

# **Seismological Bulletin 1958**

**Uppsala: 59° 51.5' N, 17° 37.6' E**

**Kiruna: 67° 50.4' N, 20° 25.0' E**

**Skalstugan: 63° 34.8' N, 12° 16.8' E**

**Göteborg: 57° 41.9' N, 11° 58.7' E**

**By**

**Markus Båth**

## Seismological Bulletin 1958

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Uppsala (abbreviated Up in the bulletin)

Location and ground:  $59^{\circ}51.5'N$ ,  $17^{\circ}37.6'E$ ; 14 m above mean sea level; granite.

Instruments: Wiechert 1000 kg pendulum E,N; Benioff variable reluctance E,N,Z (long-period) and E',N',Z' (short-period); Press-Ewing E,N and Sprengnether Z (ultralong-period).

Instrumental constants for 1958:

a) Wiechert

$T_0$ =seismograph free period,  
 $V$ =static magnification,  
 $\varepsilon$ =damping ratio,  
 $r$ =max. deviation due to friction.

Instrument	Date 1958	$T_0$ sec	$V$	$\varepsilon$	$r$ mm
Wiechert E	Jan 2	10.6	186	4.3	1.0
	July 12	10.8	187	4.7	1.0
Wiechert N	Jan 2	9.5	185	3.8	1.0
	July 12	9.7	185	4.1	1.1

Concerning the method of determination, see Wiechert (1903).

b) Benioff

$T_0$ =seismometer free period,  
 $T_g$ =galvanometer free period,  
 $l_0$ =recording distance (from galvanometer lense to record),  
 $2\sigma_g l_0$ =transference factor, where  $\sigma_g$ =a quantity depending on the electrodynamic properties of the transducer and the galvanometer (Benioff, 1932; Chakrabarty, 1949; Båth, 1959).  
 $V_{max}$ =maximum dynamic magnification.

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Instrument	Date 1956	$T_0$ sec	$T_g$ sec	$2\sigma_g l_0$ $\text{sec}^{-1}$	$V_{\max}$
Benioff E	Feb 7	1.0	87	$2.509 \times 10^4$	2000
» N	Feb 7	1.0	85	$3.705 \times 10^4$	2940
» Z	Feb 7	1.0	89	$1.892 \times 10^4$	1520
» E'	July 10	1.0	0.7	$2.090 \times 10^6$	88310
» N'	July 10	1.0	0.7	$2.363 \times 10^6$	99840
» Z'	July 17	1.0	0.7	$1.316 \times 10^6$	55580

Damping is critical both for seismometers and galvanometers. The test-weight method for determination of magnification curves for short-period instruments is not very reliable, and a comparison of parallel records of Benioff Z' and Grenet-Coulomb Z' suggests that the last value given above for  $V_{\max}$  should be reduced to about 40000 (Båth, 1959). Similar reductions apply to E' and N'.

c) Press-Ewing E,N and Sprengnether Z (ultralong-period). The following constants were determined in January, 1958 ( $T_0$ ,  $T_g$ ) and in March, 1962 ( $V_{\max}$ ):

Instrument	$T_0$ sec	$T_g$ sec	$V_{\max}$
Press-Ewing E	15.0	87	2500
N	15.0	81	2700
Sprengnether Z	15.0	85	2200

The seismometers are overdamped by a factor of 2—3 and the galvanometers are overdamped by a factor of 6.

This installation is on loan from the Lamont Geological Observatory, Columbia University, New York, under IGY arrangements.

In the bulletin only the readings from Benioff E, N, Z, Z' are reported as a rule. Readings from other records are included occasionally as complements to those mentioned, when this seems necessary.

#### Kiruna (abbreviated Ki)

Location and ground:  $67^\circ 50.4'N$ ,  $20^\circ 25.0'E$ ; 390 m above mean sea level; porphyry.

Instruments: Grenet-Coulomb Z', Galitzin E, N, Z.

Instrumental constants for 1958:

#### a) Grenet-Coulomb

In addition to the notation already given, we introduce the following:

$k_g$ =transference factor,

$L$ =reduced pendulum length.

Instrument	Date	$T_0$ sec	$T_g$ sec	$k_g$ $\text{sec}^{-1}$	$L$ cm	$l_0$ cm	$V_{\max}$
Grenet-Coulomb Z'	Sep 28, 1957	1.4	0.7	13936	12.2	100.6	11150

Damping is critical for seismometer and galvanometer.

Reference is made to Grenet (1946), Galitzin (1914), and Byerly (1942).

#### b) Galitzin

In addition to the notation above we introduce

$\mu^2$ =seismometer damping (Galitzin, 1914).

Instrument	Date	$T_0$ sec	$T_g$ sec	$\mu^2$	$k_g$ $\text{sec}^{-1}$	$L$ cm	$l_0$ cm	$V_{\max}$
Galitzin E	Sep 27, 1957	11.8	11.8	+0.11	72.6	16.0	135.6	780
Galitzin N	Sep 28, 1957	12.8	11.9	+0.38	67.2	15.2	136.1	910
Galitzin Z	Sep 27, 1957	9.6	11.6	-0.37	234.2	41.0	135.3	740

Galvanometer damping is critical.

Readings from all Kiruna records are reported in the bulletin.

#### Skalstugan (abbreviated Sk)

Location and ground:  $63^\circ 34.8'N$ ,  $12^\circ 16.8'E$ ; 580 m above mean sea level; gneiss.

Instrument: Grenet-Coulomb Z'.

Instrumental constants for 1958:

Instrument	Date	$T_o$ sec	$T_g$ sec	$k_g$ $\text{sec}^{-1}$	L cm	$l_0$ cm	$V_{\max}$
Grenet-Coulomb Z'	Nov 21, 1955	1.4	0.8	~16000	~12	~100	~12000

Seismometer and galvanometer damping is critical.

The constants were checked on October 1, 1957.

#### Göteborg (abbreviated Gb)

Location and ground:  $57^{\circ} 41.9' \text{N}$ ,  $11^{\circ} 58.7' \text{E}$ ; 66 m above mean sea level; gneiss.

Instrument: Grenet-Coulomb Z'.

The instrument is operated with the same constants as when it was installed at Uppsala (1951—1957).

Instrument	Date	$T_o$ sec	$T_g$ sec	$k_g$ $\text{sec}^{-1}$	L cm	$l_0$ cm	$V_{\max}$
Grenet-Coulomb Z'	Jan 19, 1952	1.4	0.5	16900	11.8	100	10530

Both seismometer and galvanometer damping is critical (aperiodic).

In connection with an intensive search for a suitable location for a seismograph station in the area of Göteborg (Eng. Gothenburg) in 1956, Professor Nils Ryde, Director of the Physics Department of Chalmers Institute of Technology, offered a space in the basement of his institute. After construction works in the spring of 1958, the station was inaugurated on June 19, 1958. It has been in continuous operation since then.

#### General remarks

In the presentation of the material we have followed the same principles as introduced in our bulletin for 1956.

All correspondence concerning our stations or records etc should be addressed to the central station: Seismological Institute, Uppsala, Sweden.

For notation of phases, see "Observations séismographiques" for Uppsala or Kiruna 1955. Concerning channel waves, see a review by Båth (1958).

The time used is Greenwich Mean Time (GMT).

C=compression,

D=dilatation.

$\mu$ =amplitude in microns,  $1\mu=10^{-3}$  mm,

s=period in seconds,

$\Delta$ =epicentral distance,

h=depth of hypocenter,

Magn.=magnitude, determined in the old Gutenberg-Richter scale (M) by applying our station corrections (Båth, 1956).

Amplitudes are given only for Uppsala and Kiruna.

In the analysis of the records, use has been made of all available bulletins, especially those from Bureau Central International de Séismologie (BCIS), Strasbourg, and from United States Coast and Geodetic Survey (USCGS), Washington, D.C. The tables and methods of Jeffreys and Bullen (1940), Gutenberg and Richter (1937), Båth (1943 and 1947), Gutenberg (1951) have been used.

In preparing this bulletin the author has in different parts been assisted by Mrs. I. Granath and Mrs. I. Pettersson. Mr. S. Lindell at the Geophysical Observatory at Kiruna was in charge of the daily routine work at the Kiruna seismograph station. Mr. S. Persson and Mr. G. Tidefors were in charge of the daily routine work at Skalstugan and Göteborg respectively. The Swedish Natural Science Research Council has supported the work by giving funds for salaries to my assistants at Uppsala and for the printing of this volume.

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1903.

## Tables

1958		1958							
Jan	1	Sk	ePKP	00 26 47	Jan	2	Up	iP	21 23 07
	»	1	Up	iPKP	10 29 39		M	N	0.8 17
				PKP z'	μ s		M	Z	0.7 14
				0.1	1.0		Ki	iP	21 22 20
				South of Tonga Islands.					
	»	1	Up	iP	15 17 10		M	E	0.6 15
		Ki	iP	15 16 17		M	N	0.3 15	
			i	15 16 29		M	Z	0.6 16	
				P z'	μ s	Kurile Islands (h ~ 60 km).			
		Sk	iP	15 16 49	0.1 1.0				
				Aleutian Islands.					
	»	2	Up	iP	02 13 28		»	2	Ki iP 22 21 48
			i	02 13 37					
			iS	02 17 41					
				P N	μ s		»	2	Ki iP 22 47 23
				P Z	0.5 4				
				P z'	0.9 5				
				S E	0.3 0.5				
				S N	0.9 7				
				S z'	1.8 7				
				M E	0.2 1.2				
				M N	1.5 10				
				M Z	4.8 17				
				△=2650 km=24°.	6.1 16				
		Ki	iP	02 14 39					
			i	02 14 41					
			iS	02 19 46					
				P z'	μ s				
				S N	0.3 1.0				
				M E	0.6 9				
				M N	2.5 13				
				M Z	2.8 16				
				Sk	△=3500 km=31½°.				
				iP	02 14 07				
				i	02 14 09				
				Off south coast of Greece. Magn.=5.7 (Up, Ki).					
	»	2	Ki	iP	15 52 34C				
				P z'	μ s				
				M E	0.1 1.0				
				M N	0.4 16				
				M Z	0.5 18				
				Iran.					
				P E	μ s				
				P Z	0.3 5				
				S E	0.4 5				
				M E	0.5 7				
				M N	0.9 14				
				M Z	0.8 17				
				P N	1.9 18				

1958	Jan 3	Up	$\Delta=5350 \text{ km}=48^\circ.$	M	E	1.7	19
(cont.)	Ki	iP	07 11 11	M	N	0.5	16
eS			07 18 30	M	Z	0.8	14
				P	$\mu$	s	
				P	0.4	8	
				P	0.1	1.5	
				S	E	0.6	10
				M	E	0.9	17
				M	N	0.5	16
				M	Z	0.6	15
				$\Delta=5650 \text{ km}=51^\circ.$			
	Sk	iP	07 10 40				
				North Atlantic Ocean.			
				Magn.=5.6 (Up, Ki).			
» 3	Ki	iP	08 04 42				
				Mid-Atlantic Ridge.			
» 3	Up	iP	18 00 16C				
	Ki	iP	18 00 39				
	iPP	iP	18 04 30				
	eSKS	iP	18 11 11				
	ePS	iP	18 13 07				
	SKS	E	$\mu$	s			
	SKS	N	0.4	10			
	M	E	0.5	10			
	M	N	1.8	20			
	M	E	1.0	18			
	M	Z	1.6	18			
	$\Delta=10550 \text{ km}=95^\circ.$						
				Mascarene Islands region.			
» 3	Up	iP	19 45 20				
				Coast of Yugoslavia.			
» 3	Up	i(P)	22 13 33				
	M	E	$\mu$	s			
	M	N	1.2	16			
	Ki	iP	22 12 22				
	M	E	1.4	16			
	M	N	22				
	M	E	$\mu$	s			
	M	N	1.1	20			
	M	Z	0.8	18			
	M	E	0.5	11			
	Sk	eP	22 13 04				
				Lake Baikal region, U.S.S.R.			
» 4	Up	iP	06 48 23				
	M	E	$\mu$	s			
	M	Z	1.0	19			
	Ki	eP	06 48 45				
	Sk	iP	06 48 12				
				North Atlantic Ocean.			
» 4	Ki	eP	08 15 00				
	i		08 16 24				
	eS		08 25 42				
	S	E	$\mu$	s			
	S	N	1.0	10			

1958	Jan 4	Ki	M	E	1.7	19	
(cont.)			M	N	0.5	16	
			M	Z	0.8	14	
			Sk	iP	08	14	56
				Guerrero, Mexico.			
» 4	Up	iP			08	37	58
		i			08	38	01
			P	$\mu$	s		
			P	0.1	0.5		
		Ki	iP	08	37	51 D	
		Sk	iP	08	38	14	
			India-Tibet border.				
» 5	Up	iP			12	56	45
		i					
			P	$\mu$	s		
			P	0.1	0.5		
		Ki	iP	08	17	28	
		Sk	iP	08	19	22	
			Celebes Sea. h=500 km (Ki).				
» 5	Up	iP			23	35	12
		i					
			P	$\mu$	s		
			P	0.2	0.6		
		Ki	iP	02	02	21 C	
		eLg1		02	16	27	
			P	$\mu$	s		
			P	0.3	0.7		
		Sk	iP	02	02	38	
		ePP		02	04	48	
			Hindu Kush. h=100 km (Up).				
» 6	Up	iP			08	23	02
		i					
			P	$\mu$	s		
			P	0.2	1.5		
		Ki	iP	09	17	37 D	
		i		09	17	48	
			P	$\mu$	s		
			P	0.1	1.0		
			Unimak Island region.				
» 6	Ki	iP			10	01	23
		i					
			P	$\mu$	s		
			P	0.1	1.3		
			Iran.				
» 6	Ki	iP			10	05	06 D
		i					
			P	$\mu$	s		
			P	0.1	1.4		
			Near south coast of Java.				
» 6	Up	iP			11	34	37
		i			11	34	41
			P	$\mu$	s		
			P	0.2	0.8		
			M	E	4.0	23	
			M	N	3.8	21	
			Sk	iP	11	34	54
			Burma. Magn.=6.0 (Up).				
» 7	Up	iP			00	16	43
		i			00	17	33
			P	$\mu$	s		
			P	0.2	0.8		
		Ki	iP	00	16	43	
		eP		00	17	33	
			Hindu Kush. h=100 km (Up).				
» 10	Up	iP			00	25	03 D
		i					
			P	$\mu$	s		
			P	0.3	0.5		
		Ki	iP	23	07	28	
			Sinkiang Province, China.				
» 10	Up	iP			17	47	34 C
		i			17	49	06
			P	$\mu$	s		
			P	1.3	1.0		
		Ki	iP	17	47	04 C	
		iL (3.24)		18	02	18	
			P	$\mu$	s		
			P	2.4	16		
			M	N	3.2	18	
		Sk	iP	17	47	34 C	
		iPP		17	49	06	
		iLg1		18	02	32	
		iLg2		18	03	40	
			Sinkiang Province, China.				
» 10	Up	iP			00	25	03 D
		i					
			P	$\mu$	s		
			P	0.2	0.8		
		Ki	iP	00	25	03 D	
		eP		00	25	03 D	
			Hindu Kush. h=100 km (Up).				
» 10	Up	eP			13	48	20
		Ki	eP		13	47	22
			Aleutian Islands.				
» 10	Up	iP			23	08	14 D
		i					
			P	$\mu$	s		
			P	0.3	0.5		
		Ki	iP	23	07	28	
			Sinkiang Province, China.				



1958	Jan 17	Up	iPKP	07 35 26	
		i		07 36 40	
		PKP	z'	μ s 0.1 1.0	
	Ki	iPKP		07 35 21	
		i		07 35 26	
		i		07 36 45	
		PKP	z'	μ s 0.5 1.4	
	Sk	ePKP		07 35 30	
		i		07 35 41	
		Antarctic Ocean, about mid-way between Australia and Antarctic continent.			
» 17	Ki	eSn		09 44 38	
		iSg		09 45 01	
» 18	Up	iP		11 04 40	
		i		11 04 53	
		Albania.			
» 19	Ki	iPg		01 52 37	
		iSg		01 52 54	
		Sg	z'	μ s 0.4 0.5	
		(Δ=140 km=1.3°).			
» 19	Up	iP		03 57 06	
	Sk	iP		03 57 50	
	Yugoslavia.				
» 19	Up	iP		09 22 46	
	Off northeast coast of Formosa.				
» 19	Up	iP		14 20 37	
	i			14 21 09	
	i			14 23 39	
	iPP			14 24 19	
	iS			14 31 38	
	P	E	μ s	4.2 11	
	P	Z		13 11	
	P	Z'		0.1 1.0	
	PP	Z'		2.4 2.5	
	S	N		69 23	
	M	E		160 22	
	M	N		86 22	
	M	Z		210 22	
	Ki	△=10300 km=92½°.			
	iP			14 20 34	
	i			14 20 38	
	iSKS			14 31 17	
	iS			14 31 40	
	ePS			14 32 53	
	P	Z	μ s	12 11	
	P	Z'		0.8 1.5	
	SKS	E		39 17	
	S	N		48 17	

1958	Jan 19	Ki	M	E	340 24	
	(cont.)		M	N	150 24	
			M	Z	360 23	
			△=10200 km=92°.			
		Sk	iP		14 20 22 D	
		i			14 20 38	
		Near coast of Ecuador (h ~ 60 km).				
			Magn.=7.3 (Up, Ki).			
» 19	Up	iP		14 56 37		
	Ki	iP		14 56 37		
		P	z'	μ s 0.6 1.7		
	Sk	iP		14 56 25		
		Near coast of Ecuador (h ~ 60 km).				
» 19	Up	iP		15 08 09		
	In the vicinity of Quetta, Pakistan.					
» 19	Up	iP		17 02 17 C		
	i(pP)			17 02 33		
	Ki	iP		17 02 18		
	i(pP)			17 02 35		
		Near coast of Sumatra.				
» 19	Ki	iPn		19 45 22 C		
	iSg			19 45 34		
	Pn	z'	μ s 0.1 0.5			
	Sg	z'	μ s 0.2 0.5			
	△=110 km=1.0°.					
	Sk	e(S*)		19 47 47		
	iSg			19 48 01		
	△=610 km=5.5°.					
		Felt at Nilivara and a few other places southeast of Kiruna.				
		Origin time=19 45 01.				
» 20	Up	iP		02 28 29		
				μ s		
	M	E	1.9 18			
	M	N	2.5 20			
	M	Z	5.6 18			
	Burma.					
» 20	Up	iP		07 25 24		
		P	z'	μ s 0.2 0.9		
	Ki	iP		07 25 07		
	P	z'	μ s 0.1 0.9			
	Sk	iP		07 25 30		
	Luzon, Philippine Islands (h ~ 100 km).					

1958	Jan 21	Up	i(PKP)	00 46 56		
	» 21	Up	i(PKP)	05 32 03		
		(PKP)	z'	μ s 0.1 0.7		
	» 21	Up	iP	19 47 19 C		
		Southern Kurile Islands.				
	» 22	Up	iP	18 40 45 C		
		P	z'	μ s 0.2 0.6		
		M	E	4.0 19		
		M	N	6.9 25		
		M	Z	5.9 19		
	Ki	iP		18 40 22		
		M	E	3.8 14		
		M	N	1.3 13		
		M	Z	4.1 14		
	Sk	iP		18 40 50		
		Near east coast of Formosa (h ~ 200 km).				
» 22	Up	iP		21 52 54		
	Ki	iP		21 52 59		
	Andaman Sea.					
» 22	Up	iP		23 42 21		
	Ki	iP		23 41 26		
		P	z'	μ s 0.1 1.0		
	Sk	iP		23 42 01		
	Komandorskie Islands.					
» 23	Up	iP		02 44 54		
	i(pP)			02 45 20		
	Ki	iP		02 44 08 C		
		P	z'	μ s 0.4 1.0		
	Sk	iP		02 44 45 D		
	Kurile Islands (h ~ 150 km).					
» 23	Up	iP		05 39 25		
	Ki	eP		05 39 22		
	Sk	iP		05 39 45		
	Southern Tibet.					
» 23	Up	iSg		10 32 52		
	Sk	eSg		10 32 00		
	Probably west coast of Norway.					
» 23	Up	iPn		13 36 51 D		
	iPg			13 37 17		
	i			13 37 55		
	iSn			13 38 09		
	iSg			13 38 41		
	Ki	iP		04 43 51		
	P	z'	μ s 0.1 0.5			
	M	E	2.2 14			
	M	N	1.6 12			
	M	Z	2.7 13			

1958			
Jan 24	Ki	iPP eSS	04 45 25 04 53 12 $\mu$ s
(cont.)			P z' 0.5 2.0 PP z' 0.2 1.5 M E 3.8 19 M N 1.5 14 M Z 5.5 20 $\triangle = 4650 \text{ km} = 42^\circ$ . Sk iP 04 44 27C i 04 44 32 Northeast of Lake Baikal, U.S.S.R. Magn.=6.0 (Up, Ki).
» 24	Up	iP ePa eS	06 04 15C 06 08 02 06 12 29 $\mu$ s P N 0.9 5 P Z 2.7 8 P Z' 0.3 1.2 S N 2.9 11 M E 9.4 18 M N 11 18 M Z 8.2 17 $\triangle = 6800 \text{ km} = 61^\circ$ . Ki iP 06 03 19C i(pP) 06 03 28 iS 06 10 48 $\mu$ s P N 1.2 9 P Z 3.2 9 P Z' 0.4 1.2 S E 1.6 8 S N 3.0 8 M E 14 19 M N 12 17 M Z 11 18 $\triangle = 5900 \text{ km} = 53^\circ$ . Sk iP 06 03 56C Near east coast of Kamchatka. Magn.=6.4 (Up, Ki).
» 24	Up	iP	06 21 20 $\mu$ s P z' 0.1 1.2 Ki iP 06 20 24 i 06 20 29 $\mu$ s P z' 0.2 1.4 Near east coast of Kamchatka.
» 24	Up	iP	18 14 12C $\mu$ s P z' 0.4 1.3 Ki iP 18 13 18 i 18 13 25 eS 18 21 10 $\mu$ s P z' 0.4 1.6 S N 0.3 9

1958			
Jan 24	Ki	M (cont.)	E 0.8 14 M N 0.5 13 M Z 0.6 14 $\triangle = 6250 \text{ km} = 56\frac{1}{2}^\circ$ . Sk iP 18 13 53C Komandorskie Islands region.
» 24	Up	iP Ki Sk	23 09 42D iP 23 08 47 iP 23 09 23 Aleutian Islands.
» 24	Up	iP ipP iPcS eS	23 27 32 23 27 57 23 32 11 23 35 32 $\mu$ s P z' 0.1 0.7 Ki △=6650 km=60°. iP 23 26 36 ipP 23 27 00 eS 23 33 53 esS 23 34 30 $\mu$ s P z' 0.2 1.0 S N 0.9 9 M N 0.6 18 M Z 1.3 21 $\triangle = 5900 \text{ km} = 53^\circ$ . Sk iP 23 27 04 ipP 23 27 31 iPcS 23 31 54 Kenai Peninsula, Alaska. h=100 km (Up, Ki, Sk). Magn.=6.0 (Up, Ki).
» 25	Up	iPKP iSKP Ki	00 11 40 00 14 33 00 11 36 00 14 07 $\mu$ s SKP z' 0.1 1.4 Sk ePKP 00 11 36 iSKP 00 14 26 Fiji Islands (h ~ 550 km).
» 25	Ki	iP Sk	08 44 51 08 45 28
» 25	Up	iP Ki iS eT i	09 12 25 09 10 52 09 12 08 09 15 46 09 16 27 $\mu$ s P z' 0.1 0.9 Sk iP 09 11 29 eS 09 13 11 $\triangle = 720 \text{ km} = 6.5^\circ$ . $\triangle = 960 \text{ km} = 8.6^\circ$ . Northeast of Jan Mayen,

1958			
Jan 25	Ki	M (cont.)	E 0.8 14 M N 0.5 13 M Z 0.6 14 72°N, 53°E. Origin time=09 09 14.
» 25	Ki	eP Aleutian Islands.	21 52 39
» 26	Up	iP Ki	00 54 54 00 54 52 $\mu$ s Sk P z' 0.1 1.0 iP 00 55 11 i 00 55 15 Nicobar Islands region.
» 26	Up	iP Ki	06 53 11C 06 52 22 $\mu$ s P z' 0.2 1.5 M E 2.3 19 M N 1.0 17 M Z 1.8 17 Sk eP 06 52 58 Kurile Islands.
» 26	Up	eP	07 39 19 $\mu$ s M E 1.8 22 M N 2.0 22 M Z 2.6 24 Ki eP 07 38 29 $\mu$ s M E 2.2 22 M N 0.8 17 M Z 1.2 17 Sk iP 07 39 07 Kurile Islands.
» 27	Up	eL	08 45 $\mu$ s M E 1.5 22 M N 2.4 22 M Z 3.9 22 Ki eL 08 47 $\mu$ s M E 2.2 20 M N 1.5 19 M Z 1.9 18 Samoa Islands.
» 28	Up	i(Sg) Ki e Sk e(Sg)	12 36 54 12 30 53 12 32 56 Local?
» 28	Up	iP	17 21 59C $\mu$ s P z' 0.2 0.8 M N 0.9 14 Ki iP 17 22 27 New Zealand.
1958			
Jan 28	Ki	P (cont.)	Z' 0.1 1.0 M E 1.5 16 M N 0.9 13 M Z 1.5 14 Sk iP 17 22 32 Iran.
» 29	Up	iP Ki	00 28 02 $\mu$ s P z' 0.1 1.0 iP 00 27 24 Off east coast of Honshu, Japan.
» 29	Up	iP West Pakistan.	17 21 58
» 30	Ki	iPKP South Island, New Zealand.	01 45 24
» 30	Up	ePP eSKS	06 33 32 06 38 57 $\mu$ s PP z 1.4 8 SKS E 0.7 8 M E 6.3 20 M N 4.5 20 M Z 5.2 21 $\triangle \sim 13200 \text{ km} \sim 119^\circ$ . Ki ePP 06 32 50 eSKS 06 38 52 eSKKS 06 39 53 ePS 06 42 25 $\mu$ s SKS E 0.9 11 M E 5.4 17 M N 3.8 19 M Z 8.1 22 $\triangle \sim 12450 \text{ km} \sim 112^\circ$ . Solomon Islands. Magn.=6.5 (Up, Ki).
» 30	Up	iP i Ki iP Sk iP	19 18 46 19 18 59 19 19 54C Dodecanese Islands.
» 31	Ki	iP Kurile Islands region.	06 33 00
» 31	Up	ePKP i Ki iPKP i	06 52 50 06 52 57 06 52 24 06 52 28 $\mu$ s PKP z' 0.1 1.0 Sk iPKP 06 52 37 i 06 52 47 New Zealand.

1958									
Jan	31	Up	iP			12	14	20	
»	31	Up	iP			23	30	10	
		P	z'		$\mu$	0.1	s	1.0	
		Ki	iP			23	30	00	
		P	z'		$\mu$	0.1	s	1.1	
		Sk	iP			23	30	23	
		Sikang Province, China.							
Feb	1	Up	iP			00	31	44	
		(Alaska).							
»	1	Up	iP			02	52	07	
		Ki	iP			02	51	13	
		South of Alaska.							
»	1	Up	iP			16	23	25	
		eSKS				16	33	55	
		eS				16	34	23	
		SKS	E		$\mu$	7.5	s	17	
		S	N			21		18	
		M	E			15		20	
		M	N			10		19	
		M	Z			20		20	
		$\triangle = 10200 \text{ km} = 92^\circ$ .							
		Ki	iP			16	23	29	
		iSKS				16	34	01	
		iS				16	34	34	
		P	z'		$\mu$	0.5	s	2.0	
		SKS	E			14		17	
		S	N			18		16	
		M	E			22		19	
		M	N			16		22	
		M	Z			24		20	
		$\triangle = 10350 \text{ km} = 93^\circ$ .							
		Sk	iP			16	23	12	
		Near coast of Ecuador.							
		Magn. = 6.9 (Up, Ki).							
»	1	Up	iP			18	15	49	
		M	E		$\mu$	5.6	s	21	
		M	N			3.2		18	
		M	Z			4.7		22	
		Ki	iP			18	15	51	
		Sk	eP			18	15	43	
		Ecuador.							
»	1	Up	eP			20	58	57	
		Ki	iP			20	58	58	
		P	z'		$\mu$	0.6	s	1.9	
		Sk	iP			20	58	44	
		Ecuador.							
»	2	Up	iP			08	22	45	

1958								
Feb	2	Up	P	z'	$\mu$	s		
(cont.)		Ki	iP		08	21	0.7	58
							$\mu$	s
		Sk	iP	z'	0.2		1.2	
					08	22		42
		Kurile Islands.						
»	2	Up	iP		21	04		37
		Ryukyu Islands ( $h \sim 200$ km).						
»	3	Up	i(Sg)		11	51		13
		Local?						
»	4	Ki	eP		08	13		08
		Sk	iP		08	12		52
		Off south coast of Greenland.						
»	4	Sk	iP		09	57		54
		Northwestern Greece.						
»	4	Up	iP		19	56		19
		Ki	iP		19	55		26
				P z'	$\mu$	s		
					0.2		1.5	
		Unimak Island.						
»	4	Up	iP		23	49		22
		Ki	eP		23	48		41
		Off east coast of Honshu, Japan.						
»	5	Up	iP		03	21		22 D
		Ki	iP		03	22		06
		i			03	22		41
		Turkmenia, U.S.S.R.						
»	5	Up	iP		08	19		11
				P z'	$\mu$	s		
				M E	0.8		1.5	
				M N	3.6		26	
		Ki	iP		M Z	1.8		20
					08	18		22
				P z'	$\mu$	s		
				M E	0.3		1.4	
				M N	2.0		17	
				M Z	1.9		17	
		Sk	iP		M Z	3.5		17
					08	18		59
		Kurile Islands.						
»	5	Ki	iP		15	56		32
		i			15	56		43
		Aleutian Islands.						
»	6	Up	iP		01	53		59 D
				P z'	$\mu$	s		
		Ki	iP		01	53		35
		Sk	eP		01	54		02

1958	Feb	6	Near northeast coast of Formosa. (cont.)				
»	6	Up	i(P)	05	38	38	
		Sk	e(P)	05	37	57	
			i	05	38	11	
»	6	Up	iPKP	16	19	24	
			ipPKP	16	20	29	
			PKP	$z'$	0.1	0.5	
			pPKP	$z'$	0.2	1.4	
		Ki	ePKP	16	19	09	
		Sk	iPKP	16	19	17	
Kermadec Islands region (h ~ 250 km).							
»	7	Up	iP	00	44	45	
			i	00	44	50	
			P	$z'$	0.2	1.0	
		Ki	iP	00	44	46	
			i	00	44	55	
			P	$z'$	0.2	1.0	
		Sk	iP	00	45	00	
			i	00	45	10	
Near northeast coast of Sumatra.							
»	7	Up	iP	00	53	31	
		Ki	eP	00	52	35	
»	7	Up	iPKP	01	30	17	
			i	01	30	23	
			PKP	$z'$	0.7	0.7	
		Ki	iPKP	01	29	56	
			PKP	$z'$	0.1	1.0	
		Sk	iPKP	01	30	12	
			i(pPKP)	01	31	13	
Kermadec Islands.							
»	7	Up					—
			M	E	0.8	20	
			M	N	0.7	20	
			M	Z	1.0	20	
		Ki	iP	04	47	04	
			M	E	0.6	15	
			M	N	0.5	14	
Komandorskie Islands.							
»	7	Up	iP	07	11	46	
			P	$z'$	0.1	0.8	
		Ki	iP	07	11	18	
			P	$z'$	0.1	1.0	

1958						
Feb	7	Sk	iP	07	11	47
(cont.)			Ryukyu Islands.			
»	7	Ki	iP	15	44	50
			Hindu Kush (h ~ 150 km).			
»	7	Up	iP	16	08	30
		Sk	iP	16	08	26
			Honshu, Japan (h ~ 80 km).			
»	7	Up	iP	23	33	51 C
		i		23	33	57
		iS		23	42	12
				$\mu$	s	
		P	E	0.8	1	
		P	N	0.2	1	
		P	Z	1.9	1	
		P	Z'	1.4	0.8	
		S	E	0.9	5	
		M	E	5.3	20	
		M	N	7.2	20	
		M	Z	5.6	20	
		$\triangle = 6900 \text{ km} = 62^\circ$				
		Ki	iP	23	33	32
			iPeP	23	34	21
			eS	23	41	37
			e	23	49	51
			eLi	23	51	57
			eLg1	23	54	41
				$\mu$	s	
		P	Z'	0.7	1.0	
		S	E	0.7	9	
		M	E	20	13	
		M	N	13	18	
		M	Z	21	13	
		$\triangle = 6550 \text{ km} = 59^\circ$				
		Sk	iP	23	34	01C
		Szechwan Province, China.				
		Magn. = 7.0 (Up, Ki).				
»	8	Ki	e(P)	08	33	03
		i		08	33	10
		Probably local.				
»	9	Up	eP	04	27	53
		Ki	iP	04	27	53 D
				$\mu$	s	
		Sk	P	z'	0.1	1.0
			eP		04	27
						47
		South of Panama.				
»	9	Up	iP	09	41	16
		i(pP)		09	41	27
				$\mu$	s	
		Ki	P	z'	0.2	0.9
		iP			09	41
		i(pP)			09	41
				$\mu$	s	
		Sk	P	z'	0.1	1.0
		iP			09	41
		i(pP)			09	41
		India-East Pakistan border.				

1958	Feb 9	Up	iP	11	33	25 D
	» 9	Ki	iP	21	44	34
		i		21	44	44
		Alaska.				
	» 9	Up	iP	22	42	04
		i		22	42	09
		P	z'	0.2	1.2	
		M	E	1.8	20	
		M	N	2.2	20	
		M	Z	1.7	20	
		Ki	iP	22	41	47
		eS		22	52	05
		P	z'	0.8	2.4	
		S	E	0.4	10	
		M	E	2.1	18	
		M	N	3.2	19	
		M	Z	3.3	17	
		$\Delta \sim 9200 \text{ km} \sim 83^\circ$ .				
		Sk	iP	22	42	11
		Philippine Islands.				
		Magn.=6.0 (Up, Ki).				
	» 10	Up	iP	14	54	59
		P	z'	0.1	0.8	
		Ki	iP	14	54	30
		M	E	0.6	16	
		M	N	0.6	16	
		M	Z	1.1	16	
		Sk	iP	14	55	00
		Volcano Islands.				
	» 11	Ki	eP	00	59	37
		i		00	59	50
		M	E	1.8	22	
		M	N	2.0	20	
		M	Z	1.9	18	
		Off south coast of Java.				
	» 11	Up	iP	11	50	35 D
		Near west coast of Luzon.				
	» 11	Sk	iP	14	57	05
	» 11	Ki	iP	16	21	26
		i		16	21	39
	» 12	Up	iP	18	29	10 D
		Ki	iP	18	29	10
		P	z'	0.2	1.4	
		Sk	iP	18	29	26
		Nicobar Islands region.				
	» 12	Up	iP	23	42	27 C

1958	Feb 12	Up	P	z'	$\mu$	s
	(cont.)	Ki	iP		0.3	0.9
		P	z'	$\mu$	s	
		Sk	iP		0.2	1.1
		Near east coast of Hokkaido, Japan.				
	» 12	Up	iP		23	54
		eS			00	49
		ePS			00	46
		P	z'	$\mu$	s	
		M	E	4.0	19	
		M	N	6.8	22	
		M	Z	9.3	22	
		Ki	iP		$\Delta = 7550 \text{ km} = 68^\circ$ .	
		iP		23	53	56
		i		23	54	09
		ePP		23	56	12
		eS		00	02	04
		P	z'	$\mu$	s	
		S	N	0.6	9	
		M	E	2.9	20	
		M	N	2.3	20	
		M	Z	4.8	20	
		Sk	iP		$\Delta = 6650 \text{ km} = 60^\circ$ .	
		iP		23	54	27
		i		23	54	44
		Aleutian Islands.				
		Magn.=5.9 (Up, Ki).				
	» 13	Up	iP		00	21
		i			00	37
		P	z'	$\mu$	s	
		Ki	iP		0.1	0.9
		i		00	21	30
		Sk	iP		00	21
		iP			53	C
		Northern Assam.				
	» 13	Up	iP		04	29
		i			04	46
		P	z'	$\mu$	s	
		Ki	iP		0.1	0.7
		i		00	21	44
		Sk	iP		00	21
		iP			53	C
		Sea of Japan, near coast of Siberia.				
	» 13	Up	iP		10	32
		Ki	iP		09	42
		i			09	48
		Coast of Erythrea.				
	» 13	Up	iP		20	24
		i			20	31
	» 14	Up	iP		03	27
		i			03	37
		P	z'	$\mu$	s	
		Sk	iP		0.2	0.8
		iP			9.7	21
		i			7.7	22
		Sk	iP		8.4	17
		iPP			6.3	6

1958	Feb 14	Sk	eP		08	57	44
	» 14	Up	iP		09	18	02
		Ki	iP		09	17	45
		Sk	eP		09	18	08
		Luzon, Philippine Islands.					
	» 14	Ki	e(P)		16	37	58
		i			16	38	07
	» 15	Ki	iP		01	28	06
		Tadzhik, U.S.S.R.					
	» 15	Up	iP		01	57	46 C
		P	z'	$\mu$	s		
		Ki	iP		1.4	4	
		iP			0.4	0.6	
		i			2.1	16	
		M	N	2.8	21		
		M	Z	4.1	23		
		Ki	iP		01	57	00
		i			01	57	36
		Kurile Islands.					
		Magn.=6.4 (Up, Ki).					
	» 15	Ki	iP		02	14	44
		eSg			15	17	43
		i			15	17	52
		$\Delta = 680 \text{ km} = 6.1^\circ$ .					
		Ki	iSg		15	15	50
		i			$\Delta = 300 \text{ km} = 2.7^\circ$ .		
		Sk	ePn		15	15	03
		i			15	15	40
		$\Delta = 270 \text{ km} = 2.4^\circ$ .					
		Sk	iSg		Swedish Lapland, $65\frac{3}{4}^\circ\text{N}$ , $15\frac{1}{2}^\circ\text{E}$ . Origin time=15 14 21. Felt.		
	» 15	Up	i(P)		15	26	38
		P	z'	$\mu$	s		
		Ki	eP		0.1	0.7	
		i		04	28	40	
		Sk	iP		$\Delta = 270 \text{ km} = 2.4^\circ$ .		
	» 16	Up	iP		06	15	28 C
		P	z'	$\mu$	s		
		Ki	iP		0.4	0.9	
		i		7.0	22		
		M	N	6.8	19		
		M	Z	13	18		
		Ki	iP		06	14	48 C
		i					
	» 16	Up	iP		P	E	
		i			0.2	0.8	
		Sk	iP		9.7	21	
		iPP			7.7	22	
		i			8.4	17	
		Sk	iP		6.3	6	
		iPP			8.0	12	
		i			16	9	
		Sk	iP		14	14	
		iPP			$\Delta = 4550 \text{ km} = 41^\circ$ .		

