SEISMOLOGICAL INSTITUTE
BOX 517
S-751 20 UPPSALA
SWEDEN

S E I S M O L O G I C A L B U L L E T I N

U P P S A L A, K I R U N A, S K A L S T U G A N, U M E Å, U D D E H O L M and D E L A R Y

Uppsala	(Up):	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(Ki):	67°50.4'N,	20°25.0'E;	h = 390 m
Skalstugan	(Sk):	63°34.8'N,	12°16.8'E;	h = 580 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m
Delary	(De):	56°28.2'N,	13°52.2'E;	h = 150 m

J A N U A R Y 1 - 31, 1971

1971 Jan.				
	1	Sk	iP	03 18 37.5
		Ud	iP	03 17 50.8
		Ionian Islands.		
"	1	Ud	iP	03 35 24.2
"	1	Ud	iP	04 21 16.6
"	1	Up	iP	04 55 35.7
		Ki	iP	04 54 40.8
		Sk	iP	04 55 07.1
		Um	iP	04 55 09.5
			ipP	04 55 15.9
		Ud	iP	04 55 32.2
		De	iP	04 55 55.9
		Gulf of Alaska.		
		h = 20 km (Um).		
"	1	Um	iP	06 07 08.4
		Japan (h = 60 km).		
"	1	Up	i(Sgl)	07 14 55.5
		Ud	i(Sgl)	07 14 04.8
"	1	Up	iPKP	08 16 47.4
			iPS	08 26 33
				micr sec
		Mx	E	1.9 20
		Mx	N	1.7 19
		Mx	Z	2.0 19
		Ki	iP	08 12 18.3
			iPP	08 16 28.7
				micr sec
		Mx	E	2.0 20
		Mx	N	1.4 20
		Mx	Z	2.2 18
	(cont.)			

1971 Jan.				
	1	(cont.)		
		Sk	ePKP	08 16 27
			iPP	08 17 07.1
		Ud	iPKP	08 16 50.0
			iPP	08 17 27.3
		New Guinea (h = 20 km).		
		M = 5.9 (Up,Ki).		
"	1	Ki	eP	12 05 01
		Um	iP	12 05 27.6
		Ud	iP	12 05 52.1
		De	iP	12 06 15.1
		Aleutian Islands		
		(h = 60 km).		
"	1	Ud	iPKP	16 34 06.1
		East Pacific (h = N).		
"	1	Ki	iPKP	16 51 49.0
		South Sandwich Islands		
		(h = N).		
"	1	Sk	iP	17 18 28.1
		De	i(P)	17 18 56.3
		Mariana Islands (h = 25 km).		
"	1	Up	iP	18 09 14.1
		Ki	iP	18 09 17.2
		Sk	iP	18 09 37.6
		Um	iP	18 09 09.5
		Ud	iP	18 09 31.2 C
		De	iP	18 09 30.0
		Kirghiz SSR (h = 60 km).		
"	1	Um	iP	18 38 13.9

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	1	Ud	iP	18 46 04.4	
		Ionian Islands.			
"	1	Sk	eP	18 56 27	
		Um	iP	18 56 45.1	
		Ud	iP	18 56 17.7	
		Atlantic Ocean (h = N).			
"	1	Ki	iP	20 18 06.9	
		Sk	iP	20 17 38.7	
		Crete (h = N).			
"	1	Up	iP	22 15 25.5 C	
		Ud	iP	22 15 27.9 C	
		De	iP	22 15 38.3	
"	1	Um	iP	23 45 17.6	
"	2	Um	iP	00 30 15.1	
"	2	Up	iP	00 51 36.0	
				micr sec	
			Mx Z	0.5 12	
		Ki	iP	00 52 45.6	
		Sk	iP	00 52 14.9 C	
		Um	iP	00 52 10.6	
		Ud	iP	00 51 43.0 C	
		De	iP	00 51 09.9	
		Crete (h = N).			
"	2	Ki	iP	03 31 55.5	
		Um	iP	03 31 24.9	
		Ud	iP	03 31 01.3 C	
		Turkey (h = 40 km).			
"	2	Ud	iP	03 59 29.2	
		Turkey.			
"	2	Up	iP	10 19 24.0	
		Ki	iP	10 18 50.4	
		Sk	iP	10 19 22.6	
		Um	iP	10 19 04.3 C	
			i	10 19 17.2	
		Ud	iP	10 19 31.8	
		Japan (h = 400 km).			
"	2	Ud	iP	11 46 09.9	
		Sinkiang-USSR.			
"	2	Up	iPKP	13 22 17.4 C	
		Ud	iPKP	13 22 19.5 C	
		De	ePKP	13 22 30	
		Tonga-Kermadec Islands			
		(h = 180 km).			
1971 Jan.	2	Um	iP	18 04 01.0	
		Ud	iP	18 03 56.3	
"	2	Up	iP	19 14 31.3	
		Ud	iP	19 14 38.3	
		Ionian Islands.			
"	2	Up	iP	19 19 56.9	
		Ki	iP	19 19 06.9	
		Sk	iP	19 19 28.0	
		Um	iP	19 19 36.2	
		Ud	iP	19 19 49.5	
		De	iP	19 20 17.2	
			ipP	19 20 22.0	
		Gulf of Alaska.			
		h = 20 km (De).			
"	2	Up	eP	22 33 57	
		Um	iP	22 33 35.7	
			i	22 33 48.7	
		Ud	iP	22 34 06.5 C	
		Philippine Islands			
		(h = 80 km).			
"	3	Up	eP	03 16 45	
			ipP	03 17 01.7	
				micr sec	
			P Z'	0.2 1.0	
		Ki	iP	03 16 02.5	
		Sk	eP	03 16 37	
		Um	iP	03 16 20.7 C	
			ipP	03 16 34.5	
		Ud	iP	03 16 50.5 C	
		Japan.			
		h = 60 km (Up,Um).			
"	3	Up	iP	10 23 19.7	
			i	10 23 33.1	
		Ki	iP	10 22 44.1	
		Sk	eP	10 23 26	
		Um	iP	10 22 59.2	
			i	10 23 10.5	
		Ud	iP	10 23 27.7	
			i	10 23 38.9	
		De	iP	10 23 41.8	
		Japan (h = 25 km).			
"	3	Up	iP	14 02 45.6 D	
				micr sec	
			P Z'	0.1 1.0	
		Ki	eP	14 01 59	
		Um	iP	14 02 14.5 D	
			ipP	14 02 22.6	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan. 3 (cont.)

Ud	iP		14 02 45.2	D
	ipP		14 02 53.1	
De	iP		14 03 02.1	

Japan.
h = 30 km (Um,Ud).

" 3

			micr	sec
Up				
	Mx	E	11	21
	Mx	N	13	23
	Mx	Z	20	24
Ki	iPKP		17 54 37.2	
			micr	sec
	Mx	E	12	21
	Mx	N	11	20
	Mx	Z	20	21
Um	ePKP		17 54 32	
	i		17 54 38.3	
Ud	iPP		17 55 25.4	
De	iPP		17 55 08.4	

Bouvet Island (h = N).
M = 6.7 (Up,Ki).

" 3

			micr	sec
Up				
	Mx	E	4.2	20
	Mx	N	6.0	22
	Mx	Z	8.7	25
Ki			micr	sec
	Mx	E	4.3	19
	Mx	N	1.5	17
	Mx	Z	2.7	17
Ud	iPKP		19 12 46.9	

Bouvet Island (h = N).
M = 6.4 (Up,Ki).

" 3

Up	iP		23 24 09.1	
	iS		23 28 12.8	
			micr	sec
	P	Z'	0.3	1.0
	Mx	E	4.4	18
	Mx	N	5.4	20
	Mx	Z	10	20
Ki	iP		23 25 16.8	D
	i		23 25 31.3	
			micr	sec
	P	Z'	0.4	1.5
	Mx	E	4.7	19
	Mx	N	6.3	21
	Mx	Z	11	22
Sk	iP		23 24 49.1	
Um	iP		23 24 42.4	
	i		23 24 55.7	
Ud	iP		23 24 17.2	

(cont.)

1971 Jan. 3 (cont.)

De	iP	23 23 46.7	
	iS	23 27 34.4	

Crete (h = 30 km).
m = 6.0, M = 5.3 (Up,Ki).

" 4

Ki	iP	10 30 57.4	

Jan Mayen (h = N).

" 4

Ud	iPKP	11 27 32.3	C
De	iPKP	11 27 43.6	C

Tonga-Kermadec Islands
(h = 580 km).

" 4

Up	iSgl	12 03 55.0	
Ud	iPgl	12 03 05.0	
	iSgl	12 03 25.5	
De	iPgl	12 03 16.8	
	iSgl	12 03 45.6	

Central Sweden,
58.6°N, 13.7°E.
Origin time = 12 02 40.

" 4

Up	iP		19 09 46.1	
			micr	sec
	Mx	E	1.2	20
	Mx	N	2.4	22
Ki	eP		19 10 02	
Sk	iP		19 10 12.2	
Um	iP		19 09 45.6	
Ud	iP		19 10 01.4	
De	eP		19 09 53	

West Pakistan (h = N).

" 4

Up	iP		21 20 23.2	D
			micr	sec
	P	Z'	0.6	1.0
	Mx	E	1.9	20
	Mx	N	2.3	16
	Mx	Z	3.8	19
Ki	iP		21 19 46.8	D
			micr	sec
	P	Z'	0.3	1.0
	Mx	E	5.9	17
	Mx	N	2.6	15
	Mx	Z	3.5	16
Sk	iP		21 20 19.3	
	ipP		21 20 30.6	
Um	iP		21 20 02.4	D
	ipP		21 20 12.9	
	eS		21 29 12	
	iSS		21 33 41	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	4	(cont.)				
		Ud	iP	21 20 30.6	D	
			iPcP	21 20 45.3		
		De	iP	21 20 44.9		
		Japan.				
		h = 40 km (Sk,Um).				
		m = 6.6, M = 5.8 (Up,Ki).				
"	5	Up	iP	04 20 04.2		
		Sk	iP	04 20 06.8		
		Um	iP	04 19 48.1		
		Ud	iP	04 20 14.5		
		De	eP	04 20 23		
		Ryukyu Islands (h = 80 km).				
"	5	Um	iP	05 42 43.9		
		Japan (h = 50 km).				
"	5	Ki	iP	06 04 29.7		
		Alaska (h = 50 km).				
"	5	Ud	iP	07 20 38.2		
		Luzon (h = 70 km).				
"	5	Um	iP	23 10 08.4	C	
		Hindu Kush.				
"	6	Up	iP	06 15 49.9	C	
			iPP	06 18 33.1		
				micr	sec	
			Mx N	1.4	20	
			Mx Z	1.6	20	
		Ki	iP	06 15 10.9		
				micr	sec	
			Mx E	2.4	17	
			Mx N	1.8	19	
			Mx Z	2.6	18	
		Sk	iP	06 15 43.8	C	
			iPP	06 18 22.0		
		Um	iP	06 15 28.8	C	
			ipP	06 15 39.7		
		Ud	iP	06 15 57.0	C	
			iPcP	06 16 10.4		
		De	iP	06 16 11.6	C	
		Japan.				
		h = 45 km (Um).				
		M = 5.5 (Up,Ki).				
"	6	Ki	e(Sgl)	11 45 06		
		Um	i(Sgl)	11 46 08.6		
"	6	Ud	iP	17 19 24.4		
		Kamchatka (h = N).				
1971 Jan.	6	Up	iP	17 52 12.8		
		Um	iP	17 51 45.6		
			i	17 51 49.0		
		Japan (h = 70 km).				
"	6	Ki	ePgl	18 36 29		
			iSgl	18 37 04.6		
		Sk	iSgl	18 37 11.1		
		Um	iPgl	18 36 44.4		
			iSn	18 37 18.9		
			iSgl	18 37 32.9		
		Ud	iSgl	18 38 59.1		
		Nordland, Norway,				
		66.5°N, 14.2°E.				
		Origin time = 18 35 36.				
		Explosion.				
"	6	Ki	iP	21 09 05.1		
		Um	iP	21 09 16.6		
		Mariana Islands (h = N).				
"	7	Up	iP	03 00 47.7		
			ipP	03 01 11.3		
				micr	sec	
			pP Z'	0.1	1.2	
		Ki	iP	02 59 53.1		
			ipP	03 00 17.3		
				micr	sec	
			pP Z'	0.1	1.0	
		Sk	iP	03 00 25.1		
		Um	iP	03 00 19.9	D	
			ipP	03 00 44.1		
		Ud	iP	03 00 45.0		
			ipP	03 01 10.1		
		De	iP	03 01 09.1	D	
		Aleutian Islands.				
		h = 90 km (Up,Ki,Um,Ud).				
"	7	Up	iPKP	13 28 19.9		
			ipPKP	13 28 44.0		
		Ud	iPKP	13 28 22.3	D	
			ipPKP	13 28 46.0		
		Tonga-Kermadec Islands.				
		h = 90 km (Up,Ud).				
"	7	Ki	iP	20 50 32.4		
		Colorado (h = N).				
"	8	Up	eP	06 14 31		
		Ki	iP	06 15 49.3		
		Ud	iP	06 14 46.2		
		Crete (h = 60 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	8	Sk	iPKP		09 16 10.8		
		South Sandwich Islands (h = 140 km).					
"	8	Ki	iPn		11 36 01.4		
			iSn		11 37 00.3		
			iSgl		11 37 19.5		
		Um	iSgl		11 38 15.3		
		Northwest Russia, 67.0°N, 34.1°E. Origin time = 11 34 43. Explosion.					
"	8	Up	iP		11 50 16.1		
		Ki	iP		11 49 23.1		
			ipP		11 49 35.2		
					micr	sec	
			P	Z'	0.1	0.8	
		Sk	iP		11 50 04.9		
		Um	iP		11 49 48.8		
			ipP		11 50 00.3		
		Ud	iP		11 50 20.3		
		De	iP		11 50 43.6		
		Kamchatka. h = 45 km (Ki,Um).					
"	8	Ki	iPn		12 47 30.8		
			iSn		12 48 16.9		
			iSgl		12 48 29.1		
		Um	iSgl		12 50 07.3		
		Northwest Russia. Explosion.					
"	8	Up	iP		14 56 23.1 C		
					micr	sec	
			P	Z'	0.7	1.0	
			Mx	E	3.5	20	
			Mx	N	7.5	17	
			Mx	Z	12	18	
		Ki	iP		14 55 34.3 C		
					micr	sec	
			P	Z'	0.3	1.0	
			Mx	E	5.9	20	
			Mx	N	5.5	18	
			Mx	Z	13	18	
		Sk	iP		14 56 08.8 C		
		Um	iP		14 55 56.2 C		
			iS		15 04 29		
		Ud	iP		14 56 28.3 C		
		De	iP		14 56 47.2 C		
		Kurile Islands (h = 30 km). m = 6.6, M = 6.0 (Up,Ki).					
"	8	Up	i(P)		20 44 39.8 D		
			i		20 44 43.3		
					micr	sec	
			P	Z'	0.1	0.9	
		(cont.)					
1971 Jan.	8	(cont.)					
		Ki	i(P)		20 44 59.3		
			i		20 45 01.8		
					micr	sec	
			P	Z'	0.1	0.5	
		Ud	i(P)		20 45 32.2		
"	8	Ud	iP		22 15 55.6		
		Dodecanese Islands (h = 70 km).					
"	9	Up	iP		00 00 41.5		
					micr	sec	
			Mx	E	1.7	18	
			Mx	N	2.4	19	
			Mx	Z	2.1	16	
		Ki	eP		00 00 59		
					micr	sec	
			Mx	E	2.1	11	
			Mx	N	0.8	13	
			Mx	Z	1.7	13	
		Sk	iP		00 01 09.5		
		Um	iP		00 00 44.2 C		
		Ud	iP		00 00 57.5		
		De	iP		00 00 52.7		
		West Pakistan (h = 5 km). M = 5.4 (Up,Ki).					
"	9	Ud	iP		06 51 45.3		
"	9	Up	iP		09 54 21.8 C		
			i		09 54 29.5		
					micr	sec	
			P	Z'	0.1	1.0	
		Um	iP		09 54 36.3		
"	9	Ud	iP		18 37 55.0 D		
		Hindu Kush (h = 240 km).					
"	10	Up	iSgl		04 41 08.0		
		Ki	iPn		04 36 51.6		
			iSn		04 37 48.9		
			iSgl		04 38 09.6		
		Sk	iSgl		04 40 38.3		
		Um	iSgl		04 39 05.8		
			iSg2		04 39 16.0		
		Ud	iSgl		04 41 42.2		
		Northwest Russia, 67.9°N, 33.7°E. Origin time = 04 35 35. Explosion.					
"	10	Ki	iP		07 14 07.2		
		Ud	iP		07 14 17.0		
		Philippine Islands (h = N).					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	10	Up	iP		07 31 20	C
			i		07 31 33.0	
			iPP		07 35 52	
			iPKKP		07 46 54.5	
			i		07 47 07.6	
					micr sec	
			P	Z'	0.1 1.3	
			Mx	E	540 21	
			Mx	N	310 21	
			Mx	Z	390 22	
		Ki	iP		07 31 01.6	
			i		07 31 09.8	
			i		07 34 31.2	
			iPP		07 35 28	
			iPKKP		07 47 27.9	
					micr sec	
			P	Z'	0.3 1.0	
			Mx	E	670 22	
			Mx	N	300 20	
			Mx	Z	1120 24	
		Sk	eP		07 31 29	
			iPKP		07 35 35.7	
			iPP		07 36 04.1	
			iPKKP		07 47 06.2	
		Um	eP		07 31 08	
			i		07 34 42.2	
			i(PP)		07 35 36.3	
			iPKKP		07 47 05.9	
		Ud	iP		07 31 33.5	
			i(PP)		07 36 03.5	
			iPKKP		07 46 54.0	
		De	iP		07 31 40.9	
			iPKKP		07 46 53.4	
		New Guinea (h = N).				
		m = 7.1, M = 8.2 (Up,Ki).				
		Double P and PKKP				
		recorded at Up,Ki and Up,				
		respectively.				
"	10	Ki	iP		15 35 07.4	
		Ud	iP		15 35 18.3	
		Afghanistan-USSR				
		(h = 200 km).				
"	10	Ki	iP		20 14 06.3	
		Ud	iP		20 13 49.3	
		Okhotsk Sea (h = 15 km).				
"	11	Ud	eP		02 06 33	
		Aleutian Islands				
		(h = 40 km).				
"	11	Up	iP		16 14 25.5	
		(cont.)				

1971 Jan.	11	(cont.)				
		Ki	eP		16 13 00	
			i		16 13 06.6	
		Sk	eP		16 13 52	
		Um	iP		16 13 44.2	D
		Svalbard.				
"	11	Up	iP		19 18 34.9	
		Ki	iP		19 18 11.9	
		Sk	eP		19 18 46	
		Um	iP		19 18 19.3	
			i		19 18 37.7	
		Ud	iP		19 18 44.4	C
		De	iP		19 18 52.9	
		Formosa (h = 20 km).				
"	11	Up	iPKP		19 49 54.4	D
					micr sec	
			PKP	Z'	0.1 1.0	
		Um	iSKP		19 52 32.5	
		Ud	iPKP		19 49 57.3	
		De	iPKP		19 50 07.3	D
		Tonga-Kermadec Islands				
		(h = 610 km).				
"	11	Up	iP		20 29 01.4	
		Ki	iP		20 29 08.9	
		Um	iP		20 28 58.2	
		Ud	iP		20 29 18.4	D
			i		20 30 02.4	
		De	iP		20 29 14.9	
		Afghanistan-USSR				
		(h = 160 km).				
"	11	Um	iP		21 11 29.8	
		Ud	iP		21 12 03.5	
		De	iP		21 12 14.2	C
		USSR-Mongolia (h = N).				
"	11	Up	ePKP		21 21 37	
		Um	iPKP		21 21 30.5	
		Ud	iPKP		21 21 37.4	
			iPP		21 24 29.3	
		De	iPKP		21 21 49.3	C
		Fiji Islands (h = 580 km).				
"	11	Up	eP		23 47 17	
		Um	iP		23 46 57.1	
		Ud	iP		23 47 31.5	
		De	iP		23 47 42.3	
		USSR-Mongolia (h = N).				
"	12	Up	iSgl		13 01 34.6	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan. 12 (cont.)

Ki	eSgl	13 04 29	
Sk	eSgl	13 03 32	
Um	iSgl	13 02 25.2	
Ud	iSgl	13 02 34.4	
De	iSgl	13 03 03.7	

Esthonia, 59.4°N, 23.6°E.
Origin time = 12 59 58.
Explosion.

" 12

Up	iP	13 04 06.5	

China.

" 12

Up	iP	14 55 40.5	
		micr	sec
	Mx	N 1.5	21
	Mx	Z 1.8	19
Ki	iP	14 55 16.2	
		micr	sec
	P	Z' 0.1	1.4
	Mx	N 1.1	20
	Mx	Z 3.3	20
Um	iP	14 55 25.6	
	iPS	15 07 50	
Ud	iP	14 55 47.8	
De	iP	14 55 56.2	

Caroline Islands (h = N).
M = 5.6 (Up,Ki).

" 13

Up	iPKP	13 29 15.0	
	i	13 29 20.5	
Sk	iPKP	13 29 09.2	C
Um	iPKP	13 29 02.9	
Ud	iPKP	13 29 16.7	
	i	13 29 23.6	
De	iPKP	13 29 24.6	
	i	13 29 37.3	

Kermadec Islands
(h = 360 km).

" 13

Up	iSgl	16 58 16.2	
Um	iSgl	17 00 14.8	
Ud	eSgl	16 58 58	
De	iPgl	16 57 15.7	
	iSgl	16 58 10.5	

Latvia, 55.9°N, 21.0°E.
Origin time = 16 56 04.
Explosion.

" 13

Up	iP	21 59 56.2	
		micr	sec
	Mx	N 0.7	13

(cont.)

1971 Jan. 13 (cont.)

Sk	eP	22 00 16	
Um	eP	22 00 04	
Ud	iP	22 00 13.6	D
	i	22 00 17.0	
De	iP	22 00 11.5	
	i	22 00 14.7	

Afghanistan-USSR
(h = 70 km).

" 14

Up	iP	04 31 26.2	
		micr	sec
	P	Z' 0.1	1.4
Sk	iP	04 31 09.1	
Um	iP	04 30 58.8	
Ud	iP	04 31 29.9	

Kamchatka (h = 45 km).

" 14

Up	iSgl	09 34 18.8	
Ki	eSgl	09 35 32	
Sk	iPgl	09 32 06.2	
	iSgl	09 32 53.6	
Um	iSgl	09 34 41.9	
Ud	iPgl	09 32 24.9	
	iSgl	09 33 20.7	
De	iSgl	09 34 43.4	

West coast of Norway, 62.1°N, 5.8°E.
Origin time = 09 31 08.

" 14

Sk	iP	11 28 52.0	
Ud	iP	11 28 45.8	

North Atlantic Ocean
(h = N).

" 14

Ki	iPn	13 11 58.0	
	iSn	13 12 45.7	
	iSgl	13 13 00.7	
Sk	e(Sgl)	13 15 56	

Northwest Russia.
Origin time = 13 10 54.
Explosion.

" 14

Ki	eSgl	18 08 43	
Sk	iSgl	18 08 47.4	
Um	iSgl	18 09 10.4	
Ud	iSgl	18 10 39.7	

Nordland, Norway, 66.5°N, 14.1°E.
Origin time = 18 07 13.
Explosion.

" 14

Up	iP	23 53 45.6	
	ipP	23 53 57.7	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan. 14 (cont.)

Up			micr	sec
	P	Z'	0.2	1.5
Ki	iP		23 52 51.6	C
	ipP		23 53 03.7	
			micr	sec
	P	Z'	0.1	1.0
Sk	iP		23 53 28.4	
	ipP		23 53 40.4	
Um	iP		23 53 17.5	
	ipP		23 53 29.9	
Ud	iP		23 53 48.9	
	ipP		23 54 00.7	
De	iP		23 54 10.9	
	ipP		23 54 23.3	

Kamchatka.
h = 45 km (Up,Ki,Sk,Um,Ud,De).
m = 6.0 (Up,Ki).

" 15

Ki	eP	00 00 05
	ipP	00 00 15.5
Sk	iP	00 00 41.1
Um	iP	00 00 30.1
	ipP	00 00 42.6
Ud	iP	00 01 02.1
	ipP	00 01 14.0
De	iP	00 01 22.7

Kamchatka.
h = 40 km (Ki,Um,Ud).

" 15 Sk iPKP 03 56 03.8
Kermadec Islands
(h = 40 km).

" 15

Up	iP		11 49 14.1	
			micr	sec
	P	Z'	0.1	0.9
Ud	iP		11 49 28.3	

" 15

Up	iSgl	12 52 00.4
Sk	iSgl	12 53 53.6
Um	iSgl	12 52 34.0
Ud	iSgl	12 53 04.2
De	iSgl	12 53 29.5

Esthonia,
59.5°N, 25.1°E.
Origin time = 12 50 00.
Explosion.

" 15

Sk	i(Sgl)	13 19 11.8
Um	i(Sgl)	13 17 25.9

" 15 Up iP 19 43 59.1
(cont.)

1971 Jan. 15 (cont.)

Ki	iP	19 43 32.3
Sk	iP	19 44 00.7
Um	iP	19 43 44.0
Ud	iP	19 44 08.0

" 15

Up	iPKP		19 52 32.0	C
	i		19 52 46.2	
			micr	sec
	PKP	Z'	0.1	1.0
Ki	ePKP		19 52 13	
Sk	iPKP		19 52 26.3	
Um	iPKP		19 52 21.7	
	i		19 52 33.9	
Ud	iPKP		19 52 34.1	
De	iPKP		19 52 43.3	

South of Kermadec Islands
(h = N).

" 15

Up	iPKP	22 05 21.0
Sk	iPKP	22 05 07.0
Um	iPKP	22 05 02.8
Ud	iPKP	22 05 14.8
	i	22 05 24.1

" 15

Up	iSgl	23 09 56.1
Ki	iSgl	23 08 02.9
Sk	eSgl	23 08 07
Um	iSgl	23 08 17.1
Ud	eSgl	23 09 57

Norway-Sweden border region,
66.2°N, 15.0°E.
Origin time = 23 06 37.
Explosion.

" 16

Ki	iP	09 11 31.6
Um	iP	09 11 01.3

Congo (h = 20 km).

" 16

Ki	iPgl	11 08 42.4
	iSgl	11 08 52.7
	iRg	11 08 56.9
Sk	eSgl	11 11 07
Um	i(Sgl)	11 10 09.3

Gällivare, Sweden.
Explosion.

" 16

Up	iPKP	12 58 33.6
	ipPKP	12 58 55.1
Ki	iPKP	12 58 48.2
	ipPKP	12 59 08.3
	iSKP	13 01 59.2

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	16	(cont.)				
		Ki			micr	sec
			PKP	Z'	0.1	1.0
			pPKP	Z'	0.2	1.3
			SKP	Z'	0.1	1.5
		Um	iPKP		12 58 41.8	C
			ipPKP		12 59 03.8	
		Ud	iPKP		12 58 32.0	
			ipPKP		12 58 53.5	
			iPP		12 59 57.3	
		South Sandwich Islands.				
		h = 80 km (Up,Ki,Um,Ud).				
"	16	Up	iP		14 51 03.5	
		Ud	iP		14 51 12.5	
"	16	Up	iP		15 14 53.9	C
		Ki	iP		15 16 00.3	
		Sk	iP		15 15 32.4	
		Ud	iP		15 15 02.4	
		De	iP		15 14 31.0	
		Dodecanese Islands				
		(h = 150 km).				
"	16	Ud	iPgl		23 25 23.8	
			iSgl		23 26 02.8	
"	17	Up	iP		05 23 37.7	
		Um	iP		05 24 18.2	
		Ud	iP		05 23 48.0	
		Ionian Islands.				
"	18	Up	eP		00 17 13	
					micr	sec
			Mx	E	2.0	21
			Mx	N	2.3	21
			Mx	Z	1.9	20
		Ki	iP		00 16 51.7	
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	1.2	20
			Mx	N	1.2	18
			Mx	Z	2.0	19
		Sk	eP		00 17 12	
			ipP		00 17 21.1	
		Um	iP		00 16 56.1	
			ipP		00 17 06.1	
		Ud	iP		00 17 16.3	
		De	iP		00 17 28.0	
		Molucca Passage.				
		h = 35 km (Sk,Um).				
		M = 5.7 (Up,Ki).				

1971 Jan.	18	Up	iP		05 13 11.9	C
			iPcP		05 13 33.1	
					micr	sec
			P	Z'	0.3	1.5
		Ki	iP		05 12 28.5	
			i		05 12 45.8	
					micr	sec
			P	Z'	0.1	1.3
			Mx	E	1.2	17
			Mx	N	1.3	19
			Mx	Z	2.3	17
		Sk	iP		05 13 15.1	
		Um	iP		05 12 47.1	
			ipP		05 12 58.1	
		Ud	iP		05 13 18.1	C
			iPcP		05 13 35.0	
		De	iP		05 13 36.3	
		Japan (h = 45 km).				
		m = 6.1 (Up,Ki).				
"	18	Up	iP		06 06 00.6	C
					micr	sec
			P	Z'	0.1	1.4
		Ki	iP		06 05 39.6	
			i		06 05 45.4	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		06 06 05.4	
		Um	iP		06 05 45.4	
			i		06 05 50.7	
		Ud	iP		06 06 03.4	
			i		06 06 09.1	
		Molucca Passage (h = N).				
		m = 6.3 (Up,Ki).				
"	18	Ki	iP		07 03 01.3	
		Ud	iP		07 03 53.8	
		De	iP		07 04 17.2	
		Unimak Island (h = 60 km).				
"	18	Up	iP		10 40 45.7	
		Ki	eP		10 42 07	
		Sk	iP		10 41 22.6	
		Um	iP		10 41 26.3	
			ipP		10 41 35.9	
		Ud	iP		10 40 50.2	
			i		10 40 54.4	
		De	iP		10 40 15.7	
		Ionian Sea.				
		h = 35 km (Um).				
"	18	Ki	iSgl		13 04 35	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	18	(cont.)					
		Um	iSgl		13 02 38.2		
		Ud	eSgl		13 03 08		
		Esthonia.					
		Explosion.					
"	18	Ud	iP		16 14 34.9		
			i		16 14 40.4		
"	18	Up	eP		21 12 36		
		Ki	iP		21 12 14.7	C	
					micr	sec	
			P	Z'	0.1	1.0	
		Um	iP		21 12 19.5	C	
		Ud	eP		21 12 38		
		Banda Sea (h = 120 km).					
"	19	Up	iP		03 29 37.1		
			iS		03 40 07		
					micr	sec	
			P	Z'	0.2	1.5	
			Mx	E	4.1	18	
			Mx	N	8.6	20	
			Mx	Z	9.0	19	
		Ki	e(P)		03 29 08		
			iP		03 29 18.2		
					micr	sec	
			P	Z'	0.2	1.5	
			Mx	E	7.0	16	
			Mx	N	6.4	19	
			Mx	Z	7.0	17	
		Sk	iP		03 29 16.9		
		Um	e(P)		03 29 19		
			i		03 29 22.3		
			iP		03 29 29.1		
			iS		03 39 48		
		Ud	eP		03 29 27		
			i		03 29 36.2		
		De	iP		03 29 40.2		
		Gulf of California					
		(h = N).					
		m = 6.1, M = 6.3 (Up,Ki).					
"	19	Um	iP		03 46 39.7		
		Gulf of California					
		(h = N).					
"	19	Up	iP		23 39 26.1		
					micr	sec	
			Mx	E	0.8	14	
			Mx	N	2.5	20	
			Mx	Z	4.1	20	
		Ki	iP		23 40 34.0	D	
		(cont.)					

1971 Jan.	19	(cont.)					
		Ki			micr	sec	
			Mx	E	1.6	14	
			Mx	N	1.7	17	
			Mx	Z	2.1	16	
		Sk	iP		23 40 03.9	D	
		Um	iP		23 39 58.7		
		Ud	iP		23 39 32.5	D	
		De	iP		23 38 59.6		
			ipP		23 39 08.1		
			i		23 39 14.4		
		Crete.					
		h = 35 km (De).					
		M = 4.9 (Up,Ki).					
"	20	Up	iPKP		01 37 12.1		
		Sk	iPKP		01 37 01.8		
		Um	iPKP		01 36 56.4		
			i		01 36 59.8		
		Ud	iPKP		01 37 09.7		
"	20	Ki	iP		02 16 08,3		
		Sk	iP		02 16 37.3		
		Um	iP		02 16 38.6		
		Alaska (h = 130 km).					
"	20	Up	iP		04 57 37.9	C	
			i		04 57 58.7		
					micr	sec	
			P	Z'	0.3	1.1	
			Mx	E	1.4	18	
			Mx	Z	2.6	19	
		Ki	iP		04 57 36.5	C	
					micr	sec	
			P	Z'	0.2	1.2	
		Sk	iP		04 57 23.4	C	
		Um	iP		04 57 40.7	C	
			ipP		04 57 46.9		
			i		04 58 01.2		
		Ud	iP		04 57 27.8	C	
			ipP		04 57 33.7		
		De	iP		04 57 31.0	C	
			ipP		04 57 37.2		
		Panama.					
		h = 25 km (Um,Ud,De).					
		m = 6.2 (Up,Ki).					
"	20	Ki	iPn		12 37 30.0		
			iSn		12 38 16.2		
			iSgl		12 38 29.9		
		Northwest Russia.					
		Origin time = 12 36 29.					
		Explosion.					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	20	Up	iP		21 38 18.6	D
					micr sec	
			P	Z'	0.1 1.1	
		Ki	iP		21 39 01.3	
					micr sec	
			P	Z'	0.2 1.0	
		Sk	iP		21 38 56.2	
			iPP		21 40 26.4	
		Um	iP		21 38 34.9	
		Ud	iP		21 38 34.6	
		De	iP		21 38 16.0	
		Iran-Iraq (h = 60 km).				
		m = 5.8 (Up,Ki).				
"	21	Up	iPKP		03 20 19.8	
		Ud	iPKP		03 20 22.1	
		De	iPKP		03 20 32.3	
		Tonga-Kermadec Islands				
		(h = 490 km).				
"	21	De	iPKP		06 36 14.2	
		New Guinea (h = 60 km).				
"	21	Ki	iSgl		08 21 16.4	
		Sk	iSgl		08 21 22.5	
		Um	iSgl		08 21 31.6	
		Norway-Sweden border region,				
		66.2°N, 15.1°E.				
		Origin time = 08 19 52.				
		Explosion.				
"	21	Up	i(PKP)		12 42 30.0	
			iPKP		12 42 32.7	
		Ki	ePKP		12 42 24	
		Um	iPKP		12 42 24.9	
		Ud	i(PKP)		12 42 31.1	
			iPKP		12 42 34.2	
		De	iPKP		12 42 43.7	C
		Fiji Islands (h = 190 km).				
"	21	Sk	iSgl		13 08 33.5	
		Ud	iSgl		13 07 48.2	
		De	iSgl		13 07 58.6	
		North Sea.				
"	21	Ud	iP		13 36 42.8	
		De	iP		13 36 40.1	
		Peru-Bolivia (h = 180 km).				
"	21	Ud	iP		13 48 14.3	
"	21	Up	eP		17 33 20	
			i(PKP)		17 37 25.7	
			iPP		17 37 40.9	
		(cont.)				

1971 Jan.	21	(cont.)				
		Up			micr sec	
			PP	Z'	0.1 1.2	
		Ki	iP		17 33 07.1	
					micr sec	
			P	Z'	0.1 1.1	
		Um	iP		17 33 11.6	
		Ud	eP		17 33 29	
			iPKP		17 37 29.6	
			iPP		17 38 01.8	
		De	iP		17 33 31.0	
		Flores Sea (h = 200 km).				
		m = 6.4 (Up,Ki).				
"	21	Ki	iP		21 44 00.1	
"	21	Up	iP		21 44 06.3	
			ipP		21 44 13.8	
		Sk	iP		21 44 19.1	
		Um	iP		21 44 31.7	
			ipP		21 44 39.1	
		Ud	iP		21 44 00.7	
			ipP		21 44 08.3	
		De	iP		21 43 35.0	
		North of Ascension Island.				
		h = 30 km (Up,Um,Ud).				
"	21	Up	iP		22 15 51.4	
		Ki	iP		22 14 29.6	
					micr sec	
			P	Z'	0.1 0.9	
		Ud	iP		22 15 45.5	
		Probably Svalbard region.				
"	22	De	iPKP		02 54 27.2	
		Fiji Islands (h = 600 km).				
"	22	Ud	iPKP		04 15 16.7	
		De	iPKP		04 15 29.0	
		Fiji Islands (h = 570 km).				
"	22	Um	iP		10 38 17.4	
		Turkey.				
"	23	De	iPKP		07 56 14.9	
		Solomon Islands (h = 70 km).				
"	23	Ki	iPgl		09 34 06.8	
			iSgl		09 34 28.8	
		Sk	eSgl		09 36 25	
		Um	iSgl		09 36 09.6	
		North Norway.				
		Origin time = 09 33 39.				
		Explosion?				
"	23	Ud	iPgl		12 25 41.2	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	23	(cont.)				
		Ud	iSgl		12 26 12.8	
		De	iPgl		12 25 31.2	
			iSgl		12 25 54.8	
		South Sweden.				
		Origin time = 12 25 00.				
"	23	Ki	iPn		12 50 53.3	
			iSn		12 51 41.4	
			iSgl		12 51 58.7	
		Um	iSgl		12 53 26.9	
		Northwest Russia.				
		Origin time = 12 49 51.				
		Explosion.				
"	24	Up	iP		04 43 01.3	
		Ki	iP		04 42 51.2	
		Sk	iP		04 43 15.6	
		Um	iP		04 42 51.7	
		Ud	iP		04 43 14.9	
		Tibet.				
"	24	Up	eSgl		05 48 36	
		Ki	iPn		05 44 24.3	
			iSn		05 45 22.3	
			iSgl		05 45 43.6	
		Sk	iSgl		05 48 10.1	
		Um	iSn		05 46 01.8	
			iSgl		05 46 36.4	
		Ud	iSgl		05 49 04.4	
		Northwest Russia,				
		67.7°N, 33.8°E.				
		Origin time = 05 43 07.				
		Explosion.				
"	24	De	iP		12 04 21.8	
"	24	Up			micr	sec
			Mx	E	1.6	17
			Mx	N	3.7	19
			Mx	Z	5.9	19
		Ki	iP		13 38 39.8	
					micr	sec
			Mx	E	2.1	17
			Mx	N	1.6	18
			Mx	Z	3.9	18
		Ud	iP		13 39 32.8	
		Kurile Islands (h = 35 km).				
		M = 5.6 (Up,Ki).				
"	24	Ki	ePKP		18 59 36	
		Um	iPKP		18 59 37.1	
		Ud	iPKP		18 59 45.0	
		De	iPKP		18 59 55.6	
		Fiji Islands (h = 560 km).				

1971 Jan.	24	Ki	iP		23 26 06.9	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		23 26 34.1	
		Um	iP		23 26 34.9	
		Ud	iP		23 26 59.3	
		De	iP		23 27 20.8	
		Kodiak Island (h = 40 km).				
"	25	Up			micr	sec
			Mx	E	1.5	20
		Ki	iP		00 21 15.8	
		Sk	iP		00 21 52.8	
		Ud	iP		00 22 14.1	
		Kamchatka (h = N).				
"	25	Up			micr	sec
			Mx	E	1.9	20
			Mx	N	2.6	21
			Mx	Z	5.9	19
		Ki	iPKP		00 37 04.5	
			iX		00 37 11.2	
			iPKKP		00 47 51.9	
					micr	sec
			Mx	E	2.4	20
			Mx	N	1.5	19
			Mx	Z	4.4	19
		Sk	iPKP		00 37 13.2	
			iX		00 37 20.2	
		Um	iPKP		00 37 07.9	
			iX		00 37 14.7	
		Ud	iPKP		00 37 15.9	
		De	iPKP		00 37 21.2	
			iX		00 37 27.8	
		D'Entrecasteaux Islands				
		(h = 40 km).				
		M = 6.0 (Up,Ki).				
		The phase X, interpreted				
		as pPKP, gives a focal				
		depth of 25 km (Ki,Sk,				
		Um,De).				
"	25	Ki	eP		10 56 09	
"	25	Sk	iP		12 39 41.0	
		Ud	i(P)		12 39 19.0	
		Ionian Sea.				
"	25	Ki	iP		14 24 26.2	
		Ud	iP		14 26 10.4	
		Svalbard.				
		Solution checked with				
		readings of Finnish				
		stations (Kjn,Sod,Kev).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	25	Ki	iP		14 55 52.9		
		Ud	iP		14 57 30.1		
		Svalbard.					
		Solution checked with readings of Finnish stations (Nur,Kjn,Sod, Kev).					
"	25	Up	iP		16 19 13.2		
			i		16 19 15.5		
			iS		16 28 09		
			iP'P'		16 47 30.7		
					micr	sec	
			P	Z'	0.1	0.5	
			Mx	E	12	20	
			Mx	N	13	21	
			Mx	Z	17	20	
		Ki	iP		16 18 20.3		
			i		16 18 36.4		
			iPcS		16 23 02.4		
			iS		16 26 30		
			iP'P'		16 47 45.0		
					micr	sec	
			P	Z'	0.1	0.6	
			Mx	E	17	21	
			Mx	N	11	17	
			Mx	Z	19	17	
		Sk	iP		16 18 52.0		
			i		16 18 54.2		
			iPcP		16 19 25.1		
			iPcS		16 23 25.2		
			iP'P'		16 47 31.6		
		Um	iP		16 18 46.2		
			iPcP		16 19 21.7		
			iS		16 27 18		
			iP'P'		16 47 32.3		
		Ud	iP		16 19 12.8		
			i		16 19 30.5		
			iPcP		16 19 40.2		
		De	iP		16 19 36.0		
		Aleutian Islands (h = 40 km).					
		m = 6.2, M = 6.4 (Up,Ki).					
"	25	Up	iP		16 32 50.5		
		Ki	iP		16 31 07.1		
		Sk	iP		16 32 01.1		
		Um	iP		16 32 00.8		
		Ud	iP		16 32 44.7		
		Svalbard (h = N).					
"	25	Ki	iP		17 06 39.6		
		Yellow Sea.					

1971 Jan.	25	Ki	iP	18 58 24.2
		Sk	eP	18 59 16
		Svalbard.		
		Cf remark on January 25, 14 55.		
"	25	Ki	iP	21 35 42.0
		Um	iP	21 36 35.4
		Ud	iP	21 37 19.9
		Svalbard.		
		Cf remark on January 25, 14 55.		
"	25	Ud	iP	23 02 22.9
		Turkestan.		
"	26	Ki	iP	01 04 09.1
		Um	iP	01 05 02.3
		Ud	iP	01 05 46.2
		Svalbard (h = N).		
"	26	Ki	iP	01 54 47.4
		Ud	iP	01 56 24.7
		Svalbard.		
		Cf remark on January 25, 14 24.		
"	26	Up	iP	01 56 39.4
		Ki	iP	01 56 40.4
		Um	iP	01 56 37.3
		De	iP	01 56 48.4
		Nicobar Islands (h = 120 km).		
"	26	Ki	iP	04 04 13.6
		Svalbard.		
		Cf remark on January 25, 14 24.		
"	26	Ki	iP	04 10 33.3
		Um	iP	04 11 25.8
		Ud	iP	04 12 10.7
		Svalbard.		
		Cf remark on January 25, 14 55.		
"	26	Ki	eP	04 51 43
		Um	iP	04 52 38.3
		Ud	iP	04 53 23.0
		Svalbard.		
		Cf remark on January 25, 14 55.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	26	Up	eP	06 28 10	
		Ki	iP	06 26 26.6	
			iX	06 26 29.9	
				micr sec	
			P Z'	0.2 1.2	
		Sk	eP	06 27 19	
		Um	iP	06 27 19.3	
			iX	06 27 22.3	
		Ud	eP	06 28 06	
			iX	06 28 08.1	
		De	eP	06 28 49	
		Svalbard (h = N). The phase X arrives in average about 3 sec after P. It can be interpreted either as P for a second event from the same area or as pP for a focal depth of 15 km (Ki,Um).			
"	26	Ki	iP	08 10 57.4	
		Um	iP	08 11 52.7	
			ipP	08 11 59.7	
		Ud	iP	08 12 37.7	
		Svalbard. h = 35 km (Um).			
"	26	Ki	eSgl	13 50 54	
		Sk	iSgl	13 50 15.3	
		Um	iSgl	13 48 57.2	
		Ud	iSgl	13 49 27.0	
		De	eSgl	13 49 51	
		Esthonia, 59.5°N, 25.1°E. Origin time = 13 46 23. Explosion.			
"	26	Ki	iP	15 23 36.0	
		Um	iP	15 24 28.8	
		Ud	iP	15 25 14.0	
		Svalbard. Cf remark on January 25, 14 24.			
"	26	Ki	eP	18 49 25	
		Sk	eP	18 50 17	
		Um	iP	18 50 19.7	
		Ud	iP	18 51 02.7	
		Svalbard. Solution checked with readings of Finnish stations (Kjn,Sod).			
1971 Jan.	26	Up	iP	19 11 37.8	
		Ki	iP	19 11 27.7	
		Sk	iP	19 11 23.4	
		Um	iP	19 11 34.3	
		Mexico (h = 90 km).			
"	26	Up	iP	19 43 02.9	
				micr sec	
			P Z'	0.1 0.7	
			Mx E	1.6 17	
			Mx N	2.6 21	
			Mx Z	4.5 22	
		Ki	iP	19 42 09.8	
				micr sec	
			Mx E	1.1 16	
			Mx N	1.2 18	
			Mx Z	2.9 19	
		Sk	iP	19 42 41.3	
		Um	iP	19 42 36.3	
			i	19 42 39.1	
		Ud	iP	19 43 03.1	
		De	iP	19 43 25.3	
			i	19 43 27.8	
		Aleutian Islands (h = 35 km). M = 5.5 (Up,Ki).			
"	26	Up	iP	22 03 21.5	
		Ki	iP	22 02 28.6	
		Ud	iP	22 03 21.7	
		Aleutian Islands (h = 60 km).			
"	26	Up	iP	22 53 12.3	
			ipP	22 53 21.0	
				micr sec	
			P Z'	0.1 0.8	
		Ki	iP	22 54 02.9	
				micr sec	
			Mx E	1.0 15	
			Mx N	0.6 16	
		Sk	eP	22 53 54	
			ipP	22 54 02.7	
		Um	iP	22 53 31.5	
		Ud	iP	22 53 28.6	
			i	22 53 33.2	
			ipP	22 53 37.4	
		De	iP	22 53 06.0	
			i	22 53 09.0	
		Caucasus. h = 30 km (Up,Sk,Ud).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan.	27	Ki	iP		03 09 23.5	
		Ud	iP		03 10 08.8	
"	27	Ki	eP		05 34 30	
		Ud	iP		05 36 10.2	
		Svalbard.				
		Cf remark on January 26, 18 49.				
"	27	Ud	iPKP		12 57 02.6	
		De	iPKP		12 57 12.9	
		Tonga-Kermadec Islands (h = 530 km).				
"	27	Um	iPP		13 47 40.0	
		New Guinea (h = N).				
"	27	Up	iP		16 10 14.0	
		Sk	iP		16 10 56.1	
		Um	iP		16 11 01.8	
		Ud	iP		16 10 20.1	
			ipP		16 10 27.6	
		De	eP		16 09 43	
		Greece-Albania.				
		h = 25 km (Ud).				
"	27	Up	iP		16 19 14.4	
		Ki	iP		16 18 58.2	
		Sk	iP		16 19 24.4	
		Um	iP		16 19 03.3	
			i		16 19 32.2	
		Ud	iP		16 19 21.8	
		De	eP		16 19 36.0	
		Molucca Passage (h = N).				
"	27	Ki	eP		20 47 59	
			ipP		20 48 05.3	
					micr	sec
			pP	Z'	0.1	0.7
			Mx	E	1.4	19
			Mx	N	1.7	20
			Mx	Z	2.7	20
		Sk	eP		20 48 50	
			ipP		20 48 57.2	
		Um	iP		20 48 52.1	
			ipP		20 48 58.7	
		Ud	iP		20 49 31.5	
			ipP		20 49 38.1	
		De	iP		20 50 18.9	
		Svalbard.				
		h = 30 km (Um,Ud).				
"	27	Up	iP		22 40 39.6	C
			iPP		22 43 53.3	
			iS		22 50 51.2	
		(cont.)				

1971 Jan.	27	(cont.)				
		Up			micr	sec
			P	Z'	0.1	0.6
		Ki	iP		22 40 39.2	C
					micr	sec
			P	Z'	0.1	0.7
		Sk	iP		22 40 53.7	C
		Um	iP		22 40 36.3	C
		Ud	iP		22 40 49.8	C
			iPP		22 43 59.4	
			iS		22 51 13.4	
		De	iP		22 40 48.5	C
			i		22 40 58.3	
		Sumatra (h = 120 km).				
		m = 5.9 (Up,Ki).				
"	28	Up	iSKP		00 10 29.1	
		Ki	iPKP		00 07 02.3	
			ipPKP		00 07 36.3	
		Sk	ePKP		00 07 14	
			ipPKP		00 07 47.0	
		Um	iPKP		00 07 09.0	
			ipPKP		00 07 42.6	
			iSKKP		00 20 10.1	
		Ud	iSKP		00 10 34.9	
		De	iPKP		00 07 25.7	
			eSKP		00 10 49	
		New Hebrides Islands.				
		h = 120 km (Ki,Sk,Um).				
"	28	Ki	iP		00 11 04.2	
		Um	iP		00 11 08.8	
		Banda Sea (h = N).				
"	28	Um	iP		01 48 33.6	
		Ud	iP		01 48 34.5	
		Jan Mayen (h = N).				
"	28	Sk	eSgl		03 37 48	
		Um	iSgl		03 39 41.2	
		Ud	iSgl		03 38 20.8	
		West coast of Norway.				
"	28	Sk	iP		04 37 51.6	
		Um	iP		04 37 55.6	
		Greece-Albania.				
"	28	Ki	iP		06 17 41.7	
		Sk	eP		06 17 43	
		Um	iP		06 17 20.9	
		Ud	iP		06 17 27.4	
		De	iP		06 17 12.6	
		Iran (h = 35 km).				
"	28	Ki	iPKP		06 46 59.0	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Jan. 29 (cont.)

Up			micr	sec
	P	Z'	3.5	1.0
	Mx	E	5.6	15
	Mx	N	13	18
	Mx	Z	16	21
Ki	iP		22 06 47.1	D
	ipP		22 08 33.5	
	iS		22 13 49.8	
	i(P'P')		22 36 25.9	
			micr	sec
	P	Z'	2.6	0.8
	Mx	E	8.1	13
	Mx	N	5.4	14
	Mx	Z	8.6	15
Sk	iP		22 07 24.8	D
	ipP		22 09 11.1	
	iScP		22 11 11.2	
	iS		22 15 01.0	
	iSP		22 15 12.9	
Um	iP		22 07 10.3	D
	ipP		22 08 58.2	
	iScP		22 10 59.0	
	iS		22 14 36.1	
	isS		22 17 41	
	i(P'P')		22 36 14.9	
Ud	iP		22 07 41.7	D
	ipP		22 09 32.1	
	iS		22 15 34.1	
	i(P'P')		22 35 55.6	
De	iP		22 08 01.5	D
	ipP		22 09 51.4	
	iS		22 16 11.0	

Okhotsk Sea.
h = 560 km (Up,Ki,Sk,Um,Ud,De).
m = 6.7, M = 6.2 (Up,Ki).
The phase taken as (P'P') arrives in average about 35 sec too early to be P'P' in comparison with Gutenberg-Richter tables.

" 29	Up	iP	22 25 40.3	D
			micr	sec
		P Z'	0.3	1.1
	Ki	iP	22 24 50.4	
			micr	sec
		P Z'	0.1	0.6
	Sk	iP	22 25 27.2	
	Um	iP	22 25 13.5	D
	Ud	iP	22 25 45.4	D
	De	iP	22 26 04.9	D

Okhotsk Sea (h = 510 km).
m = 5.5 (Up,Ki).

1971

Jan. 29	Ki	iP	23 07 06.1
	Um	iP	23 07 29.4
	Ud	iP	23 08 00.7

Okhotsk Sea (h = 520 km).

" 29	Ud	ePKP	23 56 57
	De	iPKP	23 57 04.6

Tonga-Kermadec Islands (h = 20 km).

" 30	Sk	iP	00 35 44.9
	Ud	iP	00 35 10.3

Greece.

" 30	Up	iPKP	02 37 50.6
	Ud	iPKP	02 37 51.8
	De	iPKP	02 38 03.1

Tonga-Kermadec Islands (h = 260 km).

" 30	Um	i(PcP)	07 43 17.9

Aleutian Islands (h = 220 km).

" 30	Up	eP	08 35 15
	Um	iP	08 35 37.8
" 30	Um	iP	08 53 05.5
" 30	Um	iP	11 27 30.2

Japan (h = 35 km).

" 30	Um	iPKP	17 44 29.0
		i	17 44 40.5
	Ud	iPKP	17 44 39.5

South of Kermadec Islands (h = 15 km).

" 30	Up	iPKP	18 48 58.4
	De	iPKP	18 49 09.5

Tonga-Kermadec Islands (h = 50 km).

" 30	Up	iP	20 24 30.8
	Ki	iP	20 24 34.4
	Sk	iP	20 24 53.2
	Um	iP	20 24 26.4
	Ud	iP	20 24 45.9

Tibet-India (h = 60 km).

" 31	Up	iP	04 37 27.4
	Ki	iP	04 35 44.8 D
	Um	iP	04 36 37.0
		ipP	04 36 43.7

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
Jan.	31	(cont.)			
		Ud	iP	04 37 28.4	D
		De	i(P)	04 38 06.9	
		Svalbard.			
		h = 35 km (Um).			
"	31	Um	iSKP	17 15 33.9	
		Ud	iPKP	17 12 53.7	
		Tonga-Kermadec Islands			
		(h = 510 km).			
"	31	Ud	iP	19 09 29.3	
			i	19 09 42.0	
"	31	Um	iPKP	20 52 19.6	C
		Ud	iPKP	20 52 31.2	
"	31	Ud	iP	23 18 16.3	
		De	iP	23 17 36.2	
		Ionian Sea.			

