 16 55 56 MB=4.7(6)
D= 72.6 DEG AZ= 28
52.9N; 160.4E 33KM M=16.44 31.5 (U)

1978 JUN 22 TRACES
E 17 09 32

1978 JUN 22 FRG, SOUTHEASTERN REGION
E 18 01 04 (GRP)
NEAR BAD REICHEHALL

1978 JUN 22 18 35 11
E

1978 JUN 22 EASTERN GULF OF ADEN
E P 21 49 43 MB=4;7(12)
D= 48.0 DEG AZ=131
12.5N; 48.0E 33KM M=21.41 05.3 (U)
12.0N; 47.9E 33KM M=21.40 55.7 (M)

1978 JUN 23 00 06 33
E

1978 JUN 23 GERMAN DEMOCRATIC REPUBLIC
EISLEBEN
I PG 01 05 42:8
I SG 05 56:8 0.4 / 27 MB=4;1(3)
D= 12.6 DEG AZ=142
40.8N; 23.1E 10KM M=81.97 01.2 (U)
40.8N; 23.2E 10KM M=81.97 03.2 (U)

1978 JUN 23 GREECE
E L 02 02 31
E 04 48

1978 JUN 23 02 52 09
E

1978 JUN 23 04 44 46
E

1978 JUN 23 12 35
E 35

1978 JUN 25 GREECE
E P 12 35 43
E 36 12
INTERRUPTION OF SOME RECORDS FROM 14H 25M TO 15H 46M

1978 JUN 25 16 14 45 MB=4.7(15)
1978 JUN 24 ALBANIA MB=4.7(15)
I P 00 17 06:9C 1.6 / 49
E PPP 17 24
E SS 19 36
E LQ2 20 35
LHM 20.8 T 18 AN 2 AE 3
LHV 21.5 T 18 AV 2
1978 JUN 24 TRACES
E 03 03 30
1978 JUN 24 NEW HEBRIDES ISLANDS MB=5.5(24)
E(PKHP) 03 46 19
I PKHP 46 37.8
1978 JUN 24 FIJI ISLANDS REGION MB=4.6(5)
I PKP1 06 40 48:4C 0.9 / 39
I PKP2 40 52.9
1978 JUN 24 07 08 36
1978 JUN 24 08 54 49
1978 JUN 24 SOUTHERN SUMATERA MB=6.0(59)
I P 09 44 58:0C 1.6 / 71
I AP 45 07:6
I PP 48 45
E PPP 50.6
E 52 34
E SKS 55 31
E S 56 02
E PS 57.4
E PPS 57.9
E SS 10 02.1
E 04.8
E(SSS) 05.4
E 06.4
E(SSSS) 08.5
E 09.4
E 11.7
LHM 31 T 22 AN 10.5 AE 8
LHV 35 T 18 AN 5.5 AE 8 AV 7.5 MLH =6.4
MLV =6.3
1978 JUN 24 SOUTHERN SUMATERA MB=5.8(7)
E P 09 48 31
1978 JUN 24 13 36 25
1978 JUN 24 EAST PAPUA NEW GUINEA REGION MB=5.4(14)
E PKP 13 37 45
1978 JUN 24 21 48 23
1978 JUN 25 ALBANIA
E P 05 01 02
E S 03 09
E L 04 31
1978 JUN 25 KURILE ISLANDS REGION MB=4.9(40)
I P 08 47 14:3 1.5 / 29
E 47 28
LM 09 27
1978 JUN 25 09 21 35
1978 JUN 25 TONGA ISLANDS MB=5.5(40)
I PKP 10 41 05:2C 1.3 / 310
E 41 26
I APKP 41 45:3
1978 JUN 25 CYPRUS
E 11 06 02
1978 JUN 25 FIJI ISLANDS REGION MB=4.3(2)
I PKP1 11 36 37:8C 0.8 / 19
E(P) 14 13 16
1978 JUN 25 SOUTHERN ITALY
E P 15 39 46 MB=3.9(20)

D= 1217 DEG AZ=142
40.8N; 23.3E 10KM H=80 32 03.7 (U)

D= 1078 DEG AZ=150
41.7N; 20.3E 10KM H=80 18 28.2 (U)
41.7N; 20.3E 10KM H=80 19 50.2 (U)
41.7N; 20.3E 33KM H=80 18 31.8 (U)
DISTANCE 13 DEG

D= 138.8 DEG AZ=39
15.0S; 116.7E 122KM H=83 27 17.9 (U)
15.0S; 116.7E 33KM H=83 27 07.3 (U)

D= 148.0 DEG AZ=20
20.5S; 178.2W 571KM H=86 22 85.6 (U)

D= 93.0 DEG AZ=94
5.1S; 110.2E 33KM H=89 31 42.7 (U)
4.9S; 110.2E 33KM H=89 31 88.0 (U)
DISTANCE 93 DEG

D= 93.5 DEG AZ=94
5.0S; 110.2E 33KM H=89 39 17.9 (U)

D= 122.2 DEG AZ=57
7.48N; 147.1E 33KM H=13 18 47.8 (U)
6.9S; 147.1E 33KM H=13 18 52.1 (U)

D= 11.0 DEG AZ=149
41.6N; 20.4E 10KM H=84 58 22.9 (U)

D= 77.9 DEG AZ=31
43.9N; 149.4E 33KM H=88 39 18.7 (U)
44.2N; 149.6E 33KM H=88 39 14.4 (U)

D= 145.4 DEG AZ=13
17.1S; 174.4W 159KM H=10 21 45.0 (U)
17.0S; 174.9W 50KM H=10 21 33.5 (U)

D= 22.4 DEG AZ=131
34.5N; 33.4E 33KM H=11 00 51.1 (U)

D= 148.1 DEG AZ=18
20.3S; 178.8W 570KM H=11 17 54. (U)

12.3 DEG AZ=171
1.1N; 15.6E 241KM H=15 36 55.2 (U)
2.1N; 15.3E 244KM H=15 36 56.6 (U)



1978 JUN 25 SOUTH OF HONSHU, JAPAN MB=4.6(23)
E P 20 45 27
1978 JUN 26 TRACEST CENTRAL YUGOSLAVIA NO MB COMP,
E PN 00 06 20
1978 JUN 26 GREECE SUPERPOSED BY PRECEDING QUAKE MB=3.6(2)
E P 00 07 14
E 07 35
E S 08 29
E S 09 45
1978 JUN 26 23 02 13
1978 JUN 27 WEST OF MACQUARIE ISLAND MB=5.1(3)
E(PKP) 01 24 25
E 24 42
E 25 08
E PPS 41 20
LM 02 47
1978 JUN 27 WEST OF MACQUARIE ISLAND MB=5.0(2)
E PKP1 01 31 17 1.3 / 22
E 31 52
1978 JUN 27 KURILE ISLANDS MB=4.9(24)
I P 02 21 46:9C 1.2 / 23
I 22 02:2
1978 JUN 27 WESTERN CAUCASUS MB=4.5(13)
E P 04 50 29 1.1 / 20
1978 JUN 27 TRACES
E 06 59 26
1978 JUN 27 TRACES
E 10 22 35
1978 JUN 27 FIJI ISLANDS REGION NO MB COMP, D=147.9 DEG AZ=20
I PKP1 11 15 35:0 0.7 / 15 20.4S; 178.2W 519KM H=10 56 46.9 (U)

MB=4.2(10) D= 11.9 DEG AZ=136
42.1N; 24.1E 14KM H=12 18 21.6 (U)
42.1N; 24.1E 18KM H=12 18 24.1 (U)
41.9N; 23.8E 33KM H=12 18 22.0 (U)

MB=5.0(30) D= 76.7 DEG AZ=27
46.6N; 153.3E 33KM H=12 43 42.9 (U)
47.1N; 152.7E 33KM H=12 43 46.2 (U)

MB=5.2(17) D= 145.6 DEG AZ=9
17.1S; 172.9W 33KM H=14 44 45.9 (U)
17.0S; 173.7W 33KM H=14 44 48.9 (U)

MB=5.7(84) D= 81.6 DEG AZ=38
37.1N; 142.8E 39KM H=19 18 33.3 (U)
37.6N; 142.7E 33KM H=19 18 80.0 (U)
DISTANCE 81 DEG

1978 JUN 27 OFF EAST COAST OF HONSHU, JAPAN
I P 19 22 47.8C 1.6 / 120
I AP 22 58.3 1.6 / 250
E 23 45
E PP 25 54
E S 33 00
E SSS 43.0
LM 20 03 T 14 AN 6.5 AE 5 AV 9 MLH =6.2 MLV =6.4
1978 JUN 27 SOUTH OF ALASKA MB=4.8(41)
E P 23 52 27
1978 JUN 28 00 28 27
E 29 14
1978 JUN 28 03 51 08
E MB=5.4(55)
1978 JUN 28 MINDORO, PHILIPPINE ISLANDS MB=5.4(55)
I P 05 04 22:1C 1.6 / 35
E S 14 58
E XS 16 02
1978 JUN 28 SOUTH OF HONSHU, JAPAN MB=4.8(29)
I P 10 59 44:6C 1.0 / 18
D= 84.9 DEG AZ=44
31.2N; 138.8E 308KM H=10 47 42.9 (U)

1978 JUN 28 I PKP1	TONGA ISLANDS REGION 12 01 56:00 1.3 / 41	MB=4.7(5)	D=150.5 DEG 22.4S;174.9W	AZ= 15 60KM	H=11 48 08.5 (U)
1978 JUN 28 E PKP1	FIJI ISLANDS REGION 14 50 31	MB=5.0(9)	D=145.4 DEG 17.9S;178.6W	AZ= 20 580KM	H=14 31 59.8 (U)
1978 JUN 28 E P	AZORES ISLANDS 14 50 47	MB=4.5(2)	D= 31.6 DEG 39.9N; 29.8W	AZ=266 10KM	H=14 44 18.2 (U)
1978 JUN 28 I P	PAKISTAN 16 09 12:30 1.1 / 18	MB=4.7(11)	D= 45.5 DEG 25.2N; 62.3E 25.8N; 62.3E	AZ=106 33KM 33KM	H=16 00 51.9 (U) 16 00 58.0 (M)
1978 JUN 28 E	16 12 59		NO MB COMP, D=149.9 DEG 21.7S;174.4W	AZ= 14 33KM	H=17 34 34.6 (U)
1978 JUN 28 E PKP1	TONGA ISLANDS 17 54 25				
1978 JUN 28 E	18 01 33				
1978 JUN 28 I PKP	FIJI ISLANDS REGION 20 48 04:60 1.1 / 59	MB=4.6(3)	D=144.8 DEG 17.1S;177.6W	AZ= 18 403KM	H=20 29 12.8 (U)
1978 JUN 29 E	03 24 34				
1978 JUN 29 E	04 09 46				
1978 JUN 29 E	08 38 25				
1978 JUN 29 I PG I SG	TRACES, EXPLOSION OF 6.0 TONS; CZECHOSLOVAKIA 08 59 47.2 09 00 03.3		D=114 KM (50.48N) 13.96E	AZ=144	(U)
1978 JUN 29 E AP	ANDREANOF ISLANDS, ALEUTIAN IS. 09 23 07	MB=5.0(30)	D= 76.1 DEG 52.8N;173.3W	AZ= 4 147KM	H=09 10 57.6 (U)
1978 JUN 29 E P	OFF COAST OF NORTHERN CALIFORNIA 11 40 29	MB=4.7(9)	D= 80.9 DEG 41.8N;127.0W	AZ=331 15KM	H=11 28 14.0 (U)
1978 JUN 29 I PG I SG	TRACES, EXPLOSION OF 6.5 TONS; CZECHOSLOVAKIA 11 59 29.8 59 52.5		D=166 KM 49.89N) 13.73E	AZ=162	(U)
1978 JUN 29 E PKP	LOYALTY ISLANDS 14 14 33 C 2.0 / 49	MB=5.6(30)	D=143.4 DEG 20.3S;168.2E 20.2S;167.4E	AZ= 41 33KM 33KM	H=13 55 03.6 (U) 13 54 59.1 (M)
1978 JUN 29 I PKP1 I PKP2	SOUTH OF FIJI ISLANDS 16 52 17:00 0.9 / 37 52 28:20 0.7 / 24	MB=4.8(3)	D=151.6 DEG 25.0S;178.8E	AZ= 28 582KM	H=16 33 26.4 (U)
1978 JUN 29 E	21 24 45				
1978 JUN 30 E PN E SN E SG	ROMANIA 01 17 21 18 47 19 48	MB=4.3(3)	D= 7.6 DEG 47.7N; 23.3E 47.9N; 23.5E 47.7N; 23.1E	AZ=114 10KM 10KM 33KM	H=01 15 29.3 (U) 01 15 29.9 (U) 01 15 28.7 (M)
1978 JUN 30 E	02 56 09				
1978 JUN 30 E	03 53 58				
1978 JUN 30 E PN E E	HUNGARY 07 36 02 37 38 38 40	MB=3.5(1)	D= 6.9 DEG 46.8N; 21.0E 46.8N; 21.1E 47.3N; 20.5E	AZ=128 10KM 10KM 33KM	H=07 34 16.1 (U) 07 34 16.7 (U) 07 34 26.4 (M)
1978 JUN 30 E(PQ) E SG E L	TRACES, EXPLOSION OF 5 TONS; CZECHOSLOVAKIA 12 29 39 29 56 30 08		D=127 KM 50.18N) 13.30E	AZ=170	(U)
1978 JUN 30 E P	LUZON, PHILIPPINE ISLANDS 16 23 20	MB=4.7(7)	D= 86.2 DEG 18.8N;121.0E	AZ= 65 21KM	H=16 10 39.1 (U)
1978 JUN 30 E	19 17 05				

Dr. B. Tittel
H. Merkel
Dr. S. Wendt

Geophysikalisches Observatorium Collm
der Karl-Marx-Universität Leipzig

Geophysikalische Meßreihen

3. 1978

Seismische Registrierungen

Geophysikalisches Observatorium

DDR - 7261 COLLM

Geophysical measuring series
of the
Geophysical Observatory
of the Karl-Marx-University
Leipzig

Geophysikalische Meßreihen
des Geophysikalischen
Observatoriums
der Karl-Marx-Universität
Leipzig

C O L L M

S E I S M I C
R E C O R D S

S E I S M I S C H E
R E G I S T R I E R U N G E N

3rd quarter of 1978

3. Quartal 1978

L 448/81 III/18/445

SEISMOLOGICAL STATION COLLM (CILL)

GEOGRAPHICAL CO-ORDINATES: LATITUDE = 51°18.6'N; LONGITUDE = 13°00.2'E; ELEVATION = 230 m
FOUNDATION: GREYWACKE OF ORDOVICE

SEISMOGRAPHS AND ITS CONSTANTS:

TYPE	COMPONENT	T_s (s)	D_s	T_g (s)	D_g	r/T_s^2	MAGNIFICATION (STATIC)	MAGNIFICATION (MAXIMAL)	RECORDING SPEED (mm/min)
BENIOFF	Z	0.452	0.65	1.43	1			(38000)	60
VSJ-II	z	2.175	0.537	0.296	1.474			55000	60
HSJ-II NS	n	2.171	0.537	0.294	1.474			60000	60
HSJ-II EW	e	2.171	0.537	0.293	1.474			58000	60
WIECHERT NS	WN	10.0	0.28			0.026	370		15
WIECHERT EW	WE	10.0	0.34			0.020	340		15
HSJ-I NS	N	20.0	0.50	1.10	9.09		1075		15
HSJ-I EW	E	20.0	0.51	1.21	8.24		1120		15
VSJ-I	V	20.0	0.51	1.20	8.35		1090		15

TIME SERVICE:

QUARTZ CLOCK (MINUTE PULSES OF 2 s AND HOUR PULSES OF 20 s; DAILY DIGITAL CONTROL; MAXIMUM ERROR ± 0.2 s)

SUPPLEMENTARY EQUIPMENTS:

- SPECIAL RECORDER WITH VARIABLE AMPLIFICATION FOR ANNOUNCED EXPLOSIONS
- PERMANENT RECORDS WITH CONSIDERABLY REDUCED SENSIVITY FOR THE COMPLETE REGISTRATION OF STRONG EARTHQUAKES
- AUTOMATIC AMPLIFICATION OF RECORDING LIGHT FOR AMPLITUDES GREATER THAN A GIVEN LIMIT

EVALUATION:

- THE FIRST LINE OF EVALUATION OF EACH EVENT CONTAINS
DATE AND (FOR KNOWN FOCI) GEOGRAPHICAL REGION OF EPICENTER (MOSTLY FOLLOWING FLINN & ENGDahl 1965)
BODY WAVE MAGNITUDE MB WITH THE NUMBER OF USED OBSERVATIONS.
- DETAILED INFORMATION, WITH RESPECT TO GEOGRAPHICAL REGION OR OTHER COMMENTS CAN BE WRITTEN ALSO HERE.
THE NEXT LINES ARE DIVIDED INTO THE FOLLOWING COLUMNS
- THE NOMENCLATURE OF THE PHASES CORRESPONDS TO THE LIST OF ISC, COMPLETED BY SOME PHASES (pP APPEARS AS AP, sP APPEARS AS XP, MULTIPLE PHASES AS P(1) FOR INSTANCE)
 - TIME OF ONSET IN G.M.T.
 - DIRECTION OF VERTICAL COMPONENT OF THE GROUND MOTION
 - PERIODS, AMPLITUDES, AND EVENTUALLY MAGNITUDES FOR IMPORTANT ONSETS APPEAR IN THE CORRESPONDING LINE IF MEASUREMENT IS POSSIBLE;
FOR SHORTPERIODIC WAVES IN THE SEQUENCE OF COMPONENTS z, n, e (PERIOD IN SECONDS/AMPLITUDE IN NANOMETRES)
FOR LONGPERIODIC WAVES T, AN, AE, AV (MEAN PERIOD IN SECONDS, AMPLITUDES FOR N, E, V COMPONENTS IN MICROMETRES)
 - MAGNITUDES CAN BE DETERMINED
 - FOR BODY WAVES THROUGH THE EARTH MANTLE (MPV, MPH, MPVH, MPPH, MSH)
 - FOR SHORTPERIODIC LONGITUDINAL CORE WAVES (MC)
 - FOR MAXIMUM OF SURFACE WAVES (MIH, MLV)
 - FOR STRONG QUAKES SOMETIMES FROM WIECHERT RECORDS (MAG)
 - HYPOCENTER DATA (LATITUDE, LONGITUDE, DEPTH, ORIGIN TIME) OF THE FOLLOWING INSTITUTIONS ARE USED IN GENERAL
 - (U) U.S. NATIONAL EARTHQUAKE INFORMATION SERVICE
 - (B) EUROPEAN-MEDITERRANEAN SEISMOLOGICAL CENTRE
 - (M) ACADEMY OF SCIENCES OF U.S.S.R., INSTITUTE OF PHYSICS OF THE EARTH
 - (I) INTERNATIONAL SEISMOLOGICAL CENTRE
 - (A) INSTITUTE FOR METEOROLOGY AND GEODYNAMICS IN VIENNA, AUSTRIA
 - (C) GEOPHYSICAL INSTITUTE OF THE CZECHOSLOVAK ACADEMY OF SCIENCES
 - (G) NATIONAL OBSERVATORY OF ATHENS, GREECE
 - (P) POLISH ACADEMY OF SCIENCES
 - (S) SEISMOLOGICAL INSTITUTE, UPPSALA, SWEDEN
- OWN COMMENTS ARE GIVEN WITHOUT MENTION OF SOURCE.
- MB IS THE BODY WAVE MAGNITUDE GIVEN BY (U). /MB/ IS PRINTED IN FEW OTHER CASES WITH FOCAL DATA OF OTHER INSTITUTIONS.
 - EPICENTRAL DISTANCE D AND STATION AZIMUTH AZ ARE CALCULATED USING THE FIRST EPICENTER INDICATION AND ARE PRINTED ABOVE THESE DATA.
D AND AZ ARE CALCULATED ACCORDING TO GEOCENTRIC CO-ORDINATES (D COMMONLY IN DEG, FOR NEAR EVENTS IN km, WITH A MAXIMUM ERROR OF ± 0.1 DEG AND ± 1 km, RESPECTIVELY; AZ IN DEG WITH A MAXIMUM ERROR OF ± 1 DEG).
 - FOR COMPARISON WITH THE FIRST OWN EVALUATION "DISTANCE" AND "DEPTH" ARE GIVEN BELOW THE HYPOCENTER DATA.
 - ROUND BRACKETS INDICATE UNCERTAINTIES.

NUMEROUS EXPLOSIONS AND ROCK BURSTS ARE LEAVED OUT IN THIS BULLETIN BECAUSE OF ITS UNIMPORTANT FORCE.
EVENTUAL INTERRUPTIONS OF RECORDS ARE INDICATED IN THE TIME SEQUENCE.
THE COMPILATION WAS PERFORMED AT THE COMPUTER CENTER OF ZENTRALINSTITUT DER METALLURGIE, LEIPZIG.

1978 JUL 01	TONGA ISLANDS REGION			NO MB COMP, D=150.5 DEG	AZ= 16		
E PKP1	01 03 33			22.55N;175.3W	33KM	H=80	43 45.3 (P)
1978 JUL 01							
E	02 34 41						
1978 JUL 01	HOKKAIDO, JAPAN/ REGION			/4.8(7)/ D= 77.6 DEG	AZ= 34		
E P	04 24 31			42.8N;145.6E	81KM	H=84	12 40.7 (P)
1978 JUL 01	PANAMA			MB=5.3(79)	D= 83.8 DEG	AZ=277	
E P	09 06 18	D 1.5 / 61		9.3N; 78.5W	92KM	H=88	53 57.6 (U)
E	06 37			9.1N; 78.5W	33KM	88 53	50.6 (M)
I AP	06 44.7						
E S	16 36						
LM	42						
1978 JUL 01	SOUTH OF FIJI ISLANDS			MB=5.1(5)	D=149.9 DEG	AZ= 20	
I PKP1	09 34 26.1C 1.0 / 23			22.45N;177.8W	(348KM)	H=89	35 08.4 (U)
1978 JUL 01	SOUTH OF FIJI ISLANDS			/5.0(1)/ D=153.5 DEG	AZ= 20		
I PKP1	10 38 23.2			25.85N;176.7W	121KM	H=10	18 36 (P)
I PKP2	38 35.9						
1978 JUL 02	EAST CHINA SEA			/4.5(5)/ D= 81.4 DEG	AZ= 53		
E P	00 23 48			29.7N;128.3E	33KM	H=80	11 34 (P)
1978 JUL 02	WESTERN POLAND						
E PQ	03 39 11						
E SQ	59 34						
1978 JUL 02	TONGA ISLANDS			MB=5.9(39)	D=143.4 DEG	AZ= 14	
E PKP	04 21 05			15.35N;175.5W	25KM	H=84	01 33.3 (U)
E	23 06			15.35N;175.6W	33KM	84 01	29.4 (M)
E (PP)	24 14						
E PPS	36 39						
E	38.3						
E SS	43.1						
LM	05 12	T 30	AN 15	AE 6	AV 13		MLH =6.6
L	24	T 21	AN 8.5	AE 7	AV 8		MLV =6.6
1978 JUL 02	SOUTH OF FIJI ISLANDS			NO MB COMP, D=146.7 DEG	AZ= J2		
I PKP1	13 33 31.2			21.05N;175.1E	362KM	H=13	14 54 (P)
1978 JUL 02	GERMAN DEMOCRATIC REPUBLIC						
I PQ	21 03 35.3						
I SQ	03 49.2	0.4 / 27					
1978 JUL 03	TONGA ISLANDS REGION			MB=5.1(8)	D=146.0 DEG	AZ= 9	
I PKP	00 34 05.4C 2.0 / 90			17.55N;172.5W	33KM	H=80	14 26.8 (U)
E	34 18			16.75N;177.0W	33KM	80 14	33.8 (M)
E	34 27						
E PKS	37 39						
1978 JUL 03	IRAN			MB=4.4(26)	D= 34.2 DEG	AZ=110	
E P	01 42 10			31.6N; 51.1E	44KM	H=81	35 27.2 (U)
				31.6N; 51.1E	53KM	81 35	29.9 (P)
				31.7N; 51.1E	33KM	81 35	29.2 (M)
1978 JUL 03	BALLENY ISLANDS REGION			MB=5.3(5)	D=162.6 DEG	AZ=143	
E PKP2	01 33 29			63.35N;169.4E	33KM	H=81	32 35.8 (U)
1978 JUL 03							
E	02 29 55						
1978 JUL 03							
L	03 08						
1978 JUL 03	POLAND, LPPER SILESIA						
E SG	03 23 37						
1978 JUL 03	NEW HEBRIDES ISLANDS			MB=5.3(20)	D=141.5 DEG	AZ= 40	
E PKP	03 25 01			18.25N;168.1E	33KM	H=83	05 33.1 (U)
E PKS	28 36			18.35N;168.5E	33KM	83 05	26.5 (M)
1978 JUL 03	SOLOMON ISLANDS			MB=5.4(5)	D=126.1 DEG	AZ= 50	
E PKP	03 31 37			7.55N;154.7E	32KM	H=83	12 35.6 (U)
1978 JUL 03	SOUTHERN SUMATERA			MB=5.3(23)	D= 87.5 DEG	AZ= 94	
E(P)	06 31 21			0.85N; 98.1E	33KM	H=86	18 29.8 (U)
				0.4N; 98.6E	33KM	86 18	32.8 (M)
1978 JUL 03	KURILE ISLANDS			MB=4.7(22)	D= 75.2 DEG	AZ= 26	
I P	07 00 05.7 1.1 / 17			48.1N;153.0E	118KM	H=86	48 35.0 (U)
1978 JUL 03	BALLENY ISLANDS REGION			MB=5.5(10)	D=162.8 DEG	AZ=143	
E PKP2	07 28 34 1.6 / 27			63.25N;169.7E	33KM	H=87	07 46.3 (U)
E	28 34			61.15N;163.5E	33KM	87 07	50.2 (M)
E PP	32 22						
LM	08 44						
1978 JUL 03	TRACES						
E	07 35 33						
1978 JUL 03	TIBET			MB=4.7(17)	D= 59.8 DEG	AZ= 74	
E P	08 36 40			32.8N; 94.0E	33KM	H=88	46 35.9 (U)
				32.8N; 94.1E	33KM	88 46	30.6 (M)

1978 JUL 03 GERMAN DEMOCRATIC REPUBLIC
EISLEBEN
I SQ 11 11 39:9 0.4 / 13

1978 JUL 03 GREECE
E L 20 17 19
E 17 39

1978 JUL 03 FIJI ISLANDS REGION
E PKP 21 11 01 1.1 / 14

1978 JUL 03 E, USSR-A, E, CHINA BORDER REGION
I P 21 12 16:10 1.0 / 23

1978 JUL 04 KYUSHU, JAPAN
I P 02 52 53:40 1.2 / 200
I AP 53 23:7
E PP 55 58
E APP 56 27
E S 03 02 46
E XS 03 38
E XSS 08 54
LM 33 T 10 AN 1.5 AE 2 AV 2.5 MLH =5.6 MLV =5.9 (NO DEPTH CORRECTION)

1978 JUL 04 TONGA ISLANDS REGION
I PKP1 03 47 23:4 1.1 / 20
E 47 39

1978 JUL 04 SWITZERLAND
E(PQ) 04 39 03
E SQ 40 02

1978 JUL 04 SOUTH OF FIJI ISLANDS
I PKP1 09 19 01:40 0.7 / 20
I PKP2 19 14:00 0.6 / 15
E ARKP 21 28

1978 JUL 04 SAMOA ISLANDS REGION
E PKP 13 03 13

1978 JUL 04 NEAR EAST COAST OF HONSHU, JAPAN
E AP 15 59 23

1978 JUL 04 TONGA ISLANDS
I PKP 16 28 18:4

1978 JUL 04 WESTERN POLAND
E PN 18 35 36
I PQ 35 38:4
I SQ 36 04:9
I 36 10:1

1978 JUL 04 GERMAN DEMOCRATIC REPUBLIC
I SQ 19 02 59:8

1978 JUL 04 SOUTH PACIFIC CORDILLERA
E PKIP 22 08 51
E PKP2 09 23

1978 JUL 04 GREECE
E P 22 26 28 1.8 / 50
I PP 26 35.2
I S 28 45:8
E L 30 58
LM 31 T 10 AN 2 AE 2 AV 2 MLH =4.6

1978 JUL 04 WESTERN TURKEY
I P 22 43 31:50 1.6 / 53
I PP 43 43.8
E 44 51
LM 51.9

1978 JUL 04 OFF EAST COAST OF HONSHU, JAPAN
E P 23 17 16

1978 JUL 05 UNDERGROUND EXPLOSION
I P 02 54 39:90 0.7 / 165
I PN 56 09:8
E(SSS) 03 03 46

1978 JUL 05 POLAND, UPPER SILESIA
E 04 03 15

1978 JUL 05 JAN HAYEN ISLAND REGION
E(S) 06 44 01 1.8 / 46
LM 48 20
E 53

1978 JUL 05
E 10 33 08

MB=4.0(3) D=18:7 DEG AZ=142 40.8N; 23:4E 10KM H=20 09 50:3 (U)

MB=5.2(15) D=14:5 DEG AZ=20 18.0N; 178:5W 973KM H=20 52 26:2 (U)

MB=4.6(43) D=7:8 DEG AZ=48 43.3N; 130:9E 519KM H=21 05 47:2 (U)

MB=5.7(97) D=80:3 DEG AZ=49 32.7N; 131:1E 118KM H=22 48 54:0 (U) 33.1N; 131:1E 140KM H=24 40 58:9 (M) DISTANCE 79 DEG DEPTH 110 KM

MB=5.0(11) D=152:0 DEG AZ=30 25.7S; 178:0E 662KM H=09 00 17:8 (I)

MB=5.0(8) D=148:4 DEG AZ=9 16.9S; 172:5W 29KM H=12 43 35:3 (I)

MB=4.8(16) D=80:5 DEG AZ=38 38.3N; 142:8E 37KM H=15 47 02:5 (I) 39.1N; 142:1E (100KM) 15 47 16:8 (I)

MB=4.8(3) D=144:3 DEG AZ=13 16.1S; 175:1W 294KM H=16 09 17:0

MB=5.1(64) D=18:6 DEG AZ=142 40.8N; 23:1E 19KM H=22 23 28:0 (I) 40.8N; 23:2E 27KM H=22 23 31:4 (I) 40.6N; 22:9E 33KM H=22 23 23:9 (I) DISTANCE 13 DEG

MB=4.9(54) D=18:4 DEG AZ=122 39.5N; 33:2E 13KM H=22 39 15:0 (I) 39.5N; 33:2E 15KM H=22 39 17:7 (I) 39.8N; 33:2E 33KM H=22 39 19:3 (I)

MB=5.0(5) D=84:0 DEG AZ=41 33.6N; 141:2E 46KM H=23 04 49:7 (U)

MB=5.8(70) D=40:6 DEG AZ=65 49.8N; 78:9E 0KM H=22 46 57:3 (U)

MB=4.5(23) D=23:3 DEG AZ=337 70.6N; 15:1W 10KM H=26 38 53:6 (U) 70.7N; 15:9W 10KM H=26 38 54:0 (U) 70.7N; 18:0W 33KM H=26 38 50:2 (M)

1978 JUL 05 SOUTHERN GREECE
E(P) 14 42 09 MB=3.7(1) D=19:0 DEG AZ=155 37.4N; 21:0E 10KM H=14 38 27:0 (U)

1978 JUL 05 TRACES
E 17 07 08

1978 JUL 05
E 18 44 04

INTERRUPTION OF ALL SHORTPERIODIC RECORDS FROM 18H 56M TO 19H 06M

1978 JUL 05 GREECE
E 19 37 18 NO MB COMP, D=12:6 DEG AZ=142 40.9N; 23:3E 10KM H=19 54 05:8 (U) 40.9N; 23:3E 10KM H=19 54 07:3 (U)

1978 JUL 05
E 20 06 13

1978 JUL 05 GUERRERO, MEXICO
I P 20 28 07:40 1.5 / 52 MB=5.6(66) D=89:3 DEG AZ=299 18.5N; 100:0W 62KM H=20 19 16:3 (U) I X P 28 28:7 12.4N; 100:1W 33KM H=20 15 12:6 (M) E 31 16 E S 38 58

1978 JUL 05 TRACES
E 23 37 35

1978 JUL 06
E 00 25 36

1978 JUL 06
E 00 43 17

1978 JUL 06 GREECE
E L 02 30 45 D=12:6 DEG AZ=142 40.8N; 23:1E 10KM H=22 23 01:8 (U)

1978 JUL 06 OFF EAST COAST OF HONSHU, JAPAN
E P 06 19 48 MB=4.9(22) D=81:0 DEG AZ=37 38.1N; 143:5E 33KM H=26 07 34:8 (U) 38.2N; 143:6E 33KM H=26 07 30:5 (M)

1978 JUL 06
E P 13 57 25

1978 JUL 06 MEDITERRANEAN SEA
E 14 59 13 MB=4.3(2) D=17:5 DEG AZ=153 35.2N; 22:5E 29KM H=14 54 55:8 (U) 34.9N; 22:4E 10KM H=14 54 53:5 (U)

1978 JUL 06 MEDITERRANEAN SEA
E 19 53 47 MB=4.0(4) D=17:5 DEG AZ=153 35.2N; 22:5E 33KM H=19 49 24:3 (U) 35.1N; 22:6E 43KM H=19 49 26:6 (U)

1978 JUL 06
E P 22 48 33

1978 JUL 07
E 02 31 14

1978 JUL 07
E 03 08 53

1978 JUL 07 FIJI ISLANDS REGION
I PKP1 04 40 37:50 0.9 / 17 MB=4.2(7) D=148:4 DEG AZ=21 21.0S; 178:7W 496KM H=24 21 47:4 (U) I PKP2 40 43:0

1978 JUL 07
E SQ 08 55 12

1978 JUL 07 TONGA ISLANDS REGION
I PKP1 11 46 27:7 1.9 / 62 MB=4.9(9) D=149:8 DEG AZ=9 17.3S; 172:5W 41KM H=11 26 50:6 (U)

1978 JUL 07 SOUTH OF FIJI ISLANDS
I PKP1 17 34 02:30 0.9 / 145 MB=5.1(17) D=150:7 DEG AZ=20 23.1S; 177:5W 222KM H=17 14 35:3 (U) I 34 05:9 23.0S; 179:4E 33KM H=17 14 19:5 (M) E ARKP 35 02

1978 JUL 07
E 21 54 49

1978 JUL 08 HOLUCCA PASSAGE
E P 03 20 48 1.3 / 21 MB=5.8(62) D=103:8 DEG AZ=71 0.6N; 126:2E 41KM H=23 06 47:7 (U) 0.7N; 126:2E 70KM H=23 06 52:0 (M) E PP 24 36 25 18 LM 04 10

1978 JUL 08 GREENLAND SEA
E P 06 01 44 1.6 / 27 MB=4.6(6) D=22:2 DEG AZ=357 73.4N; 8:9E 10KM H=25 56 42:9 (U) 73.7N; 7:7E 10KM H=25 56 39:4 (U) 73.3N; 9:2E 33KM H=25 56 43:2 (M)

1978 JUL 08 ANDREANOF ISLANDS, ALEUTIAN IS.
E P 06 39 34 MB=4.9(49) D=77:3 DEG AZ=8 51.3N; 179:0W 67KM H=26 27 46:6 (U) 50.5N; 178:1W 33KM H=26 27 31:5 (M)

1978 JUL 08 SAMOA ISLANDS REGION
E PKP 08 30 58 MB=5.1(20) D=149:3 DEG AZ=10 16.8S; 172:7W 33KM H=28 11 19:4 (U) E 31 30 16.6S; 173:8W 33KM H=28 11 17:4 (M) LM 09 45



1978 JUL 08 NORTHERN ITALY FRIULI (A)
E S 15 15 50 MB=4.9(17) D= 84.1 DEG AZ# 53
27.5N/130.2E 33KM M=19 08 04.5 (U)
28.7N/129.5E 33KM 19 08 13.6 (M)

1978 JUL 08 RYUKYU ISLANDS
E P 19 20 36 MB=4.8(29) D= 61.1 DEG AZ# 208
6.38/ 11.3W 33KM M=22 29 55.4 (U)

1978 JUL 08 ASCENSTON ISLAND REGION
E P 22 39 47 1.6 / 18 MB=5.4(21) D=142.8 DEG AZ# 23
15.88/178.7E 33KM M=02 13 31.4 (U)
15.38/179.2E 33KM 02 13 27.8 (M)

