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

NOTE. Beginning with this bulletin, a more specified notation will be used for the PKP group of phases, as follows:

PKP = Jeffreys-Bullen branch DEF = PKIKP, occasionally used for unidentified PKP

PKP1 = Jeffreys-Bullen branch BC, extended to 160° by observations of Klaus Meyer

PKP2 = Jeffreys-Bullen branch AB

(PKP) = precursor to PKP

In analogy to the last-mentioned notation, we use (PP) to denote "early PP". Otherwise, brackets indicate uncertain identification. - Other core phases, especially SKP, will be given a corresponding specified notation.

J A N U A R Y 1 - 31, 1973

1973 Jan.	1	Up	e(P)	08 51 18	
"	1	Ud	eP	11 56 10	
		South Atlantic Ocean (h = N).			
"	1	Up	iPKP1	21 02 40.8	
		Ud	iPKP1	21 02 42.6	D
		De	iPKP1	21 02 52.8	
"	1	Ud	iP	21 51 39.7	
		North Atlantic Ocean (h = N).			
"	2	Sk	eP	00 20 20	
"	2	Up	i(PP)	01 10 45.1	
		Ud	iP	01 07 24.4	
		Sumbawa Island (h = 70 km).			
"	2	Up	iP	01 55 18.2	
		(cont.)			
1973 Jan.	2	(cont.)			
		Sk	eP	01 56 00	
		Ud	iP	01 55 23.5	
			i	01 55 25.3	
			i	01 55 27.8	
		Greece (h = N).			
"	2	Ki	iP	02 40 25.3	
				micr	sec
			P	Z' 0.1	1.3
		Ud	iP	02 40 52.6	
		Molucca Passage (h = 60 km).			
"	2	Ud	iP	11 55 56.1	
"	2	Ki	iP	13 16 13.0	
		Ud	iP	13 16 37.9	
		Mindanao (h = 60 km).			
"	2	Ki	iP	13 54 17.1	
		Sk	iP	13 54 23.7	
			iS	13 56 13.5	
		(cont.)			

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

1973 Jan.	2	(cont.)				
		Um	eP	13 54 53		
			iS	13 57 04.5		
		Ud	iP	13 55 09.4		
		Jan Mayen (h = N).				
"	2	Up	iP	16 33 10.0		
		Ki	eP	16 33 18		C
		Sk	eP	16 33 36		
		Um	iP	16 33 07.8		C
		Ud	iP	16 33 27.1		C
		De	iP	16 33 23.9		C
		Afghanistan-USSR (h = 140 km).				
"	2	Up	iP	22 35 17.9		
				micr	sec	
			P	Z' 0.2	1.3	
		Ki	iP	22 35 12.3		D
		Sk	iP	22 35 35.6		D
		Um	iP	22 35 10.2		D
		Ud	iP	22 35 32.4		D
		De	iP	22 35 36.0		
		Tibet (h = N).				
"	2	Up	iP	23 23 50.5		
			iS	23 26 33.6		
		Ki	iP	23 22 43.3		
			ipP	23 22 49.2		
				micr	sec	
			P	Z' 0.1	0.9	
			pP	Z' 0.1	0.8	
		Sk	iP	23 22 50.1		
			iS	23 24 43.8		
		Um	iP	23 23 19.1		
			ipP	23 23 25.6		
			iS	23 25 37.2		
		Ud	iP	23 23 32.9		
			ipP	23 23 38.9		
		Jan Mayen. h = 30 km (Ki,Um,Ud).				
"	3	Ud	iP	00 53 28.7		
		Greece.				
"	3	Ud	iPKP	03 15 38.7		
		Argentina (h = 560 km).				
"	3	Ud	iP	04 22 33.5		
			ipP	04 23 07.3		
		Mindoro. h = 130 km (Ud).				
"	3	Up	iP	14 38 32.6		C
		(cont.)				

1973 Jan.	3	(cont.)				
		Up	ipP	14 38 41.0		
			iPP	14 40 03.9		
				micr	sec	
			P	Z' 0.1	1.0	
			PP	Z' 0.2	1.1	
			Mx	E 2.4	13	
			Mx	N 2.5	14	
			Mx	Z 3.4	13	
		Ki	iP	14 38 38.0		
			ipP	14 38 46.7		
				micr	sec	
			P	Z' 0.2	1.1	
			Mx	N 3.1	10	
		Sk	iP	14 38 57.4		C
		Um	iP	14 38 28.9		C
			ipP	14 38 37.6		
			iPP	14 40 03.4		
		Ud	iP	14 38 48.9		C
			ipP	14 38 57.7		
		De	iP	14 38 47.1		
			ipP	14 38 55.3		
			iPP	14 40 30.0		
		Tadzhik SSR. h = 40 km (Up,Ki,Um,Ud,De). m = 5.7, M = 5.5 (Up,Ki).				
"	3	Up	iP	14 42 38.3		
				micr	sec	
			P	Z' 0.1	1.0	
"	3	Up	eP	15 12 48		
		Ki	eP	15 12 53		
		Ud	iP	15 13 02.0		
			i	15 13 09.8		
		Kirghiz SSR (h = N).				
"	3	Ud	iP	20 43 51.8		
		Kirghiz SSR (h = N).				
"	3	Up	iP	21 25 43.4		C
				micr	sec	
			P	Z' 0.2	1.5	
		Um	iP	21 25 24.4		C
		Ud	iP	21 25 37.0		C
		Off coast of Oregon (h = 20 km).				
"	4	Up	iPKP	01 26 34.3		
				micr	sec	
			PKP	Z' 0.1	1.0	
		Ki	iPKP	01 26 20.3		
		Sk	iPKP	01 26 30.8		
		Um	iPKP	01 26 26.7		
		Ud	iPKP	01 26 36.5		
			iSKP1	01 29 41.8		
		De	iPKP	01 26 43.0		
		(cont.)				

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

1973 Jan.	4	(cont.)				
		De	iSKP1	01 29 53.2		
		New Hebrides Islands (h = 190 km).				
"	4	Ud	iP	02 28 04.4		
"	4	Up	i	03 31 02.8		
			iPg1	03 31 09.8		
			i	03 32 07.9		
			iSn	03 32 10.1		
			iSg1	03 32 52.2		
		Ud	ePg1	03 30 41		
			i	03 30 58.3		
			iSn	03 31 31.6		
			iSg1	03 32 02.2		
		De	ePg1	03 30 31		
			i	03 30 47.8		
			iSn	03 31 12.4		
			iSg1	03 31 38.5		
		North Sea, 56.5°N, 4.6°E.				
		Origin time = 03 28 54.				
"	4	Up	iP	03 34 11.2		
		Ki	iP	03 33 05.4		
		Sk	eP	03 33 12		
			iS	03 35 09.1		
		Um	iP	03 33 40.5		
			iS	03 35 58.8		
		Ud	iP	03 33 56.3		
		Jan Mayen (h = N).				
"	4	Ud	iP	03 56 20.0		
"	4	Ud	iP	04 48 46.7		
"	4	Up	iP	08 07 20.0 D		
			iS	08 09 58.6		
			i	08 10 46.7		
				micr	sec	
			P	Z'	0.1	1.0
			Mx	E	2.4	18
			Mx	N	2.4	19
			Mx	Z	2.3	17
		Ki	iP	08 06 13.9 D		
			iS	08 08 09.6		
				micr	sec	
			P	Z'	0.7	0.8
			Mx	E	4.0	15
			Mx	N	3.9	15
			Mx	Z	2.8	13
		Sk	iP	08 06 19.6		
			iS	08 08 13.3		
		Um	iP	08 06 48.2 D		
		(cont.)				

1973 Jan.	4	(cont.)				
		Um	iS	08 09 04.9		
			i	08 09 34.8		
		Ud	iP	08 07 03.5		
			iS	08 09 31.3		
			i	08 09 58.8		
		De	iP	08 07 50.2		
		Jan Mayen (h = N).				
		M = 4.6 (Up,Ki).				
"	4	De	iP	09 06 06.5		
"	4	Up	iPKP	09 29 23.0		
		Um	iPKP	09 29 30.7		
		Ud	iPKP	09 29 21.5		
		South Atlantic Ocean (h = N).				
"	4	Ki	iP	12 05 43.7		
		Sk	eP	12 05 56		
			iS	12 07 53.7		
		Jan Mayen (h = N).				
"	5	Ud	iPKP1	01 25 52.9		
		De	iPKP1	01 26 03.1		
"	5	Up	iP	01 50 14.4		
			i	01 50 18.2		
		Ki	iP	01 50 33.0		
		Sk	iP	01 49 56.9		
		Um	iP	01 50 27.9		
		Ud	iP	01 49 56.8		
			i	01 50 11.0		
		De	iP	01 49 57.7		
		North Atlantic Ocean (h = N).				
"	5	Ud	iP	03 48 08.5		
		De	iP	03 48 03.7		
		North Atlantic Ocean (h = N).				
"	5	Um	iP	05 42 26.9		
		Japan (h = 55 km).				
"	5	Up	iP	05 54 31.7 C		
			i	05 54 36.0		
				micr	sec	
			P	Z'	0.1	0.9
			i	Z'	0.2	0.9
			Mx	E	8.1	16
			Mx	N	7.4	14
			Mx	Z	8.7	12
		Ki	iP	05 55 42.3 C		
				micr	sec	
			P	Z'	0.2	1.0
			Mx	E	5.9	12
			Mx	N	7.6	15
			Mx	Z	5.5	13
		(cont.)				

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

1973					
Jan.	5	(cont.)			
		Sk	iP	05 55 09.5	C
		Um	iP	05 55 06.3	C
		Ud	iP	05 54 36.7	C
			i	05 54 38.4	
		De	iP	05 54 03.1	C
		Mediterranean Sea (h = N).			
		m = 5.8, M = 5.6 (Up,Ki).			
"	5	Ud	iP	07 20 56.3	
		Mediterranean Sea.			
"	5	Ud	iP	07 33 49.9	
		Mediterranean Sea.			
"	5	Ud	iP	07 50 12.9	
		Mediterranean Sea.			
"	5	Ud	eP	10 21 11	
		Mindanao (h = 90 km).			
"	5	Up	iP	12 41 16.9	
		Ki	eP	12 42 46	
		Sk	eP	12 42 11	
		Um	iP	12 41 57.2	
		Ud	eP	12 41 32	
			i	12 41 33.9	
		De	iP	12 40 52.0	C
		Rumania (h = 130 km).			
"	5	Up	iP	13 49 45.1	C
			i	13 50 34.2	
				micr sec	
			P Z'	0.1 0.9	
		Sk	eP	13 49 34	
		Um	iP	13 49 19.6	C
		Ud	iP	13 49 51.2	C
		De	iP	13 50 09.0	C
		Okhotsk Sea (h = 430 km).			
"	5	Up	iP	13 58 52.1	
		Ud	iP	13 58 41.4	
		Windward Islands			
		(h = 100 km).			
"	5	Up	iPKP1	14 14 12.0	
			iPKP2	14 14 26.5	
			ipPKP2	14 15 08.7	
			iPP	14 18 01.6	
				micr sec	
			PKP2 Z'	1.1 1.3	
			PP Z'	0.3 1.1	
			Mx E	5.7 28	
			Mx N	5.7 30	
			Mx Z	9.5 43	
		(cont.)			

1973					
Jan.	5	(cont.)			
		Ki	iPKP1	14 13 54.3	C
			ipPKP2	14 14 38.0	
				micr sec	
			PKP1 Z'	3.7 2.2	
		Sk	iPKP1	14 14 06.8	
		Um	iPKP	14 13 56.5	
			iPKP1	14 14 01.8	
			iPP	14 17 40.9	
		Ud	ePKP	14 14 07	
			iPKP1	14 14 15.7	
			iPKP2	14 14 32.1	
			ipPKP2	14 15 14.5	
			iPP	14 18 06.9	
		De	iPKP1	14 14 23.5	
			iPKP2	14 14 43.9	
			ipPKP2	14 15 26.2	
		New Zealand.			
		h = 160 km (Up,Ud,De).			
"	5	Up	iP2	19 17 36.1	
		Ud	iP1	19 17 34.3	
			iP2	19 17 44.0	
		De	iP1	19 17 00.5	
		Mediterranean Sea			
		(h = 30 km).			
"	5	Up	ePKP1	21 47 22	
		Ki	iSKP1	21 49 44.8	
		Sk	iSKP1	21 50 03.0	
		Um	iSKP1	21 49 56.4	
		Ud	iPKP1	21 47 23.1	
			iSKP1	21 50 11.5	
		De	iPKP1	21 47 32.8	
			iSKP1	21 50 20.1	
		Tonga-Kermadec Islands			
		(h = 620 km).			
"	6	Um	iPKP1	03 39 43.9	
		Ud	ePKP1	03 39 56	
			i	03 40 08.1	
"	6	Up	iPKP1	08 17 07.8	
			iPKP2	08 17 14.2	
				micr sec	
			PKP2 Z'	0.1 0.7	
		Sk	iPKP1	08 17 05.8	
		Um	iPKP1	08 16 56.7	
			i	08 17 01.8	
		Ud	iPKP1	08 17 09.5	
			iPKP2	08 17 17.2	
		De	iPKP2	08 17 30.9	
		Kermadec Islands			
		(h = 480 km).			

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

1973 Jan.	6	Um	iP	11 33 16.7	
		Ud	iP	11 33 44.8	
		Japan (h = 45 km).			
"	6	Up	iP	15 07 34.6	
		Um	iP	15 07 13.9	
			ipP	15 07 29.3	
		Ud	iP	15 07 41.8	
			ipP	15 07 57.4	
		Japan.			
		h = 60 km (Um,Ud).			
"	6	Up	iP	15 15 08.4	
		Ki	iP	15 14 12.8	
		Um	iP	15 14 37.4	
		Ud	iP	15 15 02.1	
			i	15 15 06.5	
		De	iP	15 15 25.4	
		South of Alaska (h = N).			
"	6	Ud	iP	15 16 28.3	
		Kurile Islands (h = 35 km).			
"	6	Ud	e(P)	15 18 46	
"	6	Ud	iP	15 45 42.7	
		Iran-USSR (h = 25 km).			
"	6	Ki	i(P)	15 48 56.5	
		Ud	iP	15 49 56.3	
		Japan.			
"	6	Ud	iPKP1	15 51 26.2	
		De	ePKP1	15 51 37	
		Tonga-Kermadec Islands (h = 560 km).			
"	6	Up	i(PKP)	16 11 49.0	
			iPKP	16 11 53.5	
			iSKP1	16 15 15.1	
			i	16 15 25.8	
				micr sec	
			i Z'	0.1 1.0	
			Mx E	1.8 19	
			Mx N	3.2 22	
			Mx Z	3.0 22	
		Ki	e(PKP)	16 11 36	
			iPKP	16 11 40.2	
				micr sec	
			PKP Z'	0.1 0.8	
			Mx E	3.3 19	
			Mx N	2.6 19	
		Sk	ePKP	16 11 52	
		Um	i(PKP)	16 11 40.7	
		(cont.)			
1973 Jan.	6	(cont.)			
		Um	iPKP	16 11 46.3	
		Ud	i(PKP)	16 11 50.9	
			iPKP	16 11 54.9	
			iSKP1	16 15 14.6	
		De	i(PKP)	16 11 57.3	
			iPKP	16 12 00.8	
			iSKP1	16 15 25.8	
		New Hebrides Islands (h = 35 km).			
		M = 6.2 (Up,Ki).			
"	6	Up	iP	20 08 25.7	
		Ud	iP	20 08 40.8	D
		De	iP	20 08 22.7	
		Iran (h = 60 km).			
"	6	Ud	iSg1	20 58 10	
"	6	Up	i(PKP)	22 34 36.3	
			iPKP	22 34 46.5	
			iSKP1	22 37 59.2	
				micr sec	
			SKP1 Z'	0.1 1.0	
		Ki	iPKP	22 34 32.9	
				micr sec	
			PKP Z'	0.2 0.6	
		Sk	iPKP	22 34 43.5	
		Um	i(PKP)	22 34 30.3	
			iPKP	22 34 38.8	
		Ud	i(PKP)	22 34 33	
			iPKP	22 34 48.3	
			iSKP1	22 38 05.5	
		De	i(PKP)	22 34 41.1	
			iPKP	22 34 54.3	
			iSKP1	22 38 14.7	
		New Hebrides Islands (h = 120 km).			
"	6	Ud	iP	22 51 38.5	
		Turkmen SSR.			
"	7	Ud	iP	01 14 48.2	
"	7	Up	iP	01 17 12.9	
		Ki	eP	01 17 17	
		Ud	iP	01 17 03.0	
			ipP	01 17 48.5	
		De	iP	01 17 04.0	
		Colombia.			
		h = 180 km (Ud).			
"	7	Ud	eP	01 29 30	
		Mindanao.			
"	7	Up	iPP	09 58 16.0	
		Iran.			

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

1973 Jan.	7	Up	iP		12 26 53.0	
			ipP		12 27 08.8	
					micr	sec
			pP	Z'	0.1	1.5
			Mx	E	1.4	18
			Mx	N	1.5	17
			Mx	Z	1.2	18
		Ki	iP		12 27 45.1	
					micr	sec
			Mx	E	1.6	17
			Mx	N	1.0	14
		Ud	iP		12 26 59.5	
			ipP		12 27 15.1	
		De	iP		12 26 36.6	
			ipP		12 26 52.9	
		Ethiopia.				
		h = 60 km (Up,Ud,De).				
		M = 5.3 (Up,Ki).				
"	7	Up	iP		12 54 20.7	
		Ud	iP		12 54 28.8	
		Luzon (h = 80 km).				
"	7	Up	iSn		16 39 08.7	
			iSg1		16 40 00.1	
		Ki	ePn		16 36 21	
			iPg1		16 36 32.9	
			iSn		16 37 10.9	
			iS*		16 37 24.6	
					micr	sec
			S*	Z'	0.1	0.5
		Sk	e		16 38 58	
			iSg1		16 39 38.7	
		Um	i		16 36 57.2	
			i		16 37 41.7	
			iSg1		16 38 00.2	
		Ud	iSn		16 39 33.7	
			iSg1		16 40 29.9	
		De	iSg1		16 42 02.7	
		Northwest USSR,				
		66.7°N, 30.9°E.				
		Origin time = 16 35 16.				
"	7	Up	iPKP1		19 48 49.0	
		Ud	iPKP1		19 48 51.4	C
		De	iPKP1		19 49 02.1	C
		Tonga-Kermadec Islands				
		(h = 560 km).				
"	8	Ud	iP		00 07 22.4	
		Azores Islands (h = N).				
"	8	Ki	iP		04 46 31.1	
		Arabian Sea (h = N).				
1973 Jan.	8	Ki	iP		06 12 52.4	
		Mariana Islands				
		(h = 190 km).				
"	8	Ud	iRg		10 27 35.3	
"	8	De	iPKP1		10 42 42.4	
		Fiji Islands (h = 650 km).				
"	8	Ud	iP		13 33 52.6	
"	8	Up	iPKP1		15 22 21.6	
		Sk	iPKP1		15 22 14.1	
		Ud	iPKP1		15 22 23.1	
		De	iPKP1		15 22 31.6	C
		Kermadec Islands				
		(h = 80 km).				
"	8	Up	iPKP1		21 29 23.2	
		Ud	iPKP1		21 29 24.8	
		De	iPKP1		21 29 35.7	
			i		21 29 42.4	
		Tonga-Kermadec Islands				
		(h = 150 km).				
"	8	Ki	iP		22 33 48.1	
		Sk	iP		22 33 53.9	
			iS		22 35 54.9	
		Um	iP		22 34 23.0	
		Jan Mayen.				
		Origin time = 22 31 21.				
"	9	Up	iP		06 06 23.8	
			i(S)		06 09 32.9	
		Ki	eP		06 05 15	
			i		06 05 16.5	
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		06 05 21.9	
			iS		06 07 16.1	
		Um	iP		06 05 50.6	
			iS		06 08 08.7	
		Ud	iP		06 06 07.1	
		Jan Mayen (h = N).				
"	9	Up	iP		06 27 36.6	
		Ki	iP		06 27 16.9	
					micr	sec
			P	Z'	0.1	0.8
		Um	iP		06 27 23.1	
		Ud	iP		06 27 42.4	
		De	eP		06 27 49	
		Mindanao (h = 50 km).				

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

1973 Jan.	9	Up	eP		07 49 56	
		Ki	iP		07 48 45.7	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		07 48 52.9	
			iS		07 50 44.3	
		Um	iP		07 49 21.2	
			iS		07 51 38.2	
		Ud	eP		07 49 38	
			i		07 49 40.2	
		Jan Mayen (h = N).				
"	9	Up	iP		12 07 23.4	
					micr	sec
			P	Z'	0.1	0.7
		Ki	iP		12 06 28.3	C
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		12 06 55.0	
		Um	iP		12 06 56.9	C
		Ud	iP		12 07 19.5	
		De	iP		12 07 44.1	C
		Alaska (h = 20 km).				
		m = 5.9 (Up,Ki).				
"	9	Up	i(S)		13 15 45.6	
		Ki	iP		13 11 23.5	
		Sk	iP		13 11 28.8	
			iS		13 13 26.8	
		Um	iP		13 11 57.9	C
			iS		13 14 15.1	
		Ud	iP		13 12 11.9	
			i		13 12 17.8	
		Jan Mayen (h = N).				
"	9	Ki	iP		13 27 52.7	
			i		13 29 08.6	
		Sk	iP		13 27 57.0	
			i		13 29 49.5	
			iS		13 30 00.1	
		Um	iP		13 28 26.6	
		Ud	iP		13 28 43.4	
		Jan Mayen.				
		Origin time = 13 25 23.				
"	9	De	ePg1		14 29 23	
			eSg1		14 30 01	
"	9	Ki	iP		14 58 05.2	
			i		14 58 14.1	
		Sk	iP		14 58 12.7	
			iS		15 00 06.1	
		Um	iP		14 58 42.1	
			iS		15 00 56.8	
		(cont.)				
1973 Jan.	9	(cont.)				
		Ud	eP		14 58 56	
			i		14 59 02.2	
		Jan Mayen (h = N).				
"	9	Ki	iP		16 00 57.9	
			i		16 03 35.5	
		Sk	eP		16 01 02	
			iS		16 02 55.7	
		Um	iP		16 01 35.3	
		Jan Mayen.				
		Origin time = 15 58 31.				
"	9	Up	iP		16 25 28.1	
		Ki	iP		16 25 31.9	
					micr	sec
			P	Z'	0.1	1.1
		Ud	iP		16 25 45.1	
		De	iP		16 25 43.6	
		Tadzhik-Sinkiang (h = N).				
"	9	Up	iP		17 18 51.9	
		Ki	iP		17 17 59.1	
		Um	iP		17 18 24.9	
		Ud	iP		17 18 53.0	
			ipP		17 19 05.4	
		Aleutian Islands.				
		h = 45 km (Ud).				
"	9	Sk	iP		18 42 22.5	
"	9	Ud	iP		19 12 38.6	
"	9	Up	iP		22 08 19.0	
		Ud	iP		22 08 26.3	
			i		22 08 30.3	
		Greece.				
"	10	Ud	eP		01 09 20	
"	10	Ud	iP		03 10 46.4	
		De	eP		03 10 40	
		Afghanistan (h = 20 km).				
"	10	Sk	iP		03 12 46.3	
"	10	Up	iP		03 29 04.9	C
			iS		03 33 06.4	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		03 30 18.1	
			i		03 30 22.2	
					micr	sec
			P	Z'	0.2	1.4
			Mx	E	2.1	18
			Mx	N	1.5	18
		(cont.)				

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

1973 Jan.	10	(cont.)				
		Sk	iP	03 29 45.0	C	
			i	03 29 49.5		
		Um	iP	03 29 42.0		
		Ud	iP	03 29 11.2		
			i	03 29 13.0		
			iS	03 33 19.8		
		De	iP	03 28 35.3	C	
		Greece (h = 40 km).				
		m = 5.5 (Up,Ki).				
"	10	Up	iP	03 32 34.1		
		Sk	iP	03 33 02.2		
		Ud	iP	03 32 50.5		
		De	iP	03 32 44.3		
"	10	Ki	iP	04 48 23.5		
		Um	iP	04 48 28.1		
		Ud	iP	04 48 49.2		
		Mindanao (h = 80 km).				
"	10	Um	iP	05 26 25.8		
"	10	Up	iPKP	11 51 31.6		
				micr	sec	
			Mx E	1.7	18	
			Mx N	1.8	20	
			Mx Z	2.7	20	
		Ki	iPKP	11 51 18.4		
				micr	sec	
			Mx E	1.8	20	
			Mx N	1.9	19	
		Sk	e(PKP)	11 51 24		
			iPKP	11 51 29.5		
		Um	iPKP	11 51 22.0		
		Ud	iPKP	11 51 33.8		
		De	iPKP	11 51 40.8		
		Solomon Islands (h = 30 km).				
		M = 5.9 (Up,Ki).				
"	10	Ki	iP	14 30 12.4		
		Sk	iP	14 30 16.2		
			iS	14 32 12.9		
		Um	iP	14 30 46.6		
			iS	14 33 05.1		
		Ud	iP	14 31 04.8		
		Jan Mayen (h = N).				
"	10	Ki	e(P)	17 10 47		
		Ud	iP	17 10 14.1	D	
		Iran (h = N).				
"	10	Ud	iP	17 23 45.9		
		Alaska (h = 60 km).				