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October 1, 1973

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SWEDEN

S E I S M O L O G I C A L B U L L E T I N

U P P S A L A, K I R U N A, S K A L S T U G A N, U M E Å,

U D D E H O L M and D E L A R Y

Uppsala	(Up):	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(Ki):	67°50.4'N,	20°25.0'E;	h = 390 m
Skalstugan	(Sk):	63°34.8'N,	12°16.8'E;	h = 580 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m
Delary	(De):	56°28.2'N,	13°52.2'E;	h = 150 m

F E B R U A R Y 1 - 28, 1971

1971 Feb.	1	Up	iP		05 30 22.5	
					micr	sec
			P	Z'	0.2	1.1
			Mx	E	3.4	18
			Mx	N	3.5	18
			Mx	Z	3.6	18
		Ki	iP		05 29 29.3	
			i		05 29 47.7	
					micr	sec
			Mx	E	3.0	17
			Mx	N	3.5	18
			Mx	Z	5.2	18
		Sk	iP		05 30 04.9	
		Um	iP		05 29 47.9	
			i(pP)		05 29 56.3	
		Ud	iP		05 30 22.0	
		De	iP		05 30 45.5	
			i		05 30 58.7	
		Aleutian Islands (h = 40 km). M = 5.7 (Up,Ki).				
"	1	Up	iPKP		06 34 19.3	C
		Ki	iPKP		06 34 08.3	
		Sk	iPKP		06 34 13.6	
		Um	ePKP		06 34 07	
			ipPKP		06 34 16.1	
		Ud	iPKP		06 34 20.7	C
		De	iPKP		06 34 31.5	C
			ipPKP		06 34 42.6	
		Tonga-Kermadec Islands. h = 40 km (Um,De).				
"	1	Up	eP		07 54 57	
			i		07 55 08.1	
		Ki	iP		07 56 16.2	C
		(cont.)				
1971 Feb.	1	(cont.)				
		Sk	iP		07 55 33.3	
		Um	eP		07 55 38	
			i		07 55 41.7	
		Ud	iP		07 55 01.5	
		Sicily (h = N).				
"	1	Um	e(PP)		12 15 18	
		New Guinea (h = 70 km).				
"	1	Ki	iPKP		13 07 40.7	
		South Sandwich Islands (h = 15 km).				
"	1	Ki	iP		14 29 29.4	
		Um	eP		14 29 34	
			i		14 29 47.8	
		Ud	eP		14 30 03	
		Sinkiang (h = N).				
"	1	Ki	iSgl		16 17 48.1	
		Sk	iSgl		16 17 52.5	
		Um	iSgl		16 18 17.5	
		Nordland, Norway, 66.6°N, 13.8°E. Origin time = 16 16 18. Explosion.				
"	2	Up	eP		00 59 58	
			iPcP		01 00 15.6	
		Um	iP		00 59 26.5	
		Ud	iP		00 59 53.8	
		De	iP		01 00 16.1	
		Aleutian Islands (h = 40 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
Feb.	2	Um	iP		04 40 26.4	
		Japan (h = 50 km).				
"	2	Ud	iP		05 29 45.7	
"	2	Up	iP		08 10 12.2	C
			ipP		08 10 25.3	
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		08 10 08.4	C
			ipP		08 10 21.5	
					micr	sec
			P	Z'	0.2	1.1
		Sk	iP		08 10 29.2	C
			ipP		08 10 42.1	
		Um	iP		08 10 05.8	C
			ipP		08 10 18.9	
		Ud	iP		08 10 25.5	C
			ipP		08 10 38.7	
		De	iP		08 10 26.5	C
			ipP		08 10 39.6	
		India-East Pakistan.				
		h = 50 km (Up,Ki,Sk,Um,Ud,De).				
		m = 6.1 (Up,Ki).				
"	2	Um	iPKP		15 37 31.8	
		Ud	iPKP		15 37 43.0	
		De	iPKP		15 37 47.3	
		Tonga Islands (h = 90 km).				
"	2	Ki	iSgl		19 27 04.4	
		Sk	iSgl		19 27 08.0	
		Um	iSgl		19 27 32.8	
		Nordland, Norway,				
		66.6°N, 13.6°E.				
		Origin time = 19 25 31.				
		Explosion.				
"	2	Ki	i(Sgl)		20 48 23.0	
		Sk	i(Sgl)		20 48 35.6	
"	3	Um	iP		04 58 56.0	
		Sicily (h = N).				
"	3	Sk	iP		18 33 49.8	
		Um	iP		18 33 37.3	
		Ud	iP		18 33 06.5	
		Greece (h = 50 km).				
"	3	Up	iP		20 01 15.3	D
					micr	sec
			P	Z'	0.3	1.3
		(cont.)				

1971						
Feb.	3	(cont.)				
		Ki	iP		20 00 46.2	
			i		20 00 50.2	
					micr	sec
			P	Z'	0.1	0.7
		Sk	iP		20 01 13.2	
		Um	iP		20 00 59.0	D
		Ud	iP		20 01 21.2	
		De	iP		20 01 34.9	D
		Mariana Islands (h = 40 km).				
		m = 6.4 (Up,Ki).				
"	4	Up	iP		02 28 11.2	
		Ki	iP		02 27 39.5	
		Um	iP		02 27 51.4	
		Mariana Islands (h = 45 km).				
"	4	Ud	i(Sgl)		10 56 30.4	
		De	i(Sgl)		10 56 50.2	
"	4	Up	iPKP		13 59 48.6	
		Ud	iPKP		13 59 49.7	
		De	iPKP		14 00 00.2	
		Tonga-Kermadec Islands				
		(h = 90 km).				
"	4	Up	eP		14 20 28	
		Sicily (h = N).				
"	4	Up	iP		15 46 01.2	D
			iPP		15 49 19.4	
			iS		15 56 20	
					micr	sec
			P	Z'	4.2	1.5
			Mx	E	86	31
			Mx	N	140	30
			Mx	Z	180	31
		Ki	iP		15 46 02.0	D
					micr	sec
			P	Z'	8.0	2.0
			Mx	E	78	14
			Mx	N	60	14
			Mx	Z	93	20
		Sk	iP		15 46 17.5	D
		Um	iP		15 45 58.2	D
		Ud	iP		15 46 11.6	D
		De	iP		15 46 10.0	D
		Sumatra (h = N).				
		m = 7.5, M = 7.3 (Up,Ki).				
"	5	Ud	iPKP		02 24 09.3	
		De	iPKP		02 24 20.1	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	5	Up	iP		07 44 10.5	D
			ipP		07 44 16.4	
					micr sec	
			pP	Z'	0.1 0.7	
		Ki	eP		07 43 35.7	
		Um	iP		07 43 49.2	
		Ud	iP		07 44 04.6	
			ipP		07 44 10.6	
		De	iP		07 44 31.3	
		Queen Charlotte Islands.				
		h = 20 km (Up,Ud).				
"	5	Up	iP		09 21 10.6	
					micr sec	
			P	Z'	0.1 0.8	
		Ki	iP		09 20 59.3	
		Sk	iP		09 21 25.3	
		Um	iP		09 21 00.3	
		Ud	iP		09 21 23.2	
		De	iP		09 21 26.6	
		Yunnan, China (h = N).				
"	5	Um	iPKP		21 11 08.9	
		Ud	ePP		21 11 40	
		Chile (h = 60 km).				
"	6	Ki	ePKP		04 09 29	
		Um	iPKP		04 09 24.8	
		Easter Island Cordillera				
		(h = N).				
"	6	Up	eP		08 31 21	
		Ki	iP		08 31 04.4	
		Um	iP		08 31 09.7	D
		Ud	iP		08 31 28.7	
		Molucca Passage (h = N).				
"	6	Up	iP		10 53 56.9	C
					micr sec	
			P	Z'	0.8 1.1	
		Ki	iP		10 53 08.1	C
					micr sec	
			P	Z'	0.2 1.0	
		Um	iP		10 53 30.9	C
		Ud	iP		10 54 01.8	C
		De	iP		10 54 21.1	
		Kurile Islands (h = 60 km).				
		m = 6.6 (Up,Ki).				
"	6	Ki	iP		16 41 41.2	
		Um	iP		16 41 33.3	
		Ud	iP		16 41 53.7	
		Tadzhik-Sinkiang (h = 170 km).				
1971 Feb.	6	Um	iP		17 00 27.8	
		Japan (h = 50 km).				
"	6	Um	iP		18 14 02.3	
		Ud	eP		18 13 24	
		Italy (h = N).				
"	6	Up	iPKP		18 26 33.8	
		Um	ePKP		18 26 26	
		Ud	iPKP		18 26 35.2	
		De	iPKP		18 26 45.1	
			iPKP2		18 27 03.7	
		Kermadec Islands (h = 130 km).				
"	6	Um	eP		19 23 20	
		Ud	iP		19 23 41.4	
"	6	Up	iP		22 20 17.1	C
			ipP		22 20 45.8	
		Ki	iP		22 20 27.5	C
			iPP		22 22 13.4	
		Um	iP		22 20 16.4	
		Ud	iP		22 20 33.3	C
			iPP		22 22 14.4	
		De	iP		22 20 30.2	
		Hindu Kush.				
		h = 110 km (Up).				
"	6	Ki	iP		22 31 14.7	
		Ud	iP		22 30 17.9	
"	7	Up	iP		02 40 26.4	
			i		02 40 33.1	
			ipP		02 40 36.2	
			iS		02 49 29	
			iP'P'		03 08 41.3	
					micr sec	
			pP	Z'	0.8 0.9	
			Mx	E	31 22	
			Mx	N	46 21	
			Mx	Z	56 20	
		Ki	iP		02 39 33.3	
			i		02 39 37.2	
			ipP		02 39 43.7	
			iPcP		02 40 25.1	
					micr sec	
			pP	Z'	0.4 1.1	
			Mx	E	44 18	
			Mx	N	41 19	
			Mx	Z	58 18	
		Um	iP		02 39 59.6	
			i		02 40 05.6	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb. 7 (cont.)

	Um	ipP	02 40 09.8	
		iP'P'	03 07 56.5	
	Ud	iP	02 40 26.2	
		i	02 40 30.5	
		ipP	02 40 37.3	
		iP'P'	03 08 49.0	
	De	iP	02 40 48.7	
		i	02 40 52.5	
		ipP	02 40 58.4	

Aleutian Islands.
h = 40 km (Up,Ki,Um,Ud,De).
M = 6.8 (Up,Ki).

" 7

Ki	iPP	02 44 26.2	
Um	iPP	02 44 42.9	

Solomon Islands (h = 210 km).

" 7

Up	iP1	02 53 03.4	
	iP2	02 53 04.4	
	i	02 53 08.5	
		micr	sec
	P Z'	0.3	0.7
Ki	iP1	02 52 09.8	
	iP2	02 52 10.7	
Um	iP1	02 52 36.1	
	iP2	02 52 37.0	
Ud	iP1	02 53 03.0	
	iP2	02 53 04.0	
	i	02 53 19.5	
De	iP1	02 53 25.2	
	iP2	02 53 26.3	

Aleutian Islands (h = 50 km).
Double P, in average 1.0 sec apart.

" 7

Up	iP	03 01 50.9	
Um	iP	03 01 24.0	
Ud	iP	03 01 50.4	
De	iP	03 02 12.7	

Aleutian Islands (h = N).

" 7

Up	iP	03 04 10.5	D
	iPcP	03 04 35.4	
		micr	sec
	P Z'	0.1	0.9
Ki	iP	03 03 17.5	
Um	iP	03 03 43.4	
	iPcP	03 04 17.1	
Ud	iP	03 04 10.5	
De	iP	03 04 32.8	
	iPcP	03 04 48.7	

Aleutian Islands (h = N).

1971 Feb. 7

Up	iP	03 11 38.0		
Ki	eP	03 10 44		
Um	iP	03 11 13.9		
Ud	eP	03 11 37		

Aleutian Islands (h = 50 km).

" 7

Up	iP	03 14 14.6	C
Um	eP	03 13 48	
Ud	iP	03 14 14.4	

Aleutian Islands (h = 50 km).

" 7

Up	iP	03 30 15.2	
	iPcP	03 30 41.1	
Ki	eP	03 29 22	
Um	iP	03 29 48.4	
	iPcP	03 30 21.1	
Ud	iP	03 30 15.6	
De	eP	03 30 38	

Aleutian Islands (h = 20 km).

" 7

Up	iP	03 31 59.4	
	iPcP	03 32 24.0	
		micr	sec
	P Z'	0.1	0.9
Ki	eP	03 31 10	
Um	iP	03 31 32.8	
	iPcP	03 32 06.2	
Ud	iP	03 32 00.0	
De	iP	03 32 22.0	

Aleutian Islands (h = 45 km).

" 7

Up	iP	04 12 57.2	C
Ud	iP	04 12 57.1	

Aleutian Islands (h = 50 km).

" 7

Ud	eP	05 05 29	
	i	05 05 44.1	
De	iP	05 04 43.9	

Dodecanese Islands (h = 20 km).

" 7

Up	iP	05 19 54.8	

Aleutian Islands (h = 60 km).

" 7

Up	iP	08 45 56.3	
Um	iP	08 45 30.5	
Ud	iP	08 46 01.5	
De	iP	08 46 20.6	

Aleutian Islands.
Origin time = 08 34 58.

" 7

Ki	iPn	09 56 20.6	
	iSn	09 57 07.1	
	iSgl	09 51 22.0	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	7	(cont.)			
		Um	iSgl	09 58 20.6	
		Probably northwest Russia.			
		Origin time = 09 55 19.			
		Explosion.			
"	7	Ki	iPn	12 46 19.3	
			iSn	12 47 06.8	
			iSgl	12 47 20.4	
		Um	iSgl	12 48 54.0	
		Probably northwest Russia.			
		Origin time = 12 45 17.			
		Explosion.			
"	7	Um	iP	16 30 52.4	
		Ud	iP	16 31 26.6	
		Kurile Islands.			
"	7	Up	iPKP	17 09 39.9	
				micr	sec
			PKP Z'	0.1	0.8
		Um	iPKP	17 09 30.1	
			i	17 09 44.1	
		Ud	iPKP	17 09 40.9	
			i	17 09 42.3	
		De	iPKP	17 09 50.7	
		Kermadec Islands (h = N).			
"	7	Ki	iP	21 21 26.0	
		Um	iP	21 21 52.7	
		Ud	iP	21 22 18.4	
		Aleutian Islands.			
		Origin time = 21 11 18.			
"	8	Ki	iP	01 13 05.7	
		Um	iPcP	01 14 19.1	
		Aleutian Islands (h = 60 km).			
"	8	Up	iP	02 40 09.2	
				micr	sec
			P Z'	0.1	1.0
		Ki	iP	02 39 15.7	C
				micr	sec
			P Z'	0.1	0.9
		Um	iP	02 39 41.9	C
		Ud	iP	02 40 10.6	C
		De	iP	02 40 32.6	C
		Aleutian Islands (h = 45 km).			
		m = 6.0 (Up,Ki).			
"	8	Ud	iP	10 19 48.7	
		Ryukyu Islands (h = N).			
1971 Feb.	8	Ki	iSgl	16 23 25.9	
		Um	iSn	16 23 38.2	
			eSgl	16 23 52	
		Ud	iSgl	16 25 17.6	
		Nordland, Norway,			
		66.6°N, 14.0°E.			
		Origin time = 16 21 55.			
		Explosion.			
"	8	Ki	eP	19 26 31	
		Um	iP	19 26 41.9	
		Ud	iP	19 27 07.8	
		Ryukyu Islands (h = 40 km).			
"	8	Ki	iPKP	20 57 22.0	
		Um	iPKP	20 57 12.7	
		Ud	iPKP	20 57 06.0	
		South Shetland Islands			
		(h = N).			
"	8	Up	iP	21 20 49	
			e(PKP)	21 23 22	
			iPKP	21 23 36.9	
			ipPKP	21 23 46.5	
			iPP	21 26 18.2	
			iPKS	21 27 11	
				micr	sec
			Mx E	26	22
			Mx N	12	21
			Mx Z	54	23
		Ki	e(PKP)	21 23 47	
			iPKP	21 23 57.1	
			i	21 24 45.8	
				micr	sec
			Mx E	21	19
			Mx N	12	19
			Mx Z	55	18
		Um	i(PKP)	21 23 39.2	
			iPKP	21 23 49.8	
			iPKS	21 27 23	
		Ud	iPKP	21 23 38.0	
			ipPKP	21 23 48.8	
		De	iPKP	21 23 33.4	
		South Shetland Islands.			
		h = 35 km (Up,Ud).			
		M = 7.1 (Up,Ki).			
"	8	Um	iP	22 20 05.1	
"	8	Um	eP	22 38 33	
"	9	Um	ePKP	03 36 25	
		South Sandwich Islands			
		(h = 100 km).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	9	Up	iP		09 55 59.1	
		Um	iP		09 55 37.9	
		Ud	iP		09 56 06.6	
		Japan (h = 40 km).				
"	9	Ki	iPKP		13 07 45.1	
			iX		13 07 50.9	
		Um	iPKP		13 07 54.0	
			iX		13 07 59.9	
		Ud	iX		13 08 10.3	
		New Zealand (h = 35 km).				
"	9	Up	ePKP		13 33 09	
		Ki	iPKP		13 32 54.0	
		Um	iPKP		13 33 01.9	
			i		13 33 07.9	
"	9	Up	iP		14 12 46.9	C
			iS		14 22 47	
					micr	sec
			P	Z'	1.3	1.1
			Mx	E	26	17
			Mx	N	39	17
			Mx	Z	77	17
		Ki	iP		14 12 13.7	C
			iP'P'		14 39 52.7	
					micr	sec
			P	Z'	1.2	1.2
			Mx	E	46	16
			Mx	N	28	17
			Mx	Z	54	16
		Um	iP		14 12 32.8	C
			iP'P'		14 39 48.1	
		Ud	iP		14 12 39.1	C
		De	iP		14 12 55.3	C
		California (h = 15 km).				
		m = 6.9, M = 6.9 (Up,Ki).				
"	9	Um	iP		14 22 48.1	
		Ud	iP		14 22 26.9	
"	9	Up	iP		16 10 27.0	
		Ki	iP		16 09 53.9	
		Um	iP		16 10 12.7	
			ipP		16 10 16.4	
		Ud	iP		16 10 19.4	
			ipP		16 10 22.7	
		De	iP		16 10 34.9	
		California.				
		h = 15 km (Um,Ud).				
"	9	Up	iP		21 25 20.8	
		Sk	iP		21 26 05.8	
		(cont.)				

1971 Feb.	9	(cont.)				
		Um	iP		21 26 04.4	
		Ud	iP		21 25 33.1	
		De	iP		21 24 57.1	
		Greece (h = 30 km).				
"	10	Um	eP		05 18 24	
		California (h = 10 km).				
"	10	Ud	iPKP		08 34 23.2	
		De	iPKP		08 34 32.5	
"	10	Ki	iPgl		09 05 22.4	
			iSgl		09 05 43.9	
		Sk	eSgl		09 07 28	
		Um	iSgl		09 07 26.7	
		North Norway.				
		68.3°N, 15.8°E.				
		Origin time = 09 04 55.				
		Ki shows a sequence of events, probably originating in the same region.				
"	10	Up	eSgl		12 09 14	
		Ud	iSgl		12 09 11.1	
		De	iPgl		12 07 16.3	
			iSgl		12 07 31.5	
		Baltic Sea, near south coast of Sweden.				
		Origin time = 12 06 58.				
"	10	Ki	eSgl		12 17 42	
		Sk	eSgl		12 16 58	
		Um	iSgl		12 15 39.4	
		Ud	iSgl		12 16 09.1	
		De	iSgl		12 16 33.2	
		Esthonia, 59.4°N, 25.4°E.				
		Origin time = 12 13 01.				
		Explosion.				
"	10	Sk	i(Sgl)		12 27 10.9	
		Um	i(Sgl)		12 25 47.2	
		Probably Esthonia.				
		Explosion.				
"	10	Um	iSgl		13 45 53.4	
		Ud	iSgl		13 47 28.0	
		De	eSgl		13 48 06	
		Lake Ladoga.				
"	10	Sk	i(Sgl)		15 26 20	
		Ud	i(Sgl)		15 25 11.9	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	10	Up	iP		23 39 11.8	
			iPP		23 40 36.4	
			i		23 40 42.2	
		Ki	i(PP)		23 41 07.5	
		Sk	iP		23 39 38.5	
		Um	iP		23 39 05.4	
			i		23 39 08.7	
			iPP		23 40 31.7	
		Ud	iP		23 39 25.2	
			i		23 39 28.2	
		De	eP		23 39 22	
			i		23 39 25.9	
		Afghanistan-USSR (h = 30 km).				
"	11	De	iP		01 47 12.6	
		Iran-USSR (h = 50 km).				
"	11	De	iP		08 09 02.9	
"	11	Um	i(Sgl)		10 36 00.6	
		De	i(Sgl)		10 36 56.1	
"	11	Up	iP		13 06 52.5	
			i		13 06 53.4	
					micr	sec
			P	Z'	0.2	0.8
			Mx	E	0.8	17
			Mx	N	0.8	17
			Mx	Z	1.2	18
		Ki	iP		13 06 00.5	
			iPcP		13 06 44.3	
		Sk	iP		13 06 32.1	
		Um	iP		13 06 24.8	
			i		13 06 26.6	
			iPcP		13 07 00.2	
		Ud	iP		13 06 52.4	
			i		13 06 53.5	
			iPcP		13 07 17.6	
		De	iP		13 07 14.3	
			i		13 07 15.4	
			iPcP		13 07 27.8	
		Aleutian Islands (h = 50 km).				
"	11	Up	iP		14 08 47.3	
		Um	iP		14 08 26.1	
			i		14 08 41.3	
		Ud	iP		14 08 56.9	
		De	iP		14 09 14.1	
		Kurile Islands (h = 40 km).				
"	11	Up	iP		17 01 41.3	C
		Sk	iP		17 02 25.1	C
		Um	iP		17 02 22.7	
		(cont.)				
1971 Feb.	11	(cont.)				
		Ud	iP		17 01 48.3	C
		De	iP		17 01 14.3	
		Greece.				
"	11	Up	iP		18 53 24.4	
		Ki	eP		18 54 50	
		Sk	iP		18 54 01.7	
		Um	iP		18 54 08.3	
		Ud	iP		18 53 22.9	
		Italy (h = 5 km).				
"	11	Ki	iP		22 51 57.3	
		Sk	eP		22 52 10	
		Um	iP		22 51 53.5	
		Ud	iP		22 52 05.5	
		Sumatra (h = 100 km).				
"	12	Um	iP		03 18 59.4	
		Ud	iP		03 19 17.0	
		Mindanao (h = 140 km).				
"	12	Sk	iP		03 33 54.0	
		Um	iP		03 33 47.9	C
			i		03 33 51.2	
		Ud	iP		03 33 12.6	C
		Yugoslavia.				
"	12	Up	iP		04 58 57.1	
		Ki	iP		05 00 22.6	
		Sk	iP		04 59 34.5	
		Um	iP		04 59 40.8	
		Ud	iP		04 58 55.8	
		Italy (h = N).				
"	12	Up	iP		05 27 33.7	
		Ki	iP		05 26 41.4	
		Um	iP		05 27 07.0	
		Ud	iP		05 27 34.4	
		De	iP		05 27 56.4	
		Aleutian Islands (h = 40 km).				
"	12	Um	iP		05 36 00.8	
		Italy (h = N).				
"	12	Up	iP		07 51 53.8	
		Ki	iP		07 53 18.5	
		Sk	eP		07 52 31	
			i		07 52 34.9	
		Um	iP		07 52 36.0	
		Ud	iP		07 51 50.8	
		Yugoslavia (h = N).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	12	Up	ipP	08 37 39.5	
		Um	eP	08 37 00	
		Formosa (h = 80 km).			
"	12	Ki	ePn	10 51 25	
			iSn	10 52 10.4	
		Sk	iSgl	10 55 05.0	
		Um	iSgl	10 53 24.2	
		Northwest Russia.			
		Explosion.			
"	12	Up	eP	14 33 51	
		Ki	iP	14 33 35.6	
		Ud	iP	14 34 04.8	
		Luzon.			
"	12	Up	ePP	19 26 28	
			iPKKP	19 36 34.5	
		Ki	iP	19 21 04.6	
			iPP	19 25 31.2	
				micr sec	
			Mx E	1.3 21	
			Mx N	0.9 20	
		Um	iPKP	19 25 12.3	
			iPP	19 25 51.9	
		De	ePKP	19 25 30	
			i	19 26 09.2	
		New Guinea (h = 110 km).			
"	12	Um	iP	23 46 26.1	
		Celebes (h = 60 km).			
"	13	Up	ePKP	08 18 10	
		Sk	iPKP	08 18 03.5	
		Um	iPKP	08 17 58.0	
			i(pPKP)	08 18 09.2	
		Ud	iPKP	08 18 12.1	
		De	iPKP	08 18 20.1	
		Kermadec Islands (h = 40 km).			
"	13	Up	iP	20 00 05.9	
		De	iP	20 00 04.0	
"	13	De	iPKP	23 54 35.7	
		Loyalty Islands (h = 30 km).			
"	14	Um	i(P)	08 23 12.8	
"	14	Ki	iP	14 38 17.1	
		Molucca Passage (h = 55 km).			
"	14	Up	iP	16 34 14.1	
			iPP	16 35 26.4	
			iS	16 39 35	
		(cont.)			

1971 Feb.	14	(cont.)			
		Up		micr	sec
			P Z'	0.2	1.1
			Mx E	1.7	13
			Mx N	2.9	11
			Mx Z	3.9	11
		Ki	iP	16 34 43.4	C
			i	16 35 58.2	
				micr	sec
			P Z'	0.5	1.3
			Mx E	7.3	14
			Mx N	7.7	14
			Mx Z	7.8	12
		Sk	iP	16 34 47.8	C
		Um	iP	16 34 22.7	C
			i	16 34 27.5	
			iPP	16 35 40.7	
			iS	16 39 53	
		Ud	iP	16 34 31.1	C
			i	16 34 35.8	
			iPP	16 35 57.2	
		De	iP	16 34 19.1	C
			i	16 34 23.7	
			iPP	16 35 24.4	
		Iran (h = 40 km).			
		m = 6.1, M = 5.5 (Up,Ki).			
"	14	Up	iP	17 16 57.2	
		Ki	iP	17 16 19.6	
		Sk	eP	17 16 54	
		Um	iP	17 16 39.4	
		Ud	iP	17 17 04.1	
		De	iP	17 17 16.1	
		Bonin Islands (h = 440 km).			
"	14	De	iPKP	19 50 43.7	
		Fiji Islands (h = 610 km).			
"	15	Um	iPKP	04 03 27.2	
		Ud	ePKP	04 03 38	
			eSKP	04 06 11	
		De	iPKP	04 03 35.3	
		Fiji Islands (h = 580 km).			
"	15	Up	iPKP	08 09 27.0	
			iSKP	08 12 18.4	
			ipPKS	08 15 35.9	
			iSKKP	08 20 31.9	
		Ki	i(PKP)	08 09 05.2	D
			iPKP	08 09 09.5	
			iSKP	08 11 53.8	
				micr	sec
			PKP Z'	0.8	1.1
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	15	(cont.)				
		Sk	e(PKP)	08 09 19		D
			iPKP	08 09 22.0		
			iSKP	08 12 09.0		
		Um	e(PKP)	08 09 14		
			iPKP	08 09 15.3		
			iSKP	08 12 03.5		
			iSKKP	08 20 49.4		
		Ud	iPKP	08 09 29.2		
			iSKP	08 12 19.8		
			ipPKS	08 15 38.8		
			iSKKP	08 20 27.1		
		De	i(PKP)	08 09 36.8		
			iPKP	08 09 39.7		
			ipPKP	08 11 51.0		
			ipPKS	08 15 48.6		
		Tonga-Kermadec Islands.				
		h = 580 km (De).				
"	15	Up	iP	08 24 48.5		
				micr	sec	
			P	Z'	0.1	0.9
			Mx	E	1.3	12
			Mx	N	1.4	16
			Mx	Z	1.9	13
		Ki	iP	08 25 56.2		
				micr	sec	
			P	Z'	0.1	1.0
		Sk	iP	08 25 32.1		
		Um	iP	08 25 21.3		C
		Ud	iP	08 25 01.7		C
		De	iP	08 24 27.9		C
		Turkey (h = 30 km).				
		m = 5.4 (Up,Ki).				
"	16	Up	iP	01 43 04.3		C
		Sk	eP	01 43 07		
		Ud	iP	01 43 14.0		
		De	iP	01 43 22.3		
		Ryukyu Islands (h = 30 km).				
"	16	Ki	iPn	09 31 23.1		
			iP*	09 31 34.0		
			iSn	09 32 23.2		
			iS*	09 32 42.7		
		Sk	eSgl	09 35 10		
		Um	iSn	09 33 00.7		
			iSgl	09 33 34.7		
		Ud	eSgl	09 36 12		
		Northwest Russia,				
		67.5°N, 34.3°E.				
		Origin time = 09 30 04.				
		Explosion.				

1971 Feb.	16	Ki	iP	13 16 05.4		
		Um	i(P)	13 16 18.8		
		Ud	iP	13 16 30.4		
		Molucca Passage (h = 30 km).				
"	16	Up	iP	14 37 56.6		C
				micr	sec	
			P	Z'	0.4	1.2
			Mx	E	7.2	18
			Mx	N	6.1	19
			Mx	Z	15	19
		Ki	iP	14 37 32.1		
				micr	sec	
			P	Z'	0.3	1.4
			Mx	E	3.3	17
			Mx	N	2.7	17
			Mx	Z	5.2	18
		Sk	iP	14 38 00.3		
		Um	iP	14 37 41.2		
			iPcP	14 37 56.1		
		Ud	iP	14 38 06.0		
		Formosa (h = 30 km).				
		m = 6.4, M = 5.9 (Up,Ki).				
"	16	De	iPKP	14 57 26.7		
		Fiji Islands (h = 520 km).				
"	17	Ki	iP	00 53 50.1		
		Um	iP	00 54 12.2		
		Ud	iP	00 54 43.2		
		Kurile Islands (h = 50 km).				
"	17	Up	iPKP	04 19 12.4		C
		Ki	iPKP	04 19 27.1		
		Um	iPKP	04 19 20.1		
		Ud	iPKP	04 19 11.0		
		South Sandwich Islands				
		(h = N).				
"	17	Up	iP	05 24 10.6		
				micr	sec	
			P	Z'	0.1	1.2
		Ki	iP	05 23 29.6		
			ipP	05 23 43.2		
				micr	sec	
			P	Z'	0.2	1.3
			Mx	E	0.9	17
			Mx	N	0.6	17
			Mx	Z	1.0	16
		Sk	eP	05 23 57		
			iPP	05 26 27.7		
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	17	(cont.)				
		Um	iP	05 23 47.4		
			ipP	05 24 02.4		
		Ud	iP	05 24 17.7		
			ipP	05 24 34.7		
		Japan.				
		h = 60 km (Ki,Um,Ud).				
		m = 6.0 (Up,Ki).				
"	17	Up	iP	07 17 36.9		
		Ki	iP	07 17 37.8	D	
			ipP	07 17 56.9		
				micr	sec	
			P	Z' 0.1	1.0	
		Sk	iP	07 17 52.0		
			ipP	07 18 10.7		
		Um	iP	07 17 34.4	D	
			ipP	07 17 53.0		
		Ud	iP	07 17 47.3	D	
		De	iP	07 17 45.9		
			ipP	07 18 05.0		
		Sumatra.				
		h = 70 km (Ki,Sk,Um,De).				
"	17	Ki	iP	10 34 49.3		
			i	10 34 56.0		
		Ud	iP	10 35 03.1		
			i	10 35 10.1		
		Kirghiz SSR.				
"	17	Ki	iPn	10 51 40.7		
			iSn	10 52 39.3		
		Sk	eSgl	10 55 28		
		Um	iSgl	10 53 55.9		
		Northwest Russia,				
		67.8°N, 34.0°E.				
		Origin time = 10 50 23.				
		Explosion.				
"	17	Ki	iP	17 19 32.5		
		Ud	iP	17 20 25.2		
"	17	Ki	iSgl	18 48 25.5		
		Sk	iSgl	18 48 32.0		
		Um	iSgl	18 48 56.1		
		Nordland, Norway,				
		66.6°N, 14.0°E.				
		Origin time = 18 46 56.				
		Explosion.				
"	18	Um	iP	02 31 08.9		
		Ud	iP	02 31 16.9		

1971 Feb.	18	Up	iP	03 10 37.1		
			iS	03 14 59		
				micr	sec	
			Mx	E 0.9	19	
			Mx	N 1.1	16	
			Mx	Z 1.5	18	
		Ki	iP	03 09 10.9		
			iS	03 12 29		
				micr	sec	
			P	Z' 1.9	2.1	
			Mx	E 1.6	18	
			Mx	N 1.8	18	
			Mx	Z 3.4	19	
		Sk	iP	03 09 59.3		
			iPP	03 10 21.4		
		Um	iP	03 09 57.1		
			i	03 10 04.6		
			iS	03 13 46		
		Ud	iP	03 10 34.0		
			i	03 10 40.4		
		Arctic Ocean (h = N).				
		M = 4.4 (Up,Ki).				
"	18	Um	iP	07 27 12.6		
"	18	Ki	iPKP	08 06 26.5		
		Um	iPKP	08 06 24.2		
		Ud	iPKP	08 06 15.5		
		Chile (h = 30 km).				
"	18	Sk	eP	09 32 41		
		Um	iP	09 32 58.3		
		Mexico (h = 80 km).				
"	18	Ki	eSgl	09 47 14		
		Sk	iPgl	09 46 24.5		
			iSgl	09 47 04.7		
"	18	Ki	iP	10 59 07.7		
		Pamir.				
"	18	Ki	iSgl	18 35 26.6		
		Sk	iSgl	18 35 34.0		
		Um	iSgl	18 35 56.9		
		Nordland, Norway,				
		66.6°N, 14.0°E.				
		Origin time = 18 33 57.				
		Explosion.				
"	18	Up	eSn	23 46 02		
		Ud	iSn	23 45 30.1		
		De	ePn	23 43 11		
			iSn	23 44 23.1		
		Germany (h = 25 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	19	Ki	eP	06 40 28				
		Sk	iP	06 40 20.4				
		Um	iP	06 40 36.0				
		Ud	iP	06 40 28.8				
		Guatemala (h = 70 km).						
"	19	Up	eP	10 21 05				
		Ki	eP	10 21 13				
		Sk	eP	10 21 30				
		Um	iP	10 21 02.6				
		Ud	iP	10 21 21.3				
		De	iP	10 21 16.9				
		Afghanistan-USSR (h = 110 km).						
"	19	Ki	iPn	10 51 10.1				
			iSn	10 52 07.9				
		Sk	eSgl	10 54 57				
		Um	iSgl	10 53 22.6				
		Northwest Russia,						
		67.7°N, 33.8°E.						
		Origin time = 10 49 53.						
		Explosion.						
"	19	Ud	eP	12 10 46				
		De	iP	12 10 34.2				
"	19	Um	iP	13 23 32.3				
"	19	Up	iP	14 29 43.1				
		South Africa (h = N).						
"	19	Up	iP	14 38 54.0				
		Ud	iP	14 39 03.5				
		Sunda Strait (h = N).						
"	19	Up	ipP	17 12 50.6				
		Ki	eP	17 11 55				
			ipP	17 12 40.6				
		Sk	iP	17 11 45.7				
			ipP	17 12 32.2				
		Um	iP	17 12 02.8				
			ipP	17 12 48.0				
		Ud	iP	17 11 55.3				
			ipP	17 12 39.6				
		De	eP	17 12 02				
			ipP	17 12 47.0				
		El Salvador.						
		h = 170 km (Ki,Sk,Um,Ud,De).						
"	19	Ud	iP	18 55 12.7				
"	19	Ud	iP	20 46 25.3				

1971 Feb.	20	Ki	iP	01 05 44.9				
		Um	iP	01 05 59.4				
		Ud	iP	01 06 26.3				
"	20	Up	ipP	07 20 37.4				
			iPP	07 21 07.4				
			iS	07 24 45				
							micr	sec
			Mx		E		0.4	8
			Mx		N		0.6	9
			Mx		Z		0.9	9
		Ki	eP	07 21 36				
							micr	sec
			Mx		E		0.7	8
			Mx		N		0.3	10
			Mx		Z		0.4	10
		Um	iP	07 20 58.1				
		Ud	iP	07 20 38.9				
			ipP	07 20 43.8				
		De	iP	07 20 08.1				
			ipP	07 20 13.2				
		Turkey.						
		h = 20 km (Ud,De).						
		M = 4.6 (Up,Ki).						
"	20	Ki	eP	09 56 33				
		Um	iP	09 57 20.4				
		Arctic Ocean (h = N).						
"	20	Up	iPKP	11 22 19.2				
		Ud	iPKP	11 22 21.5				
		De	iPKP	11 22 31.9				
"	20	Up	eP	12 37 45				
		Ki					micr	sec
			Mx		E		1.0	20
			Mx		N		0.3	15
			Mx		Z		0.9	18
		Sk	iP	12 37 27.7				
		Um	iP	12 37 42.4				
		Ud	iP	12 37 35.3				
		De	eP	12 37 43				
		Mexico (h = 35 km).						
"	20	Up	eP	12 46 11				
		Ki	iP	12 44 43.3				
			i(PP)	12 44 53.2				
							micr	sec
			P		Z'		0.1	1.1
			Mx		E		0.6	15
			Mx		N		0.6	16
			Mx		Z		1.2	19

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	20	(cont.)			
		Sk	iP	12 45 30.2	
		Um	iP	12 45 30.0	
			ipP	12 45 37.1	
		Ud	iP	12 46 07.9	
		De	iP	12 46 38.1	
		Arctic Ocean.			
		h = 25 km (Um).			
"	20	Ki	iPn	14 51 51.9	
			iSn	14 52 39.0	
			iSgl	14 52 55.9	
		Um	iSgl	14 54 25.4	
		Probably northwest Russia.			
		Origin time = 14 50 50.			
		Explosion.			
"	20	Ki	iPn	14 53 30.0	
		Um	iSgl	14 56 02.3	
		Probably northwest Russia.			
		Explosion.			
"	21	Um	ipP	00 00 57.3	
		Celebes Sea (h = 540 km).			
"	21	Up	iSgl	00 06 26.4	
		Um	iSgl	00 08 28.9	
		Ud	iSgl	00 06 03.7	
		De	iPgl	00 04 11.1	
			i	00 04 16.0	
			iSgl	00 04 29.9	
		Zealand, Denmark,			
		55.8°N, 11.8°E.			
		Origin time = 00 03 48.			
"	21	Up	iPKP	03 38 47.9	
		Um	iSKP	03 41 31.0	
		Ud	iPKP	03 38 50.0	
		De	iPKP	03 39 00.6	
		Tonga-Kermadec Islands			
		(h = 510 km).			
"	21	Ud	iPKP	08 48 14.1	
		De	iPKP	08 48 24.5	
		Fiji Islands (h = 600 km).			
"	21	Up	iP	10 49 23.3	
			iPKP	10 53 29.8	
			iPP	10 53 48.9	
			iSKS	10 59 43.6	
			iS	11 01 07	
			iX1	11 04 41.2	
			iX2	11 04 44.4	
		(cont.)			

1971 Feb.	21	(cont.)			
		Up	iX3	11 04 55.5	
			iX4	11 04 56.7	
				micr	sec
			Mx E	5.8	19
			Mx N	5.1	19
			Mx Z	7.9	19
		Ki	iP	10 49 40.0	
			iPKP	10 53 33.8	
			iPP	10 54 08.3	
			eSKS	10 59 54	
			iX1	11 04 31.4	
			iX2	11 04 34.8	
			iX4	11 04 44.0	
				micr	sec
			Mx E	6.1	19
			Mx N	4.7	21
			Mx Z	17	22
		Sk	eP	10 49 18	
			iPP	10 53 40.6	
			eX1	11 04 47	
			iX2	11 04 49.3	
		Um	eP	10 49 40	
			iPKP	10 53 34.0	
			iPP	10 54 09.2	
			iSKS	10 59 52	
			iS	11 01 28	
			iX1	11 04 34.9	
			iX2	11 04 38.1	
			iX3	11 04 46.0	
			iX4	11 04 49.1	
			iP'P'	11 13 03.6	
		Ud	iP	10 49 15.5	
			i	10 53 25.5	
			iPP	10 53 34.8	
			iX1	11 04 47.1	
			iX2	11 04 50.0	
			iX3	11 05 04.0	
			iX4	11 05 07.3	
		De	iP	10 49 10.8	
			iPP	10 53 30.0	
			iX1	11 04 51.1	
			iX2	11 04 54.2	
			eX3	11 05 09	
			iX4	11 05 12.2	
			iP'P'	11 13 11.6	
		Chile-Argentina (h = 170 km).			
		M = 6.3 (Up,Ki).			
		M uncorrected for focal depth.			
		The phases marked X belong to a group of PKKP phases.			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
Feb.	21	Ki	iP	11 52 48.9	
			ipP	11 52 55.6	
		Sk	eP	11 53 06	
		Um	iP	11 52 40.5	
		Ud	iP	11 53 02.8	
			ipP	11 53 10.0	
		De	epP	11 53 09	
		Kirghiz SSR.			
		h = 25 km (Ki,Ud).			
"	21	Up	iP	14 53 46.4	
			ipP	14 53 54.6	
		Ki	iP	14 53 25.8	
			ipP	14 53 34.3	
		Um	iP	14 53 32.5	
			ipP	14 53 41.5	
		Ud	iP	14 53 55.8	
			ipP	14 54 05.3	
		Philippine Islands.			
		h = 30 km (Up,Ki,Um,Ud).			
"	21	Up	iP	18 42 26.3	
			ipP	18 42 32.4	
				micr	sec
			pP Z'	0.1	0.9
		Ki	iP	18 41 43.3	
		Sk	eP	18 42 18	
		Um	iP	18 42 02.4	
			ipP	18 42 08.9	
		Ud	iP	18 42 33.4	
			ipP	18 42 39.7	
		Japan.			
		h = 25 km (Up,Um,Ud).			
"	22	Ud	iP	07 56 44.8	
		Hindu Kush.			
"	22	Um	iP	08 40 31.2	
		Ud	iP	08 40 48.9	
		Celebes (h = N).			
"	22	Ki	eSgl	11 39 09	
		Um	iSgl	11 37 11.5	
		Ud	eSgl	11 37 41	
		De	iSgl	11 38 08.0	
		Esthonia.			
		Explosion.			
"	22	Um	iP	12 29 27.8	
		Ud	iP	12 29 15.4	
		Rhodesia (h = N).			
"	22	Up	iP	14 32 57.1	C
			i	14 33 03.3	
		(cont.)			

1971					
Feb.	22	(cont.)			
		Up			micr sec
			P Z'	0.5	1.6
			Mx E	1.8	16
			Mx N	1.3	12
			Mx Z	2.6	13
		Ki	eP	14 34 04	
				micr	sec
			Mx E	2.4	15
			Mx N	1.1	14
			Mx Z	1.6	14
		Sk	eP	14 33 43	
		Um	iP	14 33 25.0	
		Ud	iP	14 33 08.1	
		De	iP	14 32 38.5	
		Turkey (h = 45 km).			
		M = 4.9 (Up,Ki).			
"	22	Um	iP	21 45 22.3	
"	22	Ki	iP	22 21 44.8	
		Um	iP	22 21 55.8	
		Ud	eP	22 22 14	
		Molucca Passage (h = N).			
"	23	Ki	iP	09 11 49.4	
		Sk	iP	09 12 01.7	
		Um	iP	09 12 24.5	
		Ud	eP	09 12 46	
		Jan Mayen (h = N).			
"	23	Up	i(Sn)	12 06 20.9	
			iSgl	12 06 35.6	
		Ki	eSgl	12 09 11	
		Sk	eSgl	12 08 29	
		Um	iSgl	12 07 08.4	
		Ud	iSgl	12 07 36.7	
		De	eSgl	12 08 04	
		Esthonia, 59.4°N, 25.4°E.			
		Origin time = 12 04 30.			
		Explosion.			
"	23	Ud	iP	15 59 40.2	
		De	iP	15 59 08.4	
"	23	Up	iP	16 14 45.9	
				micr	sec
			P Z'	0.1	0.9
		Ki	iP	16 14 10.1	
		Um	iP	16 14 25.3	
		Ud	iP	16 14 53.3	
		Japan (h = 280 km).			
"	23	Ki	iSgl	17 36 28.4	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	23	(cont.)				
		Sk	iSgl		17 36 32.6	
		Um	iSgl		17 36 56.0	
		Nordland, Norway,				
		66.5°N, 13.9°E.				
		Origin time = 17 34 58.				
		Explosion.				
"	23	Up	iP		19 46 08.6	C
			iS		19 49 59	
			iLgl		19 52 43.9	
					micr	sec
			P	Z'	0.2	0.9
			Mx	E	34	17
			Mx	N	23	16
			Mx	Z	9.9	10
		Ki	iP		19 47 19.5	
					micr	sec
			Mx	E	19	14
			Mx	N	3.9	14
			Mx	Z	4.9	13
		Sk	iP		19 46 55.8	
		Um	iP		19 46 44.1	C
			ipP		19 46 48.4	
			iS		19 51 04	
		Ud	iP		19 46 19.7	
		De	iP		19 45 46.7	
		Turkey.				
		h = 15 km (Um).				
		M = 5.9 (Up,Ki).				
"	23	Ud	iP		21 30 08.5	
"	24	Ki	iP		02 21 03.0	
		Um	iP		02 20 31.8	
		Ud	iP		02 20 06.9	
		Turkey (h = 10 km).				
"	24	Up	ePKP		05 22 11	
		Ud	iPKP		05 22 13.4	C
"	24	Up	iSgl		12 52 48.9	
		Um	iSgl		12 53 20.6	
		Probably Esthonia.				
		Explosion.				
"	24	Up	iX		17 37 22.2	
		Ki	eP		17 36 36	
		Um	iP		17 36 48.1	
			iX		17 37 04.4	
		Ud	iP		17 37 14.3	
		Ryukyu Islands (h = 20 km).				
1971 Feb.	24	Up	iP		19 32 31.7	
		Ki	iP		19 32 10.2	
		Um	iP		19 32 17.7	
		Ud	eP		19 32 39	
		Philippine Islands (h = 40 km).				
"	24	Um	iP		20 32 20.0	
		Ud	eP		20 32 58	
		Japan (h = 45 km).				
"	24	Um	iP		22 32 29.3	
		Kodiak Island (h = 35 km).				
"	25	Ki	iP		00 54 15.2	
"	25	Ki	iP		04 28 33.5	
		Um	iP		04 28 39.4	
		Nicaragua (h = 50 km).				
"	25	Ki	iP		04 39 12.1	
		Um	iP		04 39 07.4	
		Andaman Islands (h = 130 km).				
"	25	Ki	iP		04 53 16.9	
		Turkey (h = 15 km).				
"	25	Ki	iP		06 50 49.1	
					micr	sec
			P	Z'	0.1	0.9
		Um	iP		06 51 15.9	
		Ud	iP		06 51 41.4	
		De	iP		06 52 01.7	
		Aleutian Islands (h = 30 km).				
"	25	Ki	iP		11 32 54.1	
"	25	Up	iP		14 49 13.1	
					micr	sec
			P	Z'	0.2	1.3
		Ki	iP		14 48 54.7	
					micr	sec
			P	Z'	0.2	0.9
		Sk	eP		14 49 17	
		Um	iP		14 49 00.8	
		Ud	iP		14 49 20.1	
		Mindanao (h = 90 km).				
		m = 6.3 (Up,Ki).				
"	25	Um	iP		15 08 44.3	
"	25	Up	iP2		19 39 18.7	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	25	(cont.)				
		Up			micr	sec
			P2	Z'	0.3	1.2
			Mx	E	0.9	16
			Mx	N	1.2	14
			Mx	Z	2.4	14
		Ki	iP1		19 38 33.9	
			iP2		19 38 39.9	
			iPcP		19 39 09.0	
					micr	sec
			P2	Z'	0.1	1.0
			Mx	E	1.8	17
			Mx	N	1.9	15
			Mx	Z	3.1	16
		Sk	iP1		19 39 08.0	
			iP2		19 39 14.1	
		Um	iP1		19 38 50.2	C
			iP2		19 38 56.4	
		Ud	iP1		19 39 19.0	
		De	iP2		19 39 41.6	
		Japan (h = 40 km).				
		m = 6.2, M = 5.5 (Up,Ki).				
		Double P, about 6 sec apart.				
"	25	Up	iP		22 26 32.2	C
			ipP		22 26 40.7	
					micr	sec
			P	Z'	0.1	0.8
			pP	Z'	0.2	1.2
		Ki	iP		22 26 33.8	C
			ipP		22 26 42.7	
					micr	sec
			P	Z'	0.2	0.8
			pP	Z'	0.1	1.0
			Mx	E	1.3	18
			Mx	N	0.9	20
			Mx	Z	2.9	19
		Sk	iP		22 26 47.8	C
			ipP		22 26 57.7	
		Um	iP		22 26 30.0	C
			ipP		22 26 39.1	
			iS		22 36 34	
		Ud	iP		22 26 43.3	C
			ipP		22 26 53.0	
		De	iP		22 26 40.9	C
			ipP		22 26 49.6	
		Sumatra.				
		h = 35 km (Up,Ki,Sk,Um,Ud,De).				
		m = 6.0 (Up,Ki).				
"	26	Ki	iPKP		05 14 23.6	
		Sk	iPKP		05 14 34.6	
		Um	iPKP		05 14 29.8	
		Solomon Islands (h = 90 km).				
1971 Feb.	26	Ud	iP		10 38 19.4	
"	26	Ki	iPn		10 55 58.7	
			iSn		10 56 57.5	
			iS*		10 57 16.5	
		Sk	iSgl		10 59 45.4	
		Um	iSn		10 57 36.7	
			iSgl		10 58 08.0	
		Northwest Russia,				
		67.6°N, 34.0°E.				
		Origin time = 10 54 40.				
		Explosion.				
"	27	Ki	eSKP		00 26 55	
		Um	iSKP		00 27 06.1	
		Ud	iPKP		00 24 30.5	
			iSKP		00 27 19.2	
		Tonga-Kermadec Islands				
		(h = 590 km).				
"	27	Ki	i(PcP)		00 43 00.1	
					micr	sec
			Mx	E	0.8	16
			Mx	N	0.7	20
			Mx	Z	0.6	15
		Sk	i(pP)		00 43 04.0	
		Um	iP		00 43 05.0	
			ipP		00 43 13.5	
		Ud	iP		00 43 17.2	
			ipP		00 43 24.1	
		California.				
		h = 30 km (Um,Ud).				
"	27	Um	iP		02 37 13.8	
		Ud	iP		02 37 45.1	
		Kurile Islands (h = N).				
"	27	Up	iPKP		05 02 54.7	
		Um	iPKP		05 02 47.0	
		Ud	iPKP		05 02 54.5	
		De	iPKP		05 03 05.8	
		Fiji Islands (h = 520 km).				
"	27	Ud	iP		05 21 53.8	
		Kurile Islands (h = 60 km).				
"	27	Up	iP		09 07 53.0	C
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		09 07 12.8	C
					micr	sec
			P	Z'	0.1	0.7
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Feb.	27	(cont.)			
		Sk	iP	09 07 46.3	
		Um	iP	09 07 30.7	C
		Ud	iP	09 08 00.4	
		De	iP	09 08 16.1	
		Japan (h = 45 km).			
		m = 6.1 (Up,Ki).			
"	27	Ki	i(Sgl)	10 22 02.1	
		Sk	i(Sgl)	10 22 11.0	
"	27	Up	iPKP	13 45 03.6	
		Ki	ePKP	13 44 55	
		Um	iPKP	13 44 57.9	
		Ud	ePKP	13 45 06	
		De	iPKP	13 45 15.1	
		Fiji Islands (h = 390 km).			
"	27	Up	i(pP)	16 44 31.9	
				micr	sec
			Mx E	1.6	17
			Mx N	2.2	18
			Mx Z	1.7	18
		Ki	iP	16 43 17.9	
				micr	sec
			Mx E	3.0	17
			Mx N	2.5	17
			Mx Z	1.9	17
		Sk	eP	16 43 54	
		Um	iP	16 43 36.7	
			ipP	16 43 47.2	
			iS	16 52 27	
		Ud	iP	16 44 07.1	
		Japan.			
		h = 40 km (Um).			
		M = 5.6 (Up,Ki).			
"	27	Um	iP	16 48 14.3	
"	27	Up	iP	19 13 32.7	
		Ki	iP	19 12 39.6	
		Sk	eP	19 13 27	
		Um	iP	19 13 05.6	
		Ud	iP	19 13 34.2	
		Aleutian Islands (h = 35 km).			
"	28	Ki	ePn	05 17 35	
			iSn	05 18 33.7	
			iS*	05 18 53.9	
		Sk	iSgl	05 21 20.3	
		Um	eSn	05 19 10	
			iSgl	05 19 42.2	
			iSg2	05 19 51.5	
		Northwest Russia.			
		Explosion.			
1971 Feb.	28	Ki	iP	07 31 43.6	
		Um	i(PcP)	07 32 44.4	
		Aleutian Islands (h = 55 km).			
"	28	Ki	e(P)	07 55 20	
		Um	i(P)	07 56 36.0	
"	28	Um	iP	08 37 32.3	
		Aleutian Islands (h = 25 km).			
"	28	Sk	e(Sgl)	13 43 40	
		Um	i(Sgl)	13 42 39.4	
"	28	Ki	eP	18 29 23	
		Sk	iP	18 29 46.3	
		Mindanao (h = 90 km).			
"	28	Um	iP	22 16 26.1	
		Volcano Islands (h = 220 km).			

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October 12, 1973

SEISMOLOGICAL INSTITUTE
BOX 517
S-751 20 UPPSALA
SWEDEN

S E I S M O L O G I C A L B U L L E T I N

U P P S A L A, K I R U N A, S K A L S T U G A N, U M E Å, U D D E H O L M and D E L A R Y

Uppsala	(Up):	59°51.5'N,	17°37.6'E; h = 14 m
Kiruna	(Ki):	67°50.4'N,	20°25.0'E; h = 390 m
Skalstugan	(Sk):	63°34.8'N,	12°16.8'E; h = 580 m
Umeå	(Um):	63°48.9'N,	20°14.2'E; h = 16 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E; h = 240 m
Delary	(De):	56°28.2'N,	13°52.2'E; h = 150 m

M A R C H 1 - 31, 1971

1971 Mar.	1	Up	iP	01 06 23.0
		Sk	eP	01 06 36
		China (h = N).		
"	1	Up	iPKP	12 29 28.9
			i	12 29 32.9
		Ki	iPKP	12 29 25.1
			i	12 29 35.4
		Sk	iPKP	12 29 33.5
		Um	iPKP	12 29 24.2
			i	12 29 34.2
		West of Macquarie Islands (h = N).		
"	1	Ki	iP	12 52 51.5
		Sk	iP	12 53 06.5
"	1	Ki	iPKP	13 21 06.0
		Sk	iPKP	13 21 14.1
		Um	iPKP	13 21 07.3
		West of Macquarie Islands (h = N).		
"	1	Ki	iP	13 25 26.4
"	1	Ki	iP	13 40 16.3
		Um	iP	13 40 09.8
"	1	Ki	iPKP	13 41 27.0
		Sk	ePKP	13 41 35
		Um	iPKP	13 41 24.4
		West of Macquarie Islands. Origin time = 13 21 45.		
"	1	Up	eP	23 49 46
		Um	iP	23 49 21.3
1971 Mar.	2	Ki	eP	03 23 21
		Um	eP	03 23 04
"	2	Up	iP	09 10 39.1
		Ki	iP	09 10 40.3
		Um	iP	09 10 36.6
		Sumatra (h = 90 km).		
"	2	Um	iP	15 48 13.2
			i	15 48 29.4
"	2	Um	iP	18 57 01.8
		Italy (h = 20 km).		
"	3	Up	eP	01 00 52
		Ki	iP	01 00 36.6
			ipP	01 00 54.4
		Um	iP	01 00 46.6
			ipP	01 01 02.2
		Mexico. h = 70 km (Ki,Um).		
"	3	Up	iP	02 24 32.0 C
		Ki	eP	02 25 02
		Sk	eP	02 25 04
		Um	iP	02 24 43.1
		De	iP	02 24 33.2
		Arabian Peninsula (h = 35 km).		
"	3	Ki	iPKP	09 45 14.3
		Um	iPKP	09 45 20.6
		New Hebrides Islands (h = 210 km).		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
Mar. 3 Ki iPn 12 38 07.0
iSn 12 38 52.2
iSgl 12 39 07.4
Um iSgl 12 40 47.1
Northwest Russia-Norway
border region.
Origin time = 12 37 07.
Explosion.

" 3 Up micr sec
Mx E 2.1 16
Mx N 1.5 17
Mx Z 3.5 20
Ki eP 14 58 35
micr sec
Mx E 2.7 15
Mx N 1.7 15
Mx Z 3.1 18
Sk iP 14 58 58.3
Um iP 14 58 53.8
iS 15 09 09
Gulf of California
(h = 35 km).
M = 5.8 (Up,Ki).

" 3 Up iP 16 08 57.4
Ki iP 16 08 28.8
Sk eP 16 08 57
Um iP 16 08 39.8
Ryukyu Islands (h = N).

" 3 Up iP 19 06 06.9
Ki iP 19 07 18.2
Sk iP 19 06 45.4
Um iP 19 06 42.5
i 19 07 02.5
De iP 19 05 38.4
Greece (h = 60 km).

" 3 Up iP 22 04 44.3
ipP 22 05 19.5
micr sec
pP Z' 0.1 0.9
Mx E 1.5 25
Mx N 1.1 20
Mx Z 1.6 20
Ki iP 22 03 55.5
ipP 22 04 29.6
micr sec
pP Z' 0,3 1.5
Mx E 1.6 23
Mx N 1.7 24
Mx Z 1.6 20
Sk iP 22 04 32.6
(cont.)

1971
Mar. 3 (cont.)
Um iP 22 04 17.6
ipP 22 04 53.4
De iP 22 05 10.8
Kurile Islands.
h = 130 km (Up,Ki,Um).
m = 6.1, M = 5.3 (Up,Ki).

" 3 Um iP 23 14 55.8
Kurile Islands (h = N).