1978 JUL 09 FIJI ISLANDS
E PKP 02 33 01 MB=4.9(2) D=146.1 DEG AZ# 11
LM 03 43 17.78/173.9W 33KM M=09 22 00.5 (U)

1978 JUL 09 TONGA ISLANDS
E PKP1 09 41 39 MB=4.7(10) D=148.3 DEG AZ# 20
17.88/178.7W 551KM M=10 15 57.9 (U)

1978 JUL 09 FIJI ISLANDS REGION
I PKP 16 34 34.9C 1.3 / 52 MB=4.7(25) D= 77.6 DEG AZ# 38
E APKP 36 45 41.0N/141.2E 33KM M=23 20 03.4 (U)
40.8N/141.3E 33KM 23 20 01.4 (M)

1978 JUL 09 TRACEST HOKKAIDO, JAPAN, REGION
E(P) 23 32 01 MB=4.9(46) D= 75.3 DEG AZ# 358
53.7N/165.6W 33KM M=00 14 31.9 (U)
54.3N/164.1W 33KM 00 14 36.1 (M)

1978 JUL 10 UNIMAK ISLAND REGION
I P 00 26 13.4D 1.3 / 25 MB=4.5(10) D= 90.3 DEG AZ# 296
I AP 26 24.6 16.0N/ 98.3W 33KM M=04 13 27.3 (U)

1978 JUL 10 TRACEST NEAR COAST OF GUERRERO, MEXICO
E P 04 26 26 MB=5.1(82) D= 73.7 DEG AZ# 28
06 13 18.2D 0.9 / 66 48.8N/150.1E 342KM M=06 02 20.6 (U)
E AP 14 40 48.8N/150.3E 350KM 06 02 20.6 (M)

1978 JUL 10 TONGA ISLANDS
E PKP1 13 21 46 1.2 / 17 MB=4.9(6) D=140.1 DEG AZ# 13
17.88/174.4W 121KM M=13 02 18.6 (U)

1978 JUL 10 OFF EAST COAST OF HONSHU, JAPAN
E AP 13 34 02 MB=4.7(7) D= 81.0 DEG AZ# 37
38.1N/145.9E 36KM M=13 21 39.2 (U)

1978 JUL 10 TRACEST CENTRAL YUGOSLAVIA
E L 19 24 16 MB=4.4(12) D= 7.2 DEG AZ# 150
45.0N/ 18.1E 10KM M=19 19 51.8 (U)

1978 JUL 11 HOKKAIDO, JAPAN, REGION
E P 02 38 16 MB=4.4(12) D= 77.4 DEG AZ# 36
E AP 38 34 41.9N/142.7E 65KM M=02 26 27.2 (U)

1978 JUL 11 TRACES
E 02 56 30

1978 JUL 11 QUEEN CHARLOTTE ISLAND REGION
I P 03 06 28.7C 2.3 / 130 MB=5.4(94) D= 72.2 DEG AZ# 339
I AP 06 34.7 52.8N/132.1W 10KM M=02 55 01.6 (U)
LM 39 53.1N/132.4W 33KM 02 55 01.7 (M)

1978 JUL 11 NEW HEBRIDES ISLANDS
E PKP 05 53 17 MB=5.2(15) D=137.3 DEG AZ# 39
E SKP 56 54 14.18/165.8E 47KM M=05 33 55.1 (U)
14.08/165.7E 33KM 05 33 55.6 (M)

1978 JUL 11 WESTERN BRAZIL
I P 12 29 13.7D 2.1 / 230 MB=5.8(58) D= 92.6 DEG AZ# 261
I 29 23.2 7.95/ 71.4W 645KM M=12 17 07.8 (U)
E XP 32 34 7.75/ 71.3W 600KM 12 17 04.6 (M)
E S 39 22
E(XS) 43.1
E PKKP1 46 22
E PKPKP 54 33

1978 JUL 11 SEA OF OKHOTSK
I P 13 46 53.2D 1.0 / 59 MB=4.9(60) D= 73.7 DEG AZ# 31
47.3N/145.8E 408KM M=13 36 01.2 (U)
47.5N/145.8E 410KM 13 36 02.5 (M)

1978 JUL 11 I 14 31 08.3

1978 JUL 11 E 18 04 05

1978 JUL 11 E 18 16 39

1978 JUL 11 KURILE ISLANDS
I P 23 00 34.0C 1.0 / 36 MB=4.9(39) D= 77.4 DEG AZ# 33
I AP 00 45.4 43.4N/146.5E 42KM M=22 48 42.4 (U)
I XP 00 49.8

1978 JUL 12 KURILE ISLANDS
I P 00 14 44.3 1.2 / 12 MB=4.5(3) D= 76.9 DEG AZ# 33
43.8N/146.1E 33KM M=00 02 54.0 (U)

1978 JUL 12 CRETE
E P 00 36 39 MB=3.8(15) D= 18.6 DEG AZ# 148
34.9N/ 25.0E 80KM M=00 38 21.0 (U)
34.7N/ 25.0E 82KM 00 38 21.4 (M)
34.2N/ 24.9E 33KM 00 38 08.6 (M)

1978 JUL 12 TONGA ISLANDS REGION /4.2(1) D=145.7 DEG AZ# 8
E PKP1 00 44 41 17.2S/171.9W 33KM M=00 25 01 (F)

1978 JUL 12 02 20 48

INTERRUPTION OF ALL SHORTPERIODIC RECORDS FROM 03H 23M TO 05H 50M

1978 JUL 12 EASTERN CAUCASUS MB=4.7(25) D= 23.0 DEG AZ# 98
E P 11 57 22 43.3N/ 45.1E 43KM M=11 52 18.6 (U)
E 57 27 1.5 / 24 43.5N/ 44.9E 44KM 11 52 22.6 (M)
E S 57 37 43.5N/ 45.1E 33KM 11 52 17.7 (M)
E L 12 01 32
E LH 05 28
LMV 07.3

1978 JUL 12 15 01 21

1978 JUL 12 UNDERGROUND EXPLOSION MB=5.5(67) D= 81.3 DEG AZ# 321
I P 17 12 18.0C 1.3 / 56 37.1N/116.0W 0KM M=17 00 00.1 (U)

1978 JUL 12 ICELAND REGION MB=4.0(12) D= 20.8 DEG AZ# 326
E P 18 03 46 66.0N/ 16.1W 10KM M=17 59 02.6 (U)

1978 JUL 12 SICHUAN PROVINCE, CHINA MB=5.1(72) D= 65.8 DEG AZ# 69
E P 22 00 41 1.6 / 35 31.9N/103.0E 33KM M=21 49 57.9 (U)
E 01 35 31.9N/103.1E 33KM 21 49 52.4 (M)
E 25.6
LM 30

1978 JUL 12 23 27 18

1978 JUL 13 SOUTH OF FIJI ISLANDS MB=5.0(8) D=152.4 DEG AZ# 29
I PKP1 04 01 33.0 1.2 / 16 26.05/178.4E 637KM M=03 42 46.4 (U)
I PKP2 01 46.4 1.7 / 38
E APKP 03 57

1978 JUL 13 KURILE ISLANDS MB=4.8(37) D= 77.1 DEG AZ# 31
I P 04 07 33.7C 1.0 / 40 44.7N/149.0E 33KM M=03 55 43.0 (U)

1978 JUL 13 TRACES
E 04 24 41

1978 JUL 13 FOX ISLANDS, ALEUTIAN ISLANDS MB=5.8(96) D= 76.9 DEG AZ# 1
I P 13 37 09.6C 1.5 / 170 52.2N/168.8W 33KM M=13 25 19.7 (U)
I AP 37 20.8 52.7N/169.2W 33KM 13 25 17.2 (M)
E S 47 06
E SKS 47 23
L 14 15 T 17 AN 2 AE 1.5 AV 2
LM 23 T 15 AN 2 AE 1 AV 2 MLH =5.6 MLV =5.6

1978 JUL 13 GREECE MB=3.9(13) D= 12.7 DEG AZ# 142
E(P) 17 30 08 40.8N/ 23.2E 10KM M=17 26 57.2 (U)
E L 34 22 40.8N/ 23.3E 10KM 17 26 59.1 (M)
41.0N/ 23.3E 33KM 17 26 58.6 (M)

1978 JUL 13 NEAR COAST OF NICARAGUA (U)
LM 18 05

1978 JUL 13 23 14 54

1978 JUL 13 23 29 31

1978 JUL 14 SOLOMON ISLANDS MB=5.3(6) D=126.2 DEG AZ# 48
I PKP 00 16 23.2D 7.1S/155.6E 71KM M=23 57 27.2 (U)

1978 JUL 14 SOUTH OF FIJI ISLANDS MB=5.2(11) D=149.5 DEG AZ# 23
I PKP1 05 49 39.5 22.3S/179.1W 469KM M=05 30 48.4 (U)
I PKP2 49 45.1
E PKP2 49 52 DISTANCE 149 DEG DEPTH 480 KM
E APKP 51 38

1978 JUL 14 11 06 01

1978 JUL 14 TRACEST OFF EAST COAST OF HONSHU, JAPAN MB=4.5(7) D= 81.2 DEG AZ# 38
E P 11 12 36 37.5N/142.7E 52KM M=11 00 25.6 (U)

1978 JUL 14 EXPLOSION OF 18.0 TONS, CZECHOSLOVAKIA D=117 KM AZ#121
I P 11 59 43.8 50.75N/ 14.42E M=11 59 23.4 (F)
I SQ 59 59.6
E L 12 00 18

1978 JUL 14 POLAND, UPPER SILESIA (QUESTIONABLY)
E 12 12 58

1978 JUL 14 KRABIAN SEA MB=4.5(7) D= 52.5 DEG AZ# 121
E P 12 41 36 12.7N/ 57.2E 33KM M=12 32 24.5 (U)

1978 JUL 14 NEAR EAST COAST OF HONSHU, JAPAN MB=5.0(47) D= 80.7 DEG AZ# 39
I P 14 17 05.2 1.2 / 23 37.5N/141.4E 57KM M=14 04 56.5 (U)
37.4N/141.5E 33KM 14 04 52.6 (M)

1978 JUL 14 I P 16 09 28.3	KURILE ISLANDS	MB=4.8(33)	D=77.4 DEG AZ=32 43.9N 147.8E 80KM H=15 57 40.7 (U) 44.9N 147.9E 100KM H=15 57 49.6 (M)	1978 JUL 18 E PG E SQ 15 16 28 17 19	POLAND, UPPER SILESIA		
1978 JUL 14 I PKP1 I PKP2 16 25 18.9D 0.8 / 20 25 22.7	FIJI ISLANDS REGION	MB=5.3(35)	D=147.8 DEG AZ=19 20.15N 177.9W 534KM H=16 06 33.6 (U)	1978 JUL 18 E 15 34 27			
1978 JUL 14 I P 17 26 11.5	SAMAR, PHILIPPINE ISLANDS	MB=5.2(5)	D=93.8 DEG AZ=66 12.1N 124.0E 33KM H=17 12 55.0 (U) 13.1N 123.8E 33KM H=17 13 00.0 (M)	1978 JUL 18 I P E AP E PP 22 10 01.7 1.2 / 24 11 59 13 25	SOUTH OF HONSHU, JAPAN	MB=4.9(58)	D=85.0 DEG AZ=46 30.4N 137.1E 492KM H=21 58 18.6 (U) 30.7N 137.0E 500KM H=21 58 20.6 (M)
1978 JUL 14 E PKP2 E 20 39 52 40 09	SOUTH OF KERMADEC ISLANDS	MB=5.0(66)	D=159.5 DEG AZ=30 32.75N 178.9W 53KM H=20 19 21.1 (U) 32.85N 179.9E 33KM H=20 19 20.1 (M)	1978 JUL 18 I PKP I I APKP E PP 23 06 58.2 1.2 / 17 07 02.7 07 09.4 08 46	NEW BRITAIN REGION	MB=5.7(28)	D=124.4 DEG AZ=50 6.45N 153.2E 28KM H=22 48 00.2 (U) 6.35N 153.1E 40KM H=22 48 02.1 (M)
1978 JUL 15 I P E PP 02 35 07.2 36 53	TADZHIK-SINKIANG BORDER REGION	MB=5.0(66)	D=43.8 DEG AZ=83 38.2N 73.7E 161KM H=02 27 15.3 (U) 38.4N 73.6E 160KM H=02 27 16.4 (M)	1978 JUL 19 E E SG 00 59 35 01 00 13			
1978 JUL 15 I PKP1 03 50 45.8	FIJI ISLANDS REGION	MB=5.6(7)	D=146.7 DEG AZ=19 19.05N 177.7W 543KM H=03 32 03.7 (U)	1978 JUL 19 E 02 17 21	TRACES		
1978 JUL 15 E 09 36 34	TRACES	MB=5.3(64)	D=84.4 DEG AZ=41 33.3N 141.7E 14KM H=10 18 39.9 (U) 33.6N 141.6E 33KM H=10 18 38.5 (M)	1978 JUL 19 I P E E S E SS L LM 09 43 27.5C 2.1 / 205 44 23 52 46 58.0 10 18 22	KODIAK ISLAND REGION	MB=5.7(92)	D=71.5 DEG AZ=351 56.8N 151.6W 33KM H=09 32 08.6 (U) 56.8N 151.8W 33KM H=09 32 03.6 (M) DISTANCE 72 DEG
1978 JUL 15 I P E PP LM 10 31 12.7 34 24 11 09	OFF EAST COAST OF HONSHU, JAPAN	MB=5.4(89)	D=77.3 DEG AZ=36 41.9N 142.5E 62KM H=17 44 55.4 (U) 42.6N 142.3E 50KM H=17 44 57.4 (M)	1978 JUL 19 I P E E S E SS L LM 10 18 22	CRETE	MB=5.0(37)	D=19.6 DEG AZ=146 34.2N 26.1E 34KM H=16 08 32.8 (U) 34.2N 26.2E 46KM H=16 08 34.9 (M) 34.5N 26.1E 33KM H=16 08 34.6 (M)
1978 JUL 15 E 13 29 20		MB=5.4(43)	D=87.7 DEG AZ=68 15.6N 119.2E 61KM H=03 05 01.1 (U) 15.7N 119.1E 33KM H=03 04 59.3 (M)	1978 JUL 19 I PG E SG 16 46 08.5 46 41	QUESTIONABLE EVENT ; FRG, CENTRAL REGION		D=2.3 DEG AZ=266 51.10N 9.30E (RRF)
1978 JUL 16 E P E E L 03 17 45 17 54 18 35 55	LUZON, PHILIPPINE ISLANDS	MB=5.4(15)	D=150.6 DEG AZ=25 23.6S 179.9W 538KM H=06 09 29.5 (U)	1978 JUL 19 E 20 48 40			
1978 JUL 16 I P E AP 07 52 18.5 52 30	OFF EAST COAST OF HONSHU, JAPAN	MB=4.8(16)	D=84.4 DEG AZ=41 33.3N 141.5E 33KM H=07 39 49.3 (U) 34.0N 141.2E 33KM H=07 39 48.1 (M)	1978 JUL 20 I PKP1 I PKP2 05 06 07 06 10	FIJI ISLANDS REGION	NO MB COMP.	D=147.1 DEG AZ=18 19.35N 177.2W 586KM H=04 47 26.6 (U)
1978 JUL 16 I PKP1 14 42 18.2	FIJI ISLANDS REGION	MB=4.3(2)	D=148.0 DEG AZ=20 20.55N 178.1W 539KM H=14 23 36.9 (U)	1978 JUL 20 E P E AP E PP E S LM 09 47 17 1.2 / 27 47 42 50 43 57 38 10 26	NICARAGUA	MB=5.3(50)	D=86.5 DEG AZ=285 12.2N 86.6W 121KM H=09 34 47.2 (U) DISTANCE 87 DEG
1978 JUL 16 E PKP 22 32 14	PAPUA NEW GUINEA	MB=5.5(33)	D=119.8 DEG AZ=60 6.65N 143.8E 33KM H=22 13 25.8 (U) 6.35N 143.9E 33KM H=22 13 21.7 (M)	1978 JUL 20 E 10 05 37	TRACES		
1978 JUL 17 I PKIP I PKP1 I PKP2 I I APKP 00 28 24.3 28 31.0 28 40.4 30 33.8 30 37.9	SOUTH OF FIJI ISLANDS	MB=5.4(25)	D=150.6 DEG AZ=25 23.6S 179.9W 538KM H=06 09 29.5 (U) DISTANCE 150.5 DEG DEPTH 540 KM	1978 JUL 20 E(PKP2) 17 46 06	OFF W. COAST OF S. ISLAND, N.Z.	MB=4.9(3)	D=161.6 DEG AZ=81 45.35N 166.7E 33KM H=17 25 30.7 (U)
1978 JUL 17 I PKP1 04 17 01.1	SOUTH OF FIJI ISLANDS	MB=4.9(9)	D=149.3 DEG AZ=23 22.15N 179.2W 530KM H=03 58 11.9 (U)	1978 JUL 20 I P 18 02 19.8C 0.6 / 12			
1978 JUL 17 E AP 09 28 10	LEFWARD ISLANDS	MB=4.5(5)	D=66.6 DEG AZ=269 17.6N 61.2W 45KM H=09 17 08.0 (U)	1978 JUL 20 I P 18 21 03.9			
1978 JUL 17 I PG I SQ 11 12 21.7 12 36.0	EXPLOSION OF 22.0 TONS; CZECHOSLOVAKIA	MB=5.5(33)	D=109 KM AZ=137 (50.58N 14.05E)	1978 JUL 20 E P E AP 18 26 57 27 14	RAT ISLANDS, ALEUTIAN ISLANDS	MB=5.2(65)	D=76.8 DEG AZ=11 51.1N 175.1E 33KM H=18 15 08.7 (U) 51.4N 174.9E 33KM H=18 15 05.3 (M)
1978 JUL 17 I PKP 13 45 11.2C 1.2 / 130 T 7	SAMOA ISLANDS REGION	MB=6.0(56)	D=143.0 DEG AZ=14 14.9S 175.8W 292KM H=13 26 14.9 (U) 14.85S 175.8W 300KM H=13 26 15.6 (M) DISTANCE 142 DEG	1978 JUL 20 E PG E SG 23 51 35 52 27	POLAND, LPPER SILESIA		
1978 JUL 17 E APKP E PP (OR SKP) E (APKS) E E SKKS E E SKKP E SKSP 46 23 48 26 50 04 53 12 34 49 35 40 36 39 58 04	2.4 / 570 T 13	AV 2.1 AV 3.5	MPPV =6.4 MPPV =6.5	1978 JUL 21 I P 00 03 15.7C 0.8 / 15			
1978 JUL 18 E P 00 14 08	CARLSBERG RIDGE	MB=4.5(2)	D=61.5 DEG AZ=121 5.2N 62.4E 33KM H=00 03 51.3 (U)	1978 JUL 21 I P 03 03 02 1.0 / 14			
1978 JUL 18 E 03 28 14	TRACES	MB=5.1(1)	D=148.8 DEG AZ=16 20.85N 175.6W 33KM H=11 50 53.7 (U)	1978 JUL 21 E PKP 15 23 14	FASTER ISLAND CORDILLERA	NO MB COMP.	D=152.2 DEG AZ=244 55.05N 120.4W 33KM H=15 03 27 (U)
1978 JUL 18 I PKP1 12 10 38.7	TONGA ISLANDS	MB=4.8(37)	D=89.5 DEG AZ=272 1.9N 78.2W 91KM H=14 26 03.0 (U)	1978 JUL 21 E P 18 48 27	SOUTHERN IRAN	MB=4.3(10)	D=40.7 DEG AZ=108 27.9N 57.6E 33KM H=18 40 48.2 (U) 26.7N 58.6E 10KM H=18 40 34.4 (M) 27.1N 57.6E 33KM H=18 40 36.7 (M)
1978 JUL 18 E P 14 38 51	COLOMBIA-EQUADOR BORDER REGION			1978 JUL 21 E P 21 02 20	ANDREANOF ISLANDS, ALEUTIAN IS.	MB=4.9(31)	D=77.2 DEG AZ=7 51.4N 178.3W 54KM H=20 50 30.8 (U) 51.1N 177.9W 33KM H=20 50 26.4 (M)
				1978 JUL 21 E 23 09 16			



Date	Location	Time	Depth (km)	Magnitude	Distance (deg)	Azimuth (deg)	Station	Observed	Calculated
1978 JUL 22	NORTHERN ITALY	01 21 20							
1978 JUL 22	TRACES	02 18 38							
1978 JUL 22	EAST PAPUA NEW GUINEA REGION	06 28 01							
1978 JUL 22	GERMAN DEMOCRATIC REPUBLIC	07 14 33.2							
1978 JUL 22	NEW BRITAIN REGION	12 10 39							
1978 JUL 22	NEW HEBRIDES ISLANDS REGION	15 27 11							
1978 JUL 22	NORTH ATLANTIC RIDGE	20 15 12							
1978 JUL 22	GDR-CZECHOSLOVAKIA BORDER REGION	03 31 27							
1978 JUL 23	TAIWAN REGION	14 55 06.9C							
1978 JUL 23	TAIWAN REGION	15 26 50.4							
1978 JUL 23	TAIWAN REGION	16 04 30							
1978 JUL 23	TAIWAN REGION	16 15 10.8							
1978 JUL 23	TRACEST TAIWAN REGION	16 17 59.3							
1978 JUL 23	KURILE ISLANDS	16 28 10.6							
1978 JUL 23	TAIWAN REGION	17 08 42							
1978 JUL 24	TAIWAN REGION	02 49 28.2C							
1978 JUL 24	KURILE ISLANDS REGION	06 35 38.3C							
1978 JUL 24	GULF OF MEXICO	08 18 06.1C							
1978 JUL 24	NEW BRITAIN REGION	11 24 31							
1978 JUL 24	TAIWAN REGION	11 54 20.4C							
1978 JUL 24	WESTERN IRAN	16 06 11							
1978 JUL 24	NEW HEBRIDES ISLANDS REGION	20 05 09.4C							
1978 JUL 25	TAIWAN REGION	00 07 14							
1978 JUL 25	TAIWAN REGION	03 24 01							
1978 JUL 25	TRACEST TAIWAN REGION	07 17 53							
1978 JUL 25	TONGA ISLANDS	10 42 28							
1978 JUL 25	TONGA ISLANDS	11 13 17.2C							
1978 JUL 25	NEW HEBRIDES ISLANDS REGION	15 42 14							
1978 JUL 25	TAIWAN REGION	18 08 56							
1978 JUL 25	TRACEST TAIWAN REGION	20 09 57							
1978 JUL 25	FIJI ISLANDS REGION	21 07 45.8C							
1978 JUL 25	TRACEST UNIMAK ISLAND REGION	23 10 07							
1978 JUL 25	VANCOUVER ISLAND REGION	23 42 25							
1978 JUL 26	AFGHANISTAN-USSR BORDER REGION	00 48 54							
1978 JUL 26	TRACEST KURILE ISLANDS	03 38 14							
1978 JUL 26	TAIWAN REGION	03 46 28							
1978 JUL 26	TRACEST SOUTHERN GREECE	04 44 58							



Date	Location	Time	Magnitude	Depth (km)	AZ	Distance (km)	Other Data
1978 JUL 26	BALEARIC ISLANDS	12 13 49	3.0	13			
1978 JUL 26	FIJI ISLANDS REGION	12 39 09	3.9	89			
1978 JUL 26	TAIWAN REGION	14 11 32	4.9	23			
1978 JUL 26	OFF EAST COAST OF HONSHU, JAPAN	17 23 47	5.2	36			
1978 JUL 26	OFF EAST COAST OF HONSHU, JAPAN	17 25 48.7C	1.1	37			
1978 JUL 26	ICELAND REGION	18 43 42	4.9	22			
1978 JUL 26	NEAR EAST COAST OF HONSHU, JAPAN	22 28 10 D	4.9	22			
1978 JUL 27	TONGA ISLANDS REGION	03 35 19	3.2	49			
1978 JUL 27	NEAR EAST COAST OF HONSHU, JAPAN	07 36 15.1C	1.1	42			
1978 JUL 27		07 42 47					
1978 JUL 27		09 59 12.0					
1978 JUL 27	NEAR EAST COAST OF HONSHU, JAPAN	13 41 32	3.1	34			
1978 JUL 27	OFF EAST COAST OF HONSHU, JAPAN	17 56 01	4.8	12			
1978 JUL 27	TONGA ISLANDS	18 44 40	3.7	38			
1978 JUL 27		22 09 51.1C					
1978 JUL 27		22 44 54.7					
1978 JUL 28	GERMAN DEMOCRATIC REPUBLIC	00 57 47.2					
1978 JUL 28	WESTERN IRAN	02 49 36	4.4	16			
1978 JUL 28	UNDERGROUND EXPLOSION	02 54 37.2C	0.8	130			
1978 JUL 28	EXPLOSION OF 69 TONS; CZECHOSLOVAKIA	09 59 10.6					
1978 JUL 28	NEW HEBRIDES ISLANDS	11 05 18.3	3.3	27			
1978 JUL 28	PERU-BRAZIL BORDER REGION	14 13 45.3D	1.1	17			
1978 JUL 28		18 28 09					
1978 JUL 28		19 18 41					
1978 JUL 28	BALEARIC ISLANDS	21 13 31	3.9	1			
1978 JUL 28	POLAND, UPPER SILESIA	22 12 10.5					
1978 JUL 29	CARLSBERG RIDGE	02 15 04.1	1.6	35			
1978 JUL 29	WESTERN TURKEY	04 38 56.2	1.9	48			
1978 JUL 29	SOUTHERN IRAN	08 16 14	4.4	5			
1978 JUL 29		13 09 53					
1978 JUL 29	GUATEMALA	14 50 20.5	1.5	27			
1978 JUL 29	CENTRAL ITALY	21 11 27					
1978 JUL 29		21 40 44					
1978 JUL 29		23 24 41.5					
1978 JUL 30	SOUTHERN YUGOSLAVIA	00 03 03					
1978 JUL 30	CENTRAL ITALY	05 21 31.0					
1978 JUL 30	TRACES	09 52 06					
1978 JUL 30		10 51 24					
1978 JUL 30	NEAR S. COAST OF HONSHU, JAPAN	15 00 59.1	1.1	20			
1978 JUL 31	TAIWAN	00 33 05					
1978 JUL 31	SOUTHERN SINKIAOQ PROV., CHINA	12 04 39					
1978 JUL 31		13 22 21					
1978 JUL 31	TAIWAN REGION	16 44 54.8C	0.8	12			
1978 JUL 31	NEAR COAST OF GUATEMALA	20 31 32					
1978 JUL 31		21 44 35					
1978 JUL 31		23 17 15					
1978 JUL 31		23 31 02.6					



Date	Region	Time	Depth (km)	Magnitude	D (DEG)	AZ (DEG)	Other Data
1978 AUG 01	HINDU KUSH REGION	06 29 10	96KM	M=2.2(21)	D=43.2	AZ=87	36.1N; 70.6E
1978 AUG 01	NORTHERN CALIFORNIA	09 14 43	2KM	M=4.5(5)	D=79.6	AZ=327	41.5N; 121.9W
1978 AUG 01	KERMADEC ISLANDS REGION	14 16 54.5	33KM	M=4.4(2)	D=158.8	AZ=26	31.6S; 177.8W
1978 AUG 01	TONGA ISLANDS	20 49 15	33KM	M=5.3(18)	D=143.7	AZ=10	15.3S; 173.3W
1978 AUG 02	NEAR N. COAST OF WEST IRIAN	01 34	33KM	M=4.5(18)	D=40.2	AZ=110	27.2N; 55.9E
1978 AUG 02	SOUTHERN IRAN	07 02 04	33KM	M=5.1(44)	D=72.8	AZ=79	20.5N; 100.6E
1978 AUG 02	FIJI ISLANDS REGION	09 16 50.4	33KM	M=5.3(14)	D=146.6	AZ=18	18.9S; 177.6W
1978 AUG 02	ANDREANOF ISLANDS, ALEUTIAN IS.	10 24 03	33KM	M=4.8(19)	D=77.1	AZ=5	51.7N; 175.6W
1978 AUG 02	NEW HEBRIDES ISLANDS	16 43 01	208KM	M=5.1(6)	D=142.6	AZ=39	18.9S; 169.2E
1978 AUG 02	FIJI ISLANDS REGION	23 42 42.3	545KM	M=4.9(3)	D=145.2	AZ=20	17.7S; 178.6W
1978 AUG 03	PANAMA-COLOMBIA BORDER REGION	00 11 53.2	33KM	M=5.0(56)	D=84.5	AZ=275	7.3N; 77.2W
1978 AUG 03	SOUTH INDIAN OCEAN	01 22 28.8C	33KM	M=5.5(74)	D=79.1	AZ=105	0.9S; 84.3E
1978 AUG 03	AFGHANISTAN-USSR BORDER REGION	02 32 54	220KM	M=4.4(18)	D=43.3	AZ=87	36.4N; 71.1E
1978 AUG 03	CENTRAL USSR	06 16 21.7	33KM	M=5.3(85)	D=49.2	AZ=54	52.1N; 96.9E
1978 AUG 03	SOUTHEASTERN ALASKA	08 10 34.6C	33KM	M=4.5(30)	D=68.0	AZ=344	58.5N; 137.8W
1978 AUG 03	NEW HEBRIDES ISLANDS	13 00 48.1C	33KM	M=5.7(33)	D=138.8	AZ=39	15.4S; 167.5E
1978 AUG 03	SOUTHWEST OF SUNATERA	15 28 32.8C	1.0 / 13	M=5.2(34)	D=86.5	AZ=95	0.4S; 97.0E
1978 AUG 03	NEAR COAST OF NORTHERN CHILE	18 25 27	1.7 / 39	M=6.3(62)	D=106.4	AZ=248	26.5S; 70.5W
1978 AUG 03	POLAND, UPPER SILESIA	19 05 40	06 54 29.8 (M)	M=4.9(9)	D=147.2	AZ=19	19.6S; 178.0W
1978 AUG 03	FIJI ISLANDS REGION	19 26 48.1E	1.1 / 45	M=5.9(49)	D=107.8	AZ=67	0.2S; 131.8E
1978 AUG 03	WEST IRIAN	23 39 50	33KM	M=5.0(14)	D=88.0	AZ=67	15.7N; 119.8E
1978 AUG 04	TRACEST SAMOA ISLANDS REGION	00 04 36	33KM	M=5.3(13)	D=144.2	AZ=10	15.7S; 173.0W
1978 AUG 04	LUZON, PHILIPPINE ISLANDS	00 18 18	33KM	M=5.0(14)	D=88.0	AZ=67	15.8N; 119.8E
1978 AUG 04	TONGA ISLANDS	01 36 38	33KM	M=5.3(13)	D=144.2	AZ=10	15.7S; 173.0W
1978 AUG 04	PHILIPPINE ISLANDS REGION	09 07 34.4E	1.7 / 135	M=5.4(66)	D=85.0	AZ=64	19.9N; 120.4E
1978 AUG 04	CHAGOS ARCHIPELAGO REGION	14 20 32.7C	1.9 / 155	M=5.4(69)	D=72.2	AZ=120	3.5S; 68.7E
1978 AUG 04	TRACEST NEAR EAST COAST OF KAMCHATKA	00 46 39	33KM	M=5.0(14)	D=71.6	AZ=20	54.0N; 160.5E
1978 AUG 04	NEW IRELAND REGION	04 31 35	33KM	M=5.8(37)	D=120.9	AZ=51	3.6S; 151.0E
1978 AUG 04	SOUTH SHETLAND ISLANDS	07 02 04	33KM	M=5.8(15)	D=124.6	AZ=214	60.8S; 56.0W

1978 AUG 05 SOUTH PACIFIC CORDILLERA
E PKP2 08 26 50

1978 AUG 05 SOUTH OF HONSHU/ JAPAN
E P 11 06 58

1978 AUG 05 SOUTH OF HONSHU/ JAPAN
E P 11 39 55

1978 AUG 05 POLAND, UPPER SILESIA
E 14 28 07

1978 AUG 05 NEW IRELAND REGION
I PKP 16 05 00:8C 1.0 / 82
E APKP 06 06
E (PP) 06 33
I PKKP2 15 02:9C 1.3 / 25
E APKP2 16 05
E SKKP 18 55
E SS 22.9
LHM 50

1978 AUG 05 CENTRAL ITALY
E PN 18 14 52
E SN 15 15
E 16 26
E 16 39
E 17 10
E L 17 50

1978 AUG 05 SOUTHERN SUMATEBA
I P 19 05 17:9 1.8 / 55
E AP 05 37
E PP 09 00
E 16 44
E 17 24

1978 AUG 05 KURILE ISLANDS
I P 23 25 09.7C 0.6 / 18

1978 AUG 06 SOUTHEASTERN AUSTRIA
E 00 30 58
E SG 31 33

1978 AUG 06 TRACES
E 02 31 37

1978 AUG 06 NEW HEBRIDES ISLANDS
I PKP 04 37 31:9C 0.6 / 14

1978 AUG 06 TRACES SOUTHWESTERN RYUKYU ISLANDS
E P 07 06 12

1978 AUG 06 RYUKYU ISLANDS REGION
E P 11 36 43

1978 AUG 07 TAIWAN REGION
E P 01 08 39

1978 AUG 07 TRACES
E 02 13 10

1978 AUG 07
E 04 09 03

1978 AUG 07 KERMADEC ISLANDS
E PKP1 09 50 55

1978 AUG 07 SEVERNAYA ZEHLJA
E P 12 55 49 1.3 / 19

1978 AUG 07 AUCKLAND ISLANDS REGION
E PKP2 13 33 46

1978 AUG 07 GDR-FRG BORDER REGION
E 21 04 03
E 04 29

1978 AUG 08 AFGHANISTAN-USSR BORDER REGION
I P 00 09 26:9C 1.7 / 160
E XP 09 43
E PP 10 34
E 11 11
E 12 18
E SS 19.0
E 22 46

1978 AUG 08 TRACES
E 02 05 04

1978 AUG 08 NORTHERN COLOMBIA
I P 03 10 51.5 1.4 / 23

1978 AUG 08 SANTA CRUZ ISLANDS
I PKP 08 05 36:6
E (AP) 05 53
E 07 26

MB=4.6(2) D=157.3 DEG AZ=246
55.08N129.4W 33KM M=88 06 25:2 (U)

/4.6(2) D= 89.3 DEG AZ= 42
32.3N1141.6E 19KM M=10 54 21:8 (M)

MB=4.6(39) D= 85.8 DEG AZ= 45
30.2N1138.5E 412KM M=11 28 01:5 (U)
30.9N1138.4E 500KM 11 28 12:9 (M)

MB=5.7(50) D=121.6 DEG AZ= 50
3.6S1152.3E 259KM M=15 46 56:0 (U)
3.6S1152.2E 200KM 15 46 30:3 (M)

NO MB COMP; D= 8.7 DEG AZ=182
42.6N1 12.6E 33KM M=18 12 47:2 (U)
42.7N1 12.5E 10KM 18 12 48:2 (U)
42.9N1 12.4E 33KM 18 12 49:8 (M)

MB=5.9(67) D= 92.7 DEG AZ= 93
4.0S1102.4E 48KM M=18 52 09:1 (U)
3.9S1102.4E 50KM 18 52 09:6 (M)

MB=4.4(26) D= 76.0 DEG AZ= 30
46.0N1149.3E 161KM M=23 13 39:7 (U)

D= 4.0 DEG AZ=193
47.7N1 15.7E 10KM M=80 29 26:1 (U)

MB=4.8(6) D=144.4 DEG AZ= 40
20.8S1169.4E 40KM M=84 18 01:2 (U)

/4.5(3) D= 83.3 DEG AZ= 59
24.7N1124.3E 33KM M=86 53 49 (M)

/4.5(2) D= 85.2 DEG AZ= 56
24.7N1127.8E 33KM M=11 24 10 (M)

MB=4.7(9) D= 83.7 DEG AZ= 62
22.2N1121.4E 15KM M=80 56 09:1 (U)

NO MB COMP; D=157.7 DEG AZ= 25
30.5S1177.9W 51KM M=89 30 50:8 (U)

MB=4.5(27) D= 39.3 DEG AZ= 16
79.7N1 99.1E 33KM M=12 48 22:8 (U)
79.4N1 96.2E 33KM 12 48 27:4 (M)

MB=4.6(1) D=161.9 DEG AZ= 94
49.1S1164.8E 33KM M=13 13 00:1 (U)