1973 Jan.	10	Um	iP	21 15 20.7		
		Ud	iP	21 15 38.2		
		Afghanistan-USSR				
		(h = 110 km).				
"	11	Ud	iP	01 59 07.6		
"	11	Ud	iP	02 19 53.3		
"	11	Up	iP	02 23 26.1	C	
				micr	sec	
			P Z'	0.2	1.2	
		Ki	iP	02 22 32.5	C	
				micr	sec	
			P Z'	0.3	1.1	
		Sk	iP	02 23 02.5		
		Um	iP	02 22 59.7	C	
			ipP	02 23 10.1		
		Ud	iP	02 23 25.0		
			ipP	02 23 35.9		
		De	iP	02 23 47.5		
			ipP	02 23 59.2		
		Aleutian Islands.				
		h = 40 km (Um,Ud,De).				
		m = 6.3 (Up,Ki).				
"	11	Ki	iP	03 00 54.0		
		Um	iP	03 01 21.3		
		Ud	iP	03 01 46.6		
		Aleutian Islands				
		(h = 25 km).				
"	11	Um	iP	03 02 41.7		
		Ud	iP	03 03 07.6		
		De	iP	03 03 35.5		
		Aleutian Islands				
		(h = 55 km).				
"	11	Ud	eP	03 08 17		
		Komandorsky Islands				
		(h = 45 km).				
"	11	Um	iP	04 46 52.0		
"	11	Ki	iP	05 11 17.7		
		Um	iP	05 11 44.2		
		Ud	iP	05 12 10.7		
		Aleutian Islands				
		(h = 20 km).				
"	11	Um	iP	06 13 06.0		
		Ud	i(P)	06 13 33.1		
		Aleutian Islands				
		(h = 50 km).				

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

1973 Jan. 11	Up	iSg1	09 31 19.8		
	Ki	ePg1	09 28 38		
		iSg1	09 29 13.7		
	Sk	iS*	09 29 18.1		
		iSg1	09 29 21.4		
	Um	ePg1	09 28 54		
		iSn	09 29 27.2		
		iSg1	09 29 40.5		
	Ud	iSg1	09 31 07.4		
		i	09 31 13.3		
	Nordland, Norway, 66.5°N, 14.2°E. Origin time = 09 27 46. Explosion.				
" 11	Up	iSg1	12 21 29.8		
	Um	iPg1	12 19 44.2		
		i	12 20 42.8		
		iSg1	12 20 51.7		
		iRg	12 21 24.6		
	Ud	eSg1	12 22 23		
	De	eSg1	12 23 10		
	Lake Ladoga. Origin time = 12 18 15. Explosion?				
" 11	Sk	i(P)	12 20 18.4		
" 11	Um	iSg1	12 36 55.3		
	Gulf of Bothnia.				
" 11	Ud	iP	13 23 57.9		
" 11	Up	iSg1	14 08 52.5		
	Um	iSg1	14 08 25.9		
" 11	Um	iP	20 55 08.1		
	Ud	iP	20 55 03.7		
	De	iP	20 54 38.4		
" 12	Up		micr	sec	
		Mx E	1.7	18	
		Mx N	1.8	20	
		Mx Z	2.6	19	
	Ki	iPKP	03 30 23.0		
			micr	sec	
		Mx E	1.9	17	
		Mx N	1.8	17	
		Mx Z	2.1	17	
	Ud	iPP	03 31 10.8		
	Bouvet Island (h = N). M = 5.9 (Up,Ki).				
" 12	De	ePg1	12 15 02		
		iSg1	12 15 26.4		

1973 Jan. 12	Um	iPKP	03 30 16.9		
		i	03 31 17.9		
	Ud	iPP	03 31 10.7		
	Bouvet Island (h = N).				
" 12	Ud	iP	03 37 28.4		
" 12	Up	iSg1	12 48 00.3		
	Um	iSg1	12 48 09.2		
	Ud	eSg1	12 49 01		
	De	iSg1	12 49 19.9		
	Western USSR. Explosion.				
" 12	Ud	i(P)	13 45 50.8		
" 12	Up	iPKP1	20 54 51.8		
	Ud	iPKP1	20 54 53.8		
	De	ePKP1	20 55 04		
" 12	Ud	iP	21 44 14.7		
" 12	Ud	iP	22 21 11.3		
" 12	Up	iP	23 46 59.8	D	
	Ki	iP	23 47 09.3	D	
			micr	sec	
		P Z'	0.1	0.6	
	Sk	iP	23 47 25.5	D	
	Um	iP	23 46 58.6	D	
	Ud	iP	23 47 16.4	D	
	De	iP	23 47 12.2	D	
	Hindu Kush (h = 130 km).				
" 13	Um	iP	00 33 12.1		
	Japan (h = 40 km).				
" 13	Up	iP	01 11 31.4	D	
		i	01 11 51.1		
	Ki	iP	01 10 39.8		
		ipP	01 10 56.3		
			micr	sec	
		pP Z'	0.1	1.1	
	Um	eP	01 11 08		
		ipP	01 11 24.0		
		iPcP	01 11 40.5		
	Ud	iP	01 11 32.0		
		iPcP	01 11 58.1		
	De	iP	01 11 54.5		
	Aleutian Islands. h = 60 km (Ki,Um).				
" 13	Um	iP	06 17 53.7		
	Ud	iP	06 17 36.6		
	Zambia (h = N).				

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

1973 Jan.	13	Ud	iP	07 51 49.7	
			i	07 51 53.2	
		Greece.			
"	13	Ud	iP	09 05 37.5	
"	13	Ud	iPKP1	09 37 34.1	
		De	iPKP1	09 37 44.6	
		Tonga-Kermadec Islands			
		(h = 540 km).			
"	13	Up	iP	11 23 05.3	
		Ki	iP	11 23 05.3	
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	11 23 19.1	
		Um	iP	11 23 02.3	
		Ud	iP	11 23 15.1	
		De	iP	11 23 13.6	
		Sumatra (h = 110 km).			
"	13	Ud	i(Sg1)	12 04 57.1	
"	13	Up	iSn	12 33 52.6	
			iSg1	12 34 20.3	
		Sk	eSg1	12 36 00	
		Um	iSg1	12 34 31.3	
		Ud	eSn	12 34 41	
			iSg1	12 35 20.3	
		De	eSg1	12 35 44	
		Western USSR,			
		59.4°N, 28.3°E.			
		Origin time = 12 31 30.			
		Explosion.			
"	13	Ud	iP	13 47 23.3	
		Aleutian Islands			
		(h = 60 km).			
"	13	Up	i(pP)	14 23 15.7	
		Ud	iP	14 23 21.3	
			ipP	14 23 32.9	
		De	eP	14 23 09	
			ipP	14 23 19.1	
		Pakistan.			
		h = 40 km (Ud,De).			
"	13	Ud	i(P)	17 35 59.9	
"	13	Ud	iP	18 44 10.6	
"	13	Ud	iP	19 35 33.8	
"	13	Sk	iP	20 22 19.5	
		(cont.)			

1973 Jan.	13	(cont.)			
		Sk	eS	20 24 13	
		Um	iP	20 22 47.4	
		Ud	eP	20 23 05	
		Jan Mayen.			
		Origin time = 20 19 46.			
"	13	Up	iP	22 09 12.7	C
				micr sec	
			P Z'	0.1 0.9	
		Ki	iP	22 08 19.3	C
				micr sec	
			P Z'	0.1 0.7	
		Sk	iP	22 08 53.0	C
		Um	iP	22 08 45.4	C
		Ud	iP	22 09 14.2	C
		De	iP	22 09 35.6	C
		Aleutian Islands			
		(h = 50 km).			
		m = 6.1 (Up,Ki).			
"	13	Ud	iP	22 13 43.4	
		Kamchatka (h = N).			
"	13	Ud	iP	23 17 26.6	
		De	iP	23 16 54.0	
		Dodecanese Islands (h = N).			
"	14	Um	eP	01 54 15	
		Ud	eP	01 54 18	
"	14	Um	iSg1	04 41 31.7	
"	14	Ud	iP	08 51 27.0	
		North Atlantic Ocean			
		(h = N).			
"	14	Ki	eP	09 06 09	
		Ud	eP	09 05 36	
			i	09 05 39.4	
		North Atlantic Ocean			
		(h = N).			
"	14	Ki	iP	09 08 21.1	
		Ud	iP	09 07 46.6	
		North Atlantic Ocean			
		(h = N).			
"	14	Up	iPKP	11 33 30.2	
			iSKP1	11 36 35.7	
		Ki	iPKP	11 33 16.4	
		Sk	iPKP	11 33 28.0	
		Um	iPKP	11 33 22.3	
		Ud	iPKP	11 33 32.5	
			iSKP1	11 36 38.8	
		De	iPKP	11 33 38.6	
		(cont.)			

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

1973
Jan. 14 (cont.)

	De	iSKP1	11 36 50.4	

New Hebrides Islands
(h = 200 km).

" 14	Ki	eP	11 47 50	
	Ud	iP	11 48 01.4	

Kashmir-India (h = 90 km).

" 14	Um	iSg1	13 59 33.3	
" 14	Up	iRg	17 18 55.7	
	Ud	iRg	17 19 17.4	

Central Sweden.

" 14	Ud	iP	18 11 04.5	
" 14	Up	iP	18 55 47.6	
	Sk	i(P)	18 55 20.0	
	Ud	iP	18 55 24.1	
" 14	Ki	iP	23 11 15.6	
	Um	iP	23 10 51.2	
	Ud	iP	23 10 51.9	
" 15	Up	iP	02 03 19.9	
	Ki	iP	02 02 36.2	
		ipP	02 03 53.4	
			micr sec	
		pP Z'	0.1 1.0	
	Sk	iP	02 03 10.5	
	Um	iP	02 02 55.6	
	Ud	iP	02 03 26.6	
		ipP	02 04 47.0	
	De	iP	02 03 44.7	

Sakhalin.
h = 370 km (Ki,Ud).

" 15	Ud	iP	03 50 40.1	

Venezuela (h = 20 km).

" 15	De	iP	05 27 23.1	
" 15	Up	iP	09 14 24.3	D
		iPP	09 17 38.7	
		iS	09 23 51.5	
			micr sec	
		P Z'	1.6 0.7	
		PP Z'	0.7 1.3	
	Ki	iP	09 13 53.1	D
		iPP	09 16 48.3	
		ipPP	09 18 25.9	
			micr sec	
		P Z'	2.2 1.0	
		PP Z'	0.3 1.1	

(cont.)

1973
Jan. 15 (cont.)

	Sk	iP	09 14 21.3	D
		iPP	09 17 32.2	
	Um	iP	09 14 06.5	D
		iPP	09 17 11.2	
		iS	09 23 16	
	Ud	iP	09 14 31.2	D
		iPP	09 17 48.9	
		iS	09 24 04.4	
	De	iP	09 14 42.8	D
		iPP	09 18 08.9	

Bonin Islands (h = 480 km).
m = 6.5 (Up,Ki).

" 15	Up	iP	09 25 36.7	D
			micr sec	
		P Z'	0.1 0.7	
	Ki	iP	09 25 06.1	
			micr sec	
		P Z'	0.1 0.7	
	Sk	iP	09 25 33.2	
	Um	iP	09 25 19.5	D
	Ud	iP	09 25 43.7	
	De	iP	09 25 55.5	

Bonin Islands (h = 480 km).
m = 5.5 (Up,Ki).

" 15	Up	iP	11 31 16.4	D
			micr sec	
		P Z'	0.2 0.8	
	Ki	iP	11 30 45.2	
			micr sec	
		P Z'	0.1 0.7	
	Sk	iP	11 31 12.4	
	Um	iP	11 30 58.1	D
	Ud	iP	11 31 23.1	
	De	iP	11 31 34.6	

Bonin Islands (h = 470 km).
m = 5.6 (Up,Ki).

" 15	Ki	i(P)	12 32 51.2	
" 15	Up	iP	13 04 25.4	
		ipP	13 04 29.9	
			micr sec	
		pP Z'	0.1 0.6	
	Ki	iP	13 04 09.8	
		ipP	13 04 14.2	
			micr sec	
		pP Z'	0.1 0.7	
	Sk	iP	13 04 38.2	
		ipP	13 04 43.6	
	Um	iP	13 04 11.5	
		ipP	13 04 16.2	
	Ud	iP	13 04 40.5	

(cont.)

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

1973 Jan. 15	(cont.)						
	Ud	ipP	13 04 44.7				
	De	iP	13 04 46.1				
		ipP	13 04 50.4				
	Sinkiang.						
	h = 20 km (Up,Ki,Sk,Um,Ud,						
	De).						
" 15	Up	iP	14 50 48.5				
		ipP	14 50 52.8				
	Ki	iP	14 50 32.4				
		ipP	14 50 37.2				
	Sk	iP	14 51 02.0				
		ipP	14 51 06.7				
	Ud	iP	14 51 03.3				
	Sinkiang.						
	h = 20 km (Up,Ki,Sk).						
" 15	Up	iP	17 15 47.5				
	Ki	eP	17 15 11				
	Sk	eP	17 15 42				
	Um	iP	17 15 24.7				
	Ud	iP	17 15 55.2				
	Japan (h = 60 km).						
" 15	Ud	iP	18 56 55.7				
	Kashmir (h = N).						
" 15	Ud	iP	19 38 34.1				
" 15	Ud	iP	23 28 27.0				
	Hindu Kush (h = 150 km).						
" 15	Up	i(P)	23 36 17.7				
			micr	sec			
		(P)	Z' 0.1	1.0			
	Ki	iP	23 36 12.1				
	Ud	iP	23 36 22.9				
	Andaman Islands.						
" 16	Ki	iP	05 56 24.2				
	Ud	iP	05 56 45.8				
	Molucca Passage (h = 15 km).						
" 16	Sk	iP	09 42 16.2				
" 16	Up	iP	10 08 19.3 D				
			micr	sec			
		P	Z' 0.1	0.6			
	Ki	iP	10 07 25.6 D				
			micr	sec			
		P	Z' 0.1	1.1			
	Sk	iP	10 07 55.4 D				
	Um	iP	10 07 52.8 D				
	Ud	iP	10 08 18.2 D				
	(cont.)						

1973 Jan. 16	(cont.)						
	De	iP	10 08 40.5				
	Aleutian Islands						
	(h = 80 km).						
	m = 5.9 (Up,Ki).						
" 16	Ud	eSg1	11 32 23				
	De	iSg1	11 30 32.1				
" 16	Ud	iP	21 16 35.3				
" 16	Up	iP1	21 39 44.9				
		iP2	21 39 51.0				
			micr	sec			
		P1	Z' 0.2	1.3			
	Ki	iP1	21 39 52.2	C			
		iP2	21 39 58.5				
			micr	sec			
		P1	Z' 0.1	1.0			
	Sk	iP1	21 40 10.1	C			
	Um	iP1	21 39 42.7				
	Ud	iP1	21 40 01.9	C			
		iP2	21 40 08.4				
	De	eP2	21 40 07				
	Kashmir (h = 40 km).						
	m = 6.0 (Up,Ki).						
	Double P, in average 6.3						
	sec apart.						
" 16	Um	iPKP1	22 45 37.2				
	Ud	iPKP1	22 45 49.0				
" 16	Up	iP	22 50 37.8				
			micr	sec			
		P	Z' 0.1	0.6			
	Ki	iP	22 51 47.6				
			micr	sec			
		P	Z' 0.1	0.9			
	Sk	iP	22 51 15.6				
	Um	iP	22 51 17.7				
	Ud	iP	22 50 43.8				
	De	iP	22 50 10.2				
	Mediterranean Sea						
	(h = 30 km).						
	m = 5.6 (Up,Ki).						
" 16	Um	iPKP1	23 00 38.7				
	Ud	iPKP1	23 00 52.1				
" 17	Um	ipPKP	06 16 20.3				
	Ud	ePKP	06 16 03				
		ipPKP	06 16 13.5				
	Chile (h = 40 km).						
" 17	Up	iPKP2	08 28 54.1				
	Ki	ePKP1	08 28 20.0				
		ipPKP1	08 28 32.7				
	(cont.)						

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

1973 Jan.	17	(cont.)			
		Ki		micr	sec
			PKP1 Z'	0.2	1.5
		Sk	iPKP1	08 28 36.1	
		Um	iPKP1	08 28 30.5	
			ipPKP1	08 28 43.0	
		Ud	ePKP1	08 28 41	
		New Zealand.			
		h = 45 km (Ki,Um).			
"	17	Up	iSg1	09 02 20.3	
		Sk	eSg1	09 04 22	
		Ud	iSg1	09 02 23.5	
		De	iPg1	09 00 19.4	
			iSg1	09 00 36.4	
			iTPg1	09 00 46.2	
			iTSg1	09 00 55.2	
		Baltic Sea, south of Sweden,			
		55.5°N, 15.0°E.			
		Origin time = 09 00 00.			
		Explosion.			
"	17	Up	iSg1	09 04 35.1	
		Ud	iSg1	09 04 37.6	
		De	iPg1	09 02 34.5	
			iSg1	09 02 50.6	
			iTPg1	09 03 00.1	
			iTSg1	09 03 08.5	
		Baltic Sea, south of Sweden,			
		55.5°N, 15.0°E.			
		Origin time = 09 02 15.			
		Explosion.			
"	17	Up	i(PKP)	10 03 17.8	
			iPKP	10 03 24.9	
				micr	sec
			PKP Z'	0.1	0.9
		Ki	i(PKP)	10 03 02.4	
			iPKP	10 03 09.5	
				micr	sec
			PKP Z'	0.1	1.0
		Sk	i(PKP)	10 03 08.3	
			iPKP	10 03 19.1	
		Um	i(PKP)	10 03 04.5	
			i(PKP)	10 03 09.0	
			iPKP	10 03 16.8	
		Ud	i(PKP)	10 03 12.0	
			iPKP	10 03 25.9	
		De	i(PKP)	10 03 22.7	
			i(PKP)	10 03 27.2	
			iPKP	10 03 34.8	
		Tonga Islands (h = 250 km).			
"	17	Sk	eSg1	13 16 04	
		Ud	iSg1	13 15 50.6	
		(cont.)			

1973 Jan.	17	(cont.)		
		De	eSg1	13 16 33
		West coast of Norway.		
		By combination with Bergen		
		and Kongsberg readings.		
"	17	Ki	iP	14 08 28.6
		Sk	iP	14 08 33.6
			iS	14 10 31.9
		Jan Mayen (h = N).		
"	17	Ki	iP	16 17 13.5 D
		Um	iP	16 17 39.9 D
		Ud	iP	16 18 05.9
"	17	Ki	iX	21 08 11.8
		Ud	i(P)	21 08 30.5
			iX	21 08 46.1
		Mindanao (h = N).		
"	17	Ud	iP	23 18 37.5
"	18	Ud	iPKP1	04 02 11.8
		De	iPKP1	04 02 22.7
		Tonga Islands (h = 580 km).		
"	18	Um	iP	05 54 23.8
		Mariana Islands		
		(h = 80 km).		
"	18	Up	iP	06 57 10.8
		Sk	eP	06 57 22
		Ud	iP	06 57 24.7
		China (h = N).		
"	18	Up	iP	09 43 05
			iPKP	09 46 54.2
			iX1	09 47 00.0
			iPP	09 47 56
			iSKS	09 53 36
				micr sec
			Mx E	9.2 18
			Mx N	12 19
			Mx Z	28 19
		Ki	iP	09 42 41.5
			i	09 46 25.7
			iPKP	09 46 42.2
			iX1	09 46 49.3
			iX2	09 46 59.8
			iPP	09 47 18.6
			iSKS	09 53 17
				micr sec
			X2 Z'	0.1 0.9
			PP Z'	2.3 2.7
			Mx E	12 21
		(cont.)		

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

1973 Jan.	18	(cont.)				
		Ki			micr	sec
			Mx	N	14	20
			Mx	Z	8.9	19
		Sk	iPKP		09 46	52.8
			iX2		09 47	08.3
			iPKKP		09 57	30.4
		Um	iP		09 42	52
			iPKP		09 46	47.2
			iX1		09 46	57.0
			iX2		09 47	04.4
			iPP		09 47	35
			iSKS		09 53	20
			iPKKP		09 57	42.8
		Ud	iPKP		09 46	58.1
			iX2		09 47	15.9
			iPP		09 47	54.2
			iPKKP		09 57	18.4
		De	iPKP		09 47	00.4
			iX1		09 47	08.9
			iX2		09 47	17.8
			iPKKP		09 57	11.2
		New Britain (h = 45 km).				
		M = 6.7 (Up,Ki).				
"	18	Up	iP2		10 31	35.8
		Ki	iP1		10 31	11.6
			iP2		10 31	17.6
		Ud	iP1		10 31	37.0
		Mindanao (h = 60 km).				
"	18	Up	iP		11 16	07.5
		Sk	iP		11 16	34.9
		Ud	iP		11 16	23.4
			i		11 16	28.8
		Afghanistan (h = 35 km).				
"	18	Up	ePKP1		12 30	07
		Sk	iPKP1		12 29	59.5
		Um	iPKP1		12 29	50.5
		Ud	iPKP		12 30	01.2
			iPKP1		12 30	09.3
		South of Kermadec Islands (h = 40 km).				
"	18	Up	ePKP		13 44	46
		Um	i(PKP)		13 44	35.5
			iPKP		13 44	41.6
		Ud	iPKP		13 44	48.4
		De	iPKP		13 44	57.1
		Santa Cruz Islands (h = 140 km).				
"	18	Up	iP		14 14	42.7
		Ud	iP		14 14	48.1
		Mindanao.				
1973 Jan.	18	Up	iP		16 34	23.2
		Ki	eP		16 34	07
		Ud	eP		16 34	31
		Mindanao.				
"	18	Um	iP		19 12	16.9
		Ud	iP		19 11	42.4
		Yugoslavia.				
"	18	Um	iP		22 42	11.0 C
		Ud	iP		22 42	10.5 C
		De	iP		22 41	52.2 C
		Iran (h = 55 km).				
"	19	Up	ipP		01 01	32.3
		Ki	iP		01 00	26.7
		Sk	ipP		01 01	06.2
		Um	iP		01 00	56.6
			ipP		01 01	06.5
		Ud	iP		01 01	22.9
		De	iP		01 01	47.2
		Kodiak Island.				
		h = 35 km (Um).				
"	19	Ud	iP		02 39	07.8
"	19	Sk	iP		03 24	02.9
		Ud	iP		03 23	50.8
		De	eP		03 23	45
		Afghanistan (h = 35 km).				
"	19	Um	iP		04 00	27.8
"	19	Up	iSg1		04 36	08.7
		Ki	iPg1		04 33	10.5
			iSg1		04 33	53.1
					micr	sec
			Sg1	Z'	0.1	0.7
		Sk	eS*		04 33	56
			iSg1		04 33	59.5
		Um	iPg1		04 33	33.4
			iSn		04 34	06.5
			iSg1		04 34	21.2
		Ud	iSg1		04 35	47.2
		De	eSg1		04 37	47
		Nordland, Norway,				
		66.4°N, 14.7°E.				
		Origin time = 04 32 30.				
		Explosion.				
"	19	Ud	iP		05 56	40.8
		Iran (h = 5 km).				
"	19	Ki	iP		08 18	05.8
		Ud	iP		08 18	31.8
		Mindanao (h = 60 km).				

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

1973				
Jan. 19	Ki	iP	11 01 09.7	
	Ud	iP	11 01 35.2	
	Mindanao.			
	Origin time = 10 48 12.			
" 19	Ki	iPKP	12 06 02.0	
			micr	sec
		PKP Z'	0.2	1.5
	South Sandwich Islands			
	(h = N).			
" 19	Ki	ePn	12 08 46	
		iSn	12 09 31.4	
		iSg1	12 09 46.1	
	Sk	eSg1	12 12 17	
	Um	iSg1	12 10 45.1	
	Northwest USSR.			
	Explosion.			
" 19	Sk	i(P)	12 31 32.1	
" 19	Up	iSg1	12 40 07.0	
	Ki	eSg1	12 42 04	
	Sk	iSg1	12 41 50.0	
	Um	iSg1	12 40 21.2	
	Ud	iSg1	12 41 06.2	
	De	eSg1	12 41 30	
	Western USSR,			
	59.3°N, 28.1°E.			
	Origin time = 12 37 19.			
	Explosion.			
" 19	Up	iSg1	13 04 03.6	
	Sk	iSg1	13 04 03.9	
	Um	iSg1	13 05 25.4	
	Ud	iSg1	13 03 04.2	
	De	iPg1	13 02 18.3	
		iSg1	13 03 18.1	
	Near coast of south Norway,			
	58.5°N, 6.6°E.			
	Origin time = 13 01 00.			
" 19	Up	eP	13 44 35	
	Sk	eP	13 45 02	
	Ud	iP	13 44 52.6	
	Afghanistan (h = 45 km).			
" 19	Up	iSg1	13 46 17.1	
	Ki	iPn	13 42 02.3	
		iSn	13 43 01.8	
		iSg1	13 43 25.5	
	Sk	eSg1	13 45 47	
	Um	iSn	13 43 40.0	
		iSg1	13 44 16.4	
	Ud	iSg1	13 46 49.6	
	(cont.)			