" 4 Up iP 00 39 47.7 C
i 00 40 56.1
iS 00 48 59.9
micr sec
P Z' 0.7 1.1
Ki iP 00 39 14.9 C
iS 00 47 58
micr sec
P Z' 0.5 0.8
Mx E 0.7 17
Mx N 0.6 17
Mx Z 1.4 16
Sk iP 00 39 44.8 C
iPP 00 42 43.7
Um iP 00 39 29.0 C
iPcP 00 39 39.6
iPP 00 42 19.8
iS 00 48 25.0
iSS 00 53 18
De iP 00 40 07.3 C
South of Japan (h = 430 km).
m = 6.2 (Up,Ki).

" 4 Ki iPKP 03 29 19.8
Sk ePKP 03 29 29
Um iPKP 03 29 16.8
West of Macquarie Islands
(h = N).

" 4 Up iP 07 59 50.5
micr sec
P Z' 0.1 1.0
Mx E 0.9 18
Mx N 1.0 19
Mx Z 0.8 20
Ki iP 07 59 07.9
micr sec
Mx E 1.5 17
Mx N 1.2 18
Um iP 07 59 26.9
ipP 07 59 36.4
Japan.
h = 35 km (Um).
M = 5.3 (Up,Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 4 Up iP 10 42 02.1
micr sec
P Z' 0.2 1.4
Ki iP 10 42 02.9
micr sec
P Z' 0.1 1.0
Sk eP 10 42 27
Um iP 10 41 59.7 D
De iP 10 42 11.3
Sumatra (h = N).
m = 6.1 (Up,Ki).

" 4 Um iP 11 57 01.3
Japan (h = 30 km).

" 4 Um i(Sgl) 12 22 19.4

" 4 Ki iPgl 14 32 53.8
iSgl 14 33 15.2
Lofoten, Norway.

" 4 Ki iSgl 14 33 49.3
Lofoten, Norway.

" 5 Ki iP 10 32 05.7
Mexico (h = 150 km).

" 5 Ki iPn 11 25 54.8
iSn 11 26 52.9
iSgl 11 27 12.7
Sk iSgl 11 29 40.9
Um iSn 11 27 32.4
iSgl 11 28 02.0
Northwest Russia,
67.4°N, 33.7°E.
Origin time = 11 24 37.
Explosion.

" 5 Ud eP 14 45 40

" 5 Ki iSgl 17 37 16.4
Sk iSgl 17 37 20.9
Um iSgl 17 37 43.3
Ud iSgl 17 39 11.1
Nordland, Norway,
66.5°N, 14.1°E.
Origin time = 17 35 47.
Explosion.

" 5 Up iP 21 05 57.2
i 21 06 03.3
ipP 21 06 50.1
Ki iP 21 05 29.4
ipP 21 06 20.6
(cont.)

1971 Mar. 5 (cont.)
Sk iP 21 05 54.2
Um iP 21 05 41.3
ipP 21 06 33.3
Ud iP 21 06 03.0
Mariana Islands.
h = 190 km (Up,Ki,Um).

" 6 Ud iP 00 28 44.8
Atlantic Ocean (h = N).

" 6 Um iP 01 33 21.3
Japan (h = 70 km).

" 6 Um iPKP 04 59 10.6
Ud ePKP 04 59 15
De iPKP 04 59 21.3
Fiji Islands (h = 540 km).

" 6 Up iP 08 12 18.4
Ki iP 08 12 00.1
Um iP 08 12 01.0
Ud eP 08 12 21
Formosa (h = 40 km).

" 6 Um iP 08 27 54.6

" 6 Sk iP 10 38 55.9
Um iP 10 38 53.6
Ud iP 10 38 20.0
i 10 38 23.4
Greece.

" 6 Ki iPn 10 45 48.3
iSn 10 46 36.9
iS* 10 46 50.2
iSgl 10 46 54.0
Um eSn 10 47 45
iSgl 10 48 20.5
Northwest Russia.
Origin time = 10 44 44.
Explosion.

" 6 Up iP 21 10 08.9
Ki iP 21 09 39.3 C
Sk iP 21 10 05.8
Um iP 21 09 52.2 C
Ud iP 21 10 15.6 C
De iP 21 10 27.0 C
Volcano Islands (h = 30 km).

" 6 Ki iP 23 08 53.2
i 23 09 22.6
Ud iP 23 09 13.8
Kazakh SSR.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
Mar. 7 Ud iP 03 06 12.4

" 7 Ki eP 04 45 24
Ud iP 04 45 46.1
Mindanao (h = 130 km).

" 7 Um iP 07 40 23.9
Molucca Passage (h = 60 km).

" 7 Ud iP 12 25 51.4 D
De iP 12 25 34.5 D

" 7 Ki eP 22 08 18
Ud eP 22 08 44
Talaud Islands (h = 100 km).

" 8 Ud iP 07 28 41.2

" 8 Um iP 08 06 25.0
Japan (h = 40 km).

" 8 Ud eP 11 14 45
Talaud Islands (h = 80 km).

" 8 Up eP 16 41 04
Sk iP 16 40 52.9
Um iP 16 41 04.3
Ud eP 16 40 51
De iP 16 40 56.3
Panama (h = 15 km).

" 8 De iPKP 21 46 45.0
Fiji Islands (h = 610 km).

" 8 Up iP 22 49 57.8
Um iP 22 50 32.3
Ud eP 22 50 07
De iP 22 49 39.2
Turkey (h = 20 km).

" 9 Up iP 05 03 24.5 C

		micr	sec
P	Z'	0.2	0.9
Mx	E	1.9	10
Mx	Z	2.0	15

Ki

		micr	sec
Mx	E	4.7	13
Mx	N	1.4	15
Mx	Z	1.8	15

Sk iP 05 04 04.7
Um iP 05 04 04.3
ipP 05 04 08.6
De iP 05 02 52.0
ipP 05 02 56.2
Greece.
(cont.)

1971
Mar. 9 (cont.)
h = 15 km (Um,De).
M = 5.0 (Up,Ki).

" 9 Ki iSKP 08 32 51.0
Um iSKP 08 32 59.6
Ud iPKP 08 30 21.4
De iSKP 08 33 20.5
Tonga-Kermadec Islands
(h = 510 km).

" 9 De iPgl 11 06 29.1
iSgl 11 06 31.7

" 9 Ki iSgl 11 26 35.2
Sk iSgl 11 26 38.2
Um iSgl 11 26 48.3
Sweden-Norway border region,
66.1°N, 15.3°E.
Origin time = 11 25 10.
Explosion.

" 9 Ki eSgl 12 51 32
Sk eSgl 12 50 46
Um iSgl 12 49 39.2
De eSgl 12 50 17
Esthonia.
Explosion.

" 9 Um iP 13 30 56.3
Panama (h = 25 km).

" 9 Um iP 15 24 59.7
Ud iP 15 25 30.4
Kurile Islands (h = N).

" 9 Um iP 15 41 07.3
Ud iP 15 41 35.6
South of Japan (h = 60 km).

" 9 Um iP 21 30 58.2
Japan (h = 60 km).

" 10 Um iP 00 52 43.1
Java (h = 90 km).

" 10 Up eP 03 33 27
Um iP 03 34 07.0
Ud iP 03 33 38.4
Ionian Islands.

" 10 Ud e(Sgl) 12 19 42
De i(Pgl) 12 17 39.8

" 10 De iPgl 12 35 07.1
iSgl 12 35 33.2

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	10	Up	iSgl	12 54 45.6
		Ud	eSgl	12 54 48
		De	iPgl	12 52 44.6
			iSgl	12 53 02.2
		Baltic Sea, south of Sweden, 55.5°N, 15.1°E. Origin time = 12 52 23. Explosion?		
"	10	De	i(Sgl)	13 32 09.9
"	10	Um	iP	15 19 35.2
		Japan (h = 80 km).		
"	10	Up	eP	15 48 56
"	10	Up	i(pP)	15 49 29.4
		Um	iP	15 49 02.2
		Ud	iP	15 49 16.2
			ipP	15 49 24.8
		Vancouver Island. h = 30 km (Ud).		
"	10	Ki	eP	17 28 22
"	11	Up	iP	04 54 06.5
		Um	iP	04 53 53.9
		Ud	eP	04 54 19
		China (h = 60 km).		
"	11	Ki	iP	05 53 46.3
		Um	iP	05 53 44.9
		Java (h = 90 km).		
"	11	Ud	iPKP	08 41 12.3
		Tonga Islands (h = N).		
"	11	Um	iSgl	12 41 08.5
		Esthonia. Explosion.		
"	11	Um	iP	15 35 28.4
		Gulf of Alaska (h = 20 km).		
"	11	Ki	iPn	17 33 24.1
			iSn	17 34 10.3
		Um	iSgl	17 36 03.4
		Northwest Russia-Norway border region. Origin time = 17 32 23. Explosion.		
"	11	Um	iP	20 21 04.8
		Japan (h = 150 km).		
1971 Mar.	12	Up	iP	00 07 30.4
		Ki	iP	00 07 28.2
		Sk	eP	00 07 52
		Um	iP	00 07 23.0
		Ud	iP	00 07 47.3
		De	iP	00 07 47.5
		Kirghiz-Sinkiang (h = N).		
"	12	Ud	eP	05 35 27
		India-China (h = 35 km).		
"	12	Um	iP	11 19 04.2
"	12	Ki	iPn	11 42 32.2
			iSn	11 43 29.5
			iSgl	11 43 50.8
		Sk	iSgl	11 46 19.9
		Um	iSn	11 44 10.3
			iS*	11 44 39.9
			iSgl	11 44 46.9
		Northwest Russia, 67.9°N, 33.7°E. Origin time = 11 41 16. Explosion.		
"	12	Ud	i(Sgl)	11 46 14.6
		De	i(Sgl)	11 46 31.6
"	12	Up	iP	12 48 23.3
		Ki	iP	12 50 01.4
		Um	iP	12 49 06.7
			i	12 52 41.7
			iLgl	12 54 03.3
		De	iP	12 47 57.7
		Rumania (h = 150 km).		
"	12	Ki	i(Sgl)	13 03 53.1
		Northern Finland.		
"	12	Um	iP	14 03 41.3
"	12	Um	i(Sgl)	18 11 49.4
"	12	Ki	iSgl	18 12 47.6
		Sk	iSgl	18 12 52.8
		Um	iSn	18 13 02.2
			iSgl	18 13 16.3
		Nordland, Norway, 66.5°N, 14.1°E. Origin time = 18 11 19. Explosion.		
"	12	Up	iP	22 44 55.5
			ipP	22 45 06.9

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	12	(cont.)					
		Up	iS		22 54 52		
					micr	sec	
			pP	Z'	0.1	0.7	
			Mx	E	1.7	18	
			Mx	N	2.4	17	
			Mx	Z	2.9	21	
		Ki	eP		22 44 39		
					micr	sec	
			Mx	E	3.3	14	
			Mx	N	2.3	20	
			Mx	Z	1.6	14	
		Sk	eP		22 45 02		
		Um	iP		22 44 42.8		
			iS		22 54 30		
		Ud	iP		22 45 05.0		
			ipP		22 45 15.8		
		De	eP		22 45 14		
		Philippine Islands.					
		h = 40 km (Up,Ud).					
		M = 5.8 (Up,Ki).					
"	13	Um	eP		02 49 16		
			i		02 49 30.5		
		Ud	iP		02 49 43.9		
		Ryukyu Islands (h = 35 km).					
"	13	Up	iP		03 10 48.8		
			i		03 10 57.1		
					micr	sec	
			P	Z'	0.1	1.1	
			Mx	N	1.4	20	
			Mx	Z	2.0	21	
		Ki	iP		03 10 06.2		
					micr	sec	
			P	Z'	0.1	1.1	
			Mx	E	1.5	17	
			Mx	N	0.5	15	
			Mx	Z	1.9	17	
		Sk	iP		03 10 49.4		
		Um	iP		03 10 24.9	C	
			ipP		03 10 39.5		
		Ud	iP		03 10 54.7		
			ipP		03 11 08.9		
		Japan.					
		h = 50 km (Um,Ud).					
		m = 6.0, M = 5.4 (Up,Ki).					
"	13	Up	i(pP)		03 44 27.7		
		Um	iP		03 43 58.2		
			i(pP)		03 44 08.8		
		Ryukyu Islands (h = N).					
"	13	Ud	iP		04 56 40.7		
		Tien-Shan.					
"	13	Up	iPKP		07 16 40.8		
		Ki	iPKP		07 16 55.7		
		(cont.)					

1971 Mar.	13	(cont.)					
		Sk	ePKP		07 16 47		
		Um	ePKP		07 16 49		
		Ud	ePKP		07 16 39		
		South Sandwich Islands					
		(h = N).					
"	13	Ki	iSgl		10 51 39.4		
		Sk	iSgl		10 52 07.0		
		Um	iSgl		10 50 17.8		
		Probably southern Finland.					
"	13	Up			micr	sec	
			Mx	E	1.5	20	
			Mx	N	4.0	22	
			Mx	Z	4.9	21	
		Ki	iPKP		16 07 04.7		
					micr	sec	
			Mx	E	3.0	21	
			Mx	N	2.6	20	
			Mx	Z	3.4	19	
		Um	iPKP		16 07 12.0		
		Fiji Islands (h = 20 km).					
		M = 6.2 (Up,Ki).					
"	13	Up	iP		19 26 58.2		
			iPKP		19 30 50.0		
			iPKKP		19 41 34.5		
					micr	sec	
			Mx	E	1.9	20	
			Mx	N	1.8	20	
			Mx	Z	1.4	20	
		Ki	iP		19 26 32.4	C	
			iPKP		19 30 39.3		
			iPKKP		19 41 53.1		
					micr	sec	
			Mx	E	0.9	19	
			Mx	N	0.9	20	
			Mx	Z	1.5	19	
		Sk	iPKP		19 30 51.0		
			iPKKP		19 41 36.2		
		Um	iP		19 26 42.5		
			iPKP		19 30 43.7		
			iPP		19 31 16.5		
			iPKKP		19 41 45.4		
		Ud	iP		19 27 03.5		
			iPKP		19 30 52.3		
			iPKKP		19 41 30.6		
		De	iPKP		19 30 56.8		
			iPP		19 32 04.8		
		New Guinea (h = 120 km).					
		M = 5.7 (Up,Ki).					
"	14	Up	iP		00 02 23.2		
			iS		00 11 23		
					micr	sec	
			P	Z'	0.4	1.3	
			Mx	E	3.4	18	
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 14 (cont.)

Up			micr	sec
	Mx	N	6.0	21
	Mx	Z	9.6	22
Ki	iP		00 01 37.9	D
			micr	sec
	P	Z'	0.4	1.6
	Mx	E	7.2	18
	Mx	N	11	23
	Mx	Z	17	24
Sk	iP		00 01 56.0	D
	iP'P'		00 31 08.4	
Um	iP		00 02 03.2	D
	iS		00 10 43	
	iP'P'		00 30 59.2	
Ud	iP		00 02 18.5	D
	ipP		00 02 26.8	

Vancouver Island.
h = 30 km (Ud).
m = 6.4, M = 6.0 (Up,Ki).

" 14	Um	iPKP	06 28 30.3
		i	06 28 44.2
		iSKP	06 32 01.8

Loyalty Islands (h = 10 km).

" 14	Ki	iP	06 50 34.7

Sakhalin (h = 260 km).

" 14	Ki	iSn	10 38 59.4
		iSgl	10 39 20.7
	Um	eSgl	10 40 12

Northwest Russia.
Explosion.

" 14	Up	iP	12 25 37.1	
	Ki	iP	12 24 43.1	
			micr	sec
		P Z'	0.1	0.9
	Sk	iP	12 25 19.6	
	Um	iP	12 25 08.6	
	Ud	iP	12 25 40.3	
	De	iP	12 26 02.3	

Kamchatka (h = 35 km).

" 14	Ki	iPn	13 15 21.5
		eSn	13 16 10
	Sk	iSgl	13 19 20.8
	Um	iSn	13 17 20.1
		iSgl	13 17 56.1

Northwest Russia-Norway border region.
Explosion.

1971 Mar.

14	Um	eP	20 54 09
	Ud	eP	20 53 26

Gibraltar (h = 30 km).

" 14	Um	iP	23 33 41.2

South Africa (h = 40 km).

" 15	Ki	iP	04 27 20.2
	Sk	eP	04 27 57
	Um	iP	04 27 32.8
	Ud	eP	04 28 12

South of Japan (h = 35 km).

" 15	Ud	iP	05 29 39.4

Vancouver Island (h = 35 km).

" 15	Up	iP	05 46 48.4	C
		i	05 46 57.9	
			micr	sec
		P Z'	0.3	1.1
		Mx E	1.0	17
		Mx N	1.9	21
		Mx Z	2.0	21
	Ki	iP	05 46 05.2	C
		iPcP	05 46 42.0	
			micr	sec
		P Z'	0.2	1.0
		Mx E	2.6	23
		Mx N	1.9	23
		Mx Z	2.2	20
	Sk	iP	05 46 40.1	C
	Um	iP	05 46 24.5	C
	Ud	iP	05 46 54.8	C
	De	iP	05 47 11.8	C

Japan (h = 50 km).
m = 6.3, M = 5.5 (Up,Ki).

" 15	Ud	iPKP	11 07 33.2

Tonga Islands (h = N).

" 15	Ki	iP	14 23 33.8
	Um	iP	14 23 48.3
	Ud	iP	14 24 15.4

South of Japan (h = N).

" 15	Up	iP	15 28 19.7
	Ki	iP	15 29 31.5
	Sk	iP	15 29 00.1
	Um	iP	15 28 55.2
	Ud	iP	15 28 28.6
	De	iP	15 27 53.5

Greece (h = 30 km).

" 15	Um	iPKP	19 04 37.8

New Zealand (h = N).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 15 Sk iPKP 19 17 07.7
Um iPKP 19 17 05.0
New Hebrides Islands
(h = 50 km).

" 15 Up iPKP 21 10 45.0
iSKP 21 13 57.0
Ki iPKP 21 10 30.8
Sk iPKP 21 10 41.8
iSKP 21 13 53.9
Um iPKP 21 10 36.9
Ud iPKP 21 10 46.5
iSKP 21 14 01.9
De iPKP 21 10 52.8
iSKP 21 14 10.2
New Hebrides Islands
(h = 120 km).

" 15 Ud iP 21 26 33.3

" 15 Um eP 23 05 12
Afghanistan (h = 40 km).

" 16 Ki iP2 05 36 28.2
Um eP1 05 34 55
iP2 05 35 57.4
Ud eP1 05 35 03
Iran (h = 60 km).
The phase denoted by P2
could possibly be PP to P1.

" 16 Ud iP 12 05 38.1
De iP 12 05 20.8
Iran (h = 40 km).

" 16 Up ePKP 12 51 34
iSS 13 10 24

		micr	sec
Mx	E	4.9	21
Mx	N	6.4	21
Mx	Z	7.9	23

Ki iPKP 12 51 15.6

		micr	sec
Mx	E	2.6	18
Mx	N	3.6	17
Mx	Z	6.4	19

Sk ePKP 12 51 25
i 12 51 28.9
Um iPKP 12 51 22.1
i 13 00 49
iSS 13 09 37
Ud iPKP 12 51 33.4
De ePKP 12 51 39
i 12 51 44.2
Solomon Islands (h = 40 km).
M = 6.3 (Up,Ki).

1971 Mar. 16 Um iP 17 07 41.3
Formosa (h = 70 km).

" 16 Up iP 20 48 24.5
ipP 20 48 39,2
iPP 20 52 09.9
iSKS 20 58 53
iS 20 59 23

		micr	sec
P	Z'	0.1	1.0
pP	Z'	0.2	0.9
Mx	E	3.8	20
Mx	N	5.7	21
Mx	Z	7.7	19

Ki iP 20 48 05.4
iSKS 20 58 27

		micr	sec
P	Z'	0.6	1.5
Mx	E	6.5	18
Mx	N	5.7	21
Mx	Z	8.2	20

Sk iP 20 48 28.3
iPP 20 52 21.1
Um iP 20 48 12.4
iPP 20 51 49.0
iSKS 20 58 37
Ud iP 20 48 32.5 C
ipP 20 48 46.8
iPP 20 52 31.4
De iP 20 48 36.8
i 20 48 40.5
iPP 20 52 35.3
Philippine Islands.
h = 55 km (Up,Ud).
m = 6.6, M = 6.2 (Up,Ki).

" 16 De iP 22 36 29.6
Sinkiang.

" 17 Um iP 09 29 13.3
Hindu Kush.

" 17 Ki iSgl 12 26 15.8
Sk iSgl 12 26 23.5
Um iSgl 12 26 29.2
Sweden-Norway border region,
66.1°N, 15.5°E.
Origin time = 12 24 53.
Explosion.

" 17 Ki iPn 12 46 20.8
iSn 12 47 08.9
iSgl 12 47 25.1
Northwest Russia.
Origin time = 12 45 17.
Explosion.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	17	Ki	iP		16 18 34.7	
		Um	eP		16 18 59	
		Ud	eP		16 19 30	
		Japan (h = 60 km).				
"	17	De	iP		17 05 25.3	
"	17	Sk	e(Sgl)		18 12 52	
		Um	i(Sgl)		18 12 02.3	
"	17	Ki	iP		23 46 28.4	
		Ud	iP		23 46 45.0	
		Tadzhik SSR.				
"	18	Um	iSKP		02 55 55.3	
		Ud	iPKP		02 53 16.1	
		De	iPKP		02 53 26.8	
		Tonga-Kermadec Islands				
		(h = 540 km).				
"	18	Up	iP		03 24 00.9	
					micr	sec
			Mx	N	0.8	16
			Mx	Z	1.7	16
		Ki	eP		03 23 10	
					micr	sec
			Mx	E	0.6	15
			Mx	N	0.5	16
			Mx	Z	0.9	16
		Um	iP		03 23 32.6	
		Ud	iP		03 24 05.8	
		Kurile Islands (h = N).				
		M = 5.1 (Up,Ki).				
"	18	Ud	iPKP		05 39 23.0	
		De	iPKP		05 39 34.3	
		Tonga Islands (h = N).				
"	18	Ki	iP		09 57 52.5	
		Sk	eP		09 58 14	
		Um	eP		09 57 59	
		Ud	eP		09 58 18	
		Mindanao (h = 45 km).				
"	18	Um	iP		13 25 28.1	
		Ud	iP		13 24 54.1	
		Greece.				
"	18	De	iPgl		13 37 13.5	
			iSgl		13 37 16.7	
"	18	Up	i(Sgl)		15 35 20.2	
		Ud	i		15 35 16.6	
			i(Sgl)		15 35 40.1	

1971 Mar.	18	Up	iP		16 13 05.9	
			ipP		16 13 33.9	
		Ki	iP		16 14 13.1	
		Sk	iP		16 13 45.7	
			i(PP)		16 14 31.3	
		Um	i(PP)		16 14 23.5	
		Ud	iP		16 13 14.8	
		De	iP		16 12 43.6	
		Dodecanese Islands.				
		h = 150 km (Up).				
"	18	Up	iP		19 20 12.5	D
			i		19 21 25.0	
			iPP		19 21 51.7	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		19 20 16.7	D
					micr	sec
			P	Z'	0.1	0.8
		Sk	iP		19 20 36.7	D
			iPP		19 22 20.6	
		Um	iP		19 20 08.7	D
		Ud	iP		19 20 29.7	D
		De	iP		19 20 28.0	D
		Tadzhik-Sinkiang				
		(h = 150 km).				
		m = 5.6 (Up,Ki).				
"	18	Ud	iP		21 24 10.4	
"	18	Ki	iP		21 38 42.5	
		Um	iP		21 38 41.4	
		Ud	eP		21 38 50	
		Java (h = 50 km).				
"	18	Um	iP		21 46 27.4	
		Ud	eP		21 46 49	
		Mariana Islands (h = 110 km).				
"	19	Ki	iPKP		02 41 33.0	
		Sk	ePKP		02 41 45	
		Um	iPKP		02 41 41.7	
		De	iPKP		02 41 56.0	
		Loyalty Islands (h = 35 km).				
"	19	Up	iPKP		03 21 27.9	C
		Ud	iPKP		03 21 29.9	C
		De	iPKP		03 21 40.1	C
		Tonga-Kermadec Islands				
		(h = 80 km).				
"	19	Up	eP		04 25 52	
		Ki	iP		04 25 15.1	
		Um	iP		04 25 24.9	
			ipP		04 25 32.7	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 19 (cont.)

Ud	eP		04 25 58
	ipP		04 26 03.8

Bonin Islands.
h = 30 km (Um,Ud).

" 19

Up	iP		06 25 04.3
	ipP		06 25 27.9
Ki	iP		06 24 52.9
	ipP		06 25 14.7
	iPP		06 28 02.5
			micr sec
	pP	Z'	0.2 1.6
Sk	iP		06 24 47.6 C
	ipP		06 25 09.7
Um	iP		06 25 00.9
	ipP		06 25 23.7
	isP		06 25 36.2
Ud	iP		06 24 56.5
De	iP		06 25 05.1
	ipP		06 25 26.5

Mexico.
h = 80 km (Up,Ki,Sk,Um,De).

" 19

Ki	ePgl	08 32 10
	iSgl	08 32 52.5
Sk	iSgl	08 32 57.5
Um	eSgl	08 33 19

Nordland, Norway,
66.5°N, 14.1°E.
Origin time = 08 31 15.
Explosion.

" 19

Ki	e(Sgl)	11 03 49
Um	i(Sgl)	11 04 42.5

" 19

De	ePgl	13 33 36
	iRg	13 33 44.7

Explosion.

" 19

Um	iP	13 36 43.4
Ud	iP	13 36 45.9

Arabian Sea (h = N).

" 19

Ki	iP	16 58 44.8
Um	iP	16 58 50.8
Ud	iP	16 59 14.0
	iPP	17 03 22.9

Molucca Passage (h = N).

" 19

Ki	iSgl	17 34 41.7
Sk	iSgl	17 34 44.6
Um	iSgl	17 35 08.7

Nordland, Norway,
66.5°N, 14.1°E.
Origin time = 17 33 12.
Explosion.

1971 Mar. 19

Um	iP	18 45 29.9

Arabian Sea.

" 19

Um	iP	19 02 04.8

" 19

Ki	eP	21 27 42
Sk	eP	21 27 00
Ud	e(pP)	21 27 18

North Atlantic Ocean
(h = N).

" 20

Up	iP	02 50 24.4
	ipP	02 50 43.4
Ki	iP	02 50 34.3
	ipP	02 50 53.7
Sk	iP	02 50 11.4
Um	iP	02 50 32.8
	ipP	02 50 54.5
Ud	iP	02 50 12.8
	ipP	02 50 33.9
De	iP	02 50 09.5

Windward Islands.
h = 80 km (Up,Ki,Um,Ud).

" 20

Ki	iSgl	04 38 26.7
Sk	iSgl	04 38 28.9
Um	iSgl	04 38 41.9

Sweden-Norway border region,
66.2°N, 15.0°E.
Origin time = 04 37 00.
Explosion.

" 20

Up	eP		07 55 44
	ipP		07 55 51.6
	iS		08 04 25
			micr sec
	Mx	E	2.2 17
	Mx	N	2.9 18
	Mx	Z	6.0 22
Ki	ipP		07 56 45.6
			micr sec
	Mx	E	3.5 16
	Mx	N	2.3 18
	Mx	Z	2.4 16
Sk	eP		07 56 07
	ipP		07 56 12.5
Um	iP		07 56 11.3
	ipP		07 56 23.4
	iS		08 05 17
Ud	iP		07 55 41.2
	ipP		07 55 51.1
De	ipP		07 55 34.0

North of Ascension Island.
h = 40 km (Um,Ud).
M = 5.8 (Up,Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	20	Sk	iP	09 44 56.9			
		Um	iP	09 44 41.2			
		Ud	iP	09 45 12.3			
		Japan (h = 80 km).					
"	20	Up	iP	09 58 36.1			
		Ki	eP	09 58 22			
		Um	iP	09 58 26.4			
		Ud	iP	09 58 45.6			
		Bali Sea (h = 5 km).					
"	20	Up	iP	12 33 50.2			
		Ud	iP	12 33 38.2			
"	20	Up	iP	16 47 50.8			
		Ud	iP	16 47 59.4			
		Formosa (h = 50 km).					
"	21	Up	i(S*)	08 39 42.5			
		Ki	ePn	08 35 47			
			iSn	08 36 44.3			
			iSgl	08 37 06.1			
		Sk	iSgl	08 39 33.8			
		Um	iSn	08 37 24.1			
			iSgl	08 37 55.2			
		Ud	e(S*)	08 40 15			
			iSgl	08 40 34.5			
		De	iSgl	08 42 06.9			
		Northwest Russia,					
		67.5°N, 33.1°E.					
		Origin time = 08 34 30.					
		Explosion.					
"	21	Up	iPKP	15 34 57.4			
			epPKP	15 37 27			
		Ki	iPKP	15 34 49.5			
		Um	iPKP	15 34 56.2			
		Ud	ePKP	15 34 57			
		De	iPKP	15 35 06.5			
		Fiji Islands (h = 690 km).					
"	21	Up	iP	21 09 30.8			
		Ki	iP	21 08 43.2			
		Sk	iP	21 09 17.9			
		Um	iP	21 09 05.2			
		Ud	iP	21 09 36.1			
"	21	Up	iP	22 29 44.8			
		Ki	iP	22 29 07.9			
		Sk	eP	22 29 42			
		Um	iP	22 29 23.5			
		Ud	iP	22 29 52.5			
		De	eP	22 30 18			
		Japan (h = 60 km).					
1971 Mar.	22	Up	iP	01 18 04.8			
		Um	iP	01 17 40.9			
		Ud	iP	01 18 12.1			
		Japan (h = 25 km).					
"	22	Up	iP	04 39 53.3 C			
			iPn	04 40 55.3			
			iPP	04 41 12.0			
				micr	sec		
			P	Z'	0.3	1.1	
			Mx	Z	0.4	9	
		Ki	iP	04 39 37.6 C			
				micr	sec		
			P	Z'	0.4	0.7	
		Sk	iP	04 40 08.8 C			
		Um	iP	04 39 38.2 C			
			iPP	04 40 52.7			
		Ud	iP	04 40 09.6 C			
		De	iP	04 40 16.2 C			
			iPP	04 41 44.1			
		Kazakh SSR.					
		m = 6.3 (Up,Ki).					
		Underground explosion.					
"	22	Um	iP	06 51 49.2			
		Ud	iP	06 51 23.1			
"	22	Um	iP	08 51 11.1			
		Ud	eP	08 51 16			
"	22	Up	iP	10 29 47.5 C			
				micr	sec		
			P	Z'	0.1	0.9	
			Mx	N	1.0	18	
			Mx	Z	1.4	20	
		Ki	iP	10 30 30.7			
		Sk	iP	10 29 57.8			
		Um	iP	10 30 12.0			
			iS	10 39 21			
		Ud	iP	10 29 40.0			
		North of Ascension Island					
		(h = N).					
"	22	Up	iP	10 51 29.9 C			
				micr	sec		
			P	Z'	0.1	0.9	
		Ki	iP	10 50 50.4			
				micr	sec		
			P	Z'	0.1	1.0	
			Mx	E	0.6	15	
			Mx	N	0.7	18	
			Mx	Z	0.9	16	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	22	(cont.)				
		Sk	iP		10 51 24.0	
		Um	iP		10 51 08.2	C
		Ud	iP		10 51 37.3	C
		De	iP		10 51 52.2	C
		Japan (h = 45 km).				
		m = 5.9 (Up,Ki).				
"	22	Sk	iP		15 54 55.9	
		Aegean Sea.				
"	23	Up	iP		00 39 10.3	
		Ki	eP		00 40 20	
		Sk	iP		00 39 48.4	
		Ud	iP		00 39 15.9	C
		De	eP		00 38 44	
		Crete (h = 70 km).				
"	23	Up	iPKP1		02 34 44.6	
			iPKP2		02 34 45.9	
			i		02 34 50.7	
					micr	sec
			Mx	E	1.0	20
			Mx	N	3.3	23
			Mx	Z	3.0	22
		Ki	i(PKP)		02 34 26.4	
			iPKP2		02 34 36.0	
			iSKP		02 37 59.5	
					micr	sec
			Mx	E	2.2	21
			Mx	N	1.1	20
			Mx	Z	4.3	21
		Sk	i(PKP)		02 34 38.4	
			iPKP2		02 34 45.2	
		Um	i(PKP)		02 34 32.7	
			iPKP2		02 34 43.1	
			iPP		02 37 45	
		Ud	iPKP1		02 34 45.1	
			iPKP2		02 34 46.8	
			i		02 35 05.8	
		De	iPKP1		02 34 56.4	
			iPKP2		02 34 58.0	
			i		02 35 19.1	
		Tonga-Kermadec Islands (h = 80 km).				
		M = 6.1 (Up,Ki).				
		PKP1 and PKP2 denote double PKP, in average 1.5 sec apart.				
"	23	Up	iP		07 04 15.2	
			iS		07 07 34	
			iLg2		07 09 53.0	
					micr	sec
			P	Z'	0.4	0.8
		(cont.)				

1971 Mar.	23	(cont.)				
		Ki	iP		07 03 46.5	
			i		07 03 52.7	
			i(Lg1)		07 08 37	
			iLg2		07 08 52	
					micr	sec
			P	Z'	1.4	0.9
			Mx	E	2.9	10
			Mx	N	1.4	6
			Mx	Z	2.1	9
		Sk	iP		07 04 32.2	
		Um	iP		07 03 47.0	
		Ud	iP		07 04 37.6	
			iS		07 08 21.4	
		De	iP		07 04 53.8	
			iS		07 08 54.0	
		Ural Mountains.				
		m = 5.9 (Up,Ki).				
		Underground explosion.				
"	23	Up	iP		09 29 55.2	
			iS		09 32 33	
			iSS		09 32 59	
					micr	sec
			P	Z'	1.0	0.8
			Mx	E	92	18
			Mx	N	64	19
			Mx	Z	87	19
		Ki	iP		09 28 50.5	
			iS		09 30 51	
					micr	sec
			P	Z'	7.1	0.6
			Mx	E	120	16
			Mx	N	110	16
			Mx	Z	52	14
		Sk	iP		09 28 55.1	
			i		09 28 56.2	
			iS		09 30 47.4	
		Um	iP		09 29 23.0	
			i		09 29 24.0	
			iS		09 31 36	
		Ud	iP		09 29 38.6	
			i		09 29 39.9	
		De	eP		09 30 23	
			i		09 30 24.5	
		Jan Mayen (h = N).				
		M = 6.1 (Up,Ki).				
		Double P, about 1.2 sec apart.				
"	23	Up	iP		09 59 56.9	
			iLg1		10 13 55	
					micr	sec
			P	Z'	2.3	1.3
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 23 (cont.)

Up			micr	sec
	Mx	E	12	8
	Mx	N	12	8
	Mx	Z	20	8
Ki	iP		09 59 50.8	
	iLgl		10 13 26	
			micr	sec
	Mx	E	59	12
	Mx	N	28	12
	Mx	Z	61	12
Sk	iP		10 00 16.2	
Um	iP		09 59 48.4 D	
Ud	iP		10 00 11.8	
De	iP		10 00 16.7 D	

Kirghiz-Sinkiang (h = N).
M = 6.6 (Up,Ki).

" 23

Ki	iP	16 29 38.3
Um	iP	16 29 37.3

Molucca Passage (h = 70 km).

" 23

Up	ePn	20 06 59
	i	20 08 35.6
Ki	eSn	20 09 31
	iSgl	20 10 50.5
Sk	iPn	20 06 39.0
	iSn	20 07 44.6
Um	iPn	20 07 23.4
	iSn	20 09 02.8
	i	20 09 18.0
	iSgl	20 09 47.6
Ud	iPn	20 06 32.9 D
	iP*	20 06 40.5
	iSn	20 07 33.3
	iSgl	20 07 54.2
De	iPn	20 06 50.8
	iSn	20 08 05.1

Off coast of Hordaland, Norway, 60.0°N, 3.9°E.
Origin time = 20 05 11.

" 23

Up	iP		20 55 02.3	
	iPP		20 56 48.1	
	iSS		21 04 23	
			micr	sec
	P	Z'	1.7	0.9
	Mx	E	16	9
	Mx	N	45	17
	Mx	Z	31	9
Ki	iP		20 54 55.8	
			micr	sec
	P	Z'	2.3	1.5

(cont.)

1971 Mar. 23 (cont.)

Ki			micr	sec
	Mx	E	54	12
	Mx	N	37	14
	Mx	Z	57	12
Sk	iP		20 55 21.7	
Um	iP		20 54 53.2	
	iPP		20 56 27.1	
	iS		21 01 05	
Ud	iP		20 55 18.3	
De	iP		20 55 20.1	

Kirghiz-Sinkiang (h = N).
m = 6.8, M = 6.7 (Up,Ki).

" 23

Ki	iP	22 27 15.5
Um	eP	22 27 13

Sumatra.

" 24

Sk	ePKP	02 44 48
Um	iPKP	02 44 41.6
Ud	iPKP	02 44 50.5
De	iPKP	02 44 55.6

New Britain (h = 70 km).

" 24

Sk	iP	04 17 56,6
Ud	iP	04 17 23.1

Greece.

" 24

Up	iP		05 16 05.9	
	ipP		05 16 11.1	
			micr	sec
	pP	Z'	0.1	0.8
	Mx	E	0.8	11
	Mx	N	0.4	7
Ki	eP		05 17 25	
			micr	sec
	Mx	E	1.5	15
	Mx	N	0.5	14
Sk	iP		05 16 44.8	
	ipP		05 16 49.9	
Um	iP		05 16 46.6	
Ud	iP		05 16 12.3	
	ipP		05 16 17.2	
De	i(pP)		05 15 36.1	

Greece.
h = 20 km (Up,Sk,Ud).
M = 4.7 (Up,Ki).

" 24

Up	iP	12 25 45.5
Ud	eP	12 25 59

" 24

Up	iP	13 47 57.8
	ipP	13 48 02.3
Ki	eP	13 48 15

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 24 (cont.)

Sk	eP	13 48 26	
Um	iP	13 48 00.3	
Ud	iP	13 48 13.7	
	ipP	13 48 18.6	
De	iP	13 48 09.1	

West Pakistan.
h = 15 km (Up,Ud).

" 24

Up	iP	14 03 53.5		
	ipP	14 03 55.8		
	iS	14 11 39		
			micr	sec
	P	Z'	0.1	0.8
	pP	Z'	0.4	1.0
	Mx	E	17	16
	Mx	N	9.7	15
	Mx	Z	27	15
Ki	iP	14 03 36.4		
	ipP	14 03 38.6		
	iS	14 11 07		
			micr	sec
	pP	Z'	0.4	1.2
	Mx	E	14	12
	Mx	N	16	15
	Mx	Z	17	15
Sk	iP	14 04 05.0		
	ipP	14 04 06.9		
Um	iP	14 03 40.1		
	iS	14 11 11		
Ud	iP	14 04 06.6		
	ipP	14 04 08.8		
De	iP	14 04 12.8		

China.
h = 10 km (Up,Ki,Sk,Ud).
m = 6.3, M = 6.4 (Up,Ki).
Alternatively, pP may instead be the P of a second, larger shock.

" 24

Sk	iSgl	14 23 50.6
Ud	iSgl	14 22 44.5

South Norway, 58.2°N, 7.2°E.
Origin time = 12 40 46.
Solution checked with Norwegian bulletin.

" 24

Ki	iP	15 22 06.0
Sk	eP	15 22 13
	i	15 24 02.6

" 24

De	iP	15 47 28.8

1971 Mar. 24

Up	i(Sgl)	16 11 40.7
Um	i(Sgl)	16 12 30.1
De	e(Sgl)	16 13 28

" 24

Ki	iSgl	16 21 12.2
Sk	iSgl	16 21 18.1
Um	iSgl	16 21 40.7

Nordland, Norway,
66.5°N, 14.1°E.
Origin time = 16 19 43.
Explosion.

" 24

Sk	iP	16 30 54.7
Um	iP	16 31 09.0

Mexico (h = 60 km).

" 24

Up	iP	18 36 11.9
Ki	iP	18 35 26.3
Sk	eP	18 36 01
Um	iP	18 35 47.1
Ud	iP	18 36 23.5

Kurile Islands (h = 60 km).

" 24

Um	iP	19 58 03.9
Ud	eP	19 58 35

Japan (h = 50 km).

" 24

Ki	iP	20 37 09.2
Um	iP	20 37 15.8
Ud	iP	20 37 33.6

Mindanao (h = 60 km).

" 24

Up	iP	21 02 16.1 C		
	ipP	21 02 20.2		
			micr	sec
	P	Z'	0.1	0.9
	pP	Z'	0.2	1.0
Ki	iP	21 02 10.1 C		
	ipP	21 02 14.1		
			micr	sec
	P	Z'	0.1	0.8
	pP	Z'	0.1	0.9
	Mx	E	1.9	11
	Mx	N	1.8	14
	Mx	Z	2.1	11
Sk	iP	21 02 35.5 C		
	ipP	21 02 39.7		
Um	iP	21 02 06.4 C		
	ipP	21 02 10.5		
Ud	iP	21 02 32.1 C		
	ipP	21 02 36.4		
De	iP	21 02 34.4 C		
	ipP	21 02 38.7		

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 24 (cont.)
Kirghiz-Sinkiang.
h = 15 km (Up,Ki,Sk,Um,Ud,De).
m = 5.7 (Up,Ki).

"	24	Up	iP	21 09 41.6	C
			ipP	21 09 45.9	
			iPP	21 11 22.7	
				micr	sec
			P	Z' 0.1	1.0
			PP	Z' 0.3	1.0
			Mx	E 0.7	8
			Mx	N 0.9	9
			Mx	Z 1.9	9
		Ki	iP	21 09 35.6	C
			ipP	21 09 39.6	
				micr	sec
			P	Z' 0.1	0.9
			pP	Z' 0.4	1.4
			Mx	E 2.9	11
			Mx	N 3.9	14
			Mx	Z 3.1	11
		Sk	iP	21 10 01.0	
			ipP	21 10 04.9	
		Um	iP	21 09 31.8	C
			ipP	21 09 36.3	
		Ud	iP	21 09 57.7	C
			ipP	21 10 02.0	
		De	iP	21 09 59.8	C
			ipP	21 10 04.1	

Kirghiz-Sinkiang.
h = 15 km (Up,Ki,Sk,Um,Ud,De).
m = 5.8, M = 5.3 (Up,Ki).

"	24	Up	iP	21 34 20.4
		Ki	iP	21 33 50.2
		Um	iP	21 34 03.1
		Ud	iP	21 34 26.2

Mariana Islands (h = 35 km).

"	24	Ki	iP	21 41 11.6
		Um	iP	21 41 16.4
		Ud	iP	21 41 35.4

Talaud Islands (h = 90 km).

"	24	Ud	iP	21 55 02.3
			i	21 55 09.2

Ionian Islands.

"	25	De	iP	00 48 44.2

Chile (h = 110 km).

"	25	Up	eP	01 01 28
		Um	eP	01 02 17

(cont.)

1971 Mar. 25 (cont.)

		Ud	iP	01 01 38.2

Greece (h = 45 km).

"	25	Up	iP	03 43 02.4	
			i	03 43 12.0	
				micr	sec
			P	Z' 0.1	0.8
		Ki	iP	03 42 08.7	
		Sk	e(P)	03 42 41	
		Um	iP	03 42 34.5	
		Ud	iP	03 43 02.2	
			ipP	03 43 05.4	
		De	iP	03 43 24.6	

Aleutian Islands.
h = 10 km (Ud).

"	25	Up	iP	10 15 09.5
			i	10 15 17.4
"	25	Up	iP	11 39 38.8
		Ki	iP	11 40 19.8
		Um	iP	11 40 00.2
		Ud	iP	11 39 30.9

Ascension Island (h = N).

"	25	Um	iSgl	14 26 37.6
"	25	Um	eP	15 04 13
		Ud	iP	15 03 31.3
"	25	Up	iP	15 32 04.7
		Ki	iP	15 33 09.3
		Sk	eP	15 32 39
		Um	iP	15 32 35.6
		Ud	iP	15 32 08.3
		De	iP	15 31 35.0
			i	15 31 41.7

Crete (h = 40 km).

"	25	Up	iP	16 31 10.0	C
			ipP	16 31 22.4	
				micr	sec
			P	Z' 0.3	1.0
		Ki	iP	16 30 29.7	C
			ipP	16 30 41.9	
				micr	sec
			P	Z' 0.2	1.1
		Sk	eP	16 31 03	
		Um	iP	16 30 47.5	C
			ipP	16 30 59.5	
		Ud	iP	16 31 17.0	C
			ipP	16 31 29.2	
		De	iP	16 31 32.9	C

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 25 (cont.)
Japan.
h = 45 km (Up,Ki,Um,Ud).
m = 6.4 (Up,Ki).

" 25 Um iP 16 54 28.5
Aegean Sea (h = 10 km).

" 25 De iP 18 11 53.7
Hindu Kush.

" 26

			micr	sec
Up				
	Mx	E	1.1	19
	Mx	N	1.1	21
	Mx	Z	3.0	20
Ki	ePKP2		09 28 56	
			micr	sec
	Mx	E	1.0	18
	Mx	N	0.7	18
	Mx	Z	2.2	20
Um	iPKP2		09 28 56.4	

South Pacific (h = N).
M = 5.8 (Up,Ki).

" 26 Um iP 10 47 16.6

" 26

Ki	iPn	10 51 25.0
	iSn	10 52 25.2
	iS*	10 52 43.8
Sk	iSg1	10 55 15.1
Um	iSn	10 53 01.9
	iSg1	10 53 32.9
	iSg2	10 53 42.1

Northwest Russia,
67.6°N, 34.3°E.
Origin time = 10 50 05.
Explosion.

" 26

Ki	iSg1	15 00 21.5
Um	iSg1	14 59 30.0

" 26 De i(Sg1) 15 01 23.6

" 26

Up	iPKP	15 57 32.2
Ud	iPKP	15 57 33.6
De	iPKP	15 57 43.1

Kermadec Islands (h = N).

" 26

			micr	sec
Up	iP		17 45 18.4	
	i		17 45 25.4	
			micr	sec
	P	Z'	0.4	1.1
	Mx	E	0.9	16
	Mx	N	1.1	16
	Mx	Z	2.8	16

(cont.)

1971 Mar. 26 (cont.)

			micr	sec
Ki	iP		17 44 24.3	
	i		17 44 31.3	
	i		17 44 42.6	
			micr	sec
	P	Z'	0.6	1.0
	Mx	E	1.1	14
	Mx	N	1.3	16
	Mx	Z	3.5	16
Sk	iP		17 44 49.3	
	i		17 44 56.0	
Um	iP		17 44 53.3	
	i		17 44 59.8	
	iS		17 52 40	
Ud	iP		17 45 14.5	
	i		17 45 21.0	
De	iP		17 45 38.6	
	i		17 45 45.8	

Alaska (h = 5 km).
m = 6.4, M = 5.1 (Up,Ki).
The second phase arrives in average about 7 sec after P. It can either be interpreted as double P or else as pP for a focal depth of 25 km.

" 26

Up	iP	17 52 09.7
Ki	iP	17 51 15.5
	i	17 51 22.5
Sk	iP	17 51 39.8
Um	iP	17 51 43.2
Ud	iP	17 51 05.0
De	iP	17 52 29.6

Alaska.
Origin time = 17 42 09.

" 26

Ki	iP	21 25 35.7
Um	eP	21 25 10
Ud	iP	21 25 09.6
De	iP	21 24 51.2

Iran-Iraq (h = N).

" 27 Um iP 03 26 07.9

" 27

Up	iP	07 00 39.2
	i	07 00 49.5
Ki	iP	06 59 47.2
	i	06 59 57.2
Um	iP	07 00 13.3
Ud	iP	07 00 40.1
	i	07 00 50.2

" 27

Um	iP	07 24 35.3
Ud	iP	07 25 00.2

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
Mar.	27	Up	iPgl	11 31 03.8	
			eSgl	11 31 22	
			iRg	11 31 30.1	
		Ud	iSgl	11 31 09.0	
			iRg	11 31 14.0	
		De	iSgl	11 32 30.0	
		Central Sweden,			
		59.9°N, 15.2°E.			
		Origin time = 11 30 41.			
"	27	Ki	iPgl	12 26 07.1	
			iSgl	12 26 19.3	
		Sk	eSgl	12 28 29	
		Um	iSgl	12 27 32.0	
		Lapland, Sweden,			
		67.0°N, 20.4°E.			
		Origin time = 12 25 52.			
		Iron ore mine explosion.			
"	27	Ki	iPn	12 56 30.4	
			iSn	12 57 18.7	
			iSgl	12 57 35.8	
		Um	iSgl	12 59 02.0	
		Northwest Russia-Norway			
		border region.			
		Origin time = 12 55 27.			
		Explosion.			
"	27	Up	iP	17 20 34.0	
				micr	sec
			P Z'	1.2	0.9
		Ki	iP	17 19 41.3	
			iPcP	17 20 26.8	
				micr	sec
			P Z'	0.6	1.1
		Sk	iP	17 20 12.3	
			i	17 20 22.0	
			ipP	17 20 46.3	
		Um	iP	17 20 07.1	
			ipP	17 20 41.0	
			iPcP	17 20 43.2	
			iPP	17 22 22.1	
		Ud	iP	17 20 33.7	
			iPcP	17 21 00.5	
			ipP	17 21 09.7	
		De	iP	17 20 56.3	
		Aleutian Islands.			
		h = 130 km (Sk,Um,Ud).			
		m = 6.6 (Up,Ki).			
"	27	Ki	iP	18 15 34.2	
		Sk	iP	18 16 22.1	
		Um	iP	18 16 17.8	
		Ud	iP	18 16 55.0	

1971					
Mar.	27	Ki	eP	20 46 47	
		Um	eP	20 46 26	
		Ud	eP	20 47 16	
"	27	Um	iP	22 09 39.3	
"	27	Up	iP	23 48 30.0	
		Ki	iP	23 48 14.5	
		Um	iP	23 48 04.5	
		Ud	iP	23 48 45.9	
		Tien-Shan.			
"	28	Up	iP	01 29 06.6	
		Um	iP	01 29 02.6	
		Ud	iP	01 29 18.6	
		Andaman Islands.			
"	28	Up	iP	03 05 08.9	
				micr	sec
			P Z'	0.1	0.8
			Mx N	0.8	18
		Ki	iP	03 05 05.4	
				micr	sec
			Mx N	1.8	22
		Sk	iP	03 05 24.3	
		Um	iP	03 05 01.8	
		Ud	iP	03 05 21.9	
		De	eP	03 05 27	
		Burma (h = 35 km).			
"	28	De	iPKP	04 37 03.7	
		Tonga Islands (h = 45 km).			
"	28	Up	iSgl	06 04 37.5	
		Ki	iSn	06 01 23.0	
			iSgl	06 01 46.1	
		Sk	iSgl	06 04 11.2	
		Um	iSn	06 02 03.3	
			iSgl	06 02 37.9	
		Ud	iSgl	06 05 03.4	
		De	eSgl	06 06 37	
		Northwest Russia,			
		67.7°N, 33.0°E.			
		Origin time = 05 59 17.			
		Explosion.			
"	28	Up	iP	08 27 51.5	C
				micr	sec
			P Z'	0.1	1.0
		Um	iP	08 27 47.0	
			i	08 28 02.2	
		Ud	iP	08 28 03.2	
		De	iP	08 28 02.2	
		Andaman Islands.			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	28	Up	iP1		08 34 51.9	C
			iP2		08 34 57.9	
			iP3		08 35 04.4	
			iS		08 44 20	
					micr	sec
			P2	Z'	0.8	1.7
			P3	Z'	0.7	1.5
			Mx	E	10	20
			Mx	N	9.9	22
			Mx	Z	20	21
		Ki	iP1		08 34 51.5	
			iP2		08 34 56.8	
			iP3		08 35 04.3	
			iS		08 44 19	
					micr	sec
			P3	Z'	0.4	1.7
			Mx	E	22	22
			Mx	N	26	22
			Mx	Z	27	22
		Sk	iP2		08 35 10.2	
		Um	iP1		08 34 48.1	
			iP2		08 34 53.1	
			iS		08 44 13	
		Ud	iP1		08 35 03.4	
			iP2		08 35 09.6	
			iP3		08 35 16.0	
		De	iP1		08 35 02.4	
			iP2		08 35 08.5	
			iP3		08 35 15.1	
		Andaman Islands (h = N).				
		m = 6.4, M = 6.4 (Up,Ki).				
		Triple P, the second and				
		third onsets in average				
		6 and 12.5 seconds delayed,				
		respectively.				
"	28	Up	iP		08 50 07.7	
		Um	iP		08 50 11.9	
		Ud	eP		08 50 27	
"	28	Up	iP		08 53 07.3	
		Ki	iP		08 53 00.1	
		Um	iP		08 52 56.1	
		Ud	iP		08 53 19.1	
		De	iP		08 53 10.4	
		Andaman Islands.				
"	28	Ki	i(Sgl)		09 11 03.6	
		Um	i(Sgl)		09 11 59.8	
"	28	Up	eP		10 57 53	
		Ki	eP		10 57 43	
		Ud	iP		10 58 05.5	
		Kirghiz-Sinkiang.				

1971 Mar.	28	Up	iP		14 32 29.0	
		Um	iP		14 32 24.4	
		Ud	iP		14 32 41.6	
		De	iP		14 32 39.4	
		Andaman Islands (h = N).				
"	28	Up	iP		14 51 13.7	C
			ipP		14 51 21.7	
					micr	sec
			pP	Z'	0.1	1.2
		Ki	i(pP)		14 51 24.8	
		Sk	i(pP)		14 51 36.5	
		Um	iP		14 51 08.4	
			ipP		14 51 17.7	
		Ud	iP		14 51 24.4	
			ipP		14 51 32.4	
		De	iP		14 51 23.4	
			ipP		14 51 32.4	
		Andaman Islands.				
		h = 30 km (Up,Um,Ud,De).				
"	28	Up	iPP		18 15 22.8	
		Ki	iP		18 10 56.2	
		Um	iPP		18 15 16.9	
		Ud	iP		18 11 25.0	
			ePP		18 15 35	
		De	ePKP		18 15 27	
		Timor (h = N).				
"	29	Um	iSKP		04 14 20.8	
		Chile (h = 25 km).				
"	29	Um	i(Sgl)		08 50 38.7	
"	29	Um	i(P)		13 09 30.8	
"	29	De	iPgl		14 27 57.8	
			iSgl		14 28 00.6	
"	29	Ki	iSgl		18 05 16.4	
		Sk	iSgl		18 05 21.0	
		Um	iSgl		18 05 43.3	
		Nordland, Norway,				
		66.5°N, 14.1°E.				
		Origin time = 18 03 47.				
		Explosion.				
"	29	Up	iP		18 07 19.4	
			ipP		18 07 26.4	
					micr	sec
			pP	Z'	0.1	1.0
		Ki	iP		18 07 18.9	
			ipP		18 07 25.8	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar. 29 (cont.)

Sk	iP	18 07 35.3		
Um	iP	18 07 15.6		
	ipP	18 07 22.3		
Ud	iP	18 07 31.1		
De	iP	18 07 30.2		

Andaman Islands.
h = 25 km (Up,Ki,Um).

" 29

Up	iP	19 31 48.2		
		micr	sec	
	P	Z' 0.1	1.0	
Ki	iP	19 31 08.4		
		micr	sec	
	P	Z' 0.1	0.9	
Sk	iP	19 31 42.4		
Um	iP	19 31 25.8		D
Ud	iP	19 31 56.3		
De	iP	19 32 11.7		

Sea of Japan (h = 290 km).
m = 5.5 (Up,Ki).

" 29

Ud	iP	21 34 12.1	

" 30

Up	iP	00 34 56.3	C
Sk	iP	00 35 39.3	
Um	iP	00 35 37.3	
Ud	iP	00 35 05.2	
De	iP	00 34 25.2	

Greece (h = 50 km).

" 30

Um	iP	01 11 42.8	

Venezuela (h = 45 km).

" 30

Up	eP	02 31 18	
Ki	iP	02 32 30.6	
Sk	iP	02 32 02.0	
Ud	iP	02 31 31.7	C
De	eP	02 30 59	

Near Crete.

" 30

Um	iSKP	03 00 22.5	
De	ePKP	02 57 57	

Fiji Islands (h = 630 km).

" 30

Up	iP	03 48 48.6		
	ipP	03 48 57.3		
		micr	sec	
	pP	Z' 0.1	0.9	
Ki	iP	03 48 50.9		C
	ipP	03 48 58.6		
		micr	sec	
	P	Z' 0.1	0.8	
	pP	Z' 0.1	0.8	

(cont.)