MB=5.2(74) D= 43.2 DEG AZ= 87
36.6N1 71.1E 220KM M=80 05 46:4 (U)
36.5N1 71.2E 200KM 80 01 44:3 (M)

MB=5.1(46) D= 81.5 DEG AZ=271
7.0N1 72.1W 45KM M=82 58 56:6 (U)

MB=5.7(39) D=135.6 DEG AZ= 39
12.4S1166.9E 88KM M=87 46 23:0 (U)
11.6S1170.0E 33KM 87 46 14:3 (M)
DISTANCE 134 DEG

(CONT.)
E PP 08 08 16
E 08 31
E SKP 09 07
LHM 09 03 T 22 AN 2.5 AE 2 AV 1.5 MLH =5.9 (NO DEPTH CORRECTION)
LMV 08 T 18 AN 2 AE 1 AV 2 MLV =5.9 (NO DEPTH CORRECTION)

1978 AUG 08 TIBET MB=5.2(54) D= 53.4 DEG AZ= 82
I P 10 21 52.4 1.7 / 42 32.4N1 83.0E 37KM M=10 12 34:4 (U)
32.4N1 83.1E 33KM 10 12 29:5 (M)

1978 AUG 08 RYUKYU ISLANDS /4.6(3) D= 84.2 DEG AZ= 54
I P 11 09 31.5 26.6N1129.0E 45KM M=10 57 03:8 (U)
E 09 48

1978 AUG 08 ALBANIA MB=4.3(4) D= 12.1 DEG AZ=155
E S 12 16 08 40.1N1 19.7E 33KM M=12 10 45:9 (U)
E SSSS 16 41 40.2N1 19.7E 30KM 12 10 48:0 (M)
E L 17 44

1978 AUG 08 JORDAN - SYRIA REGION NO MB COMP; D= 24.1 DEG AZ=129
E P 22 11 26 33.5N1 35.4E 8KM M=22 06 09:8 (U)

1978 AUG 09 FIJI ISLANDS REGION MB=5.2(34) D=143.0 DEG AZ= 15
I PKP 01 07 32.2 1.1 / 32 14.9S1176.1W 301KM M=80 48 36:7 (U)
E SKP 10 48 14.8S1175.7W 33KM 80 48 00:2 (M)

1978 AUG 09 E SG 03 20 16
20 35

INTERRUPTION OF SOME RECORDS FROM 06H 04M TO 13H 10M

1978 AUG 09 CENTRAL LSSR MB=4.8(10) D= 49.1 DEG AZ= 54
E 10 26 45 52.3N1 98.9E 33KM M=10 17 43:9 (U)
52.2N1 98.8E 33KM 10 17 39:4 (M)

1978 AUG 09 MID-INDIAN RISE MB=5.1(30) D= 86.6 DEG AZ=129
E P 12 31 22 2.1 / 55 20.7S1 68.6E 33KM M=12 18 41:4 (U)
20.6S1 69.1E 33KM 12 18 35:5 (M)

1978 AUG 09 MARIANA ISLANDS MB=5.4(37) D=101.9 DEG AZ= 45
E PP 14 49 11 15.8N1146.6E 33KM M=14 31 17:1 (U)
E LM 19 35 T 16 AN 1 AE 1 AV 1.5

1978 AUG 09 TRACES
E P 15 36 34

1978 AUG 09 NEW HEBRIDES ISLANDS MB=5.6(34) D=138.4 DEG AZ= 40
E PKP 15 54 52 15.4S1166.7E 23KM M=15 35 29:9 (U)
I 55 00:3 1.3 / 16 15.3S1166.9E 33KM 15 35 31:3 (M)
E (PKS) 58 32
LM 16 58 T 19 AN 1 AE 0.5 AV 1.5

1978 AUG 09 NEW HEBRIDES ISLANDS MB=5.3(11) D=138.4 DEG AZ= 40
E PKP 16 00 43 15.4S1166.7E 21KM M=15 41 16:4 (U)

1978 AUG 09 UNDERGROUND EXPLOSION MB=5.6(70) D= 53.8 DEG AZ= 31
I P 18 09 23.8C 1.1 / 100 63.7N1125.3E 0KM M=17 59 58:2 (U)
I 10 08:0
I PCP 10 29:8 0.9 / 40 MLH =5.5 MLV =5.7

1978 AUG 09 TAIWAN MB=5.2(41) D= 82.8 DEG AZ= 61
E P 18 47 27 23.5N1121.5E 22KM M=16 35 03:4 (U)
I AP 47 34.2 1.3 / 32 23.7N1121.6E 33KM 18 34 59:8 (M)
E PP 50 36
LM 19 29 T 14 AN 2 AE 2 AV 2.5

1978 AUG 09 TAIWAN REGION MB=5.0(38) D= 81.1 DEG AZ= 61
I P 19 48 23.5 1.5 / 38 25.1N1120.8E 33KM M=19 36 09:3 (U)
E PP 51 27 26.0N1120.6E 33KM 19 36 13:7 (M)
LM 20 28

1978 AUG 09 POLAND, LPPER SILESIA
E PG 20 01 29
E SG 02 20

1978 AUG 09 NEW HEBRIDES ISLANDS MB=5.5(21) D=138.5 DEG AZ= 40
E PKP 20 58 50 1.3 / 15 15.5S1166.7E 33KM M=20 39 24:3 (U)
E SKP 21 02 31 15.3S1166.3E 33KM 20 39 20:6 (M)

1978 AUG 10 UNDERGROUND EXPLOSION MB=5.9(78) D= 28.3 DEG AZ= 24
I P 08 05 53:9C 1.2 / 190 73.3N1 54.8E 0KM M=87 59 57:7 (U)
I 06 09:9 73.2N1 53.4E 10KM 88 00 04:7 (U)
I 06 13:2 DISTANCE 28.5 DEG
I 06 16:9
I PCP 09 07
E SN 11 14
E 16 11
LM 20.1 T 6 AN 1 AE 1 AV 1 MLH =5.0 MLV =5.1

1978 AUG 10 I P 14 01 12:1C

1978 AUG 10 BURMA I P 15 03 39:1 1.4 / 25 E 04 28	MB=5:1(56)	D= 68:2 DEG AZ= 77 26.4N 98.9E 33KM 26.2N 97.2E 33KM	M=14 32 51:8 (U) 14 32 44:3 (M)	1978 AUG 13 TONGA ISLANDS E(PKP2) 19 48 01 E 48 16	MB=4:5(1)	D=146:6 DEG AZ= 10 18.2S 173:0W 33KM	M=19 28 13:8 (U)
1978 AUG 10 SOUTH ATLANTIC RIDGE I(P) 17 06 46.3 1.7 / 36 E 06 55 E 07 04 E(PP) 10 36 E(SKS) 17 26 E SS 23.6 L 18 02	MB=5:2(29)	D= 90:9 DEG AZ=204 35.9S 17:6W 10KM 35.8S 18:2W 33KM	M=16 53 37:1 (U) 16 53 41:3 (M)	1978 AUG 13 FIJI ISLANDS REGION I PKIP 21 12 25:3C 1.4 / 38 I PKP1 12 26.9D 0.9 / 440 E 12 44 E APKP 14 41 E PP 15 56	MB=5:5(42)	D=145:4 DEG AZ= 19 17.8S 178:4W 399KM 18.8S 177:8W 33KM	M=20 53 53:8 (U) 20 52 48:6 (M)
1978 AUG 10 FIJI ISLANDS REGION I PKP 20 26 50:5 E 29 40 L 21 34	MB=5:5(19)	D=142:8 DEG AZ= 28 16.7S 175:7E 33KM 16.6S 175:6E 33KM	M=20 07 20:2 (U) 20 07 15:0 (M)	1978 AUG 13 SOUTHERN CALIFORNIA I P 23 07 29:2C 2.0 / 100 E PP 10 46 E S 18 06 E PS 19 00 LM 42 T 20 AN 2:0 AE 2 AV 1:5 MLH =5.7 MLV =5.4	MB=5:5(62)	D= 85:1 DEG AZ=322 34.4N 119:7W 7KM 34.6N 119:9W 40KM	M=22 54 53:5 (U) 22 54 56:7 (M)
1978 AUG 10 TRACES E 21 05 14				1978 AUG 13 NORTHERN ITALY FRIULI E SG 23 27 22			
1978 AUG 10 PRINCE EDWARD ISLANDS REGION LM 22 50				1978 AUG 14 TONGA ISLANDS I PKP1 00 19 19:4 1.1 / 40 E APKP 20 19	MB=4:8(6)	D=148:5 DEG AZ= 15 18.5S 175:7W 196KM	M=20 00 00:4 (U)
1978 AUG 11 PHILIPPINE ISLANDS REGION E AP 03 23 34	MB=5:2(22)	D= 99:5 DEG AZ= 67 6.6N 127:0E 82KM 6.6N 128:9E 33KM	M=03 09 40:5 (U) 03 09 37:4 (M)	1978 AUG 14 TRACES NORTHERN SUMATRA E 00 34 57	MB=5:1(20)	D= 80:5 DEG AZ= 93 5.5N 94:7E 55KM 5.1N 95:2E 33KM	M=20 42 44:8 (U) 20 42 33:2 (M)
1978 AUG 11 SOUTH OF FIJI ISLANDS I(PKP) 07 54 54:7 I 55 11:3	NO MB COMP.	D=149:8 DEG AZ= 24 (22.7S 179:7W 33KM	M=07 39 12:5 (U)	1978 AUG 14 MID-INDIAN RISE I(P) 03 35 54:5 1.5 / 17	MB=4:9(22)	D= 79:3 DEG AZ=128 13.6S 65:9E 33KM 13.6S 66:4E 33KM	M=03 23 47:8 (U) 03 23 42:4 (M)
1978 AUG 11 KIRGIZ-SINMIANG BORDER REGION E(P) 20 39 21	MB=4:6(17)	D= 44:7 DEG AZ= 78 40.2N 77:1E 43KM 40.4N 77:2E 33KM	M=20 31 05:4 (U) 20 31 02:4 (M)	1978 AUG 14 SOUTH SANDWICH ISLANDS REGION E(APP) 07 13 51 E(PP) 16 08	MB=5:6(13)	D=115:2 DEG AZ=201 59.8S 26:4W 98KM	M=06 53 55:9 (U)
1978 AUG 11 E 23 35 33				1978 AUG 14 MINDORO, PHILIPPINE ISLANDS E P 07 14 23	MB=5:0(23)	D= 90:6 DEG AZ= 68 13.3N 120:9E 256KM 12.9N 121:0E 33KM	M=07 01 49:8 (U) 07 01 24:2 (M)
1978 AUG 12 TRACES E 03 17 38				1978 AUG 14 TRACES MINDANAO, PHILIPPINE ISLANDS E 08 40 45	MB=5:0(15)	D= 99:4 DEG AZ= 67 6.6N 126:9E 78KM 8.7N 126:2E 33KM	M=08 26 59:7 (U) 08 27 05:5 (M)
1978 AUG 12 I P 07 33 51:7				1978 AUG 14 STRAITS OF GIBRALTAR I P 14 22 28:9C 1.7 / 86 E 22 40 E S 26.4 LM 31 T 15 AN 1 AE 0.5 AV 0.5	MB=5:0(29)	D= 20:4 DEG AZ=242 36.6N 6:9W 30KM 36.5N 7:0W 22KM 36.3N 8:9W 33KM	M=14 17 50:4 (U) 14 17 50:3 (M) 14 17 43:9 (M)
1978 AUG 12 FIJI ISLANDS REGION I PKP1 12 45 52:7 1.1 / 18	MB=4:3(1)	D=149:0 DEG AZ= 23 21.8S 179:4W 600KM	M=12 27 07:7 (U)	1978 AUG 14 TRACES E 18 20 40			
1978 AUG 12 E 16 21 49 E 22 29				1978 AUG 14 KURILE ISLANDS I P 18 57 54:1C 1.4 / 230 E S 19 07 24 LM 35 T 16 AN 1 AE 0.5 AV 1	MB=5:0(105)	D= 74:4 DEG AZ= 24 49.9N 158:3E 86KM 50.1N 155:9E 80KM	M=18 46 24:1 (U) 18 46 24:9 (M)
1978 AUG 12 FIJI ISLANDS REGION I PKP1 16 59 12:1 0.9 / 38	MB=4:9(8)	D=146:4 DEG AZ= 19 18.8S 178:1W 531KM	M=16 40 50:7 (U)	1978 AUG 15 EAST PAPUA NEW GUINEA REGION E PKP 00 03 42 E(XPKP) 04 35 I PP 05 20:5 E SDIF 13.0 E(PS) 15.1 E SS 21.9 LMH 49	MB=5:8(50)	D=122:5 DEG AZ= 58 7.9S 146:9E 145KM 7.9S 146:9E 100KM	M=23 45 01:5 (U) 23 44 56:1 (M)
1978 AUG 13 TAIWAN REGION I P 03 54 01:6C 1.6 / 72 I 54 14.5 E PP 57 20 E S 04 04.5 LM 36 T 15 AN 0.5 AE 0.5 AV 1	MB=5:4(95)	D= 83:8 DEG AZ= 62 22.2N 121:5E 19KM 22:6N 121:5E 33KM	M=03 41 31:8 (U) 03 41 30:3 (M)	1978 AUG 15 TRACES E 00 46 26			
1978 AUG 13 SWITZERLAND E 04 05 10 E SG 05 19	NO MB COMP.	D= 5:3 DEG AZ=223 47.3N 7:6E 39KM 47:4N 7:7E 39KM	M=04 02 27:0 (U) 04 02 27:6 (M)	1978 AUG 15 WESTERN CAUCASUS I P 09 09 34:0 1.8 / 85 E S 13 54 LM 19	MB=4:8(23)	D= 23:5 DEG AZ=103 41.3N 44:0E 15KM 41.5N 44:0E 10KM 41.4N 44:2E 33KM	M=09 04 23:5 (U) 09 04 26:2 (M) 09 04 21:6 (M)
1978 AUG 13 TALAUD ISLANDS I P 10 26 29:5	MB=5:5(28)	D=100:9 DEG AZ= 68 4.6N 126:6E 113KM 4.8N 126:6E 33KM	M=10 12 50:3 (U) 10 12 57:9 (M)	INTERUPTION OF ONE SHORTRPERIODIC RECORD FROM 10H 58M TO 05H 53M (AT AUG 16)			
1978 AUG 13 NEAR S. COAST OF HONSHU, JAPAN I P 13 35 01:3C 1.1 / 23	MB=5:0(37)	D= 81:7 DEG AZ= 41 35.6N 139:9E 81KM 35.8N 139:9E 33KM	M=13 22 45:9 (U) 13 22 45:7 (M)	1978 AUG 15 SOUTH ATLANTIC RIDGE E P 12 07 52 C 2.3 / 80 E 08 09 E PP 11 03	MB=5:2(21)	D= 83:3 DEG AZ=203 29.1S 13:1W 33KM 29.0S 12:9W 33KM	M=11 55 27:5 (U) 11 55 22:8 (M)
1978 AUG 13 E 15 51 10				1978 AUG 15 KERMADEC ISLANDS I PKIP 12 57 05:8C 2.6 / 410 I 57 22 I PKP2 57 39.2 1.6 / 290 E(PP) 13 01 12 E 01 35 E 03 28 E 05 40 E PPPP 07.1 E SKKS 08.0 (CONT.)	MB=6:1(43)	D=157:6 DEG AZ= 26 30.5S 178:2W 33KM 30.7S 178:6W 33KM	M=12 37 12:8 (U) 12 37 12:8 (M)
1978 AUG 13 SICILY I(P) 16 56 53.3 1.1 / 16	MB=4:3(7)	D= 12:8 DEG AZ=170 38.7N 15:8E 127KM 38.6N 15:8E 123KM	M=16 55 17:0 (U) 16 55 18:3 (M)		MC =6.1	DISTANCE 157 DEG	
1978 AUG 13 EASTERN TURKEY E P 17 25 17	MB=4:6(4)	D= 23:1 DEG AZ=112 38.7N 40:7E 33KM 37.7N 40:8E 33KM	M=17 20 11:9 (U) 17 20 08:8 (M)				

Date	Time	Location	Depth (km)	Magnitude	MLH	MLV	Other Data
1978 AUG 13	10.1	OFF EAST COAST OF HONSHU, JAPAN	12.0	5.5	6.4	6.5	
1978 AUG 13	07 47:10	1.3 / 72					D= 84.1 DEG AZ= 40 34.0N1142.3E 47KM H=12 55 19.2 (U) 34.1N1142.4E 33KM 12 55 13.8 (M)
1978 AUG 15	11 01	TIMOR		5.6	28		D=110.3 DEG AZ= 77 8.15N125.9E 33KM H=17 10 56.7 (U) 7.75N125.5E 33KM 17 10 58.7 (M)
1978 AUG 15	21 27 07	TRACES		5.4	60		D= 97.5 DEG AZ= 45 19.7N1144.4E 500KM H=21 47 15.6 (U) 17.2N1145.5E 50KM 21 46 14.4 (M)
1978 AUG 15	21 59 54:90	MARIANA ISLANDS	1.4 / 28				
1978 AUG 16	04 44 44.4	FIJI ISLANDS REGION		5.2	18		D=149.6 DEG AZ= 17 21.85N1176.4W 210KM H=12 40 35.2 (U) 21.35N1178.2W 33KM 12 40 14.3 (M) DISTANCE 149 DEG
1978 AUG 16	14 51 31:1	FIJI ISLANDS REGION	1.4 / 3				D=148.4 DEG AZ= 22 21.15N1178.9W 655KM H=14 33 13.7 (U)
1978 AUG 16	15 06 57	GANSU PROVINCE, CHINA		5.0	20		D= 60.3 DEG AZ= 65 38.4N1101.4E 33KM H=14 56 47.4 (U) 39.1N1100.6E 33KM 14 56 54.8 (M)
1978 AUG 16	15 57 11	TRACES					
1978 AUG 16	16 26	LMV					
1978 AUG 16	19 52 08	E					
1978 AUG 16	20 50 38:60	KURILE ISLANDS	1.3 / 90				D= 75.0 DEG AZ= 26 48.5N1153.7E 100KM H=20 39 06.9 (U) 48.4N1153.6E 80KM 20 39 03.8 (M)
1978 AUG 17	01 07 06	TRACES					
1978 AUG 17	08 50 56:80	SOUTH OF FIJI ISLANDS	1.4 / 61				D=149.3 DEG AZ= 23 22.25N1179.6W 593KM H=18 32 19.2 (U) 22.15N1179.6W 500KM 18 32 10.6 (M) DISTANCE 149.5 DEG DEPTH 610 KM
1978 AUG 17	08 55 04	E PKIKP					
1978 AUG 17	11 45:0	TONGA ISLANDS	1.8 / 380				D=149.3 DEG AZ= 13 21.15N1174.3W 20KM H=08 51 51.3 (U) 20.95N1175.2W 33KM 08 51 55.6 (M) DISTANCE 148 DEG
1978 AUG 17	11 56:3	I APKP1					
1978 AUG 17	15 10	E PP					
1978 AUG 17	15 32 31	E					
1978 AUG 17	20 21 12	WESTERN POLAND					D= 3.8 DEG AZ=102 (50.4N) 18.8E 0KM H=11 54 03 (U)
1978 AUG 17	21 19:5	I SQ					DISTANCE 220 KM
1978 AUG 18	02 21 21	TRACES					
1978 AUG 18	05 52 16	TRACES					
1978 AUG 18	13 15 56:10	OFF EAST COAST OF HONSHU, JAPAN	1.1 / 22				D= 84.6 DEG AZ= 41 33.0N1141.5E 38KM H=13 03 24.8 (U) 33.5N1141.4E 33KM 13 03 27.5 (M)
1978 AUG 18	15 47 56	GUATEMALA	1.9 / 80				D= 87.7 DEG AZ=290 14.4N) 91.5W 96KM H=15 35 17.8 (U) 16.1N) 91.0W 250KM 15 35 42.7 (M) DISTANCE 87 DEG
1978 AUG 18	18 51 48	POLAND, UPPER SILESIA					
1978 AUG 18	19 03 19	SOUTHERN ALASKA		5.4	95		D= 68.6 DEG AZ=353 59.9N1153.5W 123KM H=18 52 28.4 (U) 59.9N1153.6W 120KM 18 52 28.1 (M)
1978 AUG 18	20 55 57	ALBANIA	1.5 / 95				D= 10.7 DEG AZ=149 41.9N) 20.3E 5KM H=20 53 19.8 (U) 41.8N) 20.3E 10KM 20 53 22.8 (M) 41.7N) 20.3E 33KM 20 53 17.1 (M)
1978 AUG 18	21 00.0	LMH LMV	T 10 AN 5.5 AE 11 AV 3.5				MLH =5.1
1978 AUG 18	23 31 23	TRACES					
1978 AUG 19	01 42 33	RYUKYU ISLANDS		5.0	22		D= 84.5 DEG AZ= 55 25.9N1128.4E 33KM H=21 30 01.6 (U) 26.8N1127.8E 33KM 21 30 07.9 (M)
1978 AUG 19	02 23 55	KURILE ISLANDS REGION	1.1 / 13				D= 78.2 DEG AZ= 28 44.7N1152.8E 33KM H=22 11 48.4 (U) 45.8N1151.8E 33KM 22 11 56.6 (M)
1978 AUG 19	17 39 40:30	TONGA ISLANDS	1.4 / 44				D=148.8 DEG AZ= 13 20.6S1174.2W 95KM H=17 20 01.2 (U) 20.15S1179.5W 33KM 17 19 58.4 (M)
1978 AUG 19	18 45 41	E					
1978 AUG 20	01 13 00.7	E					
1978 AUG 20	02 59 19	TRACES					
1978 AUG 20	06 45 45	CZECHOSLOVAKIA					D= 2.5 DEG AZ=165 48.9N) 14.0E 10KM H=25 44 22.8 (U) 48.7N) 14.2E 10KM 25 44 23.7 (U)
1978 AUG 20	15 26 20.7	CZECHOSLOVAKIA					D= 1.8 DEG AZ=163 49.6N) 13.8E 10KM H=25 25 51.7 (U) (49.8N) 14.1E) 10KM 15 25 50.3 (M) DISTANCE 210 KM
1978 AUG 20	17 01 22	POLAND, LPPER SILESIA					
1978 AUG 20	21 52 15	LUZON, PHILIPPINE ISLANDS	1.5 / 22				D= 87.8 DEG AZ= 66 16.5N1120.9E 29KM H=21 39 27.0 (U) 16.4N1120.6E 33KM 21 39 21.9 (M)
1978 AUG 21	00 47 24	SAN JUAN PROVINCE, ARGENTINA		5.6	36		D=108.5 DEG AZ=243 31.3S) 67.8W 10KM H=20 28 22.7 (U) 31.6S) 66.9W 33KM 20 28 28.5 (M)
1978 AUG 21	02 10 26	NORWEGIAN SEA					D= 21.7 DEG AZ= 1 72.9N) 14.7E 10KM H=22 05 39.5 (U)
1978 AUG 21	05 55 24	MINDANAO, PHILIPPINE ISLANDS	1.1 / 14				D= 99.8 DEG AZ= 68 5.6N1128.2E 44KM H=25 41 43.0 (U) 5.5N1128.8E 80KM 25 41 44.1 (M)
1978 AUG 21	08 13 43	E					
1978 AUG 21	16 10 49:3	OFF EAST COAST OF HONSHU, JAPAN	1.3 / 26				D= 84.0 DEG AZ= 41 33.8N1141.6E 33KM H=15 58 17.0 (U) 34.2N1141.5E 33KM 15 58 19.6 (M)



Date	Time	Location	Depth (km)	Magnitude	Other Data
1978 AUG 21	17 39 48	PRINCE EDWARD ISLANDS REGION	100.0	5.8 (25)	D=100.0 DEG AZ=167 47.7S; 32.5E 10KM H=22 09 02.5 47.9S; 32.4E 33KM H=22 05 01.7 DISTANCE 100 DEG
1978 AUG 21	22 18 46	FRG, CENTRAL REGION	3.2	5.5	D= 3.2 DEG AZ=252 50.2N; 8.2E
1978 AUG 22	01 07 24	TRACEST LOYALTY ISLANDS REGION	140.2	5.5 (45)	D=140.2 DEG AZ= 40 22.48; 170.4E 33KM H=00 47 34
1978 AUG 22	07 34 33	FRG, CENTRAL REGION	12.1	5.4 (87)	D= 12.1 DEG AZ=171 39.3N; 15.4E 279KM H=18 03 04.7
1978 AUG 22	13 23 53	FRG, CENTRAL REGION NEAR HAMM	4.0	3.8 (7)	D= 4.0 DEG AZ=189 47.4N; 12.1E
1978 AUG 22	14 32 02.0	EXPLOSION	23.0	4.4 (3)	D= 23.0 DEG AZ=187 47.4N; 12.3E
1978 AUG 22	14 43 02.1	KURILE ISLANDS	77.8	5.0 (20)	D= 77.8 DEG AZ= 31 44.1N; 148.9E 50KM H=14 31 09.2 44.2N; 148.9E 33KM H=14 31 08.1
1978 AUG 22	14 48 35.0	NEW BRITAIN REGION	123.9	5.3 (5)	D=123.9 DEG AZ= 51 6.0S; 152.9E 35KM H=14 29 38.9
1978 AUG 22	18 05 53	TRACEST SOUTHERN ITALY	12.1	5.0 (65)	D= 12.1 DEG AZ=283 10.2N; 85.2W 56KM H=00 50 29.1 9.9N; 85.3W 33KM H=00 50 19.5 DISTANCE 87 DEG
1978 AUG 22	19 17 31	WESTERN AUSTRIA	4.0	4.8 (37)	D= 4.0 DEG AZ=102 42.0N; 43.9E 10KM H=22 48 11.2 42.2N; 44.0E 10KM H=22 48 14.0 42.0N; 44.0E 33KM H=22 48 09.0
1978 AUG 22	19 19 23	WESTERN AUSTRIA	3.9	5.7 (88)	D= 3.9 DEG AZ=187 47.4N; 12.3E
1978 AUG 22	22 53 18.2	WESTERN CAUCASUS	23.0	4.8 (37)	D= 23.0 DEG AZ=102 42.0N; 43.9E 10KM H=22 48 11.2 42.2N; 44.0E 10KM H=22 48 14.0 42.0N; 44.0E 33KM H=22 48 09.0
1978 AUG 23	00 51 13.8	COSTA RICA	87.2	5.7 (88)	D= 87.2 DEG AZ=283 10.2N; 85.2W 56KM H=00 50 29.1 9.9N; 85.3W 33KM H=00 50 19.5 DISTANCE 87 DEG
1978 AUG 23	01 03 08	COSTA RICA	87.1	5.4 (65)	D= 87.1 DEG AZ=283 10.3N; 85.1W 71KM H=00 50 29.1 10.2N; 85.0W 33KM H=00 50 19.5
1978 AUG 23	01 27 59.7	TAIWAN	82.7	4.8 (12)	D= 82.7 DEG AZ= 61 23.6N; 121.6E 48KM H=01 15 59.2
1978 AUG 23	02 36 58	COSTA RICA	87.2	4.7 (40)	D= 87.2 DEG AZ=283 10.3N; 85.3W 72KM H=02 24 16.3
1978 AUG 23	02 39 00	COSTA RICA	87.2	4.7 (19)	D= 87.2 DEG AZ=283 10.3N; 85.3W 66KM H=02 26 13.5
1978 AUG 23	05 32 58	RYUKYU ISLANDS	84.6	4.7 (5)	D= 84.6 DEG AZ= 55 25.9N; 128.6E 24KM H=05 20 16.7
1978 AUG 23	07 22 04.0	RYUKYU ISLANDS	84.5	5.1 (26)	D= 84.5 DEG AZ= 59 26.0N; 128.9E 29KM H=07 09 31.9 26.6N; 128.1E 33KM H=07 09 31.1
1978 AUG 23	11 04 36.3	TRACES, EXPLOSION OF 14.5 TONS; CZECHOSLOVAKIA	11.0	4.3 (31)	D= 11.0 DEG AZ=148 34.2N; 25.2E 22KM H=12 02 10.6 (U) 34.1N; 25.2E 10KM H=12 02 11.3 (B) 33.7N; 25.1E 33KM H=12 02 04.7 (M)
1978 AUG 23	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.0W 33KM H=18 18 44.1 (U) 32.2S; 177.8W 33KM H=18 18 39.9 (M)
1978 AUG 23	12 06 47	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	4.9 (2)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 23	12 52 22.2	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 23	15 51 17	CENTRAL ITALY	7.8	5.4 (3)	D= 7.8 DEG AZ=180 43.5N; 13.0E 10KM H=15 48 07.8 (U)
1978 AUG 23	19 47 48	TALAUD ISLANDS	101.3	5.4 (87)	D=101.3 DEG AZ= 69 4.0N; 126.6E 71KM H=19 34 02.4 (U) 4.2N; 126.4E 33KM H=19 33 59.2 (M)
1978 AUG 23	21 10 49.7	RAT ISLANDS, ALEUTIAN ISLANDS	78.4	3.8 (7)	D= 78.4 DEG AZ= 11 51.7N; 176.4E 54KM H=20 59 05.7 (U) 52.4N; 175.7E 33KM H=20 59 07.7 (M)
1978 AUG 23	23 49 39	SOUTHERN GREECE	13.4	4.4 (3)	D= 13.4 DEG AZ=154 37.1N; 21.9E 31KM H=23 45 49.1 (U) 37.3N; 21.7E 10KM H=23 45 50.9 (B)
1978 AUG 24	03 11 46.2	FIJI ISLANDS REGION	145.5	4.7 (15)	D=145.5 DEG AZ= 19 17.9S; 178.4W 642KM H=02 53 16.1 (U)
1978 AUG 24	07 10 23	POLAND, UPPER SILESIA	122.9	5.2 (15)	D=122.9 DEG AZ= 52 5.7S; 151.4E 62KM H=09 26 43.3 (U) 5.1S; 151.5E 33KM H=09 26 42.1 (M)
1978 AUG 24	09 45 34.4	NEW BRITAIN REGION	123.9	4.7 (15)	D= 123.9 DEG AZ= 51 6.0S; 152.9E 35KM H=14 29 38.9
1978 AUG 24	12 00 05.1	EXPLOSION	12.1	5.3 (23)	D= 12.1 DEG AZ=189 47.4N; 12.1E
1978 AUG 24	13 24 26	VIRGIN ISLANDS	67.2	5.1 (51)	D= 67.2 DEG AZ=274 19.9N; 64.9W 47KM H=13 13 35.3 (U)
1978 AUG 24	15 26 07.8	NEW HEBRIDES ISLANDS	139.0	4.8 (59)	D=139.0 DEG AZ= 39 15.6S; 167.7E 139KM H=15 06 55.7 (U) 15.8S; 166.7E 33KM H=15 06 44.8 (M)
1978 AUG 24	16 09 50.7	UNDERGROUNLD EXPLOSION	48.1	5.1 (51)	D= 48.1 DEG AZ= 33 65.9N; 112.5E 0KM H=17 59 57.0 (U)
1978 AUG 24	18 08 40.4	UNIMAK ISLAND REGION	74.9	5.1 (26)	D= 74.9 DEG AZ=359 54.1N; 164.8W 64KM H=05 56 50.5 (U) 54.5N; 161.2W 33KM H=05 56 48.4 (M)
1978 AUG 25	08 00 29.3	TONGA ISLANDS	145.5	5.1 (26)	D=145.5 DEG AZ= 11 17.1S; 173.5W 33KM H=07 40 53.2 (U)
1978 AUG 25	10 20 59	KERMADEC ISLANDS REGION	159.1	4.9 (2)	D=159.1 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	10 59 57.2	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	4.9 (2)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	11 58 44	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.0W 33KM H=18 18 44.1 (U) 32.2S; 177.8W 33KM H=18 18 39.9 (M)
1978 AUG 25	12 06 47	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	4.9 (2)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	13 24 26	VIRGIN ISLANDS	67.2	5.4 (3)	D= 67.2 DEG AZ=274 19.9N; 64.9W 47KM H=13 13 35.3 (U)
1978 AUG 25	15 26 07.8	NEW HEBRIDES ISLANDS	139.0	4.9 (2)	D=139.0 DEG AZ= 39 15.6S; 167.7E 139KM H=15 06 55.7 (U) 15.8S; 166.7E 33KM H=15 06 44.8 (M)
1978 AUG 25	16 09 50.7	UNDERGROUNLD EXPLOSION	48.1	4.9 (2)	D= 48.1 DEG AZ= 33 65.9N; 112.5E 0KM H=17 59 57.0 (U)
1978 AUG 25	18 08 40.4	UNIMAK ISLAND REGION	74.9	5.4 (3)	D= 74.9 DEG AZ=359 54.1N; 164.8W 64KM H=05 56 50.5 (U) 54.5N; 161.2W 33KM H=05 56 48.4 (M)
1978 AUG 25	08 00 29.3	TONGA ISLANDS	145.5	5.4 (3)	D=145.5 DEG AZ= 11 17.1S; 173.5W 33KM H=07 40 53.2 (U)
1978 AUG 25	10 20 59	KERMADEC ISLANDS REGION	159.1	5.4 (3)	D=159.1 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	10 59 57.2	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	11 58 44	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.0W 33KM H=18 18 44.1 (U) 32.2S; 177.8W 33KM H=18 18 39.9 (M)
1978 AUG 25	12 06 47	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	13 24 26	VIRGIN ISLANDS	67.2	5.4 (3)	D= 67.2 DEG AZ=274 19.9N; 64.9W 47KM H=13 13 35.3 (U)
1978 AUG 25	15 26 07.8	NEW HEBRIDES ISLANDS	139.0	5.4 (3)	D=139.0 DEG AZ= 39 15.6S; 167.7E 139KM H=15 06 55.7 (U) 15.8S; 166.7E 33KM H=15 06 44.8 (M)
1978 AUG 25	16 09 50.7	UNDERGROUNLD EXPLOSION	48.1	5.4 (3)	D= 48.1 DEG AZ= 33 65.9N; 112.5E 0KM H=17 59 57.0 (U)
1978 AUG 25	18 08 40.4	UNIMAK ISLAND REGION	74.9	5.4 (3)	D= 74.9 DEG AZ=359 54.1N; 164.8W 64KM H=05 56 50.5 (U) 54.5N; 161.2W 33KM H=05 56 48.4 (M)
1978 AUG 25	08 00 29.3	TONGA ISLANDS	145.5	5.4 (3)	D=145.5 DEG AZ= 11 17.1S; 173.5W 33KM H=07 40 53.2 (U)
1978 AUG 25	10 20 59	KERMADEC ISLANDS REGION	159.1	5.4 (3)	D=159.1 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	10 59 57.2	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	11 58 44	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.0W 33KM H=18 18 44.1 (U) 32.2S; 177.8W 33KM H=18 18 39.9 (M)
1978 AUG 25	12 06 47	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	13 24 26	VIRGIN ISLANDS	67.2	5.4 (3)	D= 67.2 DEG AZ=274 19.9N; 64.9W 47KM H=13 13 35.3 (U)
1978 AUG 25	15 26 07.8	NEW HEBRIDES ISLANDS	139.0	5.4 (3)	D=139.0 DEG AZ= 39 15.6S; 167.7E 139KM H=15 06 55.7 (U) 15.8S; 166.7E 33KM H=15 06 44.8 (M)
1978 AUG 25	16 09 50.7	UNDERGROUNLD EXPLOSION	48.1	5.4 (3)	D= 48.1 DEG AZ= 33 65.9N; 112.5E 0KM H=17 59 57.0 (U)
1978 AUG 25	18 08 40.4	UNIMAK ISLAND REGION	74.9	5.4 (3)	D= 74.9 DEG AZ=359 54.1N; 164.8W 64KM H=05 56 50.5 (U) 54.5N; 161.2W 33KM H=05 56 48.4 (M)
1978 AUG 25	08 00 29.3	TONGA ISLANDS	145.5	5.4 (3)	D=145.5 DEG AZ= 11 17.1S; 173.5W 33KM H=07 40 53.2 (U)
1978 AUG 25	10 20 59	KERMADEC ISLANDS REGION	159.1	5.4 (3)	D=159.1 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	10 59 57.2	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	11 58 44	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.0W 33KM H=18 18 44.1 (U) 32.2S; 177.8W 33KM H=18 18 39.9 (M)
1978 AUG 25	12 06 47	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	13 24 26	VIRGIN ISLANDS	67.2	5.4 (3)	D= 67.2 DEG AZ=274 19.9N; 64.9W 47KM H=13 13 35.3 (U)
1978 AUG 25	15 26 07.8	NEW HEBRIDES ISLANDS	139.0	5.4 (3)	D=139.0 DEG AZ= 39 15.6S; 167.7E 139KM H=15 06 55.7 (U) 15.8S; 166.7E 33KM H=15 06 44.8 (M)
1978 AUG 25	16 09 50.7	UNDERGROUNLD EXPLOSION	48.1	5.4 (3)	D= 48.1 DEG AZ= 33 65.9N; 112.5E 0KM H=17 59 57.0 (U)
1978 AUG 25	18 08 40.4	UNIMAK ISLAND REGION	74.9	5.4 (3)	D= 74.9 DEG AZ=359 54.1N; 164.8W 64KM H=05 56 50.5 (U) 54.5N; 161.2W 33KM H=05 56 48.4 (M)
1978 AUG 25	08 00 29.3	TONGA ISLANDS	145.5	5.4 (3)	D=145.5 DEG AZ= 11 17.1S; 173.5W 33KM H=07 40 53.2 (U)
1978 AUG 25	10 20 59	KERMADEC ISLANDS REGION	159.1	5.4 (3)	D=159.1 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	10 59 57.2	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	11 58 44	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.0W 33KM H=18 18 44.1 (U) 32.2S; 177.8W 33KM H=18 18 39.9 (M)
1978 AUG 25	12 06 47	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	13 24 26	VIRGIN ISLANDS	67.2	5.4 (3)	D= 67.2 DEG AZ=274 19.9N; 64.9W 47KM H=13 13 35.3 (U)
1978 AUG 25	15 26 07.8	NEW HEBRIDES ISLANDS	139.0	5.4 (3)	D=139.0 DEG AZ= 39 15.6S; 167.7E 139KM H=15 06 55.7 (U) 15.8S; 166.7E 33KM H=15 06 44.8 (M)
1978 AUG 25	16 09 50.7	UNDERGROUNLD EXPLOSION	48.1	5.4 (3)	D= 48.1 DEG AZ= 33 65.9N; 112.5E 0KM H=17 59 57.0 (U)
1978 AUG 25	18 08 40.4	UNIMAK ISLAND REGION	74.9	5.4 (3)	D= 74.9 DEG AZ=359 54.1N; 164.8W 64KM H=05 56 50.5 (U) 54.5N; 161.2W 33KM H=05 56 48.4 (M)
1978 AUG 25	08 00 29.3	TONGA ISLANDS	145.5	5.4 (3)	D=145.5 DEG AZ= 11 17.1S; 173.5W 33KM H=07 40 53.2 (U)
1978 AUG 25	10 20 59	KERMADEC ISLANDS REGION	159.1	5.4 (3)	D=159.1 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	10 59 57.2	EXPLOSION OF 6.0 TONS; GERMAN DEMOCRATIC REPUBLIC	10.0	5.4 (3)	D= 10.0 DEG AZ=311 51.37N; 12.89E
1978 AUG 25	11 58 44	TRACES, EXPLOSION; NW-CSSR	12.5	5.4 (3)	D= 12.5 DEG AZ= 27 32.0S; 178.0W 33KM H=10 00 49.3 (U) 31.6S; 179.8E 33KM H=10 00 54.2 (M)
1978 AUG 25	12 06 36	CRETE	19.3	5.4 (3)	D= 19.3 DEG AZ= 27 31.8S; 178.