1958				1958								
Feb 17	Ki	iP	05	26	14C	Feb 18	Up	eL	21	05		
(cont.)		ipP	05	27	02		M	E	2.9	20		
		isP	05	27	20		M	N	2.2	18		
		iS	05	32	18		M	Z	3.1	18		
		isS	05	33	28	Bismarck Sea.						
		i	05	35	03	» 19	Ki	iP	03	30	20	
		e	05	35	19	» 19	Up	iP	03	47	43	
		e(SS)	05	35	24	Ki	iP	03	47	45		
				μ	s		P	z'	0.2	0.8		
		P	E	2.6	8		Sk	iP	03	48	06	
		P	Z	4.3	7	West Sinkiang, China.						
		P	z'	4.9	1.5	» 19	Up	iP	10	40	48	
		S	E	4.6	11	Ki	iP	10	40	49		
		S	N	6.1	7		P	z'	0.1	0.9		
		M	E	13	10		M	E	2.1	15		
		M	N	9.8	12		M	N	1.4	16		
		M	Z	34	20		P	z'	0.6	1.0		
		$\Delta = 4800 \text{ km} = 43^\circ$ .					M	E	1.5	15		
		Sk	iP	05	26		M	N	0.7	10		
		Hindu Kush.	h=200 km	(Up, Ki).	30		M	Z	2.1	17		
		Magn.=6.7 (Up, Ki).						$\Delta = 4950 \text{ km} = 44\frac{1}{2}^\circ$ .				
» 17	Up	iP	19	01	38	West Sinkiang, China.						
» 18	Up	iPKP	13	41	08	» 19	Ki	iP	14	33	49	
	Sk	ePKP	13	41	00	Alaska.						
	Kermadec Islands.						P	z'	0.6	1.0		
» 18	Up	iP	19	04	53	» 19	Up	iP	15	49	18	
	Batan Islands region.						Ki	eP	15	49	10	
» 18	Up	iP	19	20	15	» 19	Up	iP	19	38	53C	
	Ki	P	z'	0.1	1.0	Ki	iP	19	41	55		
		iP		19	19	iPP	19	42	51			
							P	z'	0.1	0.8		
		P	z'	0.1	1.0		PP	z'	0.1	1.0		
		M	E	1.2	12		M	E	2.5	19		
		M	N	0.3	14		M	N	5.0	22		
		M	Z	1.5	14		M	Z	4.3	24		
	Batan Islands region.						$\Delta = 10800 \text{ km} = 97^\circ$ .					
» 18	Up	iP	20	00	46D	Ki	iP	19	38	51C		
		i(PcP)	20	00	57	i	19	39	03			
		eS	20	10	47		P	z'	1.0	1.3		
				μ	s		M	E	4.2	18		
		P	z'	0.1	0.8		M	N	4.6	20		
		S	N	1.3	11		M	Z	7.0	18		
		M	E	3.6	14	Sk	iP	19	39	06C		
		M	N	3.3	17	i	19	39	11			
		M	Z	4.1	15	i(1)	19	42	13			
		$\Delta = 8800 \text{ km} = 79^\circ$ .						Near south coast of Java.				
	Ki	iP	20	00	26							
		i	20	00	34							
				μ	s							
		P	z'	0.1	1.3							
		M	E	5.8	12							
		M	N	3.1	14							
		M	Z	5.8	13							
	Batan Islands region.											
		Magn.=5.9 (Up, Ki).										

1958							1958						
Feb 19 The phases i(1) possibly belong to (cont.) a different earthquake.							Feb 21 Up P z' $\mu$ 0.1 s 0.8						
» 19	Ki	iP		19	58	15	Ki	iP		12	03	44	
	Sk	eP		19	58	27	Sk	iP		12	04	16	
Near south coast of Java.							Near east coast of Honshu, Japan (h ~ 100 km).						
» 20	Up	iP		04	09	45	» 22	Up	iP	11	01	35	D
	P		$\mu$		s		iS		11	10	43		
	M		E	0.2	1.5		iSeS		11	11	42		
	M		N	1.4	18		eP'P'		11	29	34		
	M		Z	0.7	14								
	Ki	iP		04	09	24C		P		$\mu$	s		
	P		Z'	1.0	15		P	N	3.4	3			
	M		E	1.0	15		P	Z	7.8	3			
	M		N	1.5	11		P	Z'	1.7	0.6			
	M		Z	1.0	14		S	E	4.3	6			
				1.0	14		S	N	7.7	7			
				1.0	14		S	Z	3.6	7			
				1.0	14		P'P'	Z'	0.2	1.5			
Batan Islands region.							M	E	8.6	23			
» 20	Up	iP		04	17	10	M	N	15	24			
	Ki	eP		04	16	48	M	Z	23	25			
Batan Islands region.							$\Delta = 7800 \text{ km} = 70^\circ$						
» 20	Up	iP		04	50	37	Ki	iP	11	00	43	D	
	i			04	50	45	iPP		11	03	02		
	P		$\mu$		s	iS		11	09	03			
	M		Z'	0.1	0.8	eP'P'		11	29	56			
	M		E	1.2	15								
	M		N	0.7	14		P	N	3.9	8			
	M		Z	2.3	15		P	Z	8.0	9			
	Ki	iP		04	50	16		P	Z'	1.4	1.2		
	P		$\mu$		s	PP	Z	3.4	7				
	M		Z'	0.1	1.2	PP	Z'	1.4	2.5				
	M		E	0.9	13	S	E	3.5	8				
	M		N	0.8	16	S	N	6.7	9				
	M		Z	0.8	14	M	E	6.8	17				
	Sk	eP		04	50	40	M	N	4.9	18			
Batan Islands region.							M	Z	12	22			
							$\Delta = 6900 \text{ km} = 62^\circ$						
» 20	Up	eP		09	16	47	Sk	iP	11	01	14	D	
	Ki	eP		09	16	33	iS		11	10	06		
	M		$\mu$		s	iP'P'		11	29	46			
			E	0.5	14	$\Delta = 7450 \text{ km} = 67^\circ$							
Batan Islands region.							Aleutian Islands.						
» 20	Up	i		12	02	26	Magn. = 7.2 (Up, Ki).						
	i(Sg)			12	02	30	Slightly deeper than normal.						
	(Sg)		$\mu$		s								
			Z'	0.1	0.5	» 22	Up	iP	13	33	00	D	
Local?							iP		13	33	10		
							ipP		14	00	59		
							eP'P'						
» 20	Up	iP		14	44	30	Ki	P		0.7	0.8		
» 20	Up	iP		21	04	38	iP	Z'					
	Ki	eP		21	04	11			13	32	07		
» 21	Up	iP		12	04	22							
							P	Z'	0.1	1.0			
Aleutian Islands.													
» 22	Up	iP		15	58	47							
	ipP			15	58	57							

1958 Feb 22 (cont.)	Up	P	z'	$\mu$	s
Aleutian Islands.				0.1	0.7
» 22	Up	iP		17	05
		P	z'	0.1	s
	Ki	iP		17	12
		P	z'	0.1	s
	Sk	iP		17	1.2
Aleutian Islands.				17	44 D
» 22	Up	iP		17	48
	Ki	eP		17	24
» 22	Up	iP		19	22
	Ki	iP		19	29
Aleutian Islands.					
» 22	Up	iP		20	19
	Ki	eP		20	22
Aleutian Islands.					
» 22	Up	iP		22	57
» 23	Up	iP		00	01
	i			00	11
	i			00	19
	Ki	P	z'	0.2	s
		iPeP		00	0.9
Aleutian Islands.				46	50
» 23	Up	iP		01	53
	Ki	iP		01	01 D
	Sk	P	z'	0.1	s
		eP		01	1.3
Aleutian Islands.				33	32
» 23	Up	iP		07	27
	Ki	eP		07	19
	i			07	55
» 23	Up	i		08	53
		i(PKP)		08	32
	Ki	iPP		08	20
	Sk	PP	z'	0.2	s
		iPKP		08	1.4
Argentina (h ~ 600 km).				32	09
» 23	Ki	e(S)		09	58
	M	E		2.1	10
	M	N		2.6	12
	M	Z		4.2	11
	Sk	iP		09	02
Novaya Zemlya. Probably nuclear explosion.				16	

1958						
Feb	23	Up	iP	09	23	48 D
			iS	09	33	10
				$\mu$	s	
		P	z'	1.1	0.7	
		S	E	0.6	2	
		S	N	0.6	2	
		S	z'	0.1	0.8	
	Ki	iP		09	23	15 D
		iS		09	32	10
				$\mu$	s	
		P	z'	0.8	1.2	
		S	N	1.6	6	
		M	E	0.6	15	
		M	N	0.5	16	
		M	Z	0.8	16	
	Sk	iP		09	23	45 D
		Bonin Islands region (h ~ 400 km).				
		Magn.= 6.4 (Up, Ki).				
» 23	Up	iP		10	18	26
		i		10	18	35
				$\mu$	s	
		P	z'	0.2	1.3	
		M	E	1.1	15	
		M	N	0.6	16	
		M	Z	1.2	14	
	Ki	eP		10	18	07
		i		10	18	13
		eS		10	27	46
				$\mu$	s	
		P	z'	0.1	1.3	
		S	N	0.3	12	
		M	E	1.0	14	
		M	N	0.7	18	
		M	Z	0.8	12	
		$\triangle = 8350 \text{ km} = 75^\circ$ .				
	Sk	eP		10	18	42
		Batan Islands region.				
» 23	Up	iP		11	00	16
		iPP		11	03	34
		iSKS		11	10	28
		iS		11	10	32
		e		11	11	04
				$\mu$	s	
		P	z'	1.0	1.0	
		PP	z'	0.3	1.5	
		S	N	0.6	6	
		M	E	1.2	22	
		M	N	1.0	19	
		M	Z	2.1	24	
		$\triangle = 9350 \text{ km} = 84^\circ$ .				
	Ki	iP		10	59	45
		e		11	09	33
		iS		11	09	40
				$\mu$	s	
		P	z	1.4	6	
		P	z'	0.9	1.0	
		S	E	0.6	5	
		M	E	0.6	18	

1958						
Feb 23	Ki	M	N	0.6	16	
(cont.)			$\Delta = 8800 \text{ km} = 79^\circ$ .			
	Sk	iP		11 00	14	
		iPP		11 03	28	
			$\Delta = 9300 \text{ km} = 83\frac{1}{2}^\circ$ .			
			Volcano Islands.			
			Magn. = 6.5 (Up, Ki).			
» 23	Up	iP		14 26	47	
		P	$z'$	$\mu$ 0.1	s 0.6	
	Ki	iP		14 26	11	
	Sk	iP		14 26	43	
			Near south coast of Honshu, Japan.			
» 24	Up	iP		12 35	52 C	
		iPP		12 37	48	
		eS		12 42	55	
		e		12 46	55	
		eLg1		12 53	12	
		eLg2		12 54	18	
		eRg		12 56	44	
		P	$z$	$\mu$ 1.4	s 5	
		P	$z'$	0.4	0.8	
		PP	E	0.7	5	
		PP	Z	0.9	5	
		S	E	1.0	8	
		S	N	0.6	6	
		M	E	8.5	11	
		M	N	7.4	14	
		M	Z	14	12	
			$\Delta = 5450 \text{ km} = 49^\circ$ .			
	Ki	iP		12 35	27 C	
		eS		12 42	08	
		P	E	$\mu$ 0.8	s 6	
		P	Z	0.8	6	
		P	$z'$	1.0	1.0	
		S	E	1.7	12	
		S	N	0.7	9	
		S	Z	0.8	8	
		M	E	14	13	
		M	N	6.9	11	
		M	Z	13	12	
			$\Delta = 5050 \text{ km} = 45\frac{1}{2}^\circ$ .			
	Sk	iP		12 36	01 C	
			Outer Mongolia.			
			Magn. = 6.3 (Up, Ki).			
» 24	Up	iSg		14 44	17	
	Ki	eP*		14 41	38	
		iSg		14 42	28	
		Sg	$z'$	$\mu$ 0.1	s 0.5	
			$\Delta = 360 \text{ km} = 3.2^\circ$ .			
	Sk	iPn		14 41	29 D	
		iPg		14 41	37	
		iS*		14 42	08	
		eSg		14 42	14	

1958						
Feb 24	Sk	$\Delta = 310 \text{ km} = 2.8^\circ$				
(cont.)		West coast of Norway, $66\frac{1}{4}^\circ\text{N}$ , $13^\circ\text{E}$ .				
		Origin time = 14 40 41.				
» 25	Up	iP	02	07	42	
			$\mu$	s		
	P	z'	0.2	1.0		
	M	E	0.9	18		
	M	N	0.9	20		
	M	Z	1.2	18		
	Ki	iP	02	06	49	
	eS		02	15	11	
			$\mu$	s		
	P	z'	0.1	1.0		
	M	E	1.7	19		
	M	N	1.7	18		
	M	Z	1.6	18		
		$\Delta \sim 6800 \text{ km} \sim 61^\circ$				
	Sk	iP	02	07	22	D
		Aleutian Islands.				
» 25	Ki	iP	07	37	25	
	Sk	iP	07	37	55	
		iPcP	07	38	29	
		Aleutian Islands.				
» 25	Up	iPg	09	19	13	
		iSg	09	19	43	
			$\mu$	s		
	Sg	z'	0.1	0.5		
	Ki	iSg	09	21	27	
	Sk	iSg	09	20	20	
		The Baltic Sea, $62\frac{1}{4}^\circ\text{N}$ , $20^\circ\text{E}$ .				
» 25	Sk	eP	09	33	53	
	i		09	34	24	
» 25	Up	e(Sg)	12	41	25	
	Sk	e(Sg)	12	41	51	
		Local.				
» 25	Sk	e(Sg)	13	02	07	
		Local?				
» 25	Up	iPKP	13	05	09	
			$\mu$	s		
	PKP	z'	0.1	0.6		
		New Zealand (h $\sim 200$ km).				
» 25	Up	iP	15	08	31	
	Ki	iP	15	08	32	
			$\mu$	s		
	P	z'	0.1	0.8		
	Sk	iP	15	08	46	
		Northern Sumatra.				
» 26	Up	iP	00	39	06	
	i		00	39	15	
» 26	Ki	e(Sg)	11	05	34	

1958				
Feb 26	Sk	e(Sg)	11	05 54
(cont.)	Local.			
» 26	Up	iP	11	47 30
	Ki	eP	11	46 55
	eS		11	56 22
			S	$\mu$ s
			E	0.5 6
			N	0.3 7
			M	E 0.8 17
			M	N 0.7 16
			M	Z 0.6 18
	Sk	eP	11	47 24
			South of Honshu, Japan.	
» 26	Up	iP	17	01 31
	iPeP		17	02 02
			M	$\mu$ s
			E	1.5 22
			M	N 1.6 22
			M	Z 2.7 22
	Ki	iP	17	00 39
			M	$\mu$ s
			E	1.6 22
			M	N 0.9 22
			M	Z 1.5 22
	Sk	iP	17	01 16
	iPeP		17	01 53
			Kurile Islands.	
» 26	Up	iP	17	30 18
			M	$\mu$ s
			E	0.8 20
			M	N 0.6 16
	Ki	iP	17	29 27
			M	$\mu$ s
			Z'	0.1 1.2
			M	E 1.0 16
			M	N 0.7 16
			M	Z 1.4 17
	Sk	eP	17	30 03
	i		17	30 19
			Off south coast of Hokkaido, Japan.	
» 27	Ki	eL	04	16
			M	$\mu$ s
			E	0.4 14
			M	N 0.5 19
			Iran.	
» 27	Up	iP	07	33 38
» 27	Up	iP	08	03 51
			M	$\mu$ s
			E	2.8 18
			M	N 3.2 15
			M	Z 4.4 13
	Ki	eP	08	02 16
	eS		08	04 28

1958					
Feb 27	Ki		$\mu$	s	
(cont.)		M	4.6	12	
		M	3.3	12	
		M	7.3	12	
		$\Delta = 1300 \text{ km} = 12^\circ$ .			
		Off west coast of Novaya Zemlya, 74.0°N, 51.8°E. Origin time=			
		=07 59 25. Nuclear explosion.			
» 27	Ki	iP	10	26 53	
		eS	10	29 07	
		M	$\mu$ s		
		E	1.2 12		
		M	1.3 12		
		M	2.1 12		
		$\Delta \sim 8100 \text{ km} = 73^\circ$ .			
		South of Honshu, Japan.			
» 26	Up	iP	17	01 31	
	iPeP		17	02 02	
		M	$\mu$ s		
		E	1.5 22		
		M	1.6 22		
		M	2.7 22		
	Ki	iP	17	00 39	
		M	$\mu$ s		
		E	1.6 22		
		M	0.9 22		
		M	1.5 22		
	Sk	iP	17	01 16	
	iPeP		17	01 53	
		Kurile Islands.			
» 26	Up	iP	17	30 18	
		M	$\mu$ s		
		E	0.8 20		
		M	0.6 16		
	Ki	iP	17	29 27	
		M	$\mu$ s		
		Z'	0.1 1.2		
		M	E 1.0 16		
		M	N 0.7 16		
		M	Z 1.4 17		
	Sk	eP	17	30 03	
	i		17	30 19	
		Off south coast of Hokkaido, Japan.			
» 27	Ki	eP	08	21 50	
		M	$\mu$ s		
		E	2.1 20		
		M	N 1.4 19		
		M	Z 2.6 19		
	Ki	iP	10	04 33	
		M	$\mu$ s		
		E	10	04 33	
		M	N	Z	
		2.8 18	3.2 15	4.4 13	
		2.1 20	1.4 19	2.6 19	
		2.0 18	1.9 17	1.8 16	
		$\Delta = 5950 \text{ km} = 53\frac{1}{2}^\circ$ .			

1958				
Feb 28	Ki	i	10	04 40
(cont.)		P	$\mu$	s
		Z'	0.1	1.0
		M	1.0	14
		M	0.6	16
		M	1.2	18
	Ki	iP	10	04 03
		Mid-Atlantic Ocean.		
» 28	Ki	iP	16	54 33
		Panay, Philippine Islands.		
» 28	Ki	iP	19	22 39
		(Molucca Passage).		
Mar 1	Up	iP	09	34 32
		P	$\mu$	s
		Z'	0.2	1.0
		M	1.2	22
	Ki	iP	09	35 07
		eSS	09	45 18
		P	$\mu$	s
		Z'	0.1	1.0
		M	1.3	14
		M	0.8	13
		M	1.5	14
	Sk	iP	09	35 07
		Southern Iran.		
» 1	Up	iP	10	16 15
» 2	Ki	e(P)	02	03 37
» 2	Up	iP	02	45 47
		P	$\mu$	s
		Z'	0.1	1.3
		Batan Islands.		
» 2	Up	iP	07	51 59
	Ki	iP	07	52 21
		Atlantic Ocean.		
» 2	Up	iP	11	51 26
		Indian Ocean.		
» 2	Ki	eP	18	22 02
		Siberia.		
» 3	Sk	iP	00	57 04 D
		Guatemala (h ~ 100 km).		
» 3	Ki	iPKP	04	25 14
	Sk	iPKP	04	25 25
		New Hebrides Islands.		
» 3	Up	iP	07	34 37
		P	$\mu$	s
		Z'	0.2	1.0
		M	1.4	14
		M	2.0	22
		M	2.3	15
	Ki	iP	17	21 19
		P	$\mu$	s
		Z'	0.1	1.2
		Komandorskie Islands.		
» 3	Ki	iP	17	20 24
		P	$\mu$	s
		Z'	0.1	0.5
	Ki	eP	17	03 22
	Sk	iP	17	03 38
		ipP	17	04 02
		Hindu Kush. h = 120 km (Sk).		
» 3	Up	iP	17	21 19
	Ki	iP	17	20 24
		P	$\mu$	s
		Z'	0.1	1.2
		Komandorskie Islands.		
» 3	Ki	iP	17	25 40
		Colombia (h ~ 150 km).		
» 3	Up	iP	17	43 12
		P	$\mu$	s
		Z'	0.1	1.2
	Ki	iP	17	42 16C
		P	$\mu$	s
		Z'	0.1	1.2

1958		1958	
Mar	7	Mar	7
(cont.)		(cont.)	Hindu Kush (h ~ 200 km).
Ki	M	E	07 05 03
M	M	N	0.9 18
Komandorskie Islands.			
» 4	Up	iP	01 00 02
» 4	Up	iP	11 37 26
	P	z'	$\mu$ s
	Ki	iP	0.2 1.0
	Sk	iP	11 38 31
	Sk	iP	11 38 05
Dodecanese Islands.			
» 4	Up	eP	18 00 31
	Ki	eP	18 00 14
	Sk	eP	18 00 30
Ryukyu Islands.			
» 5	Up	iPKP	05 56 26
	PKP	z'	$\mu$ s
	Ki	iPKP	0.1 0.8
	Sk	iPKP	05 56 08
	Sk	iPKP	05 56 22
New Zealand (h ~ 260 km).			
» 5	Up	e(P)	20 04 47
	Ki	iP	20 03 39
Aleutian Islands.			
» 6	Up	iP	05 46 22
	P	z'	$\mu$ s
	Sk	iP	0.1 0.6
	Sk	iP	05 47 03
Near south coast of Greece.			
» 6	Ki	iP	08 20 55
Northwest of Cyprus.			
» 6	Up	iP	12 09 41
	Ki	eP	12 09 23
Near north coast of Mindanao, Philippines.			
» 6	Up	iP	15 58 05
Kurile Islands.			
» 6	Ki	i(P)	21 41 58
	e(Sg)		21 42 20
Local?			
» 7	Up	i(Sg)	06 43 23
	Sk	e(P)	06 41 56
	i	i(Sg)	06 42 23
Local?			
» 7	Up	iP	07 02 55C
	Ki	iP	07 03 05C
	i		07 03 14
	P	z'	$\mu$ s
	Sk	iP	0.6 1.0
	Sk	iP	07 03 21C
Near northeast coast of Mindanao, Philippine Islands.			
» 7	Up	iP	08 34 29
	P	z'	$\mu$ s
	Sk	iP	0.1 1.0
	Sk	iP	08 34 33
Near northeast coast of Mindanao, Philippine Islands.			
» 7	Ki	eP	13 09 44
» 7	Up	iPKP	17 49 54
Tonga Islands.			
» 9	Up	iP	08 18 33
	P	z'	$\mu$ s
	Ki	eP	0.1 0.5
Aleutian Islands.			
» 9	Up	i(PKP)	10 42 13
	iPKP		10 42 19
	PKP	z'	$\mu$ s
	M	z'	0.6 1.2
	M	E	2.1 18
	M	N	2.3 20
	M	Z	3.9 22
	Ki	i(PKP)	10 41 57
	iPKP		10 42 00
	iPKS		10 45 36
	PKP	z'	$\mu$ s
	PKS	z'	0.2 1.5
	M	E	0.1 1.0
	M	N	3.7 20
	M	Z	1.9 20
	Sk	iPKP	10 42 13
Kermadec Islands region (h ~ 60 km). (PKP)-amplitude is very small.			
» 9	Ki	iP	11 36 54C
Halmahera Island region.			
» 10	Up	iP	06 16 03
	P	z'	$\mu$ s
	Ki	iP	0.1 1.0
	Sk	eP	06 15 20
	Sk	eP	06 15 55
Near east coast of Hokkaido, Japan.			
» 10	Ki	iP	08 08 08
	Sk	iP	08 08 37
Aleutian Islands.			
» 10	Up	iP	17 39 19
	P	z'	$\mu$ s
	Sk	iP	0.1 0.7

1958			
Mar 10 (cont.)	Ki iP	Mar 11 (cont.)	Up
	Sk iP	17 38 49	M E $\mu$ s
	Ryukyu Islands.	17 39 19	M N 0.8 20
» 11 Up	iP	00 37 43C	M Z 1.4 20
	ipP	00 38 00	M 2.3 22
	iPa	00 43 06	Ki iPKP 14 17 59
	eS	00 47 25	i 14 18 14
	isS	00 47 54	PKP z' $\mu$ s
	iP'P'	01 05 13	M E 0.1 1.1
	P z'	$\mu$ 2.2 0.8	M N 1.3 22
	S E	57 14	M Z 1.1 22
	S N	45 20	M 1.5 22
	M E	140 20	
	M N	180 23	
	M Z	160 20	
	$\Delta = 8450 \text{ km} = 76^\circ$ .		New Hebrides Islands.
Ki	iP	00 37 17C	» 11 Ki iP 14 27 59
	ipP	00 37 32	» 11 Up iP 19 39 12D
	iPP	00 40 03	Mariana Islands region
	iS	00 46 43	(h $\sim 500 \text{ km}$ ).
	i(P'P')	01 05 39	» 11 Ki i(P) 22 33 48
	P z'	$\mu$ 1.1 1.3	» 12 Ki eP 00 05 38
	pP E	6.2 9	eS 00 16 10
	pP N	1.7 9	S E $\mu$ s
	pP Z	13 9	S N 0.6 10
	pP z'	2.8 1.0	$\Delta = 9450 \text{ km} = 85^\circ$ .
	PP E	5.0 10	Sk iP 00 05 39
	PP Z	6.2 8	Guerrero, Mexico.
	S E	44 12	» 12 Ki i(Sg) 09 01 41
	S N	16 14	Sk e(Sg) 09 05 19
	M E	100 18	» 12 Sk iP 13 03 33
	M N	75 18	» 12 Up iP 14 49 35
	M Z	93 17	Mariana Islands.
	$\Delta = 8100 \text{ km} = 73^\circ$ .		» 12 Up iP 15 10 55
Sk	iP	00 37 45C	P z' $\mu$ s
	ipP	00 38 04	0.1 1.0
Ryukyu Islands. h = 60 km (Up, Ki, Sk). Magn. = 7.4 (Up, Ki).			
» 11 Ki	iP	01 14 16	» 12 Up iP 18 28 18D
» 11 Ki	e(P)	08 54 49	P z' $\mu$ s
	i(Sg)	08 54 56	0.2 0.6
	Local?		Ki iP 18 27 46D
» 11 Sk	eP	09 00 14	P z' $\mu$ s
	i	09 00 20	0.1 0.8
Guatemala (h $\sim 200 \text{ km}$ ).			
» 11 Up	iP	09 22 50	Sk iP 18 28 15D
	P z'	$\mu$ 0.1 0.5	iPP 18 31 25
Ki	iP	09 21 58	Bonin Islands region (h $\sim 500 \text{ km}$ ).
Aleutian Islands.			
» 11 Up	iPKP	14 18 14	» 14 Up iP 00 02 08
	P z'	$\mu$ 0.1 0.5	iS 00 12 35
	Ki iP	09 21 58	i 00 13 51
Aleutian Islands.			
» 11 Up	iPKP	14 18 14	P z' $\mu$ s
			0.1 1.0
			$\Delta = 9550 \text{ km} = 86^\circ$ .

1958							
Mar 14	Ki	iP	00 01 51				
(cont.)	i		00 01 57	1958			
eS			00 12 11	Mar 15 Up			
iScS			00 12 19	(cont.)			
e			00 13 31	P      z' $\mu$ s			
				S      E      0.1      0.6			
P			$\mu$ s	S      z'      0.8      6			
S			0.7      2.0	S      z'      0.1      1.0			
M			N      0.6      11	M      E      3.5      19			
M			E      4.1      19	M      N      4.5      13			
M			N      5.7      20	M      Z      6.9      16			
M			Z      3.5      18	$\Delta \sim 2200 \text{ km} \sim 20^\circ$ .			
Sk	eP		$\Delta = 9250 \text{ km} = 83\frac{1}{2}^\circ$ .	Ki			
i			00 02 17	iP      06 32 51			
			00 02 27	i      06 32 56			
Philippine Islands.				eS      06 37 41			
Magn.=6.1 (Up, Ki).							
» 14 Up	iP		00 20 10				
Ki	eP		00 20 01				
Sk	iP		00 20 25				
Northern Burma.				$\Delta \sim 3100 \text{ km} \sim 28^\circ$ .			
» 14 Up	iP		15 09 49C	Sk			
» 14 Sk	eP		17 12 38	iP      06 32 17			
» 15 Up	iP		00 35 57D	i      06 32 22			
				iS      06 36 28			
				$\Delta = 2600 \text{ km} = 23\frac{1}{2}^\circ$ .			
				Albania-Greece.			
				Magn.=5.3 (Up, Ki).			
» 15 Ki	iPKP		15 52 58	» 15 Ki	iPKP	15 52 58	
	Sk	ePKP	15 53 08		Sk	ePKP	15 53 08
				New Hebrides Islands.			
				» 15 Up	iP	17 44 58	
				Ki	iP	17 44 26	
				Off south coast of Honshu, Japan			
				(h $\sim 320 \text{ km}$ ).			
				» 15 Sk	ePKP	19 24 54	
				New Britain.			
				» 16 Ki	iP	02 12 34	
					Off south coast of Hokkaido,		
					Japan.		
				» 16 Sk	e(P)	06 50 21	
					» 17 Up	i(P)	00 07 13
				Leyte region, Philippine Islands.			
» 15 Ki	ePn		04 52 19				
	eSn		04 53 15				
	iSg		04 53 37				
				$\Delta = 510 \text{ km} = 4.6^\circ$ .			
Sk	eSg		04 56 08				
Kola Peninsula, U.S.S.R., 67.9°N, 32.6°E. Origin time=04 51 07.							
Solution obtained by combination with readings at Sodankylä, Finland.							
» 15 Up	iP		06 31 40	» 17 Up	iP	11 50 30	
	i		06 31 46	Ki	iP	11 50 17	
	i(S)		06 35 05	Sk	iP	11 50 45	
	iS		06 35 18				
				» 17 Up	iP	21 19 14	
				Ki	iP	21 19 30	
				i		21 19 16	
						21 19 32	
				Nicobar Islands region.			
				» 18 Up	iP	13 13 09	

1958				
Mar 18	Up	iP	14 17 39	1958
(cont.)				Mar 20 Up
				(cont.)
» 18 Sk	e(P)		15 32 20	M      N
	e(Sg)		15 32 55	M      z
				$\Delta = 7800 \text{ km} = 70^\circ$ .
		Local?		Ki
» 18 Up	iP		22 31 15	iP
	i		22 31 25	iPP
	iS		22 40 22	i
				iS
				P      N
				P      z
				P      z'
				PP      N
				PP      z
				S      E
				S      N
				S      z
				P'P'      z'
				M      E
				M      N
				M      z
				$\Delta = 6900 \text{ km} = 62^\circ$ .
				Sk
				iP
				iS
				iP'P'
				$\Delta = 7450 \text{ km} = 67^\circ$ .
				Aleutian Islands.
				Magn.=6.9 (Up, Ki).
				Slightly deeper than normal.
				» 20 Ki
				iP
				04 40 14
				» 20 Sk
		e(P)		(North Atlantic).
				06 27 04
				» 20 Up
		iP		08 04 02
				Off southeast coast of Hokkaido,
				Japan.
				» 20 Ki
		iP		13 07 16
				Sk
		iP		13 07 34
				Pamir (h $\sim 100 \text{ km}$ ).
				» 20 Sk
		eP		14 01 56
		i		14 01 58
				» 20 Up
		iP		16 44 35
				» 21 Sk
		eP		06 50 09
				» 21 Up
		eL		09 06
				M      N
				M      z
				$\Delta = 14^\circ$ due to the shadow zone.
				» 21 Up
		iLg1		01 49 15
		iLg2		01 49 28
		i(Lg2)		01 58 24
		i(Rg)		02 17 13
				Ki
		iP		eL
				09 01
				$\Delta = 14^\circ$
				S      N
				S      z
				P      N
				P      z
				P'P'      N
				P'P'      z
				M      E
				M      N
				M      z
				$\Delta = 14^\circ$
				Novaya Zemlya. Nuclear
				explosion.

1958				
Mar 21	Up i(Sg) Local?	09 46 24		
» 21	Sk i(P) Seismic?	13 03 51C		
» 21	Sk iP Mexico-Guatemala border (h ~150 km).	14 27 19		
» 21	Up iP i	18 44 15D 18 44 25		
Ki	P z' iP	0.1 0.7 18 44 16		
	P z' Sk iP i	0.1 1.0 18 44 32 18 44 42		
		Andaman Islands.		
» 22	Up ePKP Sk ePKP i	06 38 54 06 38 35 06 38 48		
		Kermadec Islands region.		
» 22	Up iP Aleutian Islands.	07 15 40		
» 22	Up iP eS	10 21 56D 10 30 22		
	P z' M E M N M Z	0.3 0.6 3.1 16 3.7 19 3.0 16		
Ki	iP e(Pa) eS i	10 21 51D 10 26 02 10 30 11 10 30 50		
	P z' S E M E M N M Z	0.4 1.2 1.1 11 5.5 15 11 24 5.7 15		
		△=7000 km=63°.		
Sk	iP iPP iPP eS iSS	10 22 12D Burma-Pakistan border. Magn.=6.4 (Up, Ki).		
	P z' PP	0.1 0.8 0.6 2		

1958				
Mar 22	Up (cont.)	PP (PP)	z z'	1.1 4 0.3 1.0
	M E M N M Z	10 16 7.0 10 15 17		
		△=4550 km=41°.		
Ki	iP iPP es iSS eLg1 iRg	11 15 42 11 17 10 11 22 04 11 25 06 11 29 28 11 32 40		
	P z' PP	0.1 0.7 0.6 2.0		
	M E M N M Z	11 14 6.7 12 10 15		
		△=4700 km=42½°.		
Sk	iP iPP	11 15 56 11 17 36		
		Afghanistan. Magn.=6.2 (Up, Ki).		
» 23	Up iP Afghanistan.	00 33 18		
» 23	Up iP i	10 26 56 10 27 07		
	P z' M E M N M Z	0.2 0.8 2.1 20 1.6 18 2.5 18		
Ki	iP i es	10 26 37 10 26 44 10 36 19		
	P z' M E M N M Z	0.2 1.1 2.0 14 2.6 20 2.1 13		
		△=8500 km=76½°.		
Sk	iP	10 27 04		
		Near northwest coast of Luzon, Philippine Islands.		
		Magn.=5.9 (Up, Ki).		
» 23	Up iP Mid-Atlantic Ridge.	15 50 49		
» 23	Ki eP Crete.	16 02 38		
» 23	Ki iP Northern Kurile Islands.	19 06 26		
» 23	Up iP Aleutian Islands.	20 24 18		
» 24	Up iP Ki iP	12 07 53 12 07 44		

1958				
Mar 24	Near north coast of Luzon, (cont.) Philippine Islands.			
» 24	Up iP Ki iP	15 04 59D 15 04 14		
		Near east coast of Hokkaido, Japan.		
» 24	Up iP iPg iSg i(Rg)	18 11 26 18 11 44 18 11 53		
		△=160 km=1.4°.		
		Explosion at Norrköping, Sweden.		
		Origin time= 18 10 58.		
» 25	Up iP iS	09 04 44 09 08 26		
		P z' 0.1 0.5		
Ki	iP i iS i	09 04 17 09 04 21 09 07 35 09 08 15		
	P z' 0.1 0.5	△=2300 km=20½°.		
		P z' 0.1 0.5		
» 26	Sk e(P) Local?	08 03 20		
» 26	Ki eL	10 28		
	M M	E 0.5 19 N 0.4 16		
» 26	Up iP	13 45 00		
» 26	Up iP	15 15 29		
» 26	Ki iP	15 40 42		
» 26	Up iP	22 59 35		
		Southern Aegean Sea.		
» 26	Up iP Ki iP	23 44 13		
	M Z	E 0.6 16 N 0.5 42		
Sk	eP	00 50 36D 00 50 13		
		Near east coast of Formosa.		
» 27	Up eP Ki	06 18 26		
	M M	E 0.5 20 N 0.4 19 Z 0.7 20		
Sk	iP	06 18 10		
		Near coast of Chiapas, Mexico (h ~150 km).		
» 27	Up iP Ki iP	06 45 41 06 44 48		
	P z'	0.1 1.0		

1958	Mar 27	Sk	iP	06	45	25
(cont.) Near southeast coast of Kamchatka.						
» 27	Up	i(P)		11	05	49
	Ki	i(P)		11	04	31
» 27	Up	iP		17	23	41
	iS			17	26	20
	P	z'	μ	s		
			0.1	0.5		
	Sk	△=1550 km=14°.				
	iP	17	24	38		
	eS	17	28	12		
	△=2100 km=19°.					
	Carpathian Mountains.					
» 28	Up	iP	04	16	58C	
	ipP		04	17	48	
	iPP		04	18	34	
	i(PP)		04	18	44	
	i		04	19	43	
	P	z'	μ	s		
	pP	z'	0.2	0.7		
	Ki	iP	04	17	(09)	
	ipP		04	17	(58)	
	iS		04	23	(13)	
	eSS		04	26	(27)	
	eLg1		04	32	(00)	
	P	z'	μ	s		
	S	E	0.2	1.0		
	M	E	0.5	6		
	M	Z	0.7	10		
	Sk	iP	04	17	9	
	ipP		04	18	24C	
	Hindu Kush. h=240 km (Up, Ki, Sk).					
	Magn.=5.7 (Up, Ki).					
» 28	Up	iP	12	13	50C	
	ipP		12	14	32	
	iPP		12	15	25	
	isPP		12	16	23	
	i(S)		12	19	48	
	isS		12	20	54	
	e		12	22	24	
	eSS		12	22	50	
	i		12	23	04	
	P	E	μ	s		
	P	N	3.8	1		
	P	Z	0.9	1		
	P	Z'	7.7	1		
	PP	E	3.7	1.0		
	(S)	N	1.0	1		
	Ki	iP	12	1.1	5	
	△=4450 km=40°.					
	iP		12	13	46C	
	ipP		12	14	27	
	isP		12	14	47	
	i(pPP)		12	16	04	

1958	Mar 28	Ki	esPP	12	16	19
(cont.)						
	i(S)		12	19	48	
	iSS		12	22	40	
	i		12	23	04	
	P	E	μ	s		
	P	N	2.7	2		
	P	Z	1.4	2		
	P	Z'	3.4	2		
	(S)	E	1.4	1.0		
	(S)	N	1.5	8		
	Sk	iP	12	14	16C	
	ipP		12	14	54	
	iPP		12	15	58	
	△=4800 km=43°.					
	Hindu Kush. h=200 km (Up, Ki, Sk).					
	Magn.=7.3 (Up, Ki).					
» 28	Sk	eP	15	36	45	
» 28	Ki	iP	17	27	35	
» 28	Up	iP	18	58	08C	
	Honshu, Japan (h ~ 80 km).					
» 28	Up	eP	20	31	20	
	Ki	ep	20	30	37	
	Sk	ep	20	31	12	
	Off south coast of Hokkaido, Japan.					
» 29	Up	iP	03	05	35	
	Sk	iP	03	06	15	
	Greece.					
» 29	Sk	iP	04	49	03	
	Greece.					
» 29	Up	iP	07	23	25	
	Sk	iP	07	24	05	
	Greece.					
» 29	Sk	iP	09	40	33	
	Greece.					
» 29	Up	iP	10	42	42	
	i		10	43	16	
	Ki	iP	10	42	19	
	P	E	μ	s		
	M	E	0.5	14		
	M	N	0.5	15		
	M	Z	0.6	15		
	Sk	eP	10	42	48	
	China.					

1958	Mar 30	Ki	e(Sn)	06	33	58	
(Kola Peninsula, U.S.S.R.).							
» 30	Up	iSg		06	45	50	
	Ki	eSn		06	42	30	
	iSg			06	42	54	
	Sk	iSg		06	45	20	
	Kola Peninsula, U.S.S.R.						
» 30	Up	iPKP	14	23	28		
	i		14	23	33		
	Sk	iPKP	14	23	22		
	Kermadec Islands.						
» 31	Up	iP	03	51	56		
	Sk	iP	03	52	16		
	Nepal.						
» 31	Sk	iP	04	10	12		
	Greece.						
» 31	Ki	iP	06	06	37		
	Sk	eP	06	06	50		
	» 31	Up	iP	10	43	30	
	Ki	iP	10	43	18		
	Sk	iP	10	43	11		
	i(pP)		10	43	43		
	Chiapas, Mexico (h ~ 100 km).						
» 31	Sk	i(P)	11	40	31		
	Seismic?						
» 31	Up	iP	15	12	34		
	i		15	12	48		
	Ki	iP	15	11	41		
	P	Z'	μ	s			
	Sk	iP	15	12	11		
	Aleutian Islands.						
» 31	Ki	iP	15	57	08		
	Alaska.						
» 31	Sk	iP	16	28	10		
	P	Z'	μ	s			
	Sk	iP	16	51	10		
	Ki	iP	16	52	25		
	Sk	iP	16	51	47		
	Ionian Sea.						
» 31	Up	iPKP	21	50	48		
	Sk	iPKP	21	50	43		
	Kermadec Islands region.						
	Sk	iP	02	28	47C		
	i		02	28	56		
	i		02	36	51		
	Albania. Magn.=5.7 (Up, Ki).						