1971 Mar. 30 (cont.)

Sk	iP	03 49 04.9	C
Um	iP	03 48 46.8	C
	ipP	03 48 54.6	
Ud	iP	03 49 00.2	C
	ipP	03 49 08.4	
De	iP	03 48 58.1	C
	ipP	03 49 06.1	

Sumatra.
h = 30 km (Up,Ki,Um,Ud,De).
m = 5.9 (Up,Ki).

" 30

Up	iP	04 11 02.0	
Ki	iP	04 10 16.2	
Um	iP	04 10 37.4	
Ud	iP	04 11 07.9	
De	eP	04 11 25	

Kurile Islands (h = 40 km).

" 30

Ki	iSgl	04 27 49.9	
Sk	iSgl	04 27 55.4	
Um	iSgl	04 28 18.7	

Nordland, Norway,
66.5°N, 14.0°E.
Origin time = 04 26 21.
Explosion.

" 30

Up	iP	11 41 41.4		
	iPcP	11 42 03.6		
		micr	sec	
	P	Z' 0.1	1.0	
	PcP	Z' 0.3	1.2	
Ki	iP	11 40 48.4		
	iPcP	11 41 33.2		
		micr	sec	
	PcP	Z' 0.1	0.8	
Sk	iP	11 41 20.8		
Um	iP	11 41 14.6		
	iPcP	11 41 49.7		
Ud	iP	11 41 41.4		
De	iP	11 42 03.2		

Aleutian Islands (h = 20 km).

" 30

Up	iP	11 41 52.9		
	iPcP	11 42 14.7		
	iP'P'	12 09 54.5		
		micr	sec	
	P	Z' 0.1	0.9	
	PcP	Z' 0.3	1.0	
	Mx	E 1.0	18	
	Mx	N 1.6	18	
	Mx	Z 2.4	18	
Ki	iP	11 40 57.9		
	iPcP	11 41 43.3		

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	30	(cont.)					
		Ki			micr	sec	
			P	Z'	0.1	0.6	
			PcP	Z'	0.2	1.0	
			Mx	E	1.2	15	
			Mx	N	1.6	18	
			Mx	Z	2.6	18	
		Sk	iP		11 41 31.0		
			iPcP		11 42 02.6		
		Um	iP		11 41 25.3		
			iPcP		11 41 59.6		
			iP'P'		12 10 15.5		
		Ud	iP		11 41 51.8		
			iPcP		11 42 16.4		
			iP'P'		12 09 53.8		
		De	iP		11 42 14.0		
		Aleutian Islands (h = 20 km).					
		Origin time = 11 30 50.					
		m = 6.1, M = 5.3 (Up,Ki).					
"	30	Um	iSgl		14 07 27.7		
"	30	Ud	iPgl		14 25 20.4		
			iSgl		14 25 48.1		
		De	iPgl		14 25 13.5		
			iSgl		14 25 36.0		
			iRg		14 25 43.6		
		Västergötland, Sweden.					
		Origin time = 14 24 45.					
		Explosion.					
"	30	Up	iP		19 44 51.8		
		Ki	eP		19 46 12		
					micr	sec	
			Mx	E	1.0	15	
		Sk	iP		19 45 34.1		
		Um	iP		19 45 32.7		
		Ud	iP		19 44 59.5		
		De	eP		19 44 26		
		Greece-Albania (h = N).					
"	30	Ud	iP		20 27 02.0		
"	30	Up	iPKP		22 58 54.1		
		Um	iPKP		22 58 48.4		
		Ud	iPKP		22 58 54.2		
		De	iPKP		22 59 07.5		
		Tonga-Kermadec Islands (h = N).					
"	31	Up	iP		05 58 57.2		
		Um	iP		05 58 54.6		
		Ud	iP		05 59 08.7		
		De	iP		05 59 06.6		
1971 Mar.	31	Ud	iP		06 01 39.2		
"	31	Up	iP		08 26 41.6		
		Ki	iP		08 26 32.6		
		Sk	iP		08 26 55.5		
		Um	iP		08 26 31.8		
		Ud	iP		08 26 54.9		
		De	iP		08 26 55.8		
		Burma (h = 20 km).					
"	31	Up	i(P)		09 14 51.9		
					micr	sec	
			P	Z'	0.1	0.8	
		Ud	iP		09 14 41.3		
"	31	Up	iP		09 27 09.0		
					micr	sec	
			Mx	N	1.8	24	
			Mx	Z	1.5	22	
		Ki	eP		09 26 54		
					micr	sec	
			Mx	E	1.0	15	
			Mx	N	1.1	20	
			Mx	Z	1.2	15	
		Sk	iP		09 27 09.7		
		Um	iP		09 26 59.1		
		Ud	eP		09 27 14		
			i		09 29 23.5		
		Mindanao (h = 50 km).					
		M = 5.4 (Up,Ki).					
"	31	Up	i(P)		09 50 36.0		
		Ud	i(P)		09 50 23.4		
"	31	Up	iP		10 37 00.4		
					micr	sec	
			P	Z'	0.1	1.2	
			Mx	N	1.8	25	
			Mx	Z	1.3	19	
		Ki	iP		10 36 43.1		
					micr	sec	
			Mx	N	1.9	23	
		Sk	iP		10 37 05.5		
		Um	eP		10 36 50		
		Ud	iP		10 37 08.5		
		De	iP		10 37 18.4		
		Mindanao (h = N).					
		M = 5.5 (Up,Ki).					
"	31	Sk	iP		10 45 35.7		
		Um	iP		10 45 09.0		
		Ud	iP		10 45 27.5		
		Hindu Kush.					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Mar.	31	Up	eSgl	10 59 08	
		Ki	iPn	10 55 01.9	
			iSn	10 56 01.9	
			iS*	10 56 20.5	
		Sk	iSgl	10 58 49.5	
		Um	iSn	10 56 40.5	
			iSgl	10 57 09.0	
			iSg2	10 57 19.2	
		Ud	iSgl	10 59 46.0	
		Northwest Russia, 67.7°N, 33.7°E.			
		Origin time = 10 53 42.			
		Explosion.			
"	31	Up	iPKP	11 52 48.8	
		Ki	iPKP	11 52 29.5	
		Sk	iPKP	11 52 41.7	
		Um	i(PKP)	11 52 37.7	
		Ud	i(PKP)	11 52 47.0	
			iPKP	11 52 50.7	
		De	i(PKP)	11 52 56.2	
			iPKP	11 52 59.7	
		Kermadec Islands (h = 70 km).			
"	31	Up	iSgl	12 42 49.5	
			iSg2	12 42 57.9	
		Sk	eSgl	12 44 41	
		Um	iSgl	12 43 23.0	
		Ud	iSgl	12 43 51.2	
		De	iSgl	12 44 18.7	
		Esthonia, 59.5°N, 25.1°E.			
		Origin time = 12 40 49.			
		Explosion.			
"	31	Up	iSgl	12 57 02.2	
		Ud	iPgl	12 55 41.6	
			iSgl	12 56 10.9	
		De	ePgl	12 55 46.1	
			iSgl	12 56 19.1	
		Near west coast of Sweden, 58.4°N, 11.2°E.			
		Origin time = 12 55 04.			
		Explosion?			
"	31	Up	iSgl	12 58 28.3	
		Sk	eSgl	12 59 16	
		Ud	iPgl	12 57 06.0	
			iSgl	12 57 37.6	
		De	iSgl	12 57 42.7	
		Off west coast of Sweden, 58.3°N, 10.8°E.			
		Origin time = 12 56 25.			
		Explosion?			
1971 Mar.	31	Ud	i(Sgl)	14 48 15.5	
		De	i(Sgl)	14 48 03.8	
"	31	Up	iSgl	15 19 50.5	
		Ud	iPgl	15 19 39.3	
			iSgl	15 20 06.5	
		De	iSgl	15 20 18.0	
		Östergötland, Sweden, 58.5°N, 16.2°E.			
		Origin time = 15 19 02.			
"	31	Um	i(Sgl)	17 22 11.4	
"	31	Up	eP	20 08 00	
		Ki	eP	20 08 08	
		Sk	eP	20 08 36	
		Um	eP	20 08 04	
		Ud	iP	20 08 25.6	
		De	eP	20 08 27	
		China (h = 40 km).			
"	31	Up	iP	21 56 43.8	
		Ki	eP	21 57 22	
		Sk	eP	21 57 24	
		Um	eP	21 57 00	
		Ud	iP	21 56 59.7	
			i	21 57 02.6	
		De	eP	21 56 43	
			i	21 56 46.5	
		Iran (h = 30 km).			
"	31	Up	iP	23 14 16.6	C
			ipP	23 14 26.9	
		Ki	iP	23 13 46.6	
		Sk	iP	23 14 15.4	
		Um	iP	23 13 58.1	C
		Ud	iP	23 14 23.5	
			ipP	23 14 31.7	
		De	iP	23 14 35.9	
			ipP	23 14 45.5	
		Bonin Islands.			
		h = 35 km (Up,Ud,De).			

Markus Båth
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October 25, 1973

SEISMOLOGICAL INSTITUTE
BOX 517
S-751 20 UPPSALA
SWEDEN

S E I S M O L O G I C A L B U L L E T I N

U P P S A L A, K I R U N A, S K A L S T U G A N, U M E Å, U D D E H O L M and D E L A R Y

Uppsala	(Up):	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(Ki):	67°50.4'N,	20°25.0'E;	h = 390 m
Skalstugan	(Sk):	63°34.8'N,	12°16.8'E;	h = 580 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m
Delary	(De):	56°28.2'N,	13°52.2'E;	h = 150 m

A P R I L 1 - 30, 1971

1971 Apr.	1	Up	iPKP		00 29 53.8	
			iSKP		00 33 18.9	
					micr	sec
			Mx	E	1.1	22
			Mx	N	1.6	22
			Mx	Z	2.1	22
		Ki	iPKP		00 29 39.4	
		Sk	ePKP		00 29 54	
		Um	iPKP		00 29 46.6	
		Ud	iPKP		00 29 58.5	
		De	iPKP		00 30 05.9	
		New Hebrides Islands (h = 30 km).				
"	1	Up	ePKP		00 32 41	
			iSKP		00 36 02.8	
		Ki	ePKP		00 32 23	
		Um	iPKP		00 32 30.6	
		Ud	ePKP		00 32 38	
			eSKP		00 36 01	
		De	ePKP		00 32 48	
		New Hebrides Islands. Origin time = 00 13 26.				
"	1	Up	iP		00 42 45.8	
		Um	iP		00 42 27.6	
"	1	Up	iSKP		05 58 24.2	
					micr	sec
			Mx	N	1.0	19
			Mx	Z	1.4	21
		Ki	iPKP		05 54 41.9	
		Um	iPKP		05 54 48.1	
		Ud	eSKP		05 58 34	
		New Hebrides Islands (h = 25 km).				
"	1	Um	iP		07 49 14.9	
		Alaska (h = 15 km).				
1971 Apr.	1	Up	i(Sgl)		08 53 10.3	
		Ud	i(Sgl)		08 53 03.9	
"	1	Up	iP		09 37 44.9	
			i		09 37 50.6	
		Ud	iP		09 37 33.3	
			i		09 37 38.4	
"	1	Up	iRg		12 01 08.4	
		Ud	iPgl		12 00 56.1	
			iSgl		12 01 15.6	
			iRg		12 01 23.3	
		Central Sweden. Origin time = 12 00 32. Explosion.				
"	1	Up	iP		12 37 12.1	
		Ud	iP		12 37 14.5	C
		De	iP		12 37 24.5	
"	1	Up	iP		12 46 13.4	
					micr	sec
			Mx	E	0.8	20
			Mx	N	0.9	21
			Mx	Z	1.1	20
		Ki	e(P)		12 46 47	
					micr	sec
			Mx	E	1.9	25
			Mx	N	0.7	20
			Mx	Z	1.4	20
		Mascarene Islands (h = N). M = 5.5 (Up,Ki).				
"	1	Um	i(Sgl)		13 40 55.1	
"	1	De	i(Sgl)		14 46 30.4	
"	1	Up	iPKP		19 57 32.9	
			i		19 57 37.0	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
Apr.	1	(cont.)				
		Up	iPKP2	19 57 41.7		
		Ki	iPKP	19 57 14.3		
		Sk	iPKP	19 57 29.6	D	
			i	19 57 31.0		
		Um	iPKP	19 57 25.5	D	
		Ud	iPKP	19 57 34.5	D	
			i	19 57 39.3		
			iPKP2	19 57 44.3		
		De	iPKP	19 57 40.4	D	
			i	19 57 47.9		
			iPKP2	19 57 58.2		
		Kermadec Islands				
		(h = 210 km).				
"	1	Ud	eP	23 04 14		
		Tien-Shan.				
"	2	Up	iP	01 28 21.9		
		Ki	iP	01 28 23.6	C	
				micr sec		
			P Z'	0.1 1.0		
		Sk	iP	01 28 37.6		
		Um	iP	01 28 19.6		
		Ud	iP	01 28 33.1	C	
		De	iP	01 28 30.7	C	
		Sumatra (h = N).				
"	2	Up	iP	01 48 23.2		
		Ki	eP	01 49 23		
		Sk	iP	01 48 35.4		
		Um	iP	01 48 42.3		
		Ud	iP	01 48 24.0		
		Italy (h = 40 km).				
"	2	Up	iPKP	02 59 27.1	D	
			i	02 59 56.3		
		Ki	iPKP	02 59 19.1		
		Sk	ePKP	02 59 22		
		Um	iPKP	02 59 14.5		
		Ud	iPKP	02 59 29.1	D	
		De	iPKP	02 59 39.3	D	
		Tonga-Kermadec Islands				
		(h = 190 km).				
"	2	Up	iP	03 06 00.1		
		Ki	eP	03 06 10		
		Um	eP	03 06 00		
		Ud	iP	03 06 11.8		
		De	iP	03 06 12.6		
"	2	Up	iP	04 29 23.9		
				micr sec		
			Mx N	0.8 23		
			Mx Z	0.6 18		
		Ki	eP	04 29 02		
		(cont.)				

1971						
Apr.	2	(cont.)				
		Ki		micr	sec	
			Mx E	0.6	15	
			Mx N	1.1	22	
			Mx Z	0.6	15	
		Sk	iP	04 29 24.6		
		Um	eP	04 29 05		
		Ud	iP	04 29 29.0		
		Mindanao (h = 30 km).				
		M = 5.3 (Up,Ki).				
"	2	Sk	iP	04 38 12.0		
		Um	iP	04 38 17.8		
		Italy (h = N).				
"	2	Um	iPKP	05 23 54.2		
		South of Australia (h = N).				
"	2	Up	iP	09 14 47.3		
		Um	iP	09 14 25.4		
		Japan (h = 25 km).				
"	2	Ud	i(P)	09 54 41.0		
"	2	Ki	iSgl	10 47 04.2		
		Sk	iSgl	10 47 09.9		
		Um	iSgl	10 47 17.7		
		Ud	iSgl	10 48 58.0		
		Sweden-Norway border region,				
		66.1°N, 15.3°E.				
		Origin time = 10 45 41.				
		Explosion.				
"	2	Ki	iSn	11 05 10.0		
			iSgl	11 05 35.1		
		Sk	iSgl	11 08 03.4		
		Um	iSn	11 05 54.5		
			i	11 06 12.3		
			iSgl	11 06 29.5		
		Ud	eSgl	11 08 58		
		Northwest Russia,				
		67.9°N, 34.3°E.				
		Origin time = 11 02 52.				
		Explosion.				
"	2	Ud	iP	12 46 43.3		
		De	iP	12 46 12.3		
		Rhodes Island.				
"	2	Ki	iPn	12 59 34.8		
			iP*	12 59 42.8		
			iSn	13 00 22.8		
			iSgl	13 00 30.7		
		Sk	iSgl	13 03 23.1		
		Um	iSgl	13 02 09.4		
		Northwest Russia-Norway				
		border region,				
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
Apr. 2 (cont.)
69.6°N, 30.9°E.
Origin time = 12 58 31.
Explosion.

" 2 De iP 13 39 43.4

" 2 Ud iP 14 05 19.3

" 2 Um i(Sgl) 15 24 37.4

" 2 Up iP 15 36 54.0
Ud iP 15 37 02.8
De iP 15 36 30.1
Rhodes Island.

" 2 Um iPKP 19 33 58.3
Ud iPKP 19 34 07.9
De iPKP 19 34 13.1
Solomon Islands (h = 40 km).

" 2 Up iP 19 52 38.2
Ki eP 19 51 38
Um eP 19 52 05
Alaska (h = N).

" 3 Um i(Sgl) 02 35 35.1

" 3 Up iP 04 08 19.1
Ki iP 04 09 31.8
Sk eP 04 08 54
Um iP 04 08 56.9
Ud iP 04 08 20.2
De iP 04 07 43.9
Tyrrhenian Sea (h = 300 km).

" 3 Up iP 04 47 44.1
Ki iP 04 47 39.1
Um iP 04 47 38.7
Ud iP 04 47 52.7
De eP 04 47 53
Java (h = 120 km).

" 3 Up iP 04 58 43.1
i 04 58 46.6
iS 05 06 37

		micr	sec
P	Z'	0.8	1.5
Mx	E	10	13
Mx	N	32	20
Mx	Z	19	14

Ki iP 04 58 30.3
i 04 58 34.0
iS 05 06 19

		micr	sec
P	Z'	0.4	1.3
Mx	E	18	14

(cont.)

1971
Apr. 3 (cont.)
Ki

		micr	sec
Mx	N	20	14
Mx	Z	15	14

Sk iP 04 58 56.7
i 04 59 00.2
Um iP 04 58 31.6
i 04 58 35.0
iS 05 06 16
Ud iP 04 58 55.7
i 04 58 59.9
De iP 04 59 01.5
i 04 59 04.1
Tibet (h = N).
m = 6.4, M = 6.3 (Up,Ki).

" 3 Up iP 05 00 28.2

		micr	sec
P	Z'	0.4	1.0

Ki iP 05 00 14.6

		micr	sec
P	Z'	0.2	0.9

Sk iP 05 00 41.5
Um iP 05 00 16.7
Ud iP 05 00 42.0
De iP 05 00 45.8
Tibet (h = N).
m = 6.3 (Up,Ki).

" 3 Up iP 07 44 31.4
i 07 44 39.6
Ki iP 07 44 20.2
Sk iP 07 44 47.2
Um iP 07 44 22.1
Ud iP 07 44 45.4
De iP 07 44 50.4
Tibet (h = N).

" 3 Up iP 07 54 57.0
Um iP 07 55 06.5
Ud iP 07 55 08.4

" 3 De iP 08 56 34.6

" 3 Up iP 09 17 33.3
ipP 09 17 44.2
Ki iP 09 16 46.2

		micr	sec
P	Z'	0.1	1.0

Um iP 09 17 07.7
ipP 09 17 20.0
Ud iP 09 17 38.4
ipP 09 17 51.3
De iP 09 17 57.9
Kurile Islands.
h = 50 km (Up,Um,Ud).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
Apr.	3	Ki	iP	10 26 40.4	
		Um	iP	10 26 18.0	
		Ud	iP	10 26 09.9	
		De	iP	10 25 53.4	
		Iran-Iraq (h = 50 km).			
"	3	Up	iP	11 50 12.0	
		Um	iP	11 49 42.0	
		Aleutian Islands (h = 50 km).			
"	3	Ki	iP	16 32 40.4	
		Um	iP	16 32 46.6	
		Halmahera (h = N).			
"	3	Um	i(Sgl)	17 22 10.5	
"	3	Um	iP	19 07 23.9	
		Yugoslavia.			
"	3	Um	eP	19 26 35	
		Ud	iP	19 26 35.9	
"	4	Up	iP	01 43 02.0	
		Ki	iP	01 43 05.9	
				micr	sec
			P Z'	0.1	1.0
		Sk	iP	01 43 25.8	
		Um	iP	01 42 57.4	
		Ud	iP	01 43 17.5	
		De	iP	01 43 16.3	
		Tadzhik-Sinkiang (h = N).			
"	4	Up	iPn	05 03 01.8	
			i(Sn)	05 04 56.3	
			iS*	05 05 34.2	
		Ki	iP	05 04 52.1	
		Sk	iP	05 03 43.0	
		Um	iP	05 03 58.2	
			iLi	05 07 26.5	
		Ud	iPn	05 03 04.2	
			iSgl	05 05 30.1	
		De	iPn	05 02 08.9	
			iP*	05 02 24.6	
			iSgl	05 03 37.2	
		Germany (h = 0).			
"	4	Up	iP	06 20 37.5	
		Sk	iP	06 21 05.9	
		Um	iP	06 20 40.6	
		Ud	iP	06 20 53.6	
		West Pakistan (h = 15 km).			
"	4	Up	ePKP	10 35 29	
			e	10 35 45	
		(cont.)			

1971					
Apr.	4	(cont.)			
		Up	iPKP2	10 36 11.8	
				micr	sec
			Mx E	10	19
			Mx N	8.2	20
			Mx Z	17	18
		Ki	ePKP	10 35 36	
				micr	sec
			Mx E	9.5	21
			Mx N	8.5	19
			Mx Z	16	19
		Sk	iPKP	10 35 23.6	
			i	10 35 53.0	
		Um	iPKP	10 35 32.0	
		Ud	i(PKP)	10 35 37.7	
		De	ePKP	10 35 29	
		Easter Island region (h = N). M = 6.8 (Up,Ki).			
"	4	Ki	iPn	10 50 53.4	
			iSn	10 51 52.5	
			iSgl	10 52 13.4	
		Sk	iSgl	10 54 38.4	
		Um	iSn	10 52 31.5	
			iSgl	10 53 00.7	
		Ud	e(Sgl)	10 55 20	
		Northwest Russia, 67.5°N, 34.0°E. Origin time = 10 49 35. Explosion.			
"	4	Ki	iP	11 49 01.5	
		Ud	eP	11 49 17	
		Tien-Shan.			
"	4	Um	iP	11 56 43.6	
"	4	Up	iP	12 28 06.5	
				micr	sec
			P Z'	0.1	1.2
		Um	iP	12 28 30.3	
		Azores Islands (h = N).			
"	4	Um	eP	12 48 09	
"	4	Ud	iP	14 22 13.0	
"	4	Ki	iPn	16 36 06.3	
			iSn	16 36 52.8	
			iSgl	16 37 09.0	
		Sk	eSgl	16 39 50	
		Um	iSgl	16 38 39.0	
		Northwest Russia-Norway border region, 69.5°N, 30.3°E. (cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
Apr. 4 (cont.)
Origin time = 16 35 05.
Explosion.

" 4 Up iP 18 29 49.9
Um iP 18 29 23.9
Ud iP 18 29 54.7
Kurile Islands (h = N).

" 4 Um ePKP 18 49 01
Ud iPKP 18 49 10.9
De iPKP 18 49 21.7
Tonga-Kermadec Islands
(h = 560 km).

" 4 Up iP 18 50 57.9 C
ipP 18 51 08.8
iS 19 00 15

		micr	sec
P	Z'	0.9	1.1
Mx	E	2.7	18
Mx	N	3.5	18
Mx	Z	9.9	18

Ki iP 18 50 17.7 C
iS 18 59 03

		micr	sec
P	Z'	0.4	1.1
Mx	E	5.7	19
Mx	N	5.3	22
Mx	Z	9.7	17

Sk iP 18 50 51.4 C
ipP 18 51 04.0
iPcP 18 51 15.2
Um iP 18 50 35.6 C
ipP 18 50 49.1
iPcP 18 51 00.5
iS 18 59 35
Ud iP 18 51 05.1 C
ipP 18 51 17.0
De iP 18 51 20.9 C
ipP 18 51 32.6
Japan.
h = 45 km (Up,Sk,Um,Ud,De).
m = 6.7, M = 5.8 (Up,Ki).

" 5 Um iPKP 00 02 07.9
Argentina (h = 170 km).

" 5 Um iP 00 10 18.3
Ud iP 00 10 49.5
Kurile Islands.

" 5 Up iP 05 15 48.2 C
i 05 16 11.4
iPP 05 19 53.4
(cont.)

1971
Apr. 5 (cont.)
Up iSKS 05 26 21

		micr	sec
P	Z'	0.1	1.0
Mx	E	1.1	22
Mx	N	0.8	21
Mx	Z	1.6	23

Ki iP 05 15 34.5 C

		micr	sec
P	Z'	0.4	1.2
Mx	E	1.2	17
Mx	N	0.9	20
Mx	Z	1.7	18

Sk iP 05 15 54.7 C
Um iP 05 15 38.6 C
iSKS 05 26 11
Ud iP 05 15 56.9 C
De iP 05 16 01.9 C
Molucca Sea (h = N).
m = 6.6, M = 5.5 (Up,Ki).

" 5 Ud iP 07 03 24.4
Kurile Islands.

" 5 Ki ePgl 08 19 30
iSgl 08 19 59.9
Near coast of northwest
Norway.

" 5 Up iP 09 15 19.6
iX 09 15 52.0
ipP 09 15 58.2
iP'P' 09 43 40.3
iY 09 44 17.5

		micr	sec
P	Z'	0.7	1.1
Mx	E	0.8	16
Mx	N	1.4	20
Mx	Z	1.8	22

Ki iP 09 14 26.3
ipP 09 15 03.8

		micr	sec
P	Z'	1.3	1.3
Mx	E	1.1	16
Mx	N	0.7	18
Mx	Z	2.1	16

Sk iP 09 14 56.9
iX 09 15 31.8
ipP 09 15 35.4
iP'P' 09 43 50.3
Um iP 09 14 52.8
iX 09 15 27.7
ipP 09 15 30.9
iS 09 23 12
iP'P' 09 43 50.5
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr. 5 (cont.)

Um	iY	09 44 28.1	
Ud	iP	09 15 18.7	
	iX	09 15 46.5	
	ipP	09 15 56.4	
	iY	09 44 17.6	
De	iP	09 15 41.7	
	ipP	09 16 20.5	

Aleutian Islands.
h = 160 km (Up,Ki,Sk,Um,Ud, De).
m = 6.5, M = 5.1 (Up,Ki).
M not corrected for focal depth.
It is suggested that the phase X marks the P of another Aleutian Islands earthquake and that Y is its appertaining P'P'.

" 5

Up	iP	10 53 46.0	
Um	iP	10 53 56.2	
Ud	iP	10 53 27.1	

" 5

Up	iPKP	14 45 13.9	C
Ki	ePKP	14 45 02	
Sk	ePKP	14 45 08	
Um	iPKP	14 45 01.1	
Ud	iPKP	14 45 15.6	C
	i(pPKP)	14 47 04.0	
De	iPKP	14 45 25.6	C

Tonga-Kermadec Islands (h = 430 km).

" 5

Up	iP	17 00 09.9		
	ipP	17 00 22.1		
Ki	iP	16 59 21.8		
	ipP	16 59 34.6		
		micr	sec	
	P	Z' 0.1	0.8	
Um	iP	16 59 43.3		
	ipP	16 59 55.8		
Ud	iP	17 00 14.5		
	ipP	17 00 27.0		

Kurile Islands.
h = 45 km (Up,Ki,Um,Ud).

" 5

Ki	eP	19 42 13	
Um	iP	19 42 13.6	
Ud	iP	19 42 45.4	

Formosa (h = N).

" 5

Up	iP	20 06 26.1	
Ki	iP	20 05 44.0	
Sk	eP	20 06 18	

(cont.)

1971 Apr. 5 (cont.)

Um	iP	20 06 02.3	
Ud	iP	20 06 33.5	

Japan (h = 70 km).

" 5

Um	iPKP	20 19 02.3	
Ud	iPKP	20 19 27.9	
	eSKP	20 22 18	
De	iPKP	20 19 38.8	

Fiji Islands (h = 520 km).

" 6

Up	iP	00 28 16.8		
	ipP	00 28 26.6		
		micr	sec	
	P	Z' 0.2	1.1	
	Mx	E 0.8	16	
	Mx	N 1.3	18	
	Mx	Z 1.1	16	
Ki	iP	00 27 32.6		C
		micr	sec	
	P	Z' 0.2	1.2	
	Mx	E 0.8	16	
	Mx	N 0.6	17	
	Mx	Z 1.0	16	
Sk	iP	00 28 08.4		
Um	iP	00 27 52.3		C
	ipP	00 28 02.6		
Ud	iP	00 28 23.2		C
	ipP	00 28 33.4		
De	iP	00 28 43.6		

Japan.
h = 35 km (Up,Um,Ud).
m = 6.2, M = 5.2 (Up,Ki).

" 6

Up	iP	02 50 25.0	
Um	iP	02 49 58.7	
	i(pP)	02 50 13.2	

Japan (h = 45 km).

" 6

Up	eP	03 10 49	
Ki	iP	03 10 44.1	
Sk	iP	03 11 11.9	
Ud	iP	03 11 02.3	

China (h = N).

" 6

Up	iP	06 57 11.7		
	i	06 57 52.0		
		micr	sec	
	Mx	E 1.0	17	
	Mx	N 1.7	19	
	Mx	Z 1.1	17	
Ki	iP	06 57 48.1		
		micr	sec	
	P	Z' 0.1	0.8	
	Mx	E 3.5	16	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	6	(cont.)				
		Ki			micr	sec
			Mx	N	2.9	17
			Mx	Z	3.9	18
		Sk	iP		06 57 47.2	
		Um	iP		06 57 26.2	
			iS		07 03 22	
		De	i(P)		06 57 18.2	
		Iran (h = 10 km).				
		M = 5.2 (Up,Ki).				
"	6	Up	iP		09 46 40.9	
			ipP		09 46 51.3	
					micr	sec
			P	Z'	0.1	1.1
			Mx	E	0.9	16
			Mx	N	1.7	19
			Mx	Z	1.7	18
		Ki	iP		09 45 56.3	
			ipP		09 46 06.8	
					micr	sec
			Mx	E	1.3	16
			Mx	N	0.8	19
			Mx	Z	1.5	15
		Sk	iP		09 46 31.8	
		Um	iP		09 46 16.0	
			ipP		09 46 26.8	
		Ud	iP		09 46 47.1	
			ipP		09 46 57.8	
		De	eP		09 47 07	
			ipP		09 47 16.8	
		Japan.				
		h = 40 km (Up,Ki,Um,Ud,De).				
		M = 5.4 (Up,Ki).				
"	6	Ki	iP		10 54 02.1	
		Sk	eP		10 54 28	
		Um	iP		10 54 03.5	
		Ud	iP		10 54 24.1	
		De	iP		10 54 26.8	
		China.				
"	6	Up	iPKP		11 24 46.5	
			iSKP		11 27 35.7	
			i		11 27 57.6	
			iSKKP		11 36 07.0	
		Ki	iPKP		11 24 24.4	
			i		11 24 38.4	
			iSKP		11 27 13.2	
			eSKKP		11 36 41	
		Sk	ePKP		11 24 38	
			iSKP		11 27 29.0	
		Um	iPKP		11 24 30.3	
			iSKP		11 27 24.3	
			iSKKP		11 36 20.1	
		(cont.)				

1971 Apr.	6	(cont.)				
		Ud	iPKP		11 24 47.7	
			iSKP		11 27 36.4	
			iSKKP		11 36 04.5	
		De	iPKP		11 24 58.9	
			i		11 27 16.8	
			iSKP		11 27 45.8	
			iSKKP		11 35 49.6	
		Tonga-Kermadec Islands				
		(h = 600 km).				
"	6	Sk	iSgl		11 48 35.2	
		Um	iSgl		11 47 17.2	
		Esthonia.				
		Explosion.				
"	6	Up	iP		12 04 56.4	C
			ipP		12 05 06.3	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		12 04 12.1	C
			ipP		12 04 22.4	
		Sk	iP		12 04 47.1	
		Um	iP		12 04 31.7	C
			ipP		12 04 41.9	
		De	iP		12 05 19.6	
		Japan.				
		h = 40 km (Up,Ki,Um).				
"	6	Up	iSgl		13 02 16.5	
		Ki	eSgl		13 05 06	
		Sk	iSgl		13 04 14.4	
		Um	iSgl		13 03 05.2	
		Esthonia, 59.2°N, 24.2°E.				
		Origin time = 13 00 31.				
		Explosion.				
"	6	Up	iP		14 21 53.7	
			ipP		14 22 03.7	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		14 21 09.8	
		Sk	iP		14 21 44.9	
		Um	iP		14 21 29.7	
		Ud	iP		14 22 00.5	
			ipP		14 22 10.5	
		De	eP		14 22 16	
		Japan.				
		h = 40 km (Up,Ud).				
"	6	Up	iP		16 09 01.6	
		Ki	iP		16 08 32.9	
					micr	sec
			P	Z'	0.1	0.6
		Sk	iP		16 08 58.2	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	6	(cont.)				
		Um	iP		16 08 43.9	
		De	iP		16 09 19.0	
		Mariana Islands (h = 200 km).				
"	6	Up	iPKP		16 19 50.4	C
		Ki	ePKP		16 19 31	
		Sk	iPKP		16 19 42.6	
		Um	iPKP		16 19 38.1	
			i		16 19 48.8	
			iSKP		16 22 31.3	
		Ud	iPKP		16 19 52.5	
		De	iPKP		16 20 02.1	
		Tonga-Kermadec Islands (h = 540 km).				
"	6	Ki	iSgl		17 59 22.4	
		Sk	iSgl		17 59 27.1	
		Um	iSgl		17 59 41.8	
		Nordland, Norway, 66.3°N, 14.8°E. Origin time = 15 57 59. Explosion.				
"	6	Um	i(Sgl)		18 12 10.7	
"	6	Ki	iP		19 12 49.5	
		De	eP		19 12 54	
"	7	Um	iPKP		01 01 30.8	
		Santa Cruz Islands (h = 50 km).				
"	7	Um	iP		01 13 53.2	
		Ud	eP		01 14 23	
		Kurile Islands.				
"	7	Um	e(P)		02 31 17	
"	7	Up	iP		05 13 13.3	
			ipP		05 13 23.6	
			i		05 16 29.9	
			iPP		05 17 09.3	
			iSKS		05 23 48	
					micr	sec
			P	Z'	0.3	1.1
			pP	Z'	0.3	0.9
			Mx	E	10	18
			Mx	N	13	17
			Mx	Z	26	20
		Ki	iP		05 12 55.6	
			ipP		05 13 07.0	
			iPP		05 16 48	
			iSKS		05 23 29	
					micr	sec
			P	Z'	2.5	1.9
		(cont.)				

1971 Apr.	7	(cont.)				
		Ki			micr	sec
			Mx	E	27	18
			Mx	N	16	20
			Mx	Z	33	18
		Sk	iP		05 13 16.8	
			ipP		05 13 28.3	
		Um	iP		05 13 01.3	
			ipP		05 13 11.4	
			iSKS		05 23 36	
			iPS		05 25 39	
		Ud	iP		05 13 20.8	
			ipP		05 13 31.8	
		De	iP		05 13 27.5	
			ipP		05 13 37.7	
		Halmahera. h = 40 km (Up,Ki,Sk,Um,Ud, De). m = 7.1, M = 6.7 (Up,Ki).				
"	7	Ki	iP		06 30 56.6	
		Sk	e(P)		06 31 23	
		Um	iP		06 31 02.2	
			i		06 31 10.2	
		Ud	iP		06 31 21.5	
			i		06 31 29.7	
		Halmahera (h = 90 km).				
"	7	Ki	iP		07 03 32.3	
		Ud	iP		07 03 49.8	
		Halmahera.				
"	7	Up	iP		07 42 58.6	
		Ki	iP		07 42 53.8	
		Sk	iP		07 43 11.2	
		Um	iP		07 42 51.8	
		Ud	iP		07 43 04.5	
		Sumatra (h = 90 km).				
"	7	Ud	iP		08 01 14.9	
		Kurile Islands (h = N).				
"	7	Ki	iPn		09 27 40.2	
			iPgl		09 27 48.4	
			iSn		09 28 26.9	
			iS*		09 28 39.7	
		Sk	eSgl		09 31 25	
		Um	iSgl		09 30 14.3	
		Northwest Russia-Norway border region, 69.5°N, 30.4°E. Origin time = 09 26 38. Explosion.				
"	7	Ki	iPn		10 51 12.6	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	7	(cont.)			
		Ki	iSn	10 52 11.7	
			iS*	10 52 30.5	
		Sk	iSgl	10 54 58.8	
		Um	eSgl	10 53 28	
		Northwest Russia, 67.7°N, 34.1°E. Origin time = 10 49 55. Explosion.			
"	7	Um	iP	10 52 28.6	
"	7	Ud	iP	11 27 55.2	
		Halmahera (h = 70 km).			
"	7	Ki	iPn	12 21 42.4	
			iSn	12 22 30.5	
			iS*	12 22 43.5	
		Northwest Russia. Origin time = 12 20 39. Explosion.			
"	7	Um	i(P)	12 25 53.2	
"	7	Ki	iSgl	12 40 43.2	
		Sk	iSgl	12 40 49.3	
		Um	iSgl	12 41 10.5	
		Nordland, Norway, 66.5°N, 14.2°E. Origin time = 12 39 16. Explosion.			
"	7	Um	i(Sgl)	13 09 18.2	
"	7	Up	iP	13 59 54.7	
		Ki	iP	13 59 24.9	
		Sk	iP	13 59 51.7	
		Um	iP	13 59 36.5	
		Ud	iP	14 00 01.5	
"	7	Ki	iPKP	15 29 13.7	
		Um	iPKP	15 29 11.3	
		Ud	iPKP	15 29 02.2	
		Argentina (h = 120 km).			
"	7	Up	i(P)	16 56 05.3	
		De	i(P)	16 56 40.3	
"	7	Um	iP	21 11 48.3	
		Mariana Islands (h = 130 km).			
"	7	Ud	iP	21 30 21.1	
"	8	Up	eP	01 18 35	
		Um	eP	01 18 33	

1971 Apr.	8	Up	iP	07 58 55.2	C
			ipP	07 59 16.8	
			iPP	08 02 30.9	
			iSKS	08 09 17	
			iS	08 09 45	
				micr	sec
			P Z'	0.4	1.0
			Mx E	3.6	23
			Mx N	4.6	23
			Mx Z	6.9	22
		Ki	iP	07 58 54.8	C
			i	07 59 03.9	
			ipP	07 59 14.2	
			iPP	08 02 31.1	
			iSKS	08 09 17	
			iS	08 09 48.2	
				micr	sec
			P Z'	1.8	1.0
			Mx E	10	22
			Mx N	8.8	22
			Mx Z	14	22
		Sk	iP	07 59 08.4	C
			iPP	08 02 53.4	
			i	08 11 20.9	
		Um	iP	07 58 52.2	C
			ipP	07 59 12.6	
			iSKS	08 09 13	
			iS	08 09 40	
			i	08 10 43.0	
		Ud	iP	07 59 04.4	C
			iPP	08 02 45.2	
		De	i	08 11 37.2	
		Sumatra. h = 80 km (Up,Ki,Um). m = 7.0, M = 6.1 (Up,Ki).			
"	8	Ud	iPKP	09 55 49.0	
		De	iPKP	09 55 59.5	
"	8	Up	iSgl	13 23 54.3	
		Um	iSgl	13 24 09.3	
		Ud	iSgl	13 24 59.1	
		De	eSgl	13 25 18	
		Esthonia, 59.3°N, 28.2°E. Origin time = 13 21 04. Explosion.			
"	8	Ud	i(Sgl)	13 56 11.3	
		De	i(Sgl)	13 55 50.2	
"	8	Up	iP	18 23 57.7	
		Ki	iP	18 24 49.7	
		Sk	eP	18 24 19	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	8	(cont.)				
		Um	eP	18 24 34		
		Ud	iP	18 23 48.6		
		De	iP	18 23 16.8		
		Crete.				
"	8	Up	ipP	18 41 34.0		
		Ki	iP	18 41 11.5		
			ipP	18 41 39.0		
		Sk	eP	18 41 31		
		Um	iP	18 41 03.4		
		Ud	iP	18 41 24.1		
			ipP	18 41 51.2		
		De	iP	18 41 22.1		
			ipP	18 41 49.7		
		Tadzhik-Sinkiang.				
		h = 130 km (Ki,Ud,De).				
"	8	Up	iP	19 40 12.6 C		
		Ki	iP	19 40 12.6 C		
		Sk	iP	19 40 26.1		
		Um	iP	19 40 09.9		
		Ud	iP	19 40 22.2 C		
		De	eP	19 40 21		
		Sumatra (h = N).				
"	8	Up	iP	20 18 02.6		
		Ki	iP	20 17 44.6		
		Um	iP	20 17 50.9		
		Ud	iP	20 18 09.9		
		Halmahera (h = 50 km).				
"	9	Ki	iP	01 01 14.8		
		Aleutian Islands (h = 60 km).				
"	9	Ud	eP	03 08 14		
		Molucca Passage (h = 40 km).				
"	9	Up	iP	03 20 58.0		
		Ud	iP	03 21 04.1		
		Kurile Islands.				
"	9	Up	iP	04 07 10.4		
		Ki	iP	04 06 24.6		
		Um	iP	04 06 45.2		
		Ud	iP	04 07 16.4 C		
		De	iP	04 07 33.8		
		Kurile Islands (h = 50 km).				
"	9	Ud	iP	06 10 28.4		
		De	iP	06 09 54.1		
"	9	Up	iP	06 19 13.4		
			i	06 19 18.5		
			i	06 19 37.8		
		(cont.)				

1971 Apr.	9	(cont.)				
		Up	iPP	06 21 35.2		
				micr	sec	
			P	Z' 0.2	1.2	
			Mx	E 0.9	12	
			Mx	N 1.2	14	
			Mx	Z 0.7	14	
		Ki	iP	06 18 30.2		
			i	06 18 35.1		
			iPP	06 20 44.4		
				micr	sec	
			P	Z' 0.2	1.4	
			Mx	E 2.1	17	
			Mx	N 1.7	17	
			Mx	Z 1.1	14	
		Sk	iP	06 19 05.5		
			i	06 19 10.9		
		Um	iP	06 18 48.8		
			i	06 18 53.4		
			iPP	06 20 57.1		
		Ud	iP	06 19 21.4		
			i	06 19 26.0		
			i	06 19 34.6		
		De	iP	06 19 37.9		
			i	06 19 42.3		
			iPP	06 22 03.5		
		Sea of Japan (h = N).				
		m = 6.1, M = 5.3 (Up,Ki).				
		Second P at Up,Ki,Sk,Um,Ud, De about 5 sec after the first onset. Interpreted as pP it gives a focal depth of 20 km.				
"	9	Ud	iP	06 22 52.4		
		Indian Ocean (h = N).				
"	9	Ud	iP	06 27 16.6		
		Kurile Islands.				
"	9	Up	iP	08 43 30.2		
			i	08 43 38.3		
		Ki	iP	08 42 34.8		
		Um	iP	08 43 07.3		
		Ud	iP	08 43 33.3		
		De	eP	08 43 56		
		Kamchatka (h = 45 km).				
"	9	Ki	eP	10 52 31		
		Um	iP	10 53 05.1		
"	9	Sk	iP	11 08 46.8		
		Um	eP	11 08 58		
		De	iP	11 10 09.6		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	9	Up	iP	11 12 06.8	
		Ki	iP	11 11 14.7	
		Sk	iP	11 11 56.6	
		Um	iP	11 11 38.9	
		Ud	iP	11 12 14.1	
"	9	Up	eSgl	11 54 08	
		Um	iSgl	11 54 42.2	
		Ud	eSgl	11 55 10	
		De	eSgl	11 55 38	
		Esthonia, 59.5°N, 24.9°E.			
		Origin time = 11 52 11.			
		Explosion.			
"	9	Up	iP	14 00 54.5	
		Ki	iP	14 00 39.4	
		Um	iP	14 00 44.1	
		Ud	iP	14 01 02.2	
		De	iP	14 01 08.1	
		Mindanao (h = 490 km).			
"	9	Ki	iSgl	14 38 25.8	
		Um	eSgl	14 38 53	
		Northwest Russia.			
		Explosion.			
"	9	Up	iP	15 18 57.4	
		Ki	iP	15 18 11.1	
		Sk	eP	15 18 48	
		Um	iP	15 18 32.1 C	
		Ud	iP	15 19 03.4 C	
		De	eP	15 19 22	
		Kurile Islands (h = 130 km).			
"	9	Up	iP	15 20 50.1	
		Ki	iP	15 20 19.7	
		Um	iP	15 20 20.8	
		De	eP	15 21 13	
"	9	Up	iP	22 14 45.8	
			iPP	22 15 17.8	
		Ki	iP	22 15 54.5	
		Sk	iP	22 15 24.3	
		Um	iP	22 15 19.0	
		De	iP	22 14 19.8	
			i(pP)	22 14 28.7	
		Crete (h = 40 km).			
"	10	Up	iP	00 47 40.8	
			i(pP)	00 47 52.4	
		Ki	iP	00 46 47.3	
				micr sec	
			P Z'	0.1 0.8	
		Sk	iP	00 47 17.1	
		(cont.)			

1971 Apr.	10	(cont.)			
		Um	iP	00 47 14.0	
		De	iP	00 48 02.1	
		Aleutian Islands (h = 50 km).			
"	10	Up	iPKP	01 40 35.0	
			iSKP	01 43 28.8	
		Ki	iPKP	01 40 17.2	
			iSKP	01 43 04.8	
		Sk	iPKP	01 40 28.1	
			i	01 40 38.8	
			iSKP	01 43 22.0	
		Um	iPKP	01 40 23.7	
			iSKP	01 43 17.3	
		De	iPKP	01 40 48.6 D	
			iSKP	01 43 39.6	
		Fiji Islands (h = 540 km).			
"	10	Up	iP	03 02 09.4	
		Ki	eP	03 03 47	
		Sk	iP	03 02 54.3	
		Um	iP	03 02 51.8	
			i(pP)	03 02 58.5	
		De	iP	03 01 37.7	
		Yugoslavia (h = 20 km).			
"	10	Ki	ePn	06 09 27	
		Sk	ePn	06 10 07	
			e(Sn)	06 11 52	
		Um	iPn	06 10 10.5	
		De	iP	06 11 42.2	
			i	06 11 47.7	
		Norwegian Sea (h = N).			
"	10	Um	i(P)	06 17 15.3	
"	10	Ki	e(Sgl)	09 11 00	
"	10	Ki	iPn	12 34 58.0	
			iSn	12 35 46.9	
			iS*	12 35 59.2	
		Sk	eSgl	12 38 49	
		Um	iPn	12 35 35.5	
			i(S*)	12 37 08.5	
			iSgl	12 37 30.1	
		Northwest Russia, 69.3°N, 31.2°E.			
		Origin time = 12 33 54.			
		Explosion.			
"	10	Ki	iP	13 04 33.3	
		Um	iP	13 05 15.6	
"	10	Ud	iPKP	13 21 32.9	
		De	iPKP	13 21 44.4	
		Fiji Islands (h = 580 km).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	10	Up	iP	13 26 51.4
		Sk	eP	13 27 32
		Um	iP	13 27 23.2
		Ud	iP	13 27 01.0
		De	iP	13 26 27.7
		Turkey (h = 30 km).		
"	10	Up	iP	14 43 55.8
		Um	iP	14 43 52.1
		Ud	iP	14 44 09.5
		Bay of Bengal (h = 25 km).		
"	10	Ud	iP	15 41 25.9
		Banda Sea (h = 240 km).		
"	10	Um	iP	20 36 19.8
		Mariana Islands (h = 35 km).		
"	10	Um	ePKP	23 47 59
		Ud	iPKP	23 48 19.0
		Santa Cruz Islands (h = N).		
"	11	Up	iSgl	04 11 28.2
		Ki	iPn	04 07 12.9
			iSn	04 08 10.5
		Sk	eSgl	04 10 57
		Um	iSgl	04 09 27.5
		Ud	i	04 11 41.3
			iSgl	04 11 59.5
		De	eSgl	04 13 34
		Northwest Russia, 67.9°N, 33.8°E. Origin time = 04 05 56. Explosion.		
"	11	Ki	e(Sgl)	06 27 40
		Um	i(Sgl)	06 28 50.9
		Northwest Russia. Explosion.		
"	11	Up	iP	08 01 37.8
		Um	iP	08 01 12.3
		Ud	iP	08 01 43.6
		Kurile Islands.		
"	11	Up	iP	08 05 27.2
				micr sec
			P Z'	0.1 1.2
		Um	iP	08 05 35.1
		Ud	iP	08 05 36.6
		De	iP	08 05 23.3
		Indian Ocean (h = N).		
"	11	Up	eP	08 53 05
		Um	iP	08 52 38.0
		(cont.)		

1971 Apr.	11	(cont.)		
		Ud	iP	08 53 12.9
		Kurile Islands (h = N).		
"	11	Up	iP	09 22 34.3
		Um	eP	09 22 25
		Ud	iP	09 22 37.0
		De	i(pP)	09 23 16.1
		Celebes (h = 120 km).		
"	11	Up	iP	18 43 16.0 C
		Um	iP	18 42 50.8 C
		Ud	iP	18 43 22.0 C
		De	iP	18 43 40.1
		Kurile Islands (h = N).		
"	12	Um	iPKP	05 49 00.0
		New Hebrides Islands (h = 120 km).		
"	12	Um	i(P)	08 38 10.5
			i	08 39 13.3
"	12	Up	iP	10 10 24.7
		Um	eP	10 10 04
		Ud	iP	10 10 23.9
			i	10 10 36.7
"	12	Up	iPKP	11 55 52.3
		Sk	ePKP	11 55 44
		Um	iPKP	11 55 37.0
		Ud	iPKP	11 55 50.7
		De	ePKP	11 56 13
		Kermadec Islands (h = 15 km).		
"	12	Up	iP	12 21 34.3 C
		Um	iP	12 21 11.6
		De	iP	12 21 55.4
		Aleutian Islands (h = 50 km).		
"	12	Up	iPKP	12 41 01.0
		Um	iPKP	12 40 49.6
		Ud	iPKP	12 41 02.9
		De	iPKP	12 41 11.7
"	12	Ud	iP	15 10 32.1
"	12	Up	iP	19 11 02.6
			iPP	19 12 39.2
			iS	19 17 09
				micr sec
			P Z'	2.3 1.7
			Mx E	9.4 24
			Mx N	8.5 16
			Mx Z	7.3 18
		Ki	iP	19 11 36.6 C
		(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	12	(cont.)				
		Ki			micr	sec
			P	Z'	2.2	1.8
			Mx	E	7.3	15
			Mx	N	11	16
			Mx	Z	7.7	15
		Sk	iP		19 11 36.9	C
		Um	iP		19 11 15.5	
			ipP		19 11 28.8	
			iPP		19 12 57.9	
		Ud	iP		19 11 18.6	C
			iPP		19 13 06.9	
		De	iP		19 11 03.9	C
		Iran.				
		h = 45 km (Um).				
		m = 6.8, M = 6.0 (Up,Ki).				
"	12	Up	iPKP		19 53 57.7	
		Um	iPKP		19 53 48.1	
		Ud	iPKP		19 53 59.2	
		De	iPKP		19 54 10.6	
		Tonga-Kermadec Islands				
		(h = 550 km).				
"	12	Um	iPKP		21 00 56.8	
		New Hebrides Islands				
		(h = 270 km).				
"	12	Up	iPKP		21 18 39.9	
			iSKP		21 21 23.0	
		Ki	ePKP		21 18 31	
		Sk	ePKP		21 18 40	
		Um	iPKP		21 18 39.2	
			iSKP		21 21 16.6	
		Ud	iPKP		21 18 42.2	
		De	iPKP		21 18 51.3	
		Fiji Islands (h = 610 km).				
"	13	Up	iPKP		05 37 27.2	
		Ki	ePKP		05 37 18	
		Um	iPKP		05 37 18.5	
		Ud	iPKP		05 37 26.7	
		De	iPKP		05 37 35.0	
		Tonga Islands (h = N).				
"	13	Ud	iPKP		06 16 44.2	
		De	ePKP		06 16 52	
		Tonga Islands (h = 70 km).				
"	13	Um	iSgl		08 56 11.0	
		De	e(Sgl)		08 57 07	
		Esthonia.				
		Explosion.				

1971 Apr.	13	Up	i(P)		10 10 45.2	
			i		10 11 07.8	
"	13	Up	iP		12 57 31.4	
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	0.7	14
			Mx	N	1.0	14
		Ki	eP		12 58 37	
					micr	sec
			Mx	E	1.9	8
		Sk	iP		12 58 14.8	
		Um	iP		12 58 03.8	
			i(S)		13 02 43	
		Ud	iP		12 57 43.8	
			i		12 57 54.3	
		De	iP		12 57 09.9	
			i		12 57 17.9	
			e		13 04 17	
		Turkey (h = 15 km).				
"	13	Ud	iP		15 51 06.0	
		De	eP		15 51 05	
		Tadzhik SSR.				
"	13	Up	ePKP		18 05 24	
		Ki	ePKP		18 05 27	
		Sk	iPKP		18 05 26.4	
		Um	iPKP		18 05 25.1	
			i		18 05 34.2	
			iSKP		18 08 11.4	
		Ud	iPKP		18 05 32.4	
		De	iPKP		18 05 42.8	
		Fiji Islands (h = 560 km).				
"	13	Ki	iPgl		18 12 35.2	
			iSgl		18 12 39.6	
			iRg		18 12 41.6	
		Sk	iSgl		18 15 22.8	
		Um	iSgl		18 14 28.6	
		Lapland, Sweden,				
		67.6°N, 21.2°E.				
		Origin time = 18 12 29.				
		Explosion.				
"	13	Up	iP		20 22 43.5	
"	13	Up	eP		20 50 42	
		Ki	iP		20 51 11.8	
		Sk	eP		20 51 08	
		Ud	iP		20 50 52.8	
		De	iP		20 50 38.5	
		Iran (h = 45 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	13	Um	iP	22 10 43.2	
		Ud	iP	22 11 00.9	
"	13	Up	iP	22 51 16.7	
		Ki	eP	22 51 19	
		Sk	eP	22 51 35	
		Um	iP	22 51 14.9	
		Ud	iP	22 51 27.1	C
			ipP	22 51 37.3	
		Sumatra.			
		h = 35 km (Ud).			
"	13	Um	i(Sgl)	22 56 40.3	
		Ud	i(Sgl)	22 56 52.7	
"	13	Ud	iPKP	23 51 46.8	
		South Pacific Ocean.			
"	13	Ud	iP	23 59 54.2	
"	14	Um	iP	00 18 13.4	
		Ud	iP	00 18 43.2	
		Kurile Islands.			
"	14	Ki	iP	00 33 34.2	
		Um	iP	00 33 01.4	
"	14	Up	iP	00 58 17.5	
		Sk	eP	00 58 37	
"	14	Um	iP	01 00 57.1	
		Mariana Islands (h = 130 km).			
"	14	Sk	eP	03 21 23	
		Um	eP	03 21 40	
			ipP	03 22 08.6	
		Ud	eP	03 21 46	
		Guatemala.			
		h = 110 km (Um).			
"	14	Um	iP	06 34 58.6	
"	14	Sk	i(Sgl)	10 53 45.1	
		Um	i(Sgl)	10 52 12.3	
		Northwest Russia.			
		Explosion.			
"	14	Up	iP	11 51 06.8	
			iSKS	12 01 29	

		micr	sec
P	Z'	0.1	0.9
Mx	E	1.7	18
Mx	N	1.6	18
Mx	Z	3.3	20

(cont.)