1978 AUG 26 E	01 00 32	MB=6.8(19)	D= 84.0 DEG AZ= 62 22.0N;121.5E 10KM H=84 53 0872 (U) 22.9N;121.8E 33KM 84 53 1370 (M)	1978 AUG 30 E	04 16 56		INTERRUPTION OF SOME RECORDS FROM 07H 02M TO 07H 36M	
1978 AUG 26 E P	TAIWAN REGION 05 05 40 1.1 / 16			1978 AUG 30 E P L	10 48 14 11 20			
1978 AUG 26 E	POLAND, UPPER SILESIA 06 03 08			1978 AUG 30 I PKP E SKP	NEW HEBRIDES ISLANDS 13 45 56.4C 1.0 / 21 49 21	MB=5.2(20)	D=138.8 DEG AZ= 39 15.5S;167.5E 129KM H=13 26 4474 (U) 15.5S;167.5E 33KM 13 26 3371 (M)	
1978 AUG 26 L	ADMIRALTY ISLANDS REGION 06 54	MB=4.8(8)	D= 67.3 DEG AZ=274 19.9N; 65.0W 41KM H=87 59 0172 (U)	OR ANOTHER POSSIBILITY				
1978 AUG 26 E P	PUERTO RICO REGION 08 05 55			1978 AUG 30 E P	NORTHEASTERN CHINA 13 49 21	/4.6(3)/	D= 70.4 DEG AZ= 55 37.3N;118.6E 33KM H=13 38 11 (U)	
1978 AUG 26 L	09 03	MB=4.7(16)	D= 77.7 DEG AZ= 30 44.3N;149.7E 28KM H=89 46 2370 (U) 44.3N;149.7E 33KM 89 46 1877 (M)	1978 AUG 30 E SQ	15 13 32			
1978 AUG 26 I P E AP	KURILE ISLANDS 09 58 19.3 1.1 / 19 58 30			1978 AUG 30 E	16 09 14			
1978 AUG 26 LM	PRINCE EDWARD ISLANDS REGION 12 43			1978 AUG 30 E SQ	POLAND, UPPER SILESIA 19 11 08			
1978 AUG 26 E	14 42 11			1978 AUG 30 E PKP	EAST PAPUA NEW GUINEA REGION 20 47 40	MB=5.4(29)	D=120.9 DEG AZ= 56 5.9S;147.1E 76KM H=20 28 5671 (U) 6.4S;147.1E 33KM 20 28 4278 (M)	
1978 AUG 26 E	TRACES; SICILY 18 46 17	MB=4.4(2)	D= 13.8 DEG AZ=176 38.0N; 14.1E 35KM H=18 43 4177 (U) 37.9N; 14.2E 28KM 18 43 4278 (M)	1978 AUG 31 I P LM LM	SICHUAN PROVINCE, CHINA 03 37 46.1E 1.2 / 24 04 08 T 18 AN 1 AE 0.5 AV 1 12	MB=5.1(58)	D= 67.9 DEG AZ= 73 27.6N;101.2E 42KM H=83 26 5077 (U) 27.4N;101.3E 33KM 83 26 4875 (M)	
1978 AUG 26 E PN I PG I I SG	WESTERN POLAND 21 03 47 03 52.3 03 55.0 04 16.1	NO MB COMP.	D= 1.2 DEG AZ= 99 (51.1N; 14.9E 10KM H=21 03 2574 (U) DISTANCE 220 KM	1978 AUG 31 E P	ANDAMAN ISLANDS REGION 08 52 02	MB=6.9(30)	D= 75.5 DEG AZ= 91 10.7N; 93.1E 55KM H=88 40 2272 (U) 10.3N; 93.2E 33KM 88 40 1774 (M)	
1978 AUG 27 E PKP	SAMOAI ISLANDS REGION 01 46 37	/4.4(2)/	D=145.4 DEG AZ= 9 16.9S;172.3W 33KM H=81 27 01 (U)	1978 AUG 31 E P	09 51 47			
1978 AUG 27 E P	NEAR EAST COAST OF HONSHU, JAPAN 23 42 07	MB=4.6(5)	D= 79.9 DEG AZ= 38 38.8N;142.3E 47KM H=23 30 0273 (U)	1978 AUG 31 I PKP	NEW BRITAIN REGION 10 19 57.7C 0.9 / 19	MB=5.4(14)	D=122.5 DEG AZ= 51 5.0S;151.8E 114KM H=10 01 1475 (U)	
1978 AUG 28 I P E E PP	WESTERN IRAN 00 13 32.7C 1.2 / 100 14 09 14 50	MB=5.2(61)	D= 32.7 DEG AZ=111 32.6N; 49.8E 49KM H=80 07 0471 (U) 32.7N; 49.8E 54KM 80 07 0675 (U) 32.2N; 49.8E 33KM 80 06 5977 (M)	1978 AUG 31 E P E AP LM	HINDANAO, PHILIPPINE ISLANDS 10 21 47 22 06 11 11	MB=5.7(61)	D= 98.4 DEG AZ= 67 6.6N;128.9E 61KM H=10 08 8978 (U) 6.6N;128.8E 33KM 10 08 8177 (M)	
1978 AUG 28 E SQ	POLAND, UPPER SILESIA 08 26 16			1978 AUG 31 I PG I SQ	EXPLOSION OF 6.5 TONS; GERMAN DEMOCRATIC REPUBLIC 10 59 19.5 59 21.1		D= 10 KM AZ=311 51.37N; 127.89E	
1978 AUG 28 E P	CENTRAL MID-ATLANTIC RIDGE 09 47 53	MB=4.8(26)	D= 60.6 DEG AZ=223 1.0S; 23.6W 10KM H=89 37 3977 (U)	1978 AUG 31 I P E	UNDERGROUND EXPLOSION PANAMA 14 12 18.0C 1.3 / 61 12 39	MB=3.6(71)	D= 81.3 DEG AZ=321 37.3N;118.4W 0KM H=14 00 0072 (U)	
1978 AUG 28 E	11 06 53			1978 AUG 31 E P	NEAR S. COAST OF SOUTHERN HONSHU 16 33 19	MB=4.8(29)	D= 80.5 DEG AZ= 45 34.9N;135.6E 368KM H=16 21 4579 (U) 34.9N;135.8E 300KM 16 21 3979 (M)	
1978 AUG 28 E SQ	SWITZERLAND 14 47 13	NO MB COMP.	D= 4.8 DEG AZ=217 47.4N; 8.8E 40KM H=14 44 4172 (U)	1978 AUG 31 E AP	TRACES; VIRGIN ISLANDS 17 14 18	MB=4.7(10)	D= 67.3 DEG AZ=274 19.8N; 64.9W 45KM H=17 03 1275 (U)	
1978 AUG 29 I P	UNDERGROUND EXPLOSION 02 44 37.2C 0.7 / 41	MB=5.0(46)	D= 40.1 DEG AZ= 66 49.8N; 78.0E 0KM H=82 36 5872 (U)	1978 AUG 31 E P	SOUTHERN IRAN 20 31 04 1.3 / 21	MB=4.4(15)	D= 36.0 DEG AZ=113 29.4N; 51.5E 16KM H=20 24 0273 (U) 29.4N; 51.8E 46KM 20 24 0674 (U) 28.5N; 51.6E 33KM 20 23 5977 (M)	
1978 AUG 29 E PN E L LM	UNDERGROUND EXPLOSION 02 44 49.0C 1.4 / 330 0.7 / 95 0.7 / 120 46 18 58 50 03 02.0	MB=5.9(61)	D= 40.6 DEG AZ= 65 50.0N; 79.0E 0KM H=82 37 0675 (U)					
1978 AUG 29 I P	KURILE ISLANDS 03 53 29.0C 0.9 / 24	MB=4.7(27)	D= 76.7 DEG AZ= 27 46.4N;152.7E 62KM H=83 41 4376 (U) 46.9N;152.4E 33KM 83 41 4570 (M)					
1978 AUG 29 I P LM	SOUTHWESTERN RYUKYU ISLANDS 07 47 29.7C 1.2 / 47 08 29	MB=5.3(58)	D= 83.7 DEG AZ= 58 24.9N;125.3E 48KM H=87 39 0373 (U) 25.1N;125.4E 33KM 87 34 5773 (M)					
1978 AUG 29 I P E AP	KURILE ISLANDS 11 31 52.5 1.2 / 22 32 08	MB=4.7(31)	D= 77.7 DEG AZ= 31 44.0N;149.0E 33KM H=11 19 5872 (U) 45.0N;148.1E 70KM 11 20 1071 (M)					
1978 AUG 29 E	FRG. CENTRAL REGION NEAR BEDEBURG 13 18 27			1978 AUG 31 I P	SOUTHERN IRAN 14 18 03.7C 1.4 / 48	MB=4.9(47)	D= 4.0 DEG AZ=268 51.0N; 6.6E H=13 16 05 (BR)	
1978 AUG 29 I P	SOUTHERN IRAN 14 18 03.7C 1.4 / 48							
1978 AUG 30 E	01 06 54							



1978 SEP 01 NEW HEBRIDES ISLANDS
E(PKP) 04 36 07
E S 38 52
E PP 39 21
E PKS 39 49
E 40 09
LM 05 38
FINAL 07
T 21 AN 2.5 AE 2 AV 3 MLH =5.9 MLV =6.0
MB=5.0(32) D=140.8 DEG AZ= 40
17.48N168.0E 32KM H=04 16 4271
17.48N168.1E 33KM 04 16 3576

1978 SEP 01 SOUTHEAST ASIA
E P 05 06 42
MB=4.9(10) D= 72.8 DEG AZ= 79
20.4N1100.9E 48KM H=04 55 1711
20.0N1100.5E 33KM 04 55 1219

1978 SEP 01 NEW HEBRIDES ISLANDS
E APKP 06 18 54
MB=5.0(4) D=140.8 DEG AZ= 40
17.55N167.9E 29KM H=05 59 0775

1978 SEP 01 KERMADEC ISLANDS
E PKIKP 07 34 44 2.0 / 41
E PKP1 34 55
I 35 16.8
I PKP2 35 19.9 1.0 / 54
E 39 16
MC =5.4 D=157.8 DEG AZ= 26
30.75N178.0W 17KM H=07 14 4876
30.75N179.0W 33KM 07 14 4770
DISTANCE 198 DEG

1978 SEP 01
E 10 04 53
MB=6.0(48) D=127.0 DEG AZ= 47
7.55N156.6E 33KM H=09 56 0076
5.95N155.1E 33KM 09 56 1370
DISTANCE 228 DEG

1978 SEP 01 SOLOMON ISLANDS
E PKP 10 15 05
I 15 25.1
E PP 17 10
E PPS 28.8
E SS 34.4
LHM 11 11 T 18 AN 5 AE 3.5 AV 5 MLH =6.2
LHV 16 T 18 AN 3 AE 3 AV 5.5 MLV =6.2
FINAL 12 30

1978 SEP 01 SOLOMON ISLANDS
E(PKP) 10 27 02
MB=5.5(15) D=127.0 DEG AZ= 48
7.55N156.9E 16KM H=10 07 5077

1978 SEP 01 EXPLOSION OF 19 TONS, CZECHOSLOVAKIA
I PQ 11 00 51.3
I 00 54.5
I SQ 01 09.0
D=143 KM AZ=203
50.12N 12.23E H=11 00 2774
DISTANCE 145 KM

1978 SEP 01 EXPLOSION
I PQ 11 02 52.3
I SQ 02 54.9
I L 02 55.7

1978 SEP 01 SOUTH OF AUSTRALIA
E PKP1 11 12 48
NO MB COMP. D=147.0 DEG AZ=112
51.55N139.0E 0KM H=10 53 0177

1978 SEP 01 SICHUAN PROVINCE, CHINA
E P 18 56 42 1.4 / 14
MB=4.7(28) D= 67.9 DEG AZ= 73
27.6N1101.2E 33KM H=18 45 4573
27.2N1101.4E 33KM 18 45 3773

1978 SEP 01 GREECE
I PP 22 49 37.7 1.3 / 25
E(S) 51 46
E 53 23
E 53.9
LM 55.1 T 11 AN 1.5 AE 0.5 AV 1.5 MLH =4.3

1978 SEP 01 TRACES
E 23 42 51

1978 SEP 01 NEAR EAST COAST OF HONSHU, JAPAN
E P 23 49 37
E AP 49 50
MB=4.8(3) D= 82.0 DEG AZ= 40
35.8N1141.0E 33KM H=23 37 1874

1978 SEP 02 TAIWAN REGION
I P 02 09 42.0C 1.9 / 380
I PCP 09 48.2
E AP 10 09
E S 19 45 T 11 AN 3.4 AE 4.0
E XS 20 25
E SS 25.0
E PKKP1 28 12
E SSS 28.8
E SSSS 31.1
E PKPPKP 36 18
LM 40
LM 51 T 10 AN 4 AE 2.5
T 15 AN 3 AE 2.5 AV 3 MLH =5.9 MLV =5.9 (NO DEPTH CORRECTION)

1978 SEP 02 FIJI ISLANDS REGION
I PKP1 03 02 05.4 0.8 / 17
/4.5(1) D=148.5 DEG AZ= 20
20.75N178.0W 543KM H=02 43 1877

1978 SEP 02 TRACES SOLOMON ISLANDS
E APKP 03 43 21
MB=5.5(29) D=126.7 DEG AZ= 47
7.28N156.6E 33KM H=03 24 0874
7.15N156.8E 33KM 03 24 0279

1978 SEP 02
E 07 12 43

1978 SEP 02 POLAND, UPPER SILBSIA
E SQ 12 05 34

1978 SEP 02 NORTHERN ITALY
E SQ 16 10 42
NO MB COMP. D= 4.7 DEG AZ=192
46.7N 11.6E 10KM H=06 08 1372
46.6N 11.6E 10KM 06 08 1477

1978 SEP 02 CHIAPAS, MEXICO
E P 16 16 16
E AP 16 53
MB=4.8(39) D= 87.0 DEG AZ=293
16.9N 93.7W 125KM H=16 03 4472 (U)

1978 SEP 02
E 20 23 07

1978 SEP 02
E 21 41 50

1978 SEP 02 SOUTH OF FIJI ISLANDS
I PKP1 23 26 55.9D
E 29 01
/4.6(1) D=153.5 DEG AZ= 23
26 51178.1W 313KM H=23 07 54 (1)

1978 SEP 03 WESTERN CAUCASUS
I P(1) 00 25 22.0C 1.8 / 220
I P(2) 25 27.4C 1.6 / 840 1.6 / 170 1.6 / 500
I PP 25 38
E S 28 50 T 015 AN 5.2 AE 1.2 AV 1.1
I SSS 29 26.2C 1.7 / 200
E LQ2 31 31
I 31 38.5
LHM 32 T 23 AN 16.5 AE 4 MLH =5.2
LHV 33 T 14 AN 8 AE 4.5 AV 5.5 MLV =5.1
FINAL 01 30

1978 SEP 03 TRACES EL SALVADOR
E P 01 16 06
MB=4.8(10) D= 87.4 DEG AZ=288
13.4N 89.7W 58KM H=01 03 2217 (U)

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
I PN 05 09 30.2C
E PQ 09 46
E 10 21
E 10 24
E 10 27
E SQ 10 38
LM 10.9 T 7 AN(90) AE(80) AV(75) MLH =5.6

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E PN 05 24 34
I PQ 24 48.8
I SQ 25 39.5
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=05 08 3177 (0)
48.3N 9.0E 10KM 05 08 3072 (U)
DISTANCE 379 DEG

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E PQ 05 28 47
E SQ 29 39
D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=05 27 84 (0)
DISTANCE 379 DEG

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E PN 05 35 18
I PQ 35 35.1
I SQ 36 26
LM 36.5
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=05 34 21 (0)
48.3N 8.9E 10KM 05 34 1875 (U)
DISTANCE 379 DEG

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
I SQ 05 48 10.5
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=05 46 04 (0)
48.2N 9.0E 10KM 05 46 0174 (U)
PARTIALLY INTERRUPTED

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E PQ 05 52 16
I SQ 53 08.8
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=05 51 00 (0)
48.3N 9.0E 10KM 05 50 5879 (U)
DISTANCE 379 DEG

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E SQ 06 23 13
D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=06 21 08 (0)

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E SQ 06 26 12
D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=06 24 06 (0)
48.3N 9.1E 10KM 06 24 0378 (U)

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E SQ 07 17 09
D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=07 15 04 (0)

1978 SEP 03 KURILE ISLANDS
I P 07 42 49.8D 1.7 / 120
I POP 43 03.3
E 43 23
MB=5.5(68) D= 74.5 DEG AZ= 25
49.5N154.4E 109KM H=07 31 2578 (U)
50.6N153.8E 80KM 07 31 2773 (M)

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E SQ 08 08 22
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=08 06 17 (0)
48.2N 9.1E 10KM 08 06 1475 (U)

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
I PN 08 11 09.6
E PQ 11 25
E SQ 12 17
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=08 18 12 (0)
48.3N 9.0E 10KM 08 18 1070 (U)
DISTANCE 379 DEG

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E SQ 08 15 49
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=08 13 42 (0)
48.3N 9.1E 10KM 08 13 3975 (U)

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
E SQ 08 19 08
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=08 16 59 (0)
48.3N 9.1E 10KM 08 16 5676 (U)

1978 SEP 03
E 08 20 15
NO MB COMP.

1978 SEP 03 FRG, SOUTHWESTERN REGION
SWABIAN JURA
I PN 10 03 43.2
I 03 51.7
I(PQ) 03 57.0
(CONT.)
NO MB COMP. D= 4.0 DEG AZ=222
48.3N 9.0E 6KM H=10 02 4373 (0)
48.3N 9.0E 10KM 10 02 4271 (U)
48.6N 9.6E 33KM 10 02 4177 (M)



(CONT. 7)

1978 SEP 03 FRG, SOUTHWESTERN REGION SWABIAN JURA
E PG 11 15 45
E SQ 16 39
MLH =4.2
NO MB COMP;
D= 4,0 DEG AZ=222
48.3N 9.0E 6KM H=11 14 31
48.3N 9.0E 10KM H=11 14 31
DISTANCE 379 DEG

1978 SEP 03 POLAND, UPPER SILESIA
E PG 00 28 23
E SQ 29 17
D= 3,9 DEG AZ=103
50.3N 19.0E 10KM H=00 27 0978
DISTANCE 470 DEG

1978 SEP 04 POLAND, UPPER SILESIA
E PG 00 28 23
E SQ 29 17
D= 3,9 DEG AZ=103
50.3N 19.0E 10KM H=00 27 0978
DISTANCE 470 DEG

1978 SEP 04 NEW HEBRIDES ISLANDS
I PKP 13 23 17.9C 1.5 / 84
E 23 31
E 23 35
MB=5.4(9)

1978 SEP 04 POLAND, UPPER SILESIA
E PG 15 32 57
E SQ 33 48
D= 4,0 DEG AZ=101
50.4N 19.1E 0KM H=15 31 39
DISTANCE 470 DEG

1978 SEP 04 EASTERN KAZAKH SSR
I P 00 30 54.4D
/4,6(5) D= 41,1 DEG AZ= 67
48.6N 78.7E 0KM H=00 25 0678

1978 SEP 05 FRG, SOUTHWESTERN REGION SWABIAN JURA
E SQ 00 51 51
NO MB COMP;
D= 4,0 DEG AZ=222
48.3N 9.0E 6KM H=00 49 45
48.3N 9.1E 10KM H=00 49 4278

1978 SEP 05 KERMADEC ISLANDS REGION
E PKP2 02 07 30 2.1 / 31
E APKP2 07 42
D=156,8 DEG AZ= 22
29.35N 178.8W 33KM H=01 47 0913
29.18N 176.9W 33KM H=01 47 0379

1978 SEP 05 KERMADEC ISLANDS REGION
E(PKP) 03 40 37
D=156,6 DEG AZ= 22
29.18N 176.9W 72KM H=03 20 2613

1978 SEP 05 OFF W. COAST OF NORTH, SUMATERA
I P 03 51 41.9 1.4 / 16
MB=4,8(13)

1978 SEP 05 TAIWAN
E PP 03 55 14 1.6 / 33
E S 37 58
E L 04 05 11
E L 35
D= 82,9 DEG AZ= 61
24.0N 121.7E 17KM H=03 42 3272
24.7N 121.1E 33KM H=03 42 3572

1978 SEP 05 KURILE ISLANDS
E P 08 07 14
MLH =5.7 MLV =5.9
MB=4.6(32)

1978 SEP 05 LOYALTY ISLANDS
E PKP 09 17 49
MB=4.2(1)

1978 SEP 05 ROMANIA
E(P) 13 38 46
D= 10,6 DEG AZ=117
45.7N 26.9E 152KM H=13 36 1079
45.7N 26.6E 146KM H=13 36 1278
45.7N 26.6E 146KM H=13 36 1174

1978 SEP 05
E 16 31 42

1978 SEP 05 PRG, SOUTHWESTERN REGION SWABIAN JURA
E PG 18 26 22
E SQ 27 13
NO MB COMP;
D= 4,0 DEG AZ=222
48.3N 9.0E 6KM H=18 29 08 (B)
48.3N 9.0E 10KM H=18 29 0578 (U)
DISTANCE 379 DEG

1978 SEP 05 SOLOMON ISLANDS
I PKP 19 59 24.8D 0.8 / 12
MB=8.4(23)
D=123,5 DEG AZ= 49
6.65N 155.0E 52KM H=19 40 2872 (U)
6.35N 154.8E 33KM H=19 40 2270 (M)

1978 SEP 06 NEAR COAST OF CHIAPAS, MEXICO
E(P) 01 14 04
E S 15 06
E S 24 39
E L 56
MB=5.0(11)
D= 88,6 DEG AZ=291
14.4N 93.0W 33KM H=01 01 0971 (U)

1978 SEP 06 COSTA RICA
E P 02 14 20
MB=9.7(12)
D= 87,0 DEG AZ=283
10.4N 85.2W 8KM H=02 01 3375 (U)

1978 SEP 06 LOYALTY ISLANDS
I PKP 04 21 23.2C 2.4 / 280
E APKP 21 33
E PP 24 44
E L 05 32
E L FINAL 07
T 18 AN 5,5 AE 1 AV 4,5 MLH =6.1 MLV =6.3
MB=5.5(24)
D=143,5 DEG AZ= 41
20.15N 168.7E 36KM H=04 01 5375 (U)
20.25N 168.7E 33KM H=04 01 4873 (M)

1978 SEP 06 POLAND, UPPER SILESIA
E 05 00 07

1978 SEP 06 KERMADEC ISLANDS REGION
E PKIKP 08 42 01
E PKP2 42 33
E(P) 46 21
E L 09 57
MB=5.4(4)
D=156,9 DEG AZ= 22
29.45N 176.7W 47KM H=08 22 0875 (U)
29.25N 176.6W 33KM H=08 22 0371 (M)

1978 SEP 06 NEW HEBRIDES ISLANDS
E 11 21 19
E 11 26 24
E 26 30
E(P) 26 32.4
I PKIKP 26 43.1C 1.5 / 380
E APKP 27 07
I PP 29 29.0 T 12
I SKP 29 59.3
E 31 06
E(SPP) 41.2
E SKKS 12 36 00
E L FINAL 13 30
AV 2,6 MPPV =6.0
MB=6.0(58)
D=136,7 DEG AZ= 38
13.35N 167.1E 198KM H=11 07 4371 (U)
13.15N 166.7E 180KM H=11 07 4279 (M)
DISTANCE 137,5 DEG DEPTH 200 KM

1978 SEP 06 SOUTHWERN IRAN
I P 13 08 29.4D 1.2 / 17
MB=4,6(19)
D= 40,5 DEG AZ=108
28.2N 57.2E 33KM H=13 00 5374 (U)
28.7N 57.4E 10KM H=13 00 5477 (B)
27.6N 57.3E 33KM H=13 00 4976 (M)

1978 SEP 06 PANAY, PHILIPPINE ISLANDS
E P 14 59 51
MB=5.2(24)
D= 93,8 DEG AZ= 68
10.4N 122.5E 52KM H=14 46 3875 (U)
10.3N 122.6E 33KM H=14 46 3579 (M)

1978 SEP 06 TRACEST ICELAND
E(P) 19 27 57
MB=4.1(11)
D= 20,8 DEG AZ=321
64.5N 18.0W 10KM H=19 23 0876 (U)
63.2N 18.2W 10KM H=19 23 2076 (B)

1978 SEP 06 TONGA ISLANDS
E(PKP) 23 46 04
MB=5.4(6)
D=143,8 DEG AZ= 10
15.45N 173.3W 33KM H=23 26 2376 (U)
14.35N 173.0W 33KM H=23 26 1777 (M)

1978 SEP 07 IONIAN SEA
E P 04 57 22
I 57 28.0
E L 05 01 17
E L 03 42
MB=4.5(17)
D= 14,6 DEG AZ=154
37.8N 20.9E 43KM H=04 53 5477 (U)
37.9N 21.0E 43KM H=04 53 5778 (B)
37.5N 20.8E 33KM H=04 53 5170 (M)

1978 SEP 07 UNIMAK ISLAND REGION
E P 06 06 13
MB=5.1(58)
D= 75,0 DEG AZ=358
54.0N 164.0W 40KM H=05 54 3570 (U)
53.3N 163.8W 33KM H=05 54 2478 (M)

1978 SEP 07
E 09 25 22

1978 SEP 07
E 11 48 46

1978 SEP 07
E 16 26 06

DISTANCE 175 KM



Date	Region	Time	Depth (D)	Latitude (N)	Longitude (E)	Magnitude (M)	Station	Distance (DEG)	AZ	Other Data
1978 SEP 13	POLAND, UPPER SILESIA	00 56 00	90.6	26.4N	134.2E	4.4	22KM	84 27 3774	44	
1978 SEP 13	BONIN ISLANDS REGION	04 40 39	128.1	5.2S	152.6E	5.0	57KM	05 46 1375	50	
1978 SEP 13	NEW BRITAIN REGION	06 05 06:4D	14.9	38.2N	152.8E	1.48	40KM	12 34 5779	148	
1978 SEP 13	GREECE	12 38 24	155.6	28.0S	178.5W	2.1	32KM	17 58 1977	21	
1978 SEP 13	KERMADEC ISLANDS REGION	18 18 11	155.7	28.0S	178.4W	2.1	12KM	00 29 3477	21	
1978 SEP 13	POLAND, UPPER SILESIA	19 22 33	13.3	39.1N	20.5E	1.54	56KM	00 09 1077	154	
1978 SEP 14	GREECE-ALBANIA BORDER REGION	00 08 32	13.4	39.0N	20.5E	1.54	46KM	00 09 5174	154	
1978 SEP 14	GREECE-ALBANIA BORDER REGION	00 17.7	15.7	39.1N	20.6E	2.1	45KM	00 09 5474	21	
1978 SEP 14	KERMADEC ISLANDS REGION	00 45 38	13.2	39.2N	20.5E	1.54	57KM	02 11 4472	154	
1978 SEP 14	GREECE-ALBANIA BORDER REGION	02 15 01	47.9	12.1N	47.2E	1.32	33KM	05 01 4173	132	
1978 SEP 14	EASTERN GULF OF ADEN	05 10 20	145.6	17.3S	174.2W	1.2	113KM	05 08 4178	12	
1978 SEP 14	TONGA ISLANDS	05 28 09	149.2	20.9S	173.7W	1.2	33KM	07 39 5074	12	
1978 SEP 14	EASTERN GULF OF ADEN	07 22 36	47.6	12.8N	47.8E	1.31	33KM	19 03 4571	131	
1978 SEP 14	TONGA ISLANDS	07 39 38.4	153.1	25.7S	177.9W	2.2	221KM	23 38 0879	22	
1978 SEP 14	POLAND, UPPER SILESIA	18 20 40	145.0	17.6S	179.0W	2.0	613KM	00 29 5676	20	
1978 SEP 14	EASTERN GULF OF ADEN	19 12 20	36.6	33.1N	56.9E	1.03	33KM	07 35 4979	103	
1978 SEP 14	PHILIPPINE ISLANDS REGION	20 09 02	154.9	27.1S	176.0W	1.9	33KM	10 12 1777	19	
1978 SEP 15	KERMADEC ISLANDS REGION	02 21 30	155.3	27.8S	177.0W	2.2	36KM	02 01 5178	22	
1978 SEP 15	UNDERGROUND EXPLOSION	02 44 40.1	40.6	49.9N	78.9E	0.65	0KM	02 36 5773	65	
1978 SEP 15	POLAND, UPPER SILESIA	08 02 12	3.7	50.4N	18.7E	1.02	10KM	08 01 0079	102	
1978 SEP 15	SOUTHERN GREECE	09 08 25	15.7	36.9N	21.6E	1.54	0KM	09 09 09	154	
1978 SEP 15	SOUTHWESTERN RYUKYU ISLANDS	11 39 43	83.6	24.8N	124.9E	0.98	15KM	11 27 1177	98	
1978 SEP 15	KURILE ISLANDS	11 51 04.8C	75.4	48.3N	154.3E	0.26	44KM	11 39 2574	26	
1978 SEP 15	EASTERN GULF OF ADEN	12 00 36	47.9	43.9N	17.0E	1.0	10KM	12 34 06	10	
1978 SEP 15	EASTERN GULF OF ADEN	12 26 28	48.0	43.9N	17.0E	1.0	10KM	12 34 06	10	
1978 SEP 15	FRG, SOUTHWESTERN REGION	13 17 37	4.0	48.3N	9.0E	0.22	6KM	13 19 26	22	
1978 SEP 15	TRACEST POLAND, UPPER SILESIA	20 04 12	14.9	38.2N	152.8E	1.48	40KM	12 34 5779	148	
1978 SEP 16	KURILE ISLANDS	01 57 15	77.0	46.0N	152.5E	2.0	33KM	14 23 0375	20	
1978 SEP 16	IRAN	15 43 03.1D	36.8	34.2N	57.6E	1.01	33KM	16 18 3373	101	
1978 SEP 16	IRAN	17 00 29.1D	36.6	33.9N	57.7E	1.01	33KM	16 53 24	101	
1978 SEP 16	IRAN	18 07 13	34.2	33.9N	57.1E	1.01	16KM	18 45 1470	101	
1978 SEP 16	TRACEST LOYALTY ISLANDS	23 04 26	143.8	20.5S	168.7E	0.41	19KM	22 44 5174	41	
1978 SEP 16	KERMADEC ISLANDS REGION	23 32 56.0C	157.3	30.5S	179.3W	2.8	286KM	23 13 2371	28	
1978 SEP 16	SOUTH OF FIJI ISLANDS	23 37 41.7C	145.0	17.6S	179.0W	2.0	613KM	00 29 5676	20	
1978 SEP 17	FIJI ISLANDS REGION	00 48 23:9D	47.6	12.8N	47.8E	1.31	33KM	19 03 4571	131	
1978 SEP 17	IRAN	07 42 58.1D	153.1	25.7S	177.9W	2.2	221KM	23 38 0879	22	
1978 SEP 17	TRACEST KERMADEC ISLANDS REGION	10 32 40	40.6	49.9N	78.9E	0.65	0KM	02 36 5773	65	
1978 SEP 17	IRAN	12 50 28.4C	36.4	34.1N	57.6E	1.01	33KM	12 43 2575	101	
1978 SEP 17	SOUTHEASTERN AUSTRIA	20 05 12	4.0	43.9N	17.0E	1.0	10KM	12 34 06	10	
1978 SEP 17	FIJI ISLANDS REGION	21 35 36:9D	145.0	17.6S	179.0W	2.0	613KM	00 29 5676	20	
1978 SEP 18	IRAN	04 57 10	36.6	33.7N	57.0E	1.02	33KM	08 17 2776	102	
1978 SEP 18	CENTRAL YUGOSLAVIA	12 34 06	7.9	43.9N	17.0E	1.0	10KM	12 34 06	10	