1973			
Jan. 19	(cont.)		
	De	iSg1	13 48 18.0
	Northwest USSR,		
	67.8°N, 34.2°E.		
	Origin time = 13 40 43.		
	Explosion.		
" 19	Up	iP	14 12 57.3
	Ki	eP	14 12 20
	Um	iP	14 12 37.0
	Ud	iP	14 13 04.2
	Japan (h = 60 km).		
" 19	Up	iP	15 17 57.8
	Sk	iP	15 18 25.7
	Um	iP	15 17 59.4
	Ud	iP	15 18 14.1
		ipP	15 18 19.5
	De	iP	15 18 08.3
		ipP	15 18 13.8
	Afghanistan.		
	h = 20 km (Ud,De).		
" 19	Ud	iP	15 57 40.3
	Greece.		
" 19	Up	i(P)	23 05 26.2
" 19	Up	i(P)	23 05 51.7
" 19	Ud	iPKP1	23 43 41.1
	De	iPKP1	23 43 52.7
		i	23 44 09.4
	Tonga Islands (h = N).		
" 20	Um	iP	01 03 43.3
	Ud	eP	01 03 53
" 20	Up	iP	06 16 27.3
	Ki	iP	06 15 48.9
	Sk	iP	06 16 22.6
	Um	iP	06 16 05.1
		ipP	06 16 16.3
	Ud	iP	06 16 34.3
	Japan.		
	h = 40 km (Um).		
" 20	Sk	eP	07 36 42
" 20	Up	iPKP2	08 52 09.3
			micr sec
		PKP2 Z'	0.1 1.1
	Sk	iPKP1	08 51 56.2
	Um	iPKP1	08 51 50.9 D
	Ud	iPKP1	08 52 02.1
	(cont.)		

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

1973						
Jan. 20	(cont.)					
	Ud	iPKP2		08 52 12.2		
	South of Kermadec Islands					
	(h = N).					
" 20	Um	iP		10 14 45.1		
	Japan (h = 55 km).					
" 20	Up	iP		10 25 27.7		
	Ki	iP		10 24 49.0		
	Sk	iP		10 25 21.7		
	Um	iP		10 25 05.6	C	
	Ud	iP		10 25 34.0		
		ipP		10 25 45.3		
	Japan.					
	h = 40 km (Ud).					
" 20	Ud	iP		10 31 14.7		
" 20	Up	iSg1		11 40 40.7		
	Ki	iSg1		11 38 31.3		
	Sk	iS*		11 38 34.7		
		iSg1		11 38 37.4		
	Um	iSn		11 38 45.0		
		iSg1		11 38 58.0		
	Ud	iSg1		11 40 25.1		
	Nordland, Norway,					
	66.5°N, 14.2°E.					
	Origin time = 11 37 02.					
	Explosion.					
" 20	Um	iP		12 04 37.8		
" 20	Up	iP		12 42 39.9	C	
		ipP		12 42 47.3		
				micr	sec	
		pP	Z'	0.1	1.0	
		Mx	E	3.2	17	
		Mx	N	6.0	17	
		Mx	Z	3.6	17	
	Ki	iP		12 42 57.2		
				micr	sec	
		Mx	E	3.7	13	
		Mx	N	4.7	13	
		Mx	Z	2.6	11	
	Sk	iP		12 43 07.4		
	Um	iP		12 42 43.2		
		ipP		12 42 50.4		
	Ud	iP		12 42 55.7		
		i		12 42 57.0		
		ipP		12 43 03.0		
	De	iP		12 42 49.3		
	Pakistan.					
	h = 35 km (Up,Um,Ud).					
	M = 5.7 (Up,Ki).					

1973						
Jan. 20	Up	iP		12 55 04.3		
				micr	sec	
		P	Z'	0.2	1.3	
		Mx	E	3.2	17	
		Mx	N	5.1	17	
		Mx	Z	4.5	17	
	Ki	iP		12 55 21.1		
		i		12 55 37.2		
				micr	sec	
		i	Z'	0.1	1.4	
		Mx	E	4.0	13	
		Mx	N	4.3	15	
		Mx	Z	2.7	14	
	Sk	iP		12 55 31.4		
		ipP		12 55 34.7		
	Um	iP		12 55 06.4		
		ipP		12 55 09.5		
	Ud	iP		12 55 19.4		
		ipP		12 55 22.6		
	De	iP		12 55 13.1		
	Pakistan.					
	h = 15 km (Sk,Um,Ud).					
	M = 5.7 (Up,Ki).					
" 20	Up	iP		13 18 23.6		
	Um	iP		13 18 02.4		
		ipP		13 18 12.3		
	Ud	iP		13 18 30.9		
	Japan.					
	h = 35 km (Um).					
" 20	Up	iP		16 41 35.3		
				micr	sec	
		P	Z'	0.1	1.1	
	Ki	iP		16 41 00.4		
	Sk	eP		16 41 31		
		epP		16 41 43		
	Um	iP		16 41 16.7		
		ipP		16 41 26.4		
		iPcP		16 41 36.4		
	Ud	iP		16 41 45.1		
		iPcP		16 42 01.5		
	Japan.					
	h = 35 km (Um).					
" 20	Up	iP		17 06 56.8		
	Ki	iP		17 06 18.9		
	Sk	iP		17 06 51.7		
	Um	iP		17 06 35.7		
		ipP		17 06 45.3		
	Ud	iP		17 07 04.3	D	
	De	iP		17 07 17.8		
	Japan.					
	h = 35 km (Um).					

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

1973 Jan.	20	Up	iP	18 36 59.6	C
		Um	iP	18 36 41.1	
		Ud	iP	18 37 05.5	C
		De	iP	18 37 18.3	C
		Bonin Islands (h = 450 km).			
"	20	De	iPKP	18 43 03.5	
		Solomon Islands (h = 80 km).			
"	20	Um	iPKP1	21 46 37.7	
		Ud	iPKP1	21 46 53.1	
"	20	Um	iPKP1	21 50 21.9	
		Ud	iPKP1	21 50 38.5	
"	20	Ud	iP	22 52 02.2	
		Kurile Islands.			
"	20	Ki	ePKP	23 58 21	
		South Sandwich Islands (h = 100 km).			
"	21	Ud	iP	03 31 27.1	
		Pamir.			
"	21	Up	iP	04 51 03.9	
				micr	sec
			P Z'	0.1	0.9
		Ki	iP	04 51 20.6	
		Sk	iP	04 51 31.5	C
		Um	iP	04 51 06.8	
		Ud	iP	04 51 19.5	C
			i	04 51 28.3	
		De	iP	04 51 13.2	
		Pakistan (h = 20 km).			
"	21	Ki	eP	05 34 07	
		Sk	iP	05 34 13.3	
		Um	eP	05 33 45	
		Ud	iP	05 34 00.3	
		Pakistan (h = 10 km).			
"	21	Up	iP	08 27 43.4	
				micr	sec
			P Z'	0.1	1.3
		Ki	iP	08 27 05.5	
		Sk	iP	08 27 41.0	
		Um	iP	08 27 22.4	
			ipP	08 27 35.9	
		Ud	iP	08 27 50.9	
		Japan.			
		h = 50 km (Um).			
"	21	Um	iP	12 34 08.8	

1973 Jan.	21	Up	iSn	17 15 05.3	
			i	17 15 13.9	
			iSg1	17 15 36.3	
		Sk	iSn	17 15 19.8	
			iSg1	17 15 54.3	
		Um	iSg1	17 17 13.1	
		Ud	iSn	17 14 23.2	
			iSg1	17 14 43.4	
		De	iPn	17 13 31.4	
			iPg1	17 13 45.3	
			i	17 14 24.0	
			iSg1	17 14 37.4	
		Off coast of south Norway, 57.8°N, 7.2°E.			
		Origin time = 17 12 37.			
"	21	Sk	iP	18 58 52.2	
"	21	Ud	iPKP	20 39 55.7	
		Tonga Islands (h = 130 km).			
"	22	Up	eP	00 50 52	
			iSKS	01 01 21	
				micr	sec
			Mx E	6.9	20
			Mx N	5.7	20
			Mx Z	13	23
		Ki	iSKS	01 01 13	
				micr	sec
			Mx E	20	18
			Mx N	11	18
			Mx Z	9.9	17
		Sk	iP	00 50 31.3	
		Um	iP	00 50 45.3	
			i(pP)	00 50 57.5	
			iSKS	01 01 18	
		Ud	iP	00 50 48.9	
		Mexico (h = N).			
		M = 6.4 (Up,Ki).			
"	22	Sk	iP	00 59 16.3	
		Um	iP	00 58 59.7	
		Ud	iP	00 59 04.3	
"	22	Up	iP	01 02 23.2	
		Um	iP	01 02 20.8	
		Mexico (h = N).			
"	22	Ud	iP	03 05 24.4	
"	22	Up	e(P)	03 30 21	
		Ud	iP	03 30 37.3	
		Java (h = 90 km).			
"	22	Ud	iP	03 50 12.4	
		Kurile Islands.			

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

1973					
Jan. 22	Um	iPKP1	07 01 21.1		
	Ud	iPKP1	07 01 27.3		
" 22	Up	iSg1	09 48 50.5		
	Sk	eSg1	09 48 09		
	Ud	iSg1	09 47 44.6		
	West coast of Norway,				
	60.0°N, 5.2°E.				
	Origin time = 09 45 32.				
	By combination with Bergen				
	and Kongsberg readings.				
" 22	Um	i(P)	10 09 57.1		
" 22	Up	iPKP1	13 55 14.9		
		i	13 55 30.9		
	Sk	ePKP	13 55 08		
	Um	iPKP	13 55 04.2		
		i	13 55 15.1		
	Ud	i(PKP)	13 55 16.0		
		iPKP1	13 55 17.5		
	De	iPKP1	13 55 27.9		
	Fiji Islands (h = 570 km).				
" 22	Um	epP	17 05 58		
	Ud	iP	17 06 15.0		
	Japan (h = 40 km).				
" 23	Up		micr	sec	
		Mx	E 1.5	20	
		Mx	N 1.4	20	
		Mx	Z 4.1	20	
	Ki		micr	sec	
		Mx	E 5.0	27	
		Mx	N 2.3	21	
		Mx	Z 3.7	27	
	Ud	ePKP	00 04 10		
	New Britain (h = 70 km).				
	M = 5.9 (Up,Ki).				
" 23	Up	iPKP	05 08 38.8		
		i	05 08 41.8		
		ipPKP	05 09 07.7		
		iPP	05 10 42.1		
			micr	sec	
		PKP	Z' 0.2	1.1	
		Mx	E 2.4	21	
		Mx	N 5.2	22	
		Mx	Z 9.5	23	
	Ki	iPKP	05 08 24.9 C		
		i	05 08 28.5		
		iPP	05 09 52		
		iPKKP	05 18 37.2		
			micr	sec	
		PKP	Z' 0.2	1.0	
	(cont.)				

1973					
Jan. 23	(cont.)				
	Ki		micr	sec	
		Mx	E 6.6	26	
		Mx	N 8.1	28	
		Mx	Z 9.4	26	
	Sk	iPKP	05 08 36.0 C		
		i	05 08 39.3		
		ipPKP	05 08 59.6		
		ePKKP	05 18 15		
	Um	iPKP	05 08 31.2 C		
		i	05 08 35.2		
		ipPKP	05 08 55.1		
		iPP	05 10 12		
		iPKKP	05 18 21.3		
	Ud	i(PKP)	05 08 36.0		
		iPKP	05 08 40.7 C		
		i	05 08 44.6		
		iPP	05 10 56.1		
		iSKP1	05 11 58.7		
		iPKKP	05 17 47.6		
	De	i(PKP)	05 08 43.0		
		iPKP	05 08 48.0		
		ipPKP	05 09 08.0		
		iSKP1	05 12 06.8		
	Santa Cruz Islands.				
	h = 90 km (Up,Sk,Um,De).				
	M = 6.4 (Up,Ki).				
	Double PKP-phases, in				
	average 3.6 sec apart.				
" 23	Ud	iP	05 35 22.0		
	Mariana Islands				
	(h = 150 km).				
" 23	Ud	iPKP1	05 56 53.7		
	De	iPKP1	05 57 03.4		
" 23	Ki	iPn	11 21 07.6		
		iPg1	11 21 18.1		
		iSn	11 21 56.2		
		iS*	11 22 07.3		
	Um	iSg1	11 23 43.3		
	Northwest USSR-Norway				
	border region,				
	69.6°N, 30.9°E.				
	Origin time = 11 20 03.				
	Explosion.				
" 23	Up	iP	11 40 25.8		
		ipP	11 40 30.8		
			micr	sec	
		pP	Z' 0.1	0.8	
	Ki	iP	11 40 10.2		
		ipP	11 40 14.9		
			micr	sec	
		pP	Z' 0.1	1.0	
	(cont.)				

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

1973 Jan. 23	(cont.)				
	Sk	iP		11 40 39.4	
	Um	eP		11 40 13	
		epP		11 40 17	
	Ud	iP		11 40 41.0	
		ipP		11 40 45.2	
	De	iP		11 40 46.3	
	Sinkiang.				
	h = 20 km (Up,Ki,Um,Ud).				
" 23	Up	iP		11 52 13.2	
		ipP		11 52 20.0	
	Ki	iP		11 53 20.8	
				micr	sec
		P	Z'	0.1	1.0
	Sk	iP		11 52 51.7	
	Um	iP		11 52 46.0	
	Ud	iP		11 52 20.0	
		ipP		11 52 26.9	
	De	iP		11 51 48.3	
		i		11 52 07.1	
	Crete.				
	h = 35 km (Up,Ud).				
" 23	Up	iSn		12 06 49.1	
		iSg1		12 07 03.2	
		iSg2		12 07 08.7	
	Ki	iSg2		12 09 41.5	
	Sk	iSg1		12 08 54.3	
	Um	iSg1		12 07 36.5	
	Ud	eSg1		12 08 05	
		iSg2		12 08 13.6	
	De	iSg1		12 08 28.9	
	Esthonia, 59.4°N, 25.3°E.				
	Origin time = 12 05 00.				
	Explosion.				
" 23	Up	iSg1		12 28 46.8	
	Ki	eSg1		12 30 51	
	Um	iSg1		12 29 04.1	
	Ud	eSg1		12 29 46	
	De	eSg1		12 30 12	
	Western USSR.				
	Explosion.				
" 23	Ud	iSg1		15 02 47.7	
	De	iSg1		15 00 57.3	
" 23	Ud	i(P)		15 11 42.3	
" 23	Sk	i(P)		22 20 07.7	
" 24	Sk	iSg1		00 14 48.2	
" 24	Sk	eP		00 31 34	
1973 Jan. 24	Up	eP		03 28 16	
		i		03 28 21.0	
				micr	sec
		P	Z'	0.1	1.4
		Mx	N	1.1	4
	Ki	iP		03 28 10.5	
				micr	sec
		Mx	N	1.6	10
		Mx	Z	0.6	10
	Sk	iP		03 28 39.1	
	Ud	iP		03 28 34.7	D
	Sinkiang (h = N).				
" 24	Sk	i(P)		04 11 24.5	
" 24	Sk	i(P)		08 19 30.1	
		i		08 19 35.1	
" 24	Um	iP		10 35 15.8	
	Ud	iP		10 35 44.3	
	De	iP		10 36 00.1	
	Japan (h = 55 km).				
" 24	Ud	eP		17 05 16	
	Mediterranean Sea.				
" 25	Um	eP		05 33 17	
	Ud	iP		05 32 50.0	
	Rumania (h = 160 km).				
" 25	Ud	i(P)		07 22 40.6	
" 25	Ud	iP		07 57 01.7	
" 25	Ud	iSg1		10 02 50.8	
" 25	Up	iSg1		11 26 09.7	
	Ud	i		11 26 56.8	
		iSg1		11 27 08.9	
" 25	Um	eP		11 43 01	
	Ud	iP		11 43 32.1	
	Japan (h = 80 km).				
" 25	Ud	i(P)		12 44 36.6	
" 25	Up	iP		18 42 47.0	
				micr	sec
		P	Z'	0.1	0.7
	Ki	iP		18 41 52.3	
				micr	sec
		P	Z'	0.1	1.0
	Um	iP		18 42 17.7	
	Ud	iP		18 42 50.5	C
		i		18 43 20.7	
	Kamchatka (h = 30 km).				
	m = 6.0 (Up,Ki).				

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

1973
Jan. 25 Ud iP 22 38 25.0
El Salvador (h = 100 km).

" 26 Ud i 07 35 59.8
i(Sg1) 07 36 05.7
i 07 36 15.3

" 26 Up iP 07 55 23.6
micr sec
P Z' 0.1 1.0
Ki iP 07 56 35.3
Sk eP 07 56 02
Um iP 07 56 00.9
i 07 56 18.5
Ud iP 07 55 30.4
i(pP) 07 55 40.5
De iP 07 54 52.6
Mediterranean Sea
(h = 60 km).

" 26 Ud i(P) 08 58 47.7

" 26 Ud i(P) 11 09 13.8

" 26 Ki iSn 11 29 20.6
iS* 11 29 32.5
Um iSg1 11 31 09.1
Northwest USSR-Norway
border region.
Explosion.

" 26 Ki iSn 11 39 31.8
i(Sg1) 11 39 46.1
Um iSg1 11 40 41.9
i 11 40 53.7
Northwest USSR.
Explosion.

" 26 Ud i(P) 12 04 51.4
i 12 05 09.8

" 26 Up iSg1 12 38 28.5
Um iS* 12 38 44.1
iSg1 12 38 50.8
Ud iSg1 12 39 29.9
De eSg1 12 40 02
Western USSR.
Explosion.

" 26 Ki iPn 12 52 42.5
iSn 12 53 31.0
iSg1 12 53 48.4
Um iSg1 12 55 15.9
Northwest USSR-Norway
border region,
69.5°N, 31.0°E.
Origin time = 12 51 38.
Explosion.

1973
Jan. 26 Ki iP 13 18 57.7
Indian Ocean (h = N).

" 26 Ud iP 22 13 12.0
Japan.

" 27 Ki iP 04 14 27.8
Kurile Islands (h = 45 km).

" 27 Um iP 04 49 58.2
Japan (h = 45 km).

" 27 Ud iP 09 06 03.9

" 27 Up iPKP 12 57 51.2
Um iPKP 12 57 45.1
Ud iPKP 12 57 53.2
New Hebrides Islands
(h = 130 km).

" 27 Up iP 13 22 15.4
iPP 13 26 19.5
micr sec
PP Z' 0.2 1.8
Ki iP 13 22 00.2
iX 13 22 25.7
micr sec
P Z' 0.2 1.3
Um iP 13 22 04.9
iX 13 22 30.5
iPP 13 25 57.4
Ud iP 13 22 22.7
iX 13 22 44.0
De iP 13 22 28.3
Celebes (h = 55 km).
m = 6.4 (Up,Ki).
X-phase interpreted as pP
gives a focal depth of
90 km.

" 28 Ud iP 05 58 57.5

" 28 Up eP 17 12 41
micr sec
P Z' 0.1 1.2
Ki iP 17 11 57.0
Ud iP 17 12 47.1 C
De eP 17 13 03
Japan (h = 90 km).

" 28 De iPKP 17 53 42.3
Tonga Islands (h = 240 km).

" 28 Up iPKP 18 02 27.2
ipPKP 18 02 41.2
(cont.)

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

1973
Jan. 28 (cont.)

Up			micr	sec
	PKP	Z'	0.1	1.3
	pPKP	Z'	0.5	2.0
	Mx	E	1.2	20
	Mx	N	1.4	20
	Mx	Z	2.9	21
Ki	iPKP		18 02 12.6	C
	ipPKP		18 02 26.7	
			micr	sec
	PKP	Z'	0.3	1.2
	Mx	E	1.8	22
	Mx	N	1.8	20
Um	iSKP1		18 05 43	
Ud	iPKP		18 02 28.0	
	ipPKP		18 02 42.9	
De	i(PKP)		18 02 25.3	
	iPKP		18 02 33.6	
	ipPKP		18 02 46.5	

New Hebrides Islands.
h = 50 km (Up,Ki,Ud,De).
M = 5.9 (Up,Ki).

" 28

Up	iP	20 40 48.3
Ud	iP	20 40 50.5
	i	20 40 53.7
	iPP	20 41 11.5

Ionian Sea (h = N).

" 28

Ud	iP	23 18 39.7

Molucca Passage
(h = 60 km).

" 29

Up	iP	04 40 04.1
Ki	i(P)	04 40 14.5
Ud	iP	04 40 16.6
De	e(P)	04 40 23

Kashmir (h = 55 km).

" 29

Up	eP		06 07 23	
	i		06 07 25.8	
			micr	sec
	P	Z'	0.1	1.1
Ud	iP		06 07 29.0	
	i		06 07 32.2	

Ionian Sea (h = N).

" 29

Ud	eP	08 38 39

Japan (h = 25 km).

" 29

Up	iSg1	12 38 42.2
Ud	iSg1	12 38 28.2
	i	12 38 31.7

Central Sweden.

1973
Jan. 29

Um	iSg1	12 50 12.1

Western USSR.
Explosion.

" 29

Ud	iP	13 31 47.3

Iran.

" 29

Ud	iPKP1	14 45 39.3
De	iPKP1	14 45 48.8

Tonga Islands (h = N).

" 29

Up	iS*	18 31 23.7
	iSg1	18 31 28.3
Ud	iSg1	18 30 28.5
	i	18 30 36.7
De	iSg1	18 31 32.9

West coast of Norway,
61.1°N, 4.7°E.
Origin time = 18 28 06.
By combination with Bergen and Kongsberg readings.

" 29

Up	iP		21 35 27.9	
			micr	sec
	P	Z'	0.1	1.4
Ki	eP		21 35 07	
Um	iP		21 35 15.2	
Ud	iP		21 35 37.2	
De	iP		21 35 46.4	

Ryukyu Islands (h = 55 km).

" 29

Up	iRg	23 46 07.3
Ud	iRg	23 45 54.6

Central Sweden.

" 30

Um	iP	02 41 35.8
Ud	iP	02 40 54.3

Spain (h = 630 km).

" 30

Ud	iP	07 58 12.1

Turkey.

" 30

Ud	eP	09 03 29

" 30

Up	eP	11 18 49
Um	iP	11 18 33.7
Ud	eP	11 19 06
De	iP	11 19 13.4

Sinkiang (h = N).

" 30

Ud	eP	12 06 05

Aegean Sea (h = N).

" 30

Ki	iP	13 28 15.9

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

1973 Jan.	30	Um	iP		15 49 40.7		
		Japan (h = N).					
"	30	Up	iRg		15 58 43.3		
		Ud	iRg		15 58 29.9		
		Central Sweden.					
"	30	Up	iP		21 14 00.1	C	
			i1		21 14 03.8		
			i2		21 14 07.1		
			iPP		21 17 36.5		
			iSKS		21 24 27.0		
					micr	sec	
			i1	Z'	0.2	1.0	
			i2	Z'	0.6	0.9	
			PP	Z'	1.5	2.2	
			Mx	E	100	15	
			Mx	N	160	15	
			Mx	Z	200	15	
		Ki	iP		21 13 43.8	C	
			i1		21 13 47.5		
			i2		21 13 51.5		
			ipP		21 13 54.7		
					micr	sec	
			P	Z'	0.4	1.5	
			i1	Z'	1.0	1.6	
			i2	Z'	0.9	1.5	
			pP	Z'	7.7	2.3	
			Mx	E	310	15	
			Mx	N	290	15	
			Mx	Z	190	15	
		Um	iP		21 13 54.0	C	
			i1		21 13 57.8		
			i2		21 14 00.5		
		Ud	iP		21 13 52.0	C	
			i1		21 13 55.9		
			i2		21 13 58.8		
		De	iP		21 14 01.3	C	
			i1		21 14 05.0		
			i2		21 14 09.1		
			ipP		21 14 13.3		
		Mexico.					
		h = 45 km (Ki,De).					
		m = 6.9, M = 7.8 (Up,Ki).					
		Multiple P, in average 3.8 and 7.1 sec after the first onset.					
"	30	Ud	eP		21 43 18		
"	30	Up	eP		22 51 35		
		Ud	iP		22 51 42.5		
		Albania (h = N).					

1973 Jan.	31	Up	iRg		02 09 45.2		
		Ud	iRg		02 09 32.9		
		Central Sweden.					
"	31	Up	iRg		02 12 31.3		
		Ud	iRg		02 12 17.6		
		Central Sweden.					
"	31	Up	iRg		06 57 09.9		
		Ud	iRg		06 56 58.4		
		Central Sweden.					
"	31	De	i(P)		07 10 57.9		
"	31	Ki	eP		12 44 53		
			ipP		12 45 08.2		
		Mexico (h = 50 km).					
"	31	Ki	ePKP		16 35 05		
			i		16 35 17.0		
		South Sandwich Islands (h = N).					
"	31	Up	iP		21 07 09.5		
			i		21 07 12.4		
			ipP		21 08 59.5		
			iPP		21 10 24.9		
			iS		21 16 28		
			isS		21 19 45		
					micr	sec	
			P	Z'	0.1	0.6	
			i	Z'	1.8	1.0	
			Mx	E	7.7	20	
			Mx	N	6.5	16	
			Mx	Z	17	18	
		Ki	iP		21 06 38.3		
			i		21 06 41.2		
			ipP		21 08 28.4		
			iS		21 15 29.4		
			isS		21 18 41		
					micr	sec	
			P	Z'	0.7	1.0	
			i	Z'	1.7	1.1	
			Mx	E	15	17	
			Mx	N	11	17	
			Mx	Z	12	17	
		Um	iP		21 06 49.0		
			i		21 06 52.2		
			iS		21 15 53		
			isS		21 19 13		
		Ud	iP		21 07 16.9		
			i		21 07 19.9		
			ipP		21 09 09.3		
			iS		21 16 43.0		

(cont.)