1971 Apr.	14	(cont.)			
		Ki			

		micr	sec
Mx	E	2.4	15
Mx	N	1.3	17
Mx	Z	3.5	16

Sk	eP	11 50 45	
Um	eP	11 50 55	
	iSKS	12 01 10	
Ud	iP	11 51 00.6	
De	iP	11 51 16.5	
Baja California (h = N).			
M = 5.7 (Up,Ki).			
" 14	Up	iSgl	13 50 36.7
	Sk	eSgl	13 50 18
	Um	iSgl	13 49 07.3
Ångermanland, Sweden,			
63.4°N, 18.9°E.			
Origin time = 13 48 42.			
" 14	Up		

		micr	sec
Mx	E	0.7	19
Mx	N	0.7	20
Mx	Z	0.7	18

Ki

		micr	sec
Mx	E	0.7	16
Mx	N	0.5	17
Mx	Z	0.9	16

Ud	iP	19 47 24.7	
De	iP	19 47 39.2	
Baja California (h = N).			
M = 5.2 (Up,Ki).			
" 14	Up	iP	21 33 33.3
	Ud	iP	21 33 20.1
" 15	Up	iPKP	00 57 09.9
		ipPKP	00 58 09.8
	Ki	iPKP	00 56 38.0
		i	00 56 40.7
		ipPKP	00 57 40.1
	Sk	iPKP	00 56 52.2
		i	00 56 54.7
	Um	iPKP	00 56 46.5
		i	00 56 49.6
	Ud	ePKP	00 56 58
New Zealand.			
h = 240 km (Up,Ki).			
" 15	De	iP	01 58 46.0
Aegean Sea.			
" 15	Um	iP	03 48 00.9
	Ud	iP	03 48 21.9
Mindanao (h = 35 km).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	15	Um	i(Sgl)	09 01 54.9
"	15	De	e(P)	11 02 32
"	15	Um	i(Sgl)	13 43 21.3
		Ud	i(Sgl)	13 44 43.0
"	15	Ud	iP	14 47 41.7
		Japan.		
"	15	Up	iP	19 06 32.8
		Sk	eP	19 07 05
		Um	iX	19 08 23.2
		Ud	iP	19 06 43.8
			iX	19 08 17.7
		Gulf of Aden (h = N).		
		The phase X could be P of another shock in the same area.		
"	15	Sk	eP	19 21 28
		Ud	eP	19 20 54
		Greece.		
"	16	De	e(P)	08 50 22
			i	08 50 48.8
"	16	Ki	e(P)	11 00 34
"	16	Up	iP	12 50 42.8
		Ud	iP	12 51 25.8
		De	eP	12 51 13
"	16	Ud	iP	15 57 02.6
"	16	Ki	iSgl	17 27 59.0
		Sk	iSgl	17 28 02.7
		Um	iSgl	17 28 13.3
		Sweden-Norway border region, 66.1°N, 15.1°E.		
		Origin time = 17 26 33.		
		Explosion.		
"	16	Ud	iP	18 08 56.7 C
		Mindanao (h = 210 km).		
"	16	De	iP	21 33 29.2
		Jordan-Syria (h = 15 km).		
"	17	Sk	ePKP	01 59 57
		Um	iPKP	01 59 51.0
		De	ePKP	02 00 05
		Solomon Islands (h = 70 km).		
"	17	Ki	iPgl	08 05 17.9
			iSgl	08 05 30.3
		(cont.)		
1971 Apr.	17	(cont.)		
		Sk	iSgl	08 08 12.3
		Um	iSgl	08 07 12.4
		Ud	iSgl	08 09 34.8
		Lapland, Sweden, 67.9°N, 22.6°E.		
		Origin time = 08 05 03.		
"	17	Ud	iP	08 32 54.9
		De	iP	08 32 22.4
		Dodecanese Islands.		
"	17	Ki	iPgl	09 30 52.0
			iSn	09 31 30.2
			iSgl	09 31 42.8
		Sk	i	09 34 03.8
			iSgl	09 34 31.8
		Um	iSgl	09 33 18.7
		Northwest Russia-Norway border region, 69.7°N, 30.3°E.		
		Origin time = 09 29 42.		
		Explosion.		
"	17	Sk	iSgl	10 35 29.7
		Um	iSgl	10 34 11.3
		Esthonia.		
		Explosion.		
"	17	Um	iP	12 41 46.3
"	17	Ki	iPn	12 53 18.4
			iSn	12 54 07.5
			iSgl	12 54 24.0
		Sk	i(P)	12 54 41.7
		Um	iSgl	12 55 51.7
		Northwest Russia.		
		Origin time = 12 52 14.		
		Explosion.		
"	17	Up	iP	16 42 33.3
			iS	16 46 32.3
				micr sec
			P Z'	0.1 0.8
		Ki	iP	16 43 30.6
			eS	16 48 52
		Sk	iP	16 43 17.3
			i(S)	16 48 26.2
		Um	iP	16 42 58.1
			iS	16 47 31
		Ud	iP	16 42 50.8
			iS	16 47 12.3
		De	iP	16 42 24.8
		Turkey (h = N).		
"	17	Up	iP	17 43 15.3
		Ud	iP	17 43 02.8

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr. 17 Um iP 17 44 55.5
Rumania.

" 17 Ki ePKP 20 21 03
Um ePKP 20 21 00
New Hebrides Islands
(h = 10 km).

" 17 Up iP 21 08 55.0 C
micr sec
P Z' 0.1 1.0
Ki iP 21 08 02.3 C
micr sec
P Z' 0.1 0.9
Sk eP 21 08 40
Um iP 21 08 27.4
Ud iP 21 08 58.7
Kamchatka (h = N).
m = 5.9 (Up,Ki).

" 18 Um iP 00 45 05.4
Uganda (h = N).

" 18 Up i(PKP) 03 16 59.0
i 03 17 39.0
Solomon Islands (h = 130 km).

" 18 Um iP 06 00 22.8
Uganda (h = N).

" 18 Ud iP 06 55 57.0
Hindu Kush.

" 18 Up iP 07 22 48.6
Ud iP 07 22 28.4

" 18 Up iP 07 31 52.5
Ki iP 07 31 51.1
Um iP 07 31 42.3
Ud iP 07 32 00.4
De iP 07 31 57.8
Tadzhik SSR (h = N).

" 18 Up iP 22 18 13.8
Ki iP 22 17 54.8
Ud iP 22 18 23.3
Luzon.

" 18 Ki iP 23 21 36.7
Sk iP 23 22 02.7
Ud iP 23 22 03.6
Tien-Shan.

" 19 Up iP 02 48 36.5 C
(cont.)

1971 Apr. 19 (cont.)
Up micr sec
P Z' 0.1 0.7
Mx E 1.7 9
Mx N 1.6 13
Ki eP 02 49 57
micr sec
Mx E 6.1 15
Mx N 2.3 14
Mx Z 4.7 17
Sk iP 02 49 17.8
Um iP 02 49 14.7
Ud iP 02 48 44.0
De iP 02 48 05.2
Greece-Albania (h = 15 km).
M = 4.9 (Up,Ki).

" 19 Up iP 20 44 22.6
Um iP 20 44 19.8
Ud iP 20 44 39.3
Pamir.

" 20 Ud iP 02 33 14.5

" 20 Ki iP 03 56 01.2
Sk iP 03 56 20.7
Um iP 03 55 52.9 D
Ud iP 03 56 13.6 D
De iP 03 56 12.0 D
Tadzhik-Sinkiang (h = 130 km).

" 20 Up iP 13 51 23.2
Ki iP 13 50 27.7
Ud iP 13 51 27.3
De iP 13 51 45.0
Kamchatka (h = 80 km).

" 20 Um iSKS 14 37 34
Ud iPP 14 31 26.1
iPKKP 14 42 43.4
De iPP 14 31 23.2
iPKKP 14 42 48.5
Chile (h = 90 km).

" 20 Up iP 16 26 36.9
micr sec
P Z' 0.1 0.9
Ki iP 16 26 19.4 C
micr sec
P Z' 0.1 1.1
Sk eP 16 26 38
Ud iP 16 26 44.6
De iP 16 26 50.9
Talaud Islands (h = 80 km).
m = 6.1 (Up,Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
Apr.	20	Up	iPgl		23 35 05.4	
			iSgl		23 36 05.6	
		Ki	iPgl		23 34 37.5	
			iSgl		23 35 24.2	
		Sk	iSgl		23 35 34.2	
		Um	iPgl		23 33 47.1	
			iSgl		23 33 55.0	
		Ud	iSgl		23 36 23.6	
		De	iSgl		23 38 00.6	
		Västerbotten, Sweden, 64.3°N, 20.1°E. Origin time = 23 33 38.				
"	21	Up	iPKP		01 37 49.6	
		South Sandwich Islands (h = N).				
"	21	Up	iP		04 20 09.1	
		Peru (h = 50 km).				
"	21	De	iPKP		06 40 31.0	
		Kermadec Islands (h = 170 km).				
"	21	Up	iP		06 53 05.8	
			iS		07 01 57	
					micr	sec
			P	Z'	0.1	0.8
			Mx	E	2.0	18
			Mx	N	3.5	18
			Mx	Z	4.4	18
		Ki	iP		06 52 12.3	
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	3.5	16
			Mx	N	2.7	17
			Mx	Z	4.5	16
		Sk	iP		06 52 42.3	
		Ud	iP		06 53 04.1	
			i		06 53 16.8	
		De	iP		06 53 27.0	
		Alaska (h = 20 km). m = 6.0, M = 5.7 (Up,Ki).				
"	21	Ud	iPKP		08 54 36.1	
		De	iPKP		08 54 46.9	
		Tonga-Kermadec Islands (h = N).				
"	21	Up	eP		09 25 33	
		Sk	iP		09 25 47.4	D
		Ud	iP		09 25 45.0	
		India (h = N).				
"	21	Ud	i(Sgl)		10 54 42.8	
		De	i(Sgl)		10 55 02.9	

1971				
Apr.	21	Ki	iP	12 00 59.9
		Ud	iP	12 01 22.8
		Halmahera (h = 50 km).		
"	21	Ki	iP	13 40 55.7
		De	iP	13 40 14.8
		North Atlantic Ocean (h = N).		
"	21	Up	iP	14 47 37.0
			ipP	14 47 43.0
		Ki	iP	14 47 31.5
			ipP	14 47 36.8
		Sk	eP	14 47 57
		Ud	iP	14 47 53.3
			ipP	14 47 59.0
		De	iP	14 47 53.9
		Kirghiz-Sinkiang. h = 25 km (Up,Ki,Ud).		
"	21	Um	iP	14 58 01.8
"	21	Um	iSgl	15 14 24.0
		Ud	eSgl	15 15 55
		Near Lake Ladoga. Explosion.		
"	21	De	i(Sgl)	16 04 54.5
"	21	De	e	16 18 18
			i(Sgl)	16 18 47.5
"	21	Ki	iSgl	16 22 41.4
		Sk	iSgl	16 22 45.7
		Um	iSgl	16 23 08.4
		Ud	eSgl	16 24 36
		Nordland, Norway, 66.0°N, 15.5°E. Origin time = 16 21 12. Explosion.		
"	21	De	iP	18 50 49.5
		Congo (h = N).		
"	21	Ki	i(PKP)	19 21 25.2
		De	iPKP	19 21 52.0
		Fiji Islands (h = 450 km).		
"	21	Sk	iP	20 12 10.9
		Ud	iP	20 11 39.5
		De	iP	20 11 06.9
		Crete (h = 60 km).		
"	21	Ud	iP	23 59 07.7
		Greece.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	22	Ud	i(Sgl)	00 28 41.4				
"	22	Ud	iP	08 35 18.3				
		Kurile Islands (h = 60 km).						
"	22	Up	eP	09 32 36				
				micr	sec			
			Mx	N	0.3	9		
			Mx	Z	0.4	9		
		Ki	eP	09 34 15				
				micr	sec			
			Mx	E	0.6	15		
			Mx	N	0.4	14		
		Sk	iP	09 33 21.1 C				
			i	09 33 24.5				
		Ud	iP	09 32 44.3				
		De	iP	09 32 04.8				
		Albania (h = 35 km).						
		M = 4.3 (Up,Ki).						
"	22	Ud	i(Sgl)	11 08 20.8				
"	22	Sk	i(Sgl)	11 56 23.5				
"	22	Ki	ePn	12 14 40				
			iSn	12 15 26.1				
			iS*	12 15 39.1				
		Sk	iSgl	12 18 30.7				
		Um	iSgl	12 17 15.0				
		Ud	eSgl	12 19 42				
		Northwest Russia-Norway border region,						
		69.8°N, 29.9°E.						
		Origin time = 12 13 40.						
		Explosion.						
"	22	Ud	i(Sgl)	12 35 37.8				
		De	e(Sgl)	12 35 23				
"	22	Ud	i(Sgl)	12 49 24.5				
		De	i(Sgl)	12 49 28.6				
"	22	Ud	e(Sgl)	13 21 53				
"	22	Ud	e(Sgl)	14 37 46				
"	22	De	e(Sgl)	15 06 21				
"	22	De	i(Sgl)	15 14 39.6				
"	22	Ud	i(Sgl)	15 19 13.5				
"	22	Ud	i(P)	20 56 26.8				
			i	20 56 44.7				
1971 Apr.	22	Up	eP	22 40 33				
				micr	sec			
			Mx	E	0.7	19		
			Mx	N	0.8	18		
			Mx	Z	0.7	18		
		Ki	iP	22 39 22.1				
				micr	sec			
			P	Z'	0.1	1.0		
			Mx	E	1.2	20		
			Mx	N	1.2	15		
			Mx	Z	1.2	15		
		Sk	iP	22 39 33.6				
		Ud	iP	22 40 19.9				
			i	22 40 32.8				
		De	iP	22 41 06.3				
		Jan Mayen (h = N).						
		M = 4.0 (Up,Ki).						
"	22	Ki	iP	22 53 15.2				
		Sk	iP	22 53 27.2				
		Ud	iP	22 54 13.8				
			i	22 54 25.7				
		Jan Mayen.						
		Origin time = 22 51 06.						
"	23	Ud	iP	02 36 57.0				
"	23	Ud	i(Sgl)	03 19 08.9				
		De	i(Sgl)	03 17 51.0				
"	23	Ud	i(Sgl)	08 46 46.8				
"	23	Up	iP	10 53 14.0 C				
			ipP	10 53 26.3				
				micr	sec			
			P	Z'	0.1	1.0		
		Ki	iP	10 52 51.1				
				micr	sec			
			P	Z'	0.1	0.9		
		Sk	iP	10 53 17.5				
		Um	iP	10 52 57.6				
		Ud	iP	10 53 23.1				
			ipP	10 53 35.5				
		De	iP	10 53 31.6				
		Formosa.						
		h = 40 km (Up,Ud).						
		m = 5.9 (Up,Ki).						
"	23	Um	i(P)	10 57 07.5				
"	23	Ud	iP	11 00 43.0				
		Oregon (h = N).						
"	23	De	i(P)	11 14 54.0				
			i	11 14 58.0				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	23	Ki	iSgl	12 08 04.1	
		Sk	iSn	12 08 02.0	
			iSgl	12 08 11.2	
			iSg2	12 08 15.7	
		Um	iSn	12 08 00.5	
			iSgl	12 08 21.7	
		Sweden-Norway border region, 66.2°N, 15.1°E. Origin time = 12 06 41. Explosion.			
"	23	Um	i(Sgl)	12 11 25.6	
"	23	Um	iPKP	12 51 16.6	
		Solomon Islands (h = 70 km).			
"	23	Up	iP	13 29 50.5	
		Ki	iP	13 29 54.7	
		Sk	eP	13 29 38	
		Um	iP	13 29 55.5	
		Ud	iP	13 29 41.0	
		De	iP	13 29 42.3	
		Colombia (h = 170 km).			
"	23	De	i(Sgl)	13 50 15.5	
"	23	Ki	i(Sgl)	18 10 36.5	
"	23	Ud	ePKP	21 25 33	
		Fiji Islands (h = 600 km).			
"	23	Um	iP	23 57 47.6	
		Japan (h = 170 km).			
"	24	Up	iP	00 08 17.7	
"	24	Up	iPKP	02 54 43.4	
		Ki	iPKP	02 54 31.4	
		Sk	iPKP	02 54 42.3	
		Um	iPKP	02 54 37.7	
		Ud	iPKP	02 54 47.6	
		De	ePKP	02 54 54	
		Santa Cruz Islands (h = 120 km).			
"	24	Up	iP	09 21 24.2	
			i	09 21 40.7	
		Ud	iP	09 21 00.5	
			i	09 21 16.3	
"	25	Up	iP	03 39 52.8 C	
			iPn	03 40 57.9	
			iPP	03 41 11.4	
				micr sec	
			P Z'	0.4 0.9	
		(cont.)			

1971 Apr.	25	(cont.)			
		Up		micr sec	
			Mx E	0.8 9	
			Mx N	0.6 7	
			Mx Z	1.5 8	
		Ki	iP	03 39 37.1 C	
			iPn	03 40 37.8	
				micr sec	
			P Z'	1.1 0.6	
			Mx E	0.8 9	
			Mx N	0.6 6	
			Mx Z	0.7 8	
		Sk	iP	03 40 08.4 C	
			iPn	03 41 22.0	
			iPP	03 41 30.9	
		Um	iP	03 39 37.9 C	
			iPP	03 40 50.0	
		Ud	iP	03 40 09.3 C	
			iPn	03 41 22.2	
		De	iP	03 40 16.4 C	
			iPn	03 41 31.9	
			iPP	03 41 43.8	
		Kazakh SSR. m = 6.7, M = 4.9 (Up,Ki). Underground explosion.			
"	25	Up	iP	04 43 45.5	
		Ki	iP	04 45 00.2	
		Sk	iP	04 44 21.0	
		Um	iP	04 44 24.7	
		Ud	iP	04 43 47.8 C	
		De	iP	04 43 11.2 C	
		Tyrrhenian Sea (h = 300 km).			
"	25	Up	iP	05 05 52.3	
		Ki	eP	05 05 05	
		Sk	eP	05 05 39	
		Um	iP	05 05 27.2	
		Ud	iP	05 05 58.0	
		Kurile Islands (h = N).			
"	25	Up	iSgl	08 28 43.5	
		Ki	ePn	08 24 30	
			iSn	08 25 28.2	
			iS*	08 25 48.1	
			iSgl	08 25 51.8	
		Sk	eSn	08 27 19	
			iSgl	08 28 17,4	
		Um	iSn	08 26 08,8	
			iSgl	08 26 44.3	
		Ud	iSgl	08 29 14.0	
		Northwest Russia, 67.8°N, 33.9°E. Origin time = 08 23 13. Explosion.			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	25	Ud	eP		13 24 19	
"	25	Ki	iP		13 37 21.8	
		Ud	iP		13 37 39.7	
		Iceland (h = N).				
"	25	Ki	iPn		17 04 19.9	
			iSn		17 05 06.8	
			iSgl		17 05 21.8	
		Northwest Russia.				
		Origin time = 17 03 18.				
		Explosion.				
"	25	Up	iP		17 52 06.6	
					micr	sec
			Mx	E	1.5	20
			Mx	N	1.6	18
			Mx	Z	3.1	19
		Ki	iP		17 51 20.0	
			i		17 51 23.1	
			i		17 51 31.3	
					micr	sec
			P	Z'	0.2	1.0
			Mx	E	3.7	15
			Mx	N	2.0	15
			Mx	Z	4.0	15
		Sk	iP		17 51 08.5	
		Um	iP		17 51 44.1	
			i		17 51 46.3	
			i		17 51 49.7	
			iS		17 54 58	
		Ud	iP		17 51 45.9	
		De	iP		17 52 19.7	
		Iceland (h = N).				
		M = 4.6 (Up,Ki).				
"	26	Up	e(PKP)		04 39 00	
		Ki	ePKP		04 38 30	
		Um	iPKP		04 38 44.7	
		Ud	iPKP		04 38 48.3	
		De	iPKP		04 38 58.4	
		Tonga-Kermadec Islands (h = N).				
"	26	Up	iP		10 20 37.4	
			iPcP		10 21 11.4	
					micr	sec
			P	Z'	0.1	0.6
		Ki	iP		10 19 46.2	
		Sk	iP		10 20 23.1	
			iPcP		10 21 03.1	
		Um	iP		10 20 10.4	
			iPcP		10 20 55.4	
		Ud	iP		10 20 41.9	
			iPcP		10 21 14.8	
		De	iP		10 21 02.9	
		Kurile Islands (h = 240 km).				
1971 Apr.	26	Um	i(Sgl)		17 13 38.1	
"	26	Up	iP		22 35 46.0	C
					micr	sec
			Mx	E	0.6	15
			Mx	N	0.8	18
			Mx	Z	0.7	13
		Ki	eP		22 35 15	
					micr	sec
			Mx	E	0.5	15
			Mx	N	0.3	14
			Mx	Z	0.5	14
		Sk	iP		22 35 47.0	
		Um	iP		22 35 29.3	C
		Ud	iP		22 35 55.1	C
		Ryukyu Islands (h = 20 km).				
		M = 5.2 (Up,Ki).				
"	27	Up	iP		10 16 17.0	
			ipP		10 16 24.2	
		Ki	iP		10 15 56.1	
			ipP		10 16 03.2	
		Sk	eP		10 16 29	
		Um	iP		10 16 03.6	
			ipP		10 16 11.2	
		Ud	iP		10 16 27.3	
		Luzon.				
		h = 25 km (Up,Ki,Um).				
"	27	Um	i(Sgl)		11 46 27.2	
"	27	Up	eP		14 55 27	
					micr	sec
			Mx	E	0.8	14
			Mx	N	0.6	13
			Mx	Z	1.9	14
		Ki	iP		14 55 30.8	
					micr	sec
			Mx	E	1.6	13
			Mx	N	0.6	8
			Mx	Z	1.5	13
		Sk	iP		14 55 51.5	
		Um	iP		14 55 22.7	
		Ud	iP		14 55 44.3	
		De	iP		14 55 42.0	
		Kirghiz SSR (h = 35 km).				
		M = 5.0 (Up,Ki).				
"	27	Up	iPKP		16 26 31.0	
		Um	iPKP		16 26 20.9	
		Ud	iPKP		16 26 33.2	
		Kermadec Islands (h = 480 km).				
"	27	Um	iP		17 25 28.7	
		De	iP		17 24 41.2	
		Turkey (h = 40 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
Apr.	27	Ki	iSgl	17 25 44.4	
		Sk	iSgl	17 25 49.6	
		Um	iSgl	17 26 12.4	
		Nordland, Norway, 66.5°N, 14.0°E. Origin time = 17 24 14. Explosion.			
"	27	Up	iPKP	20 15 02.8	
		Ki	iPKP	20 14 42.1	
		Sk	iPKP	20 14 56.5	
		Um	iPKP	20 14 51.5	
			ipPKP	20 14 56.1	
		Ud	iPKP	20 15 03.9	
			ipPKP	20 15 09.0	
		De	iPKP	20 15 12.9	
		Kermadec Islands. h = 20 km (Um,Ud).			
"	27	Um	iP	20 27 05.9	
"	27	Ki	i	22 38 50.8	
			i(pP)	22 39 08.1	
		Ud	i(pP)	22 40 03.4	
		Aleutian Islands (h = 140 km).			
"	28	Ki	iP	02 22 41.1	
		Um	iP	02 22 53.6	
		Ud	iP	02 23 16.8	
		Volcano Islands (h = 200 km).			
"	28	Um	iP	04 29 41.6	
		Japan (h = 40 km).			
"	28	Up	iPKP	06 12 12.0	
			ipPKP	06 12 25.2	
		Sk	ePKP	06 12 11	
		Um	iPKP	06 11 56.9	
			ipPKP	06 12 09.3	
		Ud	iPKP	06 12 10.2	
			ipPKP	06 12 22.9	
		De	iPKP	06 12 28.1	
		Kermadec Islands. h = 45 km (Up,Um,Ud).			
"	28	Ki	iPn	07 50 05.1	
			iPgl	07 50 14.3	
			i(Sn)	07 50 57.7	
			iSgl	07 51 11.6	
		Northwest Russia. Explosion.			
"	28	Up	eSgl	11 08 38	
		Ki	iPn	11 04 24.9	
			iSn	11 05 22.8	
		(cont.)			

1971					
Apr.	28	(cont.)			
		Sk	iSgl	11 08 10.6	
		Um	eSn	11 06 02	
			iSgl	11 06 40.7	
		Ud	iSgl	11 09 12.8	
		De	eSgl	11 10 38	
		Northwest Russia, 67.9°N, 33.9°E. Origin time = 11 03 08. Explosion.			
"	28	De	iPKP	12 49 41.2	
		Fiji Islands (h = 580 km).			
"	28	Um	iP	13 08 02.1	
"	28	Ki	iPn	13 21 11.6	
			iSn	13 21 59.3	
			iS*	13 22 12.6	
		Sk	iSgl	13 25 00.3	
		Um	iSgl	13 23 41.9	
		Northwest Russia-Norway border region, 69.4°N, 30.9°E. Origin time = 13 20 09. Explosion.			
"	28	Up	ePKP2	14 51 09	
		Ki	iPKP	14 50 35.5	
		Sk	ePKP	14 50 47	
		Um	iPKP	14 50 42.1	
		Ud	ePKP2	14 51 20	
		New Zealand (h = 35 km).			
"	28	Ud	i(Sgl)	15 18 33.3	
		De	i(Sgl)	15 16 43.6	
"	28	Up	iP	15 20 46.0	
		Ki	iP	15 20 53.6	
		Sk	iP	15 21 10.6	
		Um	iP	15 20 44.2	
		Ud	iP	15 21 02.3	
		De	eP	15 21 00	
		West Pakistan (h = 40 km).			
"	28	Up	iP	15 40 57.3	
		Sk	iP	15 41 39.2	
		Um	iP	15 41 37.4	
		Ud	iP	15 41 03.6	
		Greece.			
"	28	Up	iP	15 42 55.0	
			iS	15 51 53	
				micr sec	
			P Z'	0.1 1.1	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	28	(cont.)			
		Up			micr sec
			Mx	E	8.7 17
			Mx	N	40 21
			Mx	Z	15 18
		Ki	iP		15 42 44.0
			iS		15 51 32
					micr sec
			P	Z'	0.2 0.9
			Mx	E	23 18
			Mx	N	15 15
			Mx	Z	22 18
		Sk	iP		15 43 07.5
		Um	iP		15 42 45.3
			iS		15 51 34
		Ud	iP		15 43 07.4
			i		15 43 55.1
		De	iP		15 43 12.4
			i		15 43 42.9
		Burma-China (h = 15 km).			
		m = 6.2, M = 6.2 (Up,Ki).			
"	28	Up	iP		18 07 40.9
		Greece.			
"	28	Um	iP		18 11 58.8
"	29	Up	iP		00 58 56.1
					micr sec
			P	Z'	0.1 0.8
		Ki	iP		00 58 36.6
		Sk	iP		00 59 01.8
		Um	iP		00 58 43.2
		Ud	iP		00 59 05.9 D
		De	iP		00 59 13.0
		Luzon (h = N).			
"	29	Up	iP		05 54 35.8
		Ki	eP		05 54 15
		Um	eP		05 54 22
		Ud	iP		05 54 39.0
		Luzon.			
		Origin time = 05 42 23.			
"	29	Up	iP		08 25 44.0
					micr sec
			Mx	N	0.6 17
		Sk	iP		08 25 52.9
		Ud	iP		08 25 36.6
		Atlantic Ocean (h = N).			
"	29	Sk	eP		09 04 32
"	29	Ud	iP		11 42 49.1
		Kirghiz SSR.			

1971 Apr.	29	Up	iSgl	13 02 43.9
		Sk	iSgl	13 02 44.8
		Ud	iPgl	13 00 49.6
			iSgl	13 01 45.9
		De	iSn	13 01 36.6
			iSgl	13 01 54.3
		Southwest Norway,		
		58.3°N, 6.3°E.		
		Origin time = 12 59 36.		
		Solution checked with		
		Kongsberg readings.		
"	29	De	e(Sgl)	14 18 17
"	29	Ki	iPn	14 20 17.9
			iSn	14 21 06.6
			iS*	14 21 20.5
			iSgl	14 21 24.1
			iRg	14 21 38.4
		Sk	iSn	14 23 12.6
			iSgl	14 24 06.7
		Um	iPn	14 20 55.9
			iSn	14 22 11.5
			iSgl	14 22 50.6
		Ud	eSgl	14 25 17
		De	eSgl	14 27 00
		Northwest Russia-Norway		
		border region,		
		69.4°N, 31.1°E.		
		Origin time = 14 19 14.		
		Explosion.		
"	29	Ki	e(P)	14 55 34
"	29	Up	eP	15 14 47
		Ki	iP	15 14 29.9
		Um	iP	15 14 37.2
		Ud	iP	15 14 59.6
		Formosa.		
"	29	Ud	i(Sgl)	15 30 50.1
		De	i(Sgl)	15 30 57.1
		Probably Bohuslän, southwest		
		Sweden (by combination with		
		Kongsberg reading).		
		Origin time = 15 29 50.		
"	29	Up	iP	15 37 15.0
				micr sec
			P	Z' 0.1 1.0
		Ki	iP	15 36 20.8
			ipP	15 36 28.8
				micr sec
			P	Z' 0.1 1.0
		(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 Apr.	29	(cont.)				
		Sk	iP		15 36 55.8	
		Um	iP		15 36 46.7	
			ipP		15 36 55.6	
		Ud	iP		15 37 16.7	
		De	eP		15 37 39	
		Aleutian Islands.				
		h = 30 km (Ki,Um).				
		m = 5.9 (Up,Ki).				
"	29	Up	i(P)		15 38 39.3	
		Um	e(P)		15 38 29	
"	29	De	e(Sgl)		16 16 17	
"	29	Up	Mx		17 46	
					micr	sec
			Mx	E	0.9	18
			Mx	N	0.9	20
			Mx	Z	0.7	17
		Ki	Mx		17 44	
					micr	sec
			Mx	E	0.7	17
			Mx	N	0.5	18
			Mx	Z	0.9	18
		South Pacific (h = N).				
		M = 5.8 (Up,Ki).				
"	29	Up	iP		20 08 54.9	
			iPP		20 12 20.1	
			iSKS		20 19 17	
			iS		20 19 28	
					micr	sec
			P	Z'	1.8	1.9
			Mx	E	2.7	18
			Mx	N	3.5	18
			Mx	Z	5.1	22
		Ki	iP		20 08 37.5	
			iS		20 18 54	
					micr	sec
			P	Z'	1.8	2.1
			Mx	E	7.1	22
			Mx	N	4.6	19
			Mx	Z	5.4	19
		Sk	iP		20 09 02.6	
		Um	iP		20 08 43.8	
			iS		20 19 05	
		Ud	iP		20 09 03.8	
		De	iP		20 09 09.2	
		Luzon (h = 5 km).				
		m = 6.9, M = 6.0 (Up,Ki).				
"	30	Up	eP		03 27 14	
			ipP		03 27 20.6	
		Ki	iP		03 28 02.0	
		(cont.)				

1971 Apr.	30	(cont.)				
		Sk	iP		03 27 33.2	
		Um	iP		03 27 37.7	
			ipP		03 27 43.8	
		Ud	iP		03 27 09.5	
			ipP		03 27 16.2	
		Ascension Island.				
		h = 25 km (Up,Um,Ud).				
"	30	Ki	iP		06 16 18.8	
		Turkey (h = 30 km).				
"	30	Up	iP		09 12 39.9	
			ipP		09 12 48.1	
		Ki	iP		09 13 26.2	
			ipP		09 13 33.6	
		Sk	iP		09 13 23.9	
		Um	iP		09 13 01.6	
		Ud	iP		09 13 03.9	
			i		09 13 07.4	
		De	iP		09 12 47.9	
		Iran.				
		h = 30 km (Up,Ki).				
"	30	Ud	e(Sgl)		09 35 50	
		De	i(Sgl)		09 36 11.5	
"	30	Ki	iPn		10 50 18.8	
			iSn		10 51 16.2	
			iSgl		10 51 37.2	
		Sk	i(S*)		10 53 45.7	
			iSgl		10 53 59.7	
		Um	iSn		10 51 56.6	
			i		10 52 11.1	
			iSgl		10 52 31.5	
		Northwest Russia,				
		67.7°N, 33.8°E.				
		Origin time = 10 49 02.				
		Explosion.				
"	30	Up	iP		11 04 02.7	
"	30	Up	i(P)		12 01 20.1	
			i		12 01 23.6	
"	30	Sk	eP		12 48 57	
		Um	iP		12 48 44.2	
		Ud	iP		12 48 26.2	
"	30	Um	eP		13 32 08	
"	30	Ki	iPgl		14 02 41.0	
			iSgl		14 02 51.6	
			iRg		14 02 54.7	
		Sk	eSgl		14 05 01	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
Apr. 30 (cont.)

Um	iSgl		14 04 07.5	
Lapland, Sweden,				
67.1°N, 20.5°E.				
Origin time = 14 02 27.				
Iron ore mine explosion.				
" 30 Up	iP		14 16 37.5	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		14 15 44.3	
Sk	eP		14 16 16	
Um	iP		14 16 11.0	
Ud	iP		14 16 38.9	
	ipP		14 17 03.4	
De	iP		14 17 00.6	
Aleutian Islands.				
h = 100 km (Ud).				
" 30 Um	iP		14 59 48.6	
Sea of Japan (h = N).				
" 30 Um	iP		15 53 19.8	
Mongolia.				
" 30 Up	iP		15 58 48.3	C
	i		15 58 49.8	
			micr	sec
	P	Z'	0.3	1.1
Ki	iP		15 57 54.3	
	i		15 57 55.8	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	0.7	17
	Mx	N	0.9	20
	Mx	Z	1.7	22
Sk	iP		15 58 29.0	
	i		15 58 30.6	
Um	iP		15 58 20.6	
	i		15 58 22.0	
Ud	iP		15 58 50.2	
	i		15 58 51.4	
De	iP		15 59 12.1	
	i		15 59 13.7	
Aleutian Islands (h = 35 km).				
m = 6.3 (Up,Ki).				
Double P, in average 1.5 sec apart.				
" 30 Um	iP		16 49 30.7	
Turkey.				
" 30 Up	iP1		18 02 09.9	
	iP2		18 02 18.5	
			micr	sec
	P2	Z'	0.1	1.0

(cont.)

1971
Apr. 30 (cont.)

Ki	iP1		18 02 02.5
	iP2		18 02 10.6
Sk	iP1		18 01 52.2
	iP2		18 02 00.3
Um	iP1		18 02 10.3
	iP2		18 02 17.7
Ud	iP1		18 02 00.0
	iP2		18 02 08.1
De	iP2		18 02 14.6

Caribbean Sea (h = 5 km).
Double P, in average 8.1 sec apart.

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November 5, 1973

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SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, UMEÅ, UDDEHOLM and DELARY

Uppsala	(Up):	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(Ki):	67°50.4'N,	20°25.0'E;	h = 390 m
Skalstugan	(Sk):	63°34.8'N,	12°16.8'E;	h = 580 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m
Delary	(De):	56°28.2'N,	13°52.2'E;	h = 150 m

MAY 1 - 31, 1971

1971
May 1 Ud iP 04 16 09.0
North Atlantic Ocean (h = N).

" 1 Ud iP 08 39 03.6
De iP 08 39 28.1

" 1 Ki iSgl 11 32 35.5
Sk iSgl 11 32 42.4
Um iSgl 11 33 20.1
Off coast of Norway,
67.2°N, 12.0°E.
Origin time = 11 30 50.

" 1 Up iP 13 50 04.0

		micr	sec
Mx	E	1.5	10
Mx	N	1.5	12
Mx	Z	1.7	12

Ki iP 13 51 11.5
ipP 13 51 17.8

		micr	sec
Mx	E	3.1	11
Mx	N	1.4	12
Mx	Z	1.7	12

Sk iP 13 50 45.8
ipP 13 50 51.7
Um iP 13 50 36.2
ipP 13 50 41.1
iS 13 54 49
Ud iP 13 50 15.3
ipP 13 50 21.2
De iP 13 49 40.4
ipP 13 49 46.0
Turkey.
h = 20 km (Ki,Sk,Um,Ud,De).
M = 5.0 (Up,Ki).

1971
May 1 Up iPKP 14 34 34.6
iPP 14 37 38.7
eSKP 14 38 05

		micr	sec
Mx	E	1.3	26
Mx	N	1.4	25
Mx	Z	2.4	22

Ki iX 14 34 31.0
iSKP 14 37 41.9

		micr	sec
Mx	E	1.3	23
Mx	N	0.6	18
Mx	Z	1.7	22

Sk iX 14 34 33.4
iSKP 14 37 57.6
Um iX 14 34 35.7
iPP 14 37 08.1
iSKP 14 37 52.8
Ud iPKP 14 34 37.7
iX 14 34 41.1
De iPKP 14 34 45.6
iX 14 34 48.3
iSKP 14 38 15.7
Loyalty Islands (h = 150 km).
M = 5.8 (Up,Ki).
The phase X denotes a second PKP, in average 3 sec after the first PKP.

" 1 Ki iP 14 44 36.5
Sk iP 14 44 27.8
Um iP 14 44 44.6
ipP 14 45 07.3
Ud iP 14 44 34.8
De iP 14 44 40.9
ipP 14 45 03.5
El Salvador.
h = 90 km (Um,De).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
May	1	Um	iP	16 02 56.2	
"	1	Ki	iP	19 05 41.1	
		Um	iP	19 05 30.1	
		Ud	iP	19 05 48.0	
			ipP	19 06 36.6	
		De	eP	19 05 45	
		Hindu Kush.			
		h = 230 km (Ud).			
"	1	Ki	iP	20 48 26.4	
"	1	Up	iP	22 24 24.8	
		Sk	iP	22 24 59.7	
		Um	iP	22 25 03.7	
		Ud	iP	22 24 25.7	
		De	iP	22 23 48.9	
		Italy (h = 290 km).			
"	2	Up	iP	01 49 48.0	
		Ki	iP	01 49 20.8	
		Um	iP	01 49 30.6	
		Mariana Islands (h = 20 km).			
"	2	Up	iP	06 19 24.0	
			ipP	06 19 32.9	
			iPcP	06 19 53.1	
			iS	06 28 27	
				micr	sec
			P Z'	0.1	0.6
			Mx E	40	23
			Mx N	77	21
			Mx Z	100	21
		Ki	iP	06 18 31.9	
			ipP	06 18 38.0	
			iPcP	06 19 23.1	
			iS	06 26 47	
			iP'P'	06 48 04.6	
				micr	sec
			P Z'	0.1	0.6
			Mx E	55	20
			Mx N	67	20
			Mx Z	100	20
		Sk	iP	06 19 03.7	
			ipP	06 19 12.4	
			iP'P'	06 47 47.5	
		Um	iP	06 18 58.0	
			iPcP	06 19 39.7	
			iS	06 27 37	
			iP'P'	06 47 47.5	
		Ud	iP	06 19 25.3	
			ipP	06 19 33.5	
			iPcP	06 19 48.6	
			iP'P'	06 47 37.4	
		(cont.)			

1971					
May	2	(cont.)			
		De	iP	06 19 46.3	
			ipP	06 19 54.9	
			iP'P'	06 47 35.1	
		Aleutian Islands.			
		h = 30 km (Up,Ki,Sk,Ud,De).			
		m = 6.2, M = 6.9 (Up,Ki).			
"	2	Um	iP	06 55 58.5	
		Ud	iP	06 56 26.8	
"	2	Um	iP	07 15 36.2	
"	2	Um	iP	07 57 38.1	
		Kurile Islands.			
"	2	Up	iP	09 19 55.3	
		Ki	iP	09 19 03.5	
		Um	iP	09 19 29.6	
		Ud	iP	09 19 55.5	
		De	iP	09 20 19.0	
		Aleutian Islands (h = 45 km).			
"	2	Up	iP	12 20 26.5	
		Ud	iP	12 20 30.9	
"	2	Up	iP	12 35 51.4	
		Ud	iP	12 35 59.3	
"	2	Um	iP	23 27 14.1	
		Ud	eP	23 27 03	
		Caribbean Sea (h = N).			
"	3	Up	iP	00 42 34.7	
				micr	sec
			P Z'	0.1	1.0
			Mx E	2.1	14
			Mx N	2.5	16
			Mx Z	2.8	14
		Ki	iP	00 42 33.7	
				micr	sec
			P Z'	0.2	1.1
			Mx E	1.8	13
			Mx N	1.9	16
			Mx Z	2.2	13
		Sk	iP	00 42 53.9	
		Um	iP	00 42 28.9	
		Ud	iP	00 42 49.9	
		De	iP	00 42 49.7	
		Tibet (h = 15 km).			
		m = 5.9, M = 5.5 (Up,Ki).			
"	3	Ki	i(Pgl)	05 51 41.8	
			i(Sgl)	05 51 48.2	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	3	Ki	iP		06 31 44.2	
		Um	iP		06 31 50.5	
		Ud	iP		06 32 08.6	
		Mindanao (h = 70 km).				
"	3	Ki	iP		08 22 03.8	
		Sk	iP		08 21 58.1	
		Um	iP		08 22 12.4	
		Mexico (h = 150 km).				
"	3	Up	iP		11 20 29.7	
"	3	Um	iPKP		11 47 37.1	
		De	iPKP		11 47 47.2	
		Fiji Islands (h = 640 km).				
"	3	Up	Mx		12 06	
					micr	sec
			Mx	E	1.4	19
			Mx	N	1.4	19
			Mx	Z	2.7	20
		Ki	Mx		12 00	
					micr	sec
			Mx	E	1.8	19
			Mx	N	1.4	20
			Mx	Z	2.4	21
		Solomon Islands (h = 45 km).				
		M = 5.9 (Up,Ki).				
"	3	Up	iPgl		13 30 45.8	
			iSgl		13 31 04.1	
		Sk	eSn		13 32 54	
			iSgl		13 33 18.7	
		Um	iPgl		13 31 54.4	
			iSgl		13 32 58.9	
		Ud	iPgl		13 31 11.3	
			iSgl		13 31 48.4	
		De	ePgl		13 31 20	
			iSgl		13 32 09.7	
		Baltic Sea, 58.6°N, 18.4°E.				
		Origin time = 13 30 23.				
		Explosion.				
"	3	Up	iSgl		13 36 18.7	
		Ud	iSgl		13 37 01.6	
		De	eSgl		13 37 25	
		Baltic Sea, 58.6°N, 18.4°E.				
		Origin time = 13 35 38.				
		Explosion.				
"	3	Ud	iP		15 53 00.8	
			i		15 53 12.7	
"	3	Ud	iP		21 30 50.8	

1971						
May	4	Up	iP		02 17 46.1	
			i		02 17 47.8	
			ipP		02 18 02.1	
			iX		02 20 35.5	
			iPP		02 21 39.9	
			iSKS		02 28 19	
					micr	sec
			P	Z'	0.4	1.0
			Mx	E	7.3	21
			Mx	N	8.2	20
			Mx	Z	12	22
		Ki	iP		02 17 44.5	C
			i		02 17 48.6	
			ipP		02 17 59.4	
			iSKS		02 28 17	
					micr	sec
			P	Z'	0.6	1.0
			Mx	E	14	24
			Mx	N	9.8	21
			Mx	Z	19	24
		Sk	iP		02 17 58.8	
			i		02 18 03.0	
			ipP		02 18 16.2	
			iPP		02 21 56.1	
		Um	iP		02 17 42.6	C
			i		02 17 47.1	
			ipP		02 18 00.3	
			iX		02 20 20.2	
			iSKS		02 28 12	
			iS		02 28 54	
		Ud	iP		02 17 55.5	
			i		02 17 58.1	
			ipP		02 18 10.4	
			iX		02 21 06.0	
			iPP		02 21 55.4	
		De	iP		02 17 54.3	
			iX		02 21 09.0	
			iPP		02 21 52.1	
		Sunda Strait.				
		h = 60 km (Up,Ki,Sk,Um,Ud).				
		m = 6.8, M = 6.4 (Up,Ki).				
		The phase X is probably an early PP.				
"	4	Ki	iP		02 44 31.3	
		Um	iP		02 44 35.3	
"	4	Sk	iP		02 45 22.9	
		Ud	iP		02 44 47.6	
		Albania.				
"	4	Ud	i(P)		04 35 05.2	
"	4	Ud	i(P)		10 36 57.5	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
May	4	Up	e(Sgl)	12 54 11	
		Ud	i(Sgl)	12 55 02.1	
		De	e(Sgl)	12 54 43	
"	4	Up	iP	13 00 40.0	
		Um	iP	13 00 37.7	
		Ud	iP	13 00 55.6	
			ipP	13 01 42.8	
		De	iP	13 00 52.8	
		Hindu Kush.			
		h = 230 km (Ud).			
"	4	Um	iSgl	13 29 28.7	
		Ud	iSgl	13 29 57.6	
		De	eSgl	13 30 23.3	
		Esthonia, 59.5°N, 24.8°E.			
		Origin time = 13 26 58.			
		Explosion.			
"	4	De	i(P)	15 09 37.5	
"	4	Ud	i(Sgl)	15 12 05.3	
		De	i(Sgl)	15 10 31.3	
"	5	Up	iPKP2	00 11 34.2	
		Ki	iPKP	00 11 00.7	
		Sk	iPKP	00 11 13.5	
		Um	iPKP	00 11 07.8	
		Ud	ePKP2	00 11 39	
		New Zealand (h = 50 km).			
"	5	Up	iP	01 19 47.0	
		Ki	eP	01 21 17	
		Sk	iP	01 20 30.4	
		Um	iP	01 20 30.4	
		Ud	iP	01 19 53.2	
		De	iP	01 19 14.1	
			ipP	01 19 17.1	
		Albania.			
		h = 10 km (De).			
"	5	Up	iP	01 55 19.2	
			ipP	01 55 32.8	
				micr sec	
			P Z'	0.1 0.9	
		Ki	iP	01 54 58.0	
			ipP	01 55 12.4	
		Sk	eP	01 55 23	
		Um	iP	01 55 04.9	
			ipP	01 55 18.9	
		Ud	iP	01 55 28.3	
			ipP	01 55 42.2	
		De	eP	01 55 36	
		Luzon.			
		h = 50 km (Up,Ki,Um,Ud).			

1971					
May	5	Up	iPKP	03 10 42.4	C
		Um	ePKP	03 10 31	
		Ud	iPKP	03 10 44.3	C
			i	03 10 51.6	
		De	iPKP	03 10 54.1	C
		Tonga-Kermadec Islands			
		(h = 50 km).			
"	5	Ud	iP	06 12 01.0	
		Luzon (h = 40 km).			
"	5	Up	iP	09 46 09.0	
		Ki		micr sec	
			Mx E	0.5 12	
			Mx N	0.3 12	
			Mx Z	0.5 12	
		Sk	iP	09 46 48.4	
		Um	eP	09 46 51	
			i	09 47 03.8	
		Ud	iP	09 46 05.1	
		Italy (h = 10 km).			
"	5	Ud	i(P)	12 39 58.3	
"	5	Sk	eP	19 35 32	
"	5	Ud	i(P)	23 40 38.3	
		De	i(P)	23 41 01.8	
"	6	Ud	iP	01 22 20.4	
		De	iP	01 22 18.9	
		Leeward Islands (h = 60 km).			
"	6	Ud	iP	01 48 38.1	
"	6	Up	eP	03 10 56	
			i	03 10 57.9	
		Ki	eP	03 10 03	
		Um	iP	03 10 30.3	
			iPcP	03 11 04.3	
		Ud	iP	03 10 56.4	
		De	iP	03 11 19.1	
		Aleutian Islands (h = 50 km).			
"	6	Up	iP	03 49 33.9	C
				micr sec	
			P Z'	0.1 0.9	
			Mx E	1.3 14	
			Mx N	2.1 8	
			Mx Z	2.6 8	
		Ki	iP	03 50 57.7	
				micr sec	
			P Z'	0.1 1.3	
			Mx E	2.2 14	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	6	(cont.)				
		Ki			micr	sec
			Mx	N	1.2	11
			Mx	Z	1.4	10
		Sk	iP		03 50 11.6	C
		Um	iP		03 50 15.4	
			iS		03 54 21	
		Ud	iP		03 49 32.9	C
		De	iP		03 48 52.7	
		Italy (h = N).				
		m = 5.2, M = 4.9 (Up,Ki).				
"	6	Up	iP		04 29 28.8	
			ipP		04 29 32.6	
			iS		04 33 33	
					micr	sec
			P	Z'	0.2	1.2
			Mx	E	0.4	9
			Mx	N	0.9	13
			Mx	Z	0.9	13
		Ki	iP		04 30 39.2	
					micr	sec
			P	Z'	0.1	1.4
			Mx	E	1.8	7
			Mx	N	0.3	10
			Mx	Z	0.6	7
		Sk	iP		04 30 17.8	
		Um	iP		04 30 01.2	
			i		04 30 16.2	
			iS		04 34 26	
		Ud	iP		04 29 42.0	
			ipP		04 29 46.1	
		De	iP		04 29 07.9	
			ipP		04 29 12.8	
		Turkey.				
		h = 20 km (Up,Ud,De).				
		m = 5.5, M = 4.9 (Up,Ki).				
"	6	Ud	iP		12 28 38.3	
		Caucasus.				
"	6	Up	iSgl		12 45 19.7	
		Sk	iSgl		12 45 23.0	
		Ud	i(S*)		12 44 15.5	
			iSgl		12 44 23.5	
		Off coast of south Norway,				
		57.7°N, 5.6°E.				
		Origin time = 12 41 51.				
"	6	Ki	i		16 20 14.9	
			iSgl		16 20 37.9	
		Sk	iSgl		16 20 33.9	
		Um	iSgl		16 20 54.6	
		Ud	eSgl		16 22 22	
		(cont.)				

1971 May	6	(cont.)				
		Nordland, Norway,				
		66.2°N, 14.5°E.				
		Origin time = 16 19 07.				
		Explosion.				
"	6	Up	iP		17 37 17.5	
		Ki	iP		17 36 23.4	
		Sk	eP		17 37 00	
		Ud	iP		17 37 21.3	
		De	iP		17 37 43.5	
		Kamchatka (h = N).				
"	6	Ud	eP		20 34 31	
"	6	Ud	iP		23 25 06.5	
		De	iP		23 25 03.2	
		Hindu Kush.				
"	7	Up	iPKP		00 28 00.0	C
			eSKP		00 30 51	
		Ki	iSKP		00 30 28.7	
		Sk	ePKP		00 27 54	
		Um	ePKP		00 27 51	
			i		00 27 58.4	
			iSKP		00 30 49.4	
		Ud	iPKP		00 28 02.0	
			iSKP		00 30 52.2	
		De	iPKP		00 28 12.7	
			i(pPKP)		00 30 24.2	
			iSKP		00 31 00.7	
		Tonga-Kermadec Islands				
		(h = 570 km).				
"	7	Up	eP		00 34 47	
			i(sP)		00 35 00.9	
			iPP		00 38 52.0	
					micr	sec
			PP	Z'	0.4	1.8
			Mx	E	4.7	22
			Mx	N	9.2	24
			Mx	Z	8.3	24
		Ki	iP		00 34 41.2	
					micr	sec
			P	Z'	0.5	2.1
			Mx	E	15	26
			Mx	N	8.5	24
			Mx	Z	15	24
		Sk	e(PP)		00 38 51	
		Um	iP		00 34 41.4	
			ipP		00 34 52.3	
			iPP		00 38 42.4	
		Ud	iP		00 34 55.8	
			ipP		00 35 04.6	
			iPP		00 39 13.8	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	7	(cont.)			
		De	iP	00 34 59.7	
			ipP	00 35 09.6	
			iPP	00 39 12.9	
		Celebes.			
		h = 40 km (Um,Ud,De).			
		m = 6.7, M = 6.4 (Up,Ki).			
"	7	Up	iP	00 42 59.5	
		Ki	iP	00 43 00.0	C
		Sk	iP	00 43 13.0	
		Um	iP	00 42 57.3	
		Ud	iP	00 43 09.8	
		De	iP	00 43 08.3	
		Sumatra (h = N).			
"	7	Up	iP	00 57 25.5	
			iPP	01 01 28.8	
		Um	eP	00 57 23	
			iPP	01 01 20.4	
		Ud	eP	00 57 34	
			iPP	01 01 48.1	
		De	iPP	01 01 47.5	
		Celebes (h = 25 km).			
"	7	Um	iPKP	01 58 29.9	
		Ud	iPKP	01 58 25.0	
		South Pacific Ocean (h = N).			
"	7	Um	iP	04 30 37.2	
"	7	Ki	iP	06 19 35.1	
		Um	iP	06 20 19.3	
			i	06 20 27.6	
"	7	Um	ePKP	08 24 20	
		South Shetland Islands (h = N).			
"	7	Ud	i(P)	08 24 37.5	
"	7	Ud	iP	08 57 32.1	
		Rhodes Island.			
"	7	Ud	i(P)	09 03 06.7	
"	7	De	i(P)	11 10 49.0	
"	7	Up	eP	11 51 25	
		Um	iP	11 50 58.8	
		Japan (h = 20 km).			
"	7	Um	iP	11 57 59.7	
"	7	Ki	iPn	12 40 06.1	
		(cont.)			

1971 May	7	(cont.)			
		Ki	iSn	12 40 46.1	
			iSgl	12 40 58.4	
		Sk	eSgl	12 43 52	
		Um	iSgl	12 42 38.7	
		Ud	eSgl	12 45 00	
		Finland-Norway border region, 69.7°N, 28.1°E.			
		Origin time = 12 39 14.			
"	7	Ud	i(Sgl)	15 33 29.9	
		De	i(Sgl)	15 31 47.1	
"	7	Up	iPKP	19 23 58.8	
		Ki	iPKP	19 23 44.3	
		Sk	iPKP	19 23 56.4	
		Um	iPKP	19 23 51.3	C
		Ud	iPKP	19 24 01.1	
			iSKP	19 27 14.6	
		De	iPKP	19 24 07.3	
			iSKP	19 27 23.2	
		New Hebrides Islands (h = 140 km).			
"	7	Ki	iSgl	20 21 20.6	
		Sk	iSgl	20 21 26.3	
		Um	iSgl	20 21 33.3	
		Ud	iSgl	20 23 13.4	
		Sweden-Norway border region, 66.1°N, 15.3°E.			
		Origin time = 20 19 56.			
		Explosion.			
"	7	Ud	i(P)	21 31 48.9	
"	7	Up	iP	22 05 23.2	
		Ud	iP	22 05 25.2	
"	7	Um	iP	22 44 32.0	
		Mexico (h = 80 km).			
"	7	Up	iP	23 26 22.5	
		Sk	eP	23 26 57	
		Um	eP	23 26 34	
		Ud	iP	23 26 37.4	
		De	iP	23 26 22.6	
		Iran (h = 45 km).			
"	8	Up	iPKP	01 08 26.5	
			ePP	01 10 16	
			i	01 11 21.9	
			i(PKS)	01 11 46.1	
				micr	sec
			Mx E	0.9	18
			Mx Z	1.1	17
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May 8 (cont.)

Ki	iPKP		01 08 36.0	
	iSKP		01 11 40.4	
Sk	iPKP		01 08 25.9	
	i(PKS)		01 11 46.0	
Um	i(PKP)		01 08 28.1	
	iPKP		01 08 33.2	
	iPP		01 10 34.3	
	iSKP		01 11 35.4	
	iSKS		01 15 23	
	iPKKP		01 18 27	
Ud	iPKP		01 08 23.4	
	iPP		01 10 04.9	
	i(PKS)		01 11 42.8	
	iPKKP		01 18 13.1	
De	iPKP		01 08 21.3	
	ipPKP		01 09 04.8	
	i(PKS)		01 11 41.4	
	iPKKP		01 18 21.0	

Chile-Argentina.
h = 140 km (De).

" 8

Um	iP		02 37 00.3	
	i		02 37 10.3	
Ud	iP		02 37 20.0	
	i		02 37 28.5	

Afghanistan-USSR.

" 8

Up	iP		03 08 16.3	
	iPP		03 10 06.2	
			micr	sec
	P	Z'	0.1	1.4
	Mx	E	0.8	14
	Mx	N	0.8	16
	Mx	Z	1.0	15
Ki	iP		03 08 37.2	
			micr	sec
	P	Z'	0.1	1.1
	Mx	E	1.0	13
	Mx	N	0.5	11
	Mx	Z	0.7	12
Sk	iP		03 08 45.6	
Um	iP		03 08 20.9	
Ud	iP		03 08 33.0	
	iPP		03 10 21.8	
De	iP		03 08 23.5	

West Pakistan (h = N).
m = 5.7, M = 5.1 (Up,Ki).

" 8

Ud	iP		10 57 22.0	

" 8

Up	iP		11 06 53.5	
			micr	sec
	P	Z'	0.1	0.6

(cont.)

1971 May 8 (cont.)

Ki	iP		11 06 18.7	
			micr	sec
	P	Z'	0.1	0.6
Sk	iP		11 06 50.1	
Um	iP		11 06 34.0	
	i(pP)		11 07 10.2	
Ud	iP		11 07 00.7	
	i		11 07 04.3	
De	iP		11 07 14.4	

South of Japan (h = 140 km).
m = 5.8 (Up,Ki).

" 8

Um	iP		11 32 55.3

" 8

Up	eP		12 07 11
Ki	eP		12 07 09
Um	iP		12 07 11.6
Ud	iP		12 07 32.6
	i		12 07 37.3
De	iP		12 07 37.9
	i		12 07 41.4

Celebes (h = 290 km).

" 8

Ki	iPn		13 10 00.1
	iSn		13 10 49.3
	iS*		13 11 03.9
Sk	eSgl		13 13 49
Um	iSgl		13 12 33.1

Northwest Russia-Norway border region,
69.5°N, 31.2°E.
Origin time = 13 08 55.
Explosion.