T 21 AN 4 AE 3,3 AV 5



Date	Location	Time	Depth (km)	Magnitude	Other	Date	Location	Time	Depth (km)	Magnitude	Other
1978 SEP 18	WESTERN TURKEY	17 39 15	36.9N 29.2E	3.9	10KM	1978 SEP 22	OFF EAST COAST OF HONSHU, JAPAN	04 09 57.3D	1.1 / 18	4.9	33KM
1978 SEP 18	IRAN	17 42 08	33.7N 56.9E	4.9	33KM	1978 SEP 22	KERMADEC ISLANDS	07 19 43.9	0.8 / 20	3.3	33KM
1978 SEP 18	PYRENEES	18 21 07	43.5N 0.5W	NO MB COMP.		1978 SEP 22	FIJI ISLANDS REGION	08 18 59		NO MB COMP.	
1978 SEP 18	NEAR EAST COAST OF HONSHU, JAPAN	20 56 44.6C	34.2N 140.0E	5.2	33KM	1978 SEP 22	EXPLOSION OF 1000 TONS, CZECHOSLOVAKIA	08 55 44.6		NO MB COMP.	
1978 SEP 19	SOUTHWEST OF AFRICA	02 01 30	52.7S 18.9E	5.2	10KM	1978 SEP 22	SOUTH OF TONGA ISLANDS	10 09 48.1D	0.8 / 17	3.1	33KM
1978 SEP 19	FRG, SOUTHWESTERN REGION SWABIAN JURA	03 48 05	48.3N 9.0E	NO MB COMP.		1978 SEP 22	IRAN	19 00 10		4.4	33KM
1978 SEP 19	EASTERN MEDITERRANEAN SEA	07 07 21	33.9N 25.3E	3.8	10KM	1978 SEP 22	TONGA ISLANDS	23 35 47.3C	0.7 / 13	5.2	206KM
1978 SEP 19	NEW HEBRIDES ISLANDS	13 04 18	19.3S 169.0E	5.3	119KM	1978 SEP 23	NEAR EAST COAST OF KAMCHATKA	05 24 16.2C	1.2 / 85	5.1	59KM
1978 SEP 19	NORWEGIAN SEA	14 55 42	62.3N 1.9E	NO MB COMP.		1978 SEP 23	SOUTH OF FIJI ISLANDS	16 30 23.2C	0.9 / 25	5.1	33KM
1978 SEP 19		17 45 57	62.3N 1.7E			1978 SEP 23	NEW HEBRIDES ISLANDS	16 50 20		6.3	201KM
1978 SEP 19		17 51 57				1978 SEP 23		51 01			
1978 SEP 19		21 03 06.7C				1978 SEP 23		51 14.0	1.5 / 770		
1978 SEP 19		21 43 54				1978 SEP 23		51 18.4			
1978 SEP 19	FRG, SOUTHWESTERN REGION SWABIAN JURA	23 54 47.6	48.3N 9.0E	NO MB COMP.		1978 SEP 23	HOKKAIDO, JAPAN, REGION	18 17 55.7	0.9 / 18	4.5	123KM
1978 SEP 20	TRACES	03 05 32				1978 SEP 23		19 18 33			
1978 SEP 20	TADZHIK-SINKIANG BORDER REGION	16 17 54.4C	39.2N 73.0E	4.7	33KM	1978 SEP 23	SOUTH OF FIJI ISLANDS	19 53 16.3C	0.9 / 21	4.4	532KM
1978 SEP 20		20 11	39.4N 72.8E			1978 SEP 23	OFF EAST COAST OF HONSHU, JAPAN	22 55 21.1C	1.4 / 63	5.4	31KM
1978 SEP 21	FIJI ISLANDS REGION	06 43 38.9C		4.6	582KM	1978 SEP 23		55 30.4			
1978 SEP 21	FIJI ISLANDS REGION	08 03 46.4C		3.1	33KM	1978 SEP 23	NORTH OF SVALBARD	23 45 35		4.3	10KM
1978 SEP 21	TRACES, EXPLOSION OF 877 TONS, CZECHOSLOVAKIA	11 03 59.3				1978 SEP 24	TONGA ISLANDS	02 18 41		4.5	115KM
1978 SEP 21	EASTERN TURKEY	11 13 46		6.7	14.09E	1978 SEP 24	MID-INDIAN RISE	03 57 41		3.1	33KM
1978 SEP 21	UNDERGROUND EXPLOSION	15 07 19.7C				1978 SEP 24	SOUTH OF FIJI ISLANDS	07 51 20.7C	1.0 / 37	5.0	519KM
1978 SEP 21		08 42				1978 SEP 24	LOYALTY ISLANDS REGION	08 03 01.9C	1.1 / 130	3.0	33KM
1978 SEP 21		09 33				1978 SEP 24		03 09.6			
1978 SEP 21	EASTERN TURKEY	19 42 46.1C		4.6	1.3 / 39	1978 SEP 24		03 27.1			
1978 SEP 21		23 34 35				1978 SEP 24					
1978 SEP 21		34 54				1978 SEP 24					
1978 SEP 22	NORTHERN ITALY	00 58 32		6.2	FRIULI						



International
Seismological
Centre

Date	Location	Time	Depth (D)	Latitude (N)	Longitude (E)	Magnitude (M)	Depth (D)	Latitude (N)	Longitude (E)	Magnitude (M)	Notes
1978 SEP 24	SOUTHERN ITALY	08 10 30	10.7	40.8N	16.1E	28KM	4.2	3			
1978 SEP 24	LOYALTY ISLANDS REGION	10 28 56.6C	145.3	21.6S	169.8E	60KM	NO MB COMP.				
1978 SEP 24	TRACES: CENTRAL MID-ATLANTIC RIDGE	13 56 31	60.2	0.9N	26.4W	10KM	4.7	5			
1978 SEP 24	IRAN	18 23 10	36.4	33.6N	57.2E	33KM	4.5	7			
1978 SEP 24	LOYALTY ISLANDS REGION	18 39 45.6C 1.9 / 190	45.6	21.9S	170.0E	42KM	5.0	7			
1978 SEP 25	KURILE ISLANDS REGION	02 02 38.6C 0.9 / 19	77.3	44.8N	150.1E	33KM	4.8	26			
1978 SEP 25	OFF COAST OF NORTHERN CALIFORNIA	02 23 09	81.0	41.2N	125.3W	2KM	4.6	10			
1978 SEP 25	TRACES: NEW HEBRIDES ISLANDS	05 14 13	138.2	15.0S	166.9E	25KM	5.3	18			
1978 SEP 25	FRG, SOUTHWESTERN REGION	08 26 14	4.0	48.3N	9.0E	6KM	NO MB COMP.				
1978 SEP 25	TONGA ISLANDS	13 42 31 1.5 / 27	149.6	21.4S	174.0W	33KM	4.6	21			
1978 SEP 25	SOUTH INDIAN OCEAN	18 55 48.7	77.7	1.5S	81.1E	33KM	4.8	3			
1978 SEP 25	UZBEK SSR	21 30 54	36.3	40.4N	63.7E	33KM	4.5	16			
1978 SEP 25	SICHUAN PROVINCE, CHINA	22 00 21	65.4	29.7N	99.6E	33KM	4.7	21			
1978 SEP 25	NEW HEBRIDES ISLANDS	23 08 08	138.1	15.0S	166.8E	35KM	5.4	28			
1978 SEP 26	NEW HEBRIDES ISLANDS	01 00 09	136.7	13.3S	167.1E	202KM	5.6	7			
1978 SEP 26	CENTRAL YUGOSLAVIA	05 03 51	9.0	43.3N	19.2E	10KM	NO MB COMP.				
1978 SEP 26	MINAWASSA PENINSULA	06 21 26	99.8	1.2N	120.3E	33KM	3.7	41			
1978 SEP 26	KERMADEC ISLANDS REGION	10 56 59.6 1.0 / 17	157.9	31.3S	179.7W	261KM	4.8	4			
1978 SEP 26	FIJI ISLANDS REGION	12 35 15.9C 0.9 / 18	147.9	20.4S	178.1W	574KM	5.2	7			
1978 SEP 26	SOUTHEAST INDIAN RISE	14 21 52	119.9	44.8S	96.8E	33KM	5.1	6			
1978 SEP 26	SOUTH OF MARIANA ISLANDS	14 38 34.0	103.2	12.6N	143.3E	91KM	5.6	74			
1978 SEP 26	EXPLOSION: FEDERAL REPUBLIC OF GERMANY	15 22 36.5	5.7	47.2N	19.0E	10KM	NO MB COMP.				
1978 SEP 26	HUNGARY	16 48 58.7	5.7	47.2N	19.0E	10KM	NO MB COMP.				
1978 SEP 26	TADZHIK SSR	19 29 40	10.7	40.8N	16.1E	28KM					
1978 SEP 26	SWITZERLAND	22 53 01	5.0	46.9N	9.5E	10KM					
1978 SEP 27	UNDERGROUND EXPLOSION	02 10 54.1C 1.2 / 88	60.2	0.9N	26.4W	10KM	5.6	76			
1978 SEP 27	HOKKAIDO, JAPAN: REGION	04 07 02.1C 1.2 / 27	77.6	41.4N	142.1E	68KM	4.9	45			
1978 SEP 27	SOUTH OF HONSHU, JAPAN	17 12 09.9D 1.1 / 160	82.8	33.5N	138.1E	293KM	5.1	62			
1978 SEP 27	UNDERGROUND EXPLOSION	17 12 18.2 1.1 / 48	81.3	37.1N	116.1W	0KM	5.0	34			
1978 SEP 27	UNDERGROUND EXPLOSION	17 32 18.3C 1.3 / 105	81.3	37.1N	116.0W	0KM	5.7	72			
1978 SEP 28	OFF EAST COAST OF KAMCHATKA	09 50 07	74.0	51.3N	159.8E	33KM	4.8	26			
1978 SEP 28	OFF EAST COAST OF KAMCHATKA	10 07 11	73.8	50.7N	160.4E	33KM	4.7	18			
1978 SEP 28	NEW HEBRIDES ISLANDS	10 50 43	142.7	19.1S	169.0E	145KM	5.6	37			
1978 SEP 28	HINDU KUSH REGION	11 24 33	43.2	36.4N	70.9E	202KM	4.5	8			
1978 SEP 28	SOUTH OF FIJI ISLANDS	15 07 26.4 0.9 / 28	149.1	22.0S	179.7W	784KM	4.9	8			
1978 SEP 29	FRG, SOUTHWESTERN REGION	01 43 43	4.0	48.3N	9.0E	6KM	NO MB COMP.				
1978 SEP 29	POLAND, UPPER SILESIA	06 46 42	4.1	50.3N	19.2E	10KM	4.0	5			
1978 SEP 29	KURILE ISLANDS	11 19 38.5C 1.1 / 33	77.8	44.0N	149.2E	33KM	5.1	45			
1978 SEP 29	DODECANESE ISLANDS	12 08 14	19.2	35.0N	27.1E	10KM	4.0	5			
1978 SEP 29	FRG, SOUTHWESTERN REGION	15 54 34	4.0	48.3N	9.0E	10KM	NO MB COMP.				
1978 SEP 29	MICHOACAN, MEXICO	16 34 33.8 1.9 / 62	90.4	18.6N	102.7W	96KM	5.5	72			

1978 SEP 29
E 19 56 16

MB=4.5(5)

D= 77.4 DEG AZ= 31
44.3N; 148.8E 33KM H=22 09 0911 (U)

1978 SEP 29 KURILE ISLANDS
E P 22 17 03
E AP 17 17

1978 SEP 30 TRACES; POLAND, UPPER SILESIA
E 00 41 17

1978 SEP 30
E 00 44 13

MB=4.8(18)

D= 14.9 DEG AZ=157
37.3N; 20.3E 33KM H=01 09 1274 (U)
37.5N; 20.4E 46KM 01 09 1772 (U)
37.3N; 20.4E 33KM 01 09 1270 (U)

1978 SEP 30 IONIAN SEA
E P 01 08 43
E PP 08 50
E 09 42
E 10 52
E 12 43
LMH 14

INTERRUPTION OF SHORTPERIODIC RECORDS FROM 05H 47M TO 05H 50M (AT 00T 02)

1978 SEP 30 TRACES
I P 08 26 30.7C

1978 SEP 30 SOUTH BURMA
E P 09 16 02
E S 25 24
E L 34 20

MB=5.5(70)

D= 72.8 DEG AZ= 85
16.6N; 95.9E 10KM H=09 04 3172 (U)
17.1N; 95.7E 33KM 09 04 3274 (U)

LMH 49 T 20 AN 6.5 AE 2.5 MLH =5.9
LMV 53 T 16 AN 3.5 AE 2.5 AV 3.5 MLV =5.8

1978 SEP 30 WESTERN POLAND
I PV 10 24 22.7
I PQ 24 25.4
I SQ 24 51.5

DISTANCE 220 KM

1978 SEP 30 SOUTH OF FIJI ISLANDS
I PKP1 17 10 14.9
I PKP2 10 23.2
E APKP 12 07

MB=5.4(13)

D=150.8 DEG AZ= 23
23.05N; 178.9W 435KM H=16 55 1375 (U)
21.55N; 179.3W 33KM 16 50 3071 (U)

1978 SEP 30 NORTHERN ITALY
E SG 18 59 41

NO MB COMP;

D= 7.2 DEG AZ=199
44.5N; 9.7E 17KM H=18 55 4977 (U)
44.4N; 9.8E 10KM 18 55 4975 (U)

1978 SEP 30
E 19 14 22

April 1981

Dr. B. Tittel
H. Merkel
Dr. S. Wendt

Geophysikalisches Observatorium Collm
der Karl-Marx-Universität Leipzig

Geophysikalische Meßreihen

4 1978

Seismische Registrierungen

Geophysikalisches Observatorium

DDR - 7261 COLLM

Geophysical measuring series
of the
Geophysical Observatory
of the Karl-Marx-University
Leipzig

Geophysikalische MeBreihen
des Geophysikalischen
Observatoriums
der Karl-Marx-Universität
Leipzig

C O L L M

S E I S M I C
R E C O R D S

S E I S M I S C H E
R E G I S T R I E R U N G E N

4th quarter of 1978

4. Quartal 1978

L 448/81 III/18/445

SEISMOLOGICAL STATION COLLM (OLL)



GEOGRAPHICAL CO-ORDINATES: LATITUDE = 51°18.6'N, LONGITUDE = 13°00.2'E; ELEVATION = 230 m
 FOUNDATION: GREYWACKE OF ORDOVICE

SEISMOGRAPHS AND ITS CONSTANTS:

TYPE	COMPONENT	T_B (s)	D_B	T_G (s)	D_G	r/T_B^2	MAGNIFICATION (STATIC)	MAGNIFICATION (MAXIMAL)	RECORDING SPEED (mm/min)
BENIOFF	Z	0.452	0.65	1.43	1			(38000)	60
VSJ-II	z	2.175	0.537	0.296	1.474			55000	60
HSJ-II NS	n	2.171	0.537	0.294	1.474			60000	60
HSJ-II EW	e	2.171	0.537	0.293	1.474			58000	60
WIECHERT NS	WN	10.0	0.28			0.026	370		15
WIECHERT EW	WE	10.0	0.34			0.020	340		15
HSJ-I NS	N	20.0	0.50	1.10	9.09		1075		15
HSJ-I EW	E	20.0	0.51	1.21	8.24		1120		15
VSJ-I	V	20.0	0.51	1.20	8.35		1090		15

TIME SERVICE:

QUARTZ CLOCK (MINUTE PULSES OF 2 s AND HOUR PULSES OF 20 s; DAILY DIGITAL CONTROL; MAXIMUM ERROR ± 0.2 s)

SUPPLEMENTARY EQUIPMENTS:

- SPECIAL RECORDER WITH VARIABLE AMPLIFICATION FOR ANNOUNCED EXPLOSIONS
- PERMANENT RECORDS WITH CONSIDERABLY REDUCED SENSITIVITY FOR THE COMPLETE REGISTRATION OF STRONG EARTHQUAKES
- AUTOMATIC AMPLIFICATION OF RECORDING LIGHT FOR AMPLITUDES GREATER THAN A GIVEN LIMIT

EVALUATION:

THE FIRST LINE OF EVALUATION OF EACH EVENT CONTAINS

DATE AND (FOR KNOWN FOCI) GEOGRAPHICAL REGION OF EPICENTER (MOSTLY FOLLOWING FLINN & ENGDAHL 1965)
 BODY WAVE MAGNITUDE MB WITH THE NUMBER OF USED OBSERVATIONS.

DETAILED INFORMATION, WITH RESPECT TO GEOGRAPHICAL REGION OR OTHER COMMENTS CAN BE WRITTEN ALSO HERE.
 THE NEXT LINES ARE DIVIDED INTO THE FOLLOWING COLUMNS

- THE NOMENCLATURE OF THE PHASES CORRESPONDS TO THE LIST OF ISC, COMPLETED BY SOME PHASES (pP APPEARS AS AP, sP APPEARS AS XP, MULTIPLE PHASES AS P(1) FOR INSTANCE)
- TIME OF ONSET IN G.M.T.
- DIRECTION OF VERTICAL COMPONENT OF THE GROUND MOTION
- PERIODS, AMPLITUDES, AND EVENTUALLY MAGNITUDES FOR IMPORTANT ONSETS APPEAR IN THE CORRESPONDING LINE IF MEASUREMENT IS POSSIBLE;
 FOR SHORTPERIODIC WAVES IN THE SEQUENCE OF COMPONENTS z, n, e (PERIOD IN SECONDS/AMPLITUDE IN NANOMETRES)
 FOR LONGPERIODIC WAVES T, AN, AE, AV (MEAN PERIOD IN SECONDS, AMPLITUDES FOR N, E, V COMPONENTS IN MICROMETRES)
- MAGNITUDES CAN BE DETERMINED
 - FOR BODY WAVES THROUGH THE EARTH MANTLE (MPV, MPH, MPMV, MPMH, MPPV, MPPH, MSH)
 - FOR SHORTPERIODIC LONGITUDINAL CORE WAVES (MC)
 - FOR MAXIMUM OF SURFACE WAVES (MLH, MLV)
 - FOR STRONG QUAKES SOMETIMES FROM WIECHERT RECORDS (MAG)
- HYPOCENTER DATA (LATITUDE, LONGITUDE, DEPTH, ORIGIN TIME) OF THE FOLLOWING INSTITUTIONS ARE USED IN GENERAL
 - (U) U.S. NATIONAL EARTHQUAKE INFORMATION SERVICE
 - (B) EUROPEAN-MEDITERRANEAN SEISMOLOGICAL CENTRE
 - (M) ACADEMY OF SCIENCES OF U.S.S.R., INSTITUTE OF PHYSICS OF THE EARTH
 - (I) INTERNATIONAL SEISMOLOGICAL CENTRE
 - (A) INSTITUTE FOR METEOROLOGY AND GEODYNAMICS IN VIENNA, AUSTRIA
 - (C) GEOPHYSICAL INSTITUTE OF THE CZECHOSLOVAK ACADEMY OF SCIENCES
 - (G) NATIONAL OBSERVATORY OF ATHENS, GREECE
 - (P) POLISH ACADEMY OF SCIENCES
 - (S) SEISMOLOGICAL INSTITUTE, UPPSALA, SWEDEN
- OWN COMMENTS ARE GIVEN WITHOUT MENTION OF SOURCE.
- MB IS THE BODY WAVE MAGNITUDE GIVEN BY (U). /MB/ IS PRINTED IN FEW OTHER CASES WITH FOCAL DATA OF OTHER INSTITUTIONS.
- EPICENTRAL DISTANCE D AND STATION AZIMUTH AZ ARE CALCULATED USING THE FIRST EPICENTER INDICATION AND ARE PRINTED ABOVE THESE DATA.
 D AND AZ ARE CALCULATED ACCORDING TO GEOCENTRIC CO-ORDINATES (D COMMONLY IN DEG, FOR NEAR EVENTS IN km, WITH A MAXIMUM ERROR OF ± 0.1 DEG AND ± 1 km, RESPECTIVELY; AZ IN DEG WITH A MAXIMUM ERROR OF ± 1 DEG).
- FOR COMPARISON WITH THE FIRST OWN EVALUATION "DISTANCE" AND "DEPTH" ARE GIVEN BELOW THE HYPOCENTER DATA.
- ROUND BRACKETS INDICATE UNCERTAINTIES.

NUMEROUS EXPLOSIONS AND ROCK BURSTS ARE LEAVED OUT IN THIS BULLETIN BECAUSE OF ITS UNIMPORTANT FORCE.
 EVENTUAL INTERRUPTIONS OF RECORDS ARE INDICATED IN THE TIME SEQUENCE.
 THE COMPILATION WAS PERFORMED AT THE COMPUTER CENTER OF ZENTRALINSTITUT DER METALLURGIE, LEIPZIG.

1978 OCT 01	TRACES		
I P	04 36 22.5		
1978 OCT 01	MINDANAO, PHILIPPINE ISLANDS	MB=5.6(48)	D= 97.7 DEG AZ= 69 6.7N1124.0E 46KM H=13 23 50:1 (U) 6.7N1124.1E 33KM 13 23 48:3 (M)
E P	13 37 21		
E (PP)	41 28		
LM	14 27		
1978 OCT 01			
I P	19 01 36.5		
1978 OCT 01	TRACES		
E P	20 24 16		
1978 OCT 01			
E	23 00 50		
1978 OCT 02			
E P	03 29 11		
1978 OCT 02			
E P	03 43 11		
1978 OCT 02	TRACES		
E P	03 59 19		
1978 OCT 02	KERMADEC ISLANDS REGION	MB=5.0(6)	D=154.9 DEG AZ= 24 27.75N1178.3W 250KM H=86 47 07:7 (U)
E PKP1	07 06 39		
E PKP2	06 55		
E APKP2	07 50		
1978 OCT 02			
I P	10 33 41.8D		
1978 OCT 02	POLAND, LPPER SILESIA		D= 4.0 DEG AZ=110 49.8N; 18.8E 10KM H=11 39 41:4 (0) DISTANCE 37.9 DEG
E PG	11 40 56		
E SG	41 48		
1978 OCT 02	KURILE ISLANDS REGION	MB=4.8(6)	D= 77.9 DEG AZ= 31 43.9N1149.3E 26KM H=13 11 31:4 (U) 44.1N1149.6E 33KM 13 11 32:3 (M)
E P	13 23 28		
E	23 43		
1978 OCT 02			
I P	15 07 06.2D		
1978 OCT 02			
E	15 28 29		
1978 OCT 02	KURILE ISLANDS REGION		/3.9(1) / D= 77.7 DEG AZ= 31 43.9N1148.6E 30KM H=19 23 34 (?)
E P	19 35 28		
1978 OCT 02	SOUTH OF FIJI ISLANDS	MB=5.2(11)	D=151.0 DEG AZ= 24 23.9S1179.6W 511KM H=19 33 30:8 (U)
E PKP1	19 52 26		
1978 OCT 02	ROMANIA	MB=5.0(54)	D= 10.6 DEG AZ=117 45.7N; 26.5E 164KM H=20 28 52:6 (U) 45.7N; 26.7E 164KM 20 28 53:5 (0) 45.8N; 26.6E 150KM 20 28 52:4 (M)
E (P)	20 31 28		
E AP	31 59		
I	32 20.3		
E	33 02		
E	34 02		
E	34 32		
LMH	34.8		
E L	35 15		
1978 OCT 02			
E	21 04 26		
1978 OCT 02			
E	22 15 38		
1978 OCT 04			
E	00 27 53		
1978 OCT 04	KURILE ISLANDS	MB=5.7(76)	D= 76.5 DEG AZ= 28 46.3N1151.7E 115KM H=83 54 18:4 (U) 47.0N1151.3E 100KM 83 54 21:0 (M)
I P	04 05 56.9C 1.2 / 400		
1978 OCT 04	POLAND, UPPER SILESIA		
E	10 41 33		
E SG	42 03		
1978 OCT 04	NEPAL	MB=5.2(44)	D= 58.4 DEG AZ= 84 27.8N; 86.0E 33KM H=13 53 52:0 (U) 28.3N; 85.9E 33KM 13 53 50:6 (M)
E P	14 03 48 1.3 / 22		
1978 OCT 04	CALIFORNIA-NEVADA BORDER REGION	MB=5.4(50)	D= 81.9 DEG AZ=323 37.5N1118.6W 9KM H=16 42 48:6 (U) 37.4N1119.0W 33KM 16 42 51:7 (M)
I P	16 55 11.1C 1.6 / 40		
LMH	17 28 T 20 AN 2.5 AE 3		
1978 OCT 04			
E	17 46 13		
1978 OCT 04	CALIFORNIA-NEVADA BORDER REGION	MB=5.0(1)	D= 81.8 DEG AZ=323 37.6N1118.6W 10KM H=17 39 02:9 (U)
E (P)	17 51 30		
1978 OCT 04	ALEUTIAN ISLAND REGION	MB=5.3(66)	D= 76.8 DEG AZ= 13 50.9N1173.9E 33KM H=19 55 17:5 (U) 51.3N1173.0E 33KM 19 55 19:0 (M)
I P	20 07 06.8D 2.0 / 110		

1978 OCT 05 03 27 01
E

1978 OCT 05 03 37 42
E

1978 OCT 05 05 02 14
E

1978 OCT 05 TRACES
E 10 37 36

1978 OCT 05 12 17 37.5 1.1 / 24
I(P)

1978 OCT 05 OFF EAST COAST OF KAMCHATKA
E 13 28 17
E AP 28 27
E 28 48

1978 OCT 05 13 58 28.0C
I P

1978 OCT 05 14 40 38.9C
I P

1978 OCT 05 15 51 44
E

1978 OCT 05 16 35 58
E

1978 OCT 05 CENTRAL ITALY
E 17 55 05
E 55 53
E 56 01

1978 OCT 06 LAKE TANGANYIKA REGION
E P 04 21 31

1978 OCT 06 KAMCHATKA
I P 09 49 35.6 1.8 / 49
E AP 49 52

1978 OCT 06 FRG. SOUTHWESTERN REGION
E PG 14 35 26
E SQ 36 17

1978 OCT 06 LUZON, PHILIPPINE ISLANDS
E P 16 21 34
E 21 46
E 22 30
LM 17 07

1978 OCT 06 18 04 52
E

1978 OCT 06 HONSHU, JAPAN
I P 20 56 55.1 1.5 / 27
LMH 21 31

1978 OCT 06 NEAR COAST OF NORTHERN CALIF.
E(P) 21 38 56

1978 OCT 07 NORTHEAST OF TAIWAN
I P 00 32 56.8

1978 OCT 07 FIJI ISLANDS REGION
I PKP1 01 27 30.7C 1.2 / 48

1978 OCT 07 04 31 44
E

1978 OCT 07 FIJI ISLANDS REGION
I PK1P 08 36 07.6C 1.8 / 52
I PKP1 36 11.0D 1.6 / 280
I PKP2 36 14.8 1.4 / 130
E APKP 38 09

1978 OCT 07 FRG. SOUTHWESTERN REGION
E SQ 09 29 32

1978 OCT 07 FRG. SOUTHWESTERN REGION
E PG 09 38 06
E SQ 38 59

1978 OCT 07 11 06 06
E
E SQ 06 21
06 29

1978 OCT 07 TONGA ISLANDS REGION
E PKP1 13 06 13

1978 OCT 08 CENTRAL SIBERIA
I P 00 09 30.7C 0.7 / 49
UNDERGROUND EXPLOSION (S)

MB=9.8(16) D= 71.3 DEG AZ= 18
54.9N;163.3E 42KM H=13 16 5171 (U)
54.9N;163.7E 33KM 13 16 4479 (M)

NO MB COMP; D= 7.5 DEG AZ=179
43.8N; 13.2E 10KM H=17 51 4271 (U)
43.8N; 13.2E 10KM 17 51 4472 (M)

MB=4.9(15) D= 54.8 DEG AZ=160
2.0S; 29.0E 33KM H=04 12 0274 (U)

MB=5.0(15) D= 69.8 DEG AZ= 19
55.9N;160.2E 57KM H=09 38 3074 (U)
56.2N;160.9E 50KM 09 38 2972 (M)

NO MB COMP; D= 4.0 DEG AZ=221
48.2N; 9.1E 10KM H=14 34 0977 (U)
DISTANCE 37.9 DEG

MB=5.1(11) D= 88.7 DEG AZ= 65
16.5N;122.1E 16KM H=16 08 5979 (U)

MB=5.2(24) D= 80.5 DEG AZ= 43
35.8N;137.5E 27KM H=20 44 4473 (U)
36.1N;137.5E 50KM 20 44 4871 (M)

MB=4.8(8) D= 81.4 DEG AZ=329
40.5N;124.6W 32KM H=21 26 3178 (U)

MB=5.0(24) D= 82.8 DEG AZ= 58
25.5N;124.5E 136KM H=00 20 4679 (U)
25.5N;125.0E 33KM 00 20 3279 (M)

MB=4.6(7) D=148.4 DEG AZ= 20
17.98N;178.6W 619KM H=01 08 5975 (U)

MB=5.1(27) D=147.8 DEG AZ= 19
20.25N;177.7W 501KM H=08 17 2273 (U)
19.15N;178.7W 33KM 08 16 2575 (M)
DISTANCE 147 DEG DEPTH 480 KM

MC =5.3

NO MB COMP; D= 4.1 DEG AZ=225
48.3N; 8.6E 10KM H=09 27 2774 (U)

NO MB COMP; D= 4.0 DEG AZ=222
48.3N; 9.0E 10KM H=09 36 9278 (U)
48.4N; 9.0E 15KM 09 36 5376 (M)
DISTANCE 37.9 DEG

MB=4.3(1) D=146.4 DEG AZ= 9
17.95N;172.4W 23KM H=12 46 5173 (U)

MB=5.2(49) D= 50.9 DEG AZ= 38
61.5N;112.9E 0KM H=05 59 5678 (U)

1978 OCT 08 NORTH ATLANTIC OCEAN
E P 11 31 46
E 31 57
LH 39
L 42

1978 OCT 08 TRACES NEAR EAST COAST OF HONSHU, JAPAN
E P 13 44 44

1978 OCT 08 SOUTHERN SINKIANG PROV., CHINA
I P 14 28 05.9C 1.4 / 230
I 28 11.1
E PP 29 55
E S 34 36
E SS 37 36
E SS 38.0
LMH 46 T 18 AN 45.5 AE 10
LMV 48 T 14 AN 25 AE 18 AV 31 MLH =6.4 (NO DEPTH CORRECTION)
FINAL 16 MLV =6.5 (NO DEPTH CORRECTION)

1978 OCT 08 HONSHU, JAPAN
I P 19 21 05.8C 0.9 / 35
I AP 22 07.7C
E S 30 48

1978 OCT 09 SOUTHERN SINKIANG PROV., CHINA
I P 03 17 20.9C

1978 OCT 09 LOYALTY ISLANDS REGION
I PKP1 11 59 17.1C 1.1 / 35
E APKP 59 29

1978 OCT 09 IRAN
E P 16 11 47

1978 OCT 09 WESTERN IRAN
E P 16 31 34

1978 OCT 09 SOUTHWESTERN RYUKYU ISLANDS
E P 19 35 19 1.6 / 26
E 35 29
LM 20 17

1978 OCT 09 NEW IRELAND REGION
E PKP 22 08 11

1978 OCT 10 EXPLOSION OF 7.0 TONS; GERMAN DEMOCRATIC REPUBLIC
I PG 10 55 51.9
I SG 55 53.9

1978 OCT 10 FRG. SOUTHWESTERN REGION
E PG 13 05 02
E 05 25
E SG 05 52

1978 OCT 10 TRACES; MEDITERRANEAN SEA
E P 16 30 09

1978 OCT 10 SANTA CRUZ ISLANDS REGION
E 17 39 45
LM 19 33

1978 OCT 10 17 53 32
E

1978 OCT 11 EAST PAPUA NEW GUINEA REGION
E PKP 00 06 42

1978 OCT 11 00 22 04
E

1978 OCT 11 SOUTH OF HONSHU, JAPAN
I P 02 01 26.1C 1.8 / 200
E AP 01 41
E PP 04 39
E APP 04 53
E PPP 06 41
E SKS 11 41
E PKP1 19 41
LM 46 T 16 AN 1 AE 0.5 AV 1.5 MLH =5.4 MLV =5.5 (NO DEPTH CORRECTION)

1978 OCT 11 KURILE ISLANDS
I P 10 38 06.2C 1.2 / 62
E AP 38 19
E 38 51
LH 11 10
LM 16

1978 OCT 11 SOUTH OF FIJI ISLANDS
I PKP1 11 33 31.2C 1.2 / 33
I PKP2 33 38.5

MB=4.8(29) D= 23.8 DEG AZ=244
37.3N; 14.1W 10KM H=11 26 3178 (U)
37.2N; 14.1W 10KM 11 26 3475 (M)
36.8N; 14.9W 33KM 11 26 2471 (M)

MB=4.2(2) D= 77.9 DEG AZ= 37
40.9N;141.9E 76KM H=13 32 5371 (U)

MB=5.8(80) D= 43.7 DEG AZ= 81
39.4N; 74.7E 62KM H=14 20 0576 (U)
39.6N; 74.7E 50KM 14 20 0571 (M)
DISTANCE 43.5 DEG

MB=5.3(69) D= 80.2 DEG AZ= 43
36.0N;137.1E 250KM H=19 09 2178 (U)
36.7N;137.0E 270KM 19 09 2772 (M)

MB=4.7(9) D= 43.7 DEG AZ= 81
39.5N; 74.8E 70KM H=03 09 2077 (U)
40.0N; 74.6E 33KM 03 09 1878 (M)

NO MB COMP; D=146.2 DEG AZ= 40
22.45N;170.4E 33KM H=11 39 4075 (U)

MB=4.5(6) D= 36.6 DEG AZ=102
33.4N; 57.3E 33KM H=16 04 4273 (U)
33.3N; 57.3E 33KM 16 04 3771 (M)

MB=4.7(18) D= 32.7 DEG AZ=110
32.6N; 49.9E 33KM H=16 25 0371 (U)
32.6N; 49.9E 10KM 16 25 0273 (M)
32.7N; 50.0E 33KM 16 25 0471 (M)

MB=5.1(29) D= 84.1 DEG AZ= 58
24.3N;125.1E 44KM H=19 22 5176 (U)
25.3N;125.0E 33KM 19 22 5571 (M)

MB=4.9(2) D=121.9 DEG AZ= 50
3.95N;152.5E 179KM H=21 49 3774 (U)

D= 10 KM AZ=311
51.37N; 127.09E

MB=4.7(1) D= 4.0 DEG AZ=222
48.3N; 9.0E 10KM H=13 03 4672 (U)
DISTANCE 37.9 DEG

MB=3.9(2) D= 16.9 DEG AZ=152
35.9N; 22.8E 10KM H=16 26 0774 (U)
35.1N; 22.3E 10KM 16 26 0074 (M)

MB=5.4(8) D=133.5 DEG AZ= 40
10.85N;164.7E 33KM H=17 18 4475 (U)

MB=5.5(32) D=121.6 DEG AZ= 56
6.55N;147.5E 98KM H=23 47 5875 (U)
6.35N;147.5E 33KM 23 47 5078 (M)

MB=5.9(122) D= 84.0 DEG AZ= 42
33.4N;140.8E 57KM H=01 49 0171 (U)
33.9N;140.6E 50KM 01 49 0374 (M)
DISTANCE 83 DEG

MB=5.3(63) D= 77.5 DEG AZ= 31
44.2N;149.0E 49KM H=10 26 1476 (U)
44.9N;148.8E 70KM 10 26 1979 (M)

MB=5.2(6) D=149.1 DEG AZ= 25
22.35N;170.2E 616KM H=11 14 5072 (U)

1978 OCT 11 MID-INDIAN RISE
I P 18 55 01.5 1.7 / 27
MB=4.9(24) D= 80.8 DEG AZ=128
14.8S; 66.9E 33KM H=18 42 4970 (U)
14.1S; 66.8E 33KM 18 42 5370 (M)

1978 OCT 11 SOUTH OF FIJI ISLANDS
E PKP1 19 43 04
MB=5.0(3) D=154.4 DEG AZ= 20
26.7S;178.4W 52KM H=19 23 0711 (U)

1978 OCT 12 TRACES; SOUTHERN IRAN
E 03 14 16
MB=4.2(4) D= 38.3 DEG AZ=113
27.3N; 52.8E 33KM H=03 05 4474 (U)

1978 OCT 12 WESTERN TURKEY
E(P) 06 15 22
MB=4.1(11) D= 17.4 DEG AZ=118
41.0N; 33.3E 21KM H=06 11 1477 (U)
40.9N; 33.4E 10KM 06 11 1479 (M)

1978 OCT 12 SOUTHERN IRAN
I P 07 02 00.3 1.6 / 30
E PP 03 40
MB=4.7(33) D= 39.2 DEG AZ=111
27.8N; 54.9E 33KM H=06 54 3374 (U)
27.8N; 55.1E 10KM 06 54 3173 (M)
27.7N; 54.9E 33KM 06 54 3276 (M)

1978 OCT 12 NORTHWEST OF KURILE ISLANDS
I P 11 05 17.5
MB=4.2(1) D=144.6 DEG AZ= 41
21.3S;168.9E 33KM H=12 29 3773 (U)

1978 OCT 12 IRAN
E P 15 08 49 1.2 / 17
MB=4.9(21) D= 36.8 DEG AZ=102
33.4N; 57.9E 15KM H=15 01 4171 (U)
33.5N; 57.6E 10KM 15 01 4273 (M)
33.6N; 57.6E 33KM 15 01 4573 (M)

1978 OCT 12 MID-INDIAN RISE
E P 17 20 38 1.7 / 44
MB=4.8(36) D= 81.0 DEG AZ=128
15.1S; 66.8E 33KM H=17 08 2479 (U)
15.3S; 67.1E 33KM 17 08 1872 (M)