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

1973				
Jan. 31	(cont.)			
	De	iP	21 07 28.6	
		i	21 07 29.7	
		i	21 07 31.5	
		ipP	21 09 27.5	
		iPP	21 10 54.9	
		iS	21 17 01.9	
	Bonin Islands.			
	h = 520 km (Up,Ki,Ud,De).			
	m = 6.5, M = 6.3 (Up,Ki).			
	M uncorrected for focal depth.			
	Double P, in average 3.0 sec apart. The second onset is considerably bigger than the first one.			
" 31	Up	iP	21 52 04.7	
	Ki	iP	21 51 34.3	
	Um	iP	21 51 47.8	
	Ud	iP	21 52 12.5	
	Bonin Islands (h = 500 km).			
" 31	Ud	iP	22 57 00.2	
	Afghanistan-USSR (h = 45 km).			

Markus Båth
Klaus Meyer
Rutger Wahlström
Ota Kulhánek

November 7, 1974

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

F E B R U A R Y 1 - 28, 1973

1973					
Feb.	1	De	iPKP	00 52 20.1	
		New Hebrides Islands (h = 45 km).			
"	1	Up	eP	05 28 12	
			iPP	05 32 30.3	
			iSKS	05 38 25	
			iS	05 39 44	
			iPKKP	05 43 55.1	
				micr	sec
			P Z'	0.1	1.4
			PP Z'	0.1	1.3
			PKKP Z'	0.1	1.3
			Mx E	2.3	20
			Mx N	2.4	22
			Mx Z	2.7	20
		Ki	eP	05 28 35	
			i(PKP)	05 32 35.7	
			iPP	05 32 55.4	
			iS	05 40 12	
			i	05 42 59.5	
			iPKKP	05 43 42.6	
				micr	sec
			PP Z'	0.4	1.9
			PKKP Z'	0.1	1.3
			Mx E	1.8	20
			Mx N	1.5	18
		Um	iSKS	05 38 37	
			iS	05 40 05	
			iPKKP	05 43 47.0	
		Ud	eP	05 27 59	
			iPKP	05 32 10.2	
			i	05 43 23.3	
			iPKKP	05 44 05.4	
		De	iPKP	05 32 08.0	
		Argentina (h = 230 km). m = 6.3, M = 5.9 (Up,Ki). M uncorrected for focal depth.			
"	1	Up	iSKP1	07 49 53.9	
		(cont.)			

1973					
Feb.	1	(cont.)			
		Up		micr	sec
			SKP1 Z'	0.1	1.4
		Ki	iSKP1	07 49 26.7	
				micr	sec
			SKP1 Z'	0.1	1.4
		Ud	i(PKP)	07 46 29.9	
			iPKP	07 46 37.3	
			iPP	07 49 23.5	
			iSKP1	07 49 55.3	
		De	iPKP	07 46 42.6	
			i	07 46 52.7	
		Tonga Islands (h = 230 km).			
"	1	De	iP	08 24 15.7	
		Mediterranean Sea (h = N).			
"	1	Up	iPKP1	08 31 21.5	
			i	08 31 39.1	
		Ud	iPKP1	08 31 23.1	
			i	08 31 35.7	
		De	iPKP1	08 31 32.5	
			i	08 31 48.5	
		Tonga-Kermadec Islands (h = 50 km).			
"	1	De	i(Sgl)	12 10 20.5	
"	1	Up	iSgl	12 13 17.5	
		Sk	eSgl	12 15 16	
		Ud	iSgl	12 13 22.4	
		De	iPgl	12 11 19.8	
			iSgl	12 11 34.4	
		Baltic Sea, south of Sweden, 55.6°N, 15.1°E. Origin time = 12 11 00. Explosion			
"	1	Sk	i(Sgl)	12 52 10.3	
"	1	Up	iSgl	12 53 18.3	
		(cont.)			

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

1973 Feb.	1	(cont.)				
		Um	iSgl	12 53 33.9		
		De	eSgl	12 54 45		
		Western USSR, 59.3°N, 28.1°E. Origin time = 12 50 30. Explosion.				
"	1	Up	iSgl	13 29 36.9		
		Ki	iSgl	13 30 22.2		
		Sk	eSgl	13 30 48		
		Um	iSgl	13 29 02.4		
		Ud	iSgl	13 30 34.3		
		De	eSgl	13 31 20		
		Near Lake Ladoga. Explosion?				
"	1	Ud	eP	13 52 49		
"	1	Sk	i(Sgl)	14 11 02.2		
"	1	Up	iP	17 34 51.5	C	
			i	17 35 12.9		
			iPcP	17 35 21.1		
			i	17 38 08.1		
				micr	sec	
			P	Z' 0.3	0.9	
			Mx	N 2.1	23	
			Mx	Z 2.2	23	
		Ki	iP	17 33 58.5	C	
			i	17 34 12.8		
				micr	sec	
			P	Z' 0.2	0.8	
			Mx	E 1.7	19	
			Mx	N 1.9	19	
			Mx	Z 1.7	19	
		Sk	iP	17 34 32.2	C	
		Um	iP	17 34 24.5	C	
		Ud	iP	17 34 53.2	C	
		De	iP	17 35 14.8	C	
			i	17 35 20.3		
			i	17 35 32.8		
		Aleutian Islands (h = 50 km). m = 6.3, M = 5.3 (Up,Ki).				
"	1	Ud	iP	18 55 52.1		
"	1	Ud	iP	20 27 07.4		
"	1	Ud	iP	22 34 28.0		
		De	iP	22 34 29.4		
		Colombia (h = 160 km).				
"	1	Sk	iP	23 03 10.2		
		Um	iP	23 03 04.1		
		Ud	iP	23 02 38.7		
		De	iP	23 02 08.9		
1973 Feb.	1	Ud	iP	23 04 16.0		
		De	iP	23 03 45.3		
"	2	Ud	eP	00 06 41		
"	2	Ud	iP	00 51 48.0	D	
		De	iP	00 51 16.0		
		Dodecanese Islands (h = N).				
"	2	Ud	iP	01 38 41.4		
		Mindanao (h = 50 km).				
"	2	Up	iPKP	02 12 08.7		
		Ki	iPKP	02 12 24.0		
				micr	sec	
			PKP	Z' 0.1	1.0	
		Sk	ePKP	02 12 14		
		Um	iPKP	02 12 17.1		
		Ud	iPKP	02 12 06.7		
		De	ePKP	02 12 00		
		South Sandwich Islands (h = N).				
"	2	Ud	iP	07 46 15.5		
"	2	Ki	iPn	10 33 08.3		
			iSn	10 34 08.3		
			iSgl	10 34 30.8		
		Um	iSgl	10 35 18.3		
		Ud	i(Sg2)	10 38 00.4		
		Northwest USSR, 67.4°N, 34.2°E. Origin time = 10 31 48. Explosion.				
"	2	Ki	iPn	10 38 08.0		
			iPgl	10 38 15.5		
			iSn	10 38 54.2		
			iS*	10 39 07.2		
		Um	iSgl	10 40 42.8		
		Northwest USSR-Norway border region, 69.6°N, 30.1°E. Origin time = 10 37 07. Explosion.				
"	2	Up	iP	10 38 59.0		
		Ud	iP	10 39 06.4		
		De	i	10 39 30.7		
		Luzon (h = 55 km).				
"	2	Up	iSn	12 15 18.2		
			iSgl	12 15 31.3		
		Ki	iSgl	12 18 06.6		
		Um	iSgl	12 16 03.0		
		Ud	iSgl	12 16 35.2		
		De	iSgl	12 16 59.3		
		(cont.)				

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

1973 Feb.	2	(cont.) Esthonia, 59.5°N, 25.1°E. Origin time = 12 13 30. Explosion.			
"	2	Um	iP	13 42 52.9	
"	2	Ud	iSgl	14 17 06.0	
		De	iSgl	14 16 47.0	
"	2	Ki	iSgl	14 32 00.2	
		Um	iSn	14 32 13.4	
			iSgl	14 32 26.1	
		Nordland, Norway. Explosion.			
"	3	Up	iP	20 03 53.4	
		Ud	iP	20 03 52.9	
		Aleutian Islands (h = 60 km).			
"	4	Up	iS*	10 23 03.8	
			iSgl	10 23 13.3	
		Ki	i	10 20 06.5	
			i	10 20 13.6	
			iSgl	10 20 23.5	
		Sk	eSgl	10 22 48	
		Um	iSn	10 20 35.7	
			iSgl	10 21 10.4	
		Ud	iSn	10 22 32.2	
			iSgl	10 23 45.8	
		Northwest USSR, 67.5°N, 34.1°E. Origin time = 10 17 40. Explosion.			
"	4	Up	iPKPl	10 49 05.9	
		Ud	iPKPl	10 49 07.7 C	
		De	iPKPl	10 49 17.9	
"	4	Um	iP	13 12 34.0	
		Ud	iP	13 13 02.1	
		Japan (h = N).			
"	4	Up	iP	13 46 59.5	
		Ki	iP	13 46 26.7	
		Um	iP	13 46 40.8	
		Ud	iP	13 47 07.0	
		De	iP	13 47 19.4	
		South of Japan (h = 450 km).			
"	4	Up	iP	19 33 47.1	
		Afghanistan (h = 40 km).			
"	4	Up	iPKP	22 56 34.0	
		Um	iPKP	22 56 22.1	
		De	iPKP	22 56 41.6	
		New Britain (h = 60 km).			
1973 Feb.	5	Ud	eP	00 17 20	
"	5	Up	iP	00 27 25.2	
		Um	iP	00 27 25.3	
		Ud	iP	00 27 42.4	
		Pamir.			
"	5	Up	iP	04 41 32.3 C	
				micr sec	
			P Z'	0.1 0.8	
		Ki	iP	04 40 46.9	
		Sk	eP	04 41 25	
		Um	iP	04 41 07.2	
		Ud	iP	04 41 38.5 C	
			iPcP	04 42 06.0	
		De	iP	04 41 56.3	
			i(PcP)	04 42 21.9	
		Kurile Islands (h = 55 km).			
"	5	Ud	i(P)	05 08 35.9 C	
"	5	Ud	iP	05 18 20.2	
"	5	Um	iP	07 11 05.1	
		Ud	iP	07 11 31.9	
		Japan (h = 30 km).			
"	5	Ud	iP	11 33 15.0	
		Philippine Islands (h = 20 km).			
"	5	Ud	iP	16 31 12.3	
		Japan (h = 30 km).			
"	5	Um	iP	20 00 30.7	
		Japan (h = 45 km).			
"	5	Ud	iP	20 16 02.0	
"	5	Um	iP	20 42 17.7	
		Japan (h = 50 km).			
"	5	Um	iP	22 06 15.4	
		Japan (h = 35 km).			
"	5	Um	iP	22 41 13.7	
"	5	Um	iP	22 43 20.3	
"	6	Ud	eP	02 30 22	
		Off coast of California (h = N).			
"	6	Ki	eSgl	04 40 45	
		Sk	e	04 40 47	
			iSgl	04 40 50.4	
		Um	iSn	04 40 55.9	
		(cont.)			

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

1973 Feb.	6	(cont.)				
		Um	iSgl	04 41 09.7		
		Nordland, Norway.				
		Explosion.				
"	6	Up	iP	05 41 38.3		
			iPcP	05 41 51.0		
		Ki	iP	05 41 12.8		
		Sk	iP	05 41 44.5		
		Um	iP	05 41 22.2		
			iPcP	05 41 38.1		
		Ud	iP	05 41 48.5	C	
			i	05 41 53.9		
			iPcP	05 40 58.0		
			i	05 42 13.9		
		De	iP	05 42 00.0		
		Ryukyu Islands (h = 80 km).				
"	6	Ud	iP	10 07 31.5		
"	6	Up	iP1	10 47 14.3		
			iP2	10 47 15.3		
			iP3	10 47 17.4		
			ipP	10 47 25.8		
			iS	10 55 30		
				micr	sec	
			P2	Z'	0.1	0.9
			P3	Z'	1.0	1.6
			pP	Z'	1.5	1.3
			Mx	E	490	18
			Mx	N	750	20
			Mx	Z	350	19
		Ki	iP2	10 47 01.1		
			iP3	10 47 03.4		
			ipP	10 47 10.7		
			iS	10 55 09		
				micr	sec	
			P2	Z'	0.1	1.2
			P3	Z'	0.8	1.6
			pP	Z'	0.7	1.2
			Mx	E	460	23
			Mx	N	420	23
			Mx	Z	470	26
		Sk	iP2	10 47 26.5		
			iP3	10 47 28.8		
		Um	iP2	10 47 00.6		
			iP3	10 47 02.7		
			ipP	10 47 11.6		
		Ud	iP1	10 47 26.9		
			iP2	10 47 28.2		
			iP3	10 47 31.3		
			ipP	10 47 39.6		
		De	iP1	10 47 32.6		
			iP2	10 47 33.7		
			iP3	10 47 36.3		
			ipP	10 47 44.8		
		(cont.)				

1973 Feb.	6	(cont.)			
		Szechwan, China.			
		h = 40 km (Up,Ki,Um,Ud,De).			
		m = 6.6 (P3), M = 7.8 (Up,Ki).			
		Multiple P. The average intervals are P2 - P1 = 1.1 sec, P3 - P1 = 3.7 sec.			
		The focal depth is calculated from pP - P2 intervals.			
		Clear G-wave on long-period N-components.			
"	6	Ud	iP	10 57 07.3	
"	6	Up	iSgl	12 29 07.6	
		Um	iSgl	12 29 21.2	
		Ud	iSgl	12 30 09.7	
		Western USSR.			
		Explosion.			
"	6	Up	i	13 52 13.5	
			i	13 52 17.5	
			i	13 52 24.9	
		Sonic booms.			
"	6	Up	iP	14 15 58.3	C
		Ud	eP	14 16 12	
"	6	Up	iP	17 21 04.3	
		Um	iP	17 20 51.5	
		Ud	iP	17 21 17.4	
		Szechwan, China (h = N).			
"	6	Ud	iP	20 45 34.2	
		Kirghiz-Sinkiang (h = N).			
"	7	Um	iP	04 05 16.2	
		Yugoslavia (h = N).			
"	7	Up	iP	05 34 07.0	C
			i	05 34 11.1	
				micr	sec
			P	Z'	0.2	0.7
		Ki	iP	05 34 47.5	C
		Sk	iP	05 34 43.4	C
			i	05 34 47.1	
		Um	iP	05 34 22.0	C
			i	05 34 26.1	
		Ud	iP	05 34 22.7	C
			i	05 34 26.6	
		Iran (h = 50 km).			
		Double P, in average 4.0 sec apart.			
"	7	Ud	iP	06 23 32.7	
		Peru-Brazil (h = 140 km).			

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

1973 Feb.	7	Um	iP		07 30 26.1	
		Ud	iP		07 30 56.4	
		Japan (h = 190 km).				
"	7	Up	iPKP		08 20 00.1	C
			iSKP		08 23 24.6	
		Ki	iPKP		08 20 14.5	C
			iSKP1		08 23 22.0	
					micr	sec
			PKP	Z'	0.2	1.0
		Um	iPKP		08 20 07.4	
			iPP		08 21 55.5	
		Ud	iPKP		08 19 57.9	C
			iSKP		08 23 23.5	
		South Sandwich Islands (h = N).				
"	7	Up	iP		09 31 01.2	
		Szechwan, China (h = N).				
"	7	Ki	iP		09 49 46.4	
			i		09 51 54.9	
		Sk	iP		09 49 53.9	
			iS		09 51 48.5	
		Um	iP		09 50 22.9	
			i		09 51 17.9	
			eS		09 52 41	
			i		09 53 03.8	
		Jan Mayen (h = N).				
"	7	Ki	iP		10 03 54.5	
					micr	sec
			P	Z'	0.1	1.1
		Ud	iP		10 04 19.8	
		Mindanao (h = 210 km).				
"	7	Ki	i(P*)		11 55 37.1	
			iPgl		11 55 38.5	
			i(S*)		11 56 09.4	
			iSgl		11 56 15.9	
					micr	sec
			Sgl	Z'	0.1	0.5
		Sk	eSgl		11 57 32	
		Um	iSn		11 57 07.8	
			iSgl		11 57 38.2	
			i		11 57 41.8	
		Near Lofoten, Norway. Origin time = 11 54 50.				
"	7	Ki	i(P)		12 58 50.4	
"	7	Um	iP		13 07 22.3	
"	7	Um	iSgl		13 29 14.3	
		Western USSR. Explosion.				
"	7	Up	iP		16 16 27.8	
		(cont.)				

1973 Feb.	7	(cont.)				
		Up	i		16 16 31.4	
					micr	sec
			P	Z'	0.4	1.1
			i	Z'	1.3	1.5
			Mx	E	4.3	19
			Mx	N	4.8	17
		Ki	iP		16 16 12.0	
			i		16 16 17.0	
			iPP		16 18 28.6	
					micr	sec
			P	Z'	0.1	1.2
			i	Z'	0.4	1.3
			Mx	E	8.1	16
			Mx	N	12	20
			Mx	Z	6.0	15
		Sk	iP		16 16 39.2	
			i		16 16 42.9	
		Um	iP		16 16 14.9	
			i		16 16 18.9	
		Ud	iP		16 16 40.9	
			i		16 16 44.8	
		De	iP		16 16 47.1	
			i		16 16 49.7	
		Szechwan, China (h = N). m = 6.5, M = 5.9 (Up,Ki). Double P, in average 3.8 sec apart.				
"	7	Ki	i(P)		18 44 33.4	
"	7	Ud	iP		20 21 57.9	
"	8	Up	iP		02 35 32.4	
		Ud	iP		02 35 50.3	
		Hindu Kush (h = N).				
"	8	Up	eP		03 42 11	
		Sk	iP		03 42 52.8	
		Um	iP		03 42 55.2	
		Ud	iP		03 42 19.1	
			i		03 42 24.7	
		De	iP		03 41 40.4	
		Greece (h = 30 km).				
"	8	Up	iP		09 30 34.6	
		Sk	iP		09 31 14.5	
		Um	eP		09 31 15	
		Ud	iP		09 30 41.1	
			i		09 30 45.0	
		Greece (h = 55 km).				
"	8	Up			micr	sec
			Mx	E	3.6	19
			Mx	N	3.9	20
			Mx	Z	4.4	18
		Ki			micr	sec
			Mx	E	3.7	21
		(cont.)				

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

1973 Feb.	8	(cont.)			
		Ki		micr	sec
			Mx N	3.5	21
		Um	iPKP	10 28	07.4
		Indian Ocean (h = N).			
		M = 6.3 (Up,Ki).			
"	8	Up	iP	12 02	08.2
		Sk	iP	12 02	50.9
		Um	eP	12 02	49
		Ud	iP	12 02	14.2
			i	12 02	19.7
		De	iP	12 01	38.3
		Greece (h = 15 km).			
"	8	Up	eP	12 11	36
		Ki	iP	12 10	42.3
		Ud	iP	12 11	41.0
		Kamchatka (h = 55 km).			
"	8	Um	iP	12 24	07.6
"	8	Up	iSn	12 44	04.8
			iSgl	12 44	16.7
		Ki	iSgl	12 46	49.2
		Sk	iSgl	12 46	07.4
		Um	iSgl	12 44	51.1
		Ud	eSn	12 44	52
			iSgl	12 45	19.5
		De	iSgl	12 45	45.8
		Esthonia, 59.5°N, 24.8°E.			
		Origin time = 12 42 21.			
		Explosion.			
"	8	Ki	i(P)	16 37	50.7
"	8	Up	iP	16 49	19.3 C
		Sk	iP	16 49	59.6
		Um	iP	16 49	59.5 C
		Ud	iP	16 49	26.1
			i	16 49	30.3
			i	16 49	33.5
		De	iP	16 48	49.9 C
		Greece (h = N).			
"	8	Up	iPKPl	19 03	42.9 C
		Ud	iPKPl	19 03	44.6 C
		De	iPKPl	19 03	54.4 C
"	8	Up	iP	19 16	55.2 C
			i	19 16	59.3
				micr	sec
			P Z'	0.2	1.5
		Ki	iP	19 17	37.9 C
			i	19 17	41.8
				micr	sec
			P Z'	0.1	1.3
		(cont.)			

1973 Feb.	8	(cont.)		
		Sk	iP	19 17 08.1 C
			i	19 17 12.2
		Um	iP	19 17 19.6 C
			i	19 17 23.0
		Ud	iP	19 16 51.0 C
			i	19 16 54.9
		De	iP	19 16 36.2 C
		Ascension Island region (h = N).		
		m = 5.9 (Up,Ki).		
		Double P at Up,Ki,Sk,Um, Ud, in average 3.9 sec apart.		
"	8	Up	eP	19 23 18
		Um	iP	19 23 41.5
		Ud	iP	19 23 13.3
		Ascension Island region (h = N).		
"	8	Up	iSgl	20 07 01.0
		Ki	iSgl	20 04 59.6
		Sk	iSgl	20 05 05.5
		Um	iSn	20 05 13.0
			iSgl	20 05 27.0
		Ud	iSgl	20 06 54.0
		Nordland, Norway, 66.5°N, 14.1°E.		
		Origin time = 20 03 31.		
		Explosion.		
"	9	Um	iP	03 37 28.5
"	9	Up	iP	03 54 25.5
		Um	iP	03 54 01.5
		Ud	iP	03 54 28.9
		South of Japan (h = N).		
"	9	Ud	iP	05 16 31.2
		Celebes (h = N).		
"	9	Ki	i(P)	07 04 26.2
"	9	Um	eP	07 12 25
		Sea of Japan (h = 390 km).		
"	9	Ki	iPn	09 23 46.0
			iSn	09 24 45.2
			iSgl	09 25 08.3
		Um	iSn	09 25 23.5
			iSgl	09 25 59.2
		Northwest USSR, 67.7°N, 34.1°E.		
		Origin time = 09 22 26.		
		Explosion.		
"	9	Up	iP	10 06 03.4
		(cont.)		

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

1973 Feb.	9	(cont.)			
		Ki	iP		10 06 03.8
		Um	iP		10 06 04.3
			i		10 06 10.3
		Ud	iP		10 05 50.8
		De	iP		10 05 52.4
		Colombia (h = 80 km).			
"	9	Up	iSgl		12 32 12.9
		Um	iSgl		12 32 20.2
		De	eSgl		12 33 34
		Western USSR.			
		Explosion.			
"	9	Up	iSgl		12 36 38.7
		Um	iSgl		12 36 52.2
		Ud	eSgl		12 37 41
		De	eSgl		12 38 07
		Western USSR.			
		Explosion.			
"	9	Um	iSgl		12 53 52.1
		Western USSR.			
		Explosion.			
"	9	Um	iP		13 32 56.7
		South of Japan (h = 140 km).			
"	9	Ud	iP		15 03 43.7
"	9	Up	iP		15 05 35.2
		Ki	iP		15 05 52.1
			i		15 06 04.2
		Um	iP		15 05 33.2
		Ud	iP		15 05 51.1 D
		De	iP		15 05 47.4
		Pakistan (h = 80 km).			
"	9	Up	iP		19 15 36.6
"	9	Up	iP		19 50 33.2
			i		19 50 40.6
				micr	sec
			P	Z' 0.1	1.5
"	9	Um	iP		22 37 09.8
"	10	Ud	iP		00 20 32.2
"	10	Ki	iP		03 43 46.4
		Um	iP		03 43 56.5
		Ud	iP		03 44 19.6
		Formosa (h = 55 km).			
"	10	Up	iP		04 35 46.7
		Um	iP		04 35 40.2
		Ud	iP		04 36 00.9
		Burma-India (h = 70 km).			

1973 Feb.	10	Up	iP		04 39 57.7
		Ki	iP		04 39 57.2
		Um	iP		04 39 54.4
		Ud	iP		04 40 09.4
"	10	Up	iP		05 23 59.7
			ipP		05 24 14.2
				micr	sec
			P	Z' 0.1	0.9
		Ki	iP		05 23 23.1
			i		05 23 29.8
			ipP		05 23 38.3
		Sk	iP		05 23 56.8
		Um	iP		05 23 38.5
			ipP		05 23 54.2
		Ud	iP		05 24 07.1
			ipP		05 24 22.2
		De	iP		05 24 21.0
			ipP		05 24 34.7
		Japan.			
		h = 55 km (Up,Ki,Um,Ud,De).			
"	10	Um	i(Sgl)		06 26 13.6
"	10	Ud	iP		06 39 43.6
"	10	Ud	iP		07 00 38.0
"	10	Ki	i(P)		07 15 01.4
"	10	Um	i(Sgl)		08 04 52.4
"	10	Ud	iP		10 24 54.4
"	10	Ud	ePKPl		11 07 31
		De	iPKPl		11 07 40.3
			i		11 07 44.7
			i		11 07 56.4
		Tonga Islands (h = N).			
"	10	Ki	iP		11 08 01.2
		Um	iP		11 08 17.5
		Japan (h = 60 km).			
"	10	Ud	i(Sgl)		11 35 31.3
"	10	Up	iSgl		11 44 19.7
		Ki	iSgl		11 42 16.7
		Sk	eS*		11 42 20
			iSgl		11 42 23.1
		Um	iSn		11 42 30.7
			iSgl		11 42 43.9
		Ud	iSgl		11 44 10.2
		Nordland, Norway,			
		66.5°N, 14.1°E.			
		Origin time = 11 40 48.			
		Explosion.			