1958			1958										
Apr	7	Ki	iPeP	15	40	37	Apr	7	Up	P	$\mu$	s	
(cont.)		iS		15	45	55	(cont.)		Ki	iP	0.2	1.3	
		P	N	3.9	8			i		18	41	00	
		P	Z	7.7	8			Sk	iP	18	41	11	
		P	Z'	2.2	1.0					18	41	34	
		S	E	23	9								
		S	N	10	10								
		S	Z	11	10		»	7	Up	iP	18	48	07
		M	E	220	22					iPeP	18	48	25
		M	N	82	19				i		18	49	05
		M	Z	130	22								
		$\Delta = 5150 \text{ km} = 46\frac{1}{2}^\circ$											
		Sk	iP	15	39	41			P	$\mu$	0.1	1.0	
		Alaska. Magn. = 7.1 (Up, Ki).							Ki	iP	18	47	26
»	7	Ki	iP	16	14	39							
		P	Z'	0.1	1.0		»	7	Up	iP	18	49	46C
		Alaska.							P	$\mu$	0.9	1.7	
»	7	Ki	eP	16	28	00			Ki	iP	18	49	06C
»	7	Ki	iP	16	47	03			P	$\mu$	0.8	2.0	
		Sk	e(P)	16	47	47			Sk	iP	18	49	37
		Alaska.											
»	7	Up	iP	18	16	29C	»	7	Up	iP	18	58	41C
		i	Z	18	16	33			P	$\mu$	0.1	1.0	
		iPeP	Z	18	16	43			Ki	iP	18	58	00
		ePP	Z	18	19	10							
		iS	Z	18	25	56							
		Near east coast of Honshu, Japan.											
		P	Z'	0.6	1.0		»	7	Up	iP	19	00	25
		PeP	Z	2.6	3				Ki	iP	18	59	30
		PP	N	0.6	3		»	7	Up	iP	19	01	10
		PP	Z	1.1	3				Ki	iP	19	01	20
		S	E	13	19		»	7	Up	iP	19	00	30
		M	E	45	20				P	$\mu$	0.1	1.0	
		M	N	42	19				Ki	iP	19	00	58
		M	Z	58	20								
		$\Delta = 8000 \text{ km} = 72^\circ$ .											
Ki		iP		18	15	49C			P	$\mu$	0.3	1.7	
		i		18	15	52			Sk	iP	19	00	58
		i		18	16	02							
		iPP		18	18	20							
		iS		18	24	36							
		P	Z'	1.3	2.0		»	7	Up	iP	19	22	04C
		S	E	13	15				iPP		19	23	57
		S	N	4.2	12				iS		19	29	04
		M	E	150	22				iLi		19	36	31
		M	N	49	22				iLg1		19	39	09
		M	Z	61	17				iLg2		19	40	38
		$\Delta = 7400 \text{ km} = 66\frac{1}{2}^\circ$ .											
Sk		iP		18	16	23			P	$\mu$	1.9	1.5	
		iPP		18	18	58			PP	E	0.8	3	
		Near east coast of Honshu, Japan.							PP	Z	1.1	3	
		Magn. = 6.9 (Up, Ki).							S	E	2.7	7	
»	7	Up	iP	18	41	41C			S	N	2.4	7	
				18	44	42			M	Z	5.0	12	

1958			1958			
Apr	7	Up	Apr	8	Up	
(cont.)		M N 73 13	(cont.)	Sk iP Outer Mongolia.	01 04 19	
Ki		M Z 73 13				
		$\Delta = 5400 \text{ km} = 48\frac{1}{2}^\circ$				
iP		19 21 39	» 8	Up iP	04 20 59C	
iPP		19 23 26				
iS		19 28 19	» 8	Up iP	04 47 56	
iSeS		19 31 38	Ki	iP	04 48 00	
i		19 31 55		i	04 48 11	
iLi		19 35 03	Sk eP		04 47 40	
iLg1		19 37 39	i		04 47 52	
		$\mu \text{ s}$	Colombia.			
P	z'	1.2 1.5				
PP	z'	3.2 2.5	» 8	Up iP	07 22 08	
S	N	4.7 10		iPP	07 25 00	
M	E	93 12				
M	N	130 20	Ki	P z' $\mu \text{ s}$	0.1 1.0	
M	Z	90 12	iP	07 21 27		
		$\Delta = 5050 \text{ km} = 45\frac{1}{2}^\circ$				
Sk	iP	19 22 12		M E $\mu \text{ s}$	1.2 21	
Outer Mongolia.	Magn. =			M N $\mu \text{ s}$	0.3 15	
6.7 (Up, Ki).	Extremely well		Sk eP	07 22 01		
developed channel waves.			Off east coast of Honshu,			
			Japan.			
» 7	Ki	iP	21 02 35			
» 7	Up	iP	23 29 16	» 8	Up iP	10 07 16
	i	23 29 24		iPP	10 08 53	
Ki	eP	23 28 28		i(PP)	10 09 00	
» 8	Up	iP	00 23 44		eLg2	10 22 58
	i	00 23 48				
	M E $\mu \text{ s}$	1.9 24	Ki	P z' $\mu \text{ s}$	0.3 1.5	
	M N $\mu \text{ s}$	0.8 18		PP z' $\mu \text{ s}$	0.2 1.5	
	M Z $\mu \text{ s}$	1.7 20		M E $\mu \text{ s}$	2.9 16	
Ki	iP	00 22 46		M N $\mu \text{ s}$	5.7 21	
	i	00 22 49		M Z $\mu \text{ s}$	4.7 17	
	eS	00 29 35			$\Delta = 4800 \text{ km} = 43^\circ$	
		$\mu \text{ s}$	Ki	eP	10 07 29	
	P z'	0.3 1.0		iPP	10 09 14	
	S E	0.9 13		eRg	10 27 39	
	S N	0.7 13				
	M E	2.1 18		M E $\mu \text{ s}$	1.2 14	
	M N	1.8 22		M N $\mu \text{ s}$	1.1 13	
	M Z	1.9 20		M Z $\mu \text{ s}$	1.3 16	
		$\Delta = 5150 \text{ km} = 46\frac{1}{2}^\circ$	Sk	iP	10 07 42	
Sk	iP	00 23 17		iPP	10 09 29	
	i	00 23 20			$\Delta = 5000 \text{ km} = 45^\circ$	
Alaska.			Sk	iP	10 07 42	
				iPP	10 09 29	
» 8	Up	iP	01 04 11		$\Delta = 5150 \text{ km} = 46\frac{1}{2}^\circ$	
		$\mu \text{ s}$			Afghanistan. Magn. = 5.8 (Up).	
	M E	0.8 13				
	M N	1.8 13				
	M Z	1.3 13				
Ki	iP	01 03 45				
		$\mu \text{ s}$				
	M E	2.3 14				
	M N	1.0 17				
	M Z	2.0 14				
		$\mu \text{ s}$	» 8	Up ePKP Tonga Islands (h ~ 250 km).	13 40 21	
			» 8	Up iP Aleutian Islands	14 15 53	

1958														
Apr	8	Up	iP	15	38	03	Apr	10	Up	iP	01	55	06C	
			Off east coast of Honshu, Japan.							ipP	01	55	18	
»	8	Up	iP (Outer Mongolia).	17	14	51D			Ki	P	$z'$	$\mu$	1.5	
»	8	Up	iP	20	05	50			iP	01	54	13C		
			P	$z'$	$\mu$	s			ipP	01	54	26		
		Ki	iP	20	05	10			P	$z'$	$\mu$	s		
			Off east coast of Honshu, Japan.						M	E	0.2	1.0		
»	9	Up	iP	04	43	54C			M	N	0.7	15		
		i		04	43	59			M	N	0.3	15		
		iS		04	49	53			M	Z	0.8	16		
			P	$z'$	$\mu$	s			Sk	iP	01	54	50	
			S	$z'$	0.1	1.0			ipP	01	55	02		
		Ki		$\Delta=4350$ km = $39^\circ$ .					Near east coast of Kamchatka. $h=50$ km (Up, Ki, Sk).					
			iP	04	44	32C	»	10	Up	iPKP	03	56	09	
		i		04	44	35			PKP	$z'$	$\mu$	s		
			P	$z'$	$\mu$	s				0.1	0.7			
			M	E	0.2	0.8			Fiji Islands region.					
			M	N	1.1	16		»	10	Up	iP	09	52	49
			M	Z	1.2	14				11	03	44		
		Sk	iP	04	44	29			M	E	$\mu$	s		
			Near southwest coast of Iran.						M	N	2.7	15		
»	9	Up	iP	06	25	40C			M	Z	3.5	16		
		i		06	25	51			Sk	iP	11	03	05C	
		eP'P'		06	54	47			ePP	11	04	34		
			P	$z'$	$\mu$	s			eLg1	11	16	45		
		Ki		$\Delta=7000$ km = $63^\circ$ .	0.2	1.0			eLg2	11	17	34		
			iP	06	24	48			P	$z'$	$\mu$	s		
			eP'P'	06	55	07				0.1	1.2			
			P	$z'$	0.3	1.3			M	E	1.2	12		
			M	E	2.2	24			M	N	1.4	13		
			M	N	1.2	18			M	Z	0.9	10		
			M	Z	1.2	18			Sk	iP	11	03	41	
			$\Delta \sim 6100$ km $\sim 55^\circ$ .						Outer Mongolia.					
		Sk	iP	06	25	11								
			Gulf of Alaska.				»	10	Up	iP	12	01	32C	
»	9	Up	iP	16	18	27			ipP	12	01	42		
»	9	Up	iP	18	11	45			iPP	12	04	12		
		Ki	eP	18	11	27			P	$z'$	$\mu$	s		
										0.3	1.0			
			P	$z'$	$\mu$	s			M	E	1.5	17		
					0.1	1.4			M	N	1.9	18		
			Molucca Passage.						M	Z	3.3	19		
»	10	Up	iP	01	15	36C			Sk	iP	12	00	51	
			P	$z'$	$\mu$	s			ipP	12	01	02		
					0.2	0.9			iPP	12	03	10		
		Ki	iP	01	15	07			iS	12	09	37		
			Sk	iP	01	15	36C			eScS	12	10	41	
			Ryukyu Islands						P	$z'$	$\mu$	s		
										0.2	1.0			
									S	E	0.7	15		
									S	N	0.4	15		
									M	E	6.7	22		
									M	N	1.3	16		

1958				
Apr 10	Ki	M	z	2.0 15
(cont.)	Sk	iP		$\Delta=7350 \text{ km}=66^\circ$ .
		ipP	12 01	24C
		ipP	12 01	34
		iPP	12 03	47
				Off east coast of Honshu, Japan.
				$h=40 \text{ km}$ (Up, Ki, Sk).
				Magn.=6.0 (Up, Ki).
» 10	Up	iP		13 24 06
		P	z'	$\mu$ 0.1 0.5
» 10	Up	iPP		13 37 20
		PP	z'	$\mu$ 0.1 1.4
				Northern Chile ( $h \sim 150 \text{ km}$ ).
» 10	Up			—
		M	E	$\mu$ 1.1 20
		M	N	0.9 20
		M	Z	1.7 20
	Ki	iP		23 17 14
		M	E	$\mu$ 2.2 22
		M	N	1.2 19
		M	Z	2.6 19
	Sk	eP		23 17 43
				Alaska.
» 11	Up	iP		01 09 39C
	e			01 13 57
	iS			01 18 58
		P	N	$\mu$ 0.4 4
		P	Z	1.0 4
		P	Z'	0.5 1.0
		S	E	0.8 5
		M	E	6.9 20
		M	N	8.3 19
		M	Z	10.5 20
	Ki			$\Delta=8000 \text{ km}=72^\circ$ .
		iP		01 08 59
		iPcP		01 09 31
		eS		01 17 42
		eScS		01 18 53
		P	Z'	$\mu$ 0.3 1.0
		S	E	2.2 15
		S	N	0.9 12
		M	E	20 20
		M	N	8.9 22
		M	Z	7.9 20
	Sk			$\Delta=7350 \text{ km}=66^\circ$ .
		iP		01 09 32
				Off east coast of Honshu, Japan.
				Magn.=6.4 (Up, Ki).
» 11	Sk	i(P)		15 09 20
				Seismic?

1958				
Apr 11	Up	iP		16 31 46
» 11	Up	iP		17 38 04
		iPcP		17 38 31
				$\Delta=7550 \text{ km}=68^\circ$ .
		Ki	iP	17 37 10
				Aleutian Islands.
» 11	Up	iP		18 05 48
		P	z'	$\mu$ 0.1 1.0
		Ki	eP	18 04 55
				Aleutian Islands.
» 11	Up	iP		18 19 50
		Ki	iP	18 18 56
				Aleutian Islands.
» 11	Up	iP		23 22 09C
		ipP		23 22 27
		iS		23 30 51
		iScS		23 31 50
		iP'P'		23 50 39
		P	E	$\mu$ 1.2 3
		P	N	2.5 3
		P	Z	6.4 3
		P	Z'	2.0 0.8
		M	E	4.3 23
		M	N	5.6 22
		M	Z	7.4 21
	Ki	iP		$\Delta=7450 \text{ km}=67^\circ$ .
		e		23 21 21C
		iS		23 25 12
				Molucca Passage.
		P	Z	$\mu$ 3.3 4
		P	Z'	1.8 1.0
		M	E	7.6 22
		M	N	3.5 17
		M	Z	7.2 20
				Kurile Islands. $h=60 \text{ km}$ (Up).
				Magn.=7.1 (Up, Ki).
» 11	Up	iP		23 37 51
		Ki	iP	23 37 36
» 12	Up	iP		11 59 38
		iPP		12 02 50
		iS		12 10 00
		S	E	$\mu$ 1.6 9
		S	N	4.8 11
		M	E	4.7 19
		M	N	7.2 20
		M	Z	7.8 22
	Ki			$\Delta=9450 \text{ km}=85^\circ$ .
		eP		11 59 14
		iS		12 09 10

1958				
Apr 12	Ki			$\mu$ s
(cont.)	S	E	1.5	11
	S	N	2.3	11
	M	E	16	17
	M	N	8.0	16
	M	Z	19	17
				$\Delta=8900 \text{ km}=80^\circ$ .
				Gulf of California.
				Magn.=6.5 (Up, Ki).
» 12	Up	iP		13 37 19C
		P	Z	$\mu$ 0.8 3
		M	E	3.2 19
		M	N	5.2 22
		M	Z	4.7 18
	Ki	iP		13 36 53C
		i		13 37 06
		i		13 37 20
				$\mu$ s
		P	Z'	0.6 1.3
		M	E	4.6 20
		M	N	2.4 21
		M	Z	4.3 19
	Sk	iP		13 37 21C
				Ryukyu Islands.
				Magn.=6.3 (Up, Ki).
» 12	Ki	iP		14 17 09
» 12	Ki	iP		15 35 18
» 13	Ki	iP		01 57 08
» 13	Up	eLg2		04 34 44
		M	E	$\mu$ s
		M	N	1.1 14
		M	Z	2.3 13
		Ki	iP	04 17 06
		e		04 27 23
		P	Z'	$\mu$ s
		M	E	0.1 1.1
		M	N	1.5 18
		M	Z	0.5 14
		Sk	iP	04 17 39
				Outer Mongolia.
» 13	Up	i(P)		12 48 03
» 13	Up	iP		13 10 56
	Ki	iP		13 10 04
	Sk	eP		13 10 40
				Near east coast of Kamchatka.
				Magn.=6.7 (Up, Ki).
» 13	Up	iP		14 20 45
» 13	Up	iP		00 44 20
» 14	Ki	eP		03 00 29C
» 14	Up	iP		$\mu$ s
		M	E	1.1 20
		M	N	0.8 18
		M	Z	1.2 17
	Ki	iP		02 59 52
		P	Z'	$\mu$ s
		P	Z'	0.2 1.0

1958				
Apr 13	Ki	S	E	3.5 8
(cont.)	M	E	3.3	19
	M	N	1.5	19
	M	Z	2.9	20
				$\Delta=5200 \text{ km}=47^\circ$ .
	Sk	iP		09 16 26
	i			09 16 39
				Alaska.
» 13	Up	iP		12 39 41C
	ePa			12 43 47
	iS			12 48 13
				$\mu$ s
	P	N	5.7	11
	P	Z	13	11
	P	Z'	0.9	1.1
	S	E	6.2	11
	S	N	5.3	15
	S	Z	2.2	11
	M	E	29	24
	M	N	26	18
	M	Z	43	19
				$\Delta=7050 \text{ km}=63\frac{1}{2}^\circ$ .
	Ki	iP		12 38 47C
	ePa			12 42 06
	iS			12 46 35
				$\mu$ s
	P	E	0.9	8
	P	N	1.9	8
	P	Z	3.3	8
	P	Z'	0.9	1.0
	S	E	6.4	13
	S	N	2.3	14
	M	E	25	16
	M	N	20	16
	M	Z	41	17
				$\Delta=6200 \text{ km}=56^\circ$ .
	Sk	iP		12 39 24
				Near east coast of Kamchatka.
				Magn.=6.7 (Up, Ki).
» 13	Up	i(P)		13 10 56
	Ki	iP		13 10 04
	Sk	eP		13 10 40
				Near east coast of Kamchatka.
» 13	Up	iP		14 20 45
» 13	Up	iP		00 44 20
» 14	Ki	eP		03 00 29C
» 14	Up	iP		$\mu$ s
		M	E	1.1 20
		M	N	0.8 18
		M	Z	1.2 17
	Ki	iP		02 59 52
		P	Z'	$\mu$ s
		P	Z'	0.2 1.0

1958		1958	
Apr 15	Ki iS	Apr 16	Ki iP
(cont.)		04 16 11	12 48 25 D
P	z' $\mu$ 0.3 1.5	P	z' $\mu$ 0.1 0.8
S	N 3.4 20	Sk iP 12 48 47	Off northwest coast of Luzon, Philippine Islands.
M	E 11 20		
M	N 4.7 21		
M	Z 11 21		
Sk	iP 04 05 16	» 16 Up iP 21 42 00	Honshu, Japan.
i	04 05 23		
Off west coast of Costa Rica. Magn.=6.3 (Up, Ki).			
» 15	Up iP 04 15 47 D	» 17 Up iP 02 57 58 D	
P	z' $\mu$ 0.1 1.0	P	z' $\mu$ 0.1 0.6
» 15	Ki iP 09 07 06	Ki iP 02 57 22	
i	09 07 20	Sk eP 02 57 50	South of Honshu, Japan.
Local? Seismic?			
» 15	Up iP 10 12 15	» 17 Up eP 03 21 13	
i	10 12 32	» 17 Up iPKP2 04 06 44	
Ki	P z' $\mu$ 0.2 1.0	PKP2 z' $\mu$ 0.1 0.7	
	iP 10 11 57	Ki iPKP 04 06 12	Near north coast of North Island, New Zealand.
	ipP 10 12 26		
Sk	iP z' $\mu$ 0.2 1.3	» 17 Up — — —	
	10 12 20	M E $\mu$ 1.1 20	
Near south coast of Luzon, Philippine Islands (h ~ 100 km).		M N $\mu$ 1.2 19	
» 15	Up iP 11 10 55	M Z $\mu$ 1.4 20	
Ki	iP 11 10 02 D	Ki e(PS) 10 33 05	
	P z' $\mu$ 0.1 1.0	M E $\mu$ 1.0 18	
Sk	eP 11 10 31	M N $\mu$ 1.0 19	
Aleutian Islands.		M Z $\mu$ 2.4 21	
» 15	Ki e(P) 12 28 33	New Britain.	
» 15	Ki iP 15 52 42	» 17 Up iP 11 44 17	
Aleutian Islands.		i 11 44 26	
» 15	Up iP 16 03 21	i 11 44 33	
» 15	Ki iP 22 31 40	P z' $\mu$ 0.2 1.0	
Central Africa.		M E $\mu$ 0.7 19	
» 16	Up iP 06 40 18	M N $\mu$ 0.7 20	
» 16	Up iPKP 06 42 05	M Z $\mu$ 1.4 20	
Sk	iPKP 06 41 54	Ki iP 11 43 37 C	
Off north coast of North Island, New Zealand.		i(pP) 11 43 56	
» 16	Up iP 12 48 42	iPcP 11 44 08	
i	12 49 01	eS 11 52 25	
P	z' $\mu$ 0.1 0.6	P z' $\mu$ 0.1 1.1	
M	E 1.1 20	M N $\mu$ 0.7 20	
M	N 0.7 20	M Z $\mu$ 1.9 19	
M	Z 1.9 19	$\Delta = 7400 \text{ km} = 66\frac{1}{2}^\circ$	
Sk	iP 11 44 11		
i	11 44 30		
Near east coast of Honshu, Japan. Magn.=6.0 (Up, Ki).			

1958								1958							
Apr	18	Up	iP	03	22	46		Apr	19	Ki	M	E	2.1	15	
		Ki	iP	03	21	56	(cont.)			M	N	1.3	16		
		Sk	iP	03	22	32				M	Z	2.7	15		
		Kurile Islands.								$\Delta = 8900 \text{ km} = 80^\circ$ .					
»	18	Up	iP	05	22	02		Sk	iP		04	15	35		
		Ki	eP	05	21	14		Gulf of California.							
Off east coast of Honshu, Japan.								Magn. = 5.7 (Up, Ki).							
»	18	Up	iPKP	07	50	20		»	19	Up	iP	14	27	03	
		Ki	iPKP	07	50	15		Ki	iP		14	26	34		
			iSKP	07	52	46			P	$z'$	$\mu$	$s$			
			Sk	ePKP	07	50	12		Sk	iP	14	27	0.8		
			i	07	50	24		Volcano-Mariana Islands					00C		
Fiji Islands (h ~ 600 km).								region (h ~ 200 km).							
»	18	Up	iP	14	31	15		»	19	Up	iP	22	52	56D	
		Ki	iP	14	30	21		Ki	iP	P	$z'$	$\mu$	$s$		
		Sk	iP	14	30	56			22	52	0.1	1.0			
Off east coast of Kamchatka.															
»	18	Sk	iP	17	21	01			P	$z'$	$\mu$	$s$			
		Local? Seismic?								22	52	0.1	1.0		
»	18	Up	iP	18	02	26		Sk	iP						
		Ki	iP	18	01	36		Off east coast of Kamchatka.							
Near south coast of Kamchatka.								»	20	Up	iP	06	22	43	
»	18	Up	iP	19	18	14		Ki	iP						
		iPCP		19	18	41		»	20	Up	iP	13	08	39	
		Ki	iP	19	17	26		Ki	iP						
		Sk	iP	19	18	02		Off north coast of Luzon,							
Kurile Islands.								Philippine Islands.							
»	18	Ki	eP	20	12	21		»	20	Up	iPKP	21	33	56C	
		e		20	14	05		i							
		i		20	15	13		Ki	PKP	$z'$	$\mu$	$s$			
»	18	Ki	eP	22	46	29		iPKP	21	34	0.1	0.5			
		Sandwich Islands.								P	$z'$	$\mu$	$s$		
»	19	Up	iP	00	22	55		Sk	iPKP	21	34	1.3			
		Ki	eP	00	22	20									
		Sk	eP	00	22	50		»	21	Up	eP	05	43	40	
South of Honshu, Japan.								i							
»	19	Up	eP	04	16	02			M	E	0.9	18			
		eS		04	26	31			M	Z	1.4	16			
					$\mu$	$s$		Ki	iP						
		P		$z'$	0.2	2.0									
		S		N	0.4	6			M	E					
		M		E	0.8	16			M	N					
		M		N	0.7	15			M	Z					
		M		Z	1.6	18			Near east coast of Formosa.						
		$\Delta = 9450 \text{ km} = 85^\circ$ .													
Ki		iP		04	15	33		»	21	Up	iPKP	20	34	16	
		eS		04	25	35		iPKS							
					$\mu$	$s$									
		P		$z'$	0.2	1.5			PKP	$z'$	$\mu$	$s$			
		S		N	0.2	9			PKS	N	0.1	1.6			

1958							1958								
Apr	23	Ki	eP	03	36	30	Apr	25	Sk	e(P)	18	59	58		
»	23	Up	iP	05	03	40	»	25	Up	iP	19	14	23		
			ipP	05	03	53			Ki	iP	19	13	31		
		Ki	iP	05	02	53			ipP		19	13	43		
			ipP	05	03	06				P	z'	0.1	s		
				P	z'	$\frac{\mu}{s}$						1.3			
		Sk	eP	05	03	29				Aleutian Islands.					
			epP	05	03	41									
		Kurile Islands. h=50 km (Up, Ki, Sk).													
»	23	Up	eP	06	04	40	»	26	Up	iP	01	20	29		
		Ki	eP	06	04	11			ipP	01	20	43			
		Ryukyu Islands.							Ki	iP	01	19	43		
»	23	Ki	iP	13	58	31			ipP	01	19	56			
		Seismic?								P	z'	$\frac{\mu}{s}$	1.0		
»	23	Ki	iP	14	37	20 D									
			P	z'	$\frac{\mu}{s}$	0.8									
»	24	Ki	iP	08	07	00	»	27	Up	iPKP	09	44	52		
		Aegean Sea.							Ki	iPKP	09	44	44		
»	24	Ki	eP	09	58	03			Sk	iPKP	09	44	55		
		Off north coast of Luzon.								New Hebrides Islands.					
»	24	Ki	iP	13	05	14	»	27	Up	iPKP	08	32	15		
		Central Honshu, Japan.							Ki	iPKP	08	32	08		
»	24	Up	eP	18	22	20			Tonga Islands region (h~100 km).						
		Pacific Ocean, off south coast of Panama.													
»	24	Ki	iP	21	16	24	»	27	Up	iP	17	28	34 C		
»	25	Up	iP	06	32	29 D			P	z'	$\frac{\mu}{s}$	0.8			
		Aleutian Islands.							Ki	iP	17	27	51		
»	25	Up	iP	08	46	15			P	z'	$\frac{\mu}{s}$	1.3			
		ipP	08	46	28			Ki	iP	17	28	26 C			
		Ki	iP	08	45	21									
			ipP	08	45	34									
			P	z'	$\frac{\mu}{s}$	1.3									
		Aleutian Islands. h=50 km (Up, Ki).													
»	25	Ki	iP	15	08	50	»	27	Up	iP	19	14	49		
»	25	Sk	eP	17	51	27			P	z'	$\frac{\mu}{s}$	1.2			
		e	17	51	45			M	E	1.4	18				
		Crete.							M	N	2.5	20			
								M	Z	3.3	21				
								Ki	eP	19	13	54			
									ipP	19	14	07			
										P	z'	$\frac{\mu}{s}$	1.3		
									M	E	2.3	17			
									M	N	1.8	18			
									M	Z	3.3	20			
									Sk	iP	19	14	25		
									ipP	19	14	41			
									Aleutian Islands. h=60 km (Ki, Sk).						
»	25	Ki	i(Sg)	17	57	45	»	28	Ki	iP	03	44	36		
»	25	Up	iP	18	39	47	»	28	Up	iP	12	01	35		
		Hindu Kush (h~150 km).							iSKS		12	12	05		

1958	May 1	Ki	i	00	48	15
(cont.)		ePP	00	49	20	
		iPKKP	00	57	47	
				$\mu$	s	
		PKP	z'	0.7	1.0	
		PP	N	0.4	10	
		PP	Z	0.7	10	
		PKKP	z'	0.4	1.2	
		M	E	2.2	20	
		M	N	1.4	18	
		M	Z	2.2	19	
		Sk	iPKP	00	47	59C
		New Hebrides Islands				
		(h ~ 200 km).				
»	1	Up	iP	07	24	20
		Ki	iP	07	24	01
		Near west coast of Luzon,				
		Philippine Islands.				
»	1	Up	i(P)	09	49	32
		(Celebes).				
»	1	Up	iP	12	45	14
		i	12	45	19	
		P	z'	0.2	0.8	
		Ki	iP	12	44	43
				$\mu$	s	
		P	z'	0.3	1.0	
		Sk	iP	12	45	10
		Volcano Islands (h ~ 400 km).				
»	1	Up	iP	21	19	54
		i	21	24	08	
		i	21	27	49	
		Ki	iP	21	21	14
				$\mu$	s	
		M	E	1.7	15	
		M	N	0.6	16	
		Sk	iP	21	20	38
		Albania.				
»	2	Up	iP	03	56	20
		Ki	i(P)	03	56	19
		Sk	eP	03	56	39
		(Tibet).				
»	2	Up	i(Sg)	14	29	48
		Sk	e	14	29	56
		e(Sg)	14	30	15	
		Local.				
»	2	Up	iP	21	27	56
				$\mu$	s	
		P	z'	0.1	0.6	
		Ki	iP	21	28	30
		Sk	eP	21	28	29
		Southern Iran.				
»	3	Up	iP	06	56	42

1958	May 3	Ki	iP	07	19	38	
(cont.)		Atlantic Ocean.					
	»	3	Up	iP	08	12	35
				$\mu$	s		
		M	E	1.3	20		
		M	N	1.4	17		
		M	Z	1.6	18		
		Ki	iP	08	13	16	
		e(S)		08	23	41	
				$\mu$	s		
		M	E	2.0	21		
		M	N	0.8	19		
		M	Z	1.8	18		
		Atlantic Ocean.					
»	3	Up	iP	20	23	30	
		iS		20	27	45	
				$\mu$	s		
		P	z'	0.2	0.5		
		S	E	0.6	4		
		S	N	0.7	4		
		M	E	2.1	16		
		M	N	4.5	15		
		M	Z	5.9	15		
		Ki	iP	20	24	42	
				$\mu$	s		
		P	z'	0.3	1.7		
		M	E	2.4	17		
		M	N	2.0	19		
		M	Z	3.0	19		
		Sk	iP	20	24	09	
		Near south coast of Greece.					
»	4	Up	iP	10	55	22	
		Ki	iP	10	54	37	
		Sk	iP	10	55	09	
		Near south coast of Honshu, Japan.					
»	4	Up	i	11	04	25	
		Ki	eP	10	58	05	
		French Alps.					
»	4	Up	iPKP	20	19	33	
		Fiji Islands region					
		(h ~ 550 km).					
»	5	Up	iP	05	27	39	
		e		05	33	18	
				$\mu$	s		
		P	z'	0.1	1.0		
		M	E	3.2	20		
		M	N	4.7	20		
		Ki	iP	05	28	25C	
		e		05	36	02	
				$\mu$	s		
		P	z'	0.1	1.0		
		M	E	4.5	18		
		Ki	iP	06	56	42	

1958	May 5	Ki	M	N	2.5	18
(cont.)		Sk	iP		2.2	16
		i		05	28	17
				05	28	27
		Iran-Iraq border.				
		Magn.=5.5 (Up, Ki).				
»	5	Up	iP	06	42	51D
		ipP		06	43	05
		iS		06	51	52
		i		06	52	32
				$\mu$	s	
		P	N	0.4	2	
		P	Z	0.8	2	
		P	z'	0.7	1.2	
		pP	z'	1.3	1.6	
		M	E	1.0	19	
		M	N	1.0	22	
		△=7700 km=69½°.				
		Ki	iP	06	43	37D
		i		06	43	47
		ipP		06	43	51
		eSKS		06	53	43
				$\mu$	s	
		P	Z	0.4	4	
		P	z'	0.8	1.0	
		pP	z'	1.0	1.5	
		M	E	0.9	16	
		M	N	0.6	17	
		M	Z	1.2	17	
		Sk	iP	06	43	16D
		ipP		06	43	30
		Congo. h=60 km (Up, Ki, Sk).				
		Magn.=6.4 (Up, Ki).				
		This shock is probably very suitable				
		for a fault-plane determination (extremely clear P phases).				
»	5	Ki	iP	13	42	55
		iPeP		13	43	38
		Sk	iP	13	43	25
		Aleutian Islands (h ~ 60 km).				
»	6	Up	iPg	14	09	10
		iSn		14	09	40
		iSg		14	10	02
				$\mu$	s	
		Sg	z'	0.1	0.5	
		△=460 km=4.1°.				
		△=1110 km=10.0°.				
		Sk	e(Pg)	14	09	12
		e(Sg)		14	10	22
		△=520 km=4.7°.				
		South coast of Norway, 59°N, 10°E. Origin time=14 07 47.				
»	6	Up	iP	00	03	46
		M	N	1.0	22	
		Sk	iP	07	36	22
		North Atlantic Ocean.				

1958 May 7	Ki	iP	07	51	27
	Sk	eP	07	50	55
North Atlantic Ocean.					
			1958 (cont.)	May 8	Up
				M	E
				M	2.9
				Z	22
				Ki	
				ePKP	12
				iPP	12
				e	13
				ESKS	13
				e!	13
				e(S)	13
				PP	0.7
				PP	0.2
				SKS	1.1
				S	0.9
				M	1.8
				M	1.7
				M	1.7
				z	22
	P	z'		Sk	iPP
	M	E		12	59
	M	N		11	
	M	Z			
Ki	iP	14	55	43	
	i	14	55	52	
	iPP	14	57	29	
	eLg1	15	11	05	
	P	z'		» 8	Up
	M	E		Ki	i(P)
	M	N		13	10
	M	Z		13	09
	Sk	iP		13	58
	iPP	14	55	59	
	Afghanistan-Pakistan border.	14	57	52	
» 7	Ki	eP	19	00	58
» 7	Up	iP	22	07	52
	ipP	22	08	04	
Ki	P	z'	0.2	0.8	
	iP	22	07	01	
	ipP	22	07	13	
	P	z'	0.2	0.7	
Sk	iP	22	07	36 D	
	ipP	22	07	48	
	Kamchatka region.				
	h=50 km (Up, Ki, Sk).				
» 8	Ki	iP	02	53	54
	P	z'	0.1	1.4	
	M	E	0.7	18	
	M	N	0.4	15	
	M	Z	1.3	23	
	North Atlantic Ocean.				
» 8	Up	iSKS	13	05	13
	iS	13	06	40	
	isS	13	08	20	
	S	N	1.7	13	

1958 May 9	Up	△=2700 km=24½°.	May 11	Ki	Sk	△=5350 km=48°.
(cont.)	Ki	iP	02	47	10 D	05
	eS	02	52	23		33
	e	02	53	39		03 D
	eLg1	02	56	51		
	iRg	03	00	18		
	P	z'	0.1	0.8		
	S	N	1.1	20		
	M	E	4.2	12		
	M	N	2.8	10		
	M	Z	3.6	10		
	△=3500 km=31½°.	Sk	iP	02	46	44
	Dodecanese Islands.					
	Magn.=5.4 (Up, Ki).					
» 9	Up	iPKP	04	58	47	09
	Ki	iPKP	04	58	55	17
	eSKS	05	05	29		
	i!	05	06	44		
	eS	05	07	35		
	i	05	19	35		
	PKP	z'	0.1	1.0		
	SKS	E	0.6	8		
	S	N	0.4	9		
	Sk	iPKP	04	58	46	
	Cordoba-La Rioja Provinces,					
	Argentina (h ~ 100 km).					
	P	z'	0.1	1.0		
	Ki	iP	05	48	25 C	
	ipP	05	48	36		
	P	z'	0.2	1.2		
	Sk	iP	05	49	05	
	Aleutian Islands.					
	h=50 km (Up, Ki).					
» 10	Up	iP	23	04	14	12
	Ki	P	z'	0.4	2.0	
	iP	23	03	15		
	i	23	03	23		
	P	z'	1.6	2.5		
	M	E	6.0	25		
	M	N	1.2	17		
	M	Z	2.7	18		
	Sk	iP	23	03	44	
	Central Alaska.					
	P	z'	0.3	1.5		
	Ki	iP	05	33	31	12
	iS	05	41	17		
	P	z'	0.3	1.5		
	Sk	iP	05	32	32	
	Outer Mongolia.					
	M	E	0.5	14		
	M	N	0.5	15		
	M	E	0.4	15		
	M	N	0.4	15		
	M	Z	0.4	15		
» 11	Up	iP	05	21	57	12
	Ki	iS	05	33	31	
	iS	05	41	17		
	P	z'	0.3	1.5		
	Ki	iP	05	32	32	
	iS	05	39	30		
	P	z'	0.3	1.5		
	Sk	iP	05	23	26	
	Eastern Mediterranean.					
	M	E	1.4	8		
	M	N	6.5	26		
	M	Z	2.3	20		
	M	Z	2.8	16		
» 12	Up	iP	17	01	51 D	12
	Ki	iP	14	24	26	
	Sk	iP	14	23	56	
	Up	iP	17	02	09	

1958					
May 12	Up	iPP	17 04 47		
(cont.)		iSKS	17 11 36		
		ipS	17 11 59		
		P	$\mu$ s		
		z'	0.4 0.7		
		PP	0.1 1.0		
		SKS	E 0.5 3		
		SKS	N 0.3 3		
		M	E 0.8 21		
		M	N 0.6 22		
	Ki	iP	17 01 16		
		ipP	17 01 57		
		e(SeS)	17 10 30		
		P	$\mu$ s		
		z'	0.4 1.0		
		M	E 1.5 23		
		M	N 1.4 22		
		M	Z 1.2 20		
	Sk	iP	17 01 47 D		
		iPP	17 04 39		
		South of Honshu, Japan.			
		h=160 km (Ki).			
		Magn.=6.2 (Up, Ki).			
» 12	Ki	ePP	18 47 16		
		PP	$\mu$ s		
		z'	0.1 1.0		
		Marshall Islands region.			
		Nuclear explosion.			
» 12	Up	iP	21 25 48		
		Peru (h~150 km).			
» 12	Up	iP	22 26 56		
	Ki	eP	22 26 04		
	Aleutian Islands.				
» 13	Ki	iP	11 26 00		
	Alaska.				
» 13	Up	iP	16 18 11		
	Ki	eSg	16 18 16		
	Near Kola Peninsula.				
» 14	Ki	eL	04 52		
		M	$\mu$ s		
		E	0.7 20		
		M	N 0.4 20		
		M	Z 0.7 20		
	New Ireland.				
» 14	Up	i(P)	07 51 38		
» 14	Sk	eP	10 21 49		
» 14	Up	iP	12 47 15		
		i	12 47 23		
	Ki	P	$\mu$ s		
	iP	z'	0.1 1.0		
	i	12 47 15			
	i	12 47 22			

1958					
May 14	Ki	P	$\mu$ s		
(cont.)		Sk	i(P)		
		z'	0.4 2.0		
		Andaman Islands region.	12 47 42		
» 14	Sk	eP	16 45 45		
» 15	Up	iPKP	00 09 50		
		South of Fiji Islands.			
	Ki	iP	04 35 53		
		iPeP	04 36 19		
		P	$\mu$ s		
		z'	0.1 0.5		
	Ki	iP	$\Delta=7550$ km=68°.		
		04 35 01			
		iPeP	04 35 45		
		M	$\mu$ s		
		E	0.4 18		
		M	N 0.3 18		
		M	Z 0.9 19		
	Sk	iP	04 35 31		
		iPeP	04 36 04		
		$\Delta=6800$ km=61°.			
		Aleutian Islands.			
» 15	Up	i(PKP)	05 00 15		
		i	05 00 23		
	Ki	iPKP	05 00 08		
		Tonga Islands region.			
» 15	Up	iP	06 47 23		
	Ki	e(SS)	14 55 20		
		e	14 58 27		
		M	$\mu$ s		
		E	0.9 22		
		M	N 0.4 11		
	Ki	—	—		
		M	$\mu$ s		
		E	0.3 15		
		M	N 0.3 12		
		M	Z 0.3 12		
	Sk	eP	14 51 42		
		i	14 51 50		
		Greece.			
» 15	Up	iP	15 34 41 D		
	Sk	iP	15 35 25		
		M	$\mu$ s		
		N	1.2 26		
	Ki	eP	18 58 29		
		i	18 58 36		
		e	19 08 51		
		M	$\mu$ s		
		E	0.8 19		
		M	N 0.6 17		
		M	Z 1.2 20		