1978 OCT 12 MID-INDIAN RISE
I P 20 15 06.4C 2.0 / 50
LM 54
MB=4.9(49) D= 76.2 DEG AZ=124
8.9S; 67.7E 33KM H=20 03 1977 (U)
8.9S; 68.4E 33KM 20 03 1474 (M)

1978 OCT 13 SOUTH OF FIJI ISLANDS
I PKP1 01 17 46.9C 1.2 / 39
I PKP2 17 54.1 1.0 / 18
MB=5.0(13) D=149.5 DEG AZ= 23
22.3S;179.9W 582KM H=00 59 0272 (U)

1978 OCT 13 EXPLOSION; CZECHOSLOVAKIA
MORAVIA
E PG 14 00 54
E SG 01 36
DISTANCE 370 DEG (A)

1978 OCT 13 WESTERN POLAND
E SG 23 04 36
DISTANCE 215 KM

1978 OCT 14 SOUTHERN SINKIANG PROV., CHINA
QUESTIONABLE EVENT
I P 01 09 02.6 0.8 / 17
MB=4.9(34) D= 50.9 DEG AZ= 70
41.5N; 88.6E 33KM H=01 00 0277 (U)

1978 OCT 14 BONIN ISLANDS REGION
E P 11 43 24
MB=4.7(35) D= 88.7 DEG AZ= 49
27.5N;146.0E 465KM H=11 31 2078 (U)
26.1N;140.9E 250KM 11 30 5170 (M)

1978 OCT 14 MERMADEC ISLANDS REGION
E PK1KP 14 04 08
E(PKP2) 04 46
MB=5.3(6) D=158.2 DEG AZ= 27
31.2S;178.9W 53KM H=13 44 1777 (U)

1978 OCT 14 POLAND, UPPER SILESIA
E SG 16 04 40
05 15
NO MB COMP. D= 3.8 DEG AZ=101
50.4N; 18.9E 0KM H=16 03 08 (M)
50.5N; 18.9E 0KM 16 03 0575 (M)

1978 OCT 14 TRACES
E 17 56 22

1978 OCT 14 JAVA
E 18 57 24
E(PP) 58 48
MB=5.6(48) D=101.6 DEG AZ= 88
7.5S;112.2E 184KM H=18 41 1377 (U)
7.2S;112.1E 200KM 18 41 1674 (M)

OR ANOTHER POSSIBILITY

1978 OCT 14 NEPAL
E P 18 58 48
/4.8(3) D= 59.3 DEG AZ= 83
27.7N; 87.3E 27KM H=18 48 49 (M)

1978 OCT 14
E 19 06 56

1978 OCT 14
E 19 23 51

1978 OCT 14 / NEW BRITAIN REGION
OCT 15
I PKP 23 14 53.9 1.0 / 27
LM 00 11
MB=3.4(27) D=122.6 DEG AZ= 59
4.5S;152.9E 47KM H=22 56 0174 (U)
4.3S;152.9E 33KM 22 56 0072 (M)

1978 OCT 15 UNDERGROUND EXPLOSION
I P 05 44 37.5C 0.8 / 41
E PV 46 09
MB=3.1(51) D= 40.3 DEG AZ= 66
49.7N; 78.3E 0KM H=05 36 5770 (U)

1978 OCT 15 NEW BRITAIN REGION
E PDIF 05 51 16
E PKP 34 48 C 1.1 / 34
E PP 56 19
E PKKP 06 04 51
MB=5.8(54) D=121.2 DEG AZ= 55
5.6S;148.1E 154KM H=05 36 1371 (U)
5.6S;147.9E 150KM 05 36 1276 (M)

1978 OCT 15 EXPLOSION
I PG 07 14 01.6
I SG 14 20.2

1978 OCT 15 WEST CHILE RISE
E PKP 08 02 49
MB=3.4(7) D=124.8 DEG AZ=245
41.8S; 83.6W 33KM H=17 43 5271 (U)
32.1S; 83.9W 33KM 07 43 5274 (M)

1978 OCT 15 OFF COAST OF NORTHERN CALIFORNIA
E P 15 48 55 1.6 / 22
MB=4.8(28) D= 82.1 DEG AZ=330
40.6N;127.1W 15KM H=15 36 3375 (U)

1978 OCT 15
E 17 23 75

1978 OCT 15 OFF COAST OF NORTHERN CALIFORNIA
E P 20 07 13
I AP 07 19.5 2.1 / 28
MB=4.8(26) D= 82.0 DEG AZ=330
40.6N;127.0W 15KM H=19 54 5371 (U)

1978 OCT 15
E 21 57 21

1978 OCT 16
E 02 46 31

1978 OCT 16 MONGOLIA
I P 16 39 30.3C 1.3 / 45
E 42 22
LHM 17 02
LMV 04
MB=5.0(40) D= 51.5 DEG AZ= 63
45.2N; 93.7E 33KM H=16 30 2670 (U)
45.0N; 93.8E 33KM 16 30 2073 (M)

1978 OCT 16
E 19 24 36

1978 OCT 16
E 23 38 35

1978 OCT 17 FIJI ISLANDS REGION
I PKP 00 13 50.2C 1.7 / 580
I 14 08.9
E PPP 20 54
MB=5.4(37) D=149.3 DEG AZ= 20
17.8S;178.8W 565KM H=23 55 1579 (U)
18.6S;178.6W 33KM 23 54 1478 (M)

1978 OCT 17 WESTERN POLAND
E 00 47 14
E SG 47 40

1978 OCT 17 UNDERGROUND EXPLOSION
I P 05 05 02.8C 1.1 / 420
I 09 21.7
I(S) 09 25.5
E 12 24
LM 15 T 12 AN 0.9 AE 1 AV 1.5 MLH =4.5 MLV =4.7

1978 OCT 17 NORTH ATLANTIC OCEAN
E P 08 24 13
MB=4.8(6) D= 60.7 DEG AZ=256
14.6N; 48.0W 33KM H=08 14 0271 (U)

1978 OCT 17 UNDERGROUND EXPLOSION
I P 14 05 59.6C 1.4 / 130
I 06 23.8 1.1 / 260
E PN 06 33
E PP 06 51
E SN 11 25
MB=5.5(68) D= 28.9 DEG AZ= 46
63.1N; 63.4E 0KM H=13 59 5778 (U)
63.4N; 62.4E 0KM 14 00 0376 (M)
DISTANCE 29 DEG

1978 OCT 17 FIJI ISLANDS REGION
E PKP1 16 22 34
MB=4.3(1) D=147.3 DEG AZ=120
19.6S;179.9W 370KM H=16 03 5176 (U)

1978 OCT 17 EASTERN TURKEY
E(P) 16 50 15
NO MB COMP. D= 23.1 DEG AZ=109
39.7N; 41.7E 33KM H=16 49 14 (M)

1978 OCT 17
E 19 11 39

1978 OCT 17 EL SALVADOR
I P 20 29 23.5
MB=5.1(20) D= 87.1 DEG AZ=288
13.8N; 89.7W 116KM H=20 16 4975 (U)

1978 OCT 17 FIJI ISLANDS REGION
I PK1KP 23 15 12.9 1.1 / 20
I PKP1 15 17.2C 1.0 / 170
I PKP2 15 21.6C 1.2 / 79
MB=5.4(31) D=148.1 DEG AZ= 20
20.6S;178.2W 550KM H=22 56 3271 (U)
20.8S;177.6W 33KM 22 55 3476 (M)
DISTANCE 147.5 DEG DEPTH 980 KM
(CONT.)



(CONT.)

E APKP 23 17 31
E SKP 18 04
E PP 18 53

1978 OCT 18 02 20 42.9 1.1 / 23
I PKP

1978 OCT 18 11 51 53
E

1978 OCT 18 FRG, SOUTHWESTERN REGION SWABIAN JURA
E SG 18 55 40
NO MB COMP;
D= 4,3 DEG AZ=223
48.1N; 8.6E 10KM M=18 53 3476 (U)

1978 OCT 18 CRETE
E P 23 41 26
E PPPP 41 56
E LH 49 24
E L 50 20
MB=4.4(21)
D= 18,6 DEG AZ=145
35.1N; 25.8E 10KM M=23 37 0577 (U)
35.0N; 25.9E 10KM 23 37 0775 (B)

1978 OCT 18 / HOKKAIDO, JAPAN, REGION
OCT 19
I P 23 42 19.6 1.7 / 78
LH 00 20 T 16 AN 1.5 AE 1 AV 2
MB=5.2(56)
D= 78,4 DEG AZ= 36
41.2N;143.9E 33KM M=23 30 2072 (U)
41.6N;143.8E 33KM 23 30 2270 (M)

1978 OCT 19 01 40 40
E
MB=5.2(28)
D=136,9 DEG AZ= 38
13.5S;167.1E 210KM M=01 39 1372 (U)
13.6S;167.1E 33KM 01 38 4773 (M)

1978 OCT 19 NEW HEBRIDES ISLANDS
E PKP 01 58 12
NO MB COMP;
D= 4,2 DEG AZ=149
47.7N; 16.2E 10KM M=05 00 3472 (U)
47.7N; 16.2E 10KM 05 00 3570 (B)
DISTANCE 312 DEG

1978 OCT 19 TRACES
E 08 02 45

1978 OCT 19 KURILE ISLANDS
I P 11 09 46.3E 1.3 / 41
MB=5.0(38)
D= 77,4 DEG AZ= 30
44.4N;149.3E 23KM M=10 57 5179 (U)
44.5N;149.3E 33KM 10 57 5377 (M)

1978 OCT 19 FIJI ISLANDS REGION
I PKP1 13 27 39.8E 1.2 / 110
E PKP2 27 45
MB=5.3(34)
D=148,8 DEG AZ= 20
21.2S;177.8W 395KM M=13 08 3777 (U)
21.0S;178.3W 33KM 13 08 0071 (M)

1978 OCT 19 SOUTHERN SINKIANG PROV., CHINA
I P 16 16 45.6 1.0 / 17
E PP 18 28
E 19 33
LH 36
MB=4,9(43)
D= 44,9 DEG AZ= 79
39.8N; 77.0E 51KM M=16 08 3477 (U)
39.7N; 77.2E 33KM 16 08 3178 (M)

1978 OCT 19 NEAR EAST COAST OF HONSHU, JAPAN
E 18 15 16 /4,8(5)/
D= 80,0 DEG AZ= 38
38.8N;142.5E 26KM M=18 03 00 (I)

1978 OCT 19 CHETP
I PP 19 56 50.5
MB=4.0(13)
D= 19,4 DEG AZ=148
34.0N; 25.2E 10KM M=19 52 0477 (U)
34.0N; 25.2E 10KM 19 52 0675 (B)

1978 OCT 20 TRACES
E 03 29 31

1978 OCT 20 EXPLOSION; CZECHOSLOVAKIA NORTHERN BOHEMIA
I PG 09 00 17.1
E SG 00 15
(A)

1978 OCT 20 TRACES; NEW HEBRIDES ISLANDS
E PKP 11 36 04
MB=5.0(2)
D=134,8 DEG AZ= 39
15.4S;167.6E 116KM M=11 16 1975 (U)

1978 OCT 20 15 11 33
E 11 45

1978 OCT 20 NEW IRELAND REGION
E(PKP) 18 45 41
MB=5.3(14)
D=120,6 DEG AZ= 51
3.3S;158.8E 33KM M=18 26 4774 (U)
3.4S;151.5E 33KM 18 26 4071 (M)

1978 OCT 20 NEW BRITAIN REGION
I PKP 23 27 31.0
MB=5.3(29)
D=122,1 DEG AZ= 51
4.4S;152.0E 153KM M=23 08 5373 (U)
4.4S;152.4E 33KM 23 08 3778 (M)

1978 OCT 20 KURILE ISLANDS
I P 23 48 09.4C
MB=4.6(24)
D= 75,5 DEG AZ= 31
45.9N;147.4E 80KM M=23 36 3371 (U)

1978 OCT 21 SEA OF JAPAN
I P 02 47 14.3C 1.2 / 50
I AP 48 37.3
E PP 50 06
MB=5.1(77)
D= 75,1 DEG AZ= 41
41.2N;135.5E 359KM M=02 36 0976 (U)
41.3N;135.4E 350KM 02 36 0977 (M)

1978 OCT 21 OFF E. COAST OF N. ISLAND, N.Z.
E PKP2 12 10 17
MB=5.0(1)
D=162,5 DEG AZ= 43
37.3S;178.2E 54KM M=11 49 2274 (U)

1978 OCT 21 SOUTH OF FIJI ISLANDS SUPERPOSED BY FOLLOWING QUAKE
I PKP1 17 36 04.9C 1.0 / 19
E APKP 58 20
MB=5.2(6)
D=150,6 DEG AZ= 25
23.7S;179.9E 531KM M=17 37 1177 (U)

1978 OCT 21 SOUTH OF FIJI ISLANDS SUPERPOSED BY PRECEDING QUAKE
I PKP1 17 56 16.2
E PKP2 56 25
MB=5.1(17)
D=150,6 DEG AZ= 25
23.5S;179.9W 404KM M=17 37 1370 (U)

1978 OCT 22 SANTA CRUZ ISLANDS
E PKP 04 47 01 1.1 / 20
MB=5.1(11)
D=135,1 DEG AZ= 39
12.0S;166.0E 32KM M=04 27 4175 (U)
12.1S;164.8E 33KM 04 27 3879 (M)

1978 OCT 22 CENTRAL ITALY
E 08 43 14
E 44 11
MB=4.9(2)
D= 7,7 DEG AZ=178
43.6N; 13.4E 33KM M=08 40 0070 (U)
43.5N; 13.7E 10KM 08 39 5773 (B)

1978 OCT 22 TRACES
E 11 04 03

1978 OCT 22 TONGA ISLANDS
I PKP1 11 19 54.7 1.1 / 38
E APKP 20 16
MB=5.0(16)
D=146,8 DEG AZ= 12
18.5S;173.7W 87KM M=11 00 2273 (U)

1978 OCT 22 OFF COAST OF MICHUACAN, MEXICO
I P 14 20 17.9 0.9 / 15
MB=5.2(23)
D= 94,4 DEG AZ=301
15.2N;104.4W 33KM M=14 07 0072 (U)

1978 OCT 22 KERMADEC ISLANDS REGION
E PKP2 20 02 56
MB=5.0(2)
D=155,5 DEG AZ= 20
27.8S;178.4W 124KM M=19 42 4877 (U)

1978 OCT 22 KERMADEC ISLANDS REGION
E PKP1 21 27 05
MB=4.0(3)
D=155,4 DEG AZ= 21
27.8S;178.7W 154KM M=21 07 1970 (U)

1978 OCT 23 SOUTHEASTERN AUSTRIA
E PN 05 01 40
I(PG) 01 53.1
I SN 02 29.3
I 02 32.0
E 02 43
E SG 02 49
NO MB COMP;
D= 4,2 DEG AZ=149
47.7N; 16.2E 10KM M=05 00 3472 (U)
47.7N; 16.2E 10KM 05 00 3570 (B)
DISTANCE 312 DEG

1978 OCT 23 AFGHANISTAN-USSR BORDER REGION
I P 03 15 15.7E 1.2 / 165
I AP 15 55.8
I XP 16 14.7
I PP 16 59.6
E(APP) 17 10
E S 21 29
LH 26.0
MB=5.6(97)
D= 43,2 DEG AZ= 87
36.5N; 71.0E 185KM M=08 07 3176 (U)
36.4N; 71.1E 178KM 08 07 3071 (M)
DISTANCE 43 DEG DEPTH 180 KM

1978 OCT 23 10 24 55.1 0.8 / 13
I(P)

1978 OCT 23 KERMADEC ISLANDS REGION
E PKP1 11 43 40
I PKP2 43 55.7
E PP 47 42
MB=5.1(5)
D=155,0 DEG AZ= 21
27.4S;178.8W 88KM M=11 23 4775 (U)

1978 OCT 23 VOLCANO ISLANDS REGION
LM 14 45 T 14 AN 1 AE 1.5 AV 1
(U)

1978 OCT 23 NEW HEBRIDES ISLANDS
E PKP 16 22 53
MB=4.9(3)
D=144,1 DEG AZ= 39
20.4S;169.6E 89KM M=16 03 3177 (U)

1978 OCT 23 TONGA ISLANDS REGION
E PKIKP 22 12 22
I PKP1 12 28.1C 1.3 / 70
I PKP2 12 36.2E 1.2 / 44
E 15 55
MB=5.1(8)
D=151,8 DEG AZ= 17
23.9S;175.9W 33KM M=21 52 3577 (U)
21.2S;174.0W 33KM 21 52 3870 (M)
MC =5.3

1978 OCT 24 ANDAMAN ISLANDS REGION
E P 13 30 27 1.6 / 29
LM 14 28
MB=5.0(42)
D= 74,7 DEG AZ= 86
14.6N; 96.9E 33KM M=13 38 4873 (U)
14.0N; 96.7E 33KM 13 38 3876 (M)

1978 OCT 24 14 17 40.2C
I P

1978 OCT 24 16 11 02.5
I P

1978 OCT 24 16 39 41.2
I P

1978 OCT 24 POLAND, UPPER SILESIA
E 22 01 04
E SG 02 04

1978 OCT 25 10 54 56
E

1978 OCT 25 12 05 31
E

1978 OCT 25 15 21 18
E 21 30
E 22 46

1978 OCT 25 20 54 11.8E 1.1 / 18
I P

1978 OCT 25 GULF OF ALASKA
E(P) 22 13 25 MB=4.9(29) D=68.7 DEG AZ=330
59.2N;147.8W 19KM H=22 02 1811 (U)
59.1N;148.0W 33KM 22 02 1478 (M)

1978 OCT 25 23 01 57 NO MB COMP. D= 5.3 DEG AZ=223
47.3N; 7.7E 10KM H=02 49 0374 (U)

1978 OCT 26 SWITZERLAND
E SG 02 51 54 MB=3.3(24) D= 97.5 DEG AZ= 67
8.2N;125.8E 42KM H=09 14 5170 (U)
8.7N;125.2E 33KM 09 14 5473 (M)

1978 OCT 26 MINDANAO, PHILIPPINE ISLANDS
E(P) 09 28 28

1978 OCT 26 10 08 10.0 I P

1978 OCT 26 OFF COAST OF JALISCO, MEXICO
LM 12 33 (U)

1978 OCT 26 23 47 47 E

1978 OCT 27 TRACES
E 02 06 45

1978 OCT 27 02 52 26 E

1978 OCT 27 SOUTH OF FIJI ISLANDS
E PKIKP 06 10 18 MB=5.0(22)
I PKP1 10 23.4C 0.8 / 45
I PKP2 10 29.8 0.9 / 23 MC =4.9

1978 OCT 27 FIJI ISLANDS REGION
E PKIKP 06 43 32 MB=5.3(21)
I PKP1 43 37.2C 1.2 / 120
I PKP2 43 42.4C 1.3 / 85 MC =5.1
E 45 39
E APKP 45 59

1978 OCT 27 TRACES, EXPLOSION
I PG 10 19 34.8
I SG 19 49.4

1978 OCT 27 SOUTHERN BOLIVIA
I P 10 20 02.0C 1.6 / 48 MB=5.6(74)
E AP 21 08
E S 31.3
E PKKP2 36 44 D=100.1 DEG AZ=248
21.9S;178.7W 280KM H=10 06 4611 (U)
22.0S; 65.8W 33KM 10 06 1774 (M)

1978 OCT 27 CENTRAL YUGOSLAVIA
E 14 08 41 NO MB COMP. D= 8.2 DEG AZ=157
43.7N; 17.5E 10KM H=14 04 4216 (U)
43.4N; 17.0E 10KM 14 04 4319 (M)

1978 OCT 27 17 52 57 E

1978 OCT 27 NEW HEBRIDES ISLANDS
E SKP 17 59 06 MB=5.1(5) D=139.6 DEG AZ= 39
16.1S;168.0E 180KM H=17 36 4073 (U)

1978 OCT 28 03 09 13 E

1978 OCT 28 MID-INDIAN RISE
E P 05 13 50 MB=4.6(1) D= 80.6 DEG AZ=128
14.8S; 66.6E 10KM H=05 01 3573 (U)

1978 OCT 28 MID-INDIAN RISE
E P 05 30 39 2.0 / 42 MB=4.7(17) D= 80.7 DEG AZ=128
14.9S; 66.5E 10KM H=05 18 2476 (U)

1978 OCT 28 EASTERN SIBERIA
I P 09 31 19.9C 1.2 / 19 MB=4.6(24) D= 58.5 DEG AZ= 22
64.7N;145.2E 33KM H=09 21 2076 (U)
64.7N;145.2E 33KM 09 21 1672 (M)

1978 OCT 28 KURILE ISLANDS
I P 16 41 38.8 0.9 / 28 MB=5.5(71) D= 74.0 DEG AZ= 24
E XP 42 28 50.2N;155.7E 135KM H=16 30 1873 (U)
50.6N;155.4E 125KM 16 30 1973 (M)

1978 OCT 28 19 26 15 E

1978 OCT 28 HOKKAIDO, JAPAN, REGION
I P 22 58 22.0C 1.0 / 22 MB=5.1(72) D= 77.2 DEG AZ= 35
E 58 59 42.7N;144.2E 82KM H=22 46 3570 (U)
43.0N;144.4E 90KM 22 46 3579 (M)

1978 OCT 29 03 27 55 E

1978 OCT 29 NEW BRITAIN REGION
I PKP 04 24 55.6 1.1 / 16 MB=5.9(43) D=123.0 DEG AZ= 51
5.4S;152.0E 80KM H=04 06 0472 (U)
5.3S;151.8E 33KM 04 06 0175 (M)

1978 OCT 29 TRACES
E 21 49 04

1978 OCT 30 07 24 04 E



1978 OCT 30 TONGA ISLANDS
I PKP 07 38 14.4C 1.3 / 34 MB=4.9(6) D=145.5 DEG AZ= 14
17.3S;175.0W 272KM H=07 19 0677 (U)

1978 OCT 30 MINDANAO, PHILIPPINE ISLANDS
E P 13 53 56 MB=5.4(9) D= 95.6 DEG AZ= 70
8.0N;122.2E 41KM H=13 40 3375 (U)

1978 OCT 30 MINDANAO, PHILIPPINE ISLANDS
E P 13 55 38 MB=5.7(12) D= 95.5 DEG AZ= 70
E 56 19
E(PP) 59 44
E PS 14 08.2
LM 40 33KM H=13 42 1476 (U)

1978 OCT 30 16 00 57 E

1978 OCT 30 NEAR COAST OF GUATEMALA
E P 18 36 18 C T 14 AV 1.6 MB=5.3(44) D= 87.9 DEG AZ=290
E AP 36 38 13.8N; 91.1W 73KM H=18 23 3670 (U)
E PP 39 51 14.0N; 91.4W 33KM 18 23 3179 (M)
E(S) 47 10
E PPS 48 25
E SS 53.0
E 53 51
E SSS 57.1
LM 19 15 T 20 AN 2.5 AE 5.5 AV 5.5 MLH =6.0 MLV =6.0 (NO DEPTH CORRECTION)

1978 OCT 30 NEAR COAST OF GUATEMALA
E P 19 22 26 MB=5.0(16) D= 88.0 DEG AZ=290
13.8N; 91.2W 58KM H=19 09 4071 (U)

1978 OCT 30 NORTH ATLANTIC RIDGE
E P 19 32 29 MB=4.8(42) D= 51.2 DEG AZ=262
E AP 32 36 25.2N; 45.5W 10KM H=19 23 2473 (U)
26.6N; 45.1W 33KM 19 23 3673 (M)

1978 OCT 31 TRACES
E 02 41 23

1978 OCT 31 02 55 49 E

1978 OCT 31 03 23 45 E

1978 OCT 31 UNDERGROUND EXPLOSION
I P 04 24 37.6C 0.7 / 60 MB=5.2(62) D= 40.2 DEG AZ= 66
E PN 26 06 49.8N; 78.1E 0KM H=14 16 5775 (U)

1978 OCT 31 NEAR COAST OF GUATEMALA
E 06 43 27 MB=5.0(16) D= 87.9 DEG AZ=289
LM 07 21 T 20 AN 0.5 AE 1 AV 1 13.8N; 91.1W 60KM H=16 30 3376 (U)

1978 OCT 31 MINDANAO, PHILIPPINE ISLANDS
E P 11 33 36 1.7 / 27 MB=5.4(43) D= 97.5 DEG AZ= 69
6.8N;123.9E 554KM H=11 21 0171 (U)
5.4N;124.4E 300KM 11 20 2973 (M)

1978 OCT 31 POLAND, UPPER SILESIA
E PG 11 34 27 NO MB COMP. D= 3.8 DEG AZ=101
E SG 35 19 50.4N; 18.9E H=11 33 1870 (P)
50.2N; 19.3E 0KM 11 33 16 (F)

1978 OCT 31 QUESTIONABLE EVENT
E PG 15 48 25
E SG 48 46
E LM 49 06

1978 OCT 31 KERADEC ISLANDS REGION
E PKIKP 17 14 36 MB=5. (14) D=155.2 DEG AZ= 20
E PKP2 15 00 2.2 / 78 27.5S;176.5W 33KM H=16 54 4477 (U)
E PP 18 32 27.8S;177.0W 33KM 16 54 4072 (M)
LM 18 33 T 18 AN 1 AE 1 AV 2 MLH =5.6 MLV =5.9

1978 OCT 31 19 05 35 E

1978 OCT 31 21 35 54 E

1978 OCT 31 KURILE ISLANDS
I P 21 55 52.1C 1.2 / 77 MB=5.0(62) D= 77.3 DEG AZ= 31
I AP 56 08.8 44.1N;148.2E 57KM H=21 44 0275 (U)
44.5N;148.1E 70KM 21 44 0576 (M)

1978 OCT 31 POLAND, UPPER SILESIA
E 22 30 45



1978 NOV 01 03 45 41
E

1978 NOV 01 12 40 18
E

1978 NOV 01 16 51 41
E

1978 NOV 01 KIRGIZ SSR
I P (1) 19 56 20.5E 1.4 / 200
I P (2) 56 29.8 1.6 / 690
E PP (1) 57 54 T 10 AN 0.9 AE 2.6 AV 5.0 MPH =6.2 MPV =6.2
E PP (2) 58 04 T 9 AN 0.9 AE 2.6 AV 5.0 MPPH =6.9 MPPV =6.8
E SGP 20 02 02 T 12 AN 15.8 AE 9.6 MSH =6.7
I S 02 41 T 12 AN 15.8 AE 9.6 MLH =7.3 MLV =7.1
E SS 05 52 T 14 AN 295 AE 94 AV (130)
LM 15

1978 NOV 01 KURILE ISLANDS REGION
I P 22 41 15.6E 1.0 / 11
E

1978 NOV 01 23 15 21
E

1978 NOV 01 23 33 13
E

1978 NOV 02 00 32 35
E

1978 NOV 02 01 38 27
E

1978 NOV 02 NORTHERN YUGOSLAVIA
E SG 01 59 19
E SG 59 33
E

1978 NOV 02 02 01 35
E

1978 NOV 02 LOYALTY ISLANDS REGION
E PKP 02 07 59
E

1978 NOV 02 GREENLAND SEA
E P 05 26 43 2.0 / 75
I 26 49.0 2.0 / 190
E

1978 NOV 02 KIRGIZ SSR
E P 06 32 07 1.4 / 51
E PP 33 48
E S 38 36
LM 51 T 15 AN 5 AE 5 AV 6.5 MLH =5.7 MLV =5.7

1978 NOV 02 KIRGIZ SSR
I P 11 23 32.1 1.2 / 55
E 25 28
E SS 33 20
LM 42 T 15 AN 3 AE 2.5 AV 3 MLH =5.4 MLV =5.5

1978 NOV 02 20 16 16
E

1978 NOV 03 01 01 45
E

1978 NOV 03 02 52 58
E

1978 NOV 03 GREENLAND SEA
E (P) 06 51 04 1.8 / 52
E

1978 NOV 03 07 30 18
E

1978 NOV 03 09 33 03
E

1978 NOV 03 VOLCANO ISLANDS REGION
I P 12 26 33.4E 1.2 / 38
E PP 30 17
E

1978 NOV 03 MARIANA ISLANDS REGION
E P 13 19 27
E AP 19 42
E

1978 NOV 03 SOUTHERN GREECE
E (P) 16 52 08
E

1978 NOV 03 KURILE ISLANDS REGION
E AP 17 18 44.9E 1.1 / 24
E 18 56
E 19 11

MB=6.2(70) D=42.5 DEG AZ=82
39.3N; 72.6E 40KM H=19 48 2870 (U)
39.5N; 72.6E 33KM H=19 48 2871 (M)

NO MB COMP. D=77.8 DEG AZ=31
43.7N; 148.6E 40KM H=22 29 20 (F)

NO MB COMP. D=5.4 DEG AZ=171
46.0N; 14.2E 10KM H=01 56 3973 (U)
46.0N; 14.2E 10KM H=01 56 3970 (P)

NO MB COMP. D=146.1 DEG AZ=40
22.48; 170.2E 44KM H=01 48 2477 (U)

MB=4.8(41) D=23.1 DEG AZ=357
74.2N; 8.5E 10KM H=05 21 3511 (U)
74.4N; 9.1E 10KM H=05 21 3614 (P)
74.3N; 9.5E 33KM H=05 21 3510 (M)

MB=5. (82) D=42.5 DEG AZ=82
39.3N; 72.7E 27KM H=06 24 1310 (U)
39.4N; 72.6E 33KM H=06 24 0976 (M)
DISTANCE 42 DEG

MB=5.4(77) D=42.4 DEG AZ=82
39.4N; 72.6E 46KM H=11 15 4075 (U)
39.4N; 72.6E 33KM H=11 15 3475 (M)

MB=5.3(35) D=91.2 DEG AZ=44
25.8N; 142.3E 33KM H=12 13 3078 (U)
26.0N; 141.8E 33KM H=12 13 2678 (M)

MB=5.3(42) D=97.5 DEG AZ=43
20.6N; 146.3E 51KM H=13 05 5677 (U)
20.7N; 146.3E 33KM H=13 05 5073 (M)

MB=5.4(1) D=15.6 DEG AZ=154
36.9N; 21.3E 51KM H=16 48 2579 (U)
37.2N; 21.4E 62KM H=16 48 3179 (P)

MB=4.8(10) D=78.1 DEG AZ=31
43.7N; 149.5E 33KM H=17 06 4673 (U)

1978 NOV 03 RAY ISLANDS, ALEUTIAN ISLANDS
E 17 48 09
MB=4.9(29) D=76.8 DEG AZ=11
51.9N; 175.0E 33KM H=17 36 1474 (U)
51.9N; 174.9E 33KM H=17 36 1576 (M)

1978 NOV 03 EASTERN CAUCASUS
E (P) 18 59 19
E 59 23 1.7 / 39
MB=4.5(6) D=23.5 DEG AZ=99
42.5N; 45.2E 30KM H=18 54 0672 (U)
42.4N; 45.3E 33KM H=18 54 0279 (M)

1978 NOV 03 23 08 17
E

1978 NOV 04 UNDERGROUND EXPLOSION
I P 05 13 39.5E 0.9 / 95
I PN 15 13.2
E 17 08
E 24 19
MB=2.6(39) D=40.6 DEG AZ=65
50.0N; 79.0E 0KM H=05 05 5775 (U)

1978 NOV 04 TRACES
E 10 02 34

1978 NOV 04 NORTHWESTERN IRAN
I P 15 28 14.8E 1.6 / 1400
I 28 29
I 28 57.0
E PP 29 08
I 29 15
E 29 57
E 31 44
E S 33 00 T 8 AN 4.0 AE 3.3 MSH =6.1
E 33 13
E 33 34
E 34.0
E SS 34 30
E PCS 35 07
LM 43 T 14 AN 15 AE 14 AV 16.5 MLH =5.9 MLV =5.9

1978 NOV 04 15 44 10.0
I P

1978 NOV 04 IRAN
E P 17 19 30
MB=4.5(4) D=36.4 DEG AZ=102
33.6N; 57.2E 36KM H=17 12 2678 (U)
33.4N; 57.2E 33KM H=17 12 2579 (M)

1978 NOV 04 POLAND, UPPER SILESIA
E PG 19 53 19
E SG 54 12
NO MB COMP. D=3.8 DEG AZ=101
50.4N; 18.9E 0KM H=19 52 0370 (F)

1978 NOV 04 / SOLOMON ISLANDS
NOV 05
E PKP (1) 22 48 37
E PKP (2) 48 48
I 48 55.5
E 50 57
E PP (2) 51 20
E SKP (1) 52 14
E SKP (2) 52 23
E 23 04 50
E SS 08.9
E SSS 13.7
LM 50 T 20 AN 29 AE 29.5 AV 52 MLH =7.1 MLV =7.3
FINAL 02

1978 NOV 04 SOLOMON ISLANDS
E PKP 23 11 07 1.8 / 90
E 11 26
E SKP 14 36
MB=5.9(34) D=132.7 DEG AZ=43
11.2S; 162.1E 33KM H=22 51 5476 (U)
11.1S; 161.3E 33KM H=22 51 5079 (M)

1978 NOV 04 SOLOMON ISLANDS
E SKP 23 24 11 1.4 / 27
MB=5.0(1) D=132.6 DEG AZ=43
11.0S; 162.2E 33KM H=23 01 3170 (U)

1978 NOV 04 SOLOMON ISLANDS
E PKP 23 36 15
NO MB COMP. D=132.7 DEG AZ=43
11.1S; 162.3E 33KM H=23 17 0277 (U)

1978 NOV 05 SOLOMON ISLANDS
E PKP 04 16 18
E PP 18 45
E SKP 19 45
LM 05 17 T 20 AN 2.5 AE 2 AV 3 MLH =5.9 MLV =6.1
MB=5.5(31) D=132.8 DEG AZ=43
11.2S; 162.3E 33KM H=23 57 0470 (U)
11.0S; 161.5E 33KM H=23 57 0070 (M)
DISTANCE 132 DEG

1978 NOV 05 FIJI ISLANDS REGION
E 05 17 02
I PKP 17 05.5 1.4 / 38
MB=5.1(2) D=145.4 DEG AZ=17
17.6S; 177.0W 89KM H=24 57 3471 (U)

1978 NOV 05 KURILE ISLANDS
I P 05 36 30.3E 0.9 / 32
I 36 35.5
MB=5.1(63) D=74.7 DEG AZ=26
48.9N; 153.9E 138KM H=25 25 0479 (U)
49.0N; 153.8E 120KM H=25 25 0376 (M)

1978 NOV 05 CENTRAL MID-ATLANTIC RIDGE
E P 06 49 47
E AP 49 54 2.0 / 41
MB=5.2(42) D=60.3 DEG AZ=243
8.1N; 38.6W 10KM H=06 39 3577 (U)
7.9N; 37.7W 33KM H=06 39 4171 (M)

1978 NOV 05 09 47 37.9 0.9 / 13
I P

1978 NOV 05 10 12 22
E



1978 NOV 05 NEAR EAST COAST OF HONSHU, JAPAN
 I P 16 29 38.0D 1.4 / 29
 E 29 52
 MB=5.1(24) D= 81.0 DEG AZ= 40
 36.6N; 141.0E 55KM M=16 17 2720 (U)
 37.2N; 140.9E 170KM M=16 17 4220 (M)

1978 NOV 05 MEXICO-GUATEMALA BORDER REGION
 E AP 16 34 09
 MB=4.8(6) D= 87.0 DEG AZ=292
 15.8N; 92.2W 213KM M=16 21 0172 (U)

1978 NOV 05
 I P 19 20 33
 NO MB COMP. D=145.9 DEG AZ= 40
 22.1S; 170.2E 33KM M=21 21 2779 (U)

1978 NOV 05 LOYALTY ISLANDS REGION
 I PKP 21 41 05.3D 1.7 / 36
 MB=6.3(39) D=132.7 DEG AZ= 43
 11.18; 162.1E 33KM M=22 02 0711 (U)
 10.85; 161.9E 33KM M=22 02 0974 (M)
 DISTANCE 132 DEG

1978 NOV 05 SOLOMON ISLANDS
 E PKP 22 21 20
 E 21 35
 E PP 23 44
 E SKP 24 48
 E 25 42
 E SKS 28 25
 E SKKP 34 07
 E 37 24
 E SS 41.4
 E SSS 46.2
 T 20 AN 36.5 AE 53 AV(63)
 E LM 23 22 T 18 AN 37 AE 24 AV(44)
 MLH =7.2 MLV =7.4