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

1973						
Feb.	10	Up	iP1		12 06 16.7	
			iP2		12 06 18.3	
			iS		12 16 48	
					micr	sec
			P2	Z'	0.1	1.3
			Mx	E	2.9	17
			Mx	N	5.1	17
			Mx	Z	7.9	17
		Ki	iP1		12 05 59.0	
			iP2		12 06 02.3	
					micr	sec
			P2	Z'	0.2	1.3
			Mx	E	8.2	18
			Mx	N	6.6	17
			Mx	Z	5.5	16
		Sk	iP1		12 05 57.6	
			iP2		12 06 01.2	
		Um	iP1		12 06 09.3	
			iP2		12 06 12.1	
			iS		12 16 43	
		Ud	iP2		12 06 10.5	
		De	iP1		12 06 17.8	
			iP2		12 06 21.0	
		Mexico (h = N).				
		m = 6.1, M = 6.2 (Up,Ki).				
		Double P at Up,Ki,Sk,Um,De,				
		the second with the biggest				
		amplitudes.				
"	10	Ki	iPn		12 44 04.8	
			iPgl		12 44 14.3	
			iSn		12 44 53.5	
			iSgl		12 45 09.4	
		Um	iSgl		12 46 36.3	
		Northwest USSR-Norway border				
		region, 69.4°N, 31.1°E.				
		Origin time = 12 43 00.				
		Explosion.				
"	10	Ki	eSgl		12 59 18	
		Um	iSn		12 59 45.4	
			iSgl		13 00 11.8	
		Northwest USSR-Finland				
		border region.				
		Explosion.				
"	10	De	iP		13 01 46.9	
			i		13 01 55.7	
"	10	Up	iP		14 48 32.2	
			ipP		14 48 39.4	
					micr	sec
			P	Z'	0.2	1.1
			pP	Z'	0.3	1.5
		Ki	iP		14 48 57.9	
					micr	sec
			P	Z'	0.4	1.8
		(cont.)				

1973						
Feb.	10	(cont.)				
		Ki			micr	sec
			Mx	E	1.2	18
		Sk	iP		14 48 59.1	
		Um	iP		14 48 41.6	
			i		14 48 44.1	
			ipP		14 48 48.6	
		Ud	iP		14 48 42.1	
			i		14 48 46.5	
			i		14 48 50.8	
			i		14 48 55.7	
		De	iP		14 48 31.0	
			i		14 48 33.5	
			i		14 48 43.1	
		Indian Ocean.				
		h = 25 km (Up,Um).				
		m = 6.3 (Up,Ki).				
"	10	Um	i(Sgl)		16 10 29.7	
"	10	Up	iP		17 06 14.2	
			i		17 06 17.7	
			iPcP		17 06 46.0	
					micr	sec
			Mx	E	1.0	18
			Mx	N	2.0	22
			Mx	Z	2.9	21
		Ki	iP		17 05 23.4	
			ipP		17 05 36.8	
			iPcP		17 06 16.2	
					micr	sec
			P	Z'	0.1	0.8
			Mx	E	1.3	19
			Mx	N	1.7	22
			Mx	Z	1.0	18
		Sk	iP		17 06 01.2	
			i		17 06 04.4	
		Um	iP		17 05 47.0	
		Ud	iP		17 06 19.7	
			i		17 06 23.2	
			ipP		17 06 32.6	
			iPcP		17 06 49.3	
		De	iP		17 06 39.8	
		Kurile Islands.				
		h = 50 km (Ki,Ud).				
		M = 5.3 (Up,Ki).				
"	10	Up	iP		17 15 01.4	
		Um	iP		17 15 13.2	
		Ud	iP		17 15 17.7	C
			i		17 15 22.4	
		De	iP		17 15 04.4	
		Iran (h = 40 km).				
"	10	Up	iP		18 16 21.1	
			ipP		18 16 27.9	
		(cont.)				

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

1973 Feb.	10	(cont.)				
		Up			micr	sec
			P	Z'	0.1	1.0
		Ki	iP		18 16	47.6
					micr	sec
			Mx	E	1.1	20
			Mx	N	0.5	15
		Sk	iP		18 16	48.7
		Um	iP		18 16	31.0
			ipP		18 16	36.9
		Ud	iP		18 16	32.0
			i		18 16	34.3
			ipP		18 16	38.9
		De	iP		18 16	21.6
		Indian Ocean.				
		h = 25 km (Up,Um,Ud).				
"	10	Up	iP		18 48	30.5
		Um	iP		18 48	37.8
			i		18 48	46.3
		Ud	iP		18 48	41.9
"	10	Ud	iP		19 38	17.4
"	10	Um	iP		22 02	12.6
		Ud	iP		22 02	15.2
"	10	Ud	iP		22 09	07.0 C
"	10	Up	i		22 09	56.4
		Sk	e		22 09	58
		Um	iP		22 09	59.7 C
			ipP		22 10	06.1
		Ud	iP		22 09	29.4 C
		Ascension Island region.				
		h = 25 km (Um).				
"	10	Up	iP		22 19	52.1 C
			ipP		22 19	57.7
					micr	sec
			P	Z'	0.1	1.0
		Ki	eP		22 20	15
		Sk	iP		22 20	10.7
			ipP		22 20	17.5
		Um	iP		22 20	00.3
			ipP		22 20	06.9
			i		22 20	17.2
		Ud	iP		22 20	02.4
			ipP		22 20	09.1
		De	iP		22 19	50.8
		Indian Ocean.				
		h = 25 km (Up,Sk,Um,Ud).				
"	10	Ud	iPKP1		22 52	06.0 D
		De	iPKP1		22 52	16.2
		Tonga-Kermadec Islands				
		(h = 570 km).				

1973 Feb.	11	Ud	eP	02 18 16
"	11	Ki	eSgl	07 00 08
		Um	iSgl	07 01 03.1
		Northwest USSR.		
		Explosion.		
"	11	Up	iP	09 08 36.2
				micr sec
			P Z'	0.1 1.4
		Ud	i(P)	09 08 51.2
		De	iP	09 08 13.7
			i	09 08 18.9
		Crete (h = 30 km).		
"	11	Um	iPKP	10 51 07.4
		De	iPKP	10 51 20.5
		New Guinea (h = 80 km).		
"	11	Ki	iP	11 30 56.1
			ipP	11 31 12.5
		Um	iP	11 30 59.8
			i	11 31 08.8
			ipP	11 31 16.8
		Ud	iP	11 31 16.0
		De	iP	11 31 23.4
		Mindanao.		
		h = 60 km (Ki,Um).		
"	11	Um	i(P)	13 03 05.9
		(Turkey).		
"	11	Ud	iP	14 46 53.0
		De	iP	14 46 49.7
		Afghanistan-USSR (h = 100 km).		
"	11	Up	iPKP1	15 04 09.4
			i	15 04 21.3
			ipPKP1	15 04 29.5
		Sk	iPKP1	15 04 06.9
			ipPKP1	15 04 25.7
		Um	iPKP1	15 04 00.5
			ipPKP1	15 04 20.4
		Ud	iPKP1	15 04 09.3
			iPKP2	15 04 14.6
			ipPKP1	15 04 31.5
		De	iPKP1	15 04 21.9
			iPKP2	15 04 29.1
			i	15 04 41.0
			ipPKP1	15 04 42.7
		Kermadec Islands.		
		h = 70 km (Up,Sk,Um,Ud,De).		
"	11	Ud	iPKP	15 09 49.3
		De	iPKP	15 09 57.4
		Fiji Islands (h = 570 km).		

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

1973 Feb.	12	Ud	iP		03 19 13.7	C
"	12	Up	iP		04 47 13.0	
"	12	Ud	i(P)		06 56 20.3	
"	12	Ki	eP		12 22 38	
		Ud	iP		12 23 34.4	
		Aleutian Islands (h = 25 km).				
"	12	Up	iSgl		12 32 40.2	
		Um	iSgl		12 32 53.2	
		Ud	iSgl		12 33 44.4	
		Western USSR.				
		Explosion.				
"	12	Ud	i(P)		21 27 13.1	
"	13	Up	iSgl		00 08 22.0	
		Ki	iPn		00 05 47.9	
			iPgl		00 05 51.2	
			iSn		00 06 14.7	
			iSgl		00 06 17.7	
					micr	sec
			Pgl	Z'	0.1	0.5
			Sn	Z'	0.2	0.4
			Sgl	Z'	0.1	0.4
		Sk	eSn		00 06 50	
			iSgl		00 07 00.9	
		Um	iP*		00 05 53.0	
			iPgl		00 05 54.6	
			iSgl		00 06 23.5	
		Ud	iSn		00 07 52.6	
			iSgl		00 08 28.8	
		Near Arjeplog, Swedish Lapland, 66.0°N, 18.3°E.				
		Origin time = 00 05 17.				
		Felt.				
"	13	Ud	i(P)		04 34 33.5	
"	13	Ki	eP		06 32 50	
		Ud	iP		06 32 50.8	
"	13	Sk	i(P)		09 06 50.7	
"	13	Ud	i(Sgl)		10 14 11.8	
"	13	Ki	i(Sgl)		11 03 04.7	
"	13	Ud	i(Sgl)		12 50 05.1	
"	13	Ki	e(Sgl)		13 10 58	
"	13	Up	eP		14 12 49	
		Ki	iP		14 12 34.0	
		(cont.)				

1973 Feb.	13	(cont.)				
		Ki			micr	sec
			P	Z'	0.1	0.8
		Sk	iP		14 12 54.9	
		Um	iP		14 12 39.1	
		Ud	iP		14 12 58.5	
		Talaud Islands (h = 180 km).				
"	13	Up	iPKP		15 41 15.5	
					micr	sec
			PKP	Z'	0.1	1.0
		Ki	iPKP		15 40 59.3	C
					micr	sec
			PKP	Z'	0.1	1.1
		Sk	iPKP		15 41 09.6	C
		Um	i(PKP)		15 41 01.6	
			iPKP		15 41 06.5	
			iSKP1		15 43 45.7	
		Ud	i(PKP)		15 41 04.6	
			iPKP		15 41 16.7	
			iSKP1		15 43 58.9	
		De	i(PKP)		15 41 16.1	
			iPKP		15 41 24.4	
		Fiji Islands (h = 540 km).				
"	13	Ki	eP		15 53 37	
"	13	Ud	eP		18 19 02	
"	13	Um	i(P)		18 24 54.6	
"	13	Ud	i(P)		20 03 31.7	
"	13	Up	iP		20 04 51.2	C
			i		20 04 53.2	
					micr	sec
			P	Z'	0.2	1.0
		Ki	iP		20 03 58.0	C
			i		20 03 59.4	
					micr	sec
			P	Z'	0.1	0.6
		Sk	iP		20 04 31.0	C
		Um	iP		20 04 24.9	C
			ipP		20 04 39.6	
		Ud	iP		20 04 52.3	C
			ipP		20 05 06.2	
		De	iP		20 05 13.7	C
		Aleutian Islands.				
		h = 55 km (Um,Ud).				
		m = 6.1 (Up,Ki).				
"	14	Up	iP		01 01 09.6	C
					micr	sec
			P	Z'	0.4	0.9
			Mx	E	3.3	19
			Mx	N	4.9	21
			Mx	Z	5.7	17
		(cont.)				

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

1973
Feb. 14 (cont.)

Ki	iP		01 00 46.9	C
	iPP		01 03 38.1	
			micr	sec
	P	Z'	0.4	0.9
	Mx	E	3.3	15
	Mx	N	3.1	16
	Mx	Z	4.6	16
Sk	iP		01 01 13.2	C
Um	iP		01 00 54.6	C
	ipP		01 01 07.5	
Ud	iP		01 01 18.9	C
De	iP		01 01 27.0	C

Formosa.
h = 50 km (Um).
m = 6.3, M = 5.9 (Up,Ki).

" 14 Ki iPKP 05 09 04.5
Fiji Islands (h = 650 km).

" 14

Ki	iP		07 21 28.3	
	ipP		07 21 37.8	
			micr	sec
	pP	Z'	0.1	1.2
Sk	iP		07 21 56.8	
Um	iP		07 21 55.6	
Ud	iP		07 22 18.6	
De	iP		07 22 45.5	

South of Alaska.
h = 35 km (Ki).

" 14 Ud iP 08 39 50.2
Mindoro (h = 230 km).

" 14 Ud iPKP1 09 46 19.0
De iPKP1 09 46 29.1
Fiji Islands (h = 600 km).

" 14 Ki iPKP 09 51 34.4
Ud iPKP 09 51 50.3
Solomon Islands (h = 60 km).

" 14

Ki	iPn		11 33 59.4
	iPg1		11 34 07.4
	iSn		11 34 45.7
	iS*		11 34 58.0
Um	iSg1		11 36 33.3

Northwest USSR-Norway border region, 69.6°N, 30.1°E.
Origin time = 11 32 58.
Explosion.

" 14 Ud iP 12 07 09.4

" 14

Ud	eP		12 36 14
	ipP		12 36 56.9
De	iP		12 36 11.2

(cont.)

1973
Feb. 14 (cont.)
Hindu Kush.
h = 210 km (Ud).

" 14 Ud ePP 15 40 45
Banda Sea (h = 15 km).

" 14

Up	iPKP1		16 30 58.5	
	iPKP2		16 31 03.9	
	ipPKP1		16 31 09.7	
			micr	sec
	PKP1	Z'	0.2	1.3
	PKP2	Z'	0.2	1.1
	pPKP1	Z'	0.3	0.9
	Mx	E	2.4	18
	Mx	N	3.2	18
	Mx	Z	6.5	20
Ki	iPKP1		16 30 36.7	
	ipPKP1		16 30 48.0	
			micr	sec
	pPKP1	Z'	0.1	0.8
	Mx	E	4.4	17
	Mx	N	5.3	20
	Mx	Z	7.9	21
Sk	iPKP1		16 30 51.3	
	ipPKP1		16 31 05.6	
Um	iPKP1		16 30 46.5	
	i		16 30 48.1	
	ipPKP1		16 31 00.0	
Ud	iPKP1		16 30 59.9	
	i		16 31 01.5	
	ipPKP1		16 31 11.6	
De	iPKP1		16 31 09.4	
	ipPKP1		16 31 22.6	

Kermadec Islands.
h = 45 km (Up,Ki,Sk,Um,Ud, De).
M = 6.3 (Up,Ki).

" 14

Ki	iP		16 34 11.4
	i		16 34 19.9
Sk	iP		16 34 54.1

" 14

Up	iPKP1		16 46 53.9
Sk	epPKP1		16 47 01.6
Um	iPKP1		16 46 40.3
Ud	iPKP1		16 46 55.2
De	iPKP1		16 47 04.3

Kermadec Islands.
Origin time = 16 27 10.

" 14 Um iP 17 00 57.1

" 14 Ki i(P) 20 46 09.7

" 14 Up iP 21 57 11.4

(cont.)

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

1973 Feb. 14 (cont.)

				micr	sec
Up		P	Z'	0.1	1.1
Ki	iP			21 56 30.0	
	ipP			21 56 47.6	
Sk	iP			21 57 06.3	
	ipP			21 57 21.9	
Um	iP			21 56 49.4	
	ipP			21 57 05.4	
Ud	iP			21 57 23.6	
	ipP			21 57 36.4	
De	iP			21 57 40.8	

Japan.
h = 55 km (Ki,Sk,Um,Ud).

" 14	Up	iP		22 47 39.0
	Ki	iP		22 46 59.4
	Sk	iP		22 47 33.0
	Um	iP		22 47 16.9 C
	Ud	iP		22 47 45.7 C
	De	iP		22 48 00.6 C

Japan (h = 55 km).

" 14	Ud	iP	22 55 13.7
" 14	Ud	i(P)	23 16 30.5
" 15	Ud	iP	00 28 27.2

Nicaragua (h = N).

" 15	Ud	ePKP2	01 00 13

Kermadec Islands (h = N).

" 15	Up	ipPKP1	04 19 57.2
	Um	iPKP1	04 19 29.7
	Ud	iPKP1	04 19 43.5
		iPKP2	04 19 48.1
		ipPKP1	04 19 56.0
	De	iPKP2	04 20 04.7

Kermadec Islands.
h = 45 km (Ud).

" 15	Up	iP			05 44 14.5 C
		ipP			05 44 33.1
				micr	sec
		P	Z'	0.1	1.0
	Ki	iP			05 44 13.7 C
				micr	sec
		P	Z'	0.3	1.5
	Sk	iP			05 44 27.7 C
	Um	iP			05 44 11.4 C
		ipP			05 44 29.4
	Ud	iP			05 44 24.2
	De	iP			05 44 26.1

Sumatra.
h = 70 km (Up,Um).
m = 6.3 (Up,Ki).

1973 Feb. 15

Ud	i(P)		05 48 15.5
" 15	Up	eP	07 38 59
	Ki	iP	07 38 00.8
	Ud	iP	07 38 59.0
	De	eP	07 39 22

Kamchatka (h = 45 km).

" 15	Up	iP	07 56 25.0
	Sk	iP	07 56 10.1
	Um	iP	07 56 26.4

South of Panama (h = N).

" 15	Ud	iPKP	08 13 37.7

Southeast Pacific Ocean (h = N).

" 15	Ki	i(P)	10 32 45.5
" 15	Um	iP	10 59 14.9
" 15	Up	ePKP1	11 26 42
	Um	iPKP1	11 26 31.7
		i	11 26 52.7
	Ud	iPKP1	11 26 45.2

Kermadec Islands (h = 25 km).

" 15	Ud	iP	11 39 03.2
" 15	Up	iSg1	12 08 13.6
	De	iPg1	12 06 13.5
		iSg1	12 06 32.3
		iTSg1	12 06 54.3

Baltic Sea, south of Sweden.
Origin time = 12 05 50.
Explosion.

" 15	Ud	eSg1	12 08 26
	De	iPg1	12 06 25.5
		iSg1	12 06 41.8

Baltic Sea, south of Sweden.
Origin time = 12 06 00.
Explosion.

" 15	Ki	iP	12 52 59.0
" 15	Um	iP	13 21 38.4
	De	iP	13 21 03.3

" 15	Up	iPKP2			13 34 59.4
				micr	sec
		PKP2	Z'	0.1	1.0
	Sk	iPKP2			13 34 50.9
	Um	iPKP1			13 34 39.9
	Ud	iPKP1			13 34 52.9
		ipPKP1			13 35 04.6
	De	iPKP2			13 35 14.2

(cont.)

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

1973 Feb.	15	(cont.)				
		De	ipPKP1	13 35 20.0		
		Kermadec Islands.				
		h = 40 km (Ud).				
"	15	Ki	iP	15 20 24.4		
		Ud	iP	15 19 56.0		
"	15	Sk	iP	16 02 08.4		
"	15	Ki	eP	17 27 07		
		Hindu Kush.				
		Intermediate depth.				
"	15	Up	iP	21 29 51.3		
			i	21 29 56.0		
				micr	sec	
			P Z'	0.1	1.0	
		Sk	iP	21 30 33.8		
		Um	iP	21 30 31.6		
		Ud	iP	21 29 57.9		
			i	21 30 02.3		
		De	iP	21 29 21.3		
		Greece (h = N).				
"	15	Up	iP	22 28 31.7 C		
		Ki	iP	22 27 42.6 C		
		Sk	iP	22 28 18.8		
		Um	iP	22 28 05.5 C		
		Ud	iP	22 28 36.9 C		
		De	iP	22 28 56.1 C		
		Kurile Islands (h = N).				
"	16	Ud	iPKP1	00 09 07.5		
		De	ePKP1	00 09 17		
"	16	Sk	iP	01 44 34.1		
		Ud	eP	01 44 25		
"	16	Ud	iP	05 00 22.7		
"	16	Up	iP	05 09 52.5 C		
			iPP	05 11 11.3		
				micr	sec	
			P Z'	0.1	0.8	
			PP Z'	0.1	1.1	
		Ki	iP	05 09 37.1 C		
			iPn	05 10 30.5		
				micr	sec	
			P Z'	0.2	0.8	
		Sk	iP	05 10 08.3 C		
			iPP	05 11 30.0		
		Um	iP	05 09 37.4 C		
		Ud	iP	05 10 09.1 C		
			iPn	05 11 21.7		
		De	iP	05 10 17.3 C		
		(cont.)				

1973 Feb.	16	(cont.)				
		De	iPn	05 11 30.9		
			iPP	05 11 43.1		
		Kazakh SSR.				
		m = 6.0 (Up,Ki).				
		Underground explosion.				
"	16	Up	iPKP	05 10 16.4		
				micr	sec	
			PKP Z'	0.1	1.2	
		Ki	ePKP	05 10 02		
		Um	iPKP	05 10 05.3		
		Ud	iPKP	05 10 17.2		
		De	i(PKP)	05 10 15.4		
		Tonga Islands (h = 50 km).				
"	16	Up	iP	07 39 51.2		
		Sk	iP	07 40 03.3		
		Um	iP	07 39 38.1		
		Ud	iP	07 40 04.1		
		Szechwan, China (h = N).				
"	16	Up	eSgl	08 32 25		
		Ki	iPn	08 28 08.4		
			iPgl	08 28 21.7		
			iSn	08 29 06.6		
			iS*	08 29 24.9		
			iSgl	08 29 30.9		
		Sk	iSgl	08 31 54.2		
		Um	iSn	08 29 46.2		
			i	08 30 01.3		
			iSgl	08 30 21.4		
		Ud	iSgl	08 32 55.3		
		Northwest USSR,				
		67.9°N, 34.0°E.				
		Origin time = 08 26 51.				
		Explosion.				
"	16	Up	iRg	08 31 35.0		
		Ud	iRg	08 31 39.4		
		Central Sweden.				
"	16	Ki	iSn	08 32 43.2		
			iS*	08 33 02.6		
		Sk	eSgl	08 35 32		
		Um	iSn	08 33 23.4		
			i	08 33 38.4		
			iSgl	08 33 59.4		
		Northwest USSR.				
		Explosion.				
"	16	Ki	iSgl	10 18 43.6		
		Um	iSgl	10 17 55.7		
"	16	Up	iSn	11 13 02.7		
			iSgl	11 13 14.6		
		(cont.)				

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

1973
Feb. 16 (cont.)

	Um	iSgl	11 13 48.8
	Ud	iSgl	11 14 16.8
	De	iSgl	11 14 45.0

Esthonia, 59.6°N, 24.6°E.
Origin time = 11 11 23.
Explosion.

" 16	Up	iPKP2	12 14 07.7	
			micr	sec
		PKP2 Z'	0.1	1.2
	Ki	ePKP	12 13 47	
	Sk	iPKP2	12 14 01.8	
	Um	iPKP1	12 13 49.8	
		i	12 13 56.3	
	Ud	iPKP1	12 14 03.4	
		iPKP2	12 14 09.0	
	De	iPKP2	12 14 23.1	
		ipPKP1	12 14 30.5	

Kermadec Islands (h = 40 km).

" 16	Up	iSgl	12 37 55.0
	Sk	eSgl	12 37 53
	Um	eSgl	12 39 15
	Ud	iSgl	12 36 55.7
	De	eSgl	12 37 08

South Norway,
58.7°N, 6.6°E.
Origin time = 12 34 54.
Solution obtained by
combination with Bergen
readings.

" 16	Up	iSgl	13 49 43.4
	Ki	eSgl	13 51 36
	Sk	eSgl	13 51 21
	Um	iSgl	13 49 55.4
	Ud	iSgl	13 50 42.4
	De	eSgl	13 51 07

Western USSR,
59.4°N, 28.2°E.
Origin time = 13 46 53.
Explosion.

" 16	Up	iP	13 59 01.7
	Ki	iP	13 59 03.6
	Sk	eP	13 59 18
	Um	iP	13 58 59.2
		ipP	13 59 05.5
		i	13 59 15.5
	Ud	iP	13 59 13.3
		ipP	13 59 19.8
	De	iP	13 59 10.3

Nicobar Islands.
h = 25 km (Um,Ud).

" 16	Ud	i(P)	15 18 52.4

1973
Feb. 16

	Up	iSgl	15 21 46.0
	Ki	iSgl	15 22 34.2
	Sk	iSgl	15 22 58.3
	Um	iSgl	15 21 10.8
	Ud	iSgl	15 22 48.2

Lake Ladoga region.
Explosion?

" 16	Ud	iP	21 13 46.7
" 16	Ud	iP	21 16 58.5
" 16	De	ePKP	23 57 13

New Britain (h = 80 km).