1958					
May 16	Up	iP	02 15 10		
	Ki	iP	02 14 16		
		iPeP	02 15 02		
		$\Delta=6650$ km=60°.			
	Sk	eP	02 14 47		
		Aleutian Islands.			
» 16	Up	iP	09 24 21		
		eS	09 28 47		
		M	$\mu$ s		
		E	1.0 16		
		M	N 1.8 20		
		M	Z 1.4 16		
	Ki	iP	$\Delta=2700$ km=24½°.		
		09 25 06			
		e	09 30 19		
		eLgl	09 34 38		
		M	$\mu$ s		
		E	1.5 12		
		M	N 1.0 13		
		M	Z 1.0 11		
	Sk	eP	09 24 37		
		Caucasus.			
» 16	Up	iP	13 59 00		
		i	13 59 07		
	Ki	iP	16 30 52		
		18 25 22			
		18 25 32			
		M	$\mu$ s		
		E	0.5 12		
		M	N 0.4 10		
		M	Z 0.6 12		
	Ki	iP	18 25 11		
		i	18 25 20		
		Sk	18 25 38		
		Sinkiang Province, China.			
» 16	Ki	iP	18 41 15		
		(Turkey).			
» 16	Ki	e(P)	21 32 08		
		Up	iP		
		05 31 30			
		M	$\mu$ s		
		E	1.2 18		
		M	N 0.3 16		
	Ki	iP	05 32 40		
		i	05 32 43		
		Sk	P		
		eP	z' 0.1 1.1		
		Libya.	05 32 00		
	» 17	Up	eL		
		07 48			
		M	$\mu$ s		
		E	2.2 19		
		M	N 1.8 20		
		M	Z 3.5 20		
	Ki	iPKP	02 51 47		
		ePP	02 53 23		
		PP	$\mu$ s		
		Z	1.9 16		
		PKS	E 0.9 9		
		PKS	N 1.1 9		
		M	E 5.6 22		
		M	N 8.0 22		
		M	Z 10 22		
		$\Delta \sim 14200$ km ~ 128°.			
		iPKP	02 51 47		
		ePP	02 53 23		
		PP	$\mu$ s		
		Z	1.3 16		
		M	E 3.7 18		
		M	N 2.6 22		
		M	Z 5.3 18		



1958				
May 25	Ki	$\triangle \sim 6500 \text{ km} \sim 58\frac{1}{2}^\circ$ .		
(cont.)	Sk	iP	03	03
	Gulf of Aden.		29	
» 25	Up	iP	08	14
			46	
» 25	Up	iP	10	17
			18	
» 25	Up	iP	15	05
	eP'P'		34	
			15	33
			45	
	P	$\mu$	0.4	0.8
	M	E	1.1	20
	M	N	1.4	18
	M	Z	1.8	17
	Ki	$\triangle = 7650 \text{ km} = 69^\circ$ .		
	iP		15	04
	iPeP		41	
			15	05
			27	
	P	$\mu$	0.1	1.0
	PcP	$\mu$	0.1	1.1
	M	E	0.9	18
	M	N	1.0	17
	M	Z	1.4	17
	Sk	iP	15	05
	i		15	05
	iPeP		15	05
	Aleutian Islands.		47	
» 25	Up	iP	17	52
			21	
	P	$\mu$	0.6	1.5
	M	E	1.1	20
	M	N	0.7	20
	M	Z	0.8	16
	Ki	iP	17	51
	e		50	
			18	19
			14	
	P	$\mu$	0.2	1.6
	M	E	0.7	17
	M	N	0.6	15
	M	Z	0.8	16
	Sk	iP	17	52
	Near west coast of Kyushu, Japan.		21	
» 25	Up	iP	21	25
	eSKS		04	
			21	35
			36	
	eS		21	36
	ePS		16	
			21	37
			41	
	SKS	$\mu$	0.6	4
	S	N	3.6	20
	M	E	6.5	24
	M	N	3.2	22
	M	Z	6.2	22
	Ki	iP	21	25
	i		08	
	ePP		19	
	iSKS		21	29
	eS		01	
			21	35
			43	
			21	36
			24	

1958				
May 25	Ki	ePKKP	21	42
(cont.)			$\mu$	s
	P	Z	0.8	14
	P	Z'	0.2	1.5
	SKS	E	1.0	7
	S	N	2.0	20
	M	E	3.1	19
	M	N	1.6	20
	M	Z	4.1	22
	Sk	iP	21	24
		ePKKP	53	
	i		21	42
			15	
	Ecuador-Peru border region (h ~ 100 km). Magn. = 6.3 (Up, Ki).			
» 26	Up	iP	09	03
	Ki	iP	09	03
	Sk	iP	09	02
			55	
	Ecuador-Peru border.			
» 26	Up	iP	11	07
	ipP		25C	
			58	
	eS		16	11
	isS		17	06
	iP'P'		35	44
	i		36	19
	P	$\mu$	0.1	0.5
	Ki	iP	11	06
			32	
	ipP		07	06
	eS		14	28
	esS		15	22
	iP'P'		36	09
	P	$\mu$	0.2	0.9
	pP	$\mu$	0.4	1.2
	S	E	0.4	9
	S	N	0.3	9
	M	E	0.5	17
	M	N	0.5	18
	M	Z	0.3	16
	Sk	iP	11	07
			03	
	ipP		07	36
	iP'P'		56	
	Aleutian Islands. h = 140 km (Up, Ki, Sk). Magn. = 5.8 (Up, Ki).			
» 26	Up	iP	11	56
			37	
» 26	Ki	iP	14	31
			32	
	Arctic Ocean.			
» 26	Ki	iPKP	16	36
			14	
	Fiji Islands (h ~ 600 km).			
» 27	Up	iP	04	46
			42	

1958				
May 27	Up	iP	18	32
	ipP		43C	
	iS		11	
	i		36	45
	iScS		37	08
			39	44
			43	27
	P	$\mu$	0.8	0.5
	pP	$\mu$	0.6	0.5
	S	E	0.9	7
	S	N	1.2	4
	S	Z'	0.2	0.9
	M	E	1.2	13
	Ki	$\triangle \sim 2650 \text{ km} \sim 24^\circ$ .		
	iP		33	50
	iS		38	42
	i(SeP)		40	06
	i		41	35
	P	$\mu$	0.4	0.8
	S	E	0.4	8
	M	E	0.5	11
	Sk	iP	18	33
			23C	
	iS		37	55
	Dodecanese Islands. h = 140 km (Up).			
» 28	Up	eL	00	25
			$\mu$	s
	M	E	1.4	26
	M	N	0.9	21
	M	Z	1.3	25
	North coast of New Guinea.			
» 28	Up	iP	00	29
	i		00	29
	Ki	iP	00	29
	Sk	iP	00	20C
	Nicobar Islands region.			
» 29	Ki	iP	02	42
	e(S)		44	04
	eT		48	43
	M	E	0.6	16
	M	N	0.3	12
	M	Z	0.6	16
	Sk	$\triangle \sim 700 \text{ km} \sim 6.3^\circ$ .		
	eP		43	13
	iS		44	53
	$\triangle \sim 970 \text{ km} \sim 8.7^\circ$ .			
	East of Jan Mayen, near			
	72°N, 7°E.			
» 29	Up	iP	03	23
	iPP		30	
	P	$\mu$	0.1	0.6
	Ki	$\triangle = 4550 \text{ km} = 41^\circ$ .		
	eP		41	49
	M	E	0.9	20
	M	N	0.5	18
	Sk	eP	13	41
	Near south coast of Crete.			

1958	May 30	Up	eP	15	12	52	1958	May 30	Sk	eP'P'	18	44	20	
	» 30	Up	iP	16	23	17C	(cont.)		Aleutian Islands.					
			ipP	16	23	42		» 30	Up	eP	19	20	07	
			e	16	32	22		Ki	iP	19	19	15		
			eS	16	32	44			P	z'	0.1	μ	s	
									S	N	0.2	5		
									M	E	0.7	25		
									M	N	0.8	22		
									△~8450 km~76°.					
									iP	16	22	53C		
									ipP	16	23	17		
									esP	16	23	27		
									eS	16	32	02		
										P	z'	0.2	1.0	
									S	E	0.3	9		
									S	N	0.3	9		
									M	E	0.5	16		
									M	N	0.3	10		
									Sk	iP	16	23	21	
									ipP	16	23	45		
									isP	16	24	12		
									Near north coast of Formosa.					
									h=100 km (Up, Ki, Sk).					
									Magn.=5.8 (Up, Ki).					
	» 30	Up	iP	18	15	49C		» 31	Up	iP	02	56	17	
			i	18	15	54		Ki	iP	02	55	23C		
			iS	18	24	50			P	z'	0.1	μ	s	
			e(SeS)	18	25	41			Sk	iP	02	55	54	
			iSeS	18	25	51			Aleutian Islands.					
			eP'P'	18	44	12								
										P	z'	0.1	1.0	
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	△~2800 km~25°.
									P	z'	0.1	μ	s	
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	μ	s	
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		
									M	N	3.9	20		
									M	Z	2.3	15		
									Ki	iP	03	56	13	
									P	z'	0.1	1.0		
									S	E	0.2	4		
									S	N	0.3	5		
									M	E	3.2	20		

1958					1958				
June	6	Ki	M	z	2.6	23	(cont.)	8	
(cont.)		Sk	iP		19	28			
					20				
		South of Costa Rica.							
		Magn.=6.0 (Up, Ki).							
»	6	Up			—		»	8	
					$\mu$	s			
		M	E		0.5	20			
		M	N		0.7	25			
		M	Z		1.2	23			
		Ki	eSKS		23	07	30		
			eS		23	07	38		
					$\mu$	s			
		S	N		0.3	11			
		M	E		0.7	18			
		M	N		0.6	18			
		M	Z		0.8	16			
		Sk	i(P)		22	56	58		
		Off coast of Costa Rica.							
»	7	Sk	iP		06	51	11	»	8
		Southern Aegean Sea.							
»	7	Ki	iP		09	25	55	»	8
		Near southwest coast of Sumatra.							
»	7	Up	iPKP		13	15	00	Ki	
					$\mu$	s			
		Ki	PKP	z'	0.1	1.5			
			iPKP		13	14	53		
					$\mu$	s			
		Ki	PKP	z'	0.1	1.0			
					$\mu$	s			
		M	E		0.5	20			
		M	N		0.4	20			
		Sk	iPKP		13	14	59	Sk	
		South of Tasmania.							
»	7	Ki	iP		19	43	23	»	9
		Sk	iP		19	43	44		
»	8	Up	eP		00	49	47	Up	iP
			eS		00	58	35		
			eP'P'		01	18	06		
					$\mu$	s			
		P	z'		0.1	0.5			
		S	N		0.5	15			
		M	E		2.4	25			
		M	N		1.4	19			
		M	Z		1.2	18			
		Ki	iP		00	48	56	»	9
			ePa		00	52	39		
			eS		00	57	02		
			iP'P'		01	18	31		
					$\mu$	s			
		S	E		0.3	9	»	10	
		S	N		0.3	9			
		M	E		1.5	18			
		M	N		1.5	18			
		M	Z		1.8	18			
		Ki	iP		00	20	35		
		$\triangle=7450 \text{ km}=67^\circ$ .							
		$\triangle=6650 \text{ km}=60^\circ$ .							
		Aleutian Islands.							
		Magn.=5.6 (Up, Ki).							
		Nicobar Islands region.							
		Atlantic Ocean.							
		Rumania.							

1958 June 10 (cont.)	Ki	M	E	$\mu$	s	0.5	16
		M	N	0.4		17	
		M	Z	0.4		17	
	Sk	eP		00	21	00	
	Aleutian Islands.						
» 10	Ki	iP		00	36	17	
	Aleutian Islands.						
» 10	Up	iPKP		04	19	50	
		M	N	1.2		25	
		M	Z	1.3		24	
	Ki	ePKP		04	19	30	
	i			04	19	49	
		M	E	0.7		20	
		M	N	0.6		20	
		M	Z	0.7		20	
	Sk	iPKP		04	19	45	
	iPKS			04	23	37	
	Kermadec Islands.						
» 10	Up	iS		05	14	23	
		S	N	0.3		2	
	Ki	iP		05	04	29 D	
	eS			05	13	24	
		P	Z'	0.1		1.0	
	Sk	iP		05	04	57 D	
	Bonin Islands region (h ~ 500 km).						
» 10	Up	iP		07	11	14	
		M	E	1.1		20	
		M	N	1.3		18	
	Ki	M	Z	1.4		20	
	iP			07	11	53	
	iPP			07	13	28	
	eS			07	18	16	
		P	Z'	0.1		0.8	
	Sk	iP		07	11	51	
	Western Iran.						
	Magn. = 5.4 (Up, Ki).						
» 10	Up	iP		08	33	09	
		M	N	0.7		19	
	Ki	M	Z	1.4		20	
	eP			08	34	47	
	eLg1			08	43	28	

1958 June 10 (cont.)	Ki	M	N	$\mu$	s	0.5	16
	Sk	iP		08	33	53	
	Near coast of Albania.						
» 10	Ki	eP		20	17	29	
	Western Iran.						
» 10	Up	iPKP		04	19	50	
		M	N	1.2		25	
		M	Z	1.3		24	
	Ki	ePKP		04	19	30	
	i			04	19	49	
		M	E	0.7		20	
		M	N	0.6		20	
		M	Z	0.7		20	
	Sk	iPKP		04	19	45	
	iPKS			04	23	37	
	Kermadec Islands.						
» 12	Ki	eP		01	31	08	
	» 12	Ki	iP		02	53	44
	» 12	Up	eP		12	07	05
		M	E	0.5		19	
		M	N	0.7		19	
		Ki	eP		12	07	06
		e(S)		12	17	38	
		(S)	N	0.2		8	
		M	E	1.0		16	
		M	N	0.8		21	
	Off south coast of Costa Rica.						
» 12	Sk	iP		16	39	56	
	Ionian Islands.						
» 12	Up	iP		21	03	55C	
		ePa		21	08	26	
		es		21	12	46	
		e		21	14	01	
		iP'P'		21	32	21	
		P	N	2.9		20	
		P	Z	7.0		20	
		P	Z'	0.6		0.7	
		S	E	3.3		17	
		S	N	4.0		22	
		M	E	8.8		17	
		M	N	12		19	
		M	Z	14		19	
	$\Delta = 4650 \text{ km} = 42^\circ$ .						
	Sk	iP		07	11	51	
	Western Iran.						
	Magn. = 5.4 (Up, Ki).						
» 10	Up	iP		08	33	09	
		M	N	0.7		19	
	Ki	M	Z	1.4		20	
	eP			08	34	47	
	eLg1			08	43	28	
	1958 June 12 (cont.)	Ki	P			1.2	1.0
		S	E			3.2	16
		M	E			9.4	16
		M	N			9.7	18
	Sk	iP		21	03	34	
		i		21	03	37	
		iPcP		21	04	10	
		eP'P'		21	32	30	
	$\Delta = 6650 \text{ km} = 60^\circ$ .						
	» 12	Up	iP		21	44	23C
		iPcP		21	44	47	
		Ki	P			0.1	0.5
		iP		21	43	29	
		Sk	P			0.2	1.0
		iP		21	43	59	
	Aleutian Islands.						
	Magn. = 6.4 (Up, Ki).						
» 12	Ki	iP		22	28	10	
	Aleutian Islands.						
» 13	Ki	iP		10	23	24	
	Japan Sea, northwest of Hokkaido.						
» 13	Up						
	Ki	ePKP		11	18	14	
		M	E			0.5	20
		M	N			0.8	21
		M	Z			1.4	26
	Sk	iPKP		11	18	18	
	South of Australia.						
» 13	Up	iP		15	14	19D	
	» 13	Up	iP		18	58	02
	» 14	Ki	eP		08	00	21
		i		08	00	32	
		iT		08	05	43	
		P	Z'			0.1	1.0
		M	E			0.2	14
		M	N			0.2	8
		M	Z			0.2	9
	Sk	eP		08	01	03	
		eS		08	02	55	
		eT		08	08	37	
	Northeast of Jan Mayen.						
» 14	Up	iPP		18	47	01	
	Sk = Skalstugan, Gb = Göteborg						
	Fiji Islands (h ~ 550 km).						
	The phases (PKP), occurring at Ki						

1958		1958	
June 15	and Sk 10—11 sec earlier than PKP (cont.) proper, are of very small amplitude.	June 16	Ki eP 10 00 21
» 15	Up e(P) 15 25 04 Ki e(P) 15 25 48 Sk e(P) 15 25 18 These phases belong possibly to the preceding shock.	» 16	Up iPKP 19 10 59 Ki iSKP 19 13 46 Sk SKP z' $\mu$ s 0.1 1.5 iSKP 19 13 39 Fiji Islands region. Probably deep.
» 15	Ki iP 16 17 09 Aleutian Islands.	» 17	Up iP 00 37 58 Ki iP 00 37 16 Sk iP 00 37 50 Off west coast of Hokkaido, Japan.
» 15	Up eL 18 16 M E 0.8 20 M N 1.1 23 M Z 1.0 19 Ki eL 18 14 M E 0.9 20 M N 0.5 18 M Z 1.2 20 Near north coast of New Guinea.	» 17	Up iP 15 19 47 i 15 20 08 P z' $\mu$ s 0.1 1.0 iP 15 19 45 Bonin Islands region.
» 15	Up iP 18 36 15 P z' $\mu$ s 0.1 1.5 Sk eP 18 37 41	» 17	Up iP 17 01 35C i 17 02 23 iPP 17 02 33 P z' $\mu$ s 0.1 0.7 Ki
» 16	Up eSKP 01 32 25 Ki iPKP 01 29 00 Sk iPKP 01 29 11 New Hebrides Islands (h ~ 100 km).	» 17	Up iP 19 19 12C ipP 19 19 34 iPP 19 22 27 iS 19 29 27 P z' $\mu$ s 0.3 0.7 PP z' 0.2 1.2 M E 1.2 19 M N 1.9 21 M Z 2.1 24 $\Delta \sim 9350$ km ~ 84°.
» 16	Up iP 02 05 58 Ki iP 02 07 05 Sk iP 02 06 36 Near south coast of Crete.	» 17	Up iP 19 18 41 eS 19 28 35 P z' $\mu$ s 0.3 0.8 M E 1.8 20 M Z 2.1 20 $\Delta = 8650$ km = 78°. Sk iPKP 19 19 09C iPP 19 22 21 Volcano Islands. h = 90 km (Up). Magn. = 6.6 (Up).
» 16	Ki iPKP 07 32 37 Sk ePKP 07 32 57 New Hebrides Islands.	» 17	Up iP 20 40 55 Seismic?
» 16	Up — M E 1.1 20 M N 0.9 21 M Z 1.4 20 Ki ePKP 08 32 10 M E 1.1 22 M N 0.9 22 M Z 1.2 20 Fiji Islands region.	» 17	Up iP 20 40 55 Seismic?
» 16	Ki iP 09 21 46 Sk iP 09 22 03	» 17	Up iP 20 40 55 Seismic?

1958		1958	
June 18	Up	iP	01 19 01
		i	01 19 06
		iS	01 22 14
		i(S)	01 22 24
			$\mu$ s
		P	N 0.5 3
		P	Z' 0.3 1.2
		S	E 2.0 10
		S	N 1.7 10
		(S)	Z' 1.1 2.6
		M	E 6.2 15
		M	N 2.0 15
		M	Z 2.0 17
			$\Delta = 1900$ km = 17°.
		Ki	
		eP	01 18 15
		iS	01 20 57
			$\mu$ s
		P	E 0.8 8
		S	E 3.0 14
		M	E 6.0 16
			$\Delta \sim 1500$ km ~ 13½°.
		Sk	iP 01 18 05
			Off north coast of Iceland.
			Magn. = 5.5 (Up).
			At Uppsala the S wave appears to consist of a long-period wave, starting with the time given for S, with a superimposed short-period wave, starting about 10 sec later, (S). The long-period wave is possibly a surface wave (see Båth and Vogel, Geofisica pura e applicata, Vol. 39, pp. 35—54, 1958).
		» 18	Up eP 02 27 26
			i 02 27 33
			eS 02 30 35
			$\mu$ s
		S	E 0.6 10
		S	N 0.4 10
		M	E 1.6 15
		M	N 0.5 15
		M	Z 1.3 24
		Ki	$\Delta = 1900$ km = 17°.
		eP	02 26 42
		eS	02 29 24
			$\mu$ s
		P	E 0.3 9
		M	E 2.0 17
		Sk	iP 02 26 34
			$\Delta \sim 1500$ km ~ 13½°.
			Iceland.
		» 18	Sk eP 02 57 39
			Iceland.
		» 18	Up iP 04 38 04C
			iS 04 41 11
			i(S) 04 41 23
			$\mu$ s
		S	E 0.5 7
		Ki	$\Delta = 7300$ km = 65½°.
		eP	05 27 53
		i	05 27 55
		i	05 29 18
		ePa	05 31 33
		es	05 35 48
			$\mu$ s
		P	Z 0.8 9
		S	E 1.2 16
		M	E 7.4 23

1958	Ki	M	z	12	23
(cont.)					
June 19	Sk	iP	$\triangle=6450 \text{ km} = 58^\circ$	05	28 32
	i			05	29 51
Kurile Islands. Magn.=5.9 (Up, Ki).					
» 19	Sk	iPKP		13	53 44
	i			13	53 53
South of Tasmania.					
» 19	Up	iPKP		18	22 06
	Sk	iPKP		18	22 11
	i			18	22 18
South of Tasmania.					
» 20	Sk	eP		06	20 50
» 20	Up	iPKP		17	50 51
	Ki	iPKP		17	50 44
	Gb	iPKP		17	51 (01)
Fiji Islands (h ~ 600 km).					
» 20	Up	iP		19	28 42
	P	z'	$\mu$	0.1	s 1.0
	Ki	iP		19	28 11
	Sk	iP		19	28 43
	Gb	iP		19	29 (04)
East China Sea.					
» 21	Up	iP		08	34 51
Aleutian Islands.					
» 21	Up	iP		12	30 08
	P	z'	$\mu$	0.1	s 0.7
	Ki	iP		12	29 15
Aleutian Islands.					
» 21	Up	iP		23	50 02
	Ki	iP		23	49 09
Near southeast coast of Kamchatka.					
» 22	Up	iP		04	29 15
» 22	Up	iP		05	08 43C
	P	z'	$\mu$	0.2	s 0.9
	Ki	iP		05	07 59
	P	z'	$\mu$	0.1	s 1.0
	Sk	iP		05	08 33
Southern Kurile Islands.					
» 22	Up	iP		05	40 08
	Ki	iP		05	39 31
	Sk	e(P)		05	40 03
Sea of Japan (h ~ 350 km).					

1958	June 22	Ki	e(S)	12	59 28
		Sk	eP	12	57 07
Local.					
» 22	Up	iP		22	12 34D
	i			22	12 43
» 23	Up	iP		05	18 39
	iPeP			05	20 10
	es			05	25 44
	e			05	29 11
	i			05	31 05
Ki					
$\triangle=5300 \text{ km} = 47\frac{1}{2}^\circ$ .					
	iP			05	18 07
	iPP			05	19 54
	es			05	24 36
	e			05	27 54
Ki					
$\triangle=4900 \text{ km} = 44^\circ$ .					
	Sk	iP		05	18 43
	GB	eP		05	19 04
Outer Mongolia.					
	Magn.=5.7 (Up, Ki).				
Remarkable short-period motion, especially on the long-period Benioff records at Uppsala, superimposed on the fundamental-mode surface waves and lasting approx. 10 min.					
» 23	Ki	iPKP		19	35 43
	iSKP			19	37 58
	Sk	iSKP		19	38 27
Fiji Islands (h ~ 650 km).					
» 24	Up	iP		00	22 42
	Ki	iP		00	22 36
	Sk	iP		00	22 52
Near south coast of Java (h ~ 200 km).					
» 24	Up	iP		04	03 58
	Ki	iP		04	04 35
Southern Iran.					
» 24	Up	iP		04	56 10C
	i			04	56 13

1958	June 24	Up	iPP	04	57 43
(cont.)					
	iS			05	02 28
	e			05	05 17
	i			05	05 51
	iLg1			05	10 14
	eRg			05	13 27
Ki					
$\triangle=4650 \text{ km} = 42^\circ$ .					
	iP			04	56 05C
	ePP			04	57 46
	eSS			05	05 27
	i			05	06 48
	i			05	07 32
	eLi			05	08 33
	iLg1			05	09 48
	i(Lg1)			05	10 24
	iRg			05	12 55
Ki					
Northern Iran.					
» 25	Up	iP		02	00 42
	Ki	iP		02	00 11
	Sk	iP		02	00 40
	Gb	iP		02	01 01
Western Sinkiang Province, China.					
Magn.=5.9 (Up, Ki).					
Extremely clear channel waves.					
» 24	Up	iP		06	11 15
	M	E	$\mu$	3.1	s 18
	M	N	$\mu$	1.6	s 15
	M	Z	$\mu$	1.4	s 14
	Ki	iP		06	12 41
Italy.					
	M	E	$\mu$	0.9	s 10
	M	N	$\mu$	0.6	s 12
	M	Z	$\mu$	0.8	s 10
	Sk	iP		06	11 53C
	Gb	eP		06	10 44
Fiji Islands region.					
» 25	Up	iP		07	25 40
	i			07	25 51
	Ki	iP		07	27 00
	Sk	iP		07	26 29
	i			07	26 33
	i			07	26 53
	Gb	iP		07	25 37
Rumania.					
» 25	Up	iPKP		09	47 14
	Ki	iPKP		09	47 04
	i(SKP)			09	49 40
	Sk	ePKP		09	47 06
	Gb	iPKP		09	47 26 D
Fiji Islands (h ~ 600 km).					
» 25	Up	ePP		09	55 47
	iPKKP			10	06 15





1958				
July 3	Gb	eP	05	58
(cont.)	i		05	58
Mascarene Islands region.			12	
Magn.=6.2 (Up, Ki).				
» 3 Up	iPKP	06	46	42 D
i!	06	46	46	
ipPKP	06	48	23	
isPKP	06	49	04	
iPP	06	50	13	
i	06	56	21	
	PKP	N	0.3	s
PKP	Z	1.2	2	
PKP	Z'	1.7	0.8	
PP	N	0.3	5	
PP	Z	0.7	4	
Ki	△~16200 km~146°.			
iPKP	06	46	23	
iSKP	06	49	27	
iPKS	06	50	05	
i	06	52	28	
	PKP	Z	0.6	s
PKP	Z'	0.2	1.0	
SKP	Z	0.8	7	
Sk	△~15350 km~138°.			
iPKP	06	46	36 D	
i!	06	46	40	
Gb	iPKP	06	46	49
i!	06	46	55	
i!	06	47	03	
ipPKP	06	48	36	
Kermadee Islands region				
(h~400 km).				
» 3 Ki	iP	07	52	18
Halmahera Island region.				
» 3 Up	eL	11	25	
	M	E	1.2	s
M	N	0.5	19	
M	Z	1.2	18	
Ki	eL	11	24	
	M	E	1.0	s
M	N	0.8	21	
M	Z	1.0	20	
South Pacific Ocean.				
» 3 Up	iP	12	58	00 D
iPeP	12	58	29	
ipP	12	59	27	
Ki	P	Z'	0.2	s
iP	12	57	14 D	
epP	12	58	43	
Sk	P	Z'	0.1	s
iP	12	57	49	

1958				
July 3	Sk	iPcP	12	58
(cont.)	Gb	iP	12	58
Sea of Okhotsk.			22	
h=350 km (Up, Ki).				
» 3 Up	iPKP	06	46	42 D
i!	06	46	46	
ipPKP	06	48	23	
isPKP	06	49	04	
iPP	06	50	13	
i	06	56	21	
	PKP	N	0.3	s
PKP	Z	1.2	2	
PKP	Z'	1.7	0.8	
PP	N	0.3	5	
PP	Z	0.7	4	
Ki	△~16200 km~146°.			
iPKP	06	46	23	
iSKP	06	49	27	
iPKS	06	50	05	
i	06	52	28	
	PKP	Z	0.6	s
PKP	Z'	0.2	1.0	
SKP	Z	0.8	7	
Sk	△~15350 km~138°.			
iPKP	06	46	36 D	
i!	06	46	40	
Gb	iPKP	06	46	49
i!	06	46	55	
i!	06	47	03	
ipPKP	06	48	36	
Kermadee Islands region				
(h~400 km).				
» 3 Ki	iP	07	52	18
Halmahera Island region.				
» 3 Up	eL	11	25	
	M	E	1.2	s
M	N	0.5	19	
M	Z	1.2	18	
Ki	eL	11	24	
	M	E	1.0	s
M	N	0.8	21	
M	Z	1.0	20	
South Pacific Ocean.				
» 3 Up	iP	12	58	00 D
iPeP	12	58	29	
ipP	12	59	27	
Ki	P	Z'	0.2	s
iP	12	57	14 D	
epP	12	58	43	
Sk	P	Z'	0.1	s
iP	12	57	49	

1958					
July 5	Ki	ipP	01	30	
(cont.)	Sk	iP	01	30	
Sea of Okhotsk.			19		
h=130 km (Up, Ki, Sk, Gb).					
» 3 Up	iP	06	46	42 D	
i!	06	46	46		
ipPKP	06	48	23		
isPKP	06	49	04		
iPP	06	50	13		
i	06	56	21		
	PKP	N	0.3	s	
PKP	Z	1.2	2		
PKP	Z'	1.7	0.8		
PP	N	0.3	5		
PP	Z	0.7	4		
Ki	Sumatra.				
Off coast of El Salvador					
(h~100 km).					
» 5 Up	eP	02	10	59	
i	02	11	05		
iS	02	15	07		
iLg1	02	18	15		
	P	Z'	0.1	s	
M	E	0.4	8		
M	N	0.8	17		
M	Z	0.5	9		
Ki	iP	02	11	46	
i	02	18	31		
iLg1	02	20	39		
	M	E	0.4	s	
M	N	0.5	13		
M	Z	0.8	12		
Sk	iP	02	12	03	
iS	02	17	04		
Gb	iP	02	11	15	
Caucasus.					
» 5 Up	iP	04	13	50	
Sk	iSKP	14	13	50	
Sk	iSKP	14	14	05	
South of Fiji Islands					
(h~600 km).					
» 5 Up	iP	23	33	40	
eS	23	43	32		
	M	N	0.3	s	
Ki	iP	23	33	06	
eS	23	42	27		
	S	E	0.3	s	
S	N	0.2	9		
M	E	0.7	18		
M	N	0.4	16		
M	Z	0.5	17		
About 250 km off coast of Honshu,					
Japan.					
Sk	eP	18	47	27	
iPP	18	50	41		
iS	18	57	53		
	S	E	0.9	s	
S	N	0.4	7		
S	Z	0.3	10		
M	E	2.4	18		
M	N	1.3	20		
M	Z	3.5	24		
△=10000 km=90°.					
Sk	iP	18	47	27	
iPP	18	51	10		
Gb	iP	18	47	35	
Near south coast of Mindanao.					
Magn.=6.0 (Up, Ki).					
» 6 Up	iP	04	51	44 D	
	M	N	0.3	s	
Ki	iP	04	50	50	
	P	Z'	0.1	s	
M	E	0.2	16		
M	N	0.2	15		
Alaska.					
» 7 Up	iP	04	51	19	
i	04	52	01		
	P	Z'	0.2	s	
Ki	iP	13	48	15	
Sk	iP	13	48	48	
Gb	iP	13	49	22	
Aleutian Islands.					
» 7 Up	iP	13	49	08 D	
i	13	49	17		
	P	Z'	0.2	s	
Ki	iP	13	48	15	
Sk	iP	13	48	48	
Gb	iP	13	49	22	
Aleutian Islands.					
» 7 Up	iP	14	36	16 C	
	P	Z'	0.1	s	
Ki	iP	14	35	59	
Sk	iP	14	36	22	
Near south coast of Luzon,					
Philippine Islands.					
» 7 Up	iP	18	02	33	
	Ki	iP	03	48	
Sk	iP	03	48	52	

1958						
July	8	Sk	iP	03	49	13
(cont.)		Gb	eP	03	49	30
»	8	Up	ePn	05	04	49
			i	05	05	15
			iSn	05	06	36
			iLi	05	07	07
			i(Li)	05	07	15
			iLg1	05	07	48
			iRg	05	08	28
		Ki	$\Delta = 1100 \text{ km} = 10^\circ$ .			
			iPn	05	06	35
			iLg1	05	11	48
		Sk	Pn	$z'$	$\mu$	s
			iPn		0.3	1.5
			i			
		Gb	i(Lg1)			
			iPn			
			iPg			
			i			
			i			
Thüringerwald, Germany.						
Rock burst.						
»	8	Ki	eL	07	17	
			M	E	$\mu$	s
			M	N	0.5	19
			M	Z	0.4	19
					0.6	19
Tonga Islands.						
»	8	Up	i(P)	10	44	04
»	8	Up	iP	15	53	47C
»	8	Up	iP	17	21	36
		Ki	iP	17	21	01
South of Honshu, Japan.						
»	8	Up	e	23	22	03
			M	E	$\mu$	s
			M	N	1.3	20
			M	Z	1.0	18
		Ki			1.7	19
			M	E	$\mu$	s
			M	N	1.1	20
			M	Z	0.8	18
					1.9	20
Indian Ocean.						
»	9	Up	iPKP	14	12	43
			iSKP	14	15	34
		Ki	ePKP	14	12	37
			iSKP	14	15	10
		Sk	iSKP	14	15	27
Fiji Islands (h ~ 600 km).						
»	9	Ki	eP	15	30	48
			M	E	$\mu$	s
					0.6	16

1958							
July	9	Ki	M	N	0.6	20	
(cont.)			M	Z	1.0	20	
		Sk	iP		15	30	41
				Guatemala (h ~ 100 km).			
»	10	Up	iP		06	26	03
		i			06	26	06
		i			06	26	19
		iS			06	34	12
					$\mu$	s	
		P	N		5.6	5	
		P	Z		9.6	5	
		P	Z'		2.5	1.5	
		S	E		50	24	
		S	N		200	22	
		S	Z		50	18	
		M	E		570	21	
		M	N		640	21	
		M	Z		880	22	
				$\triangle = 6700 \text{ km} = 60\frac{1}{2}^\circ$ .			
		Ki	iP		06	25	10
		i			06	25	13
		iPcP			06	26	16
		i			06	27	33
		i			06	30	38
		iS			06	32	37
					$\mu$	s	
		P	E		3.3	7	
		P	N		6.9	10	
		P	Z		22	12	
		P	Z'		3.5	2.5	
		S	E		32	17	
		S	N		160	22	
		S	Z		54	17	
		M	E		400	20	
		M	N		220	17	
		M	Z		530	19	
				$\triangle = 5900 \text{ km} = 53^\circ$ .			
		Sk	iP		06	25	33
		Gb	iP		06	26	13
			eP'P'		06	55	32
				Southeastern Alaska.			
				Magn. = 7.8 (according to S and surface waves at Up and Ki; P at Up and Ki give only 7.2 as a mean).			
»	10	Ki	iP		07	18	16
»	10	Ki	iP		07	54	01
				P	$\mu$	s	
				Z'	0.2	1.5	
				Southeastern Alaska.			
»	10	Up	iP		08	08	12
		Ki	iP		08	07	18
				P	$\mu$	s	
				Z'	0.4	1.4	
		Sk	iP		08	07	42
				Southeastern Alaska.			

1958							
July 10	Up	iP	08 26 18	July 11	Up	iP	07 54 13
» 10	Ki	iP	09 05 16			i	07 07 25
	P	z'	$\mu$ 0.2 s 1.5			P	$\mu$ 0.1 s 0.8
	Southeastern Alaska.				Ki	iP	07 53 18
» 10	Ki	iP	10 25 38		Sk	eP	07 53 54
	P	z'	$\mu$ 0.1 s 1.5		Aleutian Islands.		
» 10	Ki	iP	12 35 46	» 11	Up	i!	19 29 03
	P	z'	$\mu$ 0.2 s 1.3		iPP	19 29 23	
	Southeastern Alaska.				iPS	19 38 29	
» 10	Up	—			PP	z' 0.2 s 1.5	
	M	E	$\mu$ 1.2 s 18		M	E 1.4 s 18	
	M	N	$\mu$ 1.8 s 20		M	N 0.9 s 20	
	M	Z	$\mu$ 2.0 s 19		M	Z 4.1 s 23	
Ki	iP	15 11 15		Ki	eS	19 37 11	
	M	E	$\mu$ 1.2 s 19		ePS	19 39 00	
	M	N	$\mu$ 1.0 s 20		iPKKP	19 40 15	
	M	Z	$\mu$ 1.6 s 21		e(SS)	19 45 09	
Southeastern Alaska.				M	E 3.9 s 23		
» 10	Up	iPg	15 24 49		M	N 1.9 s 23	
	iSn	15 25 24			M	Z 5.8 s 23	
	i	15 25 31		Northern Chile.			
	i(S*)	15 25 43		Magn.=6.2 (Up, Ki).			
	iSg	15 25 50		» 11	Up	iP	20 00 25
	Sg	z'	$\mu$ 0.2 s 0.6		Ki	eP	19 59 36
	$\Delta=520 \text{ km}=4.7^\circ$ .			Sk	iP	19 59 56	
Ki	iSg	15 29 02		Southeastern Alaska.			
	$\Delta=1170 \text{ km}=10.5^\circ$ .			» 12	Up	—	—
Sk	eS*	15 26 01			M	E 1.7 s 21	
	iSg	15 26 18			M	N 0.9 s 20	
	$\Delta=610 \text{ km}=5.5^\circ$ .				M	Z 2.7 s 22	
Gb	iPg	15 23 51		Ki	eSS	01 22 29	
	iSg	15 24 08		e	01 33 19		
	$\Delta=190 \text{ km}=1.7^\circ$ .			M	E 1.2 s 19		
South coast of Norway, 58.5°N, 9.0°E. Origin time=15 23 15.				M	N 1.7 s 24		
				M	Z 5.4 s 25		
» 11	Up	i	05 26 55	Pacific Ocean, west of Galapagos Islands.			
	iSg	05 27 26		» 13	Up	iP	08 20 16
	$\Delta=710 \text{ km}=6.4^\circ$ .				M	N 0.6 s 23	
Ki	eSn	05 27 16		Ki	iP	08 19 25	
	iSg	05 27 59			P	z' 0.1 s 1.5	
	$\Delta=820 \text{ km}=7.4^\circ$ .				M	E 0.5 s 20	
Sk	eSn	05 27 43			M	N 0.6 s 27	
	iS*	05 28 16			M	Z 0.7 s 20	
	iSg	05 28 39		Sk	iP	08 19 46	
	$\Delta=960 \text{ km}=8.6^\circ$ .			i	08 19 51		
Near border between U.S.S.R. and Finland, 61 3/4°N, 30 1/2°E. Origin time=05 23 55.				Gb	iP	08 20 29	
				Southeastern Alaska.			
» 13	Up	iP	15 38 25D				
		ipP	15 38 41				

1958				
July 13	Up	P	z'	$\mu$ s
(cont.)	Ki	iP		0.1 0.5
			15 38 19	
		P	z'	$\mu$ s
	Sk	iP		0.1 0.8
			15 38 41	
	ipP			15 38 56
	Gb	iP		15 38 46 D
	India-Burma border.			
» 13	Up	iP		20 52 05
	Ki	i(P)		20 53 21
	Sk	iP		20 52 44
	Italy.			
» 13	Up	iP		23 15 00
	Ki	iP		23 14 01
	eS			23 21 55
	M	E	$\mu$ s	0.6 18
	M	N	$\mu$ s	0.5 22
	M	Z	$\mu$ s	0.9 22
	$\Delta=6150 \text{ km}=55\frac{1}{2}^\circ$ .			
	Sk	eP		23 14 41
	Komandorskie Islands.			
» 14	Up	e(P)		03 04 07
	i			03 04 19
	Ki	iP		03 03 19
	Sk	iP		03 03 47
	Southeastern Alaska.			
» 14	Up	iP		05 38 03
	Ki	iP		05 37 30
	Near coast of California.			
» 14	Up	iPn		12 22 28
	iSg			12 23 08
	$\Delta=280 \text{ km}=2.5^\circ$ .			
	Ki	iSg		12 25 58
	$\Delta=860 \text{ km}=7.7^\circ$ .			
	Sk	eSn		12 24 31
	iSg			12 25 06
	$\Delta=680 \text{ km}=6.1^\circ$ .			
	Southwest Finland, 60°N, 22½°E.			
	Origin time=12 21 45.			
» 14	Ki	iP		16 04 49 D
» 15	Up	i(P)		03 09 22
	iSg			03 09 46
	Local.			
» 15	Ki	iP		06 08 41
	Southeastern Alaska.			
» 15	Up	iP		08 04 39
	iS			08 09 00
	S	N	$\mu$ s	0.8 9

1958				
July 15	Up	M	E	1.8 22
(cont.)		M	N	1.3 12
		M	Z	1.7 14
	$\Delta=2700 \text{ km}=24\frac{1}{2}^\circ$ .			
	Ki	iP		08 05 48
		i(PP)		08 06 58
	M	E	$\mu$ s	2.2 18
	M	N	$\mu$ s	1.0 12
	M	Z	$\mu$ s	1.3 12
	Sk	iP		08 05 18
	Near west coast of Crete.			
» 15	Ki	e(P)		19 59 32
» 15	Up	iP		21 49 21
	Ki	iP		21 49 24
	Sk	iP		21 49 44
» 16	Up	iP		01 58 24
	iPeP			01 58 49
	Ki	eP		01 57 30
	iPeP			01 58 16
	Aleutian Islands.			
» 16	Up	iP		04 03 44
	Ki	M	N	$\mu$ s
		0.4	21	
		04	02	51
	M	E	$\mu$ s	0.4 18
	M	N	$\mu$ s	0.3 18
	M	Z	$\mu$ s	0.6 18
	Aleutian Islands.			
» 16	Up	eSS		13 34 10
	M	E	$\mu$ s	1.0 19
	M	N	$\mu$ s	0.8 18
	M	Z	$\mu$ s	1.3 19
	Ki	i(SS)		13 33 58
	M	E	$\mu$ s	0.7 18
	M	N	$\mu$ s	0.4 17
	M	Z	$\mu$ s	1.0 18
	South Pacific Ocean.			
» 16	Ki	e(P)		14 47 46
	Probably local.			
» 16	Up	—		—
	M	E	$\mu$ s	1.1 21
	M	N	$\mu$ s	0.9 21
	M	Z	$\mu$ s	1.8 21
	Ki	—		—
	M	E	$\mu$ s	0.7 18
	M	N	$\mu$ s	0.5 18
	M	Z	$\mu$ s	0.8 18
	Sk	ePKP		17 13 28
	Santa Cruz Islands.			