" 8

Up	iP		13 25 22.2
Ki	iP		13 25 19.8
Sk	eP		13 25 32
Ud	iP		13 25 31.5

Java (h = 40 km).

" 8

Um	iSgl		13 45 57.3
Ud	eSgl		13 47 23

Near Lake Ladoga.
Explosion?

" 8

Ud	iP		18 22 37.6

Mindanao (h = 110 km).

" 8

Um	iP		19 40 50.8

" 8

Up	eP		20 20 34
Ud	iP		20 20 37.2
De	iP		20 20 47.9

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	8	Ki	eP	22 46 55	
			iTSg	22 52 33.8	
		Sk	eP	22 47 34	
			iS	22 49 18	
		Um	iP	22 47 43.6	
			iTSg	22 54 33.1	
		Ud	eP	22 48 23	
		Norwegian Sea, 73.0°N, 6.9°E.			
		Origin time = 22 45 13.			
		Solution confirmed with Tromsoe readings.			
		The T-phases are denoted according to M. Båth and M. Shahidi in "T-phases from Atlantic earthquakes", Pure Appl. Geophys., 92: 74-114, 1971.			
"	8	Ki	eP	23 01 54	
			iTSg	23 07 29.3	
		Sk	eP	23 02 34	
			eS	23 04 18	
		Um	iP	23 02 42.9	
			iTSg	23 09 26.0	
		Ud	eP	23 03 22	
		Norwegian Sea, 73.0°N, 6.9°E.			
		Origin time = 23 00 13.			
"	8	Ki	iP	23 36 12.7	
			iS	23 37 29.4	
			iTPg	23 41 11.2	
			iTSg	23 41 49.7	
		Sk	iP	23 36 51.1	
			eS	23 38 37	
		Um	iP	23 36 59.2	
			iTSg	23 43 42.6	
		Ud	iP	23 37 38.4	
		Norwegian Sea, 73.0°N, 6.9°E.			
		Origin time = 23 34 30.			
		Solution confirmed with Tromsoe readings.			
"	9	Up	iP	03 17 37.2 C	
				micr	sec
			P Z'	0.1	0.7
		Ki	iP	03 16 53.1 C	
				micr	sec
			P Z'	0.1	1.0
		Sk	iP	03 17 28.3 C	
		Um	iP	03 17 13.1 C	
		Ud	iP	03 17 43.8 C	
		De	eP	03 18 01	
		Japan (h = 70 km).			
		m = 6.1 (Up,Ki).			
"	9	Ud	iP	03 34 58.5 C	

1971 May	9	Up	eSn	07 20 08	
			iSgl	07 21 01.9	
		Ki	ePn	07 16 47	
			iSn	07 17 44.0	
			iSgl	07 18 04.4	
		Sk	iSgl	07 20 30.0	
		Um	iSn	07 18 25.2	
			iSgl	07 18 58.2	
		Ud	eSn	07 20 22	
			iSgl	07 21 35.0	
		De	eSgl	07 22 56	
		Northwest Russia, 67.8°N, 33.7°E.			
		Origin time = 07 15 30.			
		Explosion.			
"	9	Up	i(PKP)	08 44 17.1	
			iPKP	08 44 26.4	
			iPP	08 47 26.7	
				micr	sec
			PP Z'	0.1	1.0
			Mx E	2.7	20
			Mx N	2.3	21
			Mx Z	3.8	19
		Ki	i(PKP)	08 44 16.3	
			i	08 44 20.7	
			iPKP	08 44 27.2	
			iPP	08 47 28.2	
				micr	sec
			PP Z'	0.1	1.2
			Mx E	1.6	18
			Mx N	1.4	20
			Mx Z	2.4	19
		Sk	e(PKP)	08 44 15	
			iPKP	08 44 22.4	
		Um	i(PKP)	08 44 18.7	
			iPKP	08 44 26.5	
			iPP	08 47 29.7	
		Ud	i(PKP)	08 44 14.8	
			iPKP	08 44 21.8	
			iPP	08 47 06.9	
		De	i(PKP)	08 44 21.0	
			iPKP	08 44 23.0	
		South Pacific Ocean (h = N).			
		m = 6.1, M = 6.1 (Up,Ki).			
"	9	Up	ePKP	09 12 44	
		Ki	ePKP	09 12 49	
		Ud	ePKP	09 12 49	
		South Pacific Ocean (h = N).			
"	9	Up	iP	10 43 02.0	
		Sk	iP	10 43 43.0	
		Um	eP	10 43 42	
		Ud	iP	10 43 11.1	
		Greece.			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	9	Ud	i(P)		12 06 47.0	
			i		12 06 56.0	
"	9	Ud	iP		14 14 49.8	
		Celebes (h = 40 km).				
"	9	Ki	iPn		15 14 23.0	
			iSn		15 15 10.1	
			iSgl		15 15 24.9	
"	9	Ki	ePKP		18 20 13	
		Sk	ePKP		18 20 11	
		Um	i(PKP)		18 20 20.5	
			iPKP		18 20 28.8	
		Ud	iPKP		18 20 19.5	
		De	iPKP		18 20 22.0	
		South Pacific Ocean (h = N).				
"	9	Up	ePKP		18 54 28	
		Ki	e(PKP)		18 54 25	
			iPKP		18 54 35.3	
		Um	iPKP		18 54 35.5	
		Ud	iPKP		18 54 29.5	
		De	iPKP		18 54 31.6	
		Easter Island region (h = N).				
"	9	Up	iP		19 06 58.0	
		Ki	iP		19 07 25.6	
		Um	iP		19 07 08.5	
		Ud	iP		19 07 09.6	
"	9	Up	iP		19 34 16.7	C
			ipP		19 34 32.6	
			iPP		19 35 46.9	
					micr	sec
			P	Z'	0.2	0.7
			Mx	E	1.9	20
			Mx	N	1.1	8
			Mx	Z	1.7	14
		Ki	iP		19 34 26.6	C
			i		19 35 42.0	
			i(PcP)		19 36 29.8	
					micr	sec
			P	Z'	0.2	1.3
			Mx	E	1.3	10
			Mx	N	2.4	9
			Mx	Z	0.9	10
		Sk	iP		19 34 42.2	C
			ipP		19 34 59.1	
			iPcP		19 36 20.9	
		Um	iP		19 34 15.6	C
			ipP		19 34 31.6	
		Ud	iP		19 34 33.4	C
			ipP		19 34 49.8	
			iPcP		19 36 28.5	
		(cont.)				

1971						
May	9	(cont.)				
		De	iP		19 34 29.4	C
			ipP		19 34 46.7	
			i		19 36 08.6	
		West Pakistan.				
		h = 60 km (Up,Sk,Um,Ud,De).				
		m = 5.9, M = 5.3 (Up,Ki).				
"	9	Up	eP		23 07 20	
		Um	eP		23 08 05	
		Ud	eP		23 07 20	
		Italy.				
"	10	Up	iP		00 12 11.2	
					micr	sec
			Mx	E	0.7	18
			Mx	N	1.0	19
			Mx	Z	1.0	18
		Ki	iP		00 11 18.2	
					micr	sec
			Mx	E	0.7	17
			Mx	N	0.4	16
			Mx	Z	0.9	16
		Sk	iP		00 11 49.3	
		Um	iP		00 11 35.2	
			i		00 11 58.1	
		Ud	iP		00 12 11.1	
		De	iP		00 12 33.3	
		Aleutian Islands (h = 50 km).				
		M = 5.1 (Up,Ki).				
"	10	Up	iP		05 40 35.6	
		Sk	eP		05 41 14	
		Ud	iP		05 40 41.6	
		Ionian Islands.				
"	10	Up	eP		08 13 38	
		Um	iP		08 13 47.7	
		Ud	eP		08 13 45	
		Indian Ocean (h = N).				
"	10	Um	iPKP		09 39 33.3	
		Tonga Islands (h = N).				
"	10	Up	iP		12 07 01.2	D
			ipP		12 07 12.5	
			iS		12 18 01	
					micr	sec
			P	Z'	0.2	1.3
			Mx	E	1.6	17
			Mx	N	2.5	20
			Mx	Z	2.7	17
		Ki	iP		12 06 43.4	
			ipP		12 06 54.8	
					micr	sec
			P	Z'	0.4	1.3
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	10	(cont.)				
		Ki			micr	sec
			Mx	E	2.0	18
			Mx	N	1.5	16
			Mx	Z	2.2	18
		Sk	iP		12 07 05.0	
			i		12 07 57.4	
		Um	iP		12 06 49.1	
			ipP		12 07 01.0	
			i		12 07 19.3	
		Ud	iP		12 07 09.3	
			ipP		12 07 20.5	
		Mindanao.				
		h = 40 km (Up,Ki,Um,Ud).				
		m = 6.4, M = 5.8 (Up,Ki).				
"	10	Up	iP		14 32 40.9	
		Ud	iP		14 32 34.1	
"	10	Up	iP		14 58 50.0 C	
			ipP		14 58 54.6	
			iLgl		15 10 49	
					micr	sec
			P	Z'	0.2	1.0
			pP	Z'	0.4	1.2
			Mx	E	5.5	9
			Mx	N	5.6	8
			Mx	Z	9.2	9
		Ki	iP		14 58 51.4	
			ipP		14 58 56.6	
			iLgl		15 10 54	
					micr	sec
			P	Z'	0.3	0.6
			Mx	E	13	11
			Mx	N	8.0	11
			Mx	Z	14	13
		Sk	iP		14 59 13.3	
			ipP		14 59 18.5	
			iPP		15 00 47.8	
		Um	iP		14 58 43.7	
			ipP		14 58 49.1	
			i(PP)		15 00 03.4	
			iS		15 04 18	
		Ud	iP		14 59 07.4 C	
			ipP		14 59 12.2	
			iPP		15 00 35.4	
		Kirghiz SSR.				
		h = 20 km (Up,Ki,Sk,Um,Ud).				
		m = 6.1, M = 6.0 (Up,Ki).				
"	10	Up	ePgl		16 06 27	
			iSgl		16 07 28.6	
		Sk	eSgl		16 09 21	
		Ud	ePgl		16 06 26	
			iSgl		16 07 31.9	
		(cont.)				

1971				
May	10	(cont.)		
		De	iPgl	16 05 27.3
			iSgl	16 05 44.7
		Off coast of south Sweden,		
		55.4°N, 15.0°E.		
		Origin time = 16 05 05.		
		Explosion.		
"	10	Up	iSgl	16 07 39.3
		De	iPgl	16 05 39.6
			iSgl	16 05 56.8
			iRg	16 06 02.8
		Probably the same focal area		
		as in the preceding case.		
		Origin time = 16 05 18.		
		Explosion.		
"	10	Ud	eP	16 44 06
		De	iP	16 44 08.9
			i	16 44 24.0
"	10	Ud	e(Sgl)	16 48 21
		De	i(Sgl)	16 47 27.0
"	10	Ud	iP	18 05 30.0
"	10	Um	iP	19 48 46.7
"	10	Ki	ePgl	20 02 07
			iSn	20 02 40.2
			iSgl	20 02 51.9
		Sk	iSgl	20 02 18.0
		Um	iSgl	20 02 27.5
		Lapland, Sweden,		
		65.2°N, 15.5°E.		
		Origin time = 20 01 10.		
"	10	Sk	e(Sgl)	20 04 04
		Um	e(Sgl)	20 04 51
"	10	Ki	e	20 06 34
			i(Sgl)	20 07 05.8
		Um	i(Sgl)	20 09 20.0
"	10	Ki	iP	21 14 29.1
		Um	iP	21 14 42.6
"	10	Up	iP	23 09 02.9
		Ki	iP	23 08 10.4
		Um	iP	23 08 37.7
		Ud	iP	23 09 02.2
		De	eP	23 09 26
		Aleutian Islands (h = 50 km).		
"	11	Up	iP	00 21 26.8
		(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May 11 (cont.)

	Up	ipP		00 21 43.0	
				micr	sec
		pP	Z'	0.1	0.8
		Mx	Z	0.6	19
	Ki	iP		00 21 04.2	
		ipP		00 21 18.8	
				micr	sec
		pP	Z'	0.1	1.0
	Sk	iP		00 21 33.6	
	Um	iP		00 21 12.0	
		ipP		00 21 28.2	
	Ud	iP		00 21 36.3	
	De	iP		00 21 45.3	

Formosa.
h = 60 km (Up,Ki,Um).
m = 6.0 (Up,Ki).

"	11	Ki	iP	02 45 40.4
		Um	iP	02 45 48.5
		Ud	eP	02 46 13

Formosa (h = 60 km).

"	11	Up	iPKP	10 08 02.4
		Sk	iPKP	10 07 57.3
		Um	iPKP	10 07 51.5
		Ud	iPKP	10 08 03.6

"	11	Ki	iP	15 57 59.3
		Sk	iP	15 58 33.0
		Um	iP	15 58 15.0
		Ud	iP	15 58 44.3

Sea of Japan (h = 370 km).

"	11	De	e(Pgl)	16 29 25
			i(Sgl)	16 30 11.6

"	11	Um	eSgl	18 45 00

Near Lake Ladoga.
Explosion?

"	11	Ud	iP	22 40 22.4
			i	22 40 32.1

"	12	Ud	iP	04 22 29.0
		De	iP	04 22 27.7

Kirghiz SSR.

"	12	Up	iP	06 30 22.9	
			i	06 30 28.1	
			iS	06 34 40	
				micr	sec
			P	Z' 2.2	1.6
			Mx	E 16	7
			Mx	N 30	10

(cont.)

1971 May 12 (cont.)

	Up			micr sec
		Mx	Z	42 11
	Ki	iP		06 31 27.5
		ipP		06 31 36.9
				micr sec
		P	Z'	0.1 1.0
		pP	Z'	1.7 2.0
		Mx	E	56 8
		Mx	N	14 10
		Mx	Z	22 8
	Sk	iP		06 31 07.4
	Um	iP		06 30 52.5
		i		06 30 58.0
		ipP		06 31 02.4
		iS		06 35 32
	Ud	iP		06 30 33.4
		ipP		06 30 41.8
	De	iP		06 30 02.0
		ipP		06 30 10.1

Turkey.
h = 35 km (Ki,Um,Ud,De).
m = 6.5, M = 6.4 (Up,Ki).

"	12	Up	iP	06 49 23.6
		Ki	iP	06 50 30.2
		Um	iP	06 49 52.0
		Ud	iP	06 49 32.9
		De	iP	06 49 05.2

Turkey (h = 15 km).

"	12	Ud	iP	08 31 56.9

Turkey (h = N).

"	12	Up	iP	10 15 34.6
		Ki	eP	10 16 39
		Um	iP	10 16 04.6
		Ud	iP	10 15 45.3

Turkey (h = N).

"	12	Up	iP	10 15 45.8	
			iS	10 20 03	
				micr	sec
			P	Z' 0.2	1.1
			Mx	E 3.1	10
			Mx	N 4.4	10
			Mx	Z 7.9	10
		Ki	iP	10 16 50.8	
				micr	sec
			P	Z' 0.3	1.3
			Mx	E 4.0	10
			Mx	N 1.6	13
			Mx	Z 3.5	10
		Sk	iP	10 16 27.8	
		Um	iP	10 16 16.1	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May 12 (cont.)

	Um	iS	10 20 56
	Ud	iP	10 15 57.1

Turkey (h = N).
m = 5.9, M = 5.4 (Up,Ki).

" 12

Ki	iPn	10 54 01.9
	iSn	10 55 00.9
	iS*	10 55 19.8
Sk	eSgl	10 58 01
Um	eSgl	10 56 10

Northwest Russia,
67.8°N, 34.1°E.
Origin time = 10 52 43.
Explosion.

" 12

Up	e(P)	10 58 11
Ud	i(P)	10 58 49.7

" 12

Up	iP	11 27 29.6
Um	iP	11 27 12.5
	i	11 27 23.1
Ud	iP	11 27 31.5

" 12

Up	iP		13 02 33.1	
	i		13 02 35.7	
	ipP		13 02 40.3	
	iS		13 06 46	
			micr	sec
	P	Z'	0.1	0.9
	pP	Z'	0.2	1.0
	Mx	E	9.2	14
	Mx	N	15	15
	Mx	Z	23	10
Ki	iP		13 03 38.0	
	i		13 03 39.9	
	ipP		13 03 44.8	
			micr	sec
	P	Z'	0.2	1.0
	pP	Z'	0.4	1.1
	Mx	E	12	10
	Mx	N	11	13
	Mx	Z	13	14
Sk	iP		13 03 16.9	
	i		13 03 19.1	
	ipP		13 03 23.1	
Um	iP		13 03 02.8	
	ipP		13 03 09.8	
	iS		13 07 36	
Ud	iP		13 02 43.8	
	i		13 02 46.1	
	ipP		13 02 50.8	

Turkey.
h = 30 km (Up,Ki,Sk,Um,Ud).
m = 5.9, M = 5.7 (Up,Ki).

1971 May 12

Up	iP	13 14 52.8
Ki	eP	13 15 55
Ud	iP	13 15 04.6

Turkey.
Origin time = 13 09 43.

" 12

Up	iSgl	14 22 18.7
Um	eSgl	14 23 24
Ud	iSgl	14 23 01.5

Baltic Sea, 60.8°N, 18.3°E.
Origin time = 14 21 45.
Explosion.

" 12

Ud	iP	14 29 00.7

Turkey (h = N).

" 12

Ud	iP	14 30 16.5

" 12

Up	iPgl	14 38 21.0
	iSgl	14 38 36.6
	iRg	14 38 43.1
Ud	iSgl	14 39 24.1

Explosion.

" 12

Up	iP	15 17 02.0
Ki	eP	15 18 08
Um	iP	15 17 31.8
Ud	iP	15 17 12.7
De	iP	15 16 41.6

Turkey (h = N).

" 12

Up	eP	15 18 59
Ud	iP	15 19 08.6
De	iP	15 18 40.3

Turkey.
Origin time = 15 13 50.

" 12

Up	i(P)	15 21 04.9
De	i(P)	15 21 54.8

" 12

De	i(Pgl)	15 35 37.6
	i(Sgl)	15 35 51.3

" 12

Up	iP	16 32 54.8
Ud	iP	16 33 04.6
De	iP	16 32 34.5

Turkey.
Origin time = 16 27 45.

" 12

Up	iP		17 17 36.0
	iS		17 21 51
			micr sec
	Mx	E	0.9 7
	Mx	N	1.8 8
	Mx	Z	2.1 8

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May 12 (cont.)

	Ki	iP		17 18 40.0
			micr	sec
		Mx E	2.2	8
	Sk	eP		17 18 20
	Um	iP		17 18 04.6
		i(S)		17 22 54
	Ud	iP		17 17 46.7
	De	iP		17 17 14.7
		i		17 17 18.5

Turkey (h = 30 km).
M = 5.1 (Up,Ki).

" 12	Up	iP		17 53 11.6
		ipP		17 53 18.3
	Ki	iP		17 54 16.8
		ipP		17 54 22.5
	Sk	eP		17 53 56
	Um	iP		17 53 42.2
	Ud	iP		17 53 22.5
		ipP		17 53 27.5
	De	iP		17 52 53.3

Turkey.
h = 20 km (Up,Ki,Ud).

" 12	Ud	iP	17 58 50.8

Turkey.

" 12	Up	iP		19 07 34.8
			micr	sec
		Mx Z	1.0	11
	Ki	iP		19 08 39.9
	Sk	eP		19 08 15
	Ud	iP		19 07 45.0
		ipP		19 07 50.9
	De	iP		19 07 15.7
		ipP		19 07 20.6

Turkey.
h = 20 km (Ud,De).

" 12	Up	iP	19 20 35.7
		ipP	19 20 49.6
	Ki	iP	19 19 53.7
		ipP	19 20 07.2
	Um	iP	19 20 12.5
	Ud	iP	19 20 43.4 C
		i	19 21 00.2
	De	iP	19 20 58.7

Japan.
h = 50 km (Up,Ki).

" 12	De	i(P)	19 22 46.3

" 12	Up	iP	20 18 16.9
		iX	20 18 19.7
		iS	20 22 31

(cont.)

1971 May 12 (cont.)

	Up			micr sec
		Mx E	0.7	7
		Mx N	1.1	9
		Mx Z	1.7	9
	Ki	iP		20 19 21.1
		iX		20 19 25.7
			micr	sec
		Mx E	1.2	9
		Mx N	0.8	10
	Sk	iP		20 19 02.1
		iX		20 19 04.6
	Um	eP		20 18 49
	Ud	iP		20 18 27.5
		iX		20 18 30.3
	De	eP		20 17 58
		iX		20 18 03.0

Turkey (h = 35 km).
M = 4.8 (Up,Ki).
The phase X arrives in average 3.5 sec after P. Interpreted as pP, it gives a focal depth of 15 km.

" 12	Up	iP	20 21 00.1
	Ki	iP	20 22 04.5
	Ud	iP	20 21 11.1
	De	iP	20 20 43.7

Turkey.
Origin time = 20 15 51.

" 12	Up	i(P)	20 37 58.8

" 12	Up	iP		21 51 49.0 C
			micr	sec
		P Z'	0.2	1.0
	Ki	iP		21 51 00.2
	Sk	iP		21 51 36.3
	Um	iP		21 51 22.7 C
	Ud	iP		21 51 54.2 C
		iPcP		21 52 22.3
	De	iP		21 52 13.4

Kurile Islands (h = N).

" 12	Up	iP	23 40 24.0
	Ud	e(P)	23 40 34

Japan.

" 13	Ud	eP	02 44 29

Turkey.

" 13	Up	iP	03 56 41.2
	Ud	iP	03 56 51.9

Turkey.
Origin time = 03 51 32.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	13	Up	iP		04 12 31.9	
		Ki	iP		04 13 36.9	
		Sk	eP		04 13 14	
		Um	iP		04 13 02.5	
		Ud	iP		04 12 43.5	
		De	iP		04 12 13.6	
		Turkey (h = 25 km).				
"	13	Up	iP		04 50 40.5	
					micr	sec
			P	Z'	0.1	0.8
			Mx	N	0.6	12
			Mx	Z	0.9	14
		Ki	iP		04 51 45.4	
					micr	sec
			Mx	E	0.6	12
			Mx	N	0.7	15
			Mx	Z	0.5	11
		Sk	iP		04 51 22.6	
		Um	iP		04 51 11.0	
		Ud	iP		04 50 51.7	
			i		04 51 08.9	
		De	iP		04 50 19.3	
			ipP		04 50 23.4	
		Turkey.				
		h = 15 km (De).				
		M = 4.5 (Up,Ki).				
"	13	Ki	eP		07 26 21	
		Ud	iP		07 27 17.8	
		Japan (h = 50 km).				
"	13	Up	iP		08 19 43.6	
		Sk	eP		08 20 27	
		Um	iP		08 20 16.9	
			i		08 20 25.1	
		Ud	iP		08 19 56.0	
		Turkey (h = 15 km).				
"	13	Up	iP		08 35 34.4	
					micr	sec
			Mx	E	0.4	6
		Ki	iP		08 36 39.0	
					micr	sec
			Mx	E	0.7	7
		Sk	iP		08 36 17.0	
		Um	iP		08 36 05.9	
			i(pP)		08 36 14.4	
		Ud	iP		08 35 46.0	
			i		08 35 49.6	
		Turkey (h = N).				
"	13	Ud	eP		09 10 06	
		Formosa (h = 70 km).				

1971 May	13	Up	eP		11 09 26	
		Ud	iP		11 09 40.0	
		Turkey.				
"	13	Ud	eP		11 28 11	
		Sakhalin.				
		Deep.				
"	13	Up	iP		12 21 02.3	
"	13	Up	iP		13 33 47.0	
					micr	sec
			Mx	N	0.6	9
			Mx	Z	0.7	9
		Ki	iP		13 34 53.6	
					micr	sec
			Mx	E	0.7	8
			Mx	N	0.4	11
			Mx	Z	0.3	7
		Sk	iP		13 34 32.4	
		Um	iP		13 34 17.7	
		Ud	iP		13 33 59.0	
		De	iP		13 33 26.6	
		Turkey (h = N).				
		M = 4.6 (Up,Ki).				
"	13	Up	iSgl		14 04 28.0	
		Ki	eSgl		14 06 58	
		Sk	eSgl		14 06 17	
		Um	iSgl		14 05 00.9	
		Ud	eSgl		14 05 31	
		De	eSgl		14 05 56	
		Esthonia, 59.7°N, 25.6°E.				
		Origin time = 14 02 29.				
		Explosion.				
"	13	Up	iP		19 40 36.3	
		Ud	iP		19 40 39.4	
"	13	Ud	e(P)		20 31 54	
"	13	Up	iP		20 34 10.1	
		Ud	iP		20 34 15.8	
		Turkey.				
"	13	Up	iPKP		21 35 26.2	
		Um	iPKP		21 35 10.0	
		Ud	ePKP		21 35 18	
"	13	Up	iP		22 52 17.3	
		Ki	eP		22 53 22	
		Sk	iP		22 52 59.8	
		Um	iP		22 52 47.5	
		Ud	iP		22 52 28.6	
			ipP		22 52 32.6	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May 13 (cont.)

	De	iP	22 51 58.8	
		ipP	22 52 03.4	

Turkey.
h = 15 km (Ud,De).

" 13

Up	iP	23 38 05.2	
Sk	eP	23 38 48	
Um	iP	23 38 31.0	
Ud	eP	23 38 16	
De	iP	23 37 45.6	

Turkey (h = N).

" 14

Ud	iP	00 02 05.6	

Turkey.

" 14

Ki	iP	02 05 04.6	
Ud	iP	02 05 57.3	

Aleutian Islands (h = 60 km).

" 14

Up	eP	04 23 44	
Ki	eP	04 24 47	
Ud	iP	04 23 52.2	
De	eP	04 23 20	

Turkey (h = N).

" 14

Up	iP	05 00 39.1	
	i	05 01 07.0	
Sk	eP	04 59 55	

" 14

Up	iP		10 09 57.1	
			micr	sec
	P	Z'	0.2	0.8
Ki	iP		10 09 23.8	
			micr	sec
	P	Z'	0.1	0.6
Sk	iP		10 09 52.8	
Um	iP		10 09 38.2	
Ud	iP		10 10 03.5	
	i		10 10 10.7	
De	iP		10 10 16.3	

Bonin Islands (h = 5 km).
m = 6.1 (Up,Ki).

" 14

Up	iP1	13 28 29.0	
	iP2	13 28 40.7	
Ki	iP1	13 27 36.2	
	iP2	13 27 47.7	
Sk	iP2	13 28 20.8	
Um	iP1	13 28 07.0	
	i	13 28 13.4	
Ud	eP1	13 28 28	
	iP2	13 28 42.2	
De	eP1	13 28 54	

(cont.)

1971 May 14 (cont.)

De	iP2	13 29 03.9	

Aleutian Islands (h = 20 km).
Double P, about 12 sec apart.

" 14

Ud	iPKP	14 11 27.3	
De	iPKP	14 11 38.7	

" 14

Up	iP	16 53 27.0	
Ki	iP	16 53 15.0	
Sk	iP	16 53 08.7	
Um	iP	16 53 24.0	
Ud	iP	16 53 17.7	
De	iP	16 53 25.3	

Mexico (h = 100 km).

" 14

Up	iP	17 23 23.9	
Ud	iP	17 23 39.1	
De	iP	17 23 30.3	

West Pakistan (h = 60 km).

" 14

Ud	iP	21 23 06.2	

" 14

Up	iP	22 23 32.5	
	i	22 23 43.9	
Ki	iP	22 24 37.3	
Sk	eP	22 24 21	
Um	iP	22 24 01.9	
	i	22 24 06.8	
Ud	iP	22 23 43.2	
De	iP	22 23 14.1	

Turkey (h = N).

" 14

Up	iP		22 56 22.5	
	iS		23 00 35	
			micr	sec
	Mx	E	0.6	15
	Mx	N	1.0	18
	Mx	Z	1.2	13
Ki	iP		22 57 29.0	
			micr	sec
	Mx	E	0.5	10
	Mx	N	0.5	15
	Mx	Z	0.7	16
Um	iP		22 56 52.9	
Ud	iP		22 56 31.7	
De	iP		22 56 01.6	

Turkey (h = N).
M = 4.5 (Up,Ki).

" 15

Ki	eP	04 59 48	
Ud	iP	04 59 25.7	

Caspian Sea (h = N).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	15	Up	iP	05 29 44.1	
		Ki	iP	05 30 20.6	
		Ud	eP	05 29 25	
"	15	Ud	iP	07 41 58.0	
		Turkey.			
"	15	Ud	iP	07 54 45.8	
		Japan (h = 25 km).			
"	15	Um	iP	09 42 33.0	
"	15	Ki	iPn	11 32 39.5	
			iSn	11 33 27.5	
			iS*	11 33 40.9	
		Um	iSgl	11 35 07.7	
		Northwest Russia,			
		69.2°N, 31.0°E.			
		Origin time = 11 31 36.			
		Explosion.			
"	15	Ud	iP	12 25 19.0	
		Turkey (h = N).			
"	15	Up	iP	14 39 25.9	
		Ud	iP	14 39 34.2	
		Turkey.			
"	15	De	i(P)	14 54 46.6	
"	15	Up	iP	21 14 47.8	
			ipP	21 15 01.4	
		Ki	iP	21 14 02.7	
			ipP	21 14 15.8	
		Um	iP	21 14 22.8	
			ipP	21 14 36.7	
		Ud	iP	21 14 54.0 C	
			ipP	21 15 08.4	
		De	eP	21 15 13	
		Kurile Islands.			
		h = 50 km (Up,Ki,Um,Ud).			
"	15	Up	iP	22 22 25.9	
		Sk	iP	22 22 26.0	
		Um	iP	22 22 06.9	
		Ud	iP	22 22 35.7	
"	15	Ud	iP	22 31 09.1	
		Turkey.			
"	16	Ud	iP	00 26 34.6	
		Turkey.			
"	16	Up	iPKP	05 28 59.3	
			ipPKP	05 29 19.3	
		(cont.)			

1971 May	16	(cont.)			
		Ki	iPKP	05 29 15.6	
			ipPKP	05 29 34.3	
			iSKP	05 32 35.0	
		Um	iPKP	05 29 07.0	
			ipPKP	05 29 27.0	
		Ud	iPKP	05 28 58.9	
			ipPKP	05 29 18.3	
		South Sandwich Islands.			
		h = 75 km (Up,Ki,Um,Ud).			
"	16	Up	eP	05 33 01	
		Sk	iP	05 33 42.5	
		Ud	iP	05 33 11.7	
		De	iP	05 32 43.1	
		Turkey (h = N).			
"	16	Ki	iSn	06 16 30.8	
			iSgl	06 16 51.0	
		Um	iSgl	06 17 41.4	
		Northwest Russia.			
		Explosion.			
"	16	Up	iP	08 44 44.2	
		Ki	iP	08 45 48.9	
				micr	sec
			Mx E	0.7	7
			Mx N	0.5	16
		Sk	eP	08 45 31	
		Um	iP	08 45 13.5	
		Ud	iP	08 44 54.6	
		De	iP	08 44 25.8	
		Turkey (h = N).			
"	16	Up	iP1	09 30 10.6	
			iP2	09 30 14.1	
			iS2	09 34 33	
				micr	sec
			P2 Z'	0.1	1.0
			Mx E	1.0	14
			Mx N	1.5	11
			Mx Z	1.6	11
		Ki	iP1	09 31 15.6	
			iP2	09 31 19.1	
				micr	sec
			P2 Z'	0.1	1.0
			Mx E	1.2	13
			Mx N	0.9	15
			Mx Z	0.8	14
		Sk	iP1	09 30 56.7	
		Um	iP1	09 30 41.8	
			iP2	09 30 44.3	
		Ud	iP1	09 30 22.6	
			iP2	09 30 26.3	
		De	iP2	09 29 55.0	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	16	(cont.)			
		De	i(PP)	09 30 31.8	
		Turkey (h = N).			
		m = 5.5, M = 4.7 (Up,Ki).			
		Double P, about 3 sec apart.			
"	16	Um	i	11 00 12.4	
			i(Sgl)	11 00 22.0	
"	16	Ud	iP	11 25 46.8	
		Turkey.			
"	16	Up	iP	12 10 26.4	
		Turkey.			
"	16	Ud	iP	14 37 41.2	
		Kirghiz SSR.			
"	16	De	e(P)	14 47 13	
"	16	Ud	iP	17 29 19.5	
		De	iP	17 29 19.0	
		Kashmir-Sinkiang (h = 80 km).			
"	16	Ud	iP	19 22 30.4	
		Turkey.			
"	16	Up	iP	20 22 44.4	
		Um	iP	20 22 59.1	
		Ud	iP	20 22 59.7 C	
		De	iP	20 22 42.5	
		Caucasus.			
"	16	Um	eP	22 30 04	
		Ud	eP	22 30 14	
		Mindanao (h = 15 km).			
"	16	Ud	iP	23 33 28.0	
		Turkey.			
"	17	Up	iP	01 06 45.7	
		Ki	iP	01 05 50.6	
		Um	eP	01 06 21	
		Ud	iP	01 06 43.2	
		Aleutian Islands (h = 50 km).			
"	17	Up	iP	08 53 31.1 C	
		Ki	iP	08 53 24.6	
		Sk	eP	08 53 46	
		Um	iP	08 53 22.9	
		Ud	iP	08 53 44.5 C	
			i(pP)	08 54 12.7	
		De	iP	08 53 45.9	
		Burma-India (h = 170 km).			

1971 May	17	Up	iP		11 17 05.5
			ipP		11 17 49.7
			i		11 21 38.6
			iSKS		11 27 23
					micr sec
			P	Z'	0.1 1.0
			Mx	E	1.8 19
			Mx	N	1.9 21
			Mx	Z	3.8 19
		Ki	iP		11 17 08.5
			ipP		11 17 51.7
			iSKS		11 27 29
			iPKKP		11 34 05.1
					micr sec
			P	Z'	0.4 2.0
			Mx	E	3.3 22
			Mx	N	2.6 20
			Mx	Z	2.7 22
		Sk	iP		11 16 54.1
			iPKKP		11 34 14.8
		Um	iP		11 17 10.0
			ipP		11 17 56.7
			iSKS		11 27 26
		Ud	iP		11 16 57.0
			i		11 17 02.2
			ipP		11 17 43.2
		De	iP		11 16 58.4
			ipP		11 17 43.3
			i		11 21 23.0
			ePKKP		11 34 15
		Ecuador.			
		h = 180 km (Up,Ki,Um,Ud,De).			
		m = 6.4, M = 5.9 (Up,Ki).			
"	17	De	iPKP		12 08 18.0
		Solomon Islands (h = 150 km).			
"	17	Up	iSgl		12 51 03.7
		Um	eSgl		12 53 03
		Ud	iSgl		12 51 50.0
		De	eSgl		12 51 30
		Baltic Sea near Gotland, Sweden, 57.7°N, 19.3°E.			
		Origin time = 12 49 50.			
		Explosion.			
"	17	Um	iP		13 27 21.8
"	17	Up	iP		13 33 02.9
		Ki	iP		13 32 30.1
		Sk	iP		13 32 59.7
		Um	iP		13 32 44.3
		Ud	iP		13 33 10.5
		South of Japan (h = 420 km).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971							
May	17	Up	iP		14 21 27.0		
					micr	sec	
			P	Z'	0.1	0.9	
			Mx	N	0.8	11	
			Mx	Z	1.2	11	
		Ki	iP		14 22 31.6		
					micr	sec	
			Mx	E	0.5	10	
			Mx	N	0.5	10	
		Sk	iP		14 22 11.0		
		Um	iP		14 21 56.4		
			iS		14 26 42		
		Ud	iP		14 21 37.3		
		De	iP		14 21 08.3		
		Turkey (h = N).					
		M = 4.6 (Up,Ki).					
"	17	Up	i(PKP)		16 46 49.6		
		Ud	i(PKP)		16 46 51.4		
		De	i(PKP)		16 47 02.7		
"	17	Ud	iP		18 22 35.5		
		De	iP		18 22 04.5		
			i		18 22 14.2		
		Crete.					
"	17	Ki	iP		21 06 34.9		
		Um	iP		21 06 42.0		
		Ud	iP		21 07 01.1		
		Philippine Islands					
		(h = 150 km).					
"	18	Up	iP		00 17 08.8		
			i		00 17 20.9		
		Um	eP		00 17 14		
			i		00 17 23.4		
		Ud	eP		00 17 20		
			i		00 17 27.1		
		De	iP		00 17 04.4		
			i		00 17 14.3		
		Caucasus.					
"	18	Up	iP		00 57 27.2		
"	18	Up	iPKP		01 04 56.7		
			i		01 05 01.1		
			ipPKP		01 07 06.2		
		Ki	iPKP		01 04 34.4		
			iSKP		01 07 23.8		
		Um	iPKP		01 04 44.9		
			iX		01 04 55.3		
			i(SKP)		01 07 32.4		
		Ud	iPKP		01 04 55.3		
			i		01 04 58.6		
			iX		01 05 04.1		
		(cont.)					

1971				
May	18	(cont.)		
		Ud	iPP	01 08 29.7
		De	iPKP	01 05 07.2
			iX	01 05 16.1
			ipPKP	01 07 23.2
		Kermadec Islands.		
		h = 600 km (Up,De).		
"	18	Up	iP	02 09 07.1
		Ki		micr sec
			Mx E	0.4 8
		Um	iP	02 09 39.1
		Ud	iP	02 09 17.3
		De	eP	02 08 50
		Turkey (h = N).		
"	18	Up	eP	03 18 26
		Um	eP	03 18 55
		Turkey.		
		Origin time = 03 13 15.		
"	18	Ki	ePKP	06 31 08
		Um	iPKP	06 31 06.4
		Ud	iPKP	06 30 57.2
			i	06 31 35.3
		Argentina (h = 100 km).		
"	18	Ki	iPKP	07 17 23.5
		Um	iPKP	07 17 31.1
		Ud	i(PKP)	07 17 30.2
			iPKP	07 17 32.9
		De	iPKP	07 17 42.7
		Tonga Islands (h = 180 km).		
"	18	Up	iP	08 24 39.8
		Um	iP	08 24 52.2
		Ud	iP	08 24 52.9
			i	08 24 57.8
		De	iP	08 24 35.6
		Caucasus.		
"	18	De	i(P)	10 26 20.4
"	18	Up	iSgl	10 28 29.3
		Ud	iPn	10 27 19.0
			iSgl	10 28 35.4
		De	iPgl	10 26 30.0
			iSgl	10 26 46.7
		Baltic Sea, south of Sweden,		
		55.5°N, 15.0°E.		
		Origin time = 10 26 09.		
		Explosion.		
"	18	Ud	iP	14 23 46.9
		Turkey.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	18	De	e(Sgl)		17 50 57	
			i(Rg)		17 51 05.8	
"	18	Ud	iP		18 31 43.8	
		Turkey.				
"	18	Up	iP		22 53 38.1	
			i		22 53 42.2	
			iS		23 00 51	
					micr	sec
			P	Z'	1.1	1.0
			Mx	E	200	20
			Mx	N	130	19
			Mx	Z	95	19
		Ki	iP		22 52 39.8	
			i		22 52 42.9	
			iS		22 59 05	
					micr	sec
			P	Z'	1.6	1.0
			Mx	E	95	19
			Mx	N	53	16
			Mx	Z	63	17
		Sk	iP		22 53 22.1	
			i		22 53 24.6	
			iPP		22 55 18.0	
		Um	iP		22 53 07.2	
			i		22 53 10.6	
			iPP		22 54 57.1	
			iS		22 59 58	
		Ud	iP		22 53 43.4	
			i		22 53 46.9	
			iPP		22 55 40.2	
		De	iP		22 54 08.2	
			i		22 54 11.0	
			iPP		22 56 14.1	
		Eastern Siberia (h = N).				
		m = 6.7, M = 7.0 (Up,Ki).				
		Unusually high magnitude for this area.				
		Double P at all stations, in average 3.3 sec apart.				
"	18	Up	iP		23 18 10.2	
		Ki	iP		23 17 11.0 C	
		Ud	iP		23 18 15.0 C	
		De	iP		23 18 39.2	
		Eastern Siberia.				
		Origin time = 23 09 15.				
"	18	Ud	i(P)		23 58 19.4	
"	19	Ud	iP		02 22 23.9	
		Turkey.				
"	19	Up	iP		03 26 28.3	
		Ki	iP		03 26 10.0	
		(cont.)				

1971						
May	19	(cont.)				
		Ki	ipP		03 26 17.5	
		Um	iP		03 26 17.6	
			ipP		03 26 24.1	
		Ud	iP		03 26 41.3	
			ipP		03 26 47.0	
		Luzon.				
		h = 25 km (Ki,Um,Ud).				
"	19	De	i(Sgl)		11 19 02.6	
			i(Rg)		11 19 05.6	
"	19	Up	iP		11 20 05.4	
		Ki	iP		11 19 48.5	
			ipP		11 19 58.7	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		11 20 10.1	
		Um	iP		11 19 54.2	
		Ud	iP		11 20 13.8	
			ipP		11 20 23.9	
		Halmahera.				
		h = 40 km (Ki,Ud).				
"	19	De	i(Sgl)		12 08 04.7	
			i(Rg)		12 08 11.9	
"	19	Up	iPKP		16 01 43.0	
		Ud	iPKP		16 01 45.5 C	
		De	iPKP		16 01 56.0	
"	19	Up	iPKP		22 27 50.9	
		Ki	iPKP		22 27 37.4	
		Sk	iPKP		22 27 48.2	
		Um	iPKP		22 27 43.0	
		Ud	iPKP		22 27 53.4	
		De	iPKP		22 28 00.6	
		New Hebrides Islands (h = 200 km).				
"	20	Up	eP		01 19 47	
		Um	iP		01 20 20.4	
		Ud	iP		01 20 01.0	
		Turkey (h = N).				
"	20	Up	i(P)		01 25 36.2	
"	20	Ki	iP		01 36 10.7	
		Um	iP		01 37 02.2	
			ipP		01 37 09.5	
		Ud	iP		01 37 51.1	
			ipP		01 37 58.6	
		De	iP		01 38 30.4	
		South of Svalbard.				
		h = 35 km (Um,Ud).				
		Solution checked with Kajaani and Kevo readings.				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	20	Up	iPKP		01 54 39.4	C
		Ud	iPKP		01 54 40.9	
"	20	Up	iP		02 46 28.5	
			ipP		02 46 44.2	
		Ki	iP		02 45 35.3	
			ipP		02 45 51.1	
					micr	sec
			P	Z'	0.1	1.1
		Sk	eP		02 46 07	
		Um	iP		02 46 00.2	
			ipP		02 46 16.8	
			iPcP		02 46 36.9	
		Ud	iP		02 46 27.4	
			ipP		02 46 44.4	
		De	iP		02 46 49.7	
			ipP		02 47 06.9	
		Aleutian Islands.				
		h = 70 km (Up,Ki,Um,Ud,De).				
"	20	Up	iP		03 11 54.9	C
			iPP		03 12 25.6	
					micr	sec
			Mx	E	0.4	7
			Mx	N	0.7	10
			Mx	Z	1.1	12
		Ki	eP		03 13 04	
					micr	sec
			Mx	E	0.9	8
			Mx	N	0.3	9
			Mx	Z	0.5	9
		Sk	eP		03 12 37	
		Um	iP		03 12 25.1	
		Ud	iP		03 12 06.2	
			i(pP)		03 12 10.2	
		De	eP		03 11 38	
		Turkey (h = N).				
		M = 4.8 (Up,Ki).				
"	20	Um	i(Sgl)		05 16 05.6	
"	20	Up	iP		08 12 40.3	
		Sk	eP		08 12 13	
		Um	iP		08 12 16.8	
			i		08 12 30.0	
		Ud	iP		08 12 35.8	
		Oregon (h = N).				
"	21	Up	iP		03 09 10.9	C
		Ki	eP		03 08 57	
		Ud	iP		03 09 22.7	
		De	eP		03 09 35	
		China (h = 45 km).				
"	21	Up	iP		09 46 20.5	
			iS		09 50 40	
		(cont.)				

1971						
May	21	(cont.)				
		Up			micr	sec
			Mx	E	0.5	10
			Mx	N	1.3	15
			Mx	Z	1.9	18
		Ki	iP		09 47 30.4	
			i		09 47 41.2	
		Um	iP		09 46 55.3	
		Ud	iP		09 46 35.6	
			iPP		09 47 03.0	
		De	eP		09 46 07	
		Turkey (h = 5 km).				
"	21	Ki	iPn		10 51 28.3	
			iSn		10 52 27.6	
			iSgl		10 52 50.3	
		Sk	eSgl		10 55 15	
		Um	iSgl		10 53 40.3	
		Northwest Russia,				
		67.6°N, 34.1°E.				
		Origin time = 10 50 09.				
		Explosion.				
"	21	Up	iP		18 16 06.7	
		Sk	iP		18 16 46.0	
		Ud	iP		18 16 13.9	
		Greece.				
"	21	Up	iP		19 07 32.8	
			ipP		19 07 37.9	
			iS		19 16 32	
					micr	sec
			pP	Z'	0.3	1.6
			Mx	E	1.0	18
			Mx	N	1.3	18
			Mx	Z	1.9	20
		Ki	iP		19 06 44.1	
			ipP		19 06 51.6	
					micr	sec
			P	Z'	0.3	1.5
			Mx	E	1.6	18
			Mx	N	1.4	18
			Mx	Z	1.3	18
		Sk	iP		19 07 14.9	
		Um	iP		19 07 10.8	
			ipP		19 07 17.2	
			iS		19 15 46	
		Ud	iP		19 07 37.2	
			ipP		19 07 43.6	
		De	iP		19 07 59.7	
			ipP		19 08 05.1	
		Aleutian Islands.				
		h = 25 km (Up,Ki,Um,Ud,De).				
		m = 6.2, M = 5.3 (Up,Ki).				
"	21	Ud	iP		19 33 24.5	
		Aleutian Islands (h = N).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	21	Up	iP	19 35 40.1	
		Ki	iP	19 34 45.6	
		Um	iP	19 35 12.2	
		Ud	iP	19 35 38.8	
		Aleutian Islands (h = 40 km).			
"	21	Ki	iP	19 36 14.0	
			i	19 36 22.0	
		Sk	eP	19 36 07	
		Um	iP	19 36 06.0	
"	21	Up	iPKP	21 13 11.9	
		Sk	iPKP	21 13 05.3	
		Um	ePKP	21 13 06	
		Ud	iPKP	21 13 14.0	
		De	iPKP	21 13 22.4	
		Kermadec Islands (h = 220 km).			
"	22	Ud	i(Sgl)	01 55 39.6	
		De	i(Sgl)	01 55 25.8	
"	22	Up	iPKP	04 51 01.5	
		Ki	iPKP	04 50 46.3	
		Sk	iPKP	04 50 56.5	
		Um	iPKP	04 50 51.2	
		Ud	iPKP	04 51 03.2	
		South of Kermadec Islands (h = 70 km).			
"	22	Ud	iP	10 18 01.5	
			i	10 18 18.9	
		Aleutian Islands (h = 50 km).			
"	22	Ki	iPn	10 24 56.6	
			iP*	10 25 04.5	
			iSn	10 25 43.2	
			iS*	10 25 55.8	
		Um	iSgl	10 27 31.1	
		Northwest Russia, 69.7°N, 30.3°E. Origin time = 10 23 55. Explosion.			
"	22	Sk	iP	13 10 43.2	
		Kurile Islands.			
"	22	Ki	iP	14 09 29.3	
		Sk	iP	14 09 35.7	
		Um	iP	14 09 10.0	
		Ud	iP	14 09 19.8	
		Iran (h = 35 km).			
"	22	Up	iP	16 16 30.8	
		Um	iP	16 16 59.6	

1971 May	22	Up	iP		16 49 29.7	
			i		16 49 32.8	
			iS		16 53 58	
					micr	sec
			P	Z'	2.0	1.1
			Mx	E	130	13
			Mx	N	160	15
			Mx	Z	220	19
		Ki	iP		16 50 19.8	
			i		16 50 21.0	
			iS		16 55 28	
					micr	sec
			P	Z'	0.8	1.0
			Mx	E	210	14
			Mx	N	110	14
			Mx	Z	250	19
		Sk	iP		16 50 09.2	
			i		16 50 12.3	
		Um	iP		16 49 50.4	
			i		16 49 52.9	
			iS		16 54 35	
		Ud	iP		16 49 44.3	
			i		16 49 47.5	
		De	iP		16 49 23.8	
			i		16 49 27.6	
			i(S)		16 54 10.0	
		Turkey (h = 5 km). m = 6.7, M = 7.0 (Up,Ki). Double P-phases, in average 3 sec apart, are recorded at all stations.				
"	22	Up	iP		17 02 46.7	
"	22	Up	iP		17 05 29.8	
"	22	Ki	eP		17 21 46	
"	22	Ki	eP		17 38 47	
		Ud	i		17 38 28.7	
			i		17 38 36.2	
		Turkey (h = N).				
"	22	Ki	eP		17 39 48	
"	22	Up	iP		17 39 47.4	
		Ki	iP		17 40 36.4	
		Um	iP		17 40 06.6	
		Ud	eP		17 40 05	
			iPn		17 40 27.2	
		De	iP		17 39 40.3	
		Turkey (h = 15 km).				
"	22	Up	iP		18 41 01.0	
			iPn		18 41 16.9	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	22	(cont.)				
		Ki	eP		18 41 45	
			i		18 41 48.2	
		Sk	eP		18 41 43	
			iPn		18 42 23.6	
		Um	iP		18 41 21.2	
			i(pP)		18 41 31.1	
		Ud	iP		18 41 17.1	
			iPn		18 41 38.0	
		De	eP		18 40 55	
		Turkey (h = N).				
"	22	Up	e(P)		18 49 16	
		Ki	eP		18 49 53	
		Um	iP		18 49 26.2	
			iPP		18 50 19.6	
		Ud	iP		18 49 21.1	
			iPn		18 49 37.9	
		Turkey (h = N).				
"	22	Up	iP		20 13 01.0	
			i		20 13 04.6	
			iS		20 20 44	
					micr	sec
			P	Z'	0.3	1.1
			Mx	E	12	19
			Mx	N	51	19
			Mx	Z	17	17
		Ki	iP		20 12 50.6	
			i		20 12 55.0	
					micr	sec
			P	Z'	0.3	1.4
			Mx	E	14	13
			Mx	N	21	14
			Mx	Z	14	13
		Sk	iP		20 13 15.9	
			i		20 13 20.5	
		Um	iP		20 12 51.0	
			i		20 12 55.1	
		Ud	iP		20 13 15.4	
			i		20 13 19.2	
		De	iP		20 13 18.0	
			i		20 13 22.6	
		Tibet (h = N).				
		m = 6.2, M = 6.6 (Up,Ki).				
		The second phase, in average 4.2 sec delayed, gives a focal depth of 15 km, if interpreted as pP.				
"	23	Ud	iP		00 33 03.2	
		Turkey.				
"	23	Up	iP		01 08 04.3	
		Ki			micr	sec
			Mx	E	0.4	7
			Mx	N	0.2	9
			Mx	Z	0.3	9
		Um	iP		01 08 35.1	
		Ud	iP		01 08 15.7	
		Turkey (h = N).				

1971						
May	23	Up	i(P)		02 09 26.2	
"	23	Ud	iPKP		03 42 56.8	
		De	iPKP		03 43 07.8	
		Tonga-Kermadec Islands				
		(h = 580 km).				
"	23	Up	iP		05 24 20.6	
		Ki	eP		05 25 34	
					micr	sec
			Mx	E	0.7	7
			Mx	N	0.3	14
			Mx	Z	0.3	7
		Ud	iP		05 24 36.1	
		Turkey (h = 10 km).				
"	23	Ki	iPn		07 09 23.2	
			iSn		07 10 22.7	
			iS*		07 10 43.5	
		Sk	iSgl		07 13 05.9	
		Um	iSgl		07 11 35.8	
		Northwest Russia,				
		67.6°N, 34.1°E.				
		Origin time = 07 08 04.				
		Explosion.				
"	23	Ki	iPn		21 48 03.3	
			iSn		21 49 00.9	
			iS*		21 49 18.6	
		Um	iSgl		21 50 51.3	
		Northwest Russia.				
		Explosion.				
"	24	Up	iP		02 25 44.7	
			iPn		02 26 02.2	
		Ki	iP		02 26 29.4	
					micr	sec
			Mx	E	0.6	14
			Mx	N	0.4	13
			Mx	Z	0.4	12
		Um	iP		02 25 59.4	
		Ud	eP		02 26 02	
			iPn		02 26 22.3	
		Turkey (h = N).				
		Of the two Turkish earthquake areas this month, the eastern (around 38.8°N, 40.5°E) frequently gives Pn at our stations, whereas the western (around 37.6°N, 30.0°E) in general does not. The probable reason is that paths from the eastern location to our stations are structurally less disturbed than paths from the western area.				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
May 24 Ki iP 07 01 55.6
ipP 07 02 05.6
Mariana Islands.
h = 35 km (Ki).

" 24 Ki iP 07 27 23.3
Sumatra (h = 100 km).

" 24 Ud iP 08 55 17.2
Turkey.

" 24 Ud eP 11 23 15
Turkey (h = N).

" 24 Ki iSgl 16 23 45.7
Sk iSgl 16 23 50.2
Um iSgl 16 24 13.2
Ud iSgl 16 25 37.7
Nordland, Norway,
66.6°N, 13.7°E.
Origin time = 16 22 16.
Explosion.

" 24 Up iP 16 52 08.0
Turkey.

" 24 Ki eP 18 37 47
Um iP 18 37 53.0
Ud iP 18 38 12.9
Mindanao (h = 540 km).

" 25 Up iP 04 09 53.1 C
Ki iP 04 09 37.8 C

		micr	sec
P	Z'	0.1	0.5

Sk iP 04 10 09.0 C
Um iP 04 09 38.4
Ud iP 04 10 09.9 C
Kazakh SSR.
Underground explosion.

" 25 Up iP 04 40 19.7

		micr	sec
P	Z'	0.1	0.8

Ki iP 04 40 55.3
Sk iP 04 40 54.7
Um iP 04 40 32.6
Ud iP 04 40 36.0
De iP 04 40 21.1
Iran (h = 25 km).

" 25 Up iP 05 48 21.6
iS 05 52 24

		micr	sec
P	Z'	1.1	1.5
Mx	E	19	12

(cont.)

1971
May 25 (cont.)
Up

		micr	sec
Mx	N	29	14
Mx	Z	30	13

Ki iP 05 49 28.6
iPn 05 50 01.0
iS 05 54 23

		micr	sec
P	Z'	0.2	1.0
Pn	Z'	0.5	1.6
Mx	E	38	7
Mx	N	8.6	11
Mx	Z	13	7

Sk iP 05 49 03.1
Um iP 05 48 53.8
iS 05 53 15
Ud iP 05 48 33.6 D
De iP 05 48 01.9 D
Turkey (h = 25 km).
m = 6.2, M = 6.3 (Up,Ki).
An east-west oscillation pattern may be suggested by the Turkish earthquakes this month.

" 25 Ud i(P) 06 13 13.8

" 25 Ud i(P) 06 22 33.6

" 25 Um iP 06 24 13.8
Turkey (h = 10 km).

" 25 Ki iP 07 01 06.2
Sk iP 07 01 04.4
Um iP 07 00 43.6
Ud iP 07 00 45.0
De eP 07 00 29
Iran (h = 10 km).

" 25 Um i(Pgl) 11 09 28.0
i(Sgl) 11 09 47.1

" 25 Um i(Pgl) 11 09 52.4
i(Sgl) 11 10 12.5

" 25 Ki eP 11 50 12
Ud iP 11 51 03.9
Aleutian Islands (h = 25 km).

" 25 Up i(Sgl) 12 07 58.5
Um iSgl 12 08 45.1
Esthonia.
Explosion.