1978 NOV 06
 E 01 23 14

1978 NOV 06
 E 02 34 18

1978 NOV 06 WESTERN POLAND
 E PG 04 06 07
 E SG 06 31

1978 NOV 06 WESTERN POLAND
 E PG 04 07 32
 E SG 07 56

1978 NOV 06 TRACES
 E 05 30 15

1978 NOV 06 RYUKYU ISLANDS REGION
 I P 08 33 53.8D 1.3 / 70
 MB=5.1(34) D= 83.1 DEG AZ= 50
 29.5N; 131.8E 22KM M=08 21 2719 (U)
 29.8N; 131.7E 33KM M=08 21 3076 (M)

1978 NOV 06 FRANCE
 E SG 10 53 35
 NO MB COMP. D= 9.7 DEG AZ=240
 45.8N; 1.0E 16KM M=10 48 2476 (U)
 45.8N; 1.0E 10KM M=10 48 2278 (U)

1978 NOV 06 HOKKAIDO, JAPAN, REGION
 I P 15 20 45.5D 0.9 / 64
 E XP 21 07
 E 23 53
 MB=5.3(79) D= 77.2 DEG AZ= 36
 42.2N; 143.0E 63KM M=15 08 5713 (U)
 42.8N; 142.8E 33KM M=15 08 5674 (M)

1978 NOV 06 SOUTH OF HONSHU, JAPAN
 I P 16 04 59.2D 1.0 / 28
 MB=4.9(23) D= 85.1 DEG AZ= 42
 32.4N; 141.3E 33KM M=15 52 2513 (U)
 32.9N; 141.3E 33KM M=15 52 2776 (M)

1978 NOV 06 IRAN
 E P 16 57 04 1.1 / 12
 MB=4.6(23) D= 36.8 DEG AZ=102
 33.4N; 57.9E 11KM M=16 49 5415 (U)
 33.3N; 57.7E 33KM M=16 49 5671 (M)

1978 NOV 06 TRACES
 E 18 27 55

1978 NOV 06 TRACES; SOUTHWESTERN RYUKYU ISLANDS
 E P 18 50 21
 MB=4.7(17) D= 82.8 DEG AZ= 59
 24.7N; 123.4E 97KM M=18 38 0517 (U)

1978 NOV 06
 E 19 51 15

1978 NOV 06
 E 22 46 03

1978 NOV 06 IRAN
 E P 23 53 35
 I AP 53 40.2 1.3 / 27
 MB=4.7(30) D= 35.8 DEG AZ=104
 33.2N; 54.9E 33KM M=23 46 4177 (U)
 33.2N; 54.9E 10KM M=23 46 4079 (U)
 33.4N; 55.0E 33KM M=23 46 4478 (M)

1978 NOV 07
 E P 01 28 10

1978 NOV 07 AFGHANISTAN-USSR BORDER REGION
 I P 03 12 44.1D 0.9 / 45
 I AP 13 15.5
 E 15 14
 MB=5.0(61) D= 43.5 DEG AZ= 85
 37.2N; 71.8E 125KM M=03 04 9379 (U)
 37.4N; 71.8E 130KM M=03 04 9672 (M)

1978 NOV 07 KURILE ISLANDS
 E P 05 16 31 1.0 / 13
 MB=4.6(11) D= 76.0 DEG AZ= 27
 47.3N; 153.1E 54KM M=05 04 4970 (U)

1978 NOV 07 ETHIOPIA
 E P 06 52 42
 MB=4.6(1) D= 41.8 DEG AZ=135
 16.7N; 42.6E 33KM M=06 44 1815 (U)

1978 NOV 07 ETHIOPIA
 I P 17 14 19.4D 1.5 / 110
 E S 21 10
 E SS 24 25
 LM 37 T 15 AN 5 AE 3 AV 4
 MB=5.3(67) D= 46.4 DEG AZ=138
 11.5N; 42.6E 33KM M=17 05 5572 (U)
 11.7N; 42.6E 33KM M=17 05 5077 (M)
 DISTANCE 48 DEG

1978 NOV 07 SOLOMON ISLANDS
 E(PKP) 17 53 20
 E PP 55 44
 I SKP 56 40.9D 2.2 / 200
 E SKP 56 54 2.0 / 125
 LM 18 57 T 18 AN 3 AE 1 AV 3
 MB=5.7(52) D=132.6 DEG AZ= 43
 11.0S; 162.2E 33KM M=17 33 5975 (U)
 9.1S; 160.7E 33KM M=17 34 0678 (M)
 DISTANCE 132 DEG

1978 NOV 07 TAIWAN REGION
 E P 18 14 23
 MB=5.1(26) D= 82.9 DEG AZ= 60
 24.1N; 122.6E 30KM M=18 01 5973 (U)
 24.5N; 122.7E 33KM M=18 02 0172 (M)

INTERRUPTION OF SOME RECORDS FROM 18H 28M TO 18H 39M

1978 NOV 07 ETHIOPIA
 E 20 02 33
 MB=4.3(1) D= 46.3 DEG AZ=138
 11.7N; 42.6E 33KM M=19 54 0376 (U)

1978 NOV 07 AFGHANISTAN-USSR BORDER REGION
 E AP 22 15 35
 MB=4.8(13) D= 42.9 DEG AZ= 86
 37.3N; 71.4E 111KM M=22 07 2176 (U)
 37.4N; 71.3E 110KM M=22 07 2174 (M)

1978 NOV 08 SOUTH OF FIJI ISLANDS
 I P<P1 00 04 39 D 0.8 / 19
 MB=4.5(2) D=150.9 DEG AZ= 22
 23.5S; 178.3W 372KM M=23 45 2872 (U)

1978 NOV 08 KIRGIZ SSR
 I P 01 05 40.4D 1.4 / 120
 E PP 07 23
 E 12 27
 E SS 14 56
 LM 25 T 13 AN 2 AE 1.5 AV 2
 MB=5.5(89) D= 42.5 DEG AZ= 82
 39.3N; 72.6E 41KM M=00 57 4779 (U)
 39.5N; 72.6E 33KM M=00 57 4375 (M)

1978 NOV 08 ETHIOPIA
 I P 05 16 22.9D 1.9 / 78
 I PCP 17 59.0
 LM 40 T 14 AN 3 AE 2 AV 2.5
 MB=4.9(51) D= 46.3 DEG AZ=138
 11.6N; 42.6E 62KM M=05 08 0177 (U)
 11.6N; 42.5E 33KM M=05 07 5976 (M)

1978 NOV 08 TRACES; ETHIOPIA
 E P 07 50 44
 MB=4.6(2) D= 46.2 DEG AZ=138
 11.7N; 42.4E 33KM M=07 42 2272 (U)

1978 NOV 08 EXPLOSION OF 21.6 TONS; CZECHOSLOVAKIA
 I P 08 20 18.8
 I SG 20 31.9
 I L 20 40
 MB=5.7(44) D= 90.6 DEG AZ=138
 28.5S; 62.4E 10KM M=12 30 2973 (U)
 28.4S; 62.4E 33KM M=12 30 2772 (M)

INTERRUPTION OF SOME RECORDS FROM 13H 21M TO 13H 30M

1978 NOV 08 MID-INDIAN RISE
 E P 14 20 46
 MB=5.2(19) D= 91.4 DEG AZ=131
 25.5S; 70.0E 10KM M=14 07 3775 (U)
 25.5S; 70.0E 33KM M=14 07 3578 (M)

1978 NOV 09 NORTHERN YUGOSLAVIA
 E SG 00 33 02
 NO MB COMP. D= 5.7 DEG AZ=171
 45.7N; 14.2E 10KM M=00 30 0170 (U)
 46.1N; 14.9E 10KM M=00 30 0377 (U)

1978 NOV 09 ECUADOR
 E P 00 49 45
 MB=4.8(48) D= 91.7 DEG AZ=270
 1.4S; 77.9W 182KM M=00 36 5673 (U)

1978 NOV 09 SOLOMON ISLANDS
 E APKP 01 10 51
 E SKP 14 06
 E SKP 14 19
 LMV 02 03 T 18 AN 1.5 AE 1 AV 2
 LMV 12 T 18
 MB=5.3(24) D=132.1 DEG AZ= 44
 10.8S; 161.4E 29KM M=00 51 2873 (U)
 10.4S; 161.2E 33KM M=00 51 2478 (M)
 DISTANCE 132 DEG

1978 NOV 09
 E 01 44 31

INTERRUPTION OF SOME RECORDS FROM 06H 12M TO 06H 30M

1978 NOV 09
 E 08 55 15

INTERRUPTION OF SOME RECORDS FROM 09H 44M TO 09H 53M

1978 NOV 09 RYUKYU ISLANDS
 E P 11 58 57
 MB=4.7(3) D= 82.8 DEG AZ= 51
 29.3N; 130.5E 33KM M=11 46 3472 (U)

1978 NOV 09 TONGA ISLANDS
 E PKP1 15 38 40
 E 39 28
 MB=4.7(2) D=149.1 DEG AZ= 16
 21.1S; 175.6W 33KM M=15 18 5371 (U)

1978 NOV 09
 E 19 22 19

1978 NOV 09
 E 22 27 05

Date	Location	Time	Depth (D)	Latitude (N)	Longitude (E)	Magnitude (M)	Azimuth (AZ)	Distance (DKM)	Station	Remarks
1978 NOV 18	UNDERGROUND EXPLOSION BOUARGEL	19 12 18.1C 1.4 / 32	81.5	37.1N	118.1W	0	321	0		
1978 NOV 18	FIJI ISLANDS REGION	21 20 24.9D 1.0 / 23	149.1	17.6S	178.8W	644	20	644		
1978 NOV 19	KERMADEC ISLANDS	00 44 06 44 15 44 35	157.4	30.2S	177.9W	62	25	62		
1978 NOV 19	POLAND, UPPER SILESIA	03 34 18 34 26.0	3.8	50.4N	18.8E		102			
1978 NOV 19	FIJI ISLANDS REGION	16 14 07	148.9	21.7S	179.4W	612	23	612		
1978 NOV 19	SOLOMON ISLANDS	10 47 39.0 0.9 / 13 47 53	125.9	7.2S	154.8E	33	49	33		
1978 NOV 19	NEAR ISLANDS, ALEUTIAN ISLANDS	19 54 12.1C 1.5 / 40 20 26	74.9	52.7N	172.5E	47	13	47		
1978 NOV 20	POLAND, UPPER SILESIA	02 10 00	3.9	50.3N	18.9E		103			
1978 NOV 20	TRACES	02 16 27								
1978 NOV 20	SOLOMON ISLANDS	02 54 43	125.9	7.2S	154.8E	33	49	33		
1978 NOV 20	OFF EAST COAST OF KAMCHATKA	10 58 47.8 0.9 / 26 58 54.5	72.9	52.6N	160.5E	48	20	48		
1978 NOV 20		11 24 25								
1978 NOV 20		21 47 36								
1978 NOV 20	TRACES	22 39 10								
1978 NOV 21		03 42 05								
1978 NOV 21	RISHANCK SEA	11 24 02 12 15 16	118.6	3.3S	146.9E	33	55	33		
1978 NOV 21	KURILE ISLANDS REGION	14 31 12.9C 1.1 / 40	77.6	43.9N	148.3E	33	31	33		
1978 NOV 21	KYUSHU, JAPAN	19 49 09 1.7 / 48 49 28.7 52 19 20 30	82.4	30.1N	131.1E	33	50	33		
1978 NOV 22		02 38 55								
1978 NOV 22	MINDANAO, PHILIPPINE ISLANDS	09 45 50	97.3	8.6N	126.0E	33	67	33		
1978 NOV 22	EASTERN TURKEY	23 49 19	22.5	38.8N	39.8E	33	113	33		
1978 NOV 23		01 51 03								
1978 NOV 23	NORTHERN YUGOSLAVIA	01 54 09 54 32 54 53 55 20	5.6	46.2N	16.4E	10	155	10		
1978 NOV 23	NEAR S. COAST OF HONSHU, JAPAN	01 56 14.0	82.2	34.7N	139.1E	7	42	7		
1978 NOV 23	KURILE ISLANDS	03 36 23.9 1.1 / 22	77.6	44.2N	149.2E	33	31	33		
1978 NOV 23	SOUTH OF FIJI ISLANDS	05 01 10.2 1.7 / 48 01 18.8 1.2 / 90 01 31.6 1.5 / 140 02 19 05 15	153.6	26.2S	177.7W	172	22	172		
1978 NOV 23	WESTERN CAUCASUS	15 29 02.6C 1.3 / 24 29 07.0 35 15 35 51	19.2	44.0N	39.4E	17	102	17		
1978 NOV 23	KERMADEC ISLANDS REGION	15 47 55 1.9 / 40	158.5	31.3S	177.7W	33	26	33		
1978 NOV 23	TRACES; KERMADEC ISLANDS	17 11 57	158.6	29.3S	177.9W	71	24	71		
1978 NOV 23	TRACES; KERMADEC ISLANDS REGION	17 55 35	158.7	31.5S	177.7W	33	26	33		
1978 NOV 23	GREECE	19 45 36	13.6	39.0N	21.2E	36	192	36		
1978 NOV 23	NORTH OF SVALBARD	23 51 02 51 11	34.2	85.4N	12.8E	10	360	10		
1978 NOV 24	KURILE ISLANDS	05 05 44 1.7 / 39 05 57.4	77.6	44.2N	149.2E	51	31	51		
1978 NOV 24		11 04 51								
1978 NOV 24	TRACES	17 31 55								
1978 NOV 24	KERMADEC ISLANDS REGION	22 42 31 42 56.4 46 36 23 53	155.5	27.9S	176.5W	32	21	32		
1978 NOV 25		02 16 56								
1978 NOV 25	FIJI ISLANDS REGION	11 51 18.0 51 22.0C 1.0 / 105 51 26.0C 0.9 / 59 51 41 53 20	147.7	20.2S	178.4W	582	20	582		
1978 NOV 25	FIJI ISLANDS REGION	13 37 28.4C 0.9 / 20	145.2	17.7S	178.6W	560	20	560		
1978 NOV 25	POLAND, UPPER SILESIA	17 31 36								
1978 NOV 26		04 57 11 58 08								
1978 NOV 26	CROATIA, YUGOSLAVIA	06 34 16								
1978 NOV 26	IRAN	07 18 09	36.2	32.5N	55.6E	33	105	33		
1978 NOV 26	GULF OF CALIFORNIA	07 56 49 08 38	87.2	28.0N	111.5W	15	313	15		
1978 NOV 26	EUROPEAN USSR (POSSIBLY EXPLOSION)	09 12 26 12 50	19.6	68 N	34 E		24			
1978 NOV 26		12 35 26								
1978 NOV 26		17 54								
1978 NOV 26	PYUKYU ISLANDS	23 31 50.2C 1.4 / 23 21 13	83.8	27.4N	129.9E	32	93	32		
1978 NOV 27	POLAND, UPPER SILESIA	05 45 58								
1978 NOV 27	TRACES	19 28 35								
1978 NOV 27	SOUTH PACIFIC CORDILLERA	23 35 43	158.9	55.0S	132.1W	10	246	10		



1978 NOV 28 SOLOMON ISLANDS
 E(APKP) 00 09 45 C 2.1 / 145
 T 11 45:8
 I PP 12 16.7
 E SKP 13 00
 E 13 13
 E 19 19
 E(SCPPKP) 21 39
 E SS 29.6
 LM 01 13 T 19 AN 2,5 AE 1 AV 2,5 MLH #5.9 MLV #6.0

1978 NOV 28 FIJI ISLANDS REGION
 I PKP1 04 46 37.9D 0.9 / 15

1978 NOV 28 ALBANIA
 E SN 17 46 42
 E 47 06
 I SQ 48 04.9
 I 48 12.0
 LM 49

1978 NOV 28 QUEENSLAND, AUSTRALIA
 E(PKP) 17 52 58 1.3 / 19

OR ANOTHER POSSIBILITY

1978 NOV 28 FOX ISLANDS, ALUTIAN ISLANDS
 E P 17 52 58 1.3 / 19

1978 NOV 28 DODECANESE ISLANDS
 E P(1) 18 06 21
 I P(2) 06 24.5 1.5 / 100
 I(XP) 06 31.9
 E 06 35
 I SCP 14 17.5

1978 NOV 28 SWITZERLAND
 E SQ 23 47 56

1978 NOV 29 UNDERGROUND EXPLOSION
 I P 04 40 36.7C 0.9 / 32

1978 NOV 29 UNDERGROUND EXPLOSION
 I P 04 40 44.7C 1.0 / 380
 E PH 42 14

1978 NOV 29 WESTERN POLAND
 E 05 33 41
 E SQ 34 02

1978 NOV 29 KURILE ISLANDS
 I P 09 48 23.1 1.4 / 34

1978 NOV 29
 E 10 20 22

1978 NOV 29 SOUTH OF FIJI ISLANDS
 I PKP1 10 27 26.0C 1.0 / 36
 E APKP 29 31

1978 NOV 29 EXPLOSION
 I PD 11 00 56:8
 I-SQ 01 19:5
 E LI 01 17

1978 NOV 29 LOYALTY ISLANDS REGION
 I PKP 14 12 46:8 1.1 / 15
 E 12 58

1978 NOV 29 NEW HEBRIDES ISLANDS
 I PKP 14 24 32:2

1978 NOV 29 GULF OF CALIFORNIA
 E P 14 50 21
 E 50 50

1978 NOV 29 TIBET
 E P 14 51 41

1978 NOV 29 SOUTHWESTERN RYUKYU ISLANDS
 E P 16 45 07

1978 NOV 29 / OAXACA, MEXICO
 NOV 30
 I P(1) 20 03 44:7C T 17 AN 18 AE 24.8 AV(90)
 E P(2) 05 48
 E 05 56
 I PP: 09 16.5 T 18 AN 27.5 AE 36.5
 E SKB 16 19
 E S 16 46
 E 16 39
 E PS 17 50
 E PKPPKP 31 35
 LM 38
 LM 38 T 22 AN>150
 LM 41 T 38 AE 215
 LM 50 T 28 AN(300) AE(295)
 E(PKPPKPPKP) 52 33 T 18 AN(130) AB>190
 FINAL 01 MLH #7.8

D=132.5 DEG AZ# 43
 10.98N102.1E 33KM H=23 50 2174 (U)
 11.08N102.9E 33KM 23 50 2076 (M)
 DISTANCE 131 DEG

D=143.5 DEG AZ# 20
 18.08N178.7W 573KM H=04 28 2173 (U)

D=10.7 DEG AZ#151
 41.7N 20.0E 10KM H=17 48 1073 (U)
 41.8N 20.1E 10KM 17 48 1470 (M)

D=130.2 DEG AZ# 63
 23.38N152.6E 19KM H=17 33 3411 (U)

D=77.0 DEG AZ# 2
 52.0N170.1W 11KM H=17 41 0471 (U)
 51.7N170.3W 33KM 17 41 0077 (M)

D=17.9 DEG AZ#142
 36.2N 28.4E 123KM H=18 02 2071 (U)
 36.0N 28.4E 112KM 18 02 1975 (M)
 35.3N 28.1E 33KM 18 02 0579 (M)

D= 6.8 DEG AZ#219
 46.3N 7.4E 10KM H=23 44 5274 (U)
 46.3N 7.9E 10KM 23 44 3276 (M)

D= 40.1 DEG AZ# 66
 49.9N 78.1E 0KM H=04 32 5870 (U)

D= 40.5 DEG AZ# 65
 50.0N 78.8E 0KM H=04 33 0279 (U)

D= 75.7 DEG AZ# 26
 48.0N154.4E 33KM H=09 36 4071 (U)

D=151.8 DEG AZ# 25
 24.48N180 513KM H=10 08 8172 (U)

NO MB COMP. D=140.4 DEG AZ# 39
 22.58N170.7E 46KM H=13 55 1173 (U)

D=136.6 DEG AZ# 38
 13.28N167.0E 190KM H=14 09 2974 (U)

D= 86.4 DEG AZ#316
 30.2N114.0W 15KM H=14 39 4073 (U)
 31.5N113.9W 33KM 14 39 4971 (M)

D= 54.8 DEG AZ# 80
 32.6N 85.6E 33KM H=14 42 1278 (U)

D= 83.6 DEG AZ# 58
 24.8N125.0E 33KM H=16 32 4078 (U)

D= 89.4 DEG AZ#295
 16.0N 98.6W 18KM H=19 52 4776 (U)
 16.9N 98.9W 33KM 19 52 4873 (M)
 DISTANCE 89 DEG

1978 NOV 29 OAXACA, MEXICO
 I AP 21 02 54:8 1.3 / 38
 E PP: 06 13

1978 NOV 29 NEAR EAST COAST OF HONSHU, JAPAN
 E P 23 18 31

1978 NOV 30 KURILE ISLANDS
 I P 01 34 07:4 1.0 / 38

1978 NOV 30 POLAND, UPPER SILBSIA
 E 01 59 28

1978 NOV 30 KURILE ISLANDS
 I P 02 08 32:0

1978 NOV 30 TRACBS SOUTHERN SINKIANG PROV., CHINA
 E P 03 34 23

1978 NOV 30 SOUTHERN SINKIANG PROV., CHINA
 E P 03 38 55
 E 40 44

1978 NOV 30 TADZHIK-SINKIANG BORDER REGION
 E P 04 14 06

1978 NOV 30 OAXACA, MEXICO
 E(P) 10 35 46 1.6 / 24

1978 NOV 30 TRACBS
 E 15 02 34

1978 NOV 30 POLAND, UPPER SILBSIA
 E 16 55 19
 E SQ 56 24

1978 NOV 30 TUAMOTU EXPLOSION
 I PKP 17 51 32.8C 1.6 / 63

1978 NOV 30 POLAND, UPPER SILBSIA
 E 20 34 15

1978 NOV 30
 E 22 41 03

D= 89.2 DEG AZ#295
 16.2N 98.6W 22KM H=20 49 4878 (U)
 16.5N 96.7W 33KM 20 49 4773 (M)

NO MB COMP. D= 80.4 DEG AZ# 38
 38.3N142.4E 21KM H=23 06 2079 (U)

D= 77.5 DEG AZ# 31
 44.3N148.9E 45KM H=01 22 1678 (U)

D= 77.0 DEG AZ# 27
 46.2N153.3E 40KM H=01 57 0176 (U)

D= 43.2 DEG AZ# 81
 39.6N 74.0E 62KM H=03 26 2478 (U)
 39.8N 74.1E 33KM 03 26 2174 (M)

D= 43.2 DEG AZ# 81
 39.6N 74.0E 67KM H=03 38 5871 (U)
 39.9N 74.3E 33KM 03 38 5474 (M)

D= 43.2 DEG AZ# 81
 39.5N 73.9E 56KM H=04 06 0772 (U)
 39.9N 73.9E 33KM 04 06 0873 (M)

D= 89.6 DEG AZ#295
 16.0N 97.0W 40KM H=10 22 4375 (U)

D=143.5 DEG AZ#313
 21.95N139.0W 0KM H=17 31 5874 (U)

1978 DEC 01 00 44 24 MB=4.7(2) D= 84.6 DEG AZ= 53
E 27.1N;130.9E 38KM H=83 04 1616 (U)

1978 DEC 01 RYUKYU ISLANDS MB=4.3(4) D= 11.8 DEG AZ=153
E 03 16 49 41.0N; 19.7E 10KM H=83 47 3775 (U)
E(S) 41.0N; 19.7E 10KM 83 48 0014 (U)
E L 40.9N; 19.9E 33KM 83 49 5973 (U)

1978 DEC 01 ALBANIA MB=4.7(6) D=143 KM AZ=203
E PP 03 50 52 50.12N; 12.33E 0KM H=68 31 3712 (U)
E(S) 52 40
E L 53 17
54 34

1978 DEC 01 EXPLOSION OF 8 TONS; CZECHOSLOVAKIA MB=3.5(86) D= 10 KM AZ=311
I PG 08 32 02.0 51.37N; 12.89E
I SG 32 19.8

1978 DEC 01 EXPLOSION OF 7 TONS; GERMAN DEMOCRATIC REPUBLIC MB=3.5(86) D= 74.1 DEG AZ= 22
I PG 10 55 42.8 50.9N;158.9E 42KM H=11 43 2873 (U)
I AP 11 55 01.1C 1.4 / 120 51.2N;158.6E 50KM 11 43 3076 (U)

1978 DEC 01 KURILE ISLANDS REGION MB=4.0(51) D=131.9 DEG AZ= 42
I P 15 54 24.4C 2.0 / 65 10.25;161.4E 93KM H=15 39 2079 (U)
E APKP 54 51 10.15;161.3E 50KM 15 39 1671 (U)
E 56 29
I PP 56 42.8
E SKP 57 45
LM 16 55

1978 DEC 01 SOLOMON ISLANDS MB=5.8(51) D= 95.0 DEG AZ= 70
I P 17 23 50.0C 8.7N;122.2E 40KM H=17 10 2975 (U)
E 29 08 8.9N;122.3E 40KM 17 10 8072 (U)
LM 18 23

1978 DEC 01 MINDANAO, PHILIPPINE ISLANDS MB=5.0(19) D= 80.6 DEG AZ= 37
I P 23 15 52.1 38.4N;148.3E 33KM H=23 03 4073 (U)
E 29 08 38.7N;148.1E 33KM 23 03 3774 (U)
LM 18 23

1978 DEC 01 OFF EAST COAST OF HONSHU, JAPAN MB=5.0(19) D= 76.9 DEG AZ= 34
I P 23 48 12.4C 1.3 / 43 43.5N;145.3E 113KM H=23 36 3176 (U)
E AP 48 40 44.1N;145.1E 120KM 23 36 3479 (U)
E 48 58

1978 DEC 01 HOKKAIDO, JAPAN, REGION MB=5.1(44) D= 5.0 DEG AZ=178
I P 23 48 12.4C 1.3 / 43 46.3N; 13.3E 10KM H=84 05 3576 (U)
E AP 48 40 46.3N; 13.3E 10KM 84 05 3379 (U)
E 48 58

1978 DEC 02 NORTHERN ITALY FRIULI NO MB COMP. D= 5.0 DEG AZ=178
I(PN) 04 06 51.1 46.3N; 13.3E 10KM H=84 05 3576 (U)
E(SN) 07 46 46.3N; 13.3E 10KM 84 05 3379 (U)
I SG 08 11

1978 DEC 02 04 21 26 MB=5.2(27) D=137.0 DEG AZ= 38
E SG 04 21 26 13.6S;167.1E 221KM H=81 58 0879 (U)
13.8S;166.9E 33KM 81 57 4773 (U)

1978 DEC 02 FIJI ISLANDS REGION MB=5.1(9) D=147.7 DEG AZ= 19
I PKP1 04 34 33.1C 1.0 / 20 20.1S;177.7W 536KM H=84 15 4878 (U)

1978 DEC 02 05 17 34 MB=4.9(39) D= 75.6 DEG AZ= 25
I SG 05 17 34 48.4N;155.8E 33KM H=84 20 5772 (U)
48.5N;155.9E 33KM 84 20 5370 (U)

1978 DEC 02 SOLOMON ISLANDS MB=5.5(12) D=125.5 DEG AZ= 49
E(PKP) 08 41 53 6.8S;154.6E 38KM H=88 22 5077 (U)
6.4S;154.8E 33KM 88 22 4679 (U)

1978 DEC 02 MINDANAO, PHILIPPINE ISLANDS MB=5.3(26) D= 96.4 DEG AZ= 66
E 18 20 51 9.9N;128.3E 58KM H=18 07 1672 (U)
9.9N;128.1E 33KM 18 07 0871 (U)

1978 DEC 03 00 16 47 MB=4.5(6) D= 69.1 DEG AZ= 18
E 00 16 47 56.9N;161.5E 33KM H=10 27 4075 (U)

1978 DEC 03 POLAND, UPPER SILESIA MB=5.8(92) D= 87.6 DEG AZ=288
E 02 05 11 13.1N; 89.6W 33KM H=11 53 3470 (U)
13.1N; 89.8W 33KM 11 53 2972 (U)

1978 DEC 03 TRACES; SOLOMON ISLANDS MB=4.7(24) D= 18.7 DEG AZ=117
E 04 04 16 40.5N; 35.0E 10KM H=13 09 1670 (U)
40.5N; 34.8E 10KM 13 09 2071 (U)
40.7N; 34.9E 33KM 13 09 1670 (U)

1978 DEC 03 ALBANIA MB=4.7(14) D= 11.8 DEG AZ=153
E(P) 03 13 41 41.0N; 19.7E 10KM H=83 10 4971 (U)
I 16 13.0 40.9N; 19.6E 12KM 88 10 5271 (U)
E 16 50 40.6N; 19.9E 33KM 88 10 4471 (U)
E L 17 13

1978 DEC 03 TRACES; NEW BRITAIN REGION MB=5.5(27) D=122.3 DEG AZ= 50
E 12 37 58 4.5S;152.3E 33KM H=12 18 5775 (U)
7.3S;154.9E 33KM 12 18 4470 (U)

1978 DEC 03 NEAR S. COAST OF HONSHU, JAPAN MB=5.3(37) D= 82.1 DEG AZ= 42
I P 13 28 16.5 34.8N;139.1E 17KM H=13 19 5573 (U)
E PP 31 17 35.3N;139.1E 33KM 13 19 5574 (U)
LM 14 05

1978 DEC 04 SOUTHEAST OF SHIKOKU, JAPAN MB=5.2(24) D= 81.4 DEG AZ= 49
I P 00 53 07.7 31.9N;132.2E 33KM H=80 40 5274 (U)
32.5N;131.8E 33KM 80 40 5674 (U)

1978 DEC 04 EASTERN TURKEY MB=5.1(63) D= 21.7 DEG AZ=118
I P 03 17 25.8C 1.4 / 63 38.1N; 37.5E 10KM H=83 12 3470 (U)
E AP 17 31 38.1N; 37.7E 10KM 83 12 3478 (U)
I 17 41 38.2N; 37.4E 33KM 83 12 3371 (U)
E S 21 28 DISTANCE 22 DEG
LM 27 T 11 AN 2 AE 1.5 AV 2 MLH =4.9 MLV =5.0

1978 DEC 04 SOUTHEAST OF SHIKOKU, JAPAN MB=4.7(6) D= 81.5 DEG AZ= 49
E P 04 34 22 31.9N;132.3E 44KM H=84 22 0679 (U)

1978 DEC 04 17 25 58 NO MB COMP. D= 6.2 DEG AZ=223
E 17 25 58 46.6N; 8.8E 10KM H=23 54 2378 (U)
E SN 23 57 07 46.5N; 7.0E 10KM 23 54 2478 (U)
E SG 57 48

1978 DEC 04 SWITZERLAND NO MB COMP. D= 6.2 DEG AZ=223
E SN 23 57 07 46.6N; 8.8E 10KM H=23 54 2378 (U)
E SG 57 48 46.5N; 7.0E 10KM 23 54 2478 (U)

1978 DEC 05 TRACES NO MB COMP. D= 8.2 DEG AZ=181
E 00 38 54 43.1N; -12.8E 10KM H=84 45 2676 (U)
E SN 48 56 43.0N; 12.8E 10KM 84 45 2877 (U)
I SG 49 59.2

1978 DEC 05 TRACES; CANACA, MEXICO MB=4.7(12) D= 89.5 DEG AZ=295
E P 06 45 28 16.1N; 97.0W 33KM H=86 32 3273 (U)

1978 DEC 05 NORTHERN ITALY MB=4.4(5) D= 6.8 DEG AZ=186
I PN 15 40 43.5C 0.3 / 50 44.5N; 12.0E 35KM H=15 39 0470 (U)
I 40 50.8 44.4N; 12.1E 37KM 15 39 0575 (U)
I 40 58 44.5N; 10.8E 33KM 15 39 0175 (U)
I PG 41 19 DISTANCE 7.0 DEG
E 41 34
E SN 41 57
I 42 04.8
E 42 17
E SG 42 38
LMH 42 49 T 4.5 AN 3.5 AE 6 MLH =4.9
43.2

1978 DEC 05 18 14 45 NO MB COMP. D= 6.2 DEG AZ=223
E 18 14 45 46.6N; 8.8E 10KM H=23 54 2378 (U)
E SN 23 57 07 46.5N; 7.0E 10KM 23 54 2478 (U)
E SG 57 48

1978 DEC 05 TRACES NO MB COMP. D= 8.2 DEG AZ=181
E 20 40 49 43.1N; -12.8E 10KM H=84 45 2676 (U)
E SN 48 56 43.0N; 12.8E 10KM 84 45 2877 (U)
I SG 49 59.2

1978 DEC 06 TRACES NO MB COMP. D= 8.2 DEG AZ=181
E 00 24 39 43.1N; -12.8E 10KM H=84 45 2676 (U)
E SN 48 56 43.0N; 12.8E 10KM 84 45 2877 (U)
I SG 49 59.2

1978 DEC 06 NEW HEBRIDES ISLANDS MB=5.2(27) D=137.0 DEG AZ= 38
I PKP 02 17 07.0C 221KM H=81 58 0879 (U)
E PP 19 50 13.8S;166.9E 33KM 81 57 4773 (U)
E SKP 20 25

1978 DEC 06 TONGA ISLANDS /4.8(5)/ D=149.1 DEG AZ= 12
I PKP1 03 06 24.0C 1.5 / 32 20.8S;173.5W 33KM H=82 46 3576 (U)

1978 DEC 06 KURILE ISLANDS MB=4.9(39) D= 75.6 DEG AZ= 25
I P 04 32 40.1C 1.4 / 52 48.4N;155.8E 33KM H=84 20 5772 (U)
E 32 50 48.5N;155.9E 33KM 84 20 5370 (U)

1978 DEC 06 WESTERN POLAND MB=4.7(24) D= 18.7 DEG AZ=117
E(PG) 09 02 27 40.5N; 35.0E 10KM H=13 09 1670 (U)
E SG 02 52 40.5N; 34.8E 10KM 13 09 2071 (U)
40.7N; 34.9E 33KM 13 09 1670 (U)

1978 DEC 06 NEW HEBRIDES ISLANDS REGION MB=5.3(13) D=142.4 DEG AZ= 41
E PKP 10 12 03 19.3S;167.8E 22KM H=89 52 3477 (U)
20.4S;167.6E 33KM 89 52 2771 (U)

1978 DEC 06 NEAR EAST COAST OF KAMCHATKA MB=4.5(6) D= 69.1 DEG AZ= 18
E P 10 38 43 56.9N;161.5E 33KM H=10 27 4075 (U)

1978 DEC 06 EL SALVADOR MB=5.8(92) D= 87.6 DEG AZ=288
I P 12 06 19.8C 1.3 / 115 13.1N; 89.6W 33KM H=11 53 3470 (U)
LM 46 T 18 AN 4 AE 2.5 AV 4 13.1N; 89.8W 33KM 11 53 2972 (U)

1978 DEC 06 WESTERN TURKEY MB=4.7(24) D= 18.7 DEG AZ=117
E P 13 13 38 40.5N; 35.0E 10KM H=13 09 1670 (U)
40.5N; 34.8E 10KM 13 09 2071 (U)
40.7N; 34.9E 33KM 13 09 1670 (U)

1978 DEC 06 NORTH ATLANTIC OCEAN MB=5.5(58) D= 62.8 DEG AZ=264
E P 13 39 02 17.4N; 54.8W 10KM H=13 28 3575 (U)
E 40 54 18.9N; 59.1W 33KM 13 28 2777 (U)

1978 DEC 06 KURILE ISLANDS MB=6.7(51) D= 76.4 DEG AZ= 32
I P(1) 14 13 41.1C(0.8 / 240) 44.6N;146.6E 91KM H=14 02 0170 (U)
I P(2) 13 44.2 45.1N;146.7E 160KM 14 02 1070 (U)
I PM 13 48 (1.2 / 5500) DISTANCE 76 DEG DEPTH 100 KM
T 12 AN 17.9 AE 10.0 AV 39.4 MPMV =7.3 MPMH =7.1 MULTIPLE SROCK,
MB IS AN INADEQUATE VALUE

1978 DEC 06 13 52.6 (MSH =8.2) UNUSUAL STRONG S-PHASE
E(AP) 14 15
E 14 56
E PP 16.7
E(APPP) 18.9
E S 23 15
I SM 23 22 T 11 AN(200) AE 265
E SKS 23 42 (CONT.)