1958				
July 16	Up	eL		19 45
		M	E	$\mu$ s
		0.9	22	
		M	N	0.8 22
		M	Z	0.9 18
	Ki	eL		19 43
		M	E	$\mu$ s
		0.7	19	
		M	N	0.4 19
		M	Z	0.6 18
	Santa Cruz Islands.			
» 16	Up	iP		19 43 23
» 16	Sk	iP		20 34 51
	Northern Greece.			
» 16	Up	iP		22 09 45
» 17	Sk	i(Sg)		05 29 45
	Gb	i(P)		05 27 12 D
	i			05 27 44
	i(Sg)			05 27 49
	Local.			
» 17	Up	iP		05 41 35C
	i			05 41 41
	iS			05 45 10
	iLg2			05 47 47
	i(Rg)			05 48 31
	iPeS			05 49 36
	P	N	$\mu$ s	0.4 4
	P	Z	$\mu$ s	0.5 5
	P	Z'	$\mu$ s	0.1 1.0
	S	E	$\mu$ s	1.8 10
	S	N	$\mu$ s	1.1 8
	S	Z	$\mu$ s	2.2 8
	M	E	$\mu$ s	6.9 9
	M	N	$\mu$ s	9.6 11
	M	Z	$\mu$ s	13 9
	Ki	—		$\Delta=2150 \text{ km}=19\frac{1}{2}^\circ$ .
	iP			05 42 55
	iS			05 47 31
	i			05 47 46
	eLg2			05 51 53
	eRg			05 53 50
	P	Z'	$\mu$ s	0.3 1.5
	S	N	$\mu$ s	1.0 10
	M	E	$\mu$ s	10.0 12
	M	N	$\mu$ s	9.1 9
	M	Z	$\mu$ s	12 9
	Sk	—		$\Delta=3000 \text{ km}=27^\circ$ .
	iP			05 42 21
	i			05 42 37
	i			05 50 48
	Gb	iP		05 41 25
	Northern Greece.			
	Magn.=5.4 (Up, Ki).			
» 17	Up	iP		21 10 04
	Aleutian Islands.			
» 17	Up	iP		21 10 21
	Ki	eP		21 17 51
	iPcP			21 17 51
	eS			21 17 51
	P	Z'	$\mu$ s	0.1 1.2
	S	E	$\mu$ s	0.5 14
	M	E	$\mu$ s	1.6 17
	M	N	$\mu$ s	1.7 18
	M	Z	$\mu$ s	3.9 18
	Ki	—		$\Delta=6800 \text{ km}=61^\circ$ .
	iP			21 10 04
	Aleutian Islands.			
	Magn.=5.8 (Up, Ki).			
» 17	Up	iP		21 21 21
	Aleutian Islands.			
» 18	Up	eP		00 50 22
	i(PcP)			00 50 47

1958		1958			
July 18	Up	July 18	Ki	e(P)	
(cont.)			Gb	i(P)	
P	z'	0.2	s		22 31 06
M	E	3.2	24		22 32 16
M	N	2.4	22	» 19	Up iPP 06 49 04
M	Z	3.1	18		iS 06 56 25
$\Delta = 7600 \text{ km} = 68\frac{1}{2}^\circ$ .					iPS 06 58 26
Ki	iP	00	49	30	
i		00	49	58	
i!		00	50	43	
		$\mu$	s		
P	N	0.4	14	Ki	PP z' 0.4 4 4
P	Z	0.6	14		$\Delta \sim 12000 \text{ km} \sim 108^\circ$ .
M	E	2.7	18	iP	06 44 10
M	N	1.6	18	iPP	06 48 31
M	Z	2.8	17	eSKS	06 54 35
Sk	iP	00	50	eS	06 53 43
i		00	50	i!	06 55 53
				ePS	06 57 38
Aleutian Islands.					
Magn. = 5.8 (Up, Ki).					
» 18	Sk	eP	01	19	28
» 18	Ki	iP	02	00	50
	Sk	eP	02	00	36
Ecuador-Peru border (h ~ 100 km).					
» 18	Ki	ePg	13	34	43
		eSg	13	35	18
		$\Delta = 310 \text{ km} = 2.8^\circ$ .			
	Sk	eSn	13	35	35
		iSg	13	35	56
		$\Delta = 430 \text{ km} = 3.9^\circ$ .			
» 18	Up	i(P)	16	26	55
	Gb	i(P)	16	26	27
» 18	Sk	iP	17	13	38
Southeastern Alaska.					
» 18	Up	iP	18	52	37C
	P	z'	0.1	s	
Ki	iP		18	52	12
Sk	iP		18	52	39
» 18	Up	iP	21	49	52D
	P	z'	0.2	s	
M	E	0.7	25	» 19	Up iP 17 34 24
Ki	iP	21	49	26D	
eS		21	58	36	
		$\mu$	s		
P	z'	0.2	1.0	Ki	P z' 0.1 0.8
M	E	0.5	17		iPcP 17 33 32C
M	N	0.4	16		iPcP 17 34 17
M	Z	0.4	15	Sk	iPcP 17 34 35
$\Delta = 7900 \text{ km} = 71^\circ$ .				Gb	iP 17 34 43
Sk	iP	21	49	54	Aleutian Islands.
Gb	iP	21	50	13	
Ryukyu Islands region.					
» 19	Up	iP	17	51	22
	Ki	iP	17	51	08
	Sk	iP	17	51	28
Celebes Sea.					

1958				1958														
July 19	Up	iP	18	30	42	July 20	Sk	iP	19	31	42							
e			18	34	12	(cont.)	iS		19	35	29							
iPP			18	34	59		Gb	△ ~ 2200 km ~ 20°.	19	31	17							
eSKS			18	41	19		iP											
i			18	44	05		Western France.											
			μ	s														
SKS	E		0.9	10		» 20	Up	iP	20	26	07							
M	E		14	21		» 20	Up	iP	21	01	18							
M	N		14	22		Ki	e(P)		21	00	54							
M	Z		20	21		Sk	iP		21	01	31							
△ ~ 11350 km ~ 102°.																		
Ki	iP		18	30	27	» 21	Up	iP	07	36	03C							
i			18	33	35		eS		07	44	57							
eSKS			18	41	07		e!		07	46	11							
			μ	s														
P	Z'		0.1	1.5			P		μ	s								
SKS	E		1.5	9			P	z	0.7	4								
SKS	N		0.4	8			P	z'	0.1	0.6								
M	E		23	21			S	N	0.9	20								
M	N		11	18			M	E	5.0	21								
M	Z		23	21			M	N	4.4	22								
△ ~ 10900 km ~ 98°.																		
Sk	eP		18	30	53	Ki		△ = 7550 km = 68°.										
	iPP		18	35	00		iP		07	35	16							
	Gb	i(PP)		18	35		eS		07	43	32							
Spice Islands. Magn. = 6.8 (Up, Ki; according to surface waves).																		
» 19	Ki	iPKP		19	07	55	Ki	i!		07	45	22						
Fiji Islands.																		
» 19	Ki	iP		19	49	30		P		μ	s							
(Aleutian Islands).																		
» 19	Ki	eL		23	06		P	N	0.3	9								
			μ	s		P	Z'	0.1	1.2									
M	E		1.0	21		S	E	0.4	10									
M	N		0.6	20		S	N	0.5	11									
M	Z		1.1	21		M	E	7.6	19									
Spice Islands.							M	N	3.7	20								
» 20	Sk	eP		00	29	08	Ki		△ = 6850 km = 61 1/2°.									
Rumania.							Sk	iP		07	35	51						
» 20	Up	iP		01	34	04	Gb	iP		07	36	26						
» 20	Up	iP		01	59	26		iPcP		07	36	48						
» 20	Ki	eL		12	42		Kurile Islands.											
			μ	s		Magn. = 5.9 (Up, Ki).												
M	E		0.5	20		» 21	Gb	iP	07	55	25							
M	Z		0.9	22		» 21	Up	e(Sg)	11	52	47							
Central Chile.							Gb	e(P)	11	51	27							
» 20	Up	iP		19	31	24		i(Sg)	11	52	18							
	i			19	35	03	Local?											
Ki			μ	s		» 21	Ki	iP	12	04	12							
								Aleutian Islands.										
M	E		0.6	14		» 21	Gb	i(Sg)	12	07	30							
M	N		0.4	14				Local?										
			μ	s		» 21	Up	iP	14	48	21C							
								eS	14	57	16							
								iSeS	14	58	14							
								eP'P'	15	16	32							
			μ	s					P	N	0.5	4						
									P	Z	0.8	3						
									P	Z'	0.4	0.6						

1958				
July 21	Up	S E	0.9 6	
(cont.)		S N	1.5 14	
		M E	5.0 19	
		M N	3.9 20	
		M Z	5.8 22	
	Ki	$\Delta = 7550 \text{ km} = 68^\circ$ .		
	iP	14 47	27	
	iPeP	14 48	12	
	iS	14 55	34	
	ePP'	15 16	59	
	P z'	μ 0.1	s 0.6	
	PeP z'	0.3	1.2	
	S E	0.9	9	
	S N	1.0	12	
	M E	4.5	18	
	M N	3.8	19	
	Sk	$\Delta = 6650 \text{ km} = 60^\circ$ .		
	iP	14 47	59C	
	iPeP	14 48	32	
	iPP'	15 16	39	
	Gb	$\Delta = 7200 \text{ km} = 65^\circ$ .		
	iP	14 48	38C	
	iPeP	14 48	58	
	$\Delta = 7900 \text{ km} = 71^\circ$ . Aleutian Islands.			
	Magn. = 6.1 (Up, Ki).			
» 21	Gb	eP	15 51	31
	iSg	15 52	25	
	Local. It has not been possible to combine this record with the following, and therefore it probably represents a different shock.			
» 21	Ki	iPn	15 53	53
	iS*	15 54	51	
	iSg	15 55	04	
	$\Delta = 490 \text{ km} = 4.4^\circ$ .			
	Sk	iPn	15 53	27
	iPg	15 53	39	
	iSg	15 54	22	
	$\Delta = 340 \text{ km} = 3.1^\circ$ . Off the central part of the Norwegian coast, $66\frac{1}{2}^\circ\text{N}$ , $9\frac{1}{2}^\circ\text{E}$ . Origin time = 15 52 39.			
» 21	Up	iPKS	18 55	31
	Ki	iPKP	18 51	53
	Sk	iPKP	18 52	04
	Gb	iPKS	18 55	44
	New Hebrides Islands.			
» 21	Up	iPg	20 51	54
	iSg	20 52	24	
	Pg z'	μ 0.1	s 0.5	
	Sg z'	0.2	0.5	
	$\Delta = 230 \text{ km} = 2.1^\circ$ .			

1958					
July 21	Sk	iLg1	20	53 30	
(cont.)		$\Delta = 470 \text{ km} = 4.2^\circ$ .			
	Baltic, $61.6^\circ\text{N}$ , $20.2^\circ\text{E}$ .				
	Origin time = 20 51 14.				
	Underwater explosion.				
	On July 21-22 there is a series of seven shocks in the same locality, which has been determined from the following, more complete records.				
» 22	Up	iPg	03	55 14	
	iSg	03	55 43		
	Pg z'	μ 0.1	s 0.5		
	Sg z'	0.2	0.5		
	$\Delta = 230 \text{ km} = 2.1^\circ$ .				
	Ki	ePn	03	56 14	
	eSn	03	57 18		
	$\Delta = 690 \text{ km} = 6.2^\circ$ .				
	Sk	ePn	03	55 41	
	iP*	03	55 50		
	eSn	03	56 31		
	iLg1	03	56 48		
	$\Delta = 470 \text{ km} = 4.2^\circ$ .				
	Baltic, $61.6^\circ\text{N}$ , $20.2^\circ\text{E}$ .				
	Origin time = 03 54 34.				
	Underwater explosion.				
» 22	Ki	iP	05	18 52	
	Sk	iPeP	05	19 56	
	Aleutian Islands.				
» 22	Sk	i(P*)	06	53 03	
	i(Lg1)	06	54 02		
	Origin time = 06 51 49, if the same Baltic location, $61.6^\circ\text{N}$ , $20.2^\circ\text{E}$ , is assumed as for the other shocks in this series. Underwater explosion.				
» 22	Up	iPg	08	53 10	
	iSg	08	53 39		
	Pg z'	μ 0.1	s 0.5		
	Sg z'	0.2	0.5		
	$\Delta = 230 \text{ km} = 2.1^\circ$ .				
	Ki	eSn	08	55 10	
	eSg	08	55 45		
	$\Delta = 690 \text{ km} = 6.2^\circ$ .				
	Sk	ePn	08	53 37	
	iP*	08	53 45		
	iLg1	08	54 43		
	$\Delta = 470 \text{ km} = 4.2^\circ$ .				
	Baltic, $61.6^\circ\text{N}$ , $20.2^\circ\text{E}$ .				
	Origin time = 08 52 30.				
	Underwater explosion.				
» 22	Gb	i(P)	09	11 01	
	Seismic?				

1958					
July 22	Gb	i(P)	10	39 35	
(cont.)	Blast?				
» 22	Up	iPg	12	57 20	
	iSg	12	57 49		
	iT	12	59 14		
	Pg z'	μ 0.2	s 0.5		
	Sg z'	0.4	0.5		
	$\Delta = 230 \text{ km} = 2.1^\circ$ .				
	Ki	iPn	12	58 15	
	iSn	12	59 26		
	$\Delta = 690 \text{ km} = 6.2^\circ$ .				
	Sk	iPn	12	57 46	
	iP*	12	57 56		
	i	12	58 11		
	iLg1	12	58 52		
	Gb	i(Sg)	12	59 43	
	$\Delta = 630 \text{ km} = 5.7^\circ$ .				
	Baltic, $61.6^\circ\text{N}$ , $20.2^\circ\text{E}$ .				
	Origin time = 19 16 16.				
	Underwater explosion.				
» 22	Up	iP	20	42 36C	
	i	22	56 50		
	P z'	μ 0.1	s 0.5		
	Ki	iP	20	42 19C	
	Sk	iP	20	42 42	
	i	20	43 21		
	Philippine Islands.				
» 22	Up	iP	22	56 41D	
	i	22	56 50		
	P z'	μ 0.1	s 0.7		
	Ki	iP	22	55 48	
	P z'	μ 0.1	s 1.0		
	Sk	iP	22	56 17	
	Gb	iP	22	56 56D	
	Gulf of Alaska ( $\sim 100 \text{ km}$ ).				
» 23	Up	iP	10	39 23	
	i	10	39 26		
	iPP	10	42 19		
	iS	10	49 15		
	P E	0.4	6		
	P N	0.3	6		
	P Z	1.2	6		
	P Z'	0.1	0.6		
	PP Z'	0.1	1.5		
	S E	5.4	10		
	S N	1.7	8		
	M E	7.2	21		
	M N	8.5	19		
	M Z	11	17		
	$\Delta = 8850 \text{ km} = 78\frac{1}{2}^\circ$ .				
	Ki	iP	10	38 47	
	iS	10	48 10		
	P E	0.4	6		
	P N	0.3	6		
	P Z	1.1	6		
	P Z'	0.2	1.5		
	S E	5.7	10		
	S N	3.0	9		
	M E	15	20		
	M N	11	20		
	M Z	12	19		
	$\Delta = 8050 \text{ km} = 72\frac{1}{2}^\circ$ .				
6					

1958 July 23 (cont.)	Sk    iP Gb    iP	10    39    19	1958 July 26 (cont.)	Ki    M M    N M    Z	$\mu$ s 2.0    19 1.5    19 1.9    20
South of Honshu, Japan. Magn.=6.3 (Up, Ki).					
» 23	Up    iP i Ki    iP	12    35    45 12    36    01 12    35    10	» 26	Gb    iP	11    17    02
Bonin Islands.					
» 23	Up    e Ki    M eP	13    43    32 $\mu$ s 1.2    22 13    29    06	» 26	Ki    iP Gb    iP	16    00    09 16    00    14 16    00    50 16    00    17
Iran.					
» 24	Ki    e iSg Sk    ePn iSg	02    45    54 02    46    34 02    44    57 02    45    51	» 26	Up    iP	17    49    53 17    50    02 17    52    01 17    54    15 17    56    05 17    56    40 17    59    31 18    00    40 18    03    27 18    04    30 18    05    55 18    16    18 18    20    12
Off the central part of the Norwegian coast, 66 1/2°N, 9 1/2°E. Origin time=02 44 09.					
» 24	Up    iP i	13    19    05 13    19    24	P    z P    z' PP    E PP    z SKS    E SKS    N	$\mu$ s 4.4    5 0.4    0.5 7.8    6 12    6 16    6 2.5    4	18    32    06 18    32    17 18    32    06 18    32    28 18    31    49 18    32    10
P    z' M    E M    N M    Z					
Ki    iP					
» 24	Up    iP Ki    e(P)	13    18    12	Ki	$\mu$ s 0.1    1.0 0.4    17 0.6    18 0.9    18 0.4    1.4 0.8    17 0.8    19 1.1    19	18    32    05 17    50    13 17    52    17 17    52    49 17    53    58 17    54    24 17    54    59 17    55    52 17    59    42 18    01    01 18    06    18 18    14    20
$\Delta=11200 \text{ km}=101^\circ$ .					
Sk    iP Gb    iP					
Aleutian Islands.					
» 24	Up    iP	23    06    40	iSKS		
Rumania (h ~ 150 km).					
» 25	Ki    iP	03    37    35	iS		
» 25	Ki    e(P) Sk    e(P) i	06    49    43 06    48    48 06    49    03	iPKKP		
» 26	Up	—	iPP'		
M    E M    N M    Z					
Ki    iPKS					
$\mu$ s 1.2    19 1.1    20 1.8    21					
06    35    56					

1958 July 26 (cont.)	Ki    M M    N M    Z	$\mu$ s 2.0    19 1.5    19 1.9    20	1958 July 26 (cont.)	Ki    P'P' P'P' iSKS	$\mu$ s 0.2    1.3 24    18 13    21 11    16
$\Delta=11450 \text{ km}=103^\circ$ .					
Sk	iP	17    49    46	Sk	iP	17    49    46
	i	17    49    55		i	17    49    55
	iPKKP	17    59    25		iPKKP	18    06    25
	eP'P'	18    14    23		eP'P'	18    14    23
	i	18    17    04		i	18    17    04
	e	18    20    17		e	18    20    17
	ipP	17    49    36		ipP	17    51    45
	iPP	17    53    49		iPP	17    53    49
	i	18    14    17		i	18    14    17
	iPP'	18    14    36		iPP'	18    14    36
$\Delta \sim 11000 \text{ km} \sim 99^\circ$ .					
Peru-Bolivia border. h=610 km (Up, Ki, Gb). Magn.=7.7 (Up, Ki).					
This earthquake would deserve a thorough study of phases and travel times.					
» 26	Up    iP	18    32    06	» 26	Up    iP	18    32    06
	i	18    32    17		i	18    32    17
	i(P)	18    32    06		i(P)	18    32    06
	Sk    e(P)	18    31    49		Sk    e(P)	18    31    49
	i	18    32    10		i	18    32    10
» 27	Up    iPKP	00    40    48	» 27	Up    iPKP	00    40    48
	i	00    40    53		i	00    40    53
	KePKP	00    40    29		KePKP	00    40    29
	i	00    40    41		i	00    40    41
	Sk    ePKP	00    40    41		Sk    ePKP	00    40    41
	i	00    40    50		i	00    40    50
	Gb    iPKP	00    40    54		Gb    iPKP	00    40    54
Fiji Islands region (h ~ 600 km).					
» 27	Up    iP	02    25    28	» 27	Up    iP	02    25    28
	Ki    iP	02    24    34		Ki    iP	02    24    34
Aleutian Islands.					
» 27	Up    eP	03    32    50	» 27	Up    eP	03    32    50
	Ki    iP	03    32    05		Ki    iP	03    32    05
	M    E	$\mu$ s 1.2    18		M    E	$\mu$ s 1.0    19
Kurile Islands.					
» 27	Up    iP	14    02    14	» 27	Up    iP	14    02    14
	Ki    iP	14    02    37		Ki    iP	14    02    37
	i	14    55    35		i	14    55    35
	Sk    iP	14    56    18		Sk    iP	14    56    18
North Atlantic Ocean.					
» 28	Gb    iP	13    52    14	» 28	Up    i(P)	14    42    57
	i	13    34    50		i	13    34    50
	Sg    eSg	13    34    50		Sg    eSg	13    34    50
Local.					
» 28	Up    iP	13    52    14	» 28	Up    iP	13    42    57
	i	13    34    50		i	13    34    50
	Sk    iP	16    00    00		Sk    iP	16    00    00
North Atlantic Ocean.					
» 28	eP	16    03    18	» 28	eP	16    03    18
	iS	16    08    05		iS	16    08    05
	eSS	16    09    21		eSS	16    09    21
$\mu$ s 1.4    21					
	M    E	$\mu$ s 0.7    20		M    E	$\mu$ s 1.2    22
	M    N			M    N	
	M    Z			M    Z	

1958  
July 28 Up  $\Delta=3100 \text{ km}=28^\circ$ .  
(cont.) Ki iP 16 03 18  
e 16 04 21  
i(S) 16 08 14

M E  $\mu$  s  
M N 0.8 19  
M Z 0.4 16  
Sk iP 0.6 16  
i 16 02 50  
16 04 04

North Atlantic Ocean.

» 28 Up iPKP 17 43 03  
Ki ePKP 17 42 56  
iSKP 17 45 37  
Sk iPKP 17 43 06  
iSKP 17 45 55  
Gb iPKP 17 43 07

Fiji Islands region  
(h ~ 500 km).

» 28 Ki iPKP 18 52 59  
Sk iPKP 18 52 58

1958  
July 29 Up  $\Delta=230 \text{ km}=2.1^\circ$ .  
(cont.) Sk eSg 13 50 07  
Baltic Sea, northwest of Gotland.  
Origin time = 13 46 41.

» 29 Up iP 16 00 00  
Ki iP 16 00 09  
Sk eP 15 59 48  
16 00 26

» 29 Up iP 21 48 08C  
i 21 48 16  
eS 21 56 53

P z  $\mu$  s  
P z' 0.9 5  
S N 0.5 1.5  
S N 0.9 10  
M E 2.2 23  
M N 1.8 20  
M Z 3.4 24

Ki  $\Delta=7300 \text{ km}=65\frac{1}{2}^\circ$ .  
iP 21 48 47C  
eS 21 58 10

P z  $\mu$  s  
P z' 0.8 4  
S N 0.4 1.5  
S N 0.6 11  
M E 2.5 23  
M N 1.4 20  
M Z 1.8 21

» 28 Sk iP 22 08 50  
i 22 16 36

Sk iP  $\Delta=7950 \text{ km}=71\frac{1}{2}^\circ$ .  
iP 21 48 13C  
Gb iP 21 47 44C

Atlantic Ocean.  
Magn.=6.2 (Up, Ki).

» 29 Up iPKP 04 18 13  
Gb ePKP 04 18 44

Tonga Islands.

» 29 Up i(PKP) 09 34 55  
Sk i(PKP) 09 34 49

(Tonga Islands).

» 29 Sk eP 11 02 08  
i 11 03 41

M E  $\mu$  s  
M N 0.8 21  
M Z 1.2 22  
Ki i(PKS) 1.0 23  
i(PKS) 11 11 44

M E  $\mu$  s  
M N 0.7 20  
M Z 0.7 20  
Tonga Islands.

» 29 Up iP 13 47 23C  
iSg 13 47 50

Pg z'  $\mu$  s  
Sg z' 0.2 0.5

Kurile Islands.

» 30 Up e(PS) 05 12 56

1958  
July 30 Up  $\Delta=230 \text{ km}=2.1^\circ$ .  
(cont.) Ki M 1.8 22  
M N 2.4 22  
M Z 3.7 21

Ki eP 04 58 52  
ePP 05 03 12  
eS 05 10 31

PP z  $\mu$  s  
M E 0.4 7  
M N 3.3 24  
M Z 1.8 22

M Z 3.5 24  
Sk ePP  $\Delta \sim 11450 \text{ km} \sim 103^\circ$ .  
05 03 48

New Guinea. Magn.=6.1 (Up, Ki).  
» 30 Up iP 07 44 32  
Ki iP 07 43 58  
iS 07 53 19

P z'  $\mu$  s  
Sk iP  $\Delta=8050 \text{ km}=72\frac{1}{2}^\circ$ .  
07 44 28

South of Honshu, Japan.

» 30 Sk iP 14 04 57  
» 30 Ki ePKP 15 30 18

M E  $\mu$  s  
M N 0.5 20  
M Z 0.2 18  
M Z 0.4 18

South Pacific Ocean.

» 31 Up iP 00 17 05  
» 31 Up iP 02 14 50C  
iPeP 02 15 16  
i 02 15 56

Ki P z'  $\mu$  s  
iP 02 13 57C

Sk iP P z'  $\mu$  s  
Gb iP 02 14 28

Aleutian Islands.

» 31 Up iP 02 37 27  
Ki P z'  $\mu$  s  
iP 02 36 34

Sk iP P z'  $\mu$  s  
Gb iP 02 37 05

Aleutian Islands.

» 31 Up iP 15 58 28C  
Ki iP 15 57 32

Southern Alaska.

1958  
Aug 1 Up iPKP 05 56 22  
iSKP 05 58 58  
Ki iPKP 05 56 09  
iPP 05 58 10  
iPKS 05 59 27  
eSS 06 14 48

PKP z'  $\mu$  s  
PKS N 0.1 1.0  
0.4 7

Sk iPKP 05 56 08  
iPKP 05 56 21  
iSKP 05 59 12

Fiji Islands region  
(h ~ 450 km).

» 1 Up iP 12 40 50  
i 12 41 13  
Ki iP 12 40 32C  
Sk iP 12 40 55  
i 12 41 28

Near south coast of Luzon  
(h ~ 150 km).

» 1 Up i(P) 12 54 34  
Ki iSKP 14 48 29  
Sk eSKP 14 48 37

Fiji Islands (h ~ 500 km).

» 2 Ki iP 04 58 04  
Sk iP 04 57 56  
i 04 58 09

Off coast of Oaxaca, Mexico.

» 2 Gb eP 10 59 (19)  
» 2 Up i(P) 11 35 24  
Ki iP 11 34 34

iPKP 01 24 45  
iSKP 01 27 36  
iPP 01 27 56  
iSS 01 45 34

SKP z'  $\mu$  s  
PP z 0.2 1.0  
0.6 3

$\Delta \sim 15550 \text{ km} \sim 140^\circ$ .  
Ki epPKP 01 24 27  
iPKP 01 24 37  
iSKP 01 27 13  
epPKS 01 30 15  
eSKS 01 30 55  
i! 01 31 17  
iPSKS 01 37 08

SKP N  $\mu$  s  
SKP Z 0.5 7  
SKP Z' 1.7 6

SKP Z' 0.2 1.5

1958		1958									
Aug	6	Ki				Origin time=	03	01	40.		
(cont.)		PKP	z'	$\mu$	s						
		(PKS)	N	0.2	1.2						
		M	E	0.7	6						
		M	N	1.8	20	»	7	Up	iPg	03	05
		M	Z	2.1	22				iSg	03	05
		M	Z	2.9	20				iL	03	05
		$\Delta \sim 14200 \text{ km} \sim 128^\circ$ .									
		Sk	iPKP	21	28	28C			Pg	$\mu$	s
		Gb	iPKP	21	28	40			Sg	0.2	0.5
		Tonga Islands.							$\Delta = 130 \text{ km} = 1.2^\circ$ .		
		Magn.=6.1 (Up, Ki).							Sk	i(Lg1)	03
»	6	Ki	iPKP	22	09	38			iSg	07	56
		Sk	iPKP	22	09	49				03	07
		Santa Cruz Islands (h ~ 150 km).							Baltic, 58.8°N, 18.7°E.		
»	7	Up	iPg	02	34	44				Origin time=	03
			iSg	02	34	59				04	57.
			iL	02	35	06					
		$\Delta = 130 \text{ km} = 1.2^\circ$ .									
		This is the first of a series of six shocks in the central Baltic, 58.8°N, 18.7°E (location is determined from the shock at 02 56 11 by combination with the Helsinki record).									
		Origin time=02 34 19. Explosion?									
»	7	Up	i(L)	02	49	24					
		Probably same location in the Baltic as for preceding shock. Explosion?									
»	7	Up	iPg	02	56	35 D					
			iSg	02	56	51					
			iL	02	57	03					
		$\Delta = 130 \text{ km} = 1.2^\circ$ .									
		Baltic, 58.8°N, 18.7°E.									
		Origin time=02 56 11.									
		Explosion?									
»	7	Up	iPg	02	57	50					
			iSg	02	58	06					
			iL	02	58	16					
		$\Delta = 130 \text{ km} = 1.2^\circ$ .									
		Baltic, 58.8°N, 18.7°E.									
		Origin time=02 57 26.									
		Explosion?									
»	7	Up	iPg	03	02	04 D					
			iSg	03	02	20					
			iL	03	02	29					
		$\Delta = 130 \text{ km} = 1.2^\circ$ .									
		Baltic, 58.8°N, 18.7°E.									
»	8	Up	iPg	10	43	47					
			iSg	10	44	33					
		$\Delta = 300 \text{ km} = 2.7^\circ$ .									
			Sk	ePg	10	46					
				eSg	10	46					
		This is the first shock of a series of six shocks, possibly explosions, on Aug. 8 in the Baltic, 58°N, 21 1/2°E.									
		Origin time=09 49 37.									
»	8	Up	iPg	12	50	08					
			iSg	12	51	05					
		$\Delta = 300 \text{ km} = 2.7^\circ$ .									
			Sk	ePg	12	52					
				eSg	12	53					
		Baltic, 58°N, 21 1/2°E. Origin time=10 43 03. Explosion?									
»	8	Gb	i(P)	12	50	08					

1958		1958							
Aug	10	Ki	eL	03	51	Up		$\mu$	s
				$\mu$	s				
		M	E	0.6	16				
		M	N	0.3	16				
		M	Z	0.5	16				
		Off east coast of Honshu, Japan.							
»	10	Gb	iP (Alaska).	08	43	43			
»	10	Sk	iP Yugoslavia.	12	42	24			
»	10	Up	eL	18	57				
				$\mu$	s				
		M	E	0.8	20				
		M	N	0.7	20				
		M	Z	1.1	21				
		Ki	eL	18	57				
				$\mu$	s				
		M	E	0.3	18				
		M	N	0.7	20				
		M	Z	0.6	19				
		New Britain region.							
»	10	Up	i(P)	20	00	35			
		Ki	iP	19	58	21			
		i		20	00	59			
»	10	Ki	iP	23	53	28			
		isP		23	54	14			
		Sk	iP	23	54	09			
		ipP		23	54	43			
		Mariana Islands region (h ~ 150 km).							
»	11	Ki	iPKP	08	12	17			
		Sk	iPKP	08	12	27			
		iPKS		08	15	48			
		New Hebrides Islands.							
»	11	Sk	eP	09	24	00			
		i		09	24	41			
»	11	Gb	iP	10	21	05C			
»	11	Up	i(Sg)	14	07	27			
		Sk	e(Sg)	14	09	26			
		Near coast of southwest Finland.							
»	11	Up	i(Sg)	14	11	55			
		Sk	i(Sg)	14	13	51			
		Near coast of southwest Finland.							
»	11	Up	iPn	16	08	52			
		iSn		16	10	27			
		iSg		16	11	24			
		1958 (cont.)							
		Aug	11	Up			$\mu$		s
					Sg	$z'$	0.1		0.5
						$\Delta = 920 \text{ km} = 8.3^\circ$			
					Sk	i	16	11	24
						eSg	16	13	33
					Gb	$\Delta = 1360 \text{ km} = 12.2^\circ$			
						e(Sn)	16	10	03
						iSg	16	10	38
						$\Delta = 770 \text{ km} = 6.9^\circ$			
						Poland, $51.7^\circ\text{N}$ , $17.8^\circ\text{E}$ .			
						Origin time = 16 06 49.			
					» 11	Up	eP	20	23 09
						i		20	23 12
						Ki	iP	20	23 20
						Sk	iP	20	23 37
					» 11	Up	iP	20	39 19
						i		20	39 26
						es		20	50 03
					Ki	S	N	0.4	9
						M	E	0.5	20
						M	N	0.5	19
						$\Delta = 9900 \text{ km} = 89^\circ$			
						iP		20	39 18C
						i		20	39 29
						es		20	50 00
						P	$z'$	0.1	1.0
						S	E	0.4	10
						M	E	0.5	20
						M	N	0.9	22
						M	Z	0.9	19
					Sk	iP		20	39 33
						ipp		20	43 12
						Off coast of Sumatra.			
					» 11	Up	iPKP2	22	36 01
						Ki	ePKP	22	35 26
						North Island, New Zealand (h ~ 200 km).			
					» 12	Up	iP	08	27 03
						Ki	iP	08	26 09
						Sk	ep	08	26 40
						Aleutian Islands.			
					» 12	Up	iP	12	32 59
						Ki	ep	12	32 59
						M	E	0.5	20
						M	N	0.9	22
						Sk	iP	12	33 20
						Nepal-Tibet border region.			
					» 12	Up	eP	12	49 09
						Sk	ep	12	49 30
						Nepal-Tibet border region.			