" 17	Up	iS*	00 22 02.4
		iSgl	00 22 09.8
	Ki	e(S*)	00 21 25
	Sk	iPgl	00 19 11.7
		iSn	00 19 40.5
		iSgl	00 19 55.9
	Um	i(Sn)	00 20 51.9
		iS*	00 21 27.7
		iSgl	00 21 35.4
	Ud	iSgl	00 21 24.7

Off coast of west Norway,
65.1°N, 5.6°E.
Origin time = 00 18 14.

" 17	Sk	i(P)	01 11 35.5
" 17	Sk	i(P)	02 52 00.5
" 17	Ki	i(P)	07 37 31.6

" 17	Up	ipP	16 14 05.9	
	Ki	iP	16 14 04.0	
			micr	sec
		P Z'	0.1	1.5
	Sk	iP	16 13 40.4	
		ipP	16 13 50.9	
	Um	iP	16 14 03.3	
		ipP	16 14 13.3	
		iS	16 23 16	
	Ud	iP	16 13 42.4	C
	De	iP	16 13 42.7	C
		i	16 13 56.4	

Leeward Islands.
h = 35 km (Sk,Um).

" 17	Up	iP	19 25 57.1	
			micr	sec
		P Z'	0.1	0.6
	Ki	iP	19 25 09.9	
			micr	sec
		P Z'	0.1	0.9
	Sk	iP	19 25 45.9	

(cont.)

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

1973 Feb.	17	(cont.)			
		Um	iP	19 25 31.6	C
		Ud	iP	19 26 02.8	C
		De	iP	19 26 20.6	
		Kurile Islands (h = 110 km).			
		m = 5.8 (Up,Ki).			
"	17	Ki	eP	19 45 04	
			iS	19 46 12.2	
			iTSg	19 50 46.8	
		Sk	eP	19 45 33	
			iS	19 47 15.0	
		Um	iP	19 45 51.5	
		Ud	iP	19 46 20.7	
		Norwegian Sea, near 72°N, 4°E.			
		Origin time = 19 43 18.			
"	17	De	iP	22 18 11.7	
"	18	Um	iP	03 59 07.6	
		Banda Sea (h = 80 km).			
"	18	Um	iPP	04 07 19.9	
		South Atlantic Ocean (h = N).			
"	18	Ud	iP	04 16 03.9	
"	18	Up	iSgl	05 22 20.0	
		Ki	iSn	05 19 03.0	
			iSgl	05 19 30.2	
		Sk	eSgl	05 21 51	
		Um	iSgl	05 20 17.9	
		Northwest USSR.			
		Explosion.			
"	18	Ki	eP	05 26 01	
		Um	iP	05 26 31.1	
		South of Alaska (h = N).			
"	18	Ud	iPKP1	06 42 03.6	C
		De	iPKP1	06 42 14.9	
"	18	Up	ipPKP1	07 51 45.3	
		Sk	ipPKP1	07 51 36.2	
		Um	iPKP1	07 51 23.8	
			ipPKP1	07 51 33.4	
		Ud	iPKP1	07 51 37.3	
			ipPKP1	07 51 46.4	
		De	ipPKP1	07 51 55.3	
		Kermadec Islands.			
		h = 30 km (Um,Ud).			
"	18	Up	iSgl	08 09 27.3	
		Ki	ePn	08 05 13	
			iSn	08 06 10.1	
		(cont.)			

1973 Feb.	18	(cont.)			
		Ki	iSgl	08 06 32.4	
		Sk	iS*	08 08 55.7	
			iSgl	08 09 02.8	
		Um	iSn	08 06 50.8	
			i	08 07 04.7	
			i(S*)	08 07 22.5	
			iSgl	08 07 26.7	
		Ud	iSgl	08 09 56.7	
		Northwest USSR, 67.9°N, 33.7°E.			
		Origin time = 08 03 56.			
		Explosion.			
"	18	Ki	eP	12 18 39	
"	18	Up	iPKP1	12 20 02.5	
		Sk	ipPKP1	12 20 07.6	
		Um	ePKP1	12 19 51	
		Ud	iPKP1	12 20 04.1	
		De	iPKP1	12 20 15.2	
		Kermadec Islands.			
		Origin time = 12 00 19.			
"	18	Up	iPKP2	13 59 28.2	
		Sk	ePKP1	13 59 15	
		Um	iPKP1	13 59 12.3	
		Ud	iPKP	13 59 21.2	
			iPKP1	13 59 25.4	
		De	iPKP1	13 59 35.0	
		Kermadec Islands (h = N).			
"	18	Ki	i	18 04 18.9	
		Ud	iP	18 04 32.1	
		Mindanao (h = 70 km).			
"	18	Up	iPKP1	18 29 08.2	
			i	18 29 15.4	
				micr	sec
			PKP1 Z'	0.1	1.2
			i Z'	0.1	0.8
		Ki	i(PKP)	18 28 44.3	
			iPKP	18 28 52.0	
			i	18 29 05.3	
				micr	sec
			PKP Z'	0.1	1.1
			Mx E	1.8	20
			Mx N	1.6	19
			Mx Z	1.7	19
		Sk	iPKP1	18 29 02.2	
			i	18 29 10.2	
		Um	iPKP1	18 28 56.3	
		Ud	iPKP1	18 29 09.7	
			i	18 29 16.7	
		De	iPKP1	18 29 17.9	
			i	18 29 25.3	
		(cont.)			

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

1973 Feb.	18	(cont.)			
		De	iPKP2	18 29 30.8	
			i	18 29 38.3	
		Kermadec Islands (h = 50 km). Double PKP1, in average 7.4 sec apart.			
"	18	Up	ePKP1	20 32 53	
			ipPKP1	20 33 02.7	
				micr sec	
			pPKP1 Z'	0.1 1.0	
		Sk	e(PKP1)	20 32 50	
		Um	iPKP1	20 32 40.3 D	
		Ud	iPKP1	20 32 53.2	
			ipPKP1	20 33 03.9	
		De	iPKP2	20 33 12.7	
		Kermadec Islands. h = 35 km (Up,Ud).			
"	18	Up	eP	21 06 12	
		Um	iP	21 05 58.4	
		Ud	iP	21 06 09.3	
		De	iP	21 06 24.3	
"	18	Up	eP	21 46 30	
		Ki	iP	21 46 29.3	
			i	21 46 31.7	
		Sk	iP	21 46 55.7	
		Um	iP	21 46 22.9	
		Ud	iP	21 46 46.1 C	
			i	21 46 48.9	
		Kirghiz-Sinkiang (h = N).			
"	18	De	iP	22 00 02.0	
"	18	Um	i(PKP)	22 20 37.7	
			iPKP1	22 20 50.8	
		Ud	ePKP1	22 21 03	
		De	ePKP1	22 21 11	
"	19	Um	iP	01 57 57.1	
"	19	Sk	eP	05 39 32	
"	19	Up	Mx	09 45	
				micr sec	
			Mx E	2.4 18	
			Mx N	2.2 18	
			Mx Z	4.4 23	
		Ki	Mx	09 51	
				micr sec	
			Mx E	3.6 18	
			Mx N	2.4 17	
			Mx Z	4.3 20	
		Prince Edward Island (h = N). M = 6.1 (Up,Ki).			

1973 Feb.	19	Ud	iP	10 03 20.7	
"	19	Up	iRg	11 16 27.1	
		Ud	iRg	11 16 02.1	
		Central Sweden, probably in the Bergslagen mining area.			
"	19	Ki	eP	16 36 02	
		Okhotsk Sea. Deep.			
"	19	Ud	iP	17 44 15.7	
		Tibet.			
"	19	Up	iP	18 14 55.1	
				micr sec	
			P Z'	0.1 1.2	
		Ki	iP	18 15 56.3	
		Sk	iP	18 15 41.1	
		Um	iP	18 15 22.6	
		Ud	iP	18 15 11.0	
		De	iP	18 14 41.0	
		Turkey (h = 20 km).			
"	19	Ud	iPKP2	20 28 21.2	
		South Pacific Ocean (h = N).			
"	19	Up	iP	23 10 36.2	
		Ud	iP	23 10 52.8	
		Afghanistan-USSR (h = 110 km).			
"	19	Ud	iP	23 59 06.4	
"	20	Up	iPg1	00 05 15.0	
			iSg1	00 05 20.1	
			iRg	00 05 24.2	
		Ud	iSg1	00 06 13.6	
		Probably ore mine explosion at Dannemora, Uppland, Sweden, 60.1°N, 17.5°E. Origin time = 00 05 08.			
"	20	Up	eP	01 17 33	
"	20	Up	i	06 00 59.5	
			iPP	06 01 12.9	
		Sk	eP	06 01 22	
		Ud	iP	06 00 49.7	
		De	iP	06 00 17.3	
		Crete (h = 20 km).			
"	20	Up	iP	07 50 54.6	
			ipP	07 51 00.2	
				micr sec	
			pP Z'	0.1 1.2	
		(cont.)			

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

1973 Feb.	20	(cont.)					
		Ki	iP		07	49	59.9
			ipP		07	50	05.7
					micr		sec
			pP	Z'	0.2		1.1
		Sk	eP		07	50	26
			ipP		07	50	31.9
		Um	iP		07	50	28.9
			ipP		07	50	34.7
		Ud	eP		07	50	52
			ipP		07	50	56.8
		De	iP		07	51	14.7
			ipP		07	51	20.1
			i		07	51	39.6
		Gulf of Alaska.					
		h = 20 km (Up,Ki,Sk,Um,Ud,					
		De).					
"	20	Up	iP		11	43	03.8
			iPP		11	43	14.5
		Ki	iP		11	44	08.2
		Um	iP		11	43	35.4
		Ud	iP		11	43	23.9
			iPP		11	43	37.2
		De	iP		11	42	56.9
			iPP		11	43	16.0
		Crimea (h = 15 km).					
"	20	Ki	eP		12	39	26
		Ud	eP		12	39	09
"	20	Up	iP		14	23	40.1
		Um	iP		14	23	20.1
		Ud	iP		14	23	47.3
		Japan (h = 400 km).					
"	20	Up	i(P)		15	21	11.4
"	20	Up	ePKP1		21	26	50
		Um	iPKP1		21	26	38.5
		Ud	iPKP1		21	26	52.4
		Kermadec Islands (h = N).					
"	21	Sk	iP		01	20	30.1
		Ud	iP		01	19	55.4
		Greece (h = N).					
"	21	Up	iP		08	33	14.5
			i		08	33	16.0
					micr		sec
			P	Z'	0.1		0.7
		Ki	eP		08	33	00
		Um	iP		08	33	02.7
		Ud	iP		08	33	29.0
		Szechwan, China (h = N).					
"	21	Um	iP		09	24	55.6

1973 Feb.	21	Up	iP		09	48	03.3
		Ki	iP		09	47	34.3
		Um	iP		09	47	47.1
			ipP		09	48	13.6
		Ud	iP		09	48	10.4
		Volcano Islands.					
		h = 100 km (Um).					
"	21	Um	i(PKP)		12	32	59.4
			iPKP		12	33	11.9
		Ud	iPKP		12	33	22.1
		De	iPKP		12	33	26.0
		New Britain (h = 90 km).					
"	21	Um	iSgl		13	04	15.3
		Western USSR.					
		Explosion.					
"	21	Um	i(Sgl)		13	20	31.7
"	21	Ki	i(Sn)		14	45	28.4
		Um	e(Sgl)		14	47	50
"	21	Up	iP		14	58	05.2 C
					micr		sec
			P	Z'	0.1		1.0
			Mx	E	2.7		18
			Mx	N	5.4		17
			Mx	Z	8.2		18
		Ki	iP		14	57	32.8 C
			i		14	57	53.0
					micr		sec
			Mx	E	7.8		15
			Mx	N	6.0		16
			Mx	Z	6.9		15
		Sk	iP		14	57	40.1 C
		Um	iP		14	57	51.2 C
			i		14	58	11.3
		Ud	iP		14	57	57.6 C
		De	iP		14	58	13.9 C
		California (h = 10 km).					
		M = 6.1 (Up,Ki).					
"	21	Up	iPKP2		15	02	35.4
			ipPKP2		15	02	48.8
		Ki	iPKP1		15	02	05.2
					micr		sec
			PKP1	Z'	0.1		1.0
		Sk	ePKP		15	02	08
		Um	iPKP1		15	02	12.5
			ipPKP1		15	02	25.4
		Ud	iPKP2		15	02	40.7
			ipPKP2		15	02	53.1
		De	ePKP2		15	02	54
		New Zealand.					
		h = 45 km (Up,Um,Ud).					

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

1973				
Feb.	21	Ki	i(Sgl)	15 47 15.1
"	21	Um	i(P)	15 48 57.8
			i	15 49 04.8
"	21	Um	iP	16 53 28.7
		Ud	iP	16 53 36.0
		Caucasus.		
"	21	Up	iP	18 54 47.3
		Um	iP	18 54 27.3
		Ud	iP	18 54 54.3
		South of Japan (h = N).		
"	21	Ki	iP	21 43 59.3
"	22	Ki	eP	00 42 45
				micr sec
			P Z'	0.1 1.2
		Sk	iP	00 42 36.6 D
		Um	iP	00 42 52.0 D
		Ud	iP	00 42 44.3
		Guatemala (h = 110 km).		
"	22	Ud	iPn	09 18 42.2
			iSn	09 19 32.3
			iSgl	09 19 54.7
"	22	Um	iP	11 36 31.9
"	22	Up	eSn	11 38 25
			iSgl	11 38 37.3
		Ki	iSgl	11 41 14.4
		Sk	iSg2	11 40 37.1
		Um	iSgl	11 39 12.3
		Ud	eSgl	11 39 43
		De	iSgl	11 40 08.9
		Esthonia, 59.7°N, 24.4°E.		
		Origin time = 11 36 49.		
		Explosion.		
"	22	Up	iSgl	12 34 55.6
		Ki	eSgl	12 36 52
		Um	iSgl	12 35 15.2
		De	eSgl	12 36 29
		Western USSR.		
		Explosion.		
"	22	Ki	i(P)	12 35 30.8
"	22	Um	iPKP1	14 35 54.3
			i	14 36 05.4
		Ud	iPKP1	14 36 08.6
"	22	Up	iSgl	14 55 24.4
		Ki	iPgl	14 52 44.0
		(cont.)		

1973				
Feb.	22	(cont.)		
		Ki	iSgl	14 53 19.7
		Sk	iS*	14 53 23.5
			iSgl	14 53 26.9
		Um	iPgl	14 52 59.5
			iSn	14 53 33.6
			iSgl	14 53 46.4
		Ud	iSgl	14 55 13.1
		Nordland, Norway,		
		66.4°N, 14.8°E.		
		Origin time = 14 51 58.		
		Explosion.		
"	22	Um	iP	15 37 35.0
		Ud	eP	15 37 44
"	22	Um	iPKP	16 40 50.5
			ipPKP	16 41 27.2
		Ud	ePKP	16 40 56
		New Britain.		
		h = 140 km (Um).		
"	22	Um	eP	18 27 09
		Tsinghai, China (h = N).		
"	22	Up	iPKP1	20 23 36.1
				micr sec
			PKP1 Z'	0.1 1.4
		Sk	iPKP1	20 23 29.2
		Um	iPKP1	20 23 24.6
			i	20 23 36.4
		Ud	iPKP1	20 23 38.0
			i	20 23 49.0
		Kermadec Islands (h = 80 km).		
"	22	Ki	eP	20 29 51
		Um	iP	20 30 11.6
		Sea of Japan (h = 230 km).		
"	22	Ud	iP	22 51 00.2
"	22	Ud	eP	23 28 20
"	23	Um	iPKP	00 09 50.0
		Santa Cruz Islands		
		(h = 50 km).		
"	23	Ki	eP	03 20 21
			iS	03 21 29.5
		Sk	iP	03 20 45.2
			iS	03 22 27.5
		Um	iP	03 20 59.8
		Norwegian Sea.		
		Solution checked with		
		Tromsö readings.		

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

1973 Feb.	23	Up			micr	sec
			Mx	E	1.5	20
			Mx	N	2.0	22
			Mx	Z	2.0	21
		Ki			micr	sec
			Mx	E	2.2	20
			Mx	N	1.8	20
			Mx	Z	2.1	21
		Um	iP		04 39 42.6	
			iS		04 50 59	
		Ud	i(pP)		04 39 41.4	
		Ecuador (h = 70 km).				
		M = 5.8 (Up,Ki).				
"	23	Ud	i(P)		06 27 50.3	
"	23	Um	iP		07 12 53.4	
		Ud	iP		07 13 24.0	
		Kurile Islands.				
"	23	Um	i(Sgl)		08 31 24.8	
"	23	Up	iSgl		08 40 29.0	
		Ki	iPn		08 36 17.5	
			iSn		08 37 15.5	
			iSgl		08 37 38.6	
		Sk	iSgl		08 40 03.6	
		Um	iSn		08 37 56.6	
			i		08 38 10.5	
			iSgl		08 38 32.3	
		Northwest USSR,				
		67.8°N, 33.9°E.				
		Origin time = 08 35 00.				
		Explosion.				
"	23	Ki	iPgl		08 39 19.7	
			iSn		08 40 02.8	
			i		08 40 10.8	
			iSgl		08 40 25.1	
		Sk	iSgl		08 42 54.1	
			i		08 43 01.1	
		Um	iSn		08 40 46.0	
			iSgl		08 41 19.6	
		Northwest USSR, from the				
		same area as the preceding				
		event.				
		Origin time = 08 37 47.				
		Explosion.				
"	23	Ud	iP		09 50 48.2	
"	23	Up	iP		10 53 44.7	
			i		10 53 49.3	
		Ki	eP		10 53 39	
		Sk	iP		10 54 01.3	
		Um	iP		10 53 33.6	
			i		10 53 38.4	
		(cont.)				

1973 Feb.	23	(cont.)		
		Ud	iP	10 53 59.6
		De	iP	10 54 07.0
		Sinkiang, China (h = N).		
"	23	Um	iPKP	11 27 01.4
			i	11 27 11.9
		New Britain (h = 20 km).		
"	23	Up	iSgl	12 38 11.3
		Um	iS*	12 38 24.5
			iSgl	12 38 29.5
		Ud	iSgl	12 39 15.5
		De	i	12 38 23.0
			i	12 38 35.3
			iSgl	12 39 39.5
		Western USSR.		
		Explosion.		
"	23	Up	iSgl	12 45 37.6
			i	12 45 46.8
		Um	iSgl	12 47 52.8
		Ud	iSgl	12 45 42.6
		De	iPgl	12 43 37.9
			iSgl	12 43 54.2
		Baltic Sea, south of Sweden,		
		55.5°N, 15.0°E.		
		Origin time = 12 43 18.		
		Explosion.		
"	23	Sk	eP	12 49 57
"	23	Ud	iPKP	13 31 49.1
		Santa Cruz Islands (h = N).		
"	23	Ud	iP	16 33 23.7
		Talaud Islands (h = 140 km).		
"	23	Up	iP	19 49 32.1
			i	19 49 37.4
		Um	iP	19 49 33.0
			i	19 49 40.1
		Ud	iP	19 49 22.3
		De	iP	19 49 26.8
			i	19 49 31.9
		Costa Rica (h = N).		
"	23	Up	eP	20 15 28
		Um	eP	20 15 28
		(Costa Rica).		
"	23	Um	iP	20 58 24.0
		Japan (h = 420 km).		
"	23	Up	eP	21 12 44
		Ud	iP	21 12 32.3

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

1973 Feb.	23	Up	iPKP1	21 15 59.2	
			i	21 16 18.6	
		Ki	iSKP1	21 18 31.5	
		Um	iPKP1	21 15 46.8	
			e	21 15 57	
			iSKP1	21 18 42.4	
		Ud	iPKP1	21 16 01.1	
			i	21 16 17.7	
			iSKP1	21 18 54.1	
		De	iPKP1	21 16 12.0	
			i	21 16 27.8	
		Tonga-Kermadec Islands (h = 520 km).			
"	24	Up	iP	00 10 07.0	
				micr sec	
			P Z'	0.1 0.9	
		Ki	iP	00 10 44.1	C
				micr sec	
			P Z'	0.1 0.7	
		Sk	iP	00 10 41.7	
		Um	iP	00 10 20.6	C
		Ud	iP	00 10 21.6	C
		De	iP	00 10 04.0	
		Iran (h = 25 km). m = 5.6 (Up,Ki).			
"	24	Um	iP	02 09 49.3	
		Hindu Kush (h = 230 km).			
"	24	Um	iP	02 18 15.6	
		Japan.			
"	24	Up	i(PKP)	07 57 31.1	
			iPKP	07 57 39.7	
			iSKP1	08 01 08.2	
		Ki	iPKP	07 57 24.8	
				micr sec	
			PKP Z'	0.2 1.0	
		Sk	i(PKP)	07 57 26.9	
			iPKP	07 57 36.6	
		Um	i(PKP)	07 57 22.9	
			iPKP	07 57 31.4	
		Ud	i(PKP)	07 57 33.1	
			iPKP	07 57 41.9	
		De	i(PKP)	07 57 36.4	
			i(PKP)	07 57 39.5	
			iPKP	07 57 47.6	
		New Hebrides Islands (h = 60 km).			
"	24	Ud	iP	08 46 09.5	C
"	24	Um	iP	09 23 50.0	
		Tadzhik SSR (h = 230 km).			
"	24	Ki	iP	14 45 45.6	
		(cont.)			

1973 Feb.	24	(cont.)			
		Ud	iP	14 46 15.1	C
		Luzon (h = 40 km).			
"	24	Um	iP	16 24 29.3	
		Ud	iP	16 23 42.3	
"	24	Um	iSKP1	17 55 39.6	
		Fiji Islands (h = 640 km).			
"	24	Sk	iSg1	18 23 45.1	
		Ud	eSg1	18 23 48	
		South Norway, 61.2°N, 7.4°E. Origin time = 18 22 06. By combination with Bergen readings.			
"	24	Ki	iP	20 05 35.3	
"	24	Ki	ePKP	20 38 33	
		Um	iPKP	20 38 40.7	
		New Hebrides Islands (h = 45 km).			
"	24	Up	iP	22 04 18.3	
		Ki	iP	22 03 41.5	
		Um	iP	22 03 57.4	
			iPcP	22 04 13.9	
		Ud	iP	22 04 25.9	C
		Japan (h = 35 km).			
"	24	Up	iP	22 05 33.0	
		Ki	eP	22 05 50	
		Um	iP	22 05 34.6	
		Ud	iP	22 05 45.7	
		Pakistan (h = 55 km).			
"	24 -25	Ki	eP	00 00 35	
		Ud	iP	23 59 31.3	
		De	eP	23 59 00	
		Crete (h = 50 km).			
"	25	Up	eP	02 02 45	
		Sk	eP	02 03 45	
		Um	eP	02 03 48	
		Ud	iP	02 02 55.9	
		De	iP	02 02 10.7	
"	25	Up	iP	02 07 16.4	
				micr sec	
			P Z'	0.1 1.0	
		Um	iP	02 08 57.4	
		Ud	iP	02 07 56.3	
		These phases belong probably to the preceding event.			

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

1973 Feb.	25	Um	i(P)		03 54 22.3	
"	25	Ud	i(P)		04 15 22.6	
"	25	Um	i(P)		04 55 49.6	
"	25	Up	iPKP		05 54 56.6	
			iPP		05 57 00.2	
			iSKP1		05 58 15.6	
					micr	sec
			PKP	Z'	0.5	1.5
			PP	Z'	0.6	1.9
			SKP1	Z'	0.3	2.0
			Mx	E	2.7	18
			Mx	N	2.6	18
			Mx	Z	4.1	17
		Ki	i(PKP)		05 54 59.1	
			iPKP		05 55 11.0	
			e(PP)		05 57 28	
			iPP		05 57 47.8	
			iSKP1		05 58 36	
					micr	sec
			PKP	Z'	0.2	1.7
			PP	Z'	0.5	1.9
			Mx	E	3.7	20
			Mx	N	2.3	19
			Mx	Z	6.4	19
		Sk	iPKP		05 55 02.0	
		Um	i(PKP)		05 54 52.1	
			iPKP		05 55 04.0	
			i(PP)		05 57 18.4	
			iPP		05 57 26.3	
			iSKP1		05 58 28	
		Ud	iPKP		05 54 55.2	
			i(PP)		05 56 43.4	
			iPP		05 56 53.5	
		De	iPKP		05 54 50.5	
			i		05 55 09.9	
			iPP		05 56 34.6	
		Scotia Sea (h = N).				
		m = 6.5, M = 6.2 (Up,Ki).				
"	25	Um	i(P)		08 17 43.4	
"	25	Ki	iP		08 54 06.1	
		Ud	iP		08 54 31.7	
		Mindanao (h = 90 km).				
"	25	Um	iP		10 20 50.6	
		Japan (h = 20 km).				
"	25	Up	iP		10 44 25.0	C
			ipP		10 44 36.6	
			isP		10 44 42.8	
			iS		10 55 03	
					micr	sec
			P	Z'	0.1	1.2
		(cont.)				