" 25 Up iP 13 11 55.3
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	25	(cont.)				
		Up	i		13 12 00.5	
					micr	sec
			P	Z'	0.6	1.5
			Mx	E	5.8	17
			Mx	N	4.5	17
			Mx	Z	11	16
		Ki	iP		13 11 17.7	
			i		13 11 28.0	
					micr	sec
			P	Z'	0.2	1.0
			Mx	E	7.9	20
			Mx	N	3.5	18
			Mx	Z	9.8	19
		Sk	iP		13 11 49.8	
			i		13 11 59.1	
		Um	iP		13 11 31.1	
			i		13 11 37.0	
		Ud	iP		13 12 00.0	
			i		13 12 05.0	
		De	iP		13 12 16.4	
		Japan (h = 50 km).				
		m = 6.4, M = 6.1 (Up,Ki).				
"	25	Um	iSgl		13 58 37.1	
		Near Lake Ladoga.				
		Explosion?				
"	25	Ki	iP		14 27 04.8	
		Mariana Islands (h = N).				
"	25	Up	iSgl		14 59 52.7	
		Ud	i(Pgl)		14 59 41.2	
			i(Sgl)		15 00 08.9	
"	25	Ki	iPgl		15 59 57.4	
			iSgl		16 00 20.1	
		Sk	eSgl		16 01 55	
		Um	iSgl		16 01 51.4	
		Nordland, Norway,				
		68.1°N, 16.2°E.				
		Origin time = 15 59 29.				
"	25	Ki	i(P)		20 48 24.3	
		Um	i(P)		20 48 33.0	
"	26	Up	iPKP		00 30 36.8	
		Ki	e(PKP)		00 30 15	
			i(PKP)		00 30 20.5	
			iPKP		00 30 25.5	
			iSKP		00 33 19.9	
		Sk	e(PKP)		00 30 30	
			iPKP		00 30 32.6	
			iSKP		00 33 34.4	
		Um	i(PKP)		00 30 25.5	
			iPKP		00 30 31.5	
		(cont.)				

1971 May	26	(cont.)		
		Um	iSKP	00 33 30.4
		Ud	iPKP	00 30 39.2 C
			iSKP	00 33 42.6
		De	iPKP	00 30 49.5 C
		Tonga-Kermadec Islands		
		(h = 410 km).		
"	26	Ki	iP	01 56 25.6
		Um	iP	01 56 45.2
		Ud	iP	01 57 16.9
		Kurile Islands (h = 60 km).		
"	26	Up	iP	02 48 43.0 C
			ipP	02 48 49.0
			iPP	02 50 07.9
			iS	02 54 18
				micr sec
			P Z'	0.1 0.7
			pP Z'	0.3 1.2
			Mx E	2.8 15
			Mx N	4.7 14
			Mx Z	4.3 13
		Ki	iP	02 49 09.3 C
			ipP	02 49 14.2
			iS	02 55 06
				micr sec
			P Z'	0.2 1.3
			pP Z'	0.6 1.3
			Mx E	6.7 14
			Mx N	7.1 13
			Mx Z	5.6 13
		Sk	iP	02 49 15.4 C
			ipP	02 49 20.4
		Um	iP	02 48 50.2 C
			ipP	02 48 55.3
			iS	02 54 32
		Ud	iP	02 48 59.8 C
			ipP	02 49 06.2
		De	iP	02 48 49.4 C
			ipP	02 48 53.7
		Iran.		
		h = 20 km (Up,Ki,Sk,Um,Ud,De).		
		m = 5.9, M = 5.7 (Up,Ki).		
"	26	Up	iSgl	05 34 20.5
		Ki	eSgl	05 35 54
		Sk	eSn	05 32 55
			iSgl	05 33 12.6
		Um	iSgl	05 34 57.9
		Ud	iSgl	05 33 19.8
		Southwest coast of Norway,		
		61.0°N, 4.5°E.		
		Origin time = 05 30 55.		
		Solved by combination with		
		Kongsberg and Bergen readings.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971							
May	26	Up	iP		06 24 45.6	C	
			ipP		06 24 55.5		
					micr	sec	
			P	Z'	0.4	1.5	
			pP	Z'	0.3	1.3	
			Mx	E	8.3	17	
			Mx	N	6.0	21	
			Mx	Z	16	21	
		Ki	iP		06 24 13.5		
			ipP		06 24 23.4		
					micr	sec	
			P	Z'	0.1	1.4	
			pP	Z'	0.2	1.5	
			Mx	E	10	17	
			Mx	N	6.6	21	
			Mx	Z	14	19	
		Sk	iP		06 24 44.9		
			ipP		06 24 55.0		
		Um	iP		06 24 27.0		
			iS		06 33 36		
		Ud	iP		06 24 54.0		
		De	eP		06 25 08		
		Japan.					
		h = 40 km (Up,Ki,Sk).					
		m = 6.1, M = 6.2 (Up,Ki).					
"	26	Sk	iP		07 15 05.0	C	
		Ud	iP		07 14 32.6	C	
		Greece.					
"	26	Up	iPKP		07 38 06.3		
			i		07 38 14.0		
		Um	iPKP		07 37 59.9		
		Ud	iPKP		07 38 08.3	C	
			i		07 38 16.3		
		De	iPKP		07 38 18.6	C	
			i		07 38 26.5		
		Tonga-Kermadec Islands					
		(h = 120 km).					
"	26	Up	iPKP		09 11 08.0		
		Ud	iPKP		09 11 10.1	C	
			i		09 11 18.3		
		De	iPKP		09 11 20.7		
		Tonga-Kermadec Islands					
		(h = 110 km).					
"	26	Up	eP		09 20 07		
		Ki	eP		09 19 38		
		Um	iP		09 19 49.8		
		Mariana Islands (h = 15 km).					
"	26	De	i(Rg)		15 14 07.5		
"	26	Ud	iP		15 54 34.8		

1971							
May	26	Ki	iSgl		16 24 42.9		
		Sk	iSgl		16 24 46.7		
		Um	iSgl		16 25 09.5		
		Nordland, Norway,					
		66.5°N, 14.0°E.					
		Origin time = 16 23 12.					
		Explosion.					
"	26	Up	iP		16 51 20.5		
			iPP		16 51 49.4		
					micr	sec	
			Mx	E	0.5	11	
			Mx	N	0.5	12	
			Mx	Z	0.7	11	
		Ki	iP		16 51 53.2		
			iPn		16 52 11.3		
					micr	sec	
			Mx	E	0.6	12	
			Mx	N	0.3	10	
			Mx	Z	0.5	10	
		Sk	eP		16 52 00		
			iPn		16 52 08.4		
		Um	iP		16 51 27.0		
		Ud	iP		16 51 32.0		
		De	eP		16 51 20		
		Caucasus.					
		M = 4.5 (Up,Ki).					
"	27	Ud	iP		00 04 15.2		
"	27	Up	iP		00 37 48.7		
		Ki	eP		00 38 02		
			iPP		00 39 30.9		
		Sk	iP		00 38 23.9		
		Um	iP		00 37 52.2		
			i		00 37 58.9		
			iPP		00 39 17.5		
		Ud	iP		00 38 06.0		
			iPP		00 39 38.1		
		De	iP		00 38 02.1		
			i		00 38 15.1		
		Tadzhik SSR (h = 35 km).					
"	27	Ud	iP		02 23 14.2		
		Kirghiz SSR.					
"	27	Um	iP		05 54 42.1		
"	27	Up	iP		06 27 42.8		
		Ki	iP		06 28 21.8		
		Sk	eP		06 28 19		
		Um	eP		06 27 58		
		Ud	iP		06 27 57.1		
		De	iP		06 27 40.7		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May	27	Up	iSn	12 30 21.5	
			iSgl	12 30 34.5	
		Ki	iSgl	12 33 04.1	
		Sk	eSgl	12 32 21	
		Um	iSgl	12 31 07.8	
		Ud	iSgl	12 31 38.8	
		De	iSgl	12 32 03.6	
		Esthonia, 59.5°N, 25.0°E.			
		Origin time = 12 28 36.			
		Explosion.			
"	27	Um	iP	13 18 45.0	
"	27	Ki	i(Pgl)	13 32 06.8	
			i(Sgl)	13 32 35.8	
"	27	Ki	i(Pgl)	13 40 16.3	
			i(Sgl)	13 40 44.5	
"	27	Ki	eP	16 56 37	
		Um	iP	16 56 39.1	
		Banda Sea (h = 160 km).			
"	27	Up	iP	17 01 31.0	
			ipP	17 01 42.0	
		Ki	iP	17 00 46.3	
		Um	iP	17 01 06.4	
		Ud	iP	17 01 37.5	
		De	iP	17 01 54.7	
		Kurile Islands.			
		h = 45 km (Up).			
"	27	Um	iP	19 03 44.1	
"	27	Up	iP	20 34 09.8	
		Sk	eP	20 34 49	
		Ud	e(P)	20 34 15	
			iP	20 34 19.9	
		Ionian Islands.			
"	27	Um	i(P)	21 03 59.6	
		Ud	i(P)	21 04 21.1	
"	27	Up	iPKP	21 09 53.9	
			iPKP2	21 10 08.1	
		Ki	iPKP	21 09 51.6	
			iPKP2	21 10 03.0	
		Um	iPKP	21 09 52.0	
			iPKP2	21 10 03.8	
		Ud	iPKP2	21 10 17.3	
		De	iPKP2	21 10 14.2	
		Macquarie Islands (h = N).			
"	27	Ki	eP	22 38 23	
		Um	eP	22 38 55	
		Aleutian Islands (h = 15 km).			

1971 May	27	Up	iP	23 16 32.0	
		Ki	iP	23 16 16.5	
		Sk	iP	23 16 37.7	
		Um	iP	23 16 21.5	
		Ud	iP	23 16 40.9	
		De	iP	23 16 45.4	
		Mindanao (h = 540 km).			
"	28	Up	iPgl	02 52 46.7	
			iSgl	02 52 52.8	
		Um	eSgl	02 54 40	
		Ud	iPgl	02 53 18.0	
			iSgl	02 53 46.4	
			iRg	02 53 56.3	
		Uppland, Sweden, 60.2°N, 17.7°E.			
		Origin time = 02 52 40.			
		Probably iron ore mine explosion at Dannemora.			
"	28	Ki	iSgl	04 31 43.7	
		Sk	iSgl	04 31 47.8	
		Um	iSn	04 31 56.9	
			iSgl	04 32 11.4	
		Nordland, Norway, 66.5°N, 14.0°E.			
		Origin time = 04 30 14.			
		Explosion.			
"	28	Ki	iP	10 31 06.9	
			iX	10 31 21.3	
		Ud	iX	10 32 21.0	
		Komandorsky Islands (h = N).			
"	28	Ki	i(P)	10 52 20	
		Um	i(P)	10 53 35.0	
			i	10 53 37.5	
"	28	Up	eP	12 21 42	
		Sk	eP	12 21 15	
		Ud	iP	12 21 38.0	
		Queen Charlotte Islands (h = N).			
"	28	Sk	eSgl	13 02 59	
		Ud	iSgl	13 01 53.0	
			i	13 02 00.5	
		Southwest Norway.			
"	28	Up	iP	13 03 23.1	
			ipP	13 03 58.0	
				micr sec	
			P Z'	0.1 0.6	
		Ki	iP	13 02 54.9	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 May 28 (cont.)

			micr	sec
Ki	P	Z'	0.1	0.8
Sk	iP		13 03	19.9
Um	iP		13 03	06.8
	isP		13 04	01.0
Ud	iP		13 03	29.5
De	iP		13 03	41.3

Mariana Islands.
h = 150 km (Up,Um).
m = 5.9 (Up,Ki).

" 28

Up	iP		14 24	37.5
	ipP		14 25	08.9
Ki	iP		14 24	26.6
	ipP		14 24	57.3
			micr	sec
	P	Z'	0.1	1.5
Sk	iP		14 24	19.0
	ipP		14 24	50.8
Um	iP		14 24	34.5
	ipP		14 25	06.2
	iS		14 34	47
Ud	iP		14 24	28.0
	ipP		14 24	58.9
De	iP		14 24	34.6
	i		14 24	44.3
	ipP		14 25	04.6

Guatemala.
h = 130 km (Up,Ki,Sk,Um,Ud, De).

" 28

Ki	e(Sn)	15 44	06
	e(S*)	15 44	18
Sk	eSgl	15 47	12
Um	eSgl	15 45	53

Northwest Russia-Norway border region.
Explosion.

" 28

Ki	iSgl	16 39	24.7
Um	iSgl	16 38	04.4

Lake Ladoga.
Explosion?

" 28

Ki	iPn	17 06	35.6
	iSn	17 07	26.4
Sk	eSgl	17 10	32
Um	iSgl	17 09	14.2

Northwest Russia.
Explosion.

" 28

Up	iPKP	18 16	47.1
	i	18 16	53.4
Um	iPKP	18 16	37.6
Ud	iPKP	18 16	49.5

(cont.)

1971 May 28 (cont.)

Ud	i	18 16	53.7
De	iPKP	18 17	00.4
	i	18 17	02.1

Tonga-Kermadec Islands (h = 560 km).

" 28

Ki	e(P)	21 28	18

" 28

Up	i(P)	21 42	53.7
Ud	i(P)	21 42	55.9

" 29

Up	iP		00 26	33.4
			micr	sec
	P	Z'	0.1	0.7
Ki	iP		00 25	48.0 C
Sk	iP		00 26	23.2
Um	iP		00 26	08.2
	i		00 26	09.1
Ud	iP		00 26	39.8
	i		00 27	43.3
De	iP		00 26	57.4 C

Kurile Islands (h = 110 km).

" 29

Up	iP		09 04	14.6 C
			micr	sec
	P	Z'	0.2	1.1
	Mx	E	5.8	20
	Mx	N	4.1	18
	Mx	Z	8.1	20
Ki	iP		09 03	42.5 C
			micr	sec
	P	Z'	0.3	1.5
	Mx	E	8.7	21
	Mx	N	3.9	18
	Mx	Z	9.3	20
Sk	iP		09 04	13.1
Um	iP		09 03	55.3
Ud	iP		09 04	23.2 C
De	iP		09 04	36.4

Japan (h = 50 km).
m = 6.2, M = 6.1 (Up,Ki).

" 29

Up	e(P)	12 11	48

" 29

Up	iSgl	13 04	47.8
Ki	iSn	13 01	32.1
	iSgl	13 01	52.0
Sk	eSgl	13 04	17
Um	i(Sn)	13 02	17.8
	iSgl	13 02	45.8
Ud	eSgl	13 05	13

Northwest Russia,
67.5°N, 31.1°E.
Origin time = 12 59 46.
Explosion.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971						
May	29	Um	i(P)		14 51 21.9	
			i		14 51 44.9	
"	30	Ki	iP		00 31 50.4	
		Kurile Islands.				
"	30	Um	eP		00 37 06	
		Ud	eP		00 37 37	
			i		00 37 49.8	
		Kurile Islands.				
"	30	Up	iP		00 40 48.1	
		Ud	iP		00 40 54.8	
			i		00 41 05.9	
		Kurile Islands.				
"	30	Ud	iP		03 19 24.1	
		Aleutian Islands (h = 240 km).				
"	30	Up	e(P)		03 37 52	
		Ud	i(P)		03 38 02.7	
"	30	Up	iPKP		04 59 07.8	
			i		04 59 13.5	
		Sk	ePKP		04 59 04	
		Um	iPKP		04 58 56.8	
		Ud	iPKP		04 59 10.2	C
			i		04 59 16.3	
		De	iPKP		04 59 22.5	
		Kermadec Islands (h = 60 km).				
"	30	Up	ePKP		07 27 26	
		Ki	iPKP		07 27 10.4	
		Sk	ePKP		07 27 25	
		Um	iPKP		07 27 18.7	
		New Hebrides Islands				
		(h = 260 km).				
"	30	Ki	eP		09 29 25	
		Um	iP		09 30 13.7	
		Arctic Ocean (h = N).				
"	30	Up	iP		10 55 22.2	
		Ud	iP		10 55 32.2	
"	30	Up	iP		12 06 23.1	
					micr	sec
			P	Z'	0.1	0.9
			Mx	E	0.7	14
			Mx	N	1.8	20
			Mx	Z	0.8	12
		Ki	iP		12 06 14.5	
					micr	sec
			Mx	E	0.8	13
			Mx	N	0.6	14
			Mx	Z	0.7	13
		(cont.)				

1971						
May	30	(cont.)				
		Sk	eP		12 06 35	
			i		12 06 40.0	
		Um	eP		12 06 14	
			iPcP		12 06 58.6	
		Ud	iP		12 06 36.4	
		De	eP		12 06 40	
		Burma (h = N).				
		M = 5.3 (Up,Ki).				
"	30	Up	iP		15 45 38.7	
		Um	iP		15 45 12.3	
		Ud	iP		15 45 44.0	
		Kurile Islands.				
"	30	Up	iP		15 54 42.3	
			iS		16 03 10	
					micr	sec
			P	Z'	0.3	0.8
			Mx	E	7.8	12
			Mx	N	47	23
			Mx	Z	13	14
		Ki	iP		15 54 33.4	
			i		15 58 21.2	
			iS		16 02 55	
					micr	sec
			P	Z'	0.4	1.6
			Mx	E	15	13
			Mx	N	17	14
			Mx	Z	16	13
		Sk	iP		15 54 57.2	
		Um	iP		15 54 33.8	
			i		15 58 19.1	
			iS		16 02 55	
		Ud	iP		15 54 55.4	
		De	iP		15 54 58.1	
			i		15 56 09.9	
		Burma (h = 15 km).				
		m = 6.4, M = 6.5 (Up,Ki).				
"	30	Up	iP		16 24 53.6	
		Sk	iP		16 25 08.8	
		Ud	iP		16 25 07.8	
		Burma.				
		Origin time = 16 14 28.				
"	30	Ud	iP		17 11 50.3	
		Japan (h = 25 km).				
"	30	Up	iP		21 49 23.9	
		Ki	iP		21 49 15.7	
					micr	sec
			Mx	E	0.5	12
			Mx	N	0.4	15
			Mx	Z	0.5	12
		Sk	iP		21 49 38.8	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
May 30 (cont.)

Um	iP		21 49 15.2
Ud	iP		21 49 37.0
De	iP		21 49 41.5

Burma (h = N).

" 30

Up	iP		23 18 33.2
Um	iP		23 18 24.7
Ud	iP		23 18 50.3

Hindu Kush.

" 31

Up	ePKP		02 22 53

Tonga Islands (h = N).

" 31

Um	i(P)		03 28 35.9

" 31

Um	iP		03 35 01.7
Ud	iP		03 35 34.1

Sea of Japan.
Deep.

" 31

Up	iP		03 43 12.9
Ki	eP		03 41 51
	iS		03 43 15.5
	iSS		03 43 31.3
			micr sec
	Mx	E	0.7 17
	Mx	N	0.4 16
	Mx	Z	1.0 17
Sk	iP		03 42 15.3
	iS		03 43 58.9
Um	iP		03 42 33.9
	iS		03 44 29.1
Ud	iP		03 43 03.7
	iPP		03 43 15.1
De	iP		03 43 49.0

Norwegian Sea (h = N).

" 31

Up	iP		03 50 05.5
	iS		03 52 44
			micr sec
	P	Z'	0.3 0.9
	Mx	E	13 19
	Mx	N	30 17
	Mx	Z	47 18
Ki	iP		03 48 42.7
	iPP		03 48 52.9
	iS		03 50 08.5
			micr sec
	PP	Z'	2.7 1.6
	Mx	E	66 15
	Mx	N	23 15
	Mx	Z	69 16
Sk	iP		03 49 06.5
	iS		03 50 50.8

(cont.)

1971
May 31 (cont.)

Um	iP		03 49 24.8
	iS		03 51 22.7
Ud	iP		03 49 53.8 C
	iPP		03 50 07.8
	iS		03 52 15.6
De	iP		03 50 41.8 C

Norwegian Sea (h = N).
M = 5.5 (Up,Ki).
This series of shocks may be of special interest in connection with recent volcanic activity on Jan Mayen.

" 31

Ki	i(P)		03 52 47.0
	i(S)		03 54 05.7
	i		03 54 41.4

Probably Norwegian Sea.

" 31

Ki	eP		04 09 54
Um	iP		04 10 35.8

Norwegian Sea.
Origin time = 04 08 03.

" 31

Up	eP		04 17 22
Ki	iP		04 15 59.7
	iPP		04 16 08.1
Sk	eP		04 16 20
	i		04 16 23.3
Um	iP		04 16 41.9
Ud	iP		04 17 13.3
	iPP		04 17 23.0

Norwegian Sea (h = N).

" 31

Up	iP		04 27 08.8
Ki	eP		04 25 46
Sk	iP		04 26 09.8
Um	iP		04 26 29.0
Ud	iP		04 26 57.2
De	iP		04 27 44.9

Norwegian Sea (h = N).

" 31

Up	iP		05 24 23.6
	iS		05 32 48
			micr sec
	P	Z'	0.2 0.8
	Mx	N	21 22
	Mx	Z	7.3 18
Ki	iP		05 24 15.2
	iPP		05 26 32.9
	iS		05 32 38
			micr sec
	P	Z'	0.1 0.8
	Mx	E	3.2 16
	Mx	N	9.8 17
	Mx	Z	4.7 17

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
May 31 (cont.)

	Sk	iP	05 24 38.5
	Um	iP	05 24 15.3
		iS	05 32 31
	Ud	iP	05 24 37.0
	De	iP	05 24 40.9
		i	05 24 55.0

Burma (h = N).
m = 6.2, M = 6.3 (Up,Ki).

" 31

	Up	iP	05 43 13.1
	Ki	iP	05 43 04.3
	Sk	eP	05 43 28
	Um	iP	05 43 04.3
	Ud	iP	05 43 26.7

Burma.
Origin time = 05 32 49.

" 31

	Ud	iP	06 07 28.3

Japan.

" 31

	Up	iP	06 31 21.8
	Ki	iP	06 31 13.1
	Um	iP	06 31 13.1

Burma.
Origin time = 06 20 58.

" 31

	Up	eP		08 26 53
		i		08 27 15.9
		iS		08 34 40
				micr sec
		Mx	E	0.8 20
		Mx	N	0.5 15
		Mx	Z	0.7 18
	Ki	eP		08 27 14
				micr sec
		Mx	E	0.5 16
		Mx	N	0.4 16
		Mx	Z	0.7 16
	Sk	iP		08 26 42.8
	Um	iP		08 27 06.2
		iS		08 35 09
	Ud	iP		08 26 38.3
		i		08 26 53.3
	De	iP		08 26 34.6

North Atlantic Ocean (h = N).
M = 5.0 (Up,Ki).

" 31

	Up	iP		09 23 29.6 C
		iS		09 33 40
	Ki	iP		09 23 31.2 C
		ipP		09 23 37.2
				micr sec
		P	Z'	0.1 1.1
		Mx	E	0.5 16
		Mx	N	0.3 15
		Mx	Z	0.5 14

(cont.)

1971
May 31 (cont.)

	Sk	iP	09 23 45.2
	Um	iP	09 23 27.3 C
		iS	09 33 35
	Ud	iP	09 23 40.5 C
		ipP	09 23 48.0
	De	iP	09 23 38.2
		ipP	09 23 45.8

Sumatra.
h = 25 km (Ki,Ud,De).

" 31

	Up	iP	11 13 23.6
	Um	eP	11 13 40
	Ud	iP	11 13 39.4
	De	iP	11 13 23.5

Iran (h = 60 km).

" 31

	Up	iP	13 07 07.0
	Ki	iP	13 06 54.2
	Um	iP	13 06 54.2
	Ud	iP	13 07 16.1

Burma.
Origin time = 12 56 40.

" 31

	Um	iSgl	13 28 28.8

Northwest Russia.
Explosion.

" 31

	Um	i(P)	13 35 37.0
	Ud	e(P)	13 36 03

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November 21, 1973

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SWEDEN

S E I S M O L O G I C A L B U L L E T I N

U P P S A L A, K I R U N A, S K A L S T U G A N, U M E Å, U D D E H O L M and D E L A R Y

Uppsala	(Up):	59°51.5'N,	17°37.6'E; h = 14 m
Kiruna	(Ki):	67°50.4'N,	20°25.0'E; h = 390 m
Skalstugan	(Sk):	63°34.8'N,	12°16.8'E; h = 580 m
Umeå	(Um):	63°48.9'N,	20°14.2'E; h = 16 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E; h = 240 m
Delary	(De):	56°28.2'N,	13°52.2'E; h = 150 m

J U N E 1 - 30, 1971

1971 June	1	Up	iP	00 38 21.1	C
		Ki	iP	00 38 01.8	C
		Sk	eP	00 38 28	
		Um	iP	00 38 07.7	C
		Ud	iP	00 38 30.9	
		De	iP	00 38 37.7	
		Luzon (h = 60 km).			
"	1	Um	iP	05 56 48.0	
		De	eP	05 56 18	
		Turkey.			
"	1	Ud	iP	05 57 01.3	
"	1	Um	iP	13 13 36.2	
		Turkey.			
"	1	Ud	iP	14 23 44.8	
		Celebes Sea (h = 430 km).			
"	1	Up	iP	14 48 27.1	
"	1	Up	iSgl	17 09 00.0	
		Ud	iSgl	17 09 26.0	
		De	ePgl	17 07 12	
			iSn	17 07 46.4	
			iSgl	17 07 58.6	
		Baltic Sea, off coast of Poland, 54.4°N, 18.8°E.			
		Origin time = 17 06 10.			
"	1	Up	i(P)	18 59 47.4	
"	1	Up	iP	19 35 47.4	
			ipP	19 35 57.1	
				micr	sec
			Mx E	0.4	15
			Mx Z	0.5	15
		(cont.)			

1971 June	1	(cont.)			
		Ki	iP	19 35 26.1	
			ipP	19 35 36.0	
		Um	iP	19 35 42.6	
		Ud	iP	19 35 56.9	
			ipP	19 36 06.9	
		Luzon.			
		h = 35 km (Up,Ki,Ud).			
"	1	Um	iP	20 56 49.1	
		Ud	iP	20 57 20.2	
		Okhotsk Sea.			
		Deep.			
"	1	Up	iP	21 31 35.3	
		Ki	eP	21 30 50	
		Um	iP	21 31 10.8	
		Ud	iP	21 31 41.3	
			i(pP)	21 31 52.7	
		Kurile Islands (h = N).			
"	2	Ud	iP	00 52 20.0	
		De	iP	00 52 02.6	
"	2	Up	iP	03 54 15.3	
		Ki	eP	03 54 59	
		Um	iP	03 54 34.7	
		Ud	iP	03 54 31.2	C
		De	iP	03 54 13.2	
		Iran (h = 25 km).			
"	2	Up	eP	10 12 25	
			i	10 12 27.5	
		Ki	eP	10 13 03	
		Sk	iP	10 13 00.3	
			i	10 13 03.2	
		Um	iP	10 12 42.7	
			i	10 12 44.3	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	2	(cont.)				
		Ud	eP	10 12 40		
			i	10 12 42.9		
		Iran (h = 35 km).				
		Double P-phases, in average 2.5 sec apart, are recorded at Up, Sk, Um, Ud.				
"	2	Up	e(P)	10 18 17		
		Ud	e(P)	10 18 47		
"	2	Up	iP	13 47 53.5		
		Ki	iP	13 47 54.0		
		Um	eP	13 47 58		
		Ud	iP	13 48 04.6		
		Sumatra (h = 35 km).				
"	2	Up	i(P)	13 58 37.6		
"	2	Ud	i(P)	15 13 24.4		
"	2	Up	iP	19 16 31.2		
		Ki	iP	19 15 34.3		
				micr	sec	
			P	Z' 0.1	0.9	
		Sk	iP	19 16 02.6		
		Um	iP	19 16 03.9	C	
		Ud	iP	19 16 27.8	C	
		De	iP	19 16 52.8	C	
		Alaska (h = 30 km).				
"	2	Up	iP	20 02 17.1		
		Sk	iP	20 02 32.8		
		Ud	iP	20 02 31.5		
		Tibet.				
"	2	Um	i(Sgl)	20 07 26.3		
		Ud	e(Sgl)	20 08 18.4		
"	2	Ud	i(P)	21 31 24.0		
"	3	Ud	iP	01 38 57.0		
		Turkey.				
"	3	Up	iP	11 15 34.2		
		Um	iP	11 15 14.1		
			i(pP)	11 15 23.8		
		Japan (h = 60 km).				
"	3	Ki	iSgl	11 22 52.4		
		Sk	iSgl	11 22 57.4		
		Um	iSn	11 23 05.6		
			iSgl	11 23 18.7		
		Nordland, Norway, 66.5°N, 14.1°E.				
		Origin time = 11 21 23.				
		Explosion.				

1971 June	3	Up	iSgl	12 32 18.2		
		Ud	iSgl	12 32 35.0		
		De	iSgl	12 33 25.2		
		Södermanland, Sweden, 59.3°N, 16.2°E.				
		Origin time = 12 31 48.				
"	3	Up	i(P)	12 47 12.1	C	
		De	i(P)	12 47 37.8		
"	3	Up	iP	13 38 50.2	C	
		Ki	eP	13 38 00		
"	3	Up	iP	13 45 20.4		
"	3	Um	iP	15 17 59.5		
		Ud	iP	15 18 19.9		
		De	iP	15 18 30.6		
"	3	Up	iP	20 22 08.1		
		Um	iP	20 22 01.0		
		Ud	iP	20 22 14.0		
		De	iP	20 22 26.2		
		Volcano Islands.				
"	4	Up	i(P)	02 23 15.3	C	
		Um	i(P)	02 23 34.1		
"	4	Up	iP	08 03 15.2		
		Ki	eP	08 01 54		
			ipP	08 02 02.7		
		Sk	iP	08 02 42.3		
			i	08 03 00.8		
		Um	iP	08 02 42.6		
			i	08 03 10.4		
		Ud	iP	08 03 18.0		
		De	iP	08 03 40.1		
			ipP	08 03 48.0		
		Arctic Ocean.				
		h = 35 km (Ki,De).				
"	4	Um	i(P)	08 31 35.1		
		Okhotsk Sea.				
		Deep.				
"	4	Up	iP	09 16 13.8		
			ipP	09 16 22.5		
				micr	sec	
			Mx E	0.4	11	
			Mx N	0.4	11	
			Mx Z	0.9	16	
		Ki	iP	09 15 04.4	C	
			iS	09 19 13		
				micr	sec	
			P Z'	0.3	1.5	
			Mx E	0.4	11	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	4	(cont.)				
		Ki			micr	sec
			Mx	N	0.5	14
			Mx	Z	0.4	10
		Sk	iP		09 15 42.3	
			ipP		09 15 49.3	
		Um	iP		09 15 40.8	
			i		09 15 45.7	
			i		09 15 54.3	
		Ud	iP		09 16 16.6	
			ipP		09 16 24.3	
		De	iP		09 16 47.4	
			ipP		09 16 55.0	
		Arctic Ocean.				
		h = 35 km (Up,Sk,Ud,De).				
		M = 4.5 (Up,Ki).				
"	4	Up	iSgl		12 08 24.1	
		Ki	eSgl		12 10 46	
		Sk	iSgl		12 10 16.6	
		Um	iSgl		12 08 57.3	
		De	eSgl		12 09 52	
		Esthonia, 59.5°N, 25.3°E.				
		Origin time = 12 06 21.				
		Explosion.				
"	4	Up	iP		14 20 27.6	
		Ki	iP		14 20 15.0	
		Sk	iP		14 20 41.4	
		Um	iP		14 20 16.7	
		Tibet (h = N).				
"	4	De	i(Sgl)		14 24 35.1	
			i(Rg)		14 24 43.5	
"	4	Up	iP		15 11 21.4	
		Turkey (h = 25 km).				
"	4	Up	iP		15 25 39.9	
		Ki	iP		15 25 06.7	
		Sk	eP		15 25 40	
		Um	iP		15 25 20.8	
		De	eP		15 26 02	
		Ryukyu Islands (h = 130 km).				
"	4	Um	i(P)		18 45 25.6	
"	4	Up	i(P)		20 17 04.3	
"	4	Up	iP1		20 59 28.1	
			iP2		20 59 29.3	
		Sk	iP2		20 59 44.8	
		Um	iP1		20 59 17.1	
			iP2		20 59 18.6	
		De	i(P2)		20 59 46.6	
		Tibet (h = N).				
		Double P, about 1.4 sec apart.				

1971 June	4	Up	i(P)		21 28 57.9	
"	4	Up	iP		23 33 50.7	
			iPcP		23 34 15.6	
		Ki	iP		23 32 57.7	
					micr	sec
			Mx	N	0.4	19
			Mx	Z	0.5	16
		Um	iP		23 33 24.1	
		De	iP		23 34 12.9	
		Aleutian Islands (h = N).				
"	5	Up	iP		01 49 45.2	
			ipP		01 49 56.8	
					micr	sec
			P	Z'	0.1	1.0
			pP	Z'	0.1	1.0
			Mx	E	0.6	22
			Mx	N	0.9	21
			Mx	Z	0.5	16
		Ki	iP		01 49 48.1	
			ipP		01 49 58.8	
					micr	sec
			P	Z'	0.1	1.0
			pP	Z'	0.2	1.0
			Mx	E	1.0	18
			Mx	N	0.7	18
			Mx	Z	1.1	18
		Sk	iP		01 50 02.9	
			ipP		01 50 13.8	
		Um	iP		01 49 43.2	
			ipP		01 49 54.3	
			iS		01 59 09	
		De	iP		01 49 54.9	
			ipP		01 50 06.5	
		Nicobar Islands.				
		h = 40 km (Up,Ki,Sk,Um,De).				
		m = 5.9, M = 5.2 (Up,Ki).				
"	5	Um	iP		02 20 29.6	
"	5	Up	iP		04 00 32.9	
		Ki	iP		04 00 33.9	
		Um	iP		04 00 30.2	
"	5	Up	iP		07 21 29.0	
		Greece.				
"	5	Up	iP		08 41 26.9	
		Sk	eP		08 41 45	
		Um	iP		08 41 18.1	
"	5	Ki	iP		09 07 20.4	
"	5	Up	iP		09 34 03.9	
					micr	sec
			P	Z'	0.1	1.4

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June 5 (cont.)

				micr	sec
Up					
	Mx		E	1.1	22
	Mx		N	1.0	22
	Mx		Z	1.4	20
Ki	iP			09 33 47.6	
	i			09 34 30.6	
				micr	sec
	P		Z'	0.1	1.5
	Mx		E	1.6	23
	Mx		N	0.9	21
	Mx		Z	2.4	21
Sk	eP			09 34 09	
Um	iP			09 33 53.0	
	iSKS			09 44 20	
De	eP			09 34 17	

Mindanao (h = 70 km).
m = 5.9, M = 5.5 (Up,Ki).

" 5

				micr	sec
Up	Mx			10 58	
				micr	sec
	Mx		E	0.8	17
	Mx		N	0.9	20
	Mx		Z	1.1	16
Ki	Mx			10 58	
				micr	sec
	Mx		E	0.4	11
	Mx		N	0.5	14
	Mx		Z	0.6	13

China (h = N).
M = 5.1 (Up,Ki).

" 5

				micr	sec
Up	iP			14 33 30.7 C	
	ipP			14 33 39.9	
				micr	sec
	P		Z'	0.1	1.2
	pP		Z'	0.1	1.0
	Mx		E	0.9	18
	Mx		N	0.9	21
	Mx		Z	1.8	19
Ki	iP			14 33 27.5	
	ipP			14 33 35.6	
				micr	sec
	pP		Z'	0.1	1.2
	Mx		E	1.3	18
	Mx		N	0.7	18
	Mx		Z	1.7	18
Sk	iP			14 33 14.9	
	ipP			14 33 24.4	
Um	iP			14 33 31.5	
	ipP			14 33 38.5	
	iSKS			14 43 55	
De	iP			14 33 25.8	
	ipP			14 33 33.8	

Costa Rica.
(cont.)

1971 June 5 (cont.)
h = 30 km (Up,Ki,Sk,Um,De).
m = 5.9, M = 5.3 (Up,Ki).

" 5

Up	eP		20 00 42
	i		20 00 44.0
Sk	eP		20 01 22
Um	eP		20 01 23
De	eP		20 00 14

Greece (h = 45 km).

" 5

Up	ePKP		21 07 27
Ki	iPKP		21 07 16.8
Um	ePKP		21 07 14
	i		21 07 18.2
De	iPKP		21 07 22.1

Macquarie Islands.

" 6

Up	iP		01 42 37.0
Ki	iP		01 41 59.2
Sk	iP		01 42 33.3
Um	iP		01 42 15.2
De	iP		01 42 59.9

Sea of Japan (h = 450 km).

" 6

Up	iP		02 23 20.7
Um	iP		02 23 16.5

Mexico (h = N).

" 6

				micr	sec
Up	iP			04 09 49.6 C	
	i			04 10 49.0	
	iPn			04 10 53.6	
				micr	sec
	P		Z'	0.1	0.5
Ki	iP			04 09 34.1 C	
				micr	sec
	P		Z'	0.3	0.5
Sk	iP			04 10 05.0 C	
Um	iP			04 09 34.5 C	
	iPn			04 10 16.6	
De	iP			04 10 12.7 C	
	iPn			04 11 29.6	

Kazakh SSR.
m = 6.2 (Up,Ki).
Underground explosion.

" 6

Up	iSgl		04 43 41.2
Ki	iPn		04 39 22.9
	iSn		04 40 20.7
	iS*		04 40 40.1
Sk	iSgl		04 43 14.2
Um	iSn		04 40 58.1
	iSgl		04 41 38.4

Northwest Russia,
68.1°N, 33.8°E.
Origin time = 04 38 06.
Explosion.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	6	Up	iP	09 12 20.1	C
		Ki	eP	09 12 53	
		Sk	eP	09 12 51	
		Um	iP	09 12 33.2	
"	6	Um	i(Sgl)	09 56 29.3	
			i	09 56 35.0	
"	6	Ki	e(P)	10 05 50	
			i	10 05 55.8	
"	6	Up	iP	10 44 19.4	
		Ki	iP	10 44 18.3	
		Sk	iP	10 44 38.7	
		Um	iP	10 44 13.8	
		De	iP	10 44 31.7	
		Nepal (h = 35 km).			
"	6	Sk	eP	10 50 34	
		Um	iP	10 50 45.5	
			i	10 50 51.0	
		Panama (h = 35 km).			
"	6	Ki	iPKP	15 52 23.0	
		South Sandwich Islands (h = N).			
"	6	Up	iP	16 59 37.2	
		Ki	eP	17 00 02	
		North Atlantic Ocean (h = N).			
"	6	Up	iP	18 31 48.9	
		Ki	iP	18 30 56.6	
		Sk	eP	18 31 23	
		De	iP	18 32 12.0	
		Aleutian Islands (h = 100 km).			
"	6	Ki	e(P)	22 57 05	
		Um	i(P)	22 57 18.5	
"	7	Up	ePKP	00 08 41	
			i	00 09 02.3	
		Ki	iPKP	00 08 54.3	
			ipPKP	00 09 25.4	
		Um	ePKP	00 08 46	
			ipPKP	00 09 17.6	
		South Sandwich Islands. h = 120 km (Ki,Um).			
"	7	Ki	ePKP	08 23 49	
		South Sandwich Islands (h = N).			
"	7	Up	iP	13 39 47.9	
		(cont.)			

1971 June	7	(cont.)			
		Ki	iP	13 40 56.7	
				micr	sec
			P Z'	0.1	1.0
		Sk	eP	13 40 25	
		De	iP	13 39 20.9	
		Crete (h = 35 km).			
"	7	Um	i(P)	13 41 00.5	
			i	13 41 09.5	
"	7	Up	iPKP	16 05 16.3	C
		Um	iPKP	16 05 14.1	
		Ud	iPKP	16 05 18.3	
			i	16 05 49.6	
		De	ePKP	16 05 32	
"	7	Ki	iP	16 12 10.9	
		Aleutian Islands (h = 50 km).			
"	7	Ki	i(P)	16 23 48.7	
		Sk	i(P)	16 23 56.6	
"	7	Up	i(P)	19 30 24.5	
		Ud	i(P)	19 29 16.0	
"	7	Sk	ePKP	21 49 35	
		Chile (h = 25 km).			
"	7	Up	iP	23 07 57.8	C
				micr	sec
			P Z'	0.1	1.2
		Ki	iP	23 07 10.1	
		Um	iP	23 07 32.7	
		Ud	iP	23 08 02.8	
		Kurile Islands (h = N).			
"	8	De	e(Sg2)	02 26 57	
		Germany (h = 30 km).			
"	8	Ki	ePgl	13 15 23	
			iSgl	13 16 04.8	
		Sk	iSgl	13 16 07.7	
		Um	iSgl	13 16 32.6	
		Nordland, Norway, 66.5°N, 13.8°E. Origin time = 13 14 33. Explosion.			
"	8	Up	iSgl	14 10 26.4	
		Ki	eSgl	14 12 59	
		Sk	eSgl	14 12 19	
		Um	iSgl	14 10 57.9	
		Ud	eSgl	14 11 33	
		De	eSgl	14 11 54	
		Esthonia, 59.4°N, 25.1°E. Origin time = 14 08 28. Explosion.			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	8	Ud	iP		14 36 32.4		
"	8	Up	iP		15 19 09.6		
"	8	Up	iP		15 33 40.4		
"	8	Up	iP		17 04 38.3		
			i		17 04 41.1		
			iPP		17 05 11.8		
			iS		17 08 52		
					micr	sec	
			PP	Z'	0.1	1.5	
		Ki	eP		17 05 43		
			i		17 05 45.6		
					micr	sec	
			Mx	E	0.7	7	
			Mx	N	0.5	15	
			Mx	Z	0.7	12	
		Um	iP		17 05 10.3		
		Ud	iP		17 04 47.4		
			i		17 04 51.1		
		De	iP		17 04 07.1		
			i		17 04 10.0		
		Turkey (h = 10 km).					
		Double P, about 3 sec apart;					
		alternatively, the second					
		phase is pP.					
"	8	Ud	iP		17 28 37.4		
		Turkey.					
"	8	Up	iP1		23 48 04.8		
			iP2		23 48 07.7		
			iS		23 52 16		
					micr	sec	
			P2	Z'	0.1	0.9	
			Mx	E	1.7	13	
			Mx	N	2.0	9	
			Mx	Z	3.0	9	
		Ki	iP1		23 49 10.3		
			iP2		23 49 12.8		
					micr	sec	
			P2	Z'	0.1	1.0	
			Mx	E	3.5	7	
			Mx	N	1.4	9	
			Mx	Z	1.4	11	
		Sk	eP1		23 48 48		
			iP2		23 48 51.7		
		Um	iP1		23 48 33.2		
			iP2		23 48 37.2		
			iPP		23 49 21.2		
			iS		23 53 09		
		Ud	iP1		23 48 14.5		
			iP2		23 48 18.2		
		De	eP1		23 47 44		
			iP2		23 47 50.2		
		(cont.)					

1971 June	8	(cont.)					
		Turkey (h = 30 km).					
		m = 5.5, M = 5.3 (Up,Ki).					
		Double P, about 4 sec					
		apart.					
"	9	Um	iP		01 38 49.5		
		Pamir.					
"	9	Um	eP		03 03 13		
		Ud	eP		03 02 51		
		Turkey (h = 10 km).					
"	9	Up	iP		07 59 37.3		
		Ki	eP		07 59 39		
		Um	iP		07 59 34.6		
		Ud	iP		07 59 48.4		
		De	iP		07 59 46.1		
		Nicobar Islands (h = N).					
"	9	Up			micr	sec	
			Mx	E	0.8	20	
			Mx	N	0.7	20	
			Mx	Z	1.4	20	
		Ki			micr	sec	
			Mx	E	0.9	17	
			Mx	N	0.7	18	
			Mx	Z	1.1	18	
		Ud	iPKP2		13 27 09.9		
		Easter Island region (h = N).					
		M = 5.8 (Up,Ki).					
"	9	Up	i(P)		15 23 37.3		
		Ud	i(P)		15 23 48.4		
"	9	Up	iP		21 20 15.3	C	
			i		21 20 34.4		
		Ki	iP		21 19 20.7		
					micr	sec	
			P	Z'	0.1	0.9	
		Sk	iP		21 19 49.4		
		Um	iP		21 19 48.8	C	
		Ud	iP		21 20 12.8	C	
		De	iP		21 20 36.2	C	
		Alaska (h = 55 km).					
"	9	Up	iP		22 19 37.3		
		Ki	iP		22 20 50.8		
		Um	eP		22 20 14		
		Ud	eP		22 19 33		
"	9	Ki	eP		23 18 07		
		Aleutian Islands (h = 35 km).					
"	10	Up	ePP		07 05 21		
			iSKS		07 11 42		
			iS		07 12 39		
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June 10 (cont.)

Up			micr	sec
	PP	Z'	0.1	1.2
	Mx	E	0.8	21
	Mx	N	1.0	22
	Mx	Z	1.1	21
Ki	eP		07 01 28	
			micr	sec
	Mx	E	0.7	17
	Mx	N	0.6	18
	Mx	Z	0.9	18
Sk	iP		07 01 05.3	
	i(pP)		07 01 27.5	
Um	ePP		07 05 34	
	iSKS		07 11 47	
	iS		07 12 49	
Ud	iP		07 01 07.8	
	i		07 01 41.5	

Peru (h = 100 km).
M = 5.4 (Up,Ki).

" 10

Ki	iPKP	08 16 35.6
Um	ePKP	08 16 42.
Ud	iPKP	08 16 46.0
De	iPKP	08 16 57.0

Tonga-Kermadec Islands (h = 420 km).

" 10

Up	iP		09 36 47.5	
	ipP		09 36 57.2	
	iPP		09 37 19.2	
			micr	sec
	P	Z'	0.1	1.3
	Mx	N	0.4	9
	Mx	Z	0.4	8
Ki	iP		09 38 02.5	
			micr	sec
	Mx	E	0.4	14
	Mx	N	0.4	13
	Mx	Z	0.5	13
Sk	iP		09 37 32.0	
	i		09 37 46.6	
Um	iP		09 37 19.5	
	ipP		09 37 30.6	
	iPP		09 38 02.4	
Ud	iP		09 37 00.7	
De	iP		09 36 27.3	
	ipP		09 36 34.7	

Turkey.
h = 40 km (Up,Um,De).
M = 4.4 (Up,Ki).

" 10

Up	iP	09 50 02.5 C
Ki	iP	09 50 09.8 C
Sk	iP	09 50 27.2

(cont.)

1971 June 10 (cont.)

Um	iP	09 50 00.2 C
Ud	iP	09 50 18.7 C
De	iP	09 50 15.7

Afghanistan-USSR (h = 380 km).

" 10

Sk	i(P)	10 29 27.9

" 10

Up	iP	10 32 20.3
Ki	eP	10 31 42
Sk	iP	10 32 18.4
Um	iP	10 31 55.3
	i	10 32 00.9
Ud	eP	10 32 27
	i	10 32 29.8

Japan (h = 30 km).

" 10

Up	iP	11 26 38.2
Ki	iP	11 26 09.7
Um	eP	11 26 21
Ud	iP	11 26 44.7
De	eP	11 26 55

Mariana Islands (h = 610 km).

" 10

Up	iP		17 39 32.7	
	i		17 39 49.7	
			micr	sec
	P	Z'	0.2	1.1
Ki	iP		17 38 39.6 C	
			micr	sec
	P	Z'	0.3	1.1
Sk	iP		17 39 09.7	
Um	iP		17 39 06.0 C	
Ud	iP		17 39 31.8 C	
De	iP		17 39 54.5 C	

Aleutian Islands (h = 40 km).
m = 6.4 (Up,Ki).

" 10

Up	iP	18 59 18.4
Ki	iP	18 59 14.9
Sk	iP	18 58 45.7
Um	iP	18 59 17.3
Ud	iP	18 58 59.5

North Atlantic Ocean (h = N).

" 10

Up	iP		19 07 52.8	
			micr	sec
	P	Z'	0.6	2.4
	Mx	E	0.8	16
	Mx	N	0.8	19
	Mx	Z	0.7	11
Ki	iP		19 07 49.8	
			micr	sec
	P	Z'	0.5	2.3
	Mx	E	1.0	15
	Mx	N	0.4	14
	Mx	Z	0.9	15

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	10	(cont.)					
		Sk	iP			19 07 20.3	
		Um	iP			19 07 54.1	
		Ud	iP			19 07 36.7	
		De	eP			19 07 47	
		North Atlantic Ocean (h = N).					
		m = 5.7, M = 4.5 (Up,Ki).					
"	10	Up	iP			19 37 27.7	
		Um	iP			19 37 10.9	
		Ud	iP			19 37 36.5	
		De	iP			19 37 50.2	
		China.					
"	10	Up	iP			20 10 29.2	D
			ipP			20 11 27.1	
			iPP			20 13 04.1	
			i			20 15 32.3	
			iS			20 19 08	
						micr	sec
			P	Z'		2.4	1.6
			Mx	E		0.5	10
			Mx	N		0.6	14
			Mx	Z		0.5	12
		Ki	iP			20 09 48.6	D
			ipP			20 10 45.2	
			iPP			20 12 04.9	
			iS			20 17 53	
						micr	sec
			P	Z'		3.5	1.7
			Mx	E		0.6	10
			Mx	N		0.9	10
			Mx	Z		1.2	17
		Sk	iP			20 10 23.0	D
			iPcP			20 10 49.4	
			ipP			20 11 19.4	
			iPP			20 12 47.1	
			i(ScP)			20 14 36.8	
		Um	iP			20 10 06.4	D
			iPcP			20 10 37.9	
			ipP			20 11 04.0	
			iPP			20 12 30.4	
			iS			20 18 25	
		Ud	iP			20 10 36.7	
			i			20 11 28.6	
			ipP			20 11 34.9	
			iPP			20 13 09.2	
		De	iP			20 10 52.9	D
			iPcP			20 11 09.6	
			i			20 11 40.3	
			ipP			20 11 50.5	
		Sea of Japan.					
		h = 230 km (Up,Ki,Sk,Um,Ud, De).					
		m = 6.8, M = 5.2 (Up,Ki).					
		M uncorrected for focal depth.					
1971 June	10	Up	iP			21 11 42.0	
		Um	iP			21 11 54.6	
"	10	Up	iP			21 37 50.3	
						micr	sec
			P	Z'		0.1	1.5
			Mx	E		0.8	21
			Mx	Z		1.1	21
		Ki	iP			21 37 46.8	
						micr	sec
			P	Z'		0.2	1.5
			Mx	E		0.7	15
			Mx	N		0.5	16
			Mx	Z		1.0	16
		Sk	iP			21 37 18.9	
		Um	iP			21 37 50.4	
		Ud	iP			21 37 29.2	
		De	iP			21 37 41.4	
		North Atlantic Ocean (h = N).					
		m = 5.3, M = 4.3 (Up,Ki).					
"	10	Up	eP			21 44 08	
		Sk	eP			21 44 46	
		Ud	iP			21 44 13.1	
		De	eP			21 43 42	
		Ionian Islands.					
"	10	Up	iX2			23 50 39.3	
			iX3			23 50 56.4	
						micr	sec
			X3	Z'		0.1	1.5
			Mx	E		0.9	19
			Mx	N		0.8	19
			Mx	Z		1.3	19
		Ki	eP			23 49 47	
			iX1			23 49 58.7	
			iX3			23 50 52.8	
						micr	sec
			X3	Z'		0.2	1.6
			Mx	E		0.7	17
			Mx	N		0.5	16
			Mx	Z		1.2	17
		Sk	iX1			23 49 31.3	
			iX2			23 50 08.5	
			iX3			23 50 25.8	
		Um	iX1			23 50 03.5	
			iX2			23 50 39.5	
			iX3			23 50 56.8	
		Ud	iP			23 49 34.1	
			iX1			23 49 48.1	
			iX2			23 50 21.6	
			iX3			23 50 36.2	
		De	iX3			23 50 50.7	
		North Atlantic Ocean (h = N). (cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June 10 (cont.)
m = 5.3, M = 4.4 (Up,Ki).
The phases X1, X2, X3 can be interpreted as P-phases of successive shocks in the same epicentral region, with respective origin times 23 44 51, 23 45 27 and 23 45 44.

" 11 Up i(P) 00 07 18.8

" 11 Ki eP 00 55 56
Sk iP 00 55 25.1
Um iP 00 55 57.0
Ud eP 00 55 41
North Atlantic Ocean.
Origin time = 00 50 45.

" 11 Ud iP 01 46 20.5
Peru-Ecuador (h = 45 km).

" 11 Up iP 04 34 40.1 C
ipP 04 34 49.6

		micr	sec
P	Z'	0.1	0.9
Mx	E	0.5	16
Mx	N	0.5	15
Mx	Z	0.9	17

Ki iP 04 33 47.7 C
ipP 04 33 58.7

		micr	sec
P	Z'	0.1	0.9
Mx	E	0.4	15
Mx	N	0.3	18
Mx	Z	0.6	15

Sk iP 04 34 23.8
Um iP 04 34 11.2 C
ipP 04 34 23.0
Ud iP 04 34 44.1
ipP 04 34 54.4
De iP 04 35 05.0 C
ipP 04 35 15.8
Kamchatka.
h = 40 km (Up,Ki,Um,Ud,De).
m = 5.9, M = 4.9 (Up,Ki).

" 11 Up iP 06 46 43.8
Ki iP 06 46 38.7
Sk iP 06 46 12.2
Ud eP 06 46 25
North Atlantic Ocean (h = N).

" 11 Ud iP 08 38 20.0
Greece.

1971 June 11 Ki iP 10 33 46.8
Sk iP 10 33 20.0
Um iP 10 33 51.2
Ud iP 10 33 29.5
North Atlantic Ocean (h = N).

" 11 Ki iPn 10 51 07.9
iSn 10 52 06.7
iS* 10 52 25.9
Sk iSgl 10 54 54.2
Um iSgl 10 53 25.0
Northwest Russia,
68.0°N, 34.0°E.
Origin time = 10 49 50.
Explosion.

" 11 Ki iP 10 58 34.1
Ud iP 10 59 31.1
Kurile Islands (h = 60 km).

" 11 Up iP 13 07 31.5
i 13 07 36.8
ipP 13 07 48.5
iS 13 16 56

		micr	sec
P	Z'	1.5	1.2
Mx	E	26	24
Mx	N	6.3	23
Mx	Z	47	24

Ki iP 13 07 33.2 D
i 13 07 38.5
iPcP 13 07 52.9
iPP 13 10 17.5
iS 13 17 02
iScS 13 17 34.8

		micr	sec
P	Z'	1.6	1.3
Mx	E	33	24
Mx	N	18	25
Mx	Z	46	24

Sk iP 13 07 15.1 D
i 13 07 20.4
ipP 13 07 29.3
iPcP 13 07 37.2
iP'P' 13 35 08.6
Um iP 13 07 35.9 D
i 13 07 40.4
iS 13 17 05
Ud iP 13 07 19.3
i 13 07 24.7
iPP 13 10 01.6
iP'P' 13 35 05.9
De iP 13 07 21.5
i 13 07 27.0
Dominican Republic.
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	11	(cont.) h = 60 km (Up,Sk). m = 6.9, M = 6.6 (Up,Ki). Double P-phases, in average 5.3 sec apart, are recorded at all stations.				
"	11	Up	iP		14 09 32.3	C
			iPP		14 12 08.2	
			iS		14 18 33	
					micr	sec
			P	Z'	0.5	0.9
			Mx	E	17	16
			Mx	N	23	23
			Mx	Z	35	23
		Ki	iP		14 08 39.1	C
			iS		14 16 52	
					micr	sec
			P	Z'	0.5	0.9
			Mx	E	34	19
			Mx	N	30	19
			Mx	Z	47	19
		Sk	iP		14 09 11.8	C
			iP'P'		14 38 16.8	
		Um	iP		14 09 04.6	C
			iP'P'		14 38 15.4	
		Ud	iP		14 09 33.4	C
			ipP		14 09 40.8	
			iP'P'		14 38 00.0	
		De	iP		14 09 55.2	
		Aleutian Islands. h = 30 km (Ud). m = 6.7, M = 6.6 (Up,Ki).				
"	11	Ki	iP		14 15 13.9	
"	11	Um	iP		14 28 25.6	
"	11	Up	iP		15 32 25.0	
					micr	sec
			P	Z'	0.2	1.0
		Ki	iP		15 31 32.5	
		Sk	eP		15 32 05	
		Um	iP		15 31 58.4	
		Ud	iP		15 32 26.0	
		De	iP		15 32 48.3	
		Aleutian Islands (h = 50 km).				
"	11	Up	iP		16 27 13.9	
		Um	iP		16 27 02.9	
		Ud	iP		16 27 15.6	
		De	iP		16 27 24.9	
"	11	Ki	iSgl		17 37 57.7	
		Sk	iSgl		17 38 02.3	
		Um	iSgl		17 38 24.2	
		(cont.)				