1958							1958									
Aug 13				South of Fiji Islands (cont.)			Aug 14				Gb i (cont.) Tonga Islands region.			10	05	08
» 13	Up	iP		17	41	04	» 14	Up	iP		11	33	31			
				μ	s			iPP		11	34	44				
	M	E		0.6	12			es		11	38	43				
	M	N		0.6	14			iSS		11	40	42				
	M	Z		0.8	15								μ	s		
Ki	iP			17	41	10		S	E		2.0	19				
				μ	s			S	N		1.5	17				
	M	E		0.5	10			M	E		7.1	18				
	M	N		0.3	10			M	N		5.3	15				
	M	Z		0.5	10			M	Z		9.4	18				
Sk	iP			17	41	22		△=3550 km=32°.								
West	Pakistan.						Ki	iP		11	34	13				
» 13	Up	iP		20	24	08		iPP		11	35	34				
	i			20	24	21		es		11	39	57				
	iS			20	33	12							μ	s		
	eScS			20	34	04		P	Z'		0.4	0.8				
	e			20	52	07		PP	Z'		0.6	2.0				
	iPP'			20	52	16		S	E		1.4	17				
				μ	s			S	N		2.3	18				
	P	N		0.4	5			M	E		7.7	20				
	P	Z		0.9	5			M	N		5.1	19				
	P	Z'		0.2	0.5			M	Z		9.5	20				
	S	E		0.4	6			△=4100 km=37°.								
	S	N		0.8	6			Sk	iP		11	34	07			
	P'P'	Z		0.3	5			Gb	iP		11	33	41			
	M	E		1.2	18			Iran.								
	M	N		1.0	18		» 14	Ki	iPKP		13	02	26			
	M	Z		1.2	18			Sk	iPKP		13	02	37			
	△=7650 km=69°.							New Hebrides Islands.								
Ki	iP			20	23	16										
	ePa			20	27	06	» 14	Up	iP		15	06	13C			
	iS			20	31	34		i		15	06	29				
				μ	s			es		15	15	12				
	P	N		0.5	7			i		15	15	42				
	P	Z		0.8	7								μ	s		
	P	Z'		0.2	1.1			P	N		0.5	5				
	S	E		0.3	7			P	Z		1.0	5				
	S	N		0.7	8			P	Z'		0.7	1.0				
	M	E		1.7	19			S	E		0.5	6				
	M	N		1.0	18			S	N		0.4	6				
	M	Z		1.2	18			M	E		6.3	20				
	△=6800 km=61°.								M	N		11	21			
Sk	iP			20	23	48			M	Z		13	21			
Gb	iP			20	24	24			△=7600 km=68½°.							
	i			20	24	36		Ki	iP		15	05	20			
Aleutian Islands.								iPcP		15	06	06				
Magn.=6.1 (Up, Ki).								iPcs		15	10	08				
» 14	Up	iP		02	41	28		iS		15	13	35				
	Ki	iP		02	40	59							μ	s		
	Sk	iP		02	41	25		P	N		0.9	10				
Mariana Islands.								P	Z		1.9	10				
» 14	Up	iPKP		10	04	47		P	Z'		0.4	1.2				
	Gb	iPKP		10	04	54		S	E		1.6	13				
	i			10	05	00		S	N		0.8	13				

1958			
Aug 14	Ki	$\triangle = 6700 \text{ km} = 60\frac{1}{2}^\circ$ .	
(cont.)	Sk	iP 15 05 52C	
	iPeP	15 06 25	
	iPcs	15 10 29	
	Gb	$\triangle = 7200 \text{ km} = 65^\circ$ .	
	eP	15 06 28	
	i	15 06 30	
	Aleutian Islands.		
	Magn. = 6.4 (Up, Ki).		
» 14	Up	iP 15 13 29	
» 14	Up	iP 15 29 13	
	Ki	iP 15 28 19	
	Sk	iP 15 28 51	
	Aleutian Islands.		
» 14	Up	iP 15 32 51C	
	Ki	P z' 0.1 0.8	
	iP	15 33 33C	
	i	15 34 51	
	Sk	P z' 0.6 1.3	
	iP	15 33 29C	
	Gb	iP 15 33 02	
	Iran.		
» 14	Up	eP 16 43 34	
	i	16 44 00	
» 14	Up	iP 22 58 06	
» 14	Up	iP 23 34 51	
	ipP	23 35 14	
	i	23 35 23	
	Ki	P z' 0.1 0.8	
	iP	23 35 13	
	iS	23 41 55	
	eSS	23 45 20	
	S	N 0.3 8	
	M	E 0.5 20	
	M	N 0.5 18	
	M	Z 0.5 20	
	Sk	iP 23 35 20	
	ipP	23 35 45	
	Gb	iP 23 35 07	
	ipP	23 35 30	
	Pakistan.	h = 110 km (Up, Sk, Gb).	
» 15	Up	eL 03 25	
	M	E 0.6 23	
	M	N 0.6 21	
	M	Z 1.2 22	
	Ki	eL 03 25	
	M	E 1.1 27	

1958			
Aug 15	Ki	M 0.6 20	
(cont.)	Sk	M 0.8 21	
	New Britain.		
» 15	Ki	iP 04 30 22	
	Iran.		
» 15	Up	iP 06 33 08	
	ipP	06 33 53	
	Ki	P z' 0.1 0.7	
	iP	06 33 11C	
	Sk	P z' 0.3 1.3	
	iP	06 32 55	
	ipP	06 33 41	
	Gb	iP 06 32 54	
	Colombia.	h = 180 km (Up, Sk).	
» 15	Ki	iP 09 45 17	
	Sk	eP 09 46 06	
» 15	Ki	iP 13 30 18	
	Sk	eP 13 30 49	
	Southern Alaska.		
» 15	Up	iP 16 09 20C	
	Ki	ep 16 09 22	
	M	E 0.3 18	
	M	N 0.4 20	
	Sk	iP 16 09 41	
	Western Nepal.		
» 15	Up	iP 20 06 06C	
	ipP	20 10 23	
	i	20 14 26	
	iP'P'	20 34 52	
	P	N 2.2 4	
	P	Z 4.3 4	
	P	Z' 0.4 0.5	
	S	E 2.6 6	
	S	N 23 30	
	M	E 73 30	
	M	N 43 24	
	M	Z 49 27	
	Ki	$\triangle \sim 7000 \text{ km} \sim 63^\circ$ .	
	iP	20 05 12C	
	iS	20 12 51	
	i!	20 13 24	
	iP'P'	20 35 14	
	P	N 1.7 7	
	P	Z 3.1 7	
	P	Z' 0.7 1.1	
	S	E 1.3 8	
	S	N 26 27	
	M	E 16 18	
	M	N 18 20	
	M	Z 24 20	

1958			
Aug 15	Ki	$\triangle \sim 6100 \text{ km} \sim 55^\circ$ .	
(cont.)	Sk	iP 20 05 49C	
	i	20 06 21	
	iS	20 14 15	
	iP'P'	20 35 06	
	Gb	$\triangle \sim 6800 \text{ km} \sim 61^\circ$ .	
	iP	20 06 29C	
	Near east coast of Kamchatka		
	(h ~ 60 km).		
	Magn. = 6.8 (Up, Ki).		
» 15	Up	iP 22 42 30C	
	i	22 42 46	
	ePP	22 46 31	
	iSKS	22 52 48	
	i!	22 55 00	
	P	Z' 0.3 1.1	
	PP	E 1.1 4	
	PP	Z 1.4 4	
	SKS	E 6.6 5	
	SKS	N 1.8 5	
	M	E 53 26	
	M	N 130 27	
	M	Z 41 21	
	Ki	$\triangle \sim 10900 \text{ km} \sim 98^\circ$ .	
	iP	22 42 16C	
	i	22 42 30	
	iPP	22 46 09	
	ipPP	22 46 46	
	iSKS	22 52 31	
	i!	22 53 52	
	isS	22 54 31	
	iP'P'	23 07 44	
	P	Z' 1.6 8	
	P	Z' 0.7 1.5	
	PP	E 5.4 17	
	PP	Z 2.9 6	
	SKS	E 11 9	
	SKS	N 3.1 4	
	P'P'	Z' 0.3 2.0	
	M	E 58 24	
	M	N 67 23	
	M	Z 36 20	
	Sk	$\triangle \sim 10450 \text{ km} \sim 94^\circ$ .	
	iP	22 42 37C	
	i	22 42 53	
	iPP	22 46 41	
	iPKKP	22 59 15	
	Gb	iP 22 42 48	
	i	22 42 57	
	i	22 45 30	
	iPP	22 46 58	
	Celebes (h ~ 200 km).		
	Magn. = 6.8 (Up, Ki).		
» 16	Up	ePKP 11 33 18	
	M	N 0.9 21	
	M	Z 1.5 21	
	Ki	iP 17 16 25	
	ess	17 24 33	
	M	E 0.5 13	
	M	N 0.5 17	
	M	Z 0.9 15	
	Sk	eP 17 16 22	
	Iran.		
» 16	Up	i(P) 18 05 51	
	i	18 06 15	
	Sk	iP 18 05 47C	

1958				1958										
Aug	17	Up	ePP	18	20	10	Aug	18	Ki	eP	12	40	46	
		e		18	28	49			Gb	iP	12	39	56	
		ePS		18	29	45			Ki	eP	15	26	11	
		eSeSP		18	30	00	»	18	Sk	eP	15	26	48	
		ePPS		18	30	51			Gb	iP	15	27	23	
		M	E	6.6	18									
		M	N	7.2	20									
		M	Z	9.9	19		»	18	Up	iP	15	30	13	
		Ki	ePP		18	19	52		i		15	30	23	
					μ	s					μ	s		
		PP	E	0.3	7					M	N	0.5	17	
		PP	Z	0.5	8					M	Z	0.6	18	
		M	E	5.5	20			Ki	iP		15	29	24	
		M	N	3.1	20					μ	s			
		M	Z	8.9	21					M	E	0.4	18	
		Bismarck Sea.								M	N	0.6	20	
		Magn.=6.4 (Up, Ki).								M	Z	0.8	18	
»	17	Up	iP		19	17	18			Sk	eP	15	29	59
		Ki	iP		19	16	38			Gb	iP	15	30	35
		Off northeast coast of Honshu, Japan.												
»	17	Up	iP		19	30	41	»	18	Ki	e(P)	15	54	24
		Ki	iP		19	30	25	»	18	Up	iPg	16	15	25
			P	z'	0.1	1.0				iSn	16	15	53	
		Sk	iP		19	30	46			iSg	16	16	18	
		Celebes Sea.								△=410 km=3.7°.				
»	17	Up	iPKP		21	31	08 D			Sk	ePn	16	15	29
			iPKP2		21	31	21			iSg	16	16	46	
		e			21	44	49			△=520 km=4.7°.				
		Ki	iPKP		21	30	48			Gb	iPg	16	14	43
			i		21	31	01			iSg	16	15	04	
					μ	s				△=180 km=1.6°.				
		PKP	N	0.4	9		»	18	Gb	iP	17	08	17	
		PKP	Z	2.4	9				i		17	08	26	
		PKP	z'	1.6	1.8									
		M	E	0.8	21									
		M	N	0.2	18									
		M	Z	0.6	19									
		Sk	iPKP		21	30	57	»	18	Ki	iP	17	50	46
			i		21	31	04	»	18	Up	iP			
		Gb	iPKP		21	31	03			P	z'	0.1	0.7	
			iPKP2		21	31	33			Ki	iP			
		Kermadec Islands region.								eP				
»	17	Up	iPKP		22	37	05					21	49	55
		Ki	iPKP		22	36	25	»	18	Up	iP	23	59	32
			i		22	36	35			i		00	00	01
					μ	s					0.2	0.7		
		Sk	PKP	z'	0.1	1.5			Ki	P	z'	0.0	00	40 D
			iPKP		22	36	39			iP		00	00	54
			i		22	36	48			i		00	00	
		Kermadec Islands region.								P	z'	0.1	1.0	
»	18	Ki	iP		10	29	23			Sk	iP	00	00	11 D
		Sk	iP		10	29	10C			Gb	iP	23	59	27C
		Panama-Colombia border.								Southeast of Crete.				

1958										1958													
Aug	20	Up	iP	09			30			40			(cont.)	Aug	21	Up	iSKP	21					
				P	z'	$\mu$	0.1	s	1.0	09	29	47						M	E	$\mu$	0.8	s	20
	Ki	iP	Kamchatka.															M	E	$\mu$	0.8	s	21
» 20	Up	iP					17	56	30								Ki	iPKP	21	17	42		
	Ki	iP					17	55	57								i	e	21	17	51		
» 20	Up	iP					22	33	00								ePP	iSKP	21	20	00		
	Ki	M					$\mu$	0.3	s								ePP	iPKS	21	20	55		
		ePP	N				22	34	40									iPKS	21	21	12		
							$\mu$	s									PKP	z'	0.2	1.3			
		M	E				0.4	11									M	E	1.4	21			
		M	N				0.4	10									M	N	0.6	19			
		M	Z				0.3	10									M	Z	0.9	19			
	Sk	ePP					22	35	06								Sk	iPKP	21	17	52		
	Hindu Kush (h ~ 250 km).																i		21	18	01		
» 21	Up	iPKP					01	28	31								Sk	iSKP	21	21	13		
	Ki	iPKP					01	28	30								Gb	iPKP	21	18	01		
		ePKS					01	31	50								i		21	18	10		
							$\mu$	s									Fiji Islands region						
		PKS	E				0.3	6									(h ~ 250 km).						
		M	E				0.6	18									» 22	Up	iPKS	10	19	02	
		M	N				0.7	20									Ki	iPKP	10	15	30		
		M	Z				1.0	20									iPKS		10	18	45		
	Gb	iPKP					01	28	41								Sk	iPKP	10	15	40		
	Tonga Islands region.																iPKS		10	18	54		
» 21	Ki	iPKP					04	22	49								New Hebrides Islands						
		e					04	26	39								(h ~ 100 km).						
	Gb	iPKP					04	23	14								» 22	Up	i(Pn)	12	52	40	
	Tonga Islands region.																i(Sn)		12	53	36		
» 21	Up	iP					10	38	26 D								i		12	53	58		
» 21	Up	iP					12	06	04								i(Sg)		12	54	06		
		P	z'				$\mu$	s									Ki	e(Sg)	12	57	50		
		Ki	iP				0.1	0.8									Sk	iP	12	52	50		
		i					12	05	33								i		12	55	51		
		Sk	iP				12	14	30								Gb	iP	12	51	28 C		
	Bonin Islands region (h ~ 400 km).																i		12	51	40		
							12	06	00								i		12	52	35		
																	Complicated, local shock(s).						
» 21	Up	iP					12	29	58								» 22	Up	iP	19	37	28	
	Ki	iP					12	29	04 C								Ki	iP	19	36	37 I		
		P	z'				$\mu$	s									Sk	iP	19	37	09		
		M	E				0.1	1.0									Aleutian Islands.						
		M	N				0.4	16									» 22	Up	iP	20	44	46	
		M	Z				0.3	16									Ki	iP	20	43	53		
		Sk	iP				0.5	16									Sk	iP	20	44	24		
	Aleutian Islands.																Aleutian Islands.						
							12	29	35								» 22	Ki	ePP	22	35	32	
		Gb	iP				12	30	12								Sk	iPP	22	36	14		
	Aleutian Islands.																New Britain region						
» 21	Up	iP					12	57	55								(h ~ 250 km).						
» 21	Up	iPKP					21	17	56								» 22	Ki	iPKP	23	37	49	
		iPP					21	20	50								Ki	iPP	23	40	03		

1958						
Aug 22	Sk	iPKP				
(cont.)	Pacific Ocean.		23	37	47	
» 23	Ki	iP		13	31	31
	i			13	31	40
	i			13	31	44
		Local blast?				
» 23	Ki	iP		20	39	26
	Sk	iP		20	39	41
» 23	Ki	eP		22	07	02
	M	E		μ	s	
	M	N		0.4	17	
	Aleutian Islands.			0.3	17	
» 24	Ki	iP		02	25	27
» 24	Up	eP		08	09	05
	Ki	iP		08	09	46
	M	E		μ	s	
	M	N		0.4	14	
	M	Z		0.4	13	
	Sk	eP		0.7	12	
	Iran.			08	09	40
» 24	Ki	iP		16	37	22
	Aleutian Islands.					
» 24	Up	iP		17	06	44
	iPcP			17	07	17
	iS			17	16	56
	Ki	P		μ	s	
	iP	z'		0.1	0.9	
	iPcP			17	06	28C
	iP	z'		17	07	09
	Sk	P		μ	s	
	iP	z'		0.1	1.0	
	Sk	iPcP		17	06	50
	Near coast of Luzon,			17	07	22
	Philippine Islands					
	(h ~ 150 km).					
» 24	Ki	eL		21	02	
	M	E		μ	s	
	M	N		0.3	10	
	M	Z		0.3	8	
		0.3	10			
» 25	Ki	i(Sg)		02	28	21
	Sk	e		02	28	22
	i(Sg)			02	28	37
	Local.					
» 25	Ki	iP		04	11	57
	Sk	P		μ	s	
	eP	z'		0.1	1.0	
	Iran.			04	11	52

1958						
Aug 25	Sk	eP		09	35	56
» 26	Up	iP		05	12	00
	Ki	iP		μ	s	
	M	N		0.3	16	
	Ki	iP		05	11	21C
	M	E		μ	s	
	M	N		0.4	15	
	M	Z		0.2	13	
	Sk	iP		0.6	15	
	Near east coast of Honshu, Japan.			05	11	54C
» 26	Ki	iPKP		12	39	39
	Sk	iPKP		12	39	49
	New Hebrides Islands.					
» 26	Up	iPKP		13	04	13
	M	E		μ	s	
	M	N		0.8	20	
	Ki	iPKP		1.0	22	
	M	Z		1.6	22	
	Ki	iPKP		13	03	59
	M	E		μ	s	
	M	N		0.8	19	
	M	Z		0.5	19	
	Sk	iPKP		1.1	21	
	i			13	04	10
	Sk	iPKP		13	04	22
	New Hebrides Islands.					
» 26	Ki	iP		14	53	40
	Near west coast of Java.					
» 26	Up	i		17	21	17
	Sk	i(Sg)		17	21	23
	Sk	i(Sg)		17	22	17
	Local?					
» 26	Up	—				
	M	E		μ	s	
	M	N		0.8	20	
	M	Z		0.8	18	
	Ki	iPKP		1.2	23	
	M	E		μ	s	
	M	N		0.8	31	
	Ki	iPKP		18	14	35
	M	E		μ	s	
	M	N		0.8	31	
	Ki	iPKP		1.0	20	
	M	E		μ	s	
	M	N		0.4	42	
	Sk	iPKP		18	14	46
	i			18	14	46
	Gb	iPKS		18	18	19
	i			18	18	28
	Sk	iPKP		18	18	28
	New Hebrides Islands.					
» 26	Up	iP		21	51	14
	Sk	iP		21	51	56
	Near east coast of Greece.					

1958						
Aug 26	Ki	iPKP		23	42	15
	Sk	iPKP		23	42	26
	New Hebrides Islands.					
» 26	Up	iPKS		23	54	09
	i			23	54	19
	i			23	54	23
	Ki	iPKP		μ	s	
	M	E		1.2	22	
	M	N		1.6	22	
	M	Z		1.7	20	
	Ki	iPKP		23	50	34
	M	E		μ	s	
	M	N		1.0	21	
	M	Z		0.6	21	
	Sk	iPKP		1.6	21	
	Gb	ePKS		23	54	25
	i			23	54	42
	New Hebrides Islands.					
» 27	Ki	ePKP		00	04	02
	New Hebrides Islands.					
» 27	Up	i(PS)		02	54	02
	M	E		μ	s	
	M	N		1.1	21	
	M	Z		0.5	18	
	Ki	i		1.2	22	
	M	E		μ	s	
	M	N		2.5	23	
	M	Z		0.6	18	
	Ki	i		1.9	23	
	Southwest of Galapagos Islands.					
» 27	Ki	eP		05	52	28
	Seismic?					
» 27	Up	iP		13	19	32C
	iPcP			13	20	08
	P	z'		0.1	0.5	
	Ki	iP		13	18	38
	iPcP			13	19	38
	P	z'		0.1	1.5	
	Sk	iP		13	19	59
	iPcP			13	19	59
	△=6150 km=55½°.					
	Ki	iP		13	19	59
	iPcP			13	19	59
	△=6700 km=60½°.					
	Ki	iP		13	19	59
	iPcP			13	19	59
	Kamchatka.					
» 27	Up	iP		15	21	33 D
	iS			15	25	35
	P	E		μ	s	
	P	N		1.5	3	
	P	Z		5.0	3	
	P	E		6.3	3	
	Sk	eP		10	27	12
	Near coast of Guatemala.					
» 28	Sk	iP		13	58	32
	Local?					
» 28	Up	iP		16	18	13
	Sk	iP		16	39	53
	Near east coast of Greece.					
» 28	Sk	iP		17	33	07
	Venezuela-Colombia border region.					

1958				
Aug 28	Up	iP	18	26 48
	Ki	iP	18	25 55
			$\mu$	s
	P	z'	0.1	0.8
	Sk	iP	18	26 25
	iPeP		18	26 59
	Gb	iP	18	27 05
	Aleutian Islands.			
» 28	Up	iSn	23	14 55
	i	23	15 27	
	iSg	23	15 31	
	△ ~ 690 km ~ 6.2°.			
	Ki	iPg	23	12 42
	iSg	23	13 05	
	Sg	z'	0.4	0.5
	△ = 200 km = 1.8°.			
	Sk	eP*	23	13 21
	iSg	23	14 31	
	△ = 490 km = 4.4°.			
	Västerbotten, Sweden,			
	66.1°N, 21.0°E. Origin			
	time = 23 12 05. Felt.			
» 29	Up	i(P)	11	10 57
	Local? Seismic?			
» 29	Up	—	—	
	M	E	0.8	20
	M	N	1.0	19
	M	Z	1.9	22
	Ki	ePKP	12	43 20
			$\mu$	s
	M	E	0.7	17
	M	N	0.7	18
	M	Z	1.6	21
	Sk	iPKP	12	43 33
	New Hebrides Islands.			
» 29	Ki	iPKP	13	10 54
	Sk	iPKP	13	11 04
	New Hebrides Islands.			
» 29	Up	iSn	15	18 45
	i	15	18 54	
	iS*	15	19 18	
	iSg	15	19 36	
	Sg	z'	0.1	0.5
	△ = 910 km = 8.2°.			
	Ki	ePn	15	18 08
	e(S*)	15	20 50	
	△ = 1300 km = 11.7°.			
	Sk	iPn	15	16 57
	i	15	18 18	
	i	15	18 34	
	iSg	15	18 46	
	△ = 720 km = 6.5°.			
	Gb	eP*	15	16 51

1958				
Aug 29	Gb	eSg	15	18 22
(cont.)		△ = 640 km = 5.8°.		
		North Sea, 59.7°N, 1.6°E.		
		Origin time = 15 15 09.		
» 29	Up	iP	16	49 30
	Ki	e(P)	16	50 22
» 29	Up	iP	17	36 08
» 29	Up	iP	18	26 20
» 29	Up	iP	18	30 41
» 30	Up	iP	07	40 43
	IS	07	44 46	
	△ = 2500 km = 22 1/2°.			
	Ki	iP	07	41 56
			$\mu$	s
	M	E	0.5	11
	M	N	0.9	12
	M	Z	1.3	12
	Sk	iP	07	41 22
	Gb	iP	07	40 28
	Ionian Sea.			
» 30	Up	iP	13	53 31
	Ki	iP	13	52 47
	Sk	iP	13	53 10
» 30	Up	iP	14	02 33
» 30	Up	iP	18	50 50
	i	18	51 11	
	M	E	2.2	19
	M	N	1.5	17
	M	Z	2.0	19
	Ki	iP	18	50 26
			$\mu$	s
	M	E	2.4	20
	M	N	2.1	20
	M	Z	4.3	20
	Sk	iP	18	50 30
	Gb	eP	18	50 43
	Gulf of California.			
» 30	Up	iP	23	40 14
	Ki	iP	23	39 21
	Sk	iP	23	39 57
	Gb	iP	23	40 35
	Southeast coast of Kamchatka.			
» 31	Up	iP	02	07 48
	Ki	iP	02	06 56
	Off southeast coast of Kamchatka.			
» 31	Up	iP	02	08 30
	Ki	iP	02	07 37

1958				
Aug 31	Off southeast coast of Kamchatka.			
(cont.)				
» 31	Up	iP	02	49 04
	Ki	iP	02	48 23C
	Sk	iP	02	48 57
	Sea of Japan.			
» 31	Ki	eP	03	22 27
	e	eP	03	23 26
	Sk	eP	03	23 29
» 31	Ki	iP	03	28 39
	Off southeast coast of Kamchatka.			
» 31	Ki	eP	06	47 30
	Off southeast coast of Kamchatka.			
» 31	Up	iP	09	26 22D
	i(PP)	09	28 09	
	Ki	iP	09	26 46
	i	09	27 10	
	Sk	iP	09	26 53
	i	09	27 16	
	Gb	iP	09	26 39
	Pakistan-Iran border.			
» 1	Ki	iP	03	28 45
	Sk	iP	03	29 12
» 1	Up	iP	08	45 03
	iPP	08	46 51	
	Ki	iP	08	45 29
	Sk	iP	08	45 35
	i	08	45 58	
	Gb	iP	08	45 19
	Western Baluchistan.			
» 1	Sk	eP	14	25 41
» 1	Up	iP	15	30 33
	Ki	iP	15	29 51
	Off southeast coast of Hokkaido,			
	Japan.			
» 1	Up	iP	23	09 59C
	iS	23	17 49	
	iSeS	23	19 47	
			$\mu$	s
	P	N	0.3	3
	P	Z	0.7	3
	P	Z'	0.2	1.5
	S	E	1.2	8
	S	N	1.2	10
	M	E	1.1	21
	M	N	1.3	20
	M	Z	1.4	20
	Ki	△ = 6200 km = 56°.		
	iP	23	09 02C	
	iS	23	16 06	
	eSa	23	19 59	
			$\mu$	s
	P	N	0.8	5
	P	Z	1.1	5
	P	Z'	0.4	1.3
	S	E	2.2	8
	Sea of Japan. h = 340 km (Up, Ki).			

1958			Sep	1	Gb	iP	18	48	26	1958			Sep	2	Up	Ki	eP	12	50	15					
»	2	Up	iP				01	18	21	»	2	Up	Ki	iP		12	50	15							
i			i				01	18	28	Sk	iP		Sk	iP		12	51	18							
i			i				01	18	42	i	i			i		12	51	46							
iS			iS				01	22	26	Caucasus.															
P			P				z'	0.1	0.5	»	2	Ki	iPKP			14	44	05							
S			S				N	1.7	10	Sk	iPKP			iPKP		14	44	15							
M			M				E	3.4	12	Gb	iPKP			iPKP		14	44	21							
M			M				N	8.9	12	Near north coast of New Guinea.															
M			M				Z	12	12	»	2	Sk	eP			15	34	07							
Ki			$\Delta=2500 \text{ km}=22\frac{1}{2}^\circ$ .			» 2 Ki iPKP 14 44 05			M E 0.8 13			Sep 3 Up Ki iP 01 47 45			Sep (cont.) 3 Up M M 4.5 20			M N Z 6.3 20							
iP			iP							Sk	iPKP			iPKP		01	47	48	» 3 Sk iP 02 05 35	$\Delta=7800 \text{ km}=70^\circ$ .					
eS			eS							Gb	iPKP			iPKP		02	08	20	Sk iPKP 08 21 55C	iPP 08 23 10					
eRg			eRg							Near north coast of New Guinea.			» 3 Up eP eL(3.22) 03 03 38	iS 08 29 27			iS 08 29 27	$\mu \text{ s}$							
S			S										Ki	iP		03	04	48	» 3 Up eLg1 03 13 50	$\mu \text{ s}$					
M			M										M E 0.8 13		03	04	48	Sk iPKP 08 21 29C	$\mu \text{ s}$						
M			M										M N 0.8 13		03	04	20	Gb iPKP 08 21 58C	$\mu \text{ s}$						
M			M										M Z 0.9 13		03	03	33	iPKP 08 24 43	$\mu \text{ s}$						
$\Delta=3400 \text{ km}=30^\circ$ .			» 2 Up iP eS							Southwest Turkey.			$\Delta=7050 \text{ km}=63\frac{1}{2}^\circ$ .			$\Delta=8100 \text{ km}=73^\circ$ .			Off northeast coast of Honshu, Japan (h ~ 60 km).						
Sk			Sk										» 3 Gb i(Sg) Local? Seismic?	Magn.=6.2 (Up, Ki).			Magn.=6.2 (Up, Ki).			Magn.=6.2 (Up, Ki).			Magn.=6.2 (Up, Ki).		
i			i										» 3 Up iP 08 56 39												
Gb			Gb										» 3 Up iP 16 13 50C												
i			i										» 4 Up iP i eS												
Ionian Sea.			Magn.=5.3 (Up, Ki).			Ki			$\Delta=9600 \text{ km}=86\frac{1}{2}^\circ$ .			Ki			$\Delta=7350 \text{ km}=66^\circ$ .			$\Delta=2650 \text{ km}=24^\circ$ .			$\Delta=2650 \text{ km}=24^\circ$ .				
(Ionian Sea).			» 2 Up iP 01 34 04			Ki			e(SeS)			Ki			iP 03 55 55			iP 00 09 18C			iP 00 09 20				
(Ionian Sea).			Sk iP 01 34 43			Ki			P z 0.4 7			iS 04 05 22			iS 00 09 20			iS 00 14 27			iS 00 19 34				
(Ionian Sea).			» 2 Up iP 02 11 04			Ki			M E 2.6 20			iSeS 04 06 06			eLg1 00 09 20			$\mu \text{ s}$			$\mu \text{ s}$				
(Ionian Sea).			Ki iP 02 12 17			Sk iP			M N 1.1 20			P z' 0.4 1.4			P z' 0.1 1.0			$\mu \text{ s}$			$\mu \text{ s}$				
(Ionian Sea).			Sk iP 02 11 43			Gb iP			M Z 3.7 21			Gb iP			S E 2.8 11			S E 0.2 1.0			$\mu \text{ s}$				
Magn.=5.7 (Up, Ki).			» 2 Up iP 03 13 34D			New Zealand (h ~ 350 km).			Sk iP			Sk iP			S E 2.8 12			S E 0.5 6			$\mu \text{ s}$				
Ki			iP 03 18 03			» 2 Up iPK 22 30 28C			Ki iPKP 22 30 09			Ki iPKP 22 30 24			P z' 0.2 1.0			P z' 0.5 6			$\mu \text{ s}$				
$\Delta=2700 \text{ km}=24\frac{1}{2}^\circ$ .			» 3 Up iP i			01 40 40			01 48 06			01 40 40			01 41 18			01 41 15			$\mu \text{ s}$				
West of Crete.			Ki iPKP 03 14 43			Ki iP			M Z 1.4 16			Ki iP			01 41 21			01 46 49			$\mu \text{ s}$				
Sk iP 03 14 12			Ki iP 03 14 15			Ki iP			M E 0.6 15			Ki iP			01 46 49			M E 1.3 11			$\mu \text{ s}$				
Gb eP 03 13 24			Ki iP 03 13 14			Ki iP			M N 0.3 14			Ki iP			01 49 35			M N 0.9 15			$\mu \text{ s}$				
West of Crete.			Sk iP 03 14 12			Ki iP			P z' 0.1 1.0			Ki iP			01 41 17			01 40 43			$\mu \text{ s}$				
» 2 Up iP 04 49 54			Ki eP 04 51 07			Sk iP			P z' 0.9 13			Sk iP			01 41 17			P z' 0.6 3			$\mu \text{ s}$				
Sk iP 04 50 33			Sk iP			P z' 0.8 16			P z' 0.2 1.5			P z' 0.5 7			P z' 0.4 7			P z' 0.6 12			$\mu \text{ s}$				
Ionian Sea.			Iran.			M Z 1.6 16			S E 0.5 7			S E 0.4 7			M E 5.0 19			M N 0.5 12			$\mu \text{ s}$				

1958		1958															
Sep	4	Ki	M	E	N	$\mu$	s	Sep	4	Sk	i	e	22	12	19		
(cont.)			M			0.4	11	(cont.)					22	25	05		
			M			0.3	10						22	09	53		
			Sk	eP		02	56	50					22	12	00		
			i			02	56	53					22	14	48		
			Gb	eP		02	56	02					22	20	43		
		Dodecanese Islands.											22	24	40		
»	4	Up	eP			03	52	06					$\Delta \sim 13100 \text{ km} \sim 118^\circ$ .				
		i				03	52	12					Chile-Argentina border.				
		Ki											Magn. = 6.8 (Up, Ki).				
			M			$\mu$		s									
			M			0.2		10									
			Sk	eP		03	52	45									
			Gb	eP		03	51	52									
		Greece.															
»	4	Up	iP			07	09	55 D									
		i				07	10	09									
		P			$\mu$		s										
		z'			0.1		1.0										
		Ki	iP			07	09	01									
		Sk	iP			07	09	34									
		Gb	iP			07	10	09									
		Aleutian Islands.															
»	4	Up	iPP			22	11	10									
		e				22	19	05									
		ePKKP				22	20	25									
		iPKKP				22	20	30									
		ePS				22	20	53									
		e				22	21	04									
		i				22	21	39									
		ePPS				22	22	11									
		ePCKPK				22	24	21									
		PP			$\mu$		s										
		z			0.7		7										
		PP			0.1		1.5										
		M			25		19										
		M			11		20										
		M			34		19										
Ki		$\Delta \sim 13000 \text{ km} \sim 117^\circ$ .															
		iPKKP			22	10	07										
		i			22	11	18										
		iPP			22	11	39										
		e			22	15	39										
		i			22	19	39										
		ePKKP			22	20	08										
		eSKSP			22	21	29										
		PP			$\mu$		s										
		E			0.9		7										
		PP			0.3		7										
		Z			1.5		7										
		Z'			0.4		2.0										
		SKSP			2.2		13										
		M			18		21										
		M			7.5		18										
		M			14		21										
Sk		$\Delta \sim 13450 \text{ km} \sim 121^\circ$ .															
		ePKP			22	10	07										

1958		1958		1958	
Sep	7	Up	eL	05	34
Sep	7	Ki	eL	$\mu$	s
		Ki	eL	0.7	19
				0.5	38
				$\mu$	s
				0.5	20
				0.5	20
		Solomon Islands.			
»	7	Up	iP	10	18
		Ki	iP	10	18
		Sk	iP	10	18
		Gb	iP	10	19
		Ryukyu Islands.			
»	8	Up	iP	05	36
		iS		05	44
				$\mu$	s
				1.4	3
				0.3	0.5
				0.5	3
				7.1	24
				4.4	24
				5.7	23
		$\Delta = 7050 \text{ km} = 63\frac{1}{2}^\circ$ .			
Ki		iP		05	35
				1.2	13
				0.2	1.2
				5.4	24
				4.7	25
		Sk	iP	05	35
		i		05	36
		Gb	iP	05	36
		Near east coast of Kamchatka.			
				Magn. = 6.4 (Up, Ki).	
»	8	Up	iP	15	04
				0.1	0.7
		Ki	iP	15	04
		Sk	iP	15	04
		Northern Kyushu, Japan (h ~ 60 km).			
»	9	Ki	iP	04	22
		Java	Sea.		
»	9	Up	iP	11	43
				0.6	50C
		Ki	iP	11	42
		i		0.1	0.7
		M		0.5	20
		N		0.6	21
		Z		1.2	23
		Kurile Islands.			
»	11	Up	iP	18	15
				2.5	21
				1.6	20
				3.3	21
Ki		iP		18	14
i		i		18	14
i		eS		18	15
i				0.9	09
i				25	39
				$\mu$	s
				0.2	1.0
				0.5	11
				3.6	18
				2.3	18
				3.9	18
		Sk	iP	18	15
		Gb	eP	18	15
		Near east coast of Mindanao.			
				Magn. = 6.0 (Up, Ki).	
»	12	Up	eL	06	33
				$\mu$	s
				0.6	17
				1.0	19

1958		1958											
Sep	12	Ki	eL	06	33	Sep	14	Gb	iP	19	54	18 D	
(cont.)				M	E	μ	s	(cont.)	Off east coast of Kyushu, Japan.				
		M	N	0.8	19								
		M	Z	0.6	19								
				0.8	18								
		Indian Ocean.											
»	12	Up	iP	13	59	05	»	14	Up	iP	21	43	53
		Ki	iP	13	59	02			i		21	43	58
		Java.											
»	13	Up	iP	04	44	42			P	z'	μ	s	
		e		04	50	47			iP		0.3	0.8	
		Ki	iP	04	44	31			i		21	44	17
		e		04	47	59					21	44	23
		Sk	eP	04	45	02							
		i		04	51	01							
		Gb	e(P)	04	45	27							
		e		04	52	55	»	14	Up	eP	21	56	11
		i		04	53	34			i		21	56	19
		(Arctic Ocean).											
»	14	Up	iP	14	30	26	»	15	Up	iPKP	17	08	02C
		i		14	30	31			PKP	z'	μ	s	
		iPP		14	32	26			iPKP		0.2	0.7	
		iS		14	37	33			Sk	iPKP	17	07	45
		iSS		14	41	05			Gb	iPKP1	17	07	57
		iLg1		14	48	03			iPKP2		17	08	08
											17	08	29
		P	z'	μ	s								
		PP	z	0.2	0.7								
		S	N	1.6	4								
		M	E	1.8	6								
		M	N	24	18								
		M	Z	14	14								
		M	Z	7.2	15								
		$\triangle = 5500 \text{ km} = 49\frac{1}{2}^\circ$ .											
Ki		iP		14	29	39	»	15	Up	iSg	17	30	53
		iPP		14	31	14							
		iPcP		14	31	32							
		iS		14	36	06							
		i(SS)		14	39	22							
		iScs		14	39	32							
		i		14	40	47							
		P	z'	μ	s								
		PP	z'	0.9	1.5								
		S	E	2.3	2.5								
		M	E	5.5	12								
		M	N	16	17								
		M	Z	20	10								
		M	Z	10	11								
		$\triangle = 4850 \text{ km} = 43\frac{1}{2}^\circ$ .											
Sk		iP		14	30	21 D	»	15	Up	iP	19	57	59C
		iPP		14	32	12			Ki	iP	19	07	28
									Sk	iP	19	11	18
		$\triangle = 5400 \text{ km} = 48\frac{1}{2}^\circ$ .											
Gb		iP		14	30	58			P	z'	μ	s	
		Siberia. Magn. = 6.4 (Up, Ki).							SKS		0.2	0.9	
»	14	Up	iP	19	53	56			SKS		2.1	2	
		P	z'	μ	s				SKS		0.7	2	
		Sk	eP	19	53	55			SKS		0.5	1.5	
									S		1.7	6	
									S		1.6	4	
									M		2.6	20	

1958  
Sep 18 Up isP 21 01 21  
(cont.) iPP 21 02 13  
eSS 21 09 20  
e 21 09 54

P z'  $\mu$  s  
PP E 0.2 0.5  
PP E 0.4 3  
 $\Delta = 4800 \text{ km} = 43^\circ$ .

Ki iPP 21 00 41

iPP 21 02 32

Sk iPP 21 00 57C

ipp 21 01 31

isP 21 01 48

Gb iPP 21 00 51C

ipp 21 01 25

ePP 21 02 36

$\Delta = 5000 \text{ km} = 45^\circ$ .

Hindu Kush. h=170 km (Up, Sk, Gb).

Magn.=6.1 (Up).

» 19 Up iPP 08 26 10  
Ki iPP 08 25 53

Sk eP 08 26 17

Molucca Passage.

» 19 Up iPP 17 29 38  
Ki iPP 17 28 45

P z'  $\mu$  s  
Sk iPP 17 29 16

Aleutian Islands.

» 20 Up iPP 05 28 45  
Ki iPP 05 28 32

P z'  $\mu$  s  
Sk iPP 05 28 56

North Vietnam.

» 20 Up iPP 09 17 21  
Ki iPP 09 17 44  
Sk iPP 09 17 50

Near coast of Baluchistan.

» 20 Up iPP 10 44 34  
Ki iPP 10 44 55

M E  $\mu$  s  
M Z 1.1 22

Gb iPP 10 44 16

Atlantic Ocean.

» 20 Up iPKP 17 28 13

M E  $\mu$  s  
M N 3.2 24

M Z 3.6 22

M Z 4.6 19

1958  
Sep 20 (cont.) Ki iPKP 17 28 02  
M E  $\mu$  s  
M N 6.0 20  
M Z 4.8 23  
Sk ePKP 17 28 11  
Solomon Islands.  
Magn.=6.3 (Up, Ki).

» 20 Up iPKP 17 38 34  
Ki ePKP2 17 38 54  
South of Fiji Islands.

» 21 Up iP 05 56 36C  
i 05 56 53

P z'  $\mu$  s  
M E 0.2 1.0

M N 1.1 17

M Z 0.8 18

M Z 1.6 18

Ki iP 05 55 56C  
i 05 56 14

P z'  $\mu$  s  
M E 0.1 1.0

M N 0.8 17

M Z 0.5 17

M Z 1.4 18

Sk iPP 05 56 30

Gb iP 05 56 59

Honshu, Japan.

» 21 Ki iP 07 44 44  
Molucca Passage.

» 21 Up iPP 16 24 49  
Ki iP 16 25 32

Sk eP 16 25 32  
Western Iran.

» 21 Ki iP 22 37 16

» 22 Up i(P) 07 12 45  
Off north coast of Java

(h ~ 600 km).  
» 22 Up iP 08 48 57D  
iS 08 58 29

Ki P z'  $\mu$  s  
Ki iP 08 48 24

Sk iP z'  $\mu$  s  
iPP 08 48 54

Gb iP 08 51 59  
iP 08 49 16

Bonin Islands (h ~ 500 km).

» 22 Up iPKP1 19 25 31C  
i 19 25 37

iPKP2 19 25 48

ePKS 19 29 03

1958  
Sep 22 Up (cont.) PKP1 z  $\mu$  s  
PKP1 z' 0.6 0.9  
M E 2.8 21  
M N 5.3 23  
M Z 6.1 23  
 $\Delta \sim 16800 \text{ km} \sim 151^\circ$ .

Ki iPKP 19 25 17C  
i 19 25 40  
iSKKS 19 35 21  
iSS 19 47 22

PKP N  $\mu$  s  
PKP Z 3.2 7

PKP z' 1.5 1.2  
M E 4.5 22

M N 1.3 20

M Z 5.8 22  
 $\Delta \sim 16000 \text{ km} \sim 144^\circ$ .

Sk iPKP 19 25 28  
Gb ePKP1 19 25 35

i 19 25 43  
iPKP2 19 25 53  
i 19 26 31

Kermadec Islands region.  
Magn.=6.4 (Up, Ki).

» 22 Up iP 20 19 45  
Ki iP 20 19 04C  
Sk iP 20 19 39

iPP 20 22 05  
Gb iP 20 20 14  
Hokkaido, Japan.

» 23 Up iP 04 01 57  
Northern California.

» 23 Gb iPg 12 17 10  
iSg 12 17 15

$\Delta = 44 \text{ km} = 0.4^\circ$ .  
Off west coast of Sweden

(see next shock). Explosion.

» 23 Up i 12 51 50  
iSg 12 51 54

$\Delta = 440 \text{ km} = 4.0^\circ$ .  
Sk iSg 12 52 54

$\Delta = 640 \text{ km} = 5.8^\circ$ .  
Gb iPg 12 49 52

iSg 12 49 59  
 $\Delta = 56 \text{ km} = 0.5^\circ$ .

Northern Kattegatt, off west coast of  
Sweden, 57.9°N, 11.1°E.

Origin time=12 49 45. Explosion.

» 23 Gb iPg 13 56 59  
iSg 13 57 04

$\Delta = 44 \text{ km} = 0.4^\circ$ .

Off west coast of Sweden (see preceding  
shock). Explosion.

1958  
Sep 23 Sk (cont.) iPKP 15 01 11  
Kermadec Islands region.

» 23 Up eP 03 54 20  
i 03 54 30  
i 03 54 51  
i 04 02 54

M E  $\mu$  s  
M N 1.6 18

M Z 2.6 21  
M Z 3.1 20

Ki iP 03 53 34  
i 03 53 48  
eS 04 01 10  
e 04 01 32

P z'  $\mu$  s  
S E 0.2 1.8

S N 0.9 9  
M E 1.3 8

M N 2.3 19  
M Z 4.0 21

M Z 4.3 20  
 $\Delta = 5950 \text{ km} = 53\frac{1}{2}^\circ$ .

Sk iP 03 53 51  
Gb eP 03 54 36  
Gulf of Alaska.  
Magn.=5.8 (Up, Ki).