1973 Feb.	25	(cont.)				
		Up			micr	sec
			sP	Z'	0.1	1.0
			Mx	E	2.7	23
			Mx	N	4.0	22
			Mx	Z	6.3	23
		Ki	iP		10 44 25.8	C
			isP		10 44 42.9	
			iS		10 55 06	
					micr	sec
			P	Z'	0.1	1.1
			sP	Z'	0.1	1.0
			Mx	E	5.7	21
			Mx	N	4.4	18
			Mx	Z	5.8	21
		Sk	iP		10 44 39.7	
			ipP		10 44 50.1	
		Um	iP		10 44 22.2	C
			ipP		10 44 33.6	
			iS		10 55 00	
		Ud	iP		10 44 34.3	C
			ipP		10 44 45.9	
		De	iP		10 44 33.2	
			ipP		10 44 44.4	
		Sumatra.				
		h = 40 km (Up,Sk,Um,Ud,De).				
		m = 5.9, M = 5.9 (Up,Ki).				
"	25	Ud	iP		13 00 19.8	
		Greece (h = 45 km).				
"	25	Sk	eP		15 01 05	
		Um	iP		15 00 52.1	
		Ud	iP		15 00 32.1	
		Turkey (h = 20 km).				
"	25	Up	iP		21 41 12.5	
		Ki	iP		21 41 12.9	
			ipP		21 41 22.0	
		Um	iP		21 41 09.3	
			ipP		21 41 18.2	
		Ud	iP		21 41 21.9	
		De	ipP		21 41 29.4	
		Sumatra.				
		h = 35 km (Ki,Um).				
"	25	Um	iP		22 10 09.0	
		De	iP		22 10 20.1	
"	26	Up	iP		00 56 27.0	
		Um	iP		00 56 26.3	
			ipP		00 56 37.2	
		Costa Rica.				
		h = 40 km (Um).				
"	26	Up	iRg		05 07 42.8	
		Um	iSg1		05 09 25.3	
		(cont.)				

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

1973
Feb. 26 (cont.)
Ud iRg 05 07 27.8
Central Sweden.

" 26 Up iRg 05 07 57.1
Ud iRg 05 07 40.5
Central Sweden.

" 26 Up iRg 05 08 03.8
Ud iRg 05 07 47.1
Central Sweden.

" 26 Ud iRg 05 10 14.3
Central Sweden.

" 26 Ud iRg 05 15 06.4
Central Sweden.

" 26 Ud iP 06 54 39.8

" 26 Ki iP 07 49 57.7

" 26 Ki iP 08 26 49.3 C
Ud iP 08 27 45.5 C
Kurile Islands (h = 45 km).

" 26 Ki eP 10 09 23
Ud iP 10 09 49.2
Talaud Islands (h = 80 km).

" 26 Up iP 11 06 39.7
i 11 06 51.3

		micr	sec
i	Z'	0.1	1.0

Ki iP 11 06 23.7
i 11 06 34.4

		micr	sec
i	Z'	0.2	1.0
Mx	E	1.6	21
Mx	N	1.4	23
Mx	Z	1.6	21

Sk iP 11 06 46.7
Um iP 11 06 29.0
i 11 06 40.1
Ud iP 11 06 48.6
i 11 06 59.7
De eP 11 06 56
Mindanao (h = 70 km).
m = 6.3 (Up,Ki).
Double P, in average
11.1 sec apart.

" 26 Ud iP 11 37 05.8

" 26 Ki iP 12 47 40.0
Um iP 12 47 54.2
Ud iP 12 48 22.4
Japan (h = 60 km).

1973
Feb. 26 Up iSn 12 57 19.2
iSgl 12 57 32.3
Sk iSgl 12 59 24.0
Um iSgl 12 58 07.5
i 12 58 11.9
Ud iSn 12 58 08.5
iSgl 12 58 35.0
De iSgl 12 59 01.9
Esthonia, 59.6°N, 24.7°E.
Origin time = 12 55 39.
Explosion.

" 26 Um iP 14 27 59.2

" 26 Ud iP 16 07 56.7
Japan.

" 26 Ud eP 18 42 28

" 26 Up iP 20 20 23.4
Sk iP 20 20 39.6
Um iP 20 20 17.4
Ud iP 20 20 38.4

" 26 Um iP 20 30 16.7
Kashmir.

" 26 Up iP 22 10 15.1
ipP 22 10 24.3
isP 22 32.5
iS 22 20 50

		micr	sec
P	Z'	0.1	1.0
sP	Z'	0.1	1.0
Mx	E	0.8	20
Mx	N	1.4	20
Mx	Z	1.8	22

Ki iP 22 10 16.3
ipP 22 10 24.7
iS 22 20 59

		micr	sec
P	Z'	0.1	0.9
Mx	E	1.8	20
Mx	N	1.5	18
Mx	Z	1.7	19

Sk eP 22 10 30
Um iP 22 10 13.0
ipP 22 10 22.1
iS 22 20 47
Ud iP 22 10 25.3
ipP 22 10 33.9
De iP 22 10 23.7
ipP 22 10 32.8
Sumatra.
h = 35 km (Up,Ki,Um,Ud,De).
m = 6.0, M = 5.6 (Up,Ki).

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

1973 Feb.	26	Up	iP		22 27 42.1	
		Ki	eP		22 29 03	
		Sk	iP		22 28 25.1	
			i		22 28 32.2	
		Um	iP		22 28 23.9	
			i		22 28 29.9	
		Ud	iP		22 27 49.3	
		De	iP		22 27 10.7	
		Greece-Albania (h = N).				
"	26	Um	iP		22 55 15.2	
		Eastern USSR (h = 420 km).				
"	26	Ki	eP		23 23 20	
			eTPg		23 28 20	
			eTSg		23 28 45	
		Sk	iP		23 24 01.8	
			eS		23 25 47	
		Um	iP		23 24 08.4	
		Ud	iP		23 24 49.9	
		Norwegian Sea, near 72°1/2N, 8°E.				
		Origin time = 23 21 48.				
"	27	Ud	eP		00 44 39	
		Greece-Albania.				
"	27	Um	iP		02 40 59.4	
"	27	Um	iP		04 36 18.1	
		Japan (h = 60 km).				
"	27	Um	iP		06 07 51.5	
		Japan (h = 50 km).				
"	27	Up	iP		07 42 49.2	
		Um	iP		07 42 19.8	
		Ud	iP		07 42 55.4	
		Japan.				
"	27	Up	eP		09 22 11	
		Ki	iP		09 21 51.0	
			ipP		09 22 11.9	
					micr	sec
			pP	Z'	0.1	1.0
		Sk	eP		09 22 15	
		Um	eP		09 21 58	
		Ud	iP		09 22 16.5	
			ipP		09 22 37.4	
		Mindanao.				
		h = 80 km (Ki,Ud).				
"	27	Up	iSgl		12 25 59.1	
		Um	iSgl		12 26 16.2	
		Western USSR.				
		Explosion.				
1973 Feb.	27	Ud	i(P)		12 26 20.9	
"	27	Ud	i(P)		12 38 57.0	
"	27	Sk	iP		14 17 53.2	
		Um	iP		14 18 19.4	
		Colombia (h = 160 km).				
"	27	Up	iP		15 02 22.7	
			ipP		15 02 31.7	
		Um	iP		15 02 19.9	
			ipP		15 02 30.6	
		Ud	iP		15 02 32.3	
			ipP		15 02 42.2	
		Sumatra.				
		h = 35 km (Up,Um,Ud).				
"	27	Up	iP		17 15 07.5	
			iS		17 19 14	
					micr	sec
			P	Z'	0.1	1.4
		Ki			micr	sec
			Mx	N	0.6	16
			Mx	Z	0.9	17
		Sk	eP		17 15 46	
		Um	iP		17 15 39.0	
		Ud	eP		17 15 17	
		Turkey (h = N).				
"	27	Up	iP		18 16 47.9	C
		Um	iP		18 16 20.6	C
		Ud	iP		18 16 46.0	
		Aleutian Islands (h = 45 km).				
"	27	Um	iP		18 27 35.6	
		Aleutian Islands (h = 45 km).				
"	27	Um	iP		20 09 28.9	
"	27	Um	ePKP		22 02 38	
		New Hebrides Islands (h = 640 km).				
"	28	Um	iP		01 45 47.2	
		Mariana Islands (h = 250 km).				
"	28	Up	iP		06 48 30.8	
			ipP		06 48 37.8	
			i(P'P')		07 17 06.4	
			iP'P'		07 17 19.8	
					micr	sec
			pP	Z'	0.7	1.2
			Mx	E	400	20
			Mx	N	510	23
			Mx	Z	370	20
		Ki	iP		06 47 36	
		(cont.)				

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

1973						
Feb.	28	(cont.)				
		Ki			micr	sec
			Mx	E	570	23
			Mx	N	540	23
			Mx	Z	360	25
		Sk	iP		06 48 13.8	
			ipP		06 48 21.8	
		Um	iP		06 48 04.7	
			ipP		06 48 12.5	
			i(P'P')		07 17 17.9	
		Ud	iP		06 48 32.5	
			i		06 48 37.7	
			iP'P'		07 17 10.5	
		Kurile Islands.				
		h = 30 km (Up,Sk,Um).				
		M = 7.8 (Up,Ki).				
		(P'P') at Up and Um denotes a phase preceding P'P' by about 15 sec according to the Gutenberg-Richter tables.				
"	28	Ud	iP		07 00 13.9	
		Kurile Islands (h = N).				
"	28	Up	iP		07 01 21.3	
		Sk	iP		07 01 05.7	
		Ud	iP		07 01 24.3	
			ipP		07 01 35.6	
		Kurile Islands.				
		h = 40 km (Ud).				
"	28	Up	iP		07 06 17.0	
		Um	iP		07 05 51.6	
		Ud	iP		07 06 22.1	
		Kurile Islands (h = 50 km).				
"	28	Up	iP		08 20 29.4	
			ipP		08 20 40.3	
		Ki	iP		08 20 11.0	
			ipP		08 20 21.6	
					micr	sec
			pP	Z'	0.1	1.5
		Sk	eP		08 20 33	
		Um	iP		08 20 17.5	
			ipP		08 20 28.0	
		Ud	iP		08 20 37.5 C	
			ipP		08 20 47.5	
		De	epP		08 20 55	
		Mindanao.				
		h = 40 km (Up,Ki,Um,Ud).				
"	28	Ud	iP		08 50 45.3 C	
"	28	Ud	iP		10 06 16.2	
"	28	Ki	iP		11 42 33.6	
		(cont.)				

1973						
Feb.	28	(cont.)				
		Ki			micr	sec
			Mx	E	1.0	19
			Mx	N	1.3	19
		Ud	iP		11 43 27.4	
		Kurile Islands (h = 50 km).				
"	28	Ud	eP		11 45 26	
"	28	Up	iSgl		12 46 32.1	
		Um	iSgl		12 46 48.7	
		Ud	iSgl		12 47 27.2	
		Western USSR.				
		Explosion.				
"	28	Ud	eP		12 55 09	
"	28	Ki	i(P)		13 11 19.5	
			i		13 11 24.3	
"	28	Um	i(P)		13 57 58.2	
"	28	Um	iSgl		14 12 52.4	
		Lake Ladoga region.				
		Explosion?				
"	28	Ud	iPKP1		14 13 15.9	
		De	iPKP1		14 13 27.4	
"	28	Ud	i(P)		14 35 03.2	
"	28	Ud	iP		14 56 20.0	
			ipP		14 57 17.2	
		Hindu Kush.				
		h = 280 km (Ud).				
"	28	Up	iPP		17 25 27.5	
		Um	i(Pn)		17 25 37.8	
		Ud	iPn		17 25 38.6	
			iPP		17 25 46.0	
		De	iPP		17 25 27.8	
		Turkey (h = 35 km).				
"	28	Up	iP		21 53 16.4	
		Ki	iP		21 52 25.1	
					micr	sec
			P	Z'	0.1	0.9
		Um	iP		21 52 52.5 D	
		Ud	iP		21 53 16.9	
		De	iP		21 53 40.0	
		Unimak Island (h = N).				
"	28	Um	iP		23 06 14.8	
"	28	Ki	iP		23 21 13.7	
		Um	iP		23 21 14.4	
		(cont.)				

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

1973
Feb. 28 (cont.)
Ud iP 23 21 35.5
Molucca Sea (h = 90 km).

Markus Båth
Klaus Meyer
Rutger Wahlström
Ota Kulhánek

November 29, 1974

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, 1973

1973 Mar.	1	Up	iP		02 29 46.6	D
				micr	sec	
			P Z'	0.1	1.2	
		Ki	iP		02 28 54.0	
				micr	sec	
			P Z'	0.1	1.0	
		Sk	iP		02 29 30.9	D
		Um	iP		02 29 21.4	D
		Ud	iP		02 29 50.2	D
		De	iP		02 30 11.1	D
		Kurile Islands (h = 30 km). m = 5.9 (Up,Ki).				
"	1	Ki	iP		04 40 25.7	
"	1	Ki	iPKP		10 17 40.1	
		Um	iPKP		10 17 47.2	C
		New Hebrides Islands (h = 130 km).				
"	1	Ud	iP		11 28 40.7	
"	1	Ud	iP		11 49 11.2	
		Aleutian Islands (h = 45 km).				
"	1	Ud	iSgl		11 52 45.4	
		West coast of Norway, near Bergen. Origin time = 11 50 18. By combination with Bergen readings.				
"	1	Ud	eP		12 22 19	
"	1	Up	iSgl		13 03 47.4	
		Ki	iSgl		13 05 40.9	
		Um	iSgl		13 04 02.3	
		Ud	iSgl		13 04 44.9	
		De	iSgl		13 05 10.4	
		(cont.)				
1973 Mar.	1	(cont.) Western USSR, 59.3°N, 28.2°E. Origin time = 13 01 00. Explosion.				
"	1	Ud	iP		13 37 29.4	
		Kurile Islands.				
"	1	Up	eP		15 21 50	
		Um	iP		15 21 29.4	
		Ud	iP		15 21 57.5	
		Japan (h = 60 km).				
"	1	Um	iPKP		16 45 03.3	
		Ud	iPKP		16 45 15.6	C
"	1	Ud	eP		18 02 11	
		Ecuador (h = 90 km).				
"	1	Up	eSgl		18 10 39	
		Ki	iPn		18 05 53.3	
			iPgl		18 06 01.9	
			iSn		18 06 40.1	
			iS*		18 06 52.7	
		Sk	eSgl		18 09 39	
		Um	iSn		18 07 53.3	
			iSgl		18 08 28.9	
		Ud	iSgl		18 10 57.4	
		Northwest USSR-Norway border region, 69.7°N, 30.1°E. Origin time = 18 04 52. Explosion.				
"	1	Up	iPgl		18 21 27.0	
			i(Sgl)		18 21 42.3	
			iRg		18 21 48.3	
		Ud	iRg		18 21 35.7	
		De	iSgl		18 22 53.1	
		Central Sweden.				

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

1973 Mar.	2	Ud	eP	02 33 56	
		Crete.			
"	2	Up	iP	03 00 48.9	
		Ki	i(Pn)	02 59 16.7	
			iP	02 59 21.4	
			iS	03 00 44.9	
			iTPgl	03 04 36.0	
		Sk	iS	03 01 37.6	
		Um	eP	03 00 03	
		Ud	e	03 00 53	
		De	iP	03 01 32.2	
		Norwegian Sea, near 72°N, 4°E. Origin time = 02 57 35.			
"	2	Sk	iP	08 14 39.5	
"	2	Ud	i(Sgl)	11 05 30.5	
"	2	Up	i(Sgl)	11 06 42.6	
"	2	Up	iSgl	11 22 07.7	
		Ki	eSgl	11 22 48	
			iSg2	11 22 59.6	
		Sk	iPn	11 20 58.5	
			eSgl	11 23 25	
		Um	i(S*)	11 21 28.2	
			iSgl	11 21 31.5	
		Ud	iPn	11 20 51.4	
			iSgl	11 23 10.6	
		De	iSgl	11 23 48.6	
		Lake Ladoga. Origin time = 11 18 46. Explosion.			
"	2	Ud	iP	11 22 17.1	
		Kurile Islands.			
"	2	Um	iSgl	11 26 32.8	
		Lake Ladoga. Explosion.			
"	2	Ud	eP	11 39 56	
		Nevada (h = 5 km).			
"	2	Ud	iP	12 08 07.8	
		De	eP	12 08 04	
"	2	Up	iSn	12 18 46.8	
			iSgl	12 18 59.9	
		Ki	iSgl	12 21 28.7	
		Um	iSgl	12 19 29.0	
		Ud	iSg2	12 20 09.9	
		De	eSgl	12 20 25	
		Esthonia, 59.5°N, 25.0°E. Origin time = 12 17 00. Explosion.			
1973 Mar.	2	Um	eSgl	12 58 59	
		Western USSR. Explosion.			
"	2	Um	iP	19 43 35.1	
		Japan (h = 55 km).			
"	3	Um	iP	00 57 41.9	
			ipP	00 58 08.4	
		Talaud Islands. h = 100 km (Um).			
"	3	Up	iP	01 55 39.8	C
			ipP	01 55 51.4	
				micr sec	
			P Z'	0.1 1.1	
			pP Z'	0.1 1.1	
		Ki	iP	01 55 12.0	
			ipP	01 55 23.3	
		Sk	iP	01 55 39.8	
			ipP	01 55 51.8	
		Um	iP	01 55 22.9	
			ipP	01 55 34.5	
		Ud	iP	01 55 48.3	
			ipP	01 56 00.0	
		De	eP	01 56 01	
		Ryukyu Islands. h = 45 km (Up,Ki,Sk,Um,Ud).			
"	3	Um	eP	02 28 39	
"	3	Up	iP	02 52 43.6	
		Ki	iP	02 51 52.4	
			i	02 51 54.5	
				micr sec	
			P Z'	0.1 0.9	
		Um	iP	02 52 22.2	
			iPcP	02 53 00.1	
		Ud	iP	02 52 47.6	
			i	02 52 49.6	
			iPcP	02 53 18.2	
		De	iP	02 53 09.6	
		Kurile Islands (h = 60 km).			
"	3	Up	iP	02 53 38.1	
			ipP	02 53 49.1	
		Ki	iP	02 54 18.2	
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	02 54 15.0	
		Um	iP	02 53 53.1	
		Ud	iP	02 53 53.3	
		De	iP	02 53 37.1	
			ipP	02 53 47.2	
		Iran. h = 40 km (Up,De).			

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

1973				
Mar.	3	Up	iP	03 11 31.3
		Um	iP	03 11 14.6
		Ud	iP	03 11 22.4
		Nevada (h = 5 km).		
"	3	Ud	iP	03 46 10.9
		Nevada (h = 5 km).		
"	3	Ud	iP	06 05 12.5
		Hindu Kush.		
		Intermediate depth.		
"	3	Ki	eP	10 30 33
		Um	iP	10 30 27.1
		Ud	iP	10 30 53.3
		De	eP	10 30 57
		Sinkiang, China (h = N).		
"	3	De	eSn	10 56 22
			iSgl	10 57 04.7
		Germany (h = 5 km).		
"	3	Up	iPKPl	13 41 13.5
		Sk	iPKPl	13 41 06.8
			ipPKPl	13 41 19.8
		Um	iPKP	13 41 06.6
		Ud	iPKPl	13 41 15.3
			ipPKPl	13 41 32.0
		De	iPKPl	13 41 24.2
		Kermadec Islands.		
		h = 50 km (Sk,Ud).		
"	3	Um	iP	15 07 30.4
		Ud	eP	15 07 02
"	3	Ud	iP	19 03 23.8
		Nevada (h = 5 km).		
"	3	Um	iP	19 46 36.1 C
		Japan (h = 210 km).		
"	4	Um	iP	09 40 38.4
		Ud	iP	09 40 25.8
"	4	Um	iP	11 35 15.5
		Kurile Islands.		
"	4	Um	iP	11 56 28.5
"	4	Up	eP	14 23 34
		Um	iP	14 23 56.8
		Ud	iP	14 23 27.3
		Ascension Island (h = N).		
"	4	Ud	iP	14 26 47.2
"	4	Ud	iPKPl	14 30 54.1
		De	ePKPl	14 31 06

1973					
Mar.	4	Up	iP		18 08 02.5
				micr	sec
			P Z'	2.4	1.3
			Mx E	4.9	23
			Mx N	7.5	22
			Mx Z	11	21
		Ki	iP		18 07 07.7
				micr	sec
			P Z'	1.5	1.6
			Mx E	10	20
			Mx N	8.7	19
			Mx Z	9.6	15
		Sk	iP		18 07 44.9
		Um	iP		18 07 33.7
			i		18 07 45.1
			iPcP		18 08 27.0
		Ud	iP		18 08 05.7
		De	iP		18 08 28.1
			i		18 08 42.6
			iPP		18 10 52.9
		Kamchatka (h = 30 km).			
		m = 7.1, M = 6.0 (Up,Ki).			
"	5	Um	iP		06 31 19.5
		Japan.			
"	5	Ud	iP		08 45 27.4
"	5	Up	eP		09 40 50
		Ud	iP		09 41 06.3
"	5	Ki	iSgl		12 34 22.6
		Um	iSgl		12 32 57.7
		Ud	iSgl		12 33 41.5
		De	eSgl		12 34 10
		Western USSR.			
		Explosion.			
"	5	Up	iP		14 13 02.1
				micr	sec
			P Z'	0.1	0.9
		Ud	eP		14 13 15
"	5	Up	iP		15 45 16.4
				micr	sec
			P Z'	0.1	1.0
		Um	i		15 46 05.4
		Ud	iP		15 45 21.3
		Greece (h = 30 km).			
"	5	Up	iRg		17 30 38.7
		Ud	iRg		17 30 21.9
		Central Sweden.			
"	5	Ud	iP		19 59 32.4
"	5	Ud	i(Rg)		21 16 31.6

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

1973					
Mar.	5	Up	iRg	21 43 43.2	
		Ud	iRg	21 43 25.5	
		Central Sweden.			
"	5	Um	iP	21 50 26.5	
		Kurile Islands (h = 90 km).			
"	5	Up	iP	23 33 38.3	
		Ki	iP	23 33 21.9	C
			ipP	23 33 37.9	
				micr sec	
			P Z'	0.1 0.9	
		Sk	iP	23 33 42.7	
		Um	iP	23 33 27.5	C
		Ud	iP	23 33 46.9	C
			ipP	23 34 02.9	
		De	iP	23 33 52.9	C
		Mindanao.			
		h = 60 km (Ki,Ud).			
"	6	Ki	iP	00 07 28.5	
		Sk	eP	00 07 08	
		Um	iP	00 06 56.0	
		Ud	iP	00 06 40.1	
		Red Sea (h = 25 km).			
"	6	Up	iP	04 10 43.6	D
				micr sec	
			P Z'	0.1 0.8	
		Ki	iP	04 10 23.7	D
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	04 10 49.2	D
		Um	iP	04 10 30.7	D
		Ud	iP	04 10 53.0	D
		De	iP	04 11 00.0	D
		Luzon (h = 100 km).			
		m = 5.7 (Up,Ki).			
"	6	Ki	eP	07 51 40	
		Ud	iP	07 52 02.5	
		Talaud Islands (h = 70 km).			
"	6	Sk	iP	10 26 59.8	
		Greece.			
"	6	Up	iP	12 26 22.5	
		Sk	iP	12 27 02.5	
		Um	iP	12 26 58.5	
		Ud	iP	12 26 29.5	
		De	eP	12 25 57	
		Greece (h = N).			
"	6	Um	iSgl	12 42 59.4	
		Western USSR.			
		Explosion.			

1973					
Mar.	6	De	i(P)	12 45 10.7	
"	6	Ki	ePn	12 47 11	
			iSn	12 48 39.4	
			i	12 48 57.3	
		Sk	ePn	12 46 32	
			iSn	12 47 36.4	
		Um	iSn	12 48 49.0	
		Ud	iSn	12 48 49.3	
		De	iSn	12 49 48.3	
		Norwegian Sea,			
		near 66°N, 1°E.			
		Origin time = 12 45 09.			
"	6	Up	iPKP	16 10 35.1	
		New Britain (h = 30 km).			
"	6	Ki	i(P)	18 21 04.7	
"	6	Um	iP	18 42 19.5	
		Kurile Islands (h = N).			
"	6	Um	iP	21 36 15.2	
			i	21 36 25.6	
"	6	Up	iP	22 32 00.6	C
				micr sec	
			Mx E	1.5 20	
			Mx N	1.8 20	
			Mx Z	2.6 19	
		Ki	eP	22 31 34	
				micr sec	
			Mx E	2.4 18	
			Mx N	1.6 14	
			Mx Z	1.7 17	
		Um	iP	22 31 49.9	
		Ud	iP	22 31 53.7	
		Gulf of California (h = N).			
		M = 5.7 (Up,Ki).			
"	6	Um	iP	23 17 44.5	
		Japan (h = 60 km).			
"	7	Um	iP	00 15 54.7	
"	7	Up	eP	01 11 14	
		Um	iP	01 11 11.8	
		Ud	iP	01 11 26.4	
		Andaman Islands (h = N).			
"	7	Up	iP	03 22 32.0	
		Ki	iP	03 22 11.4	
			i	03 22 13.9	
		Um	iP	03 22 16.8	
			i	03 22 18.9	
		Ud	iP	03 22 36.5	
		Mindanao (h = 80 km).			