Year	Month	Day	Time	Location	Depth (km)	Magnitude	Other Data
1978	DEC	06	14 24 16	OFF COAST OF CHIAPAS, MEXICO		7.8 (NO DEPTH CORRECTION)	
1978	DEC	06	14 39 46			5.7(42)	D= 88.7 DEG AZ=290 13.7N; 92.3W 32KM M=14 26 5276 (U)
1978	DEC	06	15 50 17.0	KURILE ISLANDS		4.8(13)	D= 76.1 DEG AZ= 32 44.8N;146.2E 155KM M=13 38 4170 (U)
1978	DEC	06	16 01 32.9	KURILE ISLANDS		4.6(8)	D= 76.3 DEG AZ= 32 44.6N;146.4E 160KM M=15 49 5971 (U)
1978	DEC	06	17 25 20.7	IRAN	1.6 / 90	5.3(53)	D= 36.7 DEG AZ=102 33.3N; 57.2E 28KM M=17 18 1377 (U) 33.6N; 57.2E 52KM M=17 18 1976 (U) 33.6N; 57.2E 38KM M=17 18 1177 (U)
1978	DEC	06	17 37 42				
1978	DEC	06	19 37 33				
1978	DEC	06	20 45 18	IRAN		4.6(18)	D= 36.7 DEG AZ=102 33.2N; 57.1E 20KM M=20 38 0878 (U) 33.8N; 57.3E 33KM M=20 38 1078 (U)
1978	DEC	07	02 39 59.2	KURILE ISLANDS		4.9(21)	D= 76.3 DEG AZ= 32 44.6N;146.5E 123KM M=02 28 2274 (U)
1978	DEC	07	09 04 35.3C	NEAR EAST COAST OF HONSHU, JAPAN	1.1 / 18	4.8(16)	D= 82.8 DEG AZ= 41 34.7N;140.6E 55KM M=08 52 1574 (U) 34.9N;140.6E 33KM M=08 52 1471 (U)
1978	DEC	07	10 14 46.5C	SOUTH OF FIJI ISLANDS	0.7 / 37	5.1(16)	D=149.5 DEG AZ= 23 22.4S;179.9W 595KM M=09 56 0279 (U)
1978	DEC	07	14 26 49.7	KURILE ISLANDS	0.9 / 26	4.7(35)	D= 76.0 DEG AZ= 32 44.9N;146.2E 178KM M=14 15 2176 (U) 45.1N;146.1E 180KM M=14 15 2278 (U)
1978	DEC	07	17 06 50	HALMAHERA		5.1(25)	D=103.5 DEG AZ= 69 1.9N;127.4E 116KM M=16 48 4571 (U) 1.7N;127.8E 33KM M=16 48 3378 (U)
1978	DEC	07	18 49 35.9C	NEAR EAST COAST OF HONSHU, JAPAN	1.0 / 25	5.0(30)	D= 80.8 DEG AZ= 39 37.3N;141.3E 48KM M=18 37 2578 (U) 37.4N;141.3E 33KM M=18 37 2473 (U)
1978	DEC	07	19 42 49	TRACES			
1978	DEC	07	20 59 45				
1978	DEC	08	00 33 17	SOUTH BURMA		5.0(23)	D= 72.9 DEG AZ= 85 16.6N; 98.0E 17KM M=00 22 0675 (U) 16.6N; 98.0E 33KM M=00 22 0875 (U)
1978	DEC	08	02 08 05	WESTERN POLAND			
1978	DEC	08	04 41 56.8	KURILE ISLANDS		4.6(13)	D= 75.3 DEG AZ= 32 45.7N;146.2E 108KM M=04 30 2572 (U)
1978	DEC	08	06 18 53	NORTHERN ITALY	FRIULI	NO ME COMP,	
1978	DEC	08	06 41 53.6	NORTH OF FRANZ JOSEF LAND	1.4 / 23	5.1(53)	D= 5.0 DEG AZ=178 46.3N; 13.2E 10KM M=06 17 3678 (U) 46.0N; 13.1E 23KM M=06 17 3676 (U)
1978	DEC	08	10 45 17	TRACEST KURILE ISLANDS		4.6(10)	D= 35.5 DEG AZ= 2 86.3N; 35.5E 10KM M=06 34 5675 (U) 86.2N; 34.3E 10KM M=06 34 5972 (U) 86.2N; 37.2E 33KM M=06 34 5576 (U)
1978	DEC	08	13 22 25	SOUTH OF HONSHU, JAPAN		4.7(13)	D= 76.6 DEG AZ= 32 44.4N;146.7E 143KM M=10 33 4077 (U)
1978	DEC	08	15 26 36				

Year	Month	Day	Time	Location	Depth (km)	Magnitude	Other Data
1978	DEC	08	19 19 19.0	LOYALTY ISLANDS REGION		5.3(10)	D=146.6 DEG AZ= 38 22.3S;171.9E 115KM M=18 59 5171 (U)
1978	DEC	08	22 31 08	KURILE ISLANDS		4.7(6)	D= 77.8 DEG AZ= 30 44.1N;149.6E 33KM M=22 19 1273 (U)
1978	DEC	08	23 05 18	WESTERN POLAND			DISTANCE 220 KM
1978	DEC	09	04 28 52.7	KURILE ISLANDS	1.1 / 140	5.6(101)	D= 76.9 DEG AZ= 30 45.3N;150.1E 54KM M=04 17 0578 (U) 45.5N;150.0E 50KM M=04 17 0671 (U)
1978	DEC	09	07 18 55.1C	ARAB REPUBLIC OR EGYPT	1.2 / 28	5.3(61)	D= 29.2 DEG AZ=154 24.0N; 28.4E 10KM M=07 12 5274 (U) 24.0N; 28.1E 33KM M=07 12 5078 (U)
1978	DEC	09	12 12 34.5	KURILE ISLANDS		5.2(62)	D= 76.3 DEG AZ= 32 44.7N;146.5E 130KM M=21 00 5972 (U) 45.0N;146.6E 150KM M=21 01 0178 (U)
1978	DEC	10	01 38 36	PAKISTAN		4.9(25)	D= 45.6 DEG AZ= 99 28.7N; 66.5E 33KM M=01 30 1677 (U) 28.9N; 66.5E 33KM M=01 30 1474 (U)
1978	DEC	10	03 53	BANDA SEA			
1978	DEC	10	03 45 52.3	KERMADEC ISLANDS		5.5(2)	D=157.5 DEG AZ= 25 30.3S;177.9W 134KM M=03 25 4071 (U)
1978	DEC	10	05 49 02	KAMCHATKA		4.9(37)	D= 73.2 DEG AZ= 23 51.3N;156.5E 120KM M=05 37 4373 (U) 51.0N;157.5E 140KM M=05 37 4077 (U)
1978	DEC	10	06 52 47	GULF OF CALIFORNIA		5.3(40)	D= 88.5 DEG AZ=310 25.6N;109.6W 15KM M=06 39 5573 (U)
1978	DEC	10	09 49 11.9				
1978	DEC	10	10 56 44.9C	TONGA ISLANDS	0.9 / 18	4.7(4)	D=147.7 DEG AZ= 15 19.7S;175.6W 233KM M=10 37 2579 (U)
1978	DEC	10	20 42 41				
1978	DEC	10	21 22 01.4C	NORTH ATLANTIC OCEAN	1.0 / 16	4.7(21)	D= 29.1 DEG AZ=293 53.4N; 35.3W 10KM M=21 15 5978 (U) 53.4N; 35.3W 10KM M=21 16 8178 (U)
1978	DEC	11	01 13 19	POLAND, LPPER SILESIA			
1978	DEC	11	02 21 03.5	NEAR COAST OF GUERRERO, MEXICO	2.3 / 81	5.3(48)	D= 90.9 DEG AZ=29A 16.5N;100.0W 42KM M=02 08 0178 (U) 17.1N;100.1W 33KM M=02 07 5874 (U)
1978	DEC	11	03 47 10	FLORES SEA		5.9(71)	D=104.9 DEG AZ= 83 7.1S;118.0E 463KM M=03 33 5278 (U) 7.1S;118.0E 450KM M=03 33 5173 (U)
1978	DEC	11	04 12 52.0C		0.9 / 30		
1978	DEC	11	08 16 55.8C	SOUTH OF FIJI ISLANDS	1.0 / 30	5.2(9)	D=149.3 DEG AZ= 25 22.5S;179.3E 567KM M=07 58 1172 (U)
1978	DEC	11	09 01 14	ALGERIA		6.9(11)	D= 20.3 DEG AZ=212 33.3N; 0.2E 10KM M=08 56 3677 (U) 33.3N; 0.1E 10KM M=08 56 3970 (U) 33.5N; 0.1E 33KM M=08 56 4076 (U)
1978	DEC	11	13 41 04	MID-INDIAN RISE	2.1 / 55	4.9(3)	D= 78.8 DEG AZ=127 12.8S; 66.4E 10KM M=13 28 5875 (U)



Date	Time	Location	Depth (km)	Magnitude	Coordinates	Other Data
1978 DEC 11	13 46 21	MID-INDIAN RISE	2.2 / 83	MB=5.3(16)	D= 78.7 DEG AZ=127 12.7S; 66.3E 10KM 12.8S; 66.6E 33KM	
1978 DEC 11	14 14 50.3	TRACEST FIJI ISLANDS REGION		MB=4.8(2)	D=148.2 DEG AZ= 22 20.9S;179.1W 695KM	
1978 DEC 11	14 37 22	TRACEST MID-INDIAN RISE		MB=5.2(2)	D= 79.0 DEG AZ=127 13.0S; 66.3E 10KM	
1978 DEC 11	16 30 14	POLAND, UPPER SILESIA				
1978 DEC 11	20 00 46					
1978 DEC 11	22 50 05					
1978 DEC 12	11 57 45.3C	MINDANAO, PHILIPPINE ISLANDS	1.9 / 200	MB=6.2(79)	D= 96.9 DEG AZ= 69 7.3N;123.9E 33KM 7.5N;123.9E 33KM DISTANCE (98) DEG	
1978 DEC 12	12 01 40.8					
1978 DEC 12	13 59 55.1C	SOUTHEAST OF TAIWAN	1.9 / 130	MB=5.6(64)	D= 85.2 DEG AZ= 61 22.0N;123.8E 33KM 22.4N;123.8E 33KM	
1978 DEC 12	15 16 04.0	NORTHERN ITALY FRIULI		MB=4.5(4)	D= 5.0 DEG AZ=182 46.3N; 12.8E 8KM 46.3N; 12.7E 10KM 46.7N; 12.9E 33KM DISTANCE 5.1 DEG	
1978 DEC 12	17 33 50	NEW HEBRIDES ISLANDS		MB=5.2(31)	D=141.3 DEG AZ= 39 17.7S;168.7E 217KM 17.7S;169.0E 33KM	
1978 DEC 12	21 21 31	FIJI ISLANDS REGION	1.1 / 14	MB=5.0(16)	D=145.5 DEG AZ= 20 18.0S;178.5W 502KM	
1978 DEC 12	22 52 13	SOUTH OF KERMADEC ISLANDS		MB=5.1(6)	D=159.5 DEG AZ= 30 32.7S;178.9W 50KM 42.9S;179.0E 33KM	
1978 DEC 13	02 57 41.8C	FIJI ISLANDS REGION		MB=5.1(1)	D=146.1 DEG AZ= 19 18.5S;177.9W 506KM	
1978 DEC 13	06 14 13	KURILE ISLANDS		MB=4.6(19)	D= 76.2 DEG AZ= 32 44.7N;148.2E 177KM 44.4N;148.1E 170KM	
1978 DEC 14	00 15 04					
1978 DEC 14	04 24 31.6C	FIJI ISLANDS REGION	1.1 / 28	MB=4.9(11)	D=147.6 DEG AZ= 19 20.0S;177.8W 349KM	
1978 DEC 14	04 50 37.5	UNDERGROUND EXPLOSION	0.6 / 15	MB=4.8(15)	D= 40.2 DEG AZ= 65 49.9N; 78.2E 0KM	
1978 DEC 14	05 12 26.0	SOUTHWESTERN USSR		MB=4.5(3)	D= 17.1 DEG AZ=100 45.6N; 37.3E 33KM 45.6N; 38.1E 10KM 45.5N; 37.4E 33KM	
1978 DEC 14	07 11 53.1C	WESTERN IRAN	2.0 / 113	MB=5.7(89)	D= 32.9 DEG AZ=111 32.1N; 49.6E 33KM 32.2N; 49.6E 68KM 31.6N; 49.7E 33KM DISTANCE 32 DEG MULTIPLE SHOCK, MB IS AN INADEQUATE VALUE	
1978 DEC 14	11 56.3		1.6 / 137			
1978 DEC 14	12 25					
1978 DEC 14	14 40					
1978 DEC 14	17 12					
1978 DEC 14	18 25					
1978 DEC 14	19.9					
1978 DEC 14	27					
1978 DEC 14	11 30 24.0	EXPLOSION OF 1.2 TONS; GERMAN DEMOCRATIC REPUBLIC				
1978 DEC 14	19 39 57	MOLUCCA PASSAGE		MB=6.0(81)		
1978 DEC 14	23 09 26					
1978 DEC 15	01 30 59					
1978 DEC 15	01 56 06	KERMADEC ISLANDS		MB=5.4(1)		
1978 DEC 15	02 37 27.7	KURILE ISLANDS	1.0 / 23	MB=4.6(29)		
1978 DEC 15	03 30 59					
1978 DEC 15	03 42 26	TRACEST SOUTHERN SINKIANG PROV., CHINA		MB=4.5(18)		
1978 DEC 15	08 42 17.0	RAT ISLANDS, ALEUTIAN ISLANDS	1.7 / 55	MB=5.6(105)		
1978 DEC 15	11 24 04					
1978 DEC 15	12 01 16.4	EXPLOSION; CZECHOSLOVAKIA				
1978 DEC 15	01 31.7					
1978 DEC 15	01 33.1					
1978 DEC 15	01 45					
1978 DEC 15	01 53					
1978 DEC 15	02 04		1.3 / 280 1.3 / 125 1.3 / 290			
1978 DEC 15	20 59 58	WESTERN IRAN		MB=4.8(34)		
1978 DEC 16	10 28 40					
1978 DEC 16	11 34 44					
1978 DEC 16	15 42 18.0	UNDERGROUND EXPLOSION	1.2 / 41	MB=5.5(65)		
1978 DEC 16	21 03 35.1E	FIJI ISLANDS REGION	0.8- / 49	MB=4.7(9)		
1978 DEC 16	21 09 23	FIJI ISLANDS REGION		MB=5.1(1)		
1978 DEC 17	02 18 52	CENTRAL YUGOSLAVIA		MB=4.4(8)		
1978 DEC 17	03 49 30	NORTHERN YUGOSLAVIA				
1978 DEC 17	07 31 04.1	EXPLOSION; CZECHOSLOVAKIA				
1978 DEC 17	08 57	OFF COAST OF MEXICO		MB=4.5(4)		
1978 DEC 18	00 56 13.9	SOUTH OF FIJI ISLANDS	0.9 / 30			

T 16 AN 26 AE 13 AV 13

MLH =6.1 MLV =5.8

D= 4 KM AZ=236
51.29N; 127.96E
DISTANCE 4 KM

D=103.8 DEG AZ= 71
0.5N;128.0E 60KM
1.3N;125.7E 50KM

D=157.6 DEG AZ= 29
30.4S;177.8W 33KM

D= 76.3 DEG AZ= 32
44.6N;146.5E 152KM
44.4N;146.5E 160KM

D= 43.1 DEG AZ= 81
39.8N; 74.1E 56KM
39.9N; 74.1E 33KM

D= 75.9 DEG AZ= 11
52.1N;175.2E 47KM
52.2N;174.8E 50KM

D=117 KM AZ=121
50.75N; 14.42E 0KM
50.82N; 14.40E(10KM)
50.96N; 14.18E 10KM
DISTANCE 115 KM

D= 32.9 DEG AZ=112
32.0N; 49.9E 33KM
31.8N; 49.3E 164KM
32.2N; 49.9E 33KM

D= 81.3 DEG AZ=321
37.3N;116.4W 0KM

D=148.0 DEG AZ= 19
26.4S;177.8W 502KM

D=147.8 DEG AZ= 21
20.3S;178.5W 535KM

D= 8.4 DEG AZ=158
43.4N; 17.3E 10KM
43.4N; 17.3E 10KM
43.5N; 17.0E 33KM

D= 5.3 DEG AZ=172
46.1N; 14.3E 10KM
46.1N; 14.3E 10KM
DISTANCE 57.2 DEG

D=175 KM AZ=161
49.84N; 13.80E(10KM)
49.97N; 14.05E 10KM
DISTANCE 170 KM

D=152.1 DEG AZ= 20
24.5S;177.0W 135KM

Date	Time	Location	Magnitude	Depth	Distance	Azimuth	Other Data
1978 DEC 18	01 03 48		MB=5.3(61)		D= 86.9 DEG	AZ=287	
1978 DEC 18	02 44 03.0C 1.8 / 44	EL SALVADOR	MB=4.9(5)		D= 60.2 DEG	AZ=244	
1978 DEC 18	04 38 36	TRACES; CENTRAL MID-ATLANTIC RIDGE	MB=4.8(18)		D= 60.4 DEG	AZ=244	
1978 DEC 18	04 48 01	TRACES; CENTRAL MID-ATLANTIC RIDGE	MB=0.0(87)		D= 23.0 DEG	AZ= 85	
1978 DEC 18	08 05 03.0 (1.4) / 1000	UNDERGROUND EXPLOSION	MPV =6.2		D= 47.8N; 48.2E	OKM	M=87 59 5673
1978 DEC 18	05 07.5				D= 47.9N; 48.2E	OKM	M=87 59 5679
1978 DEC 18	08 05 03.0 (1.4) / 1000	UNDERGROUND EXPLOSION	MLH =5.1 MLV =5.3		D= 82.0 DEG	AZ= 93	
1978 DEC 18	08 38 35	NORTHERN SUMATERA	MB=5.4(70)		D= 4.2N; 95.4E	71KM	M=88 26 2071
1978 DEC 18	09 02 45	MARIANA ISLANDS	MB=5.2(51)		D= 98.9 DEG	AZ= 45	
1978 DEC 18	09 13 57	EXPLOSION; CZECHOSLOVAKIA			D= 18.6N; 145.5E	210KM	M=88 48 0179
1978 DEC 18	09 31 04				D= 18.2N; 145.7E	33KM	M=88 47 4078
1978 DEC 18	10 30 18	BOUVET ISLAND REGION	MB=5.4(16)		D= 105.8 DEG	AZ=187	
1978 DEC 18	12 22 47.8C	OFF COAST OF OREGON	MB=4.4(4)		D= 79.1 DEG	AZ=334	
1978 DEC 19	02 33 36	WESTERN POLAND			D= 44.6N; 129.6W	15KM	M=12 10 3915
1978 DEC 19	03 07 50	NEGROS, PHILIPPINE ISLANDS	MB=5.1(18)		D= 94.2 DEG	AZ= 69	
1978 DEC 19	04 58 13				D= 9.6N; 122.1E	67KM	M=82 54 3710
1978 DEC 19	07 26 55	TRACES; HOKKAIDO, JAPAN, REGION	MB=4.7(12)		D= 10.0N; 122.2E	33KM	M=82 54 3576
1978 DEC 19	07 31 28.1	GDR, VOGTLAND			D= 77.7 DEG	AZ= 37	
1978 DEC 19	09 10 16	NEAR COAST OF NICARAGUA	MB=5.3(23)		D= 41.2N; 142.0E	94KM	M=87 19 0674
1978 DEC 19	16 44 45.9C 0.9 / 29	SOUTH OF HONSHU, JAPAN	MB=5.0(49)		D= 41.0N; 141.8E	33KM	M=87 19 0070
1978 DEC 19	19 59 03				D= 84.1 DEG	AZ= 42	
1978 DEC 20	02 28 38	NORTHERN ITALY			D= 33.2N; 140.7E	63KM	M=16 32 2022
1978 DEC 20	04 40 36.9	UNDERGROUND EXPLOSION			D= 33.4N; 140.7E	33KM	M=16 32 1777
1978 DEC 20	11 24 06.2	HOKKAIDO, JAPAN, REGION					
1978 DEC 20	16 05 48.9C	TALAUD ISLANDS					
1978 DEC 20	16 56 17	TRACES, EXPLOSION; SOUTHEASTERN AUSTRIA					
1978 DEC 20	23 13 48						
1978 DEC 20	23 54 22						
1978 DEC 21	00 54 27	FIJI ISLANDS REGION	MB=5.6(47)		D= 149.0 DEG	AZ= 23	
1978 DEC 21	01 32 31	NEAR COAST OF CENTRAL CHILE	MB=5.7(31)		D= 114.7 DEG	AZ=242	
1978 DEC 21	03 52 35	POLAND, UPPER SILESIA			D= 4.1 DEG	AZ=105	
1978 DEC 21	04 12 22.0	ETHIOPIA	MB=5.2(40)		D= 46.6 DEG	AZ=137	
1978 DEC 21	06 48 49	KURILE ISLANDS	MB=4.7(22)		D= 77.5 DEG	AZ= 31	
1978 DEC 21	06 49 00.9C 1.1 / 55				D= 44.1N; 148.8E	33KM	M=86 36 5472 (U)
1978 DEC 21	08 19 38				D= 44.2N; 148.9E	33KM	M=86 36 5474 (M)
1978 DEC 21	08 20 41.8C 1.3 / 50	KURILE ISLANDS REGION			D= 78.0 DEG	AZ= 31	
1978 DEC 21	11 44 46	NORTHERN YUGOSLAVIA	NO MB COMP.		D= 2.6 DEG	AZ=169	
1978 DEC 21	13 05 36	NORTHERN ITALY	NO MB COMP.		D= 45.9N; 15.1E	10KM	M=11 41 5474 (U)
1978 DEC 21	13 07 48				D= 45.9N; 15.0E	10KM	M=11 41 5675 (R)
1978 DEC 21	14 20 29.9C 1.3 / 25	SOUTHEAST OF TAIWAN	MB=5.1(28)		D= 6.9 DEG	AZ=192	
1978 DEC 21	14 56 26	SOLOMON ISLANDS	MB=5.6(25)		D= 133.0 DEG	AZ= 43	
1978 DEC 21	15 00 10				D= 11.2S; 162.6E	30KM	M=14 36 5373 (U)
1978 DEC 21	16.2				D= 10.9S; 163.2E	33KM	M=14 36 5171 (M)
1978 DEC 21	19 53 25.0C 1.0 / 47	KURILE ISLANDS	MB=5.0(56)		D= 77.4 DEG	AZ= 31	
1978 DEC 22	04 32 57				D= 44.0N; 148.2E	33KM	M=19 41 3273 (U)
1978 DEC 22	07 57 41	KOMANDORSKY ISLANDS REGION	MB=4.8(24)		D= 44.5N; 148.0E	70KM	M=19 41 3878 (M)

1978 DEC 22 EXPLOSION
I PG 13 09 57.6
I SG 10 00.0
E L 10 02
I 10 56.0

1978 DEC 22 EXPLOSION GERMAN DEMOCRATIC REPUBLIC
I PG 13 36 53.0
I 36 57.0

1978 DEC 22 NORTHERN ITALY FRIULI NO MB COMP;
I PN 23 01 43.3
E SN 02 40
E SG 03 10

1978 DEC 22 23 56 19 MB=4.6(16)

1978 DEC 23 OFF EAST COAST OF HONSHU, JAPAN
E P 01 51 51
E AP 52 02 MB=5.8(53)

1978 DEC 23 FLORES ISLAND REGION
E 05 26 28
E PKP 29 21
E PP 29 40
E(SKS) 35 40
E PS 39.0
LM 06 20

1978 DEC 23 NORTHERN ITALY NO MB COMP,
E 07 37 10
E 37 45

1978 DEC 23 TRACES RYUKYU ISLANDS REGION MB=4.9(9)
E 10 10 43

1978 DEC 23 10 29 27 MB=5.5(66)

1978 DEC 23 SOUTH OF HONSHU, JAPAN
I P 10 36 51.6E 1.3 / 54
I(AP) 37 02.5
E 37 49
E PP 40 08
E S 47 22
LM 11 18 T 16 AN 2.5 AE 2.5 AV 4 MLH =5.9 MLV =6.0

1978 DEC 23 TAIWAN REGION
I P 11 35 36.6E 1.4 / 1600
T 12 AN 4.4 AE 5.3 AV 14.0
I 35 52
E PP 38 48
E(SKS) 45 51 T 15 AN 23.5 AE 10.8
E PKKP 53 56
E 56.1
E SSSS 57.4
E PKPPKP 12 02 00
LMH 09 T 20 AN 205 AE 165 MLH =7.8
LMV 12 T 20 AV(165) MLV =7.5
L 16 T 17 AN 140 AE 160
L 19
FINAL 15

1978 DEC 23 NORTH ATLANTIC OCEAN
I P 12 55 39.0 1.8 / 85 MB=5.2(51)

1978 DEC 23 TRACES TAIWAN MB=4.7(6)
E 13 14 15

1978 DEC 23 TRACES TAIWAN MB=5.0(11)
E 13 21 08

1978 DEC 23 TRACES MB=5.0(17)
E 14 48 10

1978 DEC 23 TAIWAN MB=5.0(17)
E(P) 15 16 25 1.5 / 20

1978 DEC 23 SOUTH OF HONSHU, JAPAN MB=4.6(5)
E P 22 50 07
E AP 50 18

1978 DEC 24 00 15 24
E 16 08

1978 DEC 24 00 20 14

1978 DEC 24 TRACES
E 04 11 21

1978 DEC 24 POLAND, UPPER SILESLIA
E 07 13 42

1978 DEC 24 POLAND, UPPER SILESLIA
E SG 07 16 10

1978 DEC 24 09 30 54 MB=5.0(4) D=150.7 DEG AZ=26
E 23.9S;179.9E 556KM H=09 43 44.4 (U)

1978 DEC 24 SOUTH OF FIJI ISLANDS MB=5.0(30) D=65.2 DEG AZ=355
I PKP1 10 02 28.8 63.6N;157.6W 33KM H=13 13 08.1 (U)
E 63.0N;158.5W 33KM 13 13 03.8 (M)

1978 DEC 24 CENTRAL ALASKA
E(P) 13 23 52 1.7 / 30 NO MB COMP.

1978 DEC 24 FRG, SOUTHWESTERN REGION
SHABIAN JURA
E PG 16 57 41 D=3.9 DEG AZ=223
E SG 58 28 48.4N; 9.0E 10KM H=16 56 21.2 (U)
1KM 16 56 21.3 (P)

1978 DEC 24 NORWEGIAN SEA MB=4.5(18) D=21.9 DEG AZ=354
I P 22 57 13.6 1.8 / 40 72.8N; 4.9E 10KM H=22 52 19.0 (U)
E 57 27.2 72.1N; 6.0E 10KM 22 52 29.1 (B)
E(PP) 57 42 72.7N; 5.0E 33KM 22 52 18.4 (M)

1978 DEC 25 POLAND, UPPER SILESLIA
E 00 01 50

1978 DEC 25 03 56 29

1978 DEC 25 TRACES
E 04 23 46

1978 DEC 25 15 16 44

1978 DEC 25 SOUTH OF HONSHU, JAPAN MB=4.9(23) D=86.6 DEG AZ=42
E(P) 21 15 45 1.4 / 23 30.8N;141.7E 33KM H=21 03 00.3 (U)
30.9N;141.6E 33KM 21 02 56.2 (M)

1978 DEC 25 21 18 25

1978 DEC 25 SOUTH OF HONSHU, JAPAN MB=4.8(19) D=85.1 DEG AZ=42
E P 21 50 46 32.4N;141.5E 33KM H=21 38 11.4 (U)
32.4N;141.5E 33KM 21 38 11.5 (M)

1978 DEC 25 NORTHERN ITALY NO MB COMP,
I PN 22 55 16.7 1.0 / 25 D=6.5 DEG AZ=192
E PG 55 46 44.9N; 11.1E 33KM H=22 53 42.4 (U)
E 56 37 44.9N; 11.2E 14KM 22 53 42.4 (B)
E SG 57 13 DISTANCE 6.7E DEG
E 57 24

1978 DEC 25 57 13

1978 DEC 26 OFF COAST OF MEXICO MB=5.8(53) D=98.0 DEG AZ=298
E P 00 11 34 10.4N;103.9W 10KM H=23 57 55.0 (U)
E 15 08 11.3N;104.4W 33KM 23 57 57.1 (M)
E PP 15 34 DISTANCE 98 DEG
E 20 50
E(SKS) 22 24
E PS 24 28
E SS 29 44

1978 DEC 26 00 15 34 T 21 AN 10 AE 11.5 AV 9.5 MLH =6.5
E P 00 15 08 T 19 AN 6.5 AE 7.5 AV 12 MLV =6.5

1978 DEC 26 FIJI ISLANDS REGION MB=5.2(41) D=148.0 DEG AZ=19
I PKP1 00 16 06.8 /4.4(2)/ 20.3S;177.6W 493KM H=23 57 15.2 (I)

1978 DEC 26 SOUTH OF HONSHU, JAPAN MB=5.2(41) D=85.2 DEG AZ=42
I P 03 49 40.8C 1.2 / 41 32.4N;141.6E 33KM H=03 37 06.9 (U)
E 32.8N;141.5E 33KM 03 37 04.7 (M)

1978 DEC 26 NORTH ATLANTIC RIDGE MB=4.4(13) D=26.4 DEG AZ=283
E P 04 34 44 49.8N; 28.9W 10KM H=04 29 05.0 (U)

1978 DEC 26 TAIWAN REGION MB=5.1(22) D=83.4 DEG AZ=62
I(P) 08 01 42.2E 1.6 / 32 22.9N;121.7E 10KM H=07 49 08.4 (U)
E PP 04 54 22.9N;121.5E 33KM 07 49 09.5 (M)
LM 42

1978 DEC 26 FIJI ISLANDS REGION MB=4.8(16) D=145.1 DEG AZ=22
I PKP 09 14 49.2E 0.9 / 74 17.8S;179.8W 655KM H=08 56 22.8 (U)

1978 DEC 26 09 19 36.1

1978 DEC 27 04 03 14

1978 DEC 27 04 15 11

1978 DEC 27 05 29 48

1978 DEC 27 E(PK1P) I(PK1P)	EASTER ISLAND CORDILLERA 09 24 34 24 38.8E	MB=4.1(2)	D=150.4 DEG 92.9S;118.1W	AZ=247 10KM	M=69 04 4271 (U)
1978 DEC 27 E PP	MARIANA ISLANDS REGION 13 06 28	MB=5.1(35)	D=100.4 DEG 17.7N;147.0E 17.6N;147.0E	AZ= 44 54KM 33KM	M=12 48 4070 (U) 12 48 3679 (M)
1978 DEC 27 E P	TAIWAN REGION 14 58 59	MB=4.9(17)	D= 83.4 DEG 23.2N;122.2E 23.5N;121.9E	AZ= 61 33KM 33KM	M=14 46 3478 (U) 14 46 3679 (M)
1978 DEC 27 E(PK2)	SOUTH PACIFIC CORDILLERA 16 45 30	MB=5.1(2)	D=164.8 DEG 56.5S;142.6W	AZ=241 10KM	M=16 24 2575 (U)
1978 DEC 27 I P	SOUTHERN ITALY NORTHERN TYRRHENIAN SEA 17 48 33.3E(1.5 / 6800) T(2.5)AV 14.4 AE 3.3 AV 13.4	MPV =6.9 MPH =7.1 MPV =6.9	D= 10.2 DEG 41.1N; 13.6E 41.1N; 13.5E 41.6N; 14.0E DISTANCE 10 DEG	AZ=177 390KM 398KM 430KM	M=17 46 1074 (U) 17 46 1271 (U) 17 46 1676 (M)
I I I I I I E I S	48 48.4 48 50.2 49 12 49 19 49 34 49 43 50 26.8 T(4) AN 20.3 AE 55.2 AV 23.0	MSH =6.4			
1978 DEC 27 E P	JAN MAYEN ISLAND REGION 21 23 30	MB=4.2(9)	D= 22.7 DEG 69.0N; 16.8W	AZ=332 10KM	M=21 18 2876 (U)
1978 DEC 27 E	POLAND, UPPER SILESIA 23 20 01				
1978 DEC 28 I P	KURILE ISLANDS 01 22 12.1C 1.1 / 24	MB=4.8(25)	D= 76.8 DEG 44.4N;147.3E 44.9N;147.1E	AZ= 32 113KM 110KM	M=01 10 3173 (U) 01 10 3475 (M)
1978 DEC 28 E	POLAND, UPPER SILESIA 03 42 17				
1978 DEC 28 E PKP	SOLOMON ISLANDS 06 40 33	MB=5.4(46)	D=124.0 DEG 5.4S;154.2E 5.2S;154.0E	AZ= 49 137KM 33KM	M=06 21 5070 (U) 06 21 3879 (M)
1978 DEC 28 E P	UZBEK SSP 12 45 48	MB=4.8(13)	D= 36.2 DEG 40.5N; 63.6E 40.7N; 63.5E	AZ= 87 33KM 33KM	M=12 38 4678 (U) 12 38 4277 (M)
1978 DEC 28 E SG	POLAND, UPPER SILESIA 15 37 52				
1978 DEC 28 E	POLAND, UPPER SILESIA 23 21 18				
1978 DEC 28 E PKP1	TONGA ISLANDS REGION 23 34 19 1.6 / 29	1/4.3(2)/	D=147.5 DEG 19.1S;172.9W	AZ= 10 33KM	M=23 14 32 1(U)
1978 DEC 29 I PKP2	SOUTH OF KERMADEC ISLANDS 02 18 21.2C 1.3 / 27	MB=5.2(12)	D=159.7 DEG 33.2S;179.7W	AZ= 32 90KM	M=01 57 5574 (U)
1978 DEC 29 E PKP1 E E	TONGA ISLANDS 06 09 01 2.2 / 93 09 08 09 21	MB=5.3(13)	D=149.6 DEG 21.4S;174.9W 20.9S;177.0W	AZ= 14 45KM 33KM	M=05 49 1474 (U) 05 49 1979 (M)
1978 DEC 29 E	POLAND, UPPER SILESIA 00 06 11				
1978 DEC 29 E P	BURMA-INDIA BORDER REGION 09 04 07	MB=4.8(14)	D= 65.8 DEG 23.6N; 93.0E 23.7N; 92.9E	AZ= 82 33KM 33KM	M=08 53 2177 (U) 08 53 2377 (M)
1978 DEC 29 E AP	HOKKAIDO, JAPAN, REGION 10 47 10	MB=4.8(22)	D= 78.0 DEG 41.0N;142.3E 41.4N;142.5E	AZ= 37 46KM 60KM	M=10 35 0278 (U) 10 35 0672 (M)
1978 DEC 30 I PKP	01 44 15.9C 0.9 / 32				
1978 DEC 30 E P	AFGHANISTAN-USSR BORDER REGION 03 14 46	MB=4.9(23)	D= 41.7 DEG 38.5N; 70.6E 38.3N; 70.6E	AZ= 85 10KM 33KM	M=05 06 5472 (U) 05 06 5770 (M)
1978 DEC 30 E	09 57 29				
1978 DEC 30 E PG E SG	NORTHERN ITALY 10 40 54 42 18				
1978 DEC 30 E	WESTERN POLAND 11 32 50	NO MB COMP.	D= 6.5 DEG 44.9N; 11.1E 44.9N; 11.1E	AZ=192 20KM 19KM	M=10 38 4675 (U) 10 38 4771 (M)

1978 DEC 30 E	14 58 10				
1978 DEC 31 I P	OFF EAST COAST OF HONSHU, JAPAN 11 04 05.5 1.0 / 31	MB=3.3(53)	D= 82.8 DEG 36.4N;144.4E 36.4N;144.6E	AZ= 38 40KM 33KM	M=10 55 4470 (U) 10 55 3875 (M)
INTERRUPTION OF LONGPERIODIC RECORDS FROM 12H 03M TO 14H 42M					
1978 DEC 31 E PP E E	BULGARIA 15 59 16 16 01 49 03 06	MB=4.4(9)	D= 11.6 DEG 42.0N; 23.2E 42.0N; 23.3E 41.8N; 23.1E	AZ=139 22KM 14KM 33KM	M=15 56 1470 (U) 15 56 1573 (M) 15 56 1372 (M)
1978 DEC 31 E E	BULGARIA 16 31 15 31 55	MB=4.4(3)	D= 11.6 DEG 42.0N; 23.2E 42.0N; 23.3E 41.7N; 22.5E	AZ=139 22KM 10KM 33KM	M=16 26 0770 (U) 16 26 0777 (M) 16 25 5978 (M)
INTERRUPTION OF LONGPERIODIC RECORDS FROM 17H 09M TO 17H 41M AND FROM 21H 44M TO 24H 00M					

April 1981

Dr. B. Tittel
H. Merkel
Dr. S. Wendt