» 25 Up iP 07 01 24C  
P z'  $\mu$  s  
Ki iP 07 01 33C

iPP 07 03 13  
P z' 0.5 1.0

Sk iP 07 01 49C  
iPP 07 03 31

Hindu Kush (h ~ 200 km).

» 25 Up iP 07 30 54  
i 07 31 01  
iS 07 39 47

P z' 1.5 1.4  
S E 6.2 15

S N 6.6 15  
M E 27 23

M N 15 21  
M Z 41 23

$\Delta = 7450 \text{ km} = 67^\circ$ .

Ki iP 07 31 22  
i 07 31 24  
i 07 31 30  
eS 07 40 42

ePS 07 41 11  
P E 0.9 8

P N 0.3 8

P Z 2.9 7

1958														
Sep 25	Ki	P	z'	1.1	1.7									
(cont.)	S	E	3.3	15										
	S	N	3.4	15										
	M	E	22	20										
	M	N	5.7	20										
	M	Z	20	21										
	$\Delta = 8000 \text{ km} = 72^\circ$ .													
	Sk	iP	07	30	59									
	Atlantic Ocean.													
	Magn. = 6.7 (Up, Ki).													
» 25	Up	i(P)	09	17	57									
» 25	Up	iPKP2	15	35	37									
	Ki	ePKP	15	35	08									
	Sk	iPKP	15	35	29									
	i	15	35	42										
	Kermadec Islands region.													
» 25	Up	iP	16	44	12									
	i	16	44	48										
» 25	Up	iPKP2	21	15	54									
	Ki	ePKP	21	15	19									
	Sk	ePKP	21	15	45									
	Kermadec Islands region.													
» 25	Up	iPKP	23	00	33C									
	Sk	ePKP	23	00	24									
» 26	Up	iP	18	21	39									
	P	z'	0.1	1.0										
	Ki	iP	18	20	47									
	Sk	eP	18	21	19									
	Aleutian Islands.													
» 26	Ki	iP	18	37	05									
» 26	Up	iP	23	56	38									
	Ki	iP	23	57	49									
» 27	Up	iP	07	49	43									
	Ki	iP	07	49	37									
	i	07	49	57										
	Off south coast of Java.													
» 27	Ki	iP	10	45	02									
	M	E	0.2	12										
	M	N	0.4	13										
	M	Z	0.6	18										
	Sk	eP	10	44	38									
	iS	10	47	04										
	$\Delta = 1450 \text{ km} = 13^\circ$ .													
	Near north coast of Iceland.													
» 27	Up	iP	12	48	39									
	M	N	0.8	19										
	M	Z	0.9	18										

1958														
Sep 27	Ki	iP	12	47	59									
(cont.)		M	E	1.5	18									
		M	N	0.5	17									
		M	Z	1.8	18									
	Sk	iP				12	48	31						
	i					12	48	43						
	Near east coast of Honshu, Japan.													
» 27	Up	iPKP	14	14	01									
	Ki	iPKP	14	13	53									
	Sk	iPKP	14	14	03									
	Samoa Islands region.													
» 28	Up	iP	08	58	20									
	i		08	58	21									
» 28	Up	iP	12	43	32									
	Sk	iP	12	44	08									
» 28	Up	iP	17	53	05									
	Ki	i(P)	17	53	11									
	Northern Afghanistan.													
» 28	Up	iP	21	05	09									
	i		21	05	37									
	Honshu, Japan.													
» 28	Up	i(P)	23	58	28									
» 29	Up	—	—	—	—									
	M	E	0.7	14										
	M	N	1.0	18										
	M	Z	1.1	16										
	Ki	eP	14	27	48									
	i		14	28	06									
	$\Delta = 1380 \text{ km} = 12.4^\circ$ .													
	Sk	iP	09	59	13									
	Gb	iP	10	00	09									
	Off west coast of Novaya Zemlya, 74.0°N, 51.8°E.													
	Origin time = 09 55 03.													
	Nuclear explosion.													
» 30	Sk	eP	20	39	48									
	i		20	40	05									
Oct 1	Up	iP	05	33	12									
	Ki	iP	05	32	53									
	P	z'	0.1	1.0										
	Sk	eP	05	33	24									
	Off north coast of Luzon, Philippine Islands.													
» 1	Up	ePKP	09	49	42									
	M	E	2.5	19										
	M	N	4.0	23										
	M	Z	3.3	19										
	Ki	ePKP	09	49	35									
	M	E	2.5	19										
	M	N	1.5	18										
» 2	Up	—	—	—	—									
	M	N	0.8	16										
	M	Z	1.5	17										
	Ki	iP	14	32	04									
	eT		14	39	29									
	Skalstugan, Antarctic Ocean. Magn. = 6.2 (Up, Ki).													
Oct 1	Ki	M	z	3.2	19									
(cont.)		Antarctic Ocean.												

1958	Oct 2	Ki	P	$\mu$	s	1958	Oct 4	Ki	$\triangle=330 \text{ km}=3.0^\circ.$	
(cont.)				z'	0.1	1.3	(cont.)	Sk	ePg	00 34 12
			M	E	1.6	16		eSn	00 34 40	
			M	N	1.5	14		iSg	00 34 54	
			M	Z	2.8	16			$\triangle=360 \text{ km}=3.2^\circ.$	
		Sk	eP		14	32 15		Västerbotten, North Sweden,		
			i		14	32 23		64.9°N, 19.3°E. Origin		
			iS		14	34 02		time=00 33 08. Felt.		
							» 4	Ki	iP	06 03 58
			Gb	eP	14	33 28		Philippine Islands region.		
							» 4	Up	iP	10 04 14
								Ki	iP	10 03 44
										$\mu$ s
				P	$\mu$	s		M	N	0.5 16
				M	E			M	Z	0.7 17
				M	Z			Sk	iP	10 04 10
								Gb	iP	10 04 32
									Mariana Islands.	
							» 4	Gb	iPg	11 16 53
								iSg	11 16 55	
									Probably explosion near Göteborg.	
							» 4	Up	i(Sg)	11 22 15
								Gb	iPg	11 20 20
								iSg	11 20 22	
									Explosion near Göteborg.	
									Origin time=11 20 15.	
							» 4	Up	eP	11 45 57
								i	11 46 09	
										$\mu$ s
				P	$\mu$	s		M	E	2.0 17
				M	E			M	N	1.6 20
				M	N			M	Z	2.2 16
				M	Z			Ki	iP	09 36 24
								iPP	09 37 33	
								i	09 44 58	
										$\mu$ s
								PP	z'	0.2 1.2
								M	E	1.7 15
								M	N	1.2 18
								M	Z	2.5 18
								Sk	eP	09 36 30
								iPP	09 37 38	
								Gb	iP	09 36 10 D
								iPP	09 37 10	
									Iran-Turkmen, U.S.S.R., border.	
							» 6	Up	iP	17 12 43
								Ki	iP	17 12 22
							» 6	Up	iP	19 03 02 C
								i	19 03 06	
										$\mu$ s
				P	$\mu$	s		P	$\mu$	0.2 1.1
				M	E			M	E	1.1 17
				M	N			M	N	0.9 15
				M	Z			M	Z	1.5 17
								Ki	iP	19 02 06
										$\mu$ s
								P	$\mu$	0.4 1.3
								M	E	0.9 15
								M	N	0.5 17
								M	Z	0.7 15
								Sk	iP	19 02 43 C
								Gb	iP	19 03 21
									Near east coast of Kamchatka.	

1958	Oct 5	Ki	iP		04 18 21	1958	Oct 7	Up	iPKP	07 57 42
(cont.)	» 5	Up	iP		06 20 05	(cont.)	» 7	Ki	i(PKP)	07 57 09
		Ki	iP		06 19 36			Gb	iPKP	07 57 58
					Mariana Islands (h ~ 200 km).				Near west coast of New Zealand.	
	» 6	Up	iPKP		01 06 43 C		» 7	Ki	e(P)	10 34 42
		i			01 06 50					
							» 7	Up	iSKS	12 58 11
									eSKSP	13 02 12
										$\mu$ s
									SKS	N 0.3 6
									M	E 5.5 23
									M	N 3.9 20
									M	Z 7.4 21
										$\triangle \sim 12800 \text{ km} \sim 115^\circ.$
								Ki	ePKP	12 51 14
								ePP	12 51 48	
								eSKS	12 57 44	
										$\mu$ s
								PP	Z 0.4 8	
								SKS	E 0.3 8	
								M	E 5.6 22	
								M	N 1.4 20	
								M	Z 7.3 22	
									$\triangle \sim 12100 \text{ km} \sim 109^\circ.$	
								Sk	iPKP	12 51 24
									New Britain.	
									Magn.=6.3 (Up, Ki).	
										Local.
							» 7	Up	i(L)	15 13 28
								Sk	e(L)	15 18 42
								Gb	e(P)	15 15 13
								iSg	15 15 30	
								i(L)	15 15 37	
							» 7	Up	i(P)	20 32 17
							» 8	Ki	iP	02 28 36
								Sk	iP	02 29 10
							» 8	Up	iPKP	03 32 54
									Kermadec Islands.	
							» 8	Up	iP	08 57 41
									Greece.	
							» 8	Sk	iPKP	11 32 27
									Kermadec Islands.	
							» 8	Up	iPKP	14 19 36
								Ki	iPKP	14 19 23
								Sk	iPKP	14 19 34
									Solomon Islands.	
							» 8	Sk	e(P)	14 40 25
								i	14 40 40	
							» 8	Up	iPKP	18 19 35
									Kermadec Islands.	

1958 Oct 9				1958 Oct 10			
Ki	eP	01	08 20	Ki	iP	11	48 50
Off south coast of Mindanao.							
» 9 Up	iPKP	11	39 11	» 10 Up	iP	21	16 51
	iSKKS	11	47 32	Ki	iP	21	15 59
	eSKSP	11	50 33				
	SKKS	N	0.8 6				
	SKSP	N	1.7 13	Aleutian Islands.			
	M	E	1.6 20	» 11 Up	iP	00	50 55C
	M	N	2.7 19	Ki	P	z'	0.1 0.7
	M	Z	3.5 20	iP		00	49 59C
$\Delta \sim 13450 \text{ km} \sim 121^\circ$ .							
Ki	iPKP	11	39 25	00	50 05		
	iPKS	11	42 41				
	e	11	48 19	Sk	P	z'	0.1 0.7
	iSS	11	58 43	iP		00	50 23
	i(PKPPKS)	12	01 21				
	PKP	z'	0.2 1.1	Yukon.			
	PKS	z	1.9 16	» 11 Up	iP	02	11 08C
	PKS	z'	0.1 1.5	Ki	P	z'	0.2 0.5
	M	E	1.5 18	iP		02	10 14C
	M	N	1.8 18	iPeP		02	11 14
	M	Z	2.3 18				
$\Delta \sim 14350 \text{ km} \sim 129^\circ$ .							
Sk	ePKP	11	39 18	Sk	P	z'	0.1 1.0
	Sandwich Islands region.			iP		02	10 50
	Magn.=6.2 (Up, Ki).			iPeP		02	11 35
	Gb	iP		Gb	iP	02	11 26
Near east coast of Kamchatka.							
» 9 Up	iP	13	37 12				
	i	13	37 24	Near east coast of Kamchatka.			
Ki	iP	13	38 18	» 11 Up	iP	09	18 01
Sk	iP	13	37 51	i	09	18 12	
Crete.				Ki	iP	09	17 17
» 10 Up	iP	01	03 20	Sk	iP	09	17 52
Sk	iP	01	04 00	Near east coast of Hokkaido, Japan.			
Ionian Sea.							
» 10 Ki	iP	04	18 39C	» 11 Up	iPKP	22	00 06
Celebes Sea.							
» 10 Up	iP	08	40 48C	» 12 Up	iP	07	58 06
	P	z'	0.4 0.5	M	E	1.4 11	
	M	N	4.0 22	M	N	3.4 11	
	M	Z	4.9 23	M	Z	3.9 11	
Ki	iP	08	39 54C	Ki	eP	07	56 37
	P	z'	0.6 1.0	es		07	58 45
Sk	iP	08	40 32				
Gb	iP	08	41 11C	Kermadec Islands.			
Near east coast of Kamchatka (h ~ 100 km).							
» 10 Up	iP	09	26 39	» 12 Up	iPKP	22	00 06
	P	z'	0.1 0.5				
Ki	iP	09	26 32	Kermadec Islands.			
Sk	iP	09	26 55	» 12 Ki	e(P)	09	46 15
Tibet-India border.				Ki	e	09	47 35
				Sk	iP	09	46 36

1958 Oct 12				1958 Oct 13			
Ki	iP	09	50 55	Kirghiz, U.S.S.R.	Magn.=6.0 (Up, Ki).	10	19 21
» 12 Up	iPKP	10	25 13D	South of Fiji Islands.		10	19 21
				Aleutian Islands.	11	26 47	
» 12 Up	iP	12	59 09		12	59 09	
					12	59 09	
» 12 Up	ipP	15	30 00D	U.S.S.R.-Afghanistan border.	15	41 01	
Ki	iP	15	29 33D	Near east coast of Kamchatka.	15	30 37	
Ki	iP	15	29 33D		15	40 01	
Ki	iP	15	30 02		15	40 13	
Sk	iP	15	30 02	East China Sea.	15	31 23	
Sk	iP	15	30 21D	h=260 km (Up, Ki, Gb).	15	31 23	
» 13 Ki	iPKP	05	45 48	Near south coast of Honshu, Japan (h ~ 350 km).	05	45 59	
» 13 Ki	iPKP	05	45 48		05	45 59	
» 13 Up	iP	08	15 27C		08	15 43	
» 13 Up	iP	08	35 07		08	35 05	
Ki	iP	08	35 31	Kirghiz, U.S.S.R.	08	35 31	
» 13 Up	iP	09	05 42C		09	05 42C	
Ki	iP	09	05 41C		09	05 41C	
Ki	iP	09	19 03		09	19 03	
Sk	iP	09	06 05C		09	06 05C	
Sk	iP	09	06 07		09	06 07	
Up	iPKP	11	51 17		11	51 17	
Up	iPKP	11	51 12		11	51 12	
Up	iPKP	11	51 26C		11	51 26C	

1958	Oct 16	Up	iP	09	53	01
» 16	Up	iP		12	03	09C
Ki	P	z'		0.2	0.5	
Ki	iP			12	03	03C
P	z'			0.1	0.8	
Burma.						
» 16	Up	i(Sg)		15	33	43
Ki	e(P)			15	31	28
i				15	31	34
Local?						
» 16	Up	i(P)		16	10	17
Ki	eP			16	06	06
Gb	e(P)			16	11	30
Two shocks?						
» 16	Up	iPKP		18	20	57
Ki	iPKP			18	20	42
Sk	iPKP			18	20	52
Santa Cruz Islands (h ~ 100 km).						
» 17	Gb	ePg		09	05	35
iSg				09	05	40
Local blast?						
» 18	Ki	iP		06	46	48
Sk	iP			06	46	31
i				06	46	38
Gb	iP			06	46	30
Colombia-Venezuela border (h ~ 100 km).						
» 18	Up	iP		09	55	35
M	E			2.8	11	
M	N			5.2	10	
M	Z			5.9	10	
Ki	iP			09	54	03C
iS				09	56	19
S	z'			0.2	1.3	
M	E			2.3	9	
M	N			2.1	10	
M	Z			3.3	10	
△=1330 km=12.0°.						
Sk	iP			09	55	13
Off west coast of Novaya Zemlya, 74.0°N, 51.8°E.						
Origin time=09 51 10.						
Nuclear explosion.						
» 18	Ki	iP		10	12	31
i				10	12	36
Local blast?						
» 19	Up	eL		03	17	

1958	Oct 19	Up	μ	s
(cont.)				
Ki	M	E	1.8	23
	M	N	1.4	22
	M	Z	1.7	20
Ki	eL		03	19
M	E		μ	s
M	N		1.0	21
M	Z		0.9	20
Tonga Islands.	M	E	1.4	20
» 19	Up	iPKP	12	02
	iPKP2		02	39
Ki	PKP	z'	0.1	1.0
	iPKP		12	02
Gb	PKP	z'	0.5	1.5
	iPKP		12	02
	iPKP2		03	45
Kermadec Islands region.	P	z'	0.1	1.0
» 20	Up	iP	01	06
			μ	s
Ki	P	E	1.3	20
	M	N	3.2	23
	M	Z	2.6	21
Ki	iP		01	05
			μ	s
Gb	P	z'	0.1	1.2
Aleutian Islands.	iP		01	06
Magn.=5.7 (Up, Ki).			μ	s
» 20	Up	iP	01	26
	iPP		26	42
	iSKS		30	18
	iS		36	49
Ki	P	z'	0.1	0.6
	PP	z'	0.8	3
	PP	z'	0.3	1.1
	SKS	E	1.3	10
	S	N	2.1	8
	M	E	3.7	20
	M	N	3.4	23
	M	Z	5.2	20
△~11100 km~100°.	iP		01	26
Ki	i		26	13C
	iPP		30	14
	iSKS		36	44
	eS		37	35
S	z'		0.2	1.1
M	E		0.6	1.6
SKS	E		2.1	10
S	N		0.9	9
M	E		4.0	19

1958	Oct 20	Ki	M	N	3.2	22
(cont.)					5.8	22
Sk	iP		01	26	30	
	iPP		01	30	46	
	iPPP		01	33	02	
Gb	iP		01	26	33	
	iPP		01	30	40	
Off south coast of Java (h ~ 100 km). Magn.=6.6 (Up, Ki).						
» 20	Up	e(P)	08	24	48	
			μ	s		
	M	N	1.4	10		
	M	Z	1.9	11		
Off west coast of Novaya Zemlya. Nuclear explosion.						
» 21	Ki	iP	06	29	13	
	iPKP		06	33	17	
Sk	iPKP		06	33	29	
Near northeast coast of New Guinea.						
» 21	Up	iP	07	28	13	
Ki	iP		07	27	48	
Near northeast coast of Formosa.						
» 21	Up	iPn	10	17	02	
	iS*		10	17	40	
	iSg		10	17	48	
△=310 km=2.8°.						
Ki	ePn		10	18	14	
	eSg		10	20	27	
Sk	iSn		10	19	08	
	iSg		10	19	43	
△=700 km=6.3°.						
Southwest Finland, 60°N, 23°E. Origin time=10 16 15.						
» 23	Up	iP	15	54	30	
Ki	iP		15	50	09	
Kamchatka.						
» 23	Up	iP	02	05	53	
Sk	iP		06	47	35D	
Gb	iP		06	46	41	
Greece.						
» 23	Up	iP	15	49	25	
Ki	iP		15	50	21	
Iran.						
» 23	Ki	iPKP	17	52	26	
	z'		0.2	0.7		
Ki	iPKP		52	09		
Sk	iPKP		52	20	D	
Gb	iPKP		52	33		
Kermadec Islands.						
» 21	Ki	iP	18	38	26	
Aleutian Islands.						
» 24	Ki	eP	08	06	17	
iS			08	08	37	
M					μ	s
					1.4	10
Off west coast of Novaya Zemlya. Nuclear explosion.						
» 24	Up	iP	12	18	29	
(Hindu Kush).						

1958 Oct	25	Up	iP	06	37	46
South Atlantic Ocean.						
» 26	Up Ki	iP iP		02 02	30 30	37 25
		P	z'		$\mu$ 0.3	s 1.0
	Sk	iP			02	30
	Gb	iP			02	30
Northern Borneo.						
» 26	Up	iP		11	26	05
» 26	Up Ki	iP iP		12 12	46 47	26 11
Iraq-Turkey border.						
» 26	Up Ki	iP iP		15 15	33 32	32 36
		P	z'		$\mu$ 0.1	s 0.9
	Sk	iP			15	33
Yukon.						
» 27	Gb i	iPKP i		15 15	24 24	22 33
Tonga Islands region.						
» 27	Gb	eP		16	28	25
» 27	Up	iP iPeP		18 18	27 28	55 20
		P	z'		$\mu$ 0.1	s 0.5
	Ki	iP			18	27
	Gb	iP			18	28
Kurile Islands.						
» 27	Up Ki	iP i		19 19	31 30	16 21
Near east coast of Kamchatka.						
» 27	Ki	iP i		23 23	57 57	26 32
Local blast?						
» 28	Up	iP		05	33	14
		P	z'		$\mu$ 0.1	s 1.0
	Ki	iP			05	33
	M	E				$\mu$ 1.1
	M	N				s 15
	M	Z				$\mu$ 0.9
	Sk	eP				s 16
Northern Burma.						
» 28	Up	iP		05	33	31
		iS				$\mu$ 10
		iSeS				s 55
						$\mu$ 11
						s 03
						$\mu$ 11
						s 30

58	t	28	Up		$\mu$	s	
nt.)			P	z	5.1	10	
			P	z'	1.2	1.0	
			S	N	3.5	10	
			M	E	15	20	
			M	N	21	18	
			M	z	18	21	
			$\triangle = 5850 \text{ km} = 52\frac{1}{2}^\circ$ .				
Ki	iP			10	55	44	
	i			10	55	51	
	iS			11	03	14	
			P	E	1.0	8	
			P	Z	1.9	9	
			P	z'	0.4	0.9	
			S	E	3.0	12	
			S	N	2.8	10	
			M	E	9.5	17	
			M	N	16	16	
			M	z	7.9	17	
			$\triangle = 5850 \text{ km} = 52\frac{1}{2}^\circ$ .				
Sk	iP			10	56	05	
Gb	iP			10	56	06 D	
Southern Tibet.							
Magn.= 6.4 (Up, Ki).							
28	Up	i(P)			14	18	27
28	Up	iPKP			23	29	01
		i			23	29	07
Sk	iPKP				23	28	56
Kermadec Islands region.							
29	Up	iP			00	01	08
		i			00	01	22
Ki	P	z'			0.1	0.8	
	eP				00	00	14
	M	E			0.1	0.8	
	M	N			1.8	20	
	M	Z			1.2	18	
Sk	eP				1.2	18	
Gb	iP				00	00	48
					00	01	32
Aleutian Islands.							
29	Up	iP			06	18	39
Ki	iP				06	17	45
Aleutian Islands.							
29	Up	iP			07	55	12
		iS			08	04	10
		i			08	04	45
		iP'P'			08	23	24
			P	N	1.1	6	
			P	Z'	0.6	0.8	
			S	E	5.8	20	
			M	E	19	21	
			M	N	20	21	
			M	Z	27	21	

1958								
Oct 29	Up	iP	$\triangle = 7550 \text{ km} = 68^\circ$	07	54			
(cont.)	Ki	eS		08	02			
						$\mu$	s	
	P	z'		0.6	1.3			
	S	E		8.1	21			
	S	N		14	23			
	M	E		27	18			
	M	N		27	18			
	M	z		29	18			
			$\triangle = 6650 \text{ km} = 60^\circ$					
	Gb	iP		07	55			
			Aleutian Islands.					
			Magn. = 6.6 (Up, Ki).					
» 29	Up	iP		08	06			
						$\mu$	s	
	P	z'		0.1	0.8			
	Ki	iP		08	05			
	Gb	iP		08	06			
			Aleutian Islands.					
» 29	Up	iP		08	17			
						$\mu$	s	
	P	z'		0.2	1.0			
	Ki	iP		08	16			
	Gb	iP		08	17			
			Aleutian Islands.					
» 29	Up	iP		08	19			
						$\mu$	s	
	P	z'		0.1	0.9			
	Ki	iP		08	18			
			Aleutian Islands.					
» 29	Up	iP		15	27			
	Ki	iP		15	26			
	Gb	iP		15	27			
			Near east coast of Kamchatka.					
» 29	Up	iP		19	36			
			Aleutian Islands.					
» 30	Up	iP		02	36			
	Ki	iP		02	37			
			Indian Ocean.					
» 30	Up	iP		11	08			
			Aleutian Islands.					
» 30	Ki	iP		11	45			
			Aleutian Islands.					
» 30	Up	iPg		12	56			
		iSg		12	57			
			$\triangle = 400 \text{ km} = 3.6^\circ$					
	Sk	eSg		12	57			
	Gb	iSg		12	56			
			Oslo Fjord, 59.0°N, 10.9°E.					
			Origin time = 12 55 21.					

1958							
Oct	30	Up	iP	15	11	49	
				Nevada. Underground			
				nuclear explosion.			
»	30	Up	iP	16	49	44	
»	31	Ki	iP	07	56	55	
				Southeast of Unimak Island.			
»	31	Up	eL	19	55		
		M	E	2.1	26		s
		M	N	2.3	21		
		M	Z	3.8	26		
				New Guinea.			
»	31	Up	iP	23	51	07C	
		i		23	52	03	
		Ki	P	z'	0.2	1.0	s
		iP			23	50	43C
			P	z'	0.3	1.1	
		Sk	iP		23	51	10
		Gb	iP		23	51	30C
				Near north coast of Formosa			
				(h ~ 100 km).			
Nov	1	Up	ePS	04	07	33	
		M	E	7.1	18		s
		M	N	5.4	20		
		M	Z	9.6	21		
		Ki	ePS	04	06	40	
		e		04	07	58	
		M	E	3.7	18		s
		M	N	4.3	20		
		M	Z	7.9	21		
		Sk	iPP	03	58	08	
				Bismarck Sea.			
				Magn. = 6.3 (Up, Ki).			
»	1	Up	eL	07	00		
		M	E	1.8	22		s
		M	N	2.1	21		
		M	Z	2.7	25		
				Off north coast of New Guinea.			
»	1	Up	iP	09	25	39	
		Ki	eP	09	25	39	
»	1	Ki	ePKP	12	27	28	
				New Hebrides Islands.			
»	1	Ki	iPKP	12	34	45	
		Sk	iPKP	12	34	57	
				New Hebrides Islands.			

1958 Nov 1	Up	ePKP	12 35 47		1958 (cont.)	Nov 2	Up	P	$\mu$	s
		ePP	12 38 31				Sk	iP	10	0.1 55 30
		iPKS	12 39 22				Gb	iP	10	56 05
	i!		12 39 35							Aleutian Islands.
				$\mu$	s					
		PKS	E 1.1 7			» 2	Up	iP	13	27 16
		PKS	N 1.8 7							
		M	E 3.2 20							
		M	N 2.4 19							
		M	Z 3.5 20							
	Ki	iPKP	12 35 39			» 3	Up	iPKP	04	20 22
				$\mu$	s		Ki	iPKP	04	20 08
		PKP	Z' 0.1 1.0				Sk	iPKP	04	20 15 D
		M	E 2.6 19							Kermadec Islands.
		M	N 2.0 20							
		M	Z 3.3 20			» 3	Up	iP	14	40 53 D
	Sk	iPKP	12 35 49					P	$\mu$	s
			New Hebrides Islands.				M	1.3	1.0	
			Magn.=6.2 (Up, Ki).				M	E 1.3 20		
							M	N 1.3 18		
» 1	Up	iP	15 49 25C				Ki	iP	14 40 51	
» 1	Up	ePKS	16 12 53							
			$\mu$	s						
		PKS	E 0.5 7							
		PKS	N 1.1 6							
		M	E 0.9 18							
		M	N 0.8 19							
		M	Z 1.7 20							
	Ki	ePKP	16 09 13			» 4	Up	iP	05	15 29
			$\mu$	s			Ki	eP	05	16 04
		M	E 0.7 16				i		05	16 13
		M	N 0.7 18				Sk	eP	05	15 59
		M	Z 1.4 20							Near Socotra Island.
		New Hebrides Islands.				» 4	Up	iP	08	40 42
							Ki	eScS	08	51 09
» 1	Up	iP	16 16 42				Ki	iP	08	40 10
		Orissa, India.					iS		08	49 47
» 1	Ki	iPKP	17 44 45							
		New Hebrides Islands.								
» 1	Up	iP	20 59 30							
	Ki	iP	20 59 06							
	Sk	iP	20 59 40							
		Outer Mongolia.								
» 2	Up	iP	00 13 37							
	Ki	iP	00 13 49							
	Sk	iP	00 14 31							
» 2	Up	iP	05 26 48D							
	Tibet.									
» 2	Up	iP	09 20 55							
	Gb	iP	09 21 08							
		Northern Iran.								
» 2	Up	iP	10 55 51							
	iPeP		10 56 18							

1958 (cont.)	Nov 4	Ki	M	N	2.2	14	14	15	57	44
			M	$\Delta=8350$ km=75°.	1.9					
		Sk	iP		08	43	10	15	57	17
			iPP		08	46	11	15	57	53
		Gb	iP		08	43	32	Kodiak Island (h ~ 60 km).		
			i		08	43	40			
				Bonin Islands region.						
				Magn.=6.0 (Up, Ki).						
	» 4	Up	iP		09	29	03	18	33	52
		Ki	iP		09	29	06	18	34	14
		Sk	iP		09	28	50 D			
				Colombia (h ~ 150 km).						
	» 4	Up	iP		13	38	15	22	44	50
		Ki	iP		13	39	25	22	44	50
	» 4	Sk	iPKP		20	14	11 C	6	Ki	eP
			Santa Cruz Islands.							
	» 4	Ki	e		20	31	34	15	01	07
		i			20	31	44			
		i			20	33	06			
		Sk	iP		20	31	55			
		e			20	33	35			
	» 4	Up	iPKP		23	14	47			
			M	$\mu$	1.2	18				
			M	N	0.8	18				
			M	Z	1.3	19				
		Ki	iPKP		23	14	35			
			M	E	0.7	16				
			M	N	0.8	18				
			M	Z	1.6	18				
	» 6	Up	iP		23	09	07C			
		i			23	09	14			
		iS			23	18	06			
	» 4	Ki	iPKP		23	53	54			
			S	N	0.6	10	New Hebrides Islands.			
		Sk	iP		08	40	39 C			
		Gb	iP		08	41	01			
		i			08	41	26	Bonin Islands region.		
	» 5	Up	iP		07	21	43			
		i			07	22	51			
	» 5	Up	iSg		14	00	27			
		Sk	eSg		14	00	57			
		Gb	e(Ig)		13	58	49			
		iSg			13	59	15			
			Sg	$\mu$	0.1	0.5	Northern Skagerack.			
	» 5	Up	iPg		14	32	16			
		iSg			14	33	05			
		Sk	iP		23	08	57C			
		Gb	iP		23	09	32			
			Kurile Islands.							
			Magn.=8.0 (Up, Ki).							
	» 6	Ki	iP		23	24	37			
		P	$\mu$	$\mu$	0.2	1.0				
		z'								
		Sk	iP		23	25	12			
		Gb	iP		23	25	43			
			Kurile Islands.							

		1958			1958							
Nov	6	Sk Gb	iP iP	23 27 14	Nov	7	Up Ki Sk Gb	P iP iP	z'	0.1	s	
		Kurile Islands.		23 27 43	(cont.)					00	50	26
»	6	Gb	iP	23 58 15						00	50	33
»	6	Gb	iP	23 59 56	»	7	Up Ki Sk	iP iP iP		00	52	05
»	7	Up	iP	00 04 35						00	52	20
»	7	Up	iP	00 06 43	»	7	Up Ki Sk	iP iP iP		00	51	19
»	7	Up	iP	00 23 33	»	7	Up Ki Sk	iP iP iP		00	51	54
		P	z'	0.2 0.5								
		Ki iP		00 22 47								
		Sk iP		00 23 25								
		Gb iP		00 23 57								
		Kurile Islands.										
»	7	Gb	iP	00 32 53	»	7	Up Ki Sk	iP iP iP		01	13	06
»	7	Up	iP	00 33 14						01	13	02
»	7	Up	iP	00 34 31						01	12	20
»	7	Up	iP	00 33 33						01	12	14
»	7	Up	iP	00 34 23						01	13	29C
»	7	Up	iP	00 37 48								
»	7	Up	iP	00 44 08	»	7	Ki Sk	i(P) iP		01	13	46
»	7	Up	iP	00 47 20	»	7	Up Ki Sk	iP iP iP		01	14	14
		P	z'	0.2 0.5						01	16	02
		Ki iP		00 46 34D						01	16	11
		P	z'	0.2 1.2						01	15	15
		Sk iP		00 47 10						01	15	51
		Gb iP		00 47 43						01	16	25
		i(PeP)		00 48 04								
		Kurile Islands.										
»	7	Up	iP	00 48 56	»	7	Sk	iP		01	17	41
		P	z'	0.3 0.9	»	7	Sk	iP		01	19	39
		Ki iP		00 48 10	»	7	Up	iP		01	20	32
		P	z'	0.1 1.0	»	7	Up	iP		01	24	51C
		Sk iP		00 48 47						01	24	04
		Gb iP		00 49 19						01	24	40
		Kurile Islands.								01	25	13
»	7	Sk	iP	00 49 30								
»	7	Up	iP	00 50 30	»	7	Up	iP		01	25	41

		1958			1958			1958				
Nov	7	Up	P	z'	0.1	s	Nov	7	Ki	i	02	
		(cont.)	Ki Sk Gb	iP iP iP	00	24	55	(cont.)		P	z'	
		Kurile Islands.			01	25	30			02	06	50
»	7	Up	iP		01	26	03			02	07	31
»	7	Up	iP		01	32	59	»	7	Up	iP	02 09 52
»	7	Up	iP		01	34	21	»	7	Ki	iP	02 09 07D
»	7	Up	iP		01	33	34	»	7	Gb	i(P)	02 10 14D
»	7	Up	iP		01	46	47	»	7	Up	iP	02 17 39
		P	z'	0.1 0.5	»	7	Gb	iP		02	17	40
		Ki iP		00 46 01			Ki Sk Gb	iP iP iP		02	20	27
		Kurile Islands.		01 46 34						02	19	42
		P	z'	0.1 0.5						02	20	17
		Ki iP		01 47 08						02	20	49
		Kurile Islands.										
»	7	Up	iP		01	48	52	»	7	Up	iP	02 21 21
»	7	Up	iP		01	54	02	»	7	Ki	P	02 20 35
»	7	Up	iP		01	53	17	»	7	P	z'	02 21 11
»	7	Up	iP		01	53	40	»	7	Sk	iP	02 21 42
»	7	Up	iP		01	53	52	»	7	Gb	iP	Kurile Islands.
»	7	Up	iP		01	54	24C	»	7	i		02 27 52
»	7	Up	iP		01	54	36	»	7	Ki	iP	02 28 01
»	7	Up	iP		01	56	09	»	7	Up	iP	02 28 16
»	7	Up	iP		01	56	20	»	7	Ki	iP	02 27 51
»	7	Up	iP		01	55	22	»	7	Sk	iP	02 28 23
»	7	Up	iP		01	55	1.0	»	7	Gb	iP	Kurile Islands.
»	7	Up	iP		01	55	57	»	7	i		02 30 49
»	7	Up	iP		01	56	30	»	7	Ki	iP	02 31 02
»	7	Up	iP		01	56	42	»	7	Up	iP	02 35 43
»	7	Up	iP		01	58	20	»	7	P	z'	02 35 07
»	7	Ki	iP		01	58	45	»	7	Ki	iP	02 34 51
»	7	Up	iP		01	59	20	»	7	Gb	iP	02 35 59
»	7	Up	iP									
»	7	Up	iP		02	03	30	»	7	Ki	iP	02 37 41
»	7	Up	iP		02	04	57	»	7	Up	iP	02 39 23
»	7	Up	iP		02	06	41D	»	7	Up	iP	02 41 47
»	7	Up	iP		Ki	P	z'	»	7	Up	iP	02 46 48
»	7	Up	iP		02	05	55	»	7	Ki	iP	(Kurile Islands).

		1958 Nov 7 Up eP			1958 Nov 7 Up iP			1958 Nov 7 Up iP			
Ki	iP	02	49	12	Ki	P	z'	07	51	42C	
Kurile Islands.		02	49	25	Ki	iP		μ	s		
		02	48	36				0.4	0.6		
»	7 Up iP	02	54	15	Ki	P	z'	07	50	55C	
Kurile Islands.				Sk	iP		μ	s			
				Gb	iP		0.5	1.0			
»	7 Up iP	03	01	56C	Kurile Islands.			07	51	31	
Ki	P	z'	μ	s				07	52	03	
	iP		0.2	0.8	»	7 Up iP	08	22	24		
			03	01	Ki	iP	08	40	23		
			μ	s	Kurile Islands.			08	39	38	
Sk	iP	03	01	46	»	7 Up iP	09	27	34		
Gb	iP	03	02	17	Ki	iP	10	20	50		
i		03	02	52	Kurile Islands.			10	20	04	
Kurile Islands.				»	7 Up iP	10	38	34			
»	7 Up iP	03	37	59	Ki	iP	10	38	59		
Ki	eP	03	37	22	Kurile Islands.			μ	s		
Kurile Islands.				Sk	iP	10	37	50			
»	7 Up iP	04	30	23	Kurile Islands.			0.1	0.5		
Kurile Islands.				»	7 Up iP	10	38	24			
»	7 Up iP	04	52	02	Ki	iP	10	40	25		
Ki	iP	04	52	42	Kurile Islands.			μ	s		
Kurile Islands.				Sk	eP	10	40	16			
»	7 Up iP	05	10	58	Gb	iP	10	40	45		
Ki	iP	05	10	11	Kurile Islands.			μ	s		
Kurile Islands.				»	7 Up iP	10	56	48			
P	z'	μ	s	Ki	iP	10	39	39			
M	E	3.5	19	P	z'	0.1	0.6				
M	N	2.9	20	Sk	eP	10	40	16			
M	Z	3.5	17	Gb	iP	10	40	45			
Ki	iP	05	10	11	Kurile Islands.			μ	s		
Kurile Islands.				»	7 Up iP	11	20	08			
P	z'	μ	s	Ki	iP	11	19	23			
M	E	5.5	18	P	z'	0.1	0.5				
M	N	2.9	18	»	7 Up iP	11	35	28			
M	Z	6.0	18	Ki	iP	11	34	41			
Sk	iP	05	10	47	P	z'	0.1	0.6			
Gb	iP	05	11	18D	M	E	2.5	19			
i		05	11	33	M	N	1.9	18			
Kurile Islands.				M	Z	2.3	17				
Magn.=5.9 (Up, Ki).				Ki	iP	11	34	54			
»	7 Up iP	05	58	18	i(pP)	11	34	54			
Ki	iP	05	57	32	i(pP)	11	35	40			
Kurile Islands.				iFcP	11	35	28				
»	7 Up iP	07	16	59	Ki	iP	11	34	41		
P	z'	μ	s	i(pP)	11	34	54				
M	E	2.5	19	iFcP	11	35	28				
M	N	1.9	18	Ki	iP	11	34	40			
M	Z	2.3	17	P	z'	0.3	1.0				
»	7 Up iP	07	23	25	M	E	2.2	17			
P	z'	μ	s	M	E	2.2	17				
M	E	2.2	17	Ki	eP	18	34	40			
M	N	2.0	17	e		18	35	43			
M	Z	2.4	19	Ki	eP	18	34	40			
»	7 Up iP	07	26	25	P	E	0.8	1			
P	z'	μ	s	P	N	2.0	1				
M	E	0.9	0.8	P	Z'	0.9	0.8				
M	N	0.9	4	S	E	0.9	4				
M	Z	0.9	4	S	N	0.9	4				
»	7 Up iP	07	27	58C	M	E	5.6	18			

		1958 Nov 7 Ki M M			1958 Nov 7 Up iP			1958 Nov 7 Up iP		
(cont.)		N	Z		2.0	17		19	06	14
Sk	iP	3.1			11	35	17	19	25	37
i					11	35	29	19	25	51
Gb	iP				11	36	49			
i(pP)					11	35	48			
Kurile Islands.					11	36	01			
Magn.=5.9 (Up, Ki).										
»	7 Up iP	11	37	43	Ki	M	N			
i		11	37	55	M	E		0.7	18	
Gb	iP				M	N		0.7	17	
(Kurile Islands).					M	Z		1.1	17	
»	7 Up iP	11	38	08	Sk	eP			25	27
Kurile Islands.					Kurile Islands.					
»	7 Up iP	11	42	09	»	7 Up iP	19	29	09 D	
i		0.1	0.6		Ki	iP	19	29	09	
Gb	iP				Ki	iP	20	42	21 C	
Kurile Islands.					Kurile Islands.					
»	7 Up iP	13	11	44C	»	7 Up iP	20	43	29	
i					Ki	iP	20	43	29	
Gb	iP	14	01	48	Kurile Islands.					
Kurile Islands.		14	01	01	»	7 Up iP	20	44	47	
»	7 Up iP	14	35	42	Ki	iP	20	44	47	
i		14	34	58	Kurile Islands.					
Gb	iP	14	35	33	»	7 Up iP	20	52	28	
Kurile Islands.		14	35	57	Ki	iP	20	51	41	
»	7 Ki iP	15	38	35	Kurile Islands.					
i					»	7 Ki eP	21	22	15	
Gb	iP	16	21	39	Off east coast of Kamchatka.					
Kurile Islands.					»	7 Up iP	23	17	14	
»	8 Up iP	16	27	49	Kamchatka region.					
i					»	8 Up iP	00	02	06	
Gb	iP	17	07	22	Ki	iP	00	02	19	
Kurile Islands.					P	z'	0.1	0.7		
»	7 Up iP	17	43	50	Ki	iP	00	01	20	
i		1.6	20		Kurile Islands.					
Gb	iP	17	43	06	»	8 Up iP	00	24	06	
Kurile Islands.		2.1	20		Ki	iP	00	23	21	
»	7 Up iP	17	43	06	Kurile Islands.					
i		1.7	17		»	8 Up iP	00	23	34	
Gb	iP	17	43	20	Kamchatka region.					
Kurile Islands.		2.1	20		»	8 Up iP	03	11	43	
»	7 Up iP	17	44	09	Kurile Islands.					
i		2.4	19		»	8 Up iP	09	33	32 C	
Gb	iP	17	44	09	Kurile Islands.					
Kurile Islands.		2.4	19		»	8 Up iP	09	42	12	
Magn.=5.5 (Up, Ki).		2.4	19		Ki	eP	0.8	1		
»	7 Ki eP	18	34	40	P	E	2.0	1		
e		18	35	43	P	N	1.1	0.8		
Ki	eP	18	34	40	P	Z'	0.9	0.8		
e		18	35	43	S	E	0.9	4		
Ki	eP	18	35	43	S	N	0.9	4		
e		18	35	43	M	E	5.6	18		

1958 Nov 8 (cont.)	Up	M M △=7200 km=65°.	N z 11 17	7.9 16
Ki	iP e(S)	09 09	32 40C 40 24	1.3 5 2.1 5 2.3 1.1 0.6 10 5.5 21 4.1 20 4.8 20
P P P S M M	N z z' N E N Z	μ μ μ s s s s s s s s s s s s		
Sk	iP i iP	09 09	33 33 29	16
Gb	iP	09	33	53
Off southeast coast of Kamchatka. Magn.=6.8 (Up, Ki).				
» 8	Up Ki iP		09 09	43 42 46
Kurile Islands.				
» 8	Up iP		10	56
10 D				
» 8	Up iP		11	13
11				
» 8	Up iP i		11	27
44				
Ki eP	iP Kurile Islands.	11 11	27 57	56
» 8	Up iP iPeP		12	19
36				
			12	20
01				
Ki	iP z'	0.3 12	0.5 18	50
Sk	iP z'	0.2 12	1.0 19	26C
Gb	iP Kurile Islands.	12 12	19 19	57C
» 8	Up iP P z'		13	06
45				
Ki eP	iP z'	0.1 13	0.6 05	59
Sk iP	iP Kurile Islands.	13 13	06 06	34
» 8	Up Ki iP		13	27
45				
Kurile Islands.			13	26
59				
» 8	Up iP P z'		13	36
24				
Ki iP	iP Kurile Islands.	13 13	35 35	38

1958 Nov 8 Ki iP 14 53 48  
 » 8 Ki iP Kamchatka region. 14 56 06

» 8 Up iP 17 17 07  
 P z' 0.1 0.8

Ki iP 17 17 16C  
 Sk iP 17 17 32  
 Gb eP 17 17 27

Hindu Kush (h ~ 220 km).