1971 June	11	(cont.) Nordland, Norway, 66.5°N, 14.0°E. Origin time = 17 36 28. Explosion.			
"	11	Ud	i(P)	21 15 43.6	
"	11	Up	i(P)	21 32 48.0	
"	11	Ud	iP	22 29 14.2	
"	11	Um	iP	22 54 02.0	
		Ud	iP	22 54 27.4	
		Formosa (h = 45 km).			
"	12	Ud	iP	01 31 36.7	
"	12	Ki	iP	03 04 42.8	
		Sk	eP	03 05 18	
		Um	iP	03 04 59.1	
		Ud	iP	03 05 28.0	
		Japan (h = 35 km).			
"	12	Um	iP	03 08 14.9	
		Japan (h = 25 km).			
"	12	Up	iP	07 35 56.4	
		Ki	eP	07 34 55	
		Um	iP	07 35 26.8	
		Ud	iP	07 35 58.5	
"	12	Ki	eP	07 50 28	
		Sk	eP	07 50 59	
		Um	iP	07 50 42.6	
			ipP	07 50 51.5	
		Japan. h = 35 km (Um).			
"	12	Ki	iP	11 42 39.1	
		Sk	iP	11 42 52.7	
		Ud	iP	11 42 49.1	
		Sumatra.			
"	12	Ki	iPn	12 56 27.5	
			iSn	12 57 15.9	
			iS*	12 57 29.5	
		Um	eSgl	12 59 03	
		Northwest Russia, 69.7°N, 30.8°E. Origin time = 12 55 24. Explosion.			
"	12	Ud	eP	13 09 38	
"	12	Um	iP	14 00 42.2	
		(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	12	(cont.)				
		Ud	eP	14 01 16		
		Japan (h = 35 km).				
"	12	Ud	iP	16 15 06.6		
		Turkey.				
"	12	Up	iP	19 29 55.7		
		Ki	iP	19 30 01.2		
		Sk	iP	19 29 40.5		
		Um	iP	19 30 02.3		
		Ud	iP	19 29 44.3		
		Virgin Islands (h = 45 km).				
"	12	Um	iP	22 00 27.5		
		Ud	iP	22 00 56.4		
"	12	Um	eP	22 36 19		
		Ud	iP	22 36 53.6		
		Kurile Islands (h = 120 km).				
"	12	Ki	ePKP	22 59 06		
			eSKP	23 02 01		
		Um	iSKP	23 02 14.5		
		Ud	iPKP	22 59 12.5		
		De	iPKP	22 59 22.8		
		Fiji Islands (h = 330 km).				
"	12	Up	iPKP	23 55 21.0		
		Ki	ePKP	23 55 13		
		Um	iPKP	23 55 15.4		
			i	23 55 20.7		
			iSKP	23 57 57.3		
		Ud	iPKP	23 55 22.5		
		De	iPKP	23 55 33.4		
		Fiji Islands (h = 610 km).				
"	13	Up	iP	04 17 19.0 C		
			iPcP	04 17 31.1		
				micr	sec	
			P	Z' 0.2	1.0	
		Ki	iP	04 16 40.8 C		
				micr	sec	
			P	Z' 0.1	1.0	
			Mx	E 0.6	17	
			Mx	N 0.3	16	
			Mx	Z 0.6	17	
		Sk	iP	04 17 13.2 C		
			iPcP	04 17 31.2		
		Um	iP	04 16 57.4 C		
			ipP	04 17 11.0		
			iPcP	04 17 15.1		
		Ud	iP	04 17 26.5 C		
			ipP	04 17 39.4		
		De	iP	04 17 41.3 C		
		Japan.				
		h = 50 km (Um,Ud).				
		m = 6.1 (Up,Ki).				
1971 June	13	Ud	iP	04 38 20.3		
"	13	Up	iP	06 12 53.8		
		Ud	iP	06 13 00.7		
		Ionian Islands.				
"	13	Up	iP	09 51 45.1		
		Ud	iP	09 51 40.5		
"	14	Ki	iPn	11 01 18.8		
			iSn	11 02 14.4		
			iSgl	11 02 34.4		
		Sk	eSgl	11 05 15		
		Um	iSgl	11 03 42.5		
		Northwest Russia,				
		68.5°N, 33.4°E.				
		Origin time = 11 00 05.				
		Explosion.				
"	14	Up	iP	11 36 40.6		
		Ki	iP	11 35 58.2		
		Sk	iP	11 36 33.2		
		Um	iP	11 36 17.2		
		Ud	iP	11 36 48.3		
		De	iP	11 37 04.7		
		Japan (h = 120 km).				
"	14	Up	iP1	13 57 50.0		
			iP2	13 57 53.2		
				micr	sec	
			P2	Z' 0.1	1.0	
			Mx	E 3.6	16	
			Mx	N 6.0	17	
			Mx	Z 4.9	20	
		Ki	iP1	13 57 01.2		
			iP2	13 57 04.8		
			iPP	13 58 43.3		
			iS	14 03 17.5		
				micr	sec	
			P2	Z' 0.3	1.1	
			Mx	E 5.6	15	
			Mx	N 6.0	15	
			Mx	Z 5.5	15	
		Sk	iP1	13 57 42.9		
			iP2	13 57 46.4		
		Um	iP1	13 57 22.1		
			iP2	13 57 25.1		
			iS	14 04 07		
		Ud	iP1	13 57 59.2		
			iP2	13 58 02.2		
		De	iP2	13 58 21.1		
		Eastern Siberia (h = N).				
		m = 5.9, M = 5.8 (Up,Ki).				
		Double P, in average 3.2 sec apart.				
"	14	Ki	iP	14 34 03.4		
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June 14 (cont.)

Sk	eP	14 34 43	
Eastern Siberia (h = N).			
" 14 Up	iSgl	16 17 33.7	
Sk	eSgl	16 19 17	
Um	iSgl	16 17 44.3	
Eastern Esthonia.			
Explosion.			
" 14 Ki	iPn	20 35 46.3	
	iP*	20 35 54.8	
	iSn	20 36 32.8	
	iS*	20 36 45.7	
Sk	iSgl	20 39 34.7	
Um	iSgl	20 38 16.1	
Northwest Russia-Norway border region,			
69.5°N, 30.4°E.			
Origin time = 20 34 45.			
Explosion.			
" 15 Um	iP	00 15 03.3	
" 15 Up	iP	00 52 35.7	
Ki	iP	00 52 09.9	
Um	iP	00 52 16.5	
Ud	iP	00 52 44.8	
Ryukyu Islands (h = 70 km).			
" 15 Up	iP	05 39 42.1	
Ki	iP	05 39 22.7	
		micr	sec
	Mx E	0.5	12
	Mx N	0.2	13
	Mx Z	0.5	12
Sk	eP	05 39 43	
Um	iP	05 39 28.9	
Ud	iP	05 39 51.4	
Luzon (h = 50 km).			
" 15 Um	iP	06 30 11.9	
" 15 Up	iP	07 47 22.1 C	
	i	07 47 27.1	
	iPP	07 48 58.5	
		micr	sec
	P Z'	0.4	0.9
	Mx E	1.7	7
	Mx N	5.3	15
	Mx Z	3.0	7
Ki	iP	07 47 16.5 C	
		micr	sec
	P Z'	0.3	0.9
	Mx E	4.7	12
	Mx N	5.4	14
	Mx Z	4.8	12

(cont.)

1971 June 15 (cont.)

Sk	iP	07 47 42.1 C	
	i	07 47 47.6	
	iPP	07 49 21.9	
Um	iP	07 47 13.0 C	
	i	07 47 17.9	
	iPP	07 48 43.4	
Ud	iP	07 47 39.0 C	
	i	07 47 43.5	
	iPP	07 49 20.7	
De	iP	07 47 41.1 C	
	i	07 47 45.7	
	iPP	07 49 21.0	
Kirghiz-Sinkiang (h = N).			
m = 6.0, M = 5.7 (Up,Ki).			
Double P-phases, in average 4.8 sec apart, are recorded at Up,Sk,Um,Ud,De.			
" 15 Up	iP	07 50 10.9	
		micr	sec
	P Z'	0.1	1.0
Ki	iP	07 50 04.1	
Sk	iP	07 50 25.6	
Ud	iP	07 50 23.8	
Kirghiz-Sinkiang.			
Origin time = 07 42 24.			
" 15 Ki	iP	11 22 59.3	
Um	iP	11 23 12.8 C	
Ud	iP	11 23 37.2	
Bonin Islands (h = 410 km).			
" 15 Ki	iSgl	11 38 47.8	
Sk	iSgl	11 38 52.2	
Um	iSgl	11 39 13.3	
Nordland, Norway,			
66.5°N, 14.1°E.			
Origin time = 11 37 18.			
Explosion.			
" 15 Up	iSgl	13 01 35.7	
Ki	eSgl	13 04 20	
Sk	iSgl	13 03 33.3	
Um	iSgl	13 02 25.7	
De	iSgl	13 03 03.3	
Esthonia, 59.3°N, 23.8°E.			
Origin time = 12 59 56.			
Explosion.			
" 15 Up	iP	14 14 36.8 C	
		micr	sec
	P Z'	0.1	1.0
	Mx N	0.4	14
	Mx Z	0.5	15
Ki	iP	14 13 43.4	
		micr	sec
	P Z'	0.1	1.0

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June 15 (cont.)

	Ki			micr	sec
		Mx	E	0.7	18
		Mx	N	0.4	16
		Mx	Z	0.6	17
	Sk	iP		14 14 19.7	
	Um	iP		14 14 09.0	
	Ud	iP		14 14 40.1	
	De	iP		14 15 01.5	

Kamchatka (h = 60 km).
m = 6.0, M = 5.0 (Up,Ki).

" 15	Up	iP		15 01 45.4	
	Ki	iP		15 01 30.5	
	Sk	iP		15 01 25.9	
	Ud	iP		15 01 34.5	
	De	iP		15 01 44.1	

Mexico (h = 110 km).

" 15	Ud	i(Sgl)		15 20 56.6	
	De	i(Sgl)		15 20 31.1	
		i(Rg)		15 20 40.7	

" 15	Up	iP		18 11 58.4	
				micr	sec
		P	Z'	0.1	1.0
	Ki	iP		18 11 05.3	
	Ud	iP		18 11 58.4	

Aleutian Islands (h = 45 km).

" 15	Ud	i(P)		19 48 04.9	

" 15	Up	iP1		22 11 57.9	C
		iP2		22 12 01.6	
		iP3		22 12 03.9	
		iPP		22 13 36.4	
				micr	sec
		P1	Z'	0.2	1.0
		P3	Z'	1.4	1.1
		Mx	E	8.1	8
		Mx	N	20	15
		Mx	Z	16	8
	Ki	iP1		22 11 50.4	
		iP2		22 11 54.4	
		iP3		22 11 57.4	
		iPP		22 13 34.2	
				micr	sec
		P2	Z'	0.2	0.5
		P3	Z'	1.1	1.2
		Mx	E	25	12
		Mx	N	29	14
		Mx	Z	25	11
	Sk	iP1		22 12 17.2	C
		iP2		22 12 20.9	
		iP3		22 12 23.4	

(cont.)

1971 June 15 (cont.)

Um	iP1		22 11 48.4	C
	iP3		22 11 54.5	
	i		22 13 13.2	
	iPP		22 13 23.9	
	iS		22 17 55	
Ud	iP1		22 12 14.3	C
	iP2		22 12 17.6	
	iP3		22 12 20.5	
	iPP		22 13 58.9	
De	iP1		22 12 16.6	C
	iP2		22 12 20.2	
	iP3		22 12 22.7	
	iPP		22 14 00.9	

Kirghiz-Sinkiang (h = N).
m = 6.5 (P3), M = 6.3 (Up,Ki).
Multiple P-phases, in average 3.7 and 6.3 sec delayed, respectively.

" 15	Up	iP2		22 13 56.7	
				micr	sec
		P2	Z'	1.0	1.3
	Ki	iP1		22 13 47.9	D
		iP2		22 13 51.5	
				micr	sec
		P1	Z'	0.1	0.5
		P2	Z'	0.4	1.2
	Sk	iP1		22 14 12.6	
		iP2		22 14 16.7	
	Um	iP1		22 13 44.8	
		iP2		22 13 47.9	
		iPP		22 15 16.3	
	Ud	iP1		22 14 10.1	
		iP2		22 14 13.7	
		iPP		22 15 53.6	
	De	iP2		22 14 16.1	
		iPP		22 15 56.6	

Kirghiz-Sinkiang.
Origin time = 22 06 10.
m = 6.2 (P2) (Up,Ki).
Double P-phases, in average 3.6 sec apart.

" 15	Up	iP		22 22 17.0
		i		22 22 22.1
	Ki	iP		22 22 10.6
	Sk	iP		22 22 36.4
		i		22 22 41.8
	Um	iP		22 22 07.3
		i		22 22 12.4
	Ud	iP		22 22 33.3
		i		22 22 37.4
	De	iP		22 22 35.7

Kirghiz-Sinkiang.
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	15	(cont.)				
		Origin time = 22 14 32.				
		Double P-phases, in average 5.0 sec apart, are recorded at Up,Sk,Um,Ud.				
"	15	Up	iP1		22 23 35.3	C
			iP2		22 23 39.2	
			iP3		22 23 41.9	
					micr	sec
			P1	Z'	0.1	1.0
			P2	Z'	0.3	1.4
			P3	Z'	0.1	0.9
		Ki	iP1		22 23 29.5	
			iP3		22 23 36.0	
					micr	sec
			P3	Z'	0.1	0.7
		Sk	iP1		22 23 54.6	
			iP3		22 24 01.5	
		Um	iP1		22 23 25.8	
			iP2		22 23 29.4	
			iP3		22 23 32.2	
		Ud	iP1		22 23 51.5	C
			iP2		22 23 55.4	
			iP3		22 23 58.0	
		De	iP1		22 23 54.0	C
			iP3		22 24 00.4	
		Kirghiz-Sinkiang (h = N).				
		m = 5.6 (P3) (Up,Ki).				
		Multiple P-phases, 3.8 and 6.6 sec delayed, respectively.				
"	15	Up	eP		22 36 27	
		Ki	iP		22 36 20.6	
			i		22 36 25.5	
		Sk	eP		22 36 46	
		Um	eP		22 36 18	
		Ud	iP		22 36 43.1	
			i		22 36 48.6	
		Kirghiz-Sinkiang.				
		Origin time = 22 28 43.				
		Double P-phases, in average 5.2 sec apart, are recorded at Ki, Ud.				
"	15	Up	iP		23 00 57.8	
					micr	sec
			P	Z'	0.1	1.4
		Ki	iP		23 02 03.3	
					micr	sec
			P	Z'	0.1	1.0
		Sk	eP		23 01 38	
		Ud	iP		23 01 08.2	C
		De	iP		23 00 38.7	
		Turkey (h = N).				
		m = 5.5 (Up,Ki).				

1971 June	15	Up	iP		23 14 52.6	
		Ki	iP		23 14 46.6	
		Sk	eP		23 15 12	
		Um	iP		23 14 43.2	
		Ud	iP		23 15 08.1	
			i		23 15 11.2	
		De	eP		23 15 10	
		Kirghiz-Sinkiang.				
		Origin time = 23 07 08.				
"	15	Up	iP1		23 25 17.8	C
			iP2		23 25 23.2	
					micr	sec
			P2	Z'	0.1	1.0
		Ki	iP1		23 25 11.7	C
			iP2		23 25 16.6	
					micr	sec
			P2	Z'	0.1	0.7
		Sk	iP1		23 25 37.4	
			iP2		23 25 42.5	
		Um	iP1		23 25 08.3	
			iP2		23 25 13.7	
		Ud	iP1		23 25 34.3	C
			iP2		23 25 39.8	
		De	iP1		23 25 36.4	C
			iP2		23 25 40.9	
		Kirghiz-Sinkiang (h = N).				
		m = 5.6 (Up,Ki).				
		Double P-phases, in average 5.2 sec apart, are recorded at all stations.				
"	15	Up	iP1		23 38 59.4	
			iP2		23 39 05.5	
		Ki	iP1		23 38 54.0	
		Sk	iP2		23 39 25.0	
		Ud	iP1		23 39 16.6	
			iP2		23 39 22.1	
		De	iP1		23 39 18.8	
		Kirghiz-Sinkiang.				
		Origin time = 23 31 16.				
		Double P-phases, in average 5.8 sec apart.				
"	16	Up	iP1		01 06 21.3	C
			iP2		01 06 28.8	
			iPP		01 07 59.6	
					micr	sec
			P1	Z'	0.3	1.0
			P2	Z'	0.5	1.0
			Mx	E	3.0	9
			Mx	N	9.2	15
			Mx	Z	5.5	8
		Ki	iP1		01 06 15.4	
			iP2		01 06 22.8	
		(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	16	(cont.)				
		Ki			micr	sec
			Pl	Z'	0.3	1.0
			P2	Z'	0.4	0.9
			Mx	E	10	12
			Mx	N	12	14
			Mx	Z	9.8	11
		Sk	iPl		01 06 41.1	
			iP2		01 06 48.6	
		Um	ePl		01 06 12	
			iP2		01 06 19.2	
			iPP		01 07 43.5	
			iS		01 12 19	
		Ud	iPl		01 06 38.8	C
			iP2		01 06 45.3	
			iPP		01 08 21.9	
		De	iPl		01 06 39.9	
			iP2		01 06 47.2	
			iPP		01 08 25.6	
		Kirghiz-Sinkiang (h = N).				
		m = 6.0 (Pl), 6.1 (P2),				
		M = 6.0 (Up,Ki).				
		Double P-phases, in average				
		7.4 sec apart, are recorded				
		at all stations.				
		P2 interpreted as pP would				
		give a focal depth of 30 km.				
"	16	Up	iP2		01 27 16.0	
		Ki	ePl		01 27 07	
			iP2		01 27 10.7	
		Sk	iP2		01 27 35.1	
		Um	ePl		01 27 01	
		Ud	iPl		01 27 29.0	
			iP2		01 27 31.9	
		Kirghiz-Sinkiang.				
		Origin time = 01 19 28.				
"	16	Up	iP		01 47 51.0	
		Ki	iP		01 47 42.6	
		Ud	iP		01 48 04.8	
		De	iP		01 48 07.2	
		Kirghiz-Sinkiang.				
		Origin time = 01 40 05.				
"	16	Up	eP		02 14 32	
		Ud	iP		02 14 49.2	
		Hindu Kush.				
"	16	Ki	eP		03 20 40	
		Sk	iP		03 21 03.7	
		Ud	iP		03 21 01.1	
		De	iP		03 21 04.7	
		Kirghiz-Sinkiang.				
		Origin time = 03 13 01.				

1971 June	16	Ki	iSgl		04 43 43.5	
		Sk	eSgl		04 44 13	
		Um	iSgl		04 42 22.1	
		Lake Ladoga.				
		Explosion.				
"	16	Up	iP		05 49 47.1	
		Ki	iP		05 49 40.8	
			i		05 49 45.5	
		Sk	iP		05 50 06.9	
			i		05 50 11.0	
		Um	iP		05 49 37.9	
		Ud	iP		05 50 03.4	
			i		05 50 06.0	
		Kirghiz-Sinkiang.				
		Origin time = 05 42 03.				
"	16	Up	i(pP)		06 17 09.3	
		Ki	iP		06 18 18.7	
		Sk	iP		06 17 31.2	
		Um	iP		06 17 40.0	
		Ud	iP		06 16 54.3	
			ipP		06 17 03.3	
		Italy.				
		h = 40 km (Ud).				
"	16	Ud	iPKP		06 53 27.8	
		De	iPKP		06 53 37.4	
"	16	Up	iPKP		06 54 03.4	
		Ud	iPKP		06 54 05.0	
		De	iPKP		06 54 15.7	
		Alternatively, this may belong				
		to the preceding event,				
		possibly as pPKP.				
"	16	Up	iP		08 15 40.4	
			i(pP)		08 15 51.8	
		Um	iP		08 14 58.1	
			i(pP)		08 15 09.5	
"	16	Up	iP		11 04 24.1	
					micr	sec
			Mx	Z	0.3	7
		Ki	iP		11 04 18.0	C
			i		11 04 23.3	
					micr	sec
			Mx	E	0.5	12
			Mx	N	0.3	12
			Mx	Z	0.4	10
		Sk	iP		11 04 43.6	
		Um	iP		11 04 14.8	
		Ud	iP		11 04 40.4	C
			i		11 04 45.6	
		De	iP		11 04 42.7	
		Kirghiz-Sinkiang (h = N).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
June 16 Um iSg1 11 23 50.6
Ud i(Sg2) 11 24 33.7
Esthonia.
Explosion.

" 16 Ki iP 11 51 56.3
Ud iP 11 52 18.1
Probably Kirghiz-Sinkiang.
Origin time = 11 44 18.

" 16 Ki iP 13 15 05.9
i 13 15 10.9
Ud iP 13 15 28.1
i 13 15 33.5
Probably Kirghiz-Sinkiang.
Origin time = 13 07 28.

" 16 Up iP 13 54 36.4

			micr	sec
	P	Z'	0.1	1.0
	Mx	E	0.3	8
	Mx	N	0.3	8
	Mx	Z	0.4	7

Ki iP 13 54 30.0 C
i 13 54 35.1

			micr	sec
	P	Z'	0.1	0.8
	Mx	E	0.9	11
	Mx	N	0.7	13
	Mx	Z	0.8	11

Sk iP 13 54 55.9
Um iP 13 54 26.5
Ud iP 13 54 52.7 C
De iP 13 54 54.9
Kirghiz-Sinkiang (h = N).
m = 5.5, M = 4.9 (Up,Ki).

" 16 Ud i(P) 14 56 30.4

" 16 De i(P) 16 22 06.1

" 16 Up i(P) 19 11 41.1

" 16 Ki iP 20 16 53.5
Sk iP 20 17 15.5
Um iP 20 16 52.4
Ud iP 20 17 12.4
Burma-India (h = 20 km).

" 16 Um iP 20 35 16.3
Ud iP 20 35 35.7 D
Pamir.

" 17 Ki iP 11 36 47.0
Sk eP 11 37 24
Ud iP 11 37 33.2

1971
June 17 Ud i(Pn) 12 15 27.3
De e(Pn) 12 15 46

" 17 Um i(P) 13 42 01.1

" 17 Up iP1 15 27 57.9
Ki iP1 15 27 52.0
iP2 15 27 57.3
Sk iP1 15 28 17.3
iP2 15 28 22.4
Um iP2 15 27 52.9
Ud iP1 15 28 14.5
iP2 15 28 19.7
De iP1 15 28 16.3
Kirghiz-Sinkiang (h = N).
Double P-phases, in average 5.3 sec apart, are recorded at Ki,Sk,Ud.

" 17 Ki iSg1 16 18 34.0
Sk iSg1 16 18 38.5
Um iSg1 16 19 01.3
Nordland, Norway,
66.5°N, 14.0°E.
Origin time = 16 17 05.
Explosion.

" 17 Ki iP 17 38 44.9
Ud iP 17 39 07.1
i 17 39 11.5
Kirghiz-Sinkiang.
Origin time = 17 31 07.

" 17 Up iP 18 35 54.7
i 18 36 17.5

			micr	sec
	P	Z'	0.1	1.3

Ki iP 18 35 36.3 C

			micr	sec
	P	Z'	0.2	1.3

Sk iP 18 35 51.3
i 18 36 02.7
Um iP 18 35 46.5
Ud iP 18 35 57.5 C
De i(P) 18 36 13.6

" 17 Ki iPn 19 30 44.9
iP* 19 30 53.3
iSn 19 31 31.3
iS* 19 31 44.0
Um eSg1 19 33 17
Northwest Russia-Norway border region.
Origin time = 19 29 44.
Explosion.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	17	Up	eP		21 15 03		
			i(PP)		21 18 32.4		
			iPP		21 19 33.1		
			iSKS		21 25 31		
			iPKKP		21 30 18.0		
					micr	sec	
			(PP)	Z'	0.1	0.9	
			PP	Z'	0.2	1.0	
			Mx	E	91	36	
			Mx	N	150	37	
			Mx	Z	170	36	
		Ki	eP		21 15 25		
			iPKP		21 19 06.8		
			iPP		21 20 02.4		
			iSKS		21 25 50		
			iPKKP		21 30 03.8		
					micr	sec	
			PKP	Z'	0.1	1.3	
			PP	Z'	0.5	1.5	
			Mx	E	52	23	
			Mx	N	16	21	
			Mx	Z	75	23	
		Sk	eP		21 15 02		
			iPKP		21 18 49.5		
			iPP		21 19 30.5		
			iPKKP		21 30 12.7		
		Um	i		21 15 58.2		
			iPKP		21 19 08.2		
			iPP		21 19 59.2		
			iSKS		21 25 41		
			iPKKP		21 30 00.2		
		Ud	eP		21 14 56		
			i(PP)		21 18 21.3		
			iPKP		21 18 59.2		
			iPKKP		21 30 25.3		
		De	iPKP		21 18 54.4		
			iPKKP		21 30 32.0		
		Chile (h = 90 km).					
		m = 6.7, M = 7.3 (Up,Ki).					
		The phase denoted (PP) at					
		Up,Ud is probably an early					
		arrival of PP.					
"	17	Up	iPKP		22 42 58.5		
			i		22 43 03.6		
					micr	sec	
			PKP	Z'	0.1	0.8	
		Sk	iPKP		22 42 52.6		
		Um	iPKP		22 42 47.0		
		Ud	iPKP		22 43 00.0		
			i		22 43 07.2		
		De	iPKP		22 43 08.9		
		Kermadec Islands (h = 320 km).					
"	18	Up	eP		01 13 14		
		Um	iP		01 12 52.2		
1971 June	18	Ud	iP		12 22 35.1		
		Greece.					
"	18	Ki	eP		13 48 28		
		Um	iP		13 48 37.3		
		Honduras (h = 5 km).					
"	18	Ki	ePKP		15 28 09		
		Um	iPKP		15 28 16.5		
		De	ePKP		15 28 29		
		Loyalty Islands (h = 30 km).					
"	18	Up	i(P)		15 35 09.7	C	
"	19	Ki	iP		00 33 33.5		
		Um	iP		00 33 01.7		
		Ud	iP		00 32 39.1	C	
		Turkey (h = N).					
"	19	Up	iP		04 10 50.4	C	
			iPn		04 11 50.3		
					micr	sec	
			P	Z'	0.1	0.5	
		Ki	iP		04 10 34.9	C	
			iPn		04 11 30.5		
			iPP		04 11 48.4		
					micr	sec	
			P	Z'	0.3	0.6	
		Sk	iP		04 11 05.5	C	
		Um	iP		04 10 35.0	C	
		Ud	iP		04 11 06.3	C	
			iPn		04 12 16.4		
		De	iP		04 11 13.5	C	
		Kazakh SSR.					
		m = 6.2 (Up,Ki).					
		Underground explosion.					
"	19	Ud	iP		08 18 14.5		
		Tadzhik SSR.					
"	19	Um	iPKP		11 14 42.4		
			i		11 14 54.7		
		De	ePKP		11 15 01		
			i		11 15 11.2		
		Loyalty Islands (h = 25 km).					
"	19	Ki	iP		16 23 21.4		
		Kirghiz-Sinkiang.					
"	19	Up	iP		17 30 47.2	C	
			i		17 30 52.7		
			iPP		17 32 30.6		
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	E	3.1	7	
			Mx	N	3.2	8	
			Mx	Z	5.9	8	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	19	(cont.)				
		Ki	iP		17 30 41.6	C
			i		17 30 48.0	
					micr	sec
			P	Z'	0.1	0.6
			Mx	E	15	12
			Mx	N	7.2	14
			Mx	Z	14	12
		Sk	iP		17 31 07.1	C
		Um	iP		17 30 37.9	C
		Ud	iP		17 31 03.8	C
			i		17 31 09.2	
		De	iP		17 31 06.0	C
			i		17 31 11.4	
			iPP		17 32 52.4	
		Kirghiz-Sinkiang (h = N).				
		m = 5.6, M = 5.9 (Up,Ki).				
		Double P-phases, in average				
		5.6 sec apart, are recorded				
		at Up,Ki,Ud,De.				
"	19	Um	e(P)		21 02 04	
		Ud	e(P)		21 00 51	
		De	e(P)		20 59 41	
"	19	Up	iP		21 16 31.2	
		Ki	iP		21 16 25.3	
		Sk	iP		21 16 50.1	
		Um	iP		21 16 22.3	
		Ud	iP		21 16 47.7	
		De	iP		21 16 49.9	
		Kirghiz-Sinkiang (h = N).				
"	19	Ki	eP		23 31 52	
		Revilla Gigedo Islands				
		(h = N).				
"	20	Up	eP		02 08 46	
		Sk	eP		02 09 29	
		Um	iP		02 09 34.2	
		Ud	iP		02 08 52.7	
		De	iP		02 08 16.9	
		Greece.				
"	20	Ki	ePKP		03 10 24	
		Um	iPKP		03 10 35.4	
		New Hebrides Islands				
		(h = 20 km).				
"	20	Up	iP		06 02 00.8	
		Sk	iP		06 02 45.1	
		Um	iP		06 02 43.1	
		Ud	iP		06 02 06.7	
		De	iP		06 01 28.7	
		Albania.				
1971 June	20	Up	iSgl		07 28 59.2	
		Ki	eSn		07 25 40	
		Sk	iSgl		07 28 35.1	
		Um	iSgl		07 26 57.3	
		Ud	iSgl		07 29 30.3	
		Northwest Russia.				
		Explosion.				
"	20	Up	iP		17 27 50.4	
		Turkey.				
"	20	Up	eP		19 02 21	
			i		19 02 25.7	
		Ki	eP		19 02 45	
			i		19 02 50.4	
					micr	sec
			P	Z'	0.1	1.2
		Sk	eP		19 02 44	
			i		19 02 51.8	
		Um	iP		19 02 35.5	
			i		19 04 56.9	
		Ud	eP		19 02 32	
			i		19 02 35.6	
		De	eP		19 02 24	
		Indian Ocean (h = N).				
"	20	Up	iP		23 08 34.3	C
		Ki	iP		23 07 55.4	
		Sk	iP		23 08 29.2	
		Um	iP		23 08 12.9	C
		Ud	iP		23 08 42.2	C
		De	iP		23 08 56.5	
		Japan (h = 70 km).				
"	21	Up	iP		07 29 11.0	
		Ki	iP		07 30 36.1	
		Sk	iP		07 29 38.0	
		Um	iP		07 29 56.0	
		Ud	iP		07 29 03.4	
		De	eP		07 28 17	
		France (h = 5 km).				
"	21	Ud	iP		11 16 02.6	
"	21	Um	i(P)		11 17 05.5	
"	21	Up	eSgl		13 56 11	
		Ud	iSgl		13 55 11.3	
		De	eSgl		13 56 03	
		Probably south Norway.				
"	21	Um	iP		21 09 35.6	
"	22	Ud	i(P)		02 10 28.4	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	22	Up	iP	06 37 25.3	
		Ki	iP	06 37 36.1	C
		Sk	iP	06 37 51.9	
		Um	iP	06 37 24.7	C
		De	iP	06 37 38.7	
		Hindu Kush (h = 170 km).			
"	22	Up	iPKP	07 08 24.4	
		Ud	iPKP	07 08 24.5	
		De	iPKP	07 08 36.2	
		Fiji Islands (h = 580 km).			
"	22	Up	iP1	10 33 16.9	
			iP2	10 33 22.3	
		Ki	iP1	10 33 11.0	
			iP2	10 33 17.1	
		Sk	iP1	10 33 36.7	
			iP2	10 33 42.1	
		Um	iP2	10 33 12.7	
		Ud	iP1	10 33 33.1	C
			iP2	10 33 39.2	
		De	iP1	10 33 35.5	
		Kirghiz-Sinkiang (h = 45 km).			
		Double P-phases, in average 5.8 sec apart.			
"	22	Up	iSgl	11 54 40.0	
		Sk	eSgl	11 56 32	
		Um	iSgl	11 55 17.5	
		Ud	iSgl	11 55 45.9	
		De	iSgl	11 56 09.2	
		Esthonia, 59.5°N, 25.5°E.			
		Origin time = 11 52 43.			
		Explosion.			
"	22	Um	iP	13 02 13.9	
		Ud	iP	13 02 29.1	
		De	iP	13 02 52.6	
"	22	Up	eSgl	14 07 12	
		Ud	iSgl	14 07 25.5	
		De	iPgl	14 05 14.8	
			eSgl	14 05 52	
		Baltic Sea, off coast of Poland.			
		Explosion?			
"	23	Up	i(P)	12 34 25.8	
		Ud	iP	12 34 38.1	
"	23	Up	iSgl	12 46 24.2	
		Sk	eSgl	12 46 21	
		Ud	iSgl	12 45 20.2	
		De	eSgl	12 45 23	
		Off coast of south Norway.			

1971 June	23	Up	iP	13 29 17.2	
		Ki	eP	13 29 20	
		Sk	eP	13 29 37	
		Ud	iP	13 29 31.4	
		De	eP	13 29 32	
"	23	Um	i(P)	13 55 06.5	
"	23	De	i(P)	15 39 22.9	
"	23	Um	iP	15 41 34.7	
		Ud	iP	15 41 41.3	
		Nevada.			
		Underground explosion.			
"	23	Ud	i(P)	15 46 58.7	
"	23	Up	i(Sgl)	16 38 18.7	
		Sk	eSgl	16 40 31	
		Ud	i(Sgl)	16 38 41.1	
		De	i(Pgl)	16 36 27.0	
"	23	Up	iP	18 07 38.4	
		Ki	iP	18 07 39.2	
		Sk	iP	18 07 56.7	
		Um	iP	18 07 35.2	
		Ud	iP	18 07 49.5	
		De	iP	18 07 48.9	
		Andaman Islands (h = 90 km).			
"	23	Ud	iP	21 18 50.3	
"	24	Up	iPKP	00 11 51.5	C
				micr	sec
			PKP Z'	0.2	1.5
		Ki	iPKP	00 11 50.3	C
				micr	sec
			PKP Z'	0.2	1.0
		Sk	iPKP	00 11 58.3	C
		Um	iPKP	00 11 50.1	C
		Ud	iPKP2	00 12 11.3	
		De	iPKP	00 11 54.8	C
		Macquarie Islands (h = N).			
"	24	Ud	iP	05 32 24.9	
"	24	Ud	iP	06 04 07.6	
		De	iP	06 03 37.3	
		Dodecanese Islands (h = 50 km)			
"	24	Up	iP	14 04 12.6	C
			iPcP	14 04 22.7	
			iS	14 13 56	
				micr	sec
			P Z'	0.1	0.9

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June 24 (cont.)

Up			micr	sec
	Mx	E	2.7	18
	Mx	N	3.5	18
	Mx	Z	12	18
Ki	iP		14 03 48.5 C	
			micr	sec
	P	Z'	0.1	0.6
	Mx	E	3.6	19
	Mx	N	2.3	18
	Mx	Z	3.9	19
Sk	iP		14 04 15.4	
Um	iP		14 03 56.8 C	
	iPcP		14 04 15.1	
	iS		14 13 29	
Ud	iP		14 04 21.7 C	
	iPcP		14 04 32.2	
De	iP		14 04 30.9	

Ryukyu Islands (h = 10 km).
m = 6.0, M = 5.8 (Up,Ki).

" 24

Up	iP	14 11 48.4
Ki	eP	14 11 15
Um	iP	14 11 34.0
Ud	iP	14 11 40.7

Nevada.
Underground explosion.

" 24 Ud i(Sgl) 15 27 59.5

" 24

Up	iP		18 04 46.1
	i		18 04 50.5
		micr	sec
	P	Z' 0.1	1.0
Ki	iP		18 04 39.3
Sk	iP		18 05 04.9
	i		18 05 09.0
Um	eP		18 04 38
Ud	iP		18 05 01.7
	i		18 05 06.2

Kirghiz-Sinkiang.
Origin time = 17 57 02.

" 24 De i(Sgl) 19 15 58.2

" 24

Um	eP	23 33 23
Ud	iP	23 33 49.1

Banda Sea (h = N).

" 24

Up	i(P)	23 54 05.4
Ud	i(P)	23 54 58.0

" 25

Up	iP	01 19 32.4
Ki	eP	01 19 28
Sk	eP	01 19 53

(cont.)

1971 June 25 (cont.)

Um	iP	01 19 27.1 C
Ud	iP	01 19 47.0 C
De	eP	01 19 46

Nepal.

" 25 Ud iP 06 43 35.3

" 25

Up	iP	08 11 41.3
Ud	eP	08 11 44
De	iP	08 12 03.4

" 25

Up	eP	08 25 02
Ud	iP	08 25 02.2
De	iP	08 24 50.2

" 25

Up	iSgl	10 56 42.9
Ki	iPn	10 52 30.6
	eSn	10 53 29
	iS*	10 53 48.6
Sk	eSgl	10 56 18
Um	iSgl	10 54 43.5
Ud	eSgl	10 57 18

Northwest Russia,
67.8°N, 33.9°E.
Origin time = 10 51 13.
Explosion.

" 25

Up	iP	11 09 53.4
Sk	iP	11 10 17.9
Um	iP	11 09 50.1
Ud	iP	11 10 10.1
De	iP	11 10 07.7

Tadzhik SSR (h = 140 km).

" 26

Up	iP		02 26 54.8 C
	ipP		02 27 14.3
		micr	sec
	pP	Z' 0.1	0.6
Ki	iP		02 26 48.2
	ipP		02 27 09.2
		micr	sec
	P	Z' 0.1	1.0
	pP	Z' 0.1	0.8
Sk	iP		02 27 10.1
	ipP		02 27 30.2
Um	iP		02 26 46.8 C
	ipP		02 27 06.6
Ud	iP		02 27 08.0 C
	ipP		02 27 27.7
	iPcP		02 27 41.5
De	iP		02 27 09.4
	ipP		02 27 30.8

Burma-India.
h = 80 km (Up,Ki,Sk,Um,Ud,De).
m = 6.1 (Up,Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	26	Sk	eP	04 55 11	
		Um	iP	04 55 09.1	
			i	04 55 20.8	
		Ud	iP	04 54 33.0	
		Greece.			
"	26	Up	eP	04 57 40	
		Ki	iP	04 57 39.1	
		Sk	iP	04 57 59.3	
			i	04 58 04.4	
		Ud	iP	04 57 56.6	
			i	04 57 59.5	
"	26	Up	iP	09 07 34.1	
			ipP	09 07 45.8	
		Ki	iP	09 06 52.6	C
			ipP	09 07 05.4	
		Sk	iP	09 07 26.3	
		Um	iP	09 07 10.8	
			ipP	09 07 23.7	
		Ud	iP	09 07 41.4	
			ipP	09 07 54.8	
		De	e(pP)	09 08 12	
		Japan.			
		h = 45 km (Up,Ki,Um,Ud).			
"	26	Up	iPKP	09 44 17.0	
		Ki	iPKP	09 44 03.3	
		Sk	iPKP	09 44 14.8	
		Um	iPKP	09 44 09.1	
		Ud	iPKP	09 44 19.0	
		De	iPKP	09 44 26.1	
		New Hebrides Islands			
		(h = 130 km).			
"	26	Ud	i(P)	12 56 26.4	
"	26	Ud	i(P)	13 46 04.3	
"	26	Um	iP	13 46 54.6	
		Ud	eP	13 47 25	
		Japan (h = 60 km).			
"	26	Ud	eP	15 34 49	
		Greece.			
"	26	Up	iP	15 58 52.1	
		Ki	iP	15 58 55.3	
				micr	sec
			P Z'	0.1	1.0
		Sk	iP	15 58 36.5	
		Um	iP	15 58 57.3	
			i	15 59 38.2	
		Ud	iP	15 58 39.9	
		De	iP	15 58 42.4	
		North Atlantic Ocean (h = N).			

1971 June	26	Ud	i(P)	17 00 27.2	
"	26	Up	iP	17 07 30.5	
		Ud	iP	17 07 44.0	
		De	eP	17 07 15	
"	26	Ki	iP	18 28 30.6	
		Sk	eP	18 28 45	
		Um	iP	18 28 25.7	
		Ud	iP	18 28 40.3	
"	26	Up	iP	19 11 32.7	
		Ki	iP	19 11 17.0	
		Sk	iP	19 11 43.1	
		Um	iP	19 11 20.7	
		Ud	iP	19 11 44.8	
		De	iP	19 11 50.6	
		China.			
"	26	Up	iP	19 40 08.2	
			i	19 40 18.7	
			iSKS	19 50 34	
			iS	19 50 54	
				micr	sec
			P Z'	0.1	0.8
			Mx E	7.7	21
			Mx N	5.7	21
			Mx Z	12	20
		Ki	iP	19 40 11.4	
			i	19 40 24.7	
			iPP	19 43 48.5	
			iSKS	19 50 38	
			iS	19 51 02	
				micr	sec
			P Z'	0.1	1.1
			Mx E	11	20
			Mx N	6.0	20
			Mx Z	12	20
		Sk	iP	19 40 23.1	
			i	19 40 40.3	
		Um	iP	19 40 06.9	
			i	19 40 23.2	
			iSKS	19 50 33	
		Ud	iP	19 40 17.9	
			i	19 40 32.6	
		De	iP	19 40 15.1	
		Sumatra (h = 25 km).			
		m = 6.1, M = 6.2 (Up,Ki).			
"	26	Up	iP	21 32 59.3	C
"	26	Up	iP	22 31 03.7	
			iPcP	22 33 00.8	
				micr	sec
			P Z'	0.1	0.7

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	26	(cont.)					
		Ki	iP		22 31 12.4		
			i(PcP)		22 33 12.4		
					micr	sec	
			P	Z'	0.1	1.0	
		Sk	iP		22 31 29.5	C	
		Um	iP		22 31 01.7		
			iPP		22 32 35.7		
		Ud	iP		22 31 20.2		
		De	iP		22 31 17.1		
			iPcP		22 33 03.7		
		Afghanistan-USSR (h = 130 km).					
		m = 5.6 (Up,Ki).					
"	26	Up	iP		23 19 44.4		
		Ki	iP		23 19 46.4		
		Sk	iP		23 20 07.1		
		Um	iP		23 19 39.4		
		Ud	iP		23 20 00.1		
		De	iP		23 19 59.7		
		Tadzhik-Sinkiang.					
"	27	Um	e(Sn)		04 13 54		
			iSgl		04 14 23.2		
		Northwest Russia.					
		Explosion.					
"	27	Up	iP		08 27 56.5		
		Um	iP		08 27 45.9	C	
		Ud	iP		08 27 58.4		
"	27	Up	iP		08 42 36.2		
		Ki	iP		08 42 39.3		
		Sk	iP		08 42 20.6		
		Um	iP		08 42 40.9		
		Ud	iP		08 42 23.5		
		De	iP		08 42 26.6		
		Mona Passage (h = 50 km).					
"	27	Up	iP		12 11 25.4		
		Ki	iP		12 10 57.1		
		Sk	iP		12 11 23.6		
		Um	eP		12 11 11		
		Ud	iP		12 11 33.1		
		Mariana Islands (h = 230 km).					
"	27	Up	iP		13 57 53.4		
		Ki	iP		13 58 04.0		
		Sk	iP		13 58 19.3		
		Um	iP		13 57 52.5		
		Ud	iP		13 58 10.0		
		De	iP		13 58 06.1		
		Hindu Kush (h = 140 km).					
"	27	Up	iPKP		14 41 15.7	D	
		(cont.)					

1971 June	27	(cont.)					
		Up			micr	sec	
			PKP	Z'	0.2	0.6	
		Ki	iPKP		14 41 02.3		
			i		14 41 06.3		
		Sk	iPKP		14 41 08.8		
			i		14 41 16.9		
		Um	iPKP		14 41 03.1		
			i		14 41 13.3		
		Ud	iPKP		14 41 17.9		
		De	iPKP		14 41 28.8		
			i(pPKP)		14 43 39.2		
		Tonga-Kermadec Islands (h = 610 km).					
"	27	Up	iPKP		15 57 48.6		
		Ud	iPKP		15 57 50.5		
		De	iPKP		15 58 01.1		
"	27	Up	iP		17 04 04.2		
		Ki	iP		17 04 11.4		
		Sk	iP		17 04 29.5		
		Um	iP		17 04 01.4		
		Ud	iP		17 04 20.0		
			i		17 04 45.7		
		De	eP		17 04 18		
		Afghanistan-USSR (h = 140 km).					
"	27	Up	iP		17 26 39.5		
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	N	0.8	22	
			Mx	Z	0.6	17	
		Ki	iP		17 25 46.7		
					micr	sec	
			P	Z'	0.2	1.0	
			Mx	E	0.8	20	
			Mx	N	0.5	18	
			Mx	Z	0.7	18	
		Sk	iP		17 26 16.7		
		Um	iP		17 26 13.0		
		Ud	iP		17 26 38.8		
		De	iP		17 27 02.0		
		Aleutian Islands (h = 20 km).					
		m = 6.1, M = 5.0 (Up,Ki).					
"	27	Up	Mx		18 57		
					micr	sec	
			Mx	E	0.6	16	
			Mx	N	0.9	20	
			Mx	Z	1.0	18	
		Ki	Mx		18 55		
					micr	sec	
			Mx	E	1.0	20	
			Mx	N	0.6	18	
			Mx	Z	1.2	19	
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	27	(cont.)				
		New Guinea (h = N).				
		M = 5.5 (Up,Ki).				
"	27	Um	iP		20 20 52.5	
"	28	Up	iP1		05 11 35.2	
			iP2		05 11 39.1	
					micr	sec
			P2	Z'	0.1	0.7
			Mx	E	0.7	14
			Mx	N	0.5	15
			Mx	Z	0.9	13
		Ki	iP1		05 11 10.9	
			iP2		05 11 14.4	
					micr	sec
			P2	Z'	0.1	0.8
			Mx	E	0.5	10
			Mx	N	0.4	13
			Mx	Z	0.5	12
		Sk	iP1		05 11 42.3	
			iP2		05 11 45.7	
		Um	iP1		05 11 18.0	
			iP2		05 11 21.5	
		Ud	iP1		05 11 46.9	
			iP2		05 11 50.7	
			i		05 12 15.4	
		De	iP1		05 11 57.2	
			iP2		05 12 00.2	
		China (h = N).				
		m = 6.0, M = 5.1 (Up,Ki).				
		Double P, about 3 sec apart.				
		The second onset, interpreted as pP, gives a focal depth of 10 km.				
"	28	Up	iP		05 21 37.3	
		Ki	eP		05 21 14	
		Um	iP		05 21 18.1	
			i		05 21 21.8	
		Ud	eP		05 21 48	
			i		05 21 50.9	
		China.				
		Origin time = 05 11 51.				
"	28	Ki	eP		06 38 55	
		Sk	eP		06 39 29	
		Aleutian Islands (h = 25 km).				
"	28	Ki	iP		08 35 16.4	
		Aleutian Islands (h = 40 km).				
"	28	Ud	i(P)		13 21 14.5	
"	28	Ki	eSgl		14 07 35	
		Um	iSgl		14 05 37.5	
		(cont.)				

1971 June	28	(cont.)				
		Um	i		14 05 42.3	
		Ud	iSgl		14 06 15.2	
		De	iSgl		14 06 35.4	
		Esthonia.				
		Explosion.				
"	28	De	iSgl		16 40 00.8	
			i		16 40 04.1	
		Lake Ladoga.				
		Explosion.				
"	28	Up	iP		19 58 57.8 C	
					micr	sec
			P	Z'	0.1	1.0
		Ki	e(P)		19 59 51	
					micr	sec
			Mx	E	0.4	9
			Mx	N	0.3	10
			Mx	Z	0.5	11
		Um	iP		19 59 06.5	
		Ud	iP		19 59 08.8	
			i(pP)		19 59 16.1	
		De	iP		19 58 51.5	
		Caucasus (h = 35 km).				
"	28	Up	i(P)		21 27 29.0	
"	28	Ki	eP		21 41 34	
		Ud	iP		21 41 19.0	
		Iran (h = N).				
"	28	Up	iP		21 59 25.6	
		Ki	iP		21 58 32.8	
		Ud	iP		21 59 27.2	
"	28	Up	iP		23 42 52.2	
			iS		23 47 07	
					micr	sec
			Mx	E	0.8	9
			Mx	N	1.7	8
			Mx	Z	2.1	8
		Ki	iP		23 43 58.8	
					micr	sec
			Mx	E	2.3	7
			Mx	N	1.0	13
			Mx	Z	1.4	14
		Sk	iP		23 43 35.6	
		Um	iP		23 43 22.1	
			i		23 43 38.1	
			iS		23 48 01	
		Ud	iP		23 43 03.6	
			i		23 43 13.7	
		De	iP		23 42 35.1	
		Turkey (h = 5 km).				
		M = 5.1 (Up,Ki).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971 June	28	Ud	iP		23 59 38.1		
		Turkey.					
"	29	Up	iP		04 22 49.5		
		Um	iP		04 22 48.0		
		Ud	iP		04 23 06.1		
		De	iP		04 23 03.6		
		Hindu Kush.					
"	29	Up	iP		04 31 42.4		
			iS		04 35 55		
					micr	sec	
			Mx	E	0.9	12	
			Mx	N	1.5	8	
			Mx	Z	2.0	8	
		Ki	iP		04 32 48.4		
					micr	sec	
			Mx	E	1.0	11	
			Mx	N	0.9	7	
			Mx	Z	0.7	10	
		Sk	eP		04 32 25		
			i		04 32 27.7		
			i		04 33 02.9		
		Um	iP		04 32 13.3		
			iS		04 36 51		
		Ud	iP		04 31 53.7		
		De	iP		04 31 23.5		
			i(pP)		04 31 28.6		
		Turkey (h = 30 km).					
		M = 4.9 (Up,Ki).					
"	29	Ki	iSgl		08 13 15.8		
		Sk	eSgl		08 13 18		
		Um	iSn		08 13 28.1		
			iSgl		08 13 40.7		
		Nordland, Norway,					
		66.5°N, 14.1°E.					
		Origin time = 08 11 44.					
		Explosion.					
"	29	Up	iP1		09 13 39.9		
			iP2		09 13 43.1		
			iS		09 18 14		
					micr	sec	
			P2	Z'	0.2	1.1	
			Mx	E	1.0	13	
			Mx	N	1.8	13	
			Mx	Z	1.7	13	
		Ki	iP1		09 14 36.0		
			iP2		09 14 40.0		
					micr	sec	
			P2	Z'	0.1	1.0	
			Mx	E	1.3	12	
			Mx	N	1.5	16	
			Mx	Z	2.8	16	
		(cont.)					
1971 June	29	(cont.)					
		Sk	eP1		09 14 19		
			iP2		09 14 23.4		
		Um	iP1		09 14 04.5		
			iP2		09 14 07.0		
			iS		09 18 52		
		Ud	eP1		09 13 55		
			iP2		09 13 57.1		
		De	iP2		09 13 32.7		
		Turkey (h = 35 km).					
		m = 5.8, M = 5.0 (Up,Ki).					
		Double P-arrivals, about					
		3 sec apart.					
"	29	Ud	iPKP		09 45 49.8		
		De	iPKP		09 46 01.3		
		Tonga Islands (h = 70 km).					
"	29	Up	iP		11 19 11.1		
		Ki	eP		11 20 07		
			i		11 20 10.5		
		Um	iP		11 19 37.6		
		Ud	iP		11 19 28.0		
		De	iP		11 19 02.7		
		Turkey (h = 30 km).					
"	29	De	i(P)		12 22 37.0		
"	29	Ki	i(Sn)		12 23 30.4		
		Northwest Russia.					
		Explosion.					
"	29	Ud	iP		12 43 28.8		
"	29	Sk	eSgl		13 06 51		
		Um	iSgl		13 05 24.2		
		Ud	iSgl		13 06 11.1		
		Eastern Esthonia.					
		Explosion.					
"	29	Up	iP		14 14 03.4	C	
		Ki	iP		14 13 09.5	C	
					micr	sec	
			P	Z'	0.1	1.0	
		Sk	iP		14 13 38.3	C	
		Um	iP		14 13 36.7	C	
		Ud	iP		14 14 01.7	C	
		De	iP		14 14 24.9	C	
		Alaska (h = 25 km).					
"	29	Up	iP		15 22 30.7	D	
		Ki	iP		15 21 43.4	D	
		Sk	eP		15 22 19		
		Um	iP		15 22 05.0	D	
		Ud	iP		15 22 35.4	D	
		De	eP		15 22 54		
		Kurile Islands (h = 50 km).					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971					
June	29	Ki	iPP	15 29 38.1	
		Sk	eP	15 25 46	
			ePP	15 29 33	
		Um	iPP	15 29 15.6	
		Ud	iP	15 25 34.3	
			iPP	15 29 15.8	

Indian Ocean (h = N).

"	29	Ki	iSgl	17 58 42.0	
		Sk	iSgl	17 58 47.5	
		Um	iSn	17 58 55.0	
			iSgl	17 59 09.0	

Nordland, Norway,
66.5°N, 14.1°E.
Origin time = 17 57 13.
Explosion.

"	29	Up	iP	18 41 49.0	
		Ki	eP	18 41 16	
		Um	iP	18 41 34.4	
		Ud	iP	18 41 40.9	

Nevada.
Underground explosion.

"	29	Up	iP	19 17 21.2	C
		Ki	iP	19 17 22.9	C
		Sk	iP	19 17 37.6	C
		Um	iP	19 17 18.6	C
		Ud	iP	19 17 32.4	C
		De	iP	19 17 30.5	C

Nicobar Islands (h = 110 km).

"	29	Up		micr	sec
			Mx N	0.8	21
			Mx Z	0.7	18
		Ki	ePKP	20 23 56	
		Sk	iPKP	20 24 07.9	
		Um	iPKP	20 24 03.0	
			i	20 24 24.5	
		Ud	iPKP	20 24 14.0	

Santa Cruz Islands (h = 45 km).

"	29	Um	eP	20 36 17	
		Ud	iP	20 36 36.9	

South of Japan (h = 30 km).

"	29	Ki	iPgl	21 06 57.7	
			iSgl	21 07 23.4	
		Um	iSgl	21 09 17.9	

Northern Norway, near
69.3°N, 17.5°E.
Origin time = 21 06 25.
Tromsö reading included in the solution.

1971					
June	29	Ud	iP	22 11 14.5	
"	30	Up	iP	04 03 55.5	C
			iPn	04 04 52.5	
				micr	sec
			P Z'	0.3	1.0
		Ki	iP	04 03 39.5	C
				micr	sec
			P Z'	0.2	1.1
		Sk	iP	04 04 10.4	C
		Um	iP	04 03 40.2	C
		Ud	iP	04 04 12.0	C
		De	iP	04 04 19.3	C

Kazakh SSR.
m = 6.1 (Up,Ki).
Underground explosion.

"	30	Ki	i(Sgl)	04 18 43.0	
"	30	Up	i(P)	10 54 01.6	
"	30	Ki	eP	11 29 41	
		Um	iP	11 29 59.9	
			i	11 30 01.9	
		Ud	iP	11 30 30.9	
			i	11 30 32.9	

Kurile Islands (h = N).

"	30	Up	iSgl	11 44 49.2	
		Sk	iSgl	11 46 41.4	
		Um	iSgl	11 45 22.6	
		Ud	iSgl	11 45 55.5	

Esthonia.
Explosion.

"	30	Up	i(P)	11 53 48.5	
"	30	Up	iP	13 43 47.3	
		Ki	iP	13 43 35.9	
			i	13 43 41.4	
				micr	sec
			Mx E	0.3	12
			Mx N	0.4	13
		Sk	iP	13 44 06.5	
		Um	iP	13 43 37.8	
		Ud	iP	13 44 03.5	
			i	13 44 06.4	
		De	eP	13 44 09	

Kirghiz-Sinkiang.

"	30	Up	i(P)	14 46 59.3	
"	30	Ki	ePn	14 53 02	
			iSn	14 53 59.8	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delary

1971
June 30 (cont.)
Ki iS* 14 54 16.7
Sk iSgl 14 57 02.8
Um eSgl 14 55 38
Northwest Russia,
69.2°N, 34.0°E.
Origin time = 14 51 44.
Explosion.

" 30 Ud i(P) 15 25 09.4

" 30 Sk eP 16 01 19
Ud iP 16 01 20.5
Leeward Islands (h = 70 km).

" 30 Up i(P) 17 56 23.6 C

" 30 Ki iSgl 18 04 06.9
Sk iSgl 18 04 11.1
Um iSn 18 04 20.8
iSgl 18 04 34.1
Nordland, Norway,
66.5°N, 14.0°E.
Origin time = 18 02 37.
Explosion.

" 30 Ki iP 19 27 23.5
Sk eP 19 27 29
Ud iP 19 27 24.6
Sumatra (h = N).

" 30 Ud e(P) 19 49 33

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