» 8 Ki eP 17 27 15  
 Aleutian Islands.

» 8 Up iP 18 51 03  
 Ki iP 18 50 11

Off southeast coast of Kamchatka.

Magn.=6.8 (Up, Ki).

» 8 Up iP 19 48 19  
 Ki iP 19 48 21C

P z' 0.1 0.6  
 M N 1.1 20

» 8 Up iP 19 48 21C  
 Ki iP 19 48 21C

P z' 0.1 0.9  
 M E 0.9 18

» 8 Up iP 19 48 36  
 Ki iP 19 48 36

Sk iP 19 48 36  
 Andaman Islands.

» 8 Up iP 22 58 33  
 Kurile Islands.

Ki iP 00 13 58

» 9 Ki iP 00 35 36  
 Kurile Islands.

» 9 Up iP 02 00 56  
 i  
Kurile Islands.

» 9 Up iP 03 25 54  
 Ki iP 03 25 09

M E 1.1 16  
 M N 0.4 15

» 9 Up iP 03 25 44  
 Sk eP 03 25 54

i  
Gbz iP 03 26 15

Kurile Islands.

1958 Nov 9 Up iP 08 16 10C Ki iP z' 0.2 0.9 P M 0.1 0.9 Gb iP 0.6 17 Kamchatka. 08 15 17C	1958 Nov 10 Ki M M M M 1.5 20 (cont.) E N Z 1.2 23 Pacific Ocean. 1.7 22
» 9 Up iP 09 38 05 Ki iP 09 40 03	» 11 Up iP 04 42 33 Italy.
» 9 Up iP 10 28 37 Ki iP 10 27 50	» 11 Up eL 12 03 Magn. 0.7 19
» 9 Up iP 10 30 14 Kurile Islands.	» 11 Up iP 12 01 M E 0.9 16
» 9 Ki i(P) 11 31 31 Kurile Islands.	» 11 Ki i(PP) 13 22 09 (South of Tonga Islands).
» 9 Up iP 14 44 24 Ki eP 14 43 37	» 11 Up iP 13 56 45 Kurile Islands.
» 9 Up iP 15 51 25 Kurile Islands.	» 11 Up iP 17 58 59 Southwest of Chagos Islands.
» 9 Up iP 18 04 01 Ki iP 18 03 12	» 11 Up iP 18 03 38D Kurile Islands.
» 9 Up iP 18 03 12 Ki iP 18 02 20	» 11 Up iP 19 45 37 Kurile Islands.
Sk eP 18 03 53 i Gbz iP 18 04 27 Kurile Islands.	» 11 Up iP 22 03 27 Kurile Islands.
» 9 Up iP 21 15 54 Ki iP 21 — 54	» 11 Up eP 23 10 42 iPP 23 10 56 iS 23 13 25 △=1650 km=15°.
» 9 Up iP 21 — 54 Ki iP 21 05 16	Ki eP 23 12 10 es 23 16 15 i 23 17 32 △=2500 km=22½°. Carpathians.
» 10 Up iP 00 59 57C Kurile Islands.	» 12 Ki iP 04 10 13 Off north coast of Luzon.
» 10 Gb i(P) 10 45 24 i 10 47 05	» 12 Ki e(P) 05 17 47 i 05 18 21
» 10 Up eL 12 07 07 Kurile Islands.	» 12 Ki iP 06 21 31 Sk iP 06 21 13 Venezuela.
» 10 Up eL 12 07 07 Kurile Islands.	» 12 Up iPKP 10 58 27 Ki iPKP 10 58 16 Solomon Islands (h ~ 100 km).
Ki eL 12 04 04	

1958	Nov 12	Up	iP		17	55	19		1958	Nov 12	determinations of Uppsala and (cont.) Kiruna, and = 1.25, using the magnitudes of Pasadena.			
Kurile Islands.														
» 12	Up	iPKP		18	34	04		» 12	Up	iP	21	34	25	
Sk	iPKP			18	33	56C		Kurile Islands.						
Kermadec Islands.														
» 12	Up	iP		19	27	32		» 12	Up	iP	23	10	40	
i				19	27	44		Ki	iP		23	09	53	
Kurile Islands.				19	26	46		Kurile Islands.						
» 12	Up	iP		20	34	33C		» 12	Up	iP	23	27	21	
iS				20	43	28		i			23	27	28	
i				20	43	42		» 12	Up	iP	23	43	06	
iScS				20	44	21		Kurile Islands.						
iP'P'				21	02	45								
P	N	$\mu$	s					» 13	Up	iP	01	18	05	
P	Z	1.5	3					Kurile Islands.						
P	Z'	3.6	3											
S	E	0.4	0.5					» 13	Up	iP	03	07	33	
S	N	16	18					i						
S	S	27	17					P	Z'	$\mu$	s			
S	Z	17	18					M	E	0.1	0.5			
P'P'	Z'	2.1	2.5					M	N	2.2	17			
M	E	170	20					M	Z	2.6	18			
M	N	220	20					M	Z	4.1	16			
M	Z	230	20					Ki	iP	03	06	50		
Ki	$\Delta = 7600 \text{ km} = 68\frac{1}{2}^\circ$ .							P	Z'	$\mu$	s			
iP		20	33	47				M	E	0.1	1.3			
iS		20	42	01				M	N	2.9	15			
iP'P'		21	02	59				M	Z	1.7	17			
i		21	03	21				M	Z	2.9	18			
P	E	$\mu$	s					Sk	iP	03	07	24		
P	N	2.0	13					Gb	iP	03	07	54		
P	Z	2.5	10					Kurile Islands.						
P	Z'	6.4	10											
P	Z'	1.6	1.8											
S	E	13	16											
S	N	19	16					» 13	Up	iP	04	15	43	
S	Z	16	16					iS		04	24	39		
P'P'	Z'	2.0	2.5					iSeS		04	25	35		
M	E	200	19											
M	N	150	19											
M	Z	210	17											
Sk	$\Delta \sim 6800 \text{ km} \sim 61^\circ$ .							P	Z'	$\mu$	s			
iP		20	34	22				M	E	0.1	0.5			
i		20	36	34				M	N	4.0	20			
iP'P'		21	02	51				M	Z	5.4	20			
Gb	iP	20	34	53				M	Z	7.0	20			
Kurile Islands.								Ki	iP	04	14	55		
Magn.=7.0 (Up, Ki).														
Within error limits of magnitude														
determination this is another														
confirmation of the law														
$M - M^1 = 1.2$ (found by M. Båth),														
where $M$ = magnitude of main														
shock, $M^1$ = magnitude of largest														
aftershock. In this case $M - M^1 =$														
1.0, using the magnitude														

Kurile Islands.													
» 12	Up	iP		18	34	04		» 12	Up	iP	21	34	25
Sk	iPKP			18	33	56C		Kurile Islands.					
Kermadec Islands.													
» 12	Up	iP		19	27	32		» 12	Up	iP	23	10	40
i				19	27	44		Ki	iP		23	09	53
Kurile Islands.				19	26	46							
» 12	Up	iP		20	34	33C		» 12	Up	iP	23	27	21
iS				20	43	28		i			23	27	28
i				20	43	42		» 12	Up	iP	23	43	06
iScS				20	44	21		Kurile Islands.					
iP'P'				21	02	45							
P	N	$\mu$	s										
P	Z	1.5	3										
P	Z'	3.6	3										
S	E	0.4	0.5										
S	N	16	18										
S	S	27	17										
S	Z	17	18										
P'P'	Z'	2.1	2.5										
M	E	170	20										
M	N	220	20										
M	Z	230	20										
Ki	$\Delta = 7600 \text{ km} = 68\frac{1}{2}^\circ$ .												
iP		20	33	47									
iS		20	42	01									
iP'P'		21	02	59									
i		21	03	21									
P	E	$\mu$	s										
P	N	2.0	13										
P	Z	2.5	10										
P	Z'	6.4	10										
P	Z'	1.6	1.8										
S	E	13	16										
S	N	19	16										
S	Z	16	16										
P'P'	Z'	2.0	2.5										
M	E	200	19										
M	N	150	19										
M	Z	210	17										
Sk	$\Delta \sim 6800 \text{ km} \sim 61^\circ$ .												
iP		20	34	22									
i		20	36	34									
iP'P'		21	02	51									
Gb	iP	20	34	53									
Kurile Islands.													
Magn.=7.0 (Up, Ki).													
Within error limits of magnitude													
determination this is another													
confirmation of the law													
$M - M^1 = 1.2$ (found by M. Båth),													
where $M$ = magnitude of main													
shock, $M^1$ = magnitude of largest													
aftershock. In this case $M - M^1 =$													
1.0, using the magnitude													

Kurile Islands.													
» 12	Up	iP		18	34	04		» 12	Up	iP	21	34	25
Sk	iPKP			18	33	56C		Kurile Islands.					
Kermadec Islands.													
» 12	Up	iP		19	27	32		» 12	Up	iP	2		

1958										1958										
Nov	14	Up	$\triangle = 2450 \text{ km} = 22^\circ.$	Ki	iP	05	48	53	(cont.)	Nov	16	Up	P	z'	$\mu$	s				
				i		05	49	11				Gb	iP		0.1	0.9				
				P	z'	0.2	1.3					i(pP)		06	26	56				
				M	E	0.8	9							06	27	09				
		Sk	iP			05	48	19		»	16	Gb	iPKP		18	21	54			
		Gb	iP			05	47	23	D				Loyalty Islands.							
		Greece.								»	16	Up	iP		20	33	23			
»	15	Gb	e(Pg)			08	11	10						P	z'	0.1	1.0			
		iSg				08	11	17												
		Local blast?												Outer Mongolia-China border.						
»	15	Up	iP			09	11	51												
		eS				09	20	42												
		P	z'			0.3	0.5			»	16	Up	iP		21	23	28			
		M	E			2.5	21					Gb	iP		21	23	48			
		M	N			3.5	24													
		M	Z			3.1	20													
		Ki	iP			09	11	06						Bonin Islands (h ~ 500 km).						
		iS				09	19	21												
		i!				09	21	21			»	17	Up	iP		15	45	30		
		P	z'			0.8	0.7					i(pP)			15	45	43			
		S	E			1.1	10					P	z'	0.1	0.6					
		M	E			3.5	20					Gb	iP		15	45	51			
		M	N			2.3	20					i(pP)			15	46	03			
		M	Z			2.4	20					Kurile Islands.								
		Sk	iP			09	11	41			»	17	Ki	iP		16	29	20		
		Gb	iP			09	12	10						Samar, Philippine Islands.						
		Kurile Islands.																		
		Deeper than normal.																		
		Magn.= 6.8 (Up, Ki).																		
»	15	Up	iP			09	21	41			»	18	Up	iP		07	56	24		
		Gb	iP			09	22	01						P	z'	0.2	0.8			
		Kurile Islands.										Ki	iP		07	55	31			
												Gb	iP		07	56	39			
												Aleutian Islands.								
»	15	Up	iP			10	04	00			»	18	Up	iP		07	57	11		
		Kurile Islands.												P	z'	0.3	0.9			
»	15	Up	iP			23	31	25					Ki	iP		07	56	19		
		i				23	31	34					Gb	iP		07	57	27		
		Kurile Islands.												Aleutian Islands.						
»	16	Up	iP			04	58	36			»	18	Up	iP		08	06	00		
		i				04	58	50						Aleutian Islands.						
		Gb	i(P)			04	59	10												
		Kurile Islands.									»	18	Up	iP		08	07	35		
»	16	Up	iP			05	02	41						P	z'	0.1	0.8			
		Kurile Islands.										Ki	iP		08	06	42			
»	16	Up	iP			05	51	52					Gb	iP		08	07	50		
		Kurile Islands.										Aleutian Islands.								
»	16	Up	iP			06	26	35C			»	18	Up	iP		08	10	51		
		i(pP)				06	26	48						P	z'	0.1	0.7			

1958  
Nov 20 Near east coast of Kamchatka.  
(cont.) Magn.=6.5 (Up, Ki).

» 20 Up iP 05 48 53C  
P z' 0.4 1.0  
Ki iP 05 48 01C  
Sk iP 0.2 1.0  
Gb iP 05 48 37  
Gb iP 05 49 12C  
Near east coast of Kamchatka.

» 20 Up iP 06 42 32D  
Gb iP 06 42 49  
Kurile Islands.

» 20 Up iP 06 45 39  
P z' 0.1 0.8  
Gb iP 06 45 56  
Kurile Islands.

» 20 Up iP 14 29 04  
i 14 30 00  
M E 2.4 20  
M N 2.4 18  
M Z 3.4 18  
Ki iP 14 28 14  
M E 2.4 18  
M N 1.7 17  
M Z 1.7 16  
Gb iP 14 29 23D  
Kurile Islands.

» 20 Ki iP 15 58 08

» 20 Up iP 17 52 19  
i 17 52 28  
Gb iP 17 52 39  
Kurile Islands.

» 20 Up iP 23 14 41  
Aleutian Islands.

» 21 Up iP 01 51 47C  
P z' 0.1 0.5  
Ki iP 01 51 00  
Sk iP 01 51 37  
Gb iP 01 52 09  
Okhotsk Sea (h ~ 400 km).

» 21 Up iP 05 07 24C  
P z' 0.1 0.6  
Ki iP 05 07 33C  
P z' 0.1 0.6

1958  
Nov 21 Sk iP 05 07 49  
(cont.) Gb iP 05 07 45  
Hindu Kush (h ~ 200 km).

» 21 Up iP 07 15 03  
Gb iP 07 15 12

» 21 Up iP 07 20 46C  
Kurile Islands.

» 22 Up —  
M E 1.2 22  
M N 2.4 26  
M Z 1.4 20  
Ki iP 00 18 10  
M E 2.2 18  
M N 1.3 16  
M Z 2.7 18

South of Java.

» 22 Up iP 02 31 37

» 22 Ki iP 20 59 40

Sk eP z' 0.1 1.0  
iS 20 59 46  
21 01 36

Jan Mayen region.

» 23 Up iPKP 03 07 58  
Sk iPKP 03 07 48  
Gb iPKP 03 08 00

Chatham Islands region.

» 23 Ki iP 11 25 57  
i 11 26 19

» 23 Up iP 12 08 23

Near coast of Honshu, Japan.

» 23 Up iP 13 12 24  
i 13 12 30  
Ki iP 13 13 29  
Sk iP 13 13 05  
Gb eP 13 12 19  
iPP 13 12 40

Turkey.

» 23 Up iP 13 53 35  
Kurile Islands.

» 23 Up iP 20 25 24D  
P z' 0.1 0.5  
Ki iP 20 25 21  
Sk iP 20 25 43

1958  
Nov 23 Gb iP 20 25 46  
(cont.) Tibet.

» 23 Up iP 20 30 43

» 23 Up iP 22 30 29

P z' 0.1 0.7

Ki iP 22 29 37D

Sk iP 22 30 07

Gb iP 22 30 44

Aleutian Islands.

» 23 Up iP 23 48 36

i 23 49 02

P z' 0.1 0.7

Ki iP 23 47 43

Sk iP 23 48 14

Gb iP 23 48 51

Aleutian Islands.

» 24 Up iPKP 07 08 19

Ki iPKP 07 08 31

PKP z' 0.2 1.5

Drake Passage.

» 24 Up iP 07 25 49D

» 24 Up iP 14 21 51

» 24 Up iP 17 55 32

Ki iP 17 55 14

Sk iP 17 55 35

Near east coast of Mindanao.

» 24 Up iP 20 37 07

Kurile Islands.

» 24 Ki e(P) 22 37 59

e 22 38 17

Leeward Islands.

» 25 Up iP 04 10 00

Ki iP 04 10 01

Sk eP 04 10 23

Nepal.

» 25 Up iP 09 24 37C

P z' 0.1 0.9

Ki iP 09 23 49

P z' 0.1 1.0

Sk iP 09 24 21

Near east coast of Honshu, Japan.

1958  
Nov 26 Up iP 00 17 47  
Ki iP 00 18 12  
Georgia, U.S.S.R.

» 26 Gb i(P) 08 04 14

» 26 Up i(P) 08 38 18

» 26 Up iP 11 05 08

P z' 0.1 0.9

Ki iP 11 05 33

Sk iP 11 05 34

Indian Ocean.

» 26 Ki i 12 22 43

eSg 12 23 17

Sk eSg 12 24 10

» 26 Ki e 12 33 44

eSg 12 34 17

Sk iSg 12 35 14

» 26 Ki e 12 36 19

iSg 12 36 54

Sk eSg 12 37 46

» 26 Ki e 12 40 36

eSg 12 41 10

Sk e 12 40 57

iSg 12 42 03

» 26 Ki e 12 58 47

iSg 12 59 23

Sk e 12 59 09

eSg 13 00 15

M E 0.9 14

M N 0.5 15

M Z 1.2 14

Ki iP 22 11 04

M E 1.2 14

M N 0.7 13

M Z 0.6 12

(Arctic Ocean.)

» 28 Up iP 00 54 14

e(P) 02 31 18

Ki iP 02 28 37

» 28 Up iP 07 29 17

i(P) 08 02 08

» 28 Up iP 21 02 04

Up iP 03 45 55C

Ki eP 03 45 06

1958			1958			
Dec	3	Ki	Dec	6	Up	
(cont.)		P				
Sk	iP	z'	0.1	0.6		
			09	41	47C	
South of Honshu, Japan (h ~ 400 km).						
»	3	Up	iP	10	00	38
	i			10	00	44
	eS			10	10	36
			μ	s		
	P	z'	0.1	0.8		
	S	E	0.5	6		
	M	E	3.9	16		
	M	N	2.4	17		
	M	Z	5.0	16		
	$\Delta = 8900 \text{ km} = 80^\circ$ .					
Ki	iP		10	00	18	
	iS		10	09	59	
			μ	s		
	P	z'	0.3	1.0		
	S	E	1.0	12		
	S	N	0.3	10		
	M	E	2.6	19		
	M	N	2.1	18		
	M	Z	1.5	13		
	$\Delta = 8500 \text{ km} = 76\frac{1}{2}^\circ$ .					
Sk	iP		10	00	37	
Near north coast of Luzon.						
Magn. = 6.0 (Up, Ki).						
»	3	Up	iP	10	12	53
Kurile Islands.						
»	3	Up	iP	16	12	08C
	P	z'	μ	s		
	Ki	iP	0.2	0.5		
			16	11	37C	
			μ	s		
	P	z'	0.3	0.8		
	Sk	iP	16	12	06C	
	Gb	iP	16	12	28C	
South of Honshu, Japan (h ~ 550 km).						
»	3	Up	iP	21	41	47
Hindu Kush (h ~ 220 km).						
»	4	Ki	iP	10	35	49
Gulf of Aden.						
»	4	Ki	eP	19	55	11
»	4	Ki	iP	21	14	22
»	5	Up	iP	06	33	52
»	5	Up	i(P)	14	11	33
»	5	Ki	eP	18	38	45
»	6	Up	eP	09	46	41
	i		09	46	53	
			μ	s		
	Sk	iPKP	z'	0.1	0.6	
New Hebrides Islands (h ~ 200 km).						
			03	29	00	

1958		1958					
Dec	Up	iP	07 26 40	Dec	Up	iP	03 51 18C
		i	07 26 51			iPP	03 53 00
		i	07 27 02			i	04 00 01
		P	$\mu$ 0.1			i	04 02 00
		z'	s 0.5			P	$\mu$ 0.5
	Ki	iP	07 26 26		Ki	z'	s 1.0
	Sk	iP	07 26 52			M	$\mu$ 0.8
	China.					N	s 1.2
» 8	Up	iP	11 53 19			iPP	03 51 27C
	Ki	iP	11 52 34			i	03 51 36
	Kurile Islands.					P	$\mu$ 0.4
» 8	Up	iP	12 19 27			M	s 0.4
		P	$\mu$ 0.2			N	0.8 13
		z'	s 0.7			iPP	03 51 44C
		M	E 1.5			Gb	03 53 29
		M	N 2.6			iP	03 51 38C
		M	Z 3.1			iPP	03 53 26
	Ki	iP	12 18 41		» 10	Up	iPKP
		P	$\mu$ s			i	07 22 17
		M	E 2.0			i	07 22 25
		M	N 1.7			iPP	07 22 38
		M	Z 1.9			i!	07 26 05
	Sk	iP	12 19 17			iPKP	07 32 30
	Gb	iP	12 19 49D			PKP	$\mu$ 0.6
	Kurile Islands.					PP	s 0.7
	Magn.=6.0 (Up, Ki).					M	2.2 3
» 8	Ki	i(Sg)	16 07 23			M	E 2.5
	Northern Finland.					N	19 19
» 9	Ki	iP	09 00 55			M	N 1.9
	North coast of Rhodes Island.					Z	18 25
» 9	Up	iSn	15 26 59		Ki	iPKP	$\mu$ 8.1
		iS*	15 27 11			i	s 25
		iSg	15 27 24			ipPKP	07 22 06
		Sg	$\mu$ z' 0.1			iPP	07 22 32
			s 0.5			PKP	$\mu$ 0.7
		$\Delta=530 \text{ km}=4.8^\circ$ .				PKP	s 3.5
	Sk	e(Sg)	15 29 19			M	19 6
	Gb	ePg	15 25 44			PKP	$\mu$ 3.0
		iSg	15 26 26			PP	s 0.8
		$\Delta=330 \text{ km}=3.0^\circ$ .				PP	2.7 7
	South Baltic, 55.3°N, 15.3°E.					M	3.9 7
	Origin time = 15 24 45.					M	E 4.5
» 9	Up	i(Sn)	15 44 07			N	21 19
		iSg	15 44 40			M	N 3.3
		Gb	eSg	15 43 43		Z	20 20
		South Baltic, 55.3°N, 15.3°E.			Sk	iPKP	$\mu$ 16
		Origin time = 15 42 01.				i	s 22
» 9	Up	—	—			iPKP2	22 31
		M	$\mu$ 1.7			Gb	07 22 22
		E	s 16			iPKP	22 32
		M	N 1.6			i	07 22 33
		M	Z 2.8			iPKP2	22 55
	Ki	iP	20 48 08		» 10	Up	iP
	Dodecanese Islands.					Ki	iP
						14	52 02D
						14	51 45
						P	$\mu$ 0.1
						N	s 1.0
						Sk	iP
						14	52 06
						Off south coast of Mindanao	
							$(h \sim 200 \text{ km})$

1958											
Dec	Up	i(P)	22 02 12	Dec	Up	iP	11 57 28C				
		M E	2.8 18			P z'	11 57 41				
		M N	3.2 20			M E	μ s				
		M Z	2.6 19			M N	0.1 0.6				
Ki	iP	22 01 40		Ki	iP	1.2 18					
eS		22 11 50				0.8 17					
e		22 15 53				11 56 42					
		μ s				μ s					
S N		0.4 11			P z'	0.2 1.0					
M E		2.5 19			M E	1.4 17					
M N		2.3 18			M N	1.0 17					
M Z		1.9 16			M Z	0.8 16					
$\Delta = 9050 \text{ km} = 81\frac{1}{2}^\circ$ .				Sk	iP	11 57 17					
Gulf of California.											
Magn. = 5.9 (Up, Ki).											
» 11	Up	iP	06 10 23	» 15	Up	iPKP	13 00 17				
	Gb	iP	06 10 47		i		13 00 22				
Kurile Islands.											
» 11	Ki	eP	15 44 54		PKP	z'	μ s				
South of Honshu, Japan.											
» 11	Ki	iP	18 49 41	Ki	ePKP		0.3 0.9				
	i		18 49 45	Sk	iPKP		13 00 00				
		μ s		Gb	iPKP		13 00 11C				
	M E	1.0 19		Kermadec Islands.							
	M N	0.7 18		» 16	Up	iP	02 43 29				
South of Honshu, Japan.				Ki	eP	02 42 44					
» 13	Up	iP	01 27 36	Kurile Islands.							
Aleutian Islands.				» 16	Up	iPKP	03 38 05				
» 13	Up	iPKP	09 26 27	South of Fiji Islands.							
	Ki	iPKP	09 26 42	» 16	Up	i(P)	10 14 12				
	PKP	z'	μ s		i		10 14 22				
		0.2 1.0			iSg		10 14 26				
Sandwich Islands region.					Sg	z'	μ s				
» 13	Up	iP	14 39 38			0.3 0.5					
	i		14 39 51	» 16	Up	i	14 57 49				
Ki	iP		14 38 54		iSg		14 57 53				
Kurile Islands.					Sg	z'	μ s				
» 14	Up	eL	08 28			0.4 0.6					
		μ s		» 16	Ki	iP	21 46 47				
	M E	1.4 18		South of Panay Island, Philippine Islands.							
	M Z	2.6 19		» 17	Up	iP	02 36 41C				
Ki	eL	08 18		Ki	iP	02 35 48					
	μ s				P z'	0.1 1.0					
	M E	1.6 21		Sk	eP	02 36 13					
	M N	1.0 19		i		02 36 29					
	M Z	1.7 22		Gb	iP	02 37 00					
South Pacific Ocean.				Off coast of Alaska Peninsula.							
» 14	Up	iP	18 04 47	» 17	Up	iP	08 05 02				
Off south coast of Honshu, Japan (h ~ 100 km).				» 17	Up	iP	08 14 39				

1958										1958									
Dec	17	Up	iP		09	08	14C		Dec	18	Ki	eP	08	31	50				
			P	z'	μ	0.1	s	0.7	(cont.)	Sk	iP	08	30	56					
Ki	iP				09	07		40		i	08	34	25						
Sk	iP				09	08		11	»	18	Up	i(P)	10	29	45				
	iPP				09	11		02		i		10	29	55					
Gb	iP				09	08		37		iSg		10	29	59					
South of Honshu, Japan (h ~ 400 km).												μ	s						
»	17	Up	i		09	58		55		Sg	z'	0.4	0.5						
			iSg		09	59		00		Local. Seismic?									
			Sg	z'	μ	0.3	s	0.5	»	18	Up	iP	23	12	11				
Local. Seismic?										Ki	iP	23	13	18					
»	17	Up	i(P)		14	07		50		Sk	eP	23	12	54					
			i		14	08		00		Near south coast of Turkey.									
			iSg		14	08		04	»	19	Up	iPn	00	52	07				
			Sg	z'	μ	0.2	s	0.5			iP*	00	52	18					
Local. Seismic?										i	00	52	58						
»	17	Up	iP		15	45		59		iSn	00	53	20						
			M	E	μ	2.4	s	18		iS*	00	53	38						
			M	N		3.4		19		iSg	00	53	52						
			M	Z		7.2		16			μ	s							
Ki	eP				15	45		29		P*	z'	0.1	0.5						
			M	E	μ	2.6	s	15		Sn	z'	0.4	0.7						
			M	N		1.7		14		Sg	E	3.2	1						
			M	Z		2.0		14		Sg	N	1.3	1						
Ryukyu Islands. Magn.=5.8 (Up, Ki).										Sg	z	2.6	1						
»	17	Ki	e(P)		22	14		47		Sg	z'	2.4	0.8						
»	18	Ki	iPKP		01	58		32		△=680 km=6.1°.									
		Sk	iPKP		01	58		41	Ki	iPn	00	51	19						
Loyalty Islands region (h ~ 100 km).										iPg	00	51	27						
»	18	Up	iP		07	38		30		iSg	00	52	09						
			P	z'	μ	0.1	s	0.5		i	00	52	26						
			Ki	iP		07		38	11C		μ	s							
			Sk	iP		07		38	35	Pg	z'	0.7	0.6						
			Gb	iP		07		38	49	Sg	z'	1.6	0.5						
Near north coast of Luzon, Philippine Islands.										(△=320 km=2.9°).									
»	18	Up	iP		07	41		11	Sk	iPn	00	51	12 D						
			P	z'	μ	0.1	s	0.5		iSg	00	51	46						
			Ki	iP		07		41	46	△=240 km=2.2°.									
			Sk	iP		07		41	44	Gb	iPn	00	52	33					
			Gb	iP		07		41	23	iSn	00	54	07						
Near south coast of Iran.										i	00	54	51						
»	18	Up	iP		08	32		28		iSg	00	54	55						
			i		08	33		27		△=890 km=8.0°.									
										Sweden-Norway border region, 65.8°N, 14.4°E.									
										Origin time=00 50 32. Felt.									
»	18	Up	iP		07	41		11	»	19	Up	iP	03	32	38				
			P	z'	μ	0.1	s	0.5			eS	03	36	54					
			Ki	iP		07		41	46		S	N	1.0	7					
			Sk	iP		07		41	44	M	N	0.9	17						
			Gb	iP		07		41	23	M	Z	1.7	14						
Near south coast of Iran.										△=2650 km=24°.									
»	18	Up	iP		08	32		28		Ki	iP	03	33	41					
			i		08	33		27		eLg1	03	43	40						

1958				1958											
Dec	19	Ki		M	E	$\mu$	s	Dec	19	Up	M	N	1.0	18	
(cont.)		M		0.7	15			(cont.)		M	M	Z	2.5	18	
		M		0.6	16					Ki	iP		18	46	
		M		0.8	16					M	E		1.4	17	
		Gb	iP	03	32	36				M	N		1.1	16	
		Western Turkey.								M	Z		1.2	17	
» 19		Up	iPn	07	57	56				Gb	iP		18	47	
		i		07	58	15				Aleutian Islands.			43D		
		i		07	58	47									
		iSn		07	59	08									
		iS*		07	59	25									
		iSg		07	59	42									
					$\mu$	s									
		Sn		z'	0.2	0.5				P		$\mu$	s		
		Sg		E	2.2	1				M	E	0.1	0.8		
		Sg		N	0.8	1				M	N	9.1	16		
		Sg		z	1.3	1				M	Z	5.3	17		
		Sg		z'	0.6	0.5				Ki	iP	14	16		
		$\Delta=680 \text{ km}=6.1^\circ$ .													
Ki		ePn		07	57	08							19	31	
		iP*		07	57	14								57	
		iS*		07	57	52									
		eSg		07	58	00									
					$\mu$	s									
		P*		z'	0.3	0.7									
		S*		z'	0.4	0.7									
		Sg		z'	0.9	0.6									
		$(\Delta=320 \text{ km}=2.9^\circ)$ .													
Sk		iPn		07	57	00 D									
		iSg		07	57	35									
		$\Delta=240 \text{ km}=2.2^\circ$ .													
Gb		iPn		07	58	26									
		iP*		07	58	44									
		iSn		07	59	55									
		iS*		08	00	22									
		iSg		08	00	44									
		$\Delta=890 \text{ km}=8.0^\circ$ .													
Sweden-Norway border region, 65.8°N, 14.4°E. Origin time=07 56 22. Felt.															
» 19		Up	i(P)		09	51	04			P		$\mu$	s		
			i(Sg)		09	51	21			P	E	1.2	5		
		Sk	e(Sg)		09	52	59			P	Z	2.8	5		
		Local.								S	Z'	0.7	1.0		
» 19		Ki	i(P)		10	32	37			M	N	2.4	6		
		Sk	e(P)		10	31	44			M	E	45	11		
» 19		Up	eL		12	06				M	N	92	12		
					$\mu$	s				M	Z	55	11		
		M		E	1.5	23				$\Delta=4450 \text{ km}=40^\circ$ .					
		M		Z	2.0	23				Ki	iP				
		Southern Peru (h ~ 100 km).									iS		05	53	
» 19		Up	iP		18	47	28			iSS		59	50		
					$\mu$	s				i		06	02		
		P		z'	0.3	1.0				iLg1		03	47		
		M		E	1.5	17						06	07		

1958	Dec 21	Ki	$\Delta=4350 \text{ km}=39^\circ.$	05 54 21
(cont.)	Sk	iP	05 54 21	
	i	06 04 49		
	Gb	iP	05 54 31	
	Western Sinkiang Province, China.			
	Magn.=6.4 (Up, Ki).			
	The channel waves are very clear.			
	» 21	Up	iP	10 17 03
	» 22	Ki	i(P)	02 49 54
	Sk	iP	02 50 27	
	Central Alaska.			
	» 22	Ki	iP	03 22 38
	Sk	iP	03 22 10	
	East of Crete.			
	» 22	Up	iP	08 14 36
	» 22	Up	iPKP	08 15 30
	Tonga Islands region.			
	» 22	Up	iPKP	19 40 47
	Sk	ePKP	19 40 39	
	Kermadec Islands region.			
	» 23	Sk	eP	06 40 20
	Gb	iP	06 40 14	
	Near west coast of Colombia.			
	» 23	Sk	iP	07 15 27
	Aleutian Islands.			
	» 23	Ki	i(P)	19 05 16
	» 23	Up	iPKP	19 35 56
	Sk	iPKP	19 35 52	
	Kermadec Islands region.			
	» 23	Up	ePKP	19 54 47
	Sk	iPKP	19 54 44	
	Kermadec Islands region.			
	» 23	Ki	iPg	21 51 56
	iSg	21 52 05		
	i(Rg)	21 52 07		
	(Rg) z'	1.5 1.5		
	$\Delta=80 \text{ km}=0.7^\circ.$			
	Sk iSg	21 54 20		
	$\Delta=540 \text{ km}=4.9^\circ.$			
	Possibly explosion at Gällivare, Sweden. Origin time=21 51 41.			
	» 24	Up	iP	05 14 41
	Ki	iP	05 14 48	
	Sk	iP	05 15 06	
	Hindu Kush.			

1958	Dec 24	Up	eP	07 22 43
		M	E	1.0 16
		M	N	1.4 16
		M	Z	2.3 17
		Gb	iP	07 22 37
		Off south coast of Turkey.		
	» 25	Up	ePP	08 25 18
		eSKSP	08 35 04	
		PP	Z	0.7 7
		M	E	2.2 21
		M	N	4.2 23
		M	Z	4.3 24
		Ki	ePP	08 24 40
		PP	Z	0.7 10
		M	E	3.7 20
		M	N	1.5 19
		M	Z	3.2 19
		Sk	iPKP	08 24 17
		Gb	ePKP	08 24 22
		i	08 24 37	
		New Britain (h ~ 60 km). Magn.=6.3 (Up, Ki).		
	» 25	Up	iP	09 22 53
		iPeP	09 23 20	
		P	Z'	0.1 0.6
		Sk	iP	09 22 31
		Gb	iP	09 23 09
		Aleutian Islands.		
	» 25	Up	iP	18 41 10 D
		Sk	iP	18 41 45 D
		Near south coast of Iran.		
	» 26	Up	iPKP	06 09 26
		Sk	ePKP	06 09 17
		Gb	iPKP	06 09 33 C
		South of Fiji Islands (h ~ 600 km).		
	» 27	Ki	iP	11 10 23
	» 28	Ki	iP	05 25 36
		Sk	iP	05 25 22 C
		Gb	iP	05 25 18
		Northwestern Venezuela.		
	» 28	Up	iP	05 43 40 C
		iPP	05 45 38	
		iS	05 50 52	
		P	E	0.8 1
		P	Z	1.7 1
		P	Z'	0.9 0.6

1958	Dec 28	Up	PP	0.7 4
(cont.)		M	E	11 15
		M	N	6.9 14
		M	Z	14 15
		Ki	$\Delta=5650 \text{ km}=51^\circ.$	
		iP	05 43 44 C	
		iS	05 51 00	
		eSS	05 54 58	
		P	E	1.1 4
		P	Z	1.4 5
		P	Z'	1.4 1.2
		S	E	1.5 11
		S	N	1.6 14
		M	E	6.2 14
		M	N	7.7 11
		M	Z	5.9 11
		Sk	iP	05 44 02 C
		Gb	iP	05 44 01 C
		iPP	05 46 01	
		Nepal-India border. Magn.=6.9 (Up, Ki).		
	» 28	Up	iP	08 35 14
		Ki	eP	08 35 17
		Nepal-India border.		
	» 28	Up	iP	11 50 39
		iS	11 53 29	
		M	E	1.4 18
		M	N	0.8 15
		M	Z	1.0 15
		Ki	$\Delta=1700 \text{ km}=15\frac{1}{2}^\circ.$	
		iP	11 49 30	
		i	11 49 37	
		P	Z'	0.3 0.6
		M	E	1.2 16
		M	N	0.9 16
		Sk	iP	11 49 35
		i	11 49 37	
		iS	11 51 33	
		Gb	eP	11 50 44
		Jan Mayen.		
	» 31	Ki	iP	19 25 03