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

1973 Mar.	7	Up	iP		03 29 37.0	D
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		03 29 06.2	D
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		03 29 34.2	D
		Um	iP		03 29 19.6	D
		Ud	iP		03 29 44.1	D
		De	iP		03 29 56.0	
		Bonin Islands (h = 470 km).				
		m = 5.4 (Up,Ki).				
"	7	Um	iP		03 45 17.4	
"	7	Um	iP		06 40 08.9	
		Ud	iP		06 39 33.5	
		Albania (h = 50 km).				
"	7	Um	iP		07 15 12.6	
		Ud	iP		07 15 33.5	
		Afghanistan-USSR (h = 80 km).				
"	7	Up	iPKP1		08 44 36.1	C
			iPKP2		08 44 41.0	
		Ki	iPKP		08 44 19.7	C
		Sk	iPKP1		08 44 30.3	
		Um	iPKP		08 44 23.4	
			iPKP1		08 44 25.0	C
		Ud	iPKP1		08 44 37.7	C
			iPKP2		08 44 43.2	
		De	iPKP1		08 44 46.1	C
			iPKP2		08 44 56.9	
		Kermadec Islands (h = 110 km).				
"	7	Up	i(P)		10 00 47.9	
"	7	De	i		11 48 54.0	
			iSgl		11 49 01.3	
"	7	Um	iSgl		12 19 33.6	
		Western USSR.				
		Explosion.				
"	7	Up	iSn		12 36 32.4	
			iSgl		12 36 47.2	
		Ki	eSgl		12 39 22	
		Um	iSgl		12 37 21.0	
		Ud	iSgl		12 37 47.9	
		De	iSgl		12 38 19.6	
		Esthonia, 59.7°N, 24.3°E.				
		Origin time = 12 35 00.				
		Explosion.				
"	7	Up	iPKP1		13 14 47.2	
			iPKP2		13 14 59.5	
		(cont.)				

1973 Mar.	7	(cont.)				
		Up			micr	sec
			PKP2	Z'	0.1	0.7
		Ki	ePKP1		13 14 30	
		Sk	iPKP1		13 14 41.6	
			iPKP2		13 14 46.3	
		Um	iPKP1		13 14 37.5	
			iPKP2		13 14 43.6	
		Ud	iPKP1		13 14 49.0	
		De	iPKP1		13 14 57.9	
		South of Kermadec Islands (h = 5 km).				
"	7	Um	i		14 18 04.6	
			iSgl		14 18 10.3	
		De	iSgl		14 19 23.9	
		Western USSR.				
		Explosion.				
"	7	Um	iSgl		14 47 05.3	
		Lake Ladoga.				
		Explosion.				
"	7	Um	eP		15 56 11	
		Japan (h = 70 km).				
"	7	Ki	iPgl		19 39 54.8	
			iSn		19 40 32.4	
			iSgl		19 40 49.8	
		Um	eSgl		19 42 17	
		Northwest USSR-Norway border region, 69.4°N, 30.7°E.				
		Origin time = 19 38 42.				
		Explosion.				
"	7	Um	iP		22 15 57.2	
		Jan Mayen (h = N).				
"	8	Up	iP		01 21 12.5	
		Ki	iP		01 20 19.4	
		Um	iP		01 20 46.0	
		Ud	iP		01 21 13.8	
		Aleutian Islands (h = 100 km).				
"	8	Ud	iP		08 56 18.5	
"	8	Ki	i		09 52 06.3	
			iSgl		09 52 22.2	
		Sk	ePgl		09 51 48	
			iS*		09 52 25.6	
			iSgl		09 52 30.0	
		Um	iPgl		09 52 01.5	
			iSn		09 52 35.6	
			iSgl		09 52 50.0	
		Ud	iSgl		09 54 15.7	
		Nordland, Norway, 66.4°N, 14.5°E.				
		(cont.)				

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

1973 Mar. 8 (cont.)
Origin time = 09 50 58.
Explosion.

" 8 Ki iPKP 10 42 36.1
South Sandwich Islands
(h = N).

" 8 Ki iPKP 13 21 14.5
Um iPKP 13 21 21.9
Ud iPKP 13 21 27.8
De i(PKP) 13 21 30.4
iPKP 13 21 37.2
Fiji Islands (h = 580 km).

" 8 Ud iP 13 34 02.1
Molucca Passage (h = 100 km).

" 8 Up i(P) 14 27 41.2
i 14 27 45.4
Ud i(P) 14 28 01.1

" 8 Ud iP 14 43 59.7

" 8 Ki ePKP 14 54 34

		micr	sec
Mx	E	0.9	20
Mx	N	1.1	20
Mx	Z	1.2	20

Ud iPKP1 14 54 47.9
ipPKP1 14 55 01.8
De iPKP1 14 54 56.7
ipPKP1 14 55 10.6
Tonga Islands.
h = 45 km (Ud,De).

" 8 De i(P) 15 29 02.3

" 8 Ud iPKP1 15 58 03.2
De iPKP1 15 58 12.1
i(pPKP1) 15 58 23.7

" 8 Up iP 16 21 48.8 C

		micr	sec
P	Z'	0.1	0.9

Ki iP 16 21 14.7 C
Sk iP 16 21 22.7 C
Um iP 16 21 34.2 C
Ud iP 16 21 40.7 C
De iP 16 21 57.2 C
Nevada.
Underground explosion.

" 8 Um iP 16 53 21.9
Ud iP 16 53 37.0

" 8 De eP 18 11 23
i 18 11 27.8

1973 Mar. 8 Ud iP 18 27 35.4

" 8 Ki iP 18 48 27.7
Um iP 18 48 13.8
Afghanistan-USSR (h = N).

" 8 Sk i 19 50 18.7
Um iPKP1 19 50 05.4 D
i 19 50 10.6
i 19 50 16.8
Ud ePKP1 19 50 19
De ePKP2 19 50 36

" 8 Ud i(P) 21 15 41.5

" 8 Ud iP 22 09 51.5
Pakistan.

" 8 De iP 22 29 36.5

" 9 Ud iP 00 21 18.8

" 9 Ud iP 01 36 41.3
Okhotsk Sea (h = 450 km).

" 9 Ki i(P) 01 57 24.9

" 9 Ki i(P) 02 11 26.6

" 9 Sk iP 10 10 30.6
Um iP 10 10 42.7
Ud iP 10 10 35.6
Guatemala (h = 110 km).

" 9 Up iP 10 19 50.7 D
i 10 19 56.7
i(PP) 10 22 52.3
iSKS 10 30 20
iS 10 30 53

		micr	sec
P	Z'	0.1	0.9
i	Z'	0.3	0.9
Mx	E	8.1	20
Mx	N	7.1	19
Mx	Z	12	18

Ki iP 10 19 33.2 D
i 10 19 38.7
iPP 10 23 01.1
iS 10 30 22

		micr	sec
P	Z'	0.4	1.0
i	Z'	0.5	1.0
Mx	E	15	17
Mx	N	9.9	20
Mx	Z	11	18

Sk iP 10 19 55.3 D
i 10 20 00.4
(cont.)

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

1973 Mar.	9	(cont.)			
		Um	iP	10 19 39.6	D
			i	10 19 44.7	
			iPP	10 23 15.8	
			iSKS	10 30 05	
			iS	10 30 32	
		Ud	iP	10 19 59.1	D
			i	10 20 04.4	
			iSKS	10 30 33.3	
		De	iP	10 20 05.5	D
			i	10 20 10.6	
			iPP	10 24 05.2	
		Mindanao (h = 55 km).			
		m = 6.8, M = 6.5 (Up,Ki).			
		Double P, in average			
		5.4 sec apart.			
"	9	Ud	iP	10 35 36.5	
"	9	Um	eP	10 42 15	
		Ud	iP	10 42 38.0	
		Japan.			
"	9	Ki	iP	11 53 18.5	
		Ud	iP	11 53 34.3	
		De	iP	11 53 42.0	
"	9	Ki	i(P)	12 05 33.1	
"	9	Um	eP	13 34 19	
"	9	Up	eP	14 09 23	
		Ki	iP	14 08 38.0	
		Ud	i(pP)	14 09 38.4	
		Kurile Islands (h = N).			
"	9	Ki	ePKP	19 28 34	
		Um	iPKP	19 28 36.9	
		Ud	iPKP	19 28 39.5	
			i	19 28 46.5	
		De	iPKP	19 28 42.6	
			i	19 28 49.8	
		Australia (h = 15 km).			
"	9	Ud	iP	20 43 40.6	
"	9	Ud	eP	21 45 50	
"	10	Up	eP	04 44 18	
		Um	iP	04 44 15.6	
		Ud	iP	04 44 29.0	
		Sumatra (h = 35 km).			
"	10	Ud	iP	05 46 25.9	
"	10	Ud	iPKP1	08 23 10.7	
		De	iPKP1	08 23 21.5	

1973 Mar.	10	Up	iP	09 40 26.5	
		Greece (h = N).			
"	10	Up	iSn	10 07 50.2	
			iSgl	10 08 04.4	
		Um	iSgl	10 09 45.7	
		Ud	iPn	10 06 40.7	
			i	10 07 00.6	
			iSgl	10 07 13.7	
			i	10 07 33.6	
		De	iPgl	10 06 46.2	
			iSgl	10 07 20.2	
			i	10 07 47.7	
		Off coast of Bohuslän,			
		Sweden, 58.4°N, 10.9°E.			
		Origin time = 10 06 04.			
		Explosion.			
"	10	Um	i	10 09 36.3	
		Tonga Islands (h = 10 km).			
"	10	Up	iPgl	10 12 08.0	
			iSgl	10 12 59.2	
			i	10 13 11.2	
		Um	iSgl	10 14 40.8	
		Ud	iPn	10 11 36.5	
			i	10 11 57.0	
			iSgl	10 12 09.5	
		De	i	10 11 57.9	
			iSgl	10 12 16.2	
			i	10 12 39.3	
			i	10 12 52.5	
		Off coast of Bohuslän,			
		Sweden, 58.4°N, 10.9°E.			
		Origin time = 10 11 00.			
		Explosion.			
"	10	Up	iSgl	10 16 43.3	
		Ud	eSgl	10 15 52	
		De	iSgl	10 16 06.2	
		Origin time = 10 14 46.			
		This event like the six			
		following ones, are			
		explosions off coast of			
		Bohuslän, Sweden, at the			
		approximate coordinates			
		58.5°N, 10.9°E. Several			
		additional explosions from			
		the same area,			
		indistinguishable on the			
		records, were carried out			
		between 12 27 and 12 33			
		on the same day.			
"	10	Up	iSgl	10 19 18.8	
		Ud	iSgl	10 18 29.9	
		De	iSgl	10 18 42.0	
		Origin time = 10 17 24.			

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

1973					
Mar.	10	Up	iSn	10 56 09.1	
			iSgl	10 56 23.6	
		Ud	iPgl	10 55 03.1	
			iSgl	10 55 32.2	
			iTSgl	10 55 38.9	
		Origin time = 10 54 26.			
"	10	Up	iSgl	11 00 44.5	
		Um	iSgl	11 02 28.4	
		Ud	iPgl	10 59 25.9	
			iSgl	10 59 54.4	
			iTSgl	11 00 03.4	
		De	iSgl	11 00 09.5	
		Origin time = 10 58 48.			
"	10	Up	iSgl	11 04 51.2	
		Ud	iPgl	11 03 30.9	
			iSgl	11 03 59.2	
			iTSgl	11 04 07.5	
		De	iSgl	11 04 11.1	
		Origin time = 11 02 53.			
"	10	Up	iSn	11 12 58.7	
			iSgl	11 13 14.1	
		Um	iSgl	11 14 53.0	
		Ud	iPgl	11 11 52.1	
			iSgl	11 12 21.9	
			iTSgl	11 12 30.0	
		De	iSgl	11 12 35.0	
		Origin time = 11 11 16.			
"	10	Up	iSgl	11 29 40.0	
		Ud	iPn	11 28 13.6	
			iPgl	11 28 17.1	
			iSgl	11 28 46.2	
			iTSgl	11 28 55.6	
		De	iSgl	11 28 57.8	
			i	11 29 05.8	
		Origin time = 11 27 40.			
"	10	Ud	ePKP	14 38 30	
		Samoa Islands (h = N).			
"	10	Ud	iP	17 37 01.1	
"	10	Ud	iPKPl	18 27 29.8	
		De	iPKPl	18 27 35.5 C	
			ipPKPl	18 27 47.2	
		Tonga Islands.			
		h = 40 km (De).			
"	10	Ud	eP	19 04 51	
"	10	Ud	iPKP	19 48 46.0	
		Solomon Islands (h = 90 km).			
"	10	Ki	eP	19 50 20	
		(cont.)			

1973					
Mar.	10	(cont.)			
		Um	iP	19 50 24.8	
		Ud	iP	19 50 41.8	
		Celebes (h = 170 km).			
"	10	Ud	ePKPl	21 22 48	
		De	ePKPl	21 22 59	
"	11	Ud	iP	06 55 08.7	
"	11	Up	iSgl	07 29 19.5	
		Ki	iSn	07 25 57.3	
			i	07 26 08.7	
			iSgl	07 26 23.8	
		Um	iSn	07 26 41.5	
			iS*	07 27 13.5	
			iSgl	07 27 18.2	
		Ud	iSgl	07 29 54.5	
		Northwest USSR,			
		67.9°N, 33.9°E.			
		Origin time = 07 23 45.			
		Explosion.			
"	11	Ud	iP	08 43 47.1	
"	11	Up	eSgl	09 45 39	
		Ki	iSn	09 42 24.5	
			iS*	09 42 44.8	
		Sk	eSgl	09 45 14	
		Um	iSn	09 43 05.3	
			iSgl	09 43 36.2	
		Northwest USSR.			
		Explosion.			
"	11	Ud	iSgl	12 22 35.5	
		De	ePn	12 18 59	
			eSn	12 20 06	
			iSgl	12 20 44.2	
		Germany (h = N).			
"	11	Up	iP	13 48 46.2	
			ipP	13 49 05.4	
				micr sec	
			pP Z'	0.1 0.9	
		Ki	iP	13 48 03.3	
			ipP	13 48 22.4	
		Sk	iP	13 48 37.7	
			ipP	13 48 58.2	
		Um	iP	13 48 22.1	
			i	13 48 34.2	
			ipP	13 48 41.7	
			isP	13 48 50.1	
		Ud	iP	13 48 53.2	
			ipP	13 49 12.9	
		De	iP	13 49 09.7	
			ipP	13 49 29.3	
		Japan.			
		h = 80 km (Up,Ki,Sk,Um,Ud, De).			

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

1973
Mar. 11 Um i(P) 14 34 35.7

" 11 Um eP 15 04 50
Ud iP 15 05 14.1
ipP 15 05 24.4
Formosa-Luzon.
h = 40 km (Ud).

" 11 Ud ePKPl 15 44 15
De ePKPl 15 44 25
Fiji Islands (h = 620 km).

" 11 Um iP 20 14 35.6
Ud eP 20 14 57

" 12 Up iP 03 31 13.8
Ki iP 03 30 21.4
Um iP 03 30 47.9
Ud iP 03 31 13.0
De iP 03 31 36.3
Aleutian Islands (h = 15 km).

" 12 Up iP 06 10 43.3
iPP 06 14 52.5
Ki eP 06 10 39
Um iP 06 10 39.4
iPP 06 14 38.9
Ud iP 06 10 52.6
iPP 06 15 06.5
South of Java (h = 40 km).

" 12 Up iP 08 36 24.9
Turkey (h = 30 km).

" 12 Ud i(P) 09 44 54.9

" 12 Up eP 09 59 17
Ud iP 09 59 35.8
Rumania (h = 140 km).

" 12 Up iP 10 15 35.9
Ud iP 10 15 41.6
Kurile Islands (h = 55 km).

" 12 Up iP 11 25 02.2
micr sec
P Z' 0.1 1.2
Mx E 2.3 20
Mx N 3.4 21
Mx Z 4.9 21
Ki iP 11 24 11.2
micr sec
P Z' 0.2 1.4
Mx E 3.0 20
Mx N 2.3 19
Mx Z 3.3 20
(cont.)

1973
Mar. 12 (cont.)
Sk eP 11 24 48
Um iP 11 24 34.6
ipP 11 24 48.4
Ud iP 11 25 06.7
ipP 11 25 20.5
De eP 11 25 27
Kurile Islands.
h = 50 km (Um,Ud).
m = 6.0, M = 5.6 (Up,Ki).

" 12 Up iP 12 52 25.5
micr sec
P Z' 0.2 1.5
Mx E 2.4 21
Mx N 2.3 21
Mx Z 2.2 20
Ki iP 12 52 09.7
micr sec
P Z' 0.1 1.2
Mx E 3.3 20
Mx N 2.8 20
Mx Z 4.3 19
Um iP 12 52 15.5
iSKS 13 02 43
iS 13 03 18
Ud iP 12 52 34.0
De iP 12 52 39.6
Talaud Islands (h = 35 km).
m = 6.2, M = 6.0 (Up,Ki).

" 12 Ud iP 13 01 44.7
California (h = N).

" 12 Up iP 13 28 35.3
micr sec
P Z' 0.1 0.6
Ki iP 13 29 15.4
Sk iP 13 29 11.5
Um iP 13 28 50.6
Ud iP 13 28 50.6
De iP 13 28 32.8
Iran (h = 60 km).

" 12 Up iP 14 30 28.0
i 14 30 32.6
Sk iP 14 30 40.2
i 14 30 44.9
Um iP 14 30 08.5
Ud iP 14 30 42.2
De eP 14 30 49
Tsinghai, China (h = N).

" 12 Ud iP 14 36 47.1

" 12 Ud iP 15 11 00.3
ipP 15 11 15.8
(cont.)

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

1973 Mar.	12	(cont.) Talaud Islands. h = 55 km (Ud).				
"	12	Up	iP	15 46 47.9		
			i	15 46 51.5		
		Sk	eP	15 47 24		
		Um	iP	15 47 03.0		
		Ud	iP	15 47 02.9	C	
			i	15 47 06.8		
		De	iP	15 46 45.2	C	
			i	15 46 49.0		
		Iran (h = N). Double P, in average 3.8 sec apart.				
"	12	Up	eP	16 30 47		
			iTSg	16 38 40.8		
				micr	sec	
			Mx N	1.3	18	
			Mx Z	1.5	18	
		Ki	iP	16 29 06.2		
			iS	16 30 17.0		
			iTPg	16 34 03.9		
			iTSg	16 34 36.8		
				micr	sec	
			TSg Z'	0.2	1.1	
			Mx E	0.8	14	
		Sk	eP	16 29 51		
			iS	16 31 34.0		
			iTSg	16 36 44.7		
		Um	iP	16 29 54.9		
			iS	16 31 47.6		
			iTPg	16 35 26.2		
			iTSg	16 36 31.3		
		Ud	iP	16 30 34.0		
			iTPg	16 37 36.1		
			iTSg	16 38 40.7		
		De	iP	16 31 21.5		
		Norwegian Sea (h = N).				
"	12	Ki	iP	17 46 04.1		
			iS	17 47 15.0		
			iTPg	17 51 01.3		
		Um	iP	17 46 45.6		
			iTSg	17 53 22.0		
		Ud	iP	17 47 29.9		
		Norwegian Sea (h = N).				
"	12	Up	iPKP2	19 23 32.1		
			ipPKP2	19 23 45.7		
		Um	iPKP1	19 23 13.8		
		Ud	iPKP1	19 23 21.9		
		De	iPKP2	19 23 43.2		
			ipPKP2	19 23 56.4		
		Kermadec Islands. h = 45 km (Up,De).				
1973 Mar.	12	Up	iP	19 49 54.4	C	
			iPa	19 54 14		
			iS	19 58 28		
			eP'P'	20 18 24		
				micr	sec	
			P Z'	0.2	1.0	
			Mx E	9.3	21	
			Mx N	18	23	
			Mx Z	27	23	
		Ki	iP	19 49 02.8	C	
				micr	sec	
			P Z'	0.1	0.8	
			Mx E	17	20	
			Mx N	16	21	
		Sk	iP	19 49 39.9		
			iPcP	19 50 19.9		
		Um	iP	19 49 27.1	C	
			iPcP	19 50 10.5		
			iS	19 57 35		
		Ud	iP	19 49 58.9	C	
			iPcP	19 50 29.4		
		De	iP	19 50 19.5	C	
			iPcP	19 50 44.0		
		Kurile Islands (h = 55 km). m = 6.1, M = 6.3 (Up,Ki).				
"	12	Up	iP	20 35 55.9		
				micr	sec	
			P Z'	0.1	1.4	
		Ki	iP	20 37 07.9		
				micr	sec	
			P Z'	0.1	1.0	
		Sk	eP	20 36 34		
			ipP	20 36 44.2		
		Um	iP	20 36 32.1		
			ipP	20 36 42.1		
		Ud	iP	20 36 02.8	D	
		De	iP	20 35 27.8	D	
		Mediterranean Sea. h = 40 km (Sk,Um). m = 5.5 (Up,Ki).				
"	12	Ud	iP	22 15 22.6		
"	13	Um	iP	00 04 30.0		
		Mariana Islands (h = 190 km).				
"	13	De	iPKP	02 01 15.7		
		Solomon Islands (h = 170 km).				
"	13	Um	iP	04 35 52.0		
		Ud	iP	04 35 31.5		
		De	iP	04 35 30.2		
		Windward Islands (h = 80 km).				
"	13	Up	iP	06 10 38.3		
			i	06 10 42.0		
		(cont.)				

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

1973 Mar. 13 (cont.)

			micr	sec	
Up	P	Z'	0.1	0.7	
Ki	iP		06 11	18.4	
Sk	iP		06 11	14.5	
Um	iP		06 10	53.6	
Ud	iP		06 10	53.6	C
	i		06 10	57.3	
De	iP		06 10	36.3	
	i		06 10	40.0	

Iran (h = N).
Double P, in average 3.7 sec apart.

" 13

Up	iP	07 34	35.4
Ud	iP	07 34	50.4
De	iP	07 34	33.1

Iran.
Origin time = 07 27 46.

" 13

Up	iSgl	12 19	42.2
Sk	eSgl	12 21	27
Um	iSgl	12 19	54.7
Ud	iSgl	12 20	38.8
De	eSgl	12 21	10

Western USSR.
Explosion.

" 13 Ud iP 14 12 15.8

" 13

De	ePKP	20 19	58
	ipPKP	20 20	09.8

New Britain.
h = 40 km (De).

" 13

Ud	iP	22 15	51.6
De	eP	22 15	21

" 14

Um	iP	01 24	14.8
Ud	iP	01 24	13.8
De	iP	01 23	56.3

Iran.
Origin time = 01 17 09.

" 14 Up iP 02 09 59.4

" 14

Up	iP	03 52	31.0
	i	03 52	35.0
	i	03 52	38.3
Ki	iP	03 53	11.3
Sk	iP	03 53	07.4 C
Um	eP	03 52	46
Ud	iP	03 52	46.4 C
	i	03 52	50.6
	i	03 52	53.8
De	eP	03 52	29 C

(cont.)

1973 Mar. 14 (cont.)
Iran (h = N).
Multiple P, in average 4.1 and 7.4 sec after the first onset.

" 14

Up	iP	04 26	32.3
Ud	iP	04 26	47.7 C
De	eP	04 26	30

Iran.
Origin time = 04 19 43.

" 14

Um	iP	08 38	53.7
Ud	iP	08 39	17.4

Mariana Islands (h = 270 km).

" 14

Ud	iPKP1	08 53	32.6
De	iPKP1	08 53	43.4

" 14 Um iP 10 55 43.9

" 14

Um	iPKP	11 44	13.4
Ud	iPKP	11 44	24.6
De	iPKP	11 44	29.8 C

New Britain (h = 60 km).

" 14 De iP 12 41 19.1

" 14

Up	iPKP1	14 35	16.7
Ud	iPKP1	14 35	18.0
De	iPKP1	14 35	28.6

" 14 Ud eP 22 58 35
Mediterranean Sea.

" 15

Um	iP	00 29	49.4
Ud	iP	00 30	18.8

Kamchatka-Kurile Islands.

" 15 Ud iP 02 18 36.3
Mindanao (h = 70 km).

" 15

Ki	e	07 46	10
Ud	iP	07 45	29.0 C

North Atlantic Ocean (h = N).

" 15

Um	iSgl	13 30	05.7
Ud	eSgl	13 30	47
De	eSgl	13 31	16

Western USSR.
Explosion.

" 15

Up	iP	18 10	59.4
Ki	iP	18 10	41.8
Um	iP	18 10	46.9

(cont.)

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

1973 Mar. 15 (cont.)

	Ud	iP	18 11 08.1
	De	iP	18 11 13.6

Mindoro (h = 110 km).

" 15	Up	iPgl	21 15 26.9
		iSgl	21 15 45.9
		iRg	21 15 50.1
	Um	iSgl	21 17 29.6
	Ud	iSgl	21 15 31.9
		iRg	21 15 37.6
	De	iSgl	21 16 53.6

Bergslagen, central Sweden, 59.9°N, 15.1°E.
Origin time = 21 15 04.
Rockburst?

" 15	Up	iRg	21 16 09.5
	Ud	iRg	21 15 56.1

Bergslagen, central Sweden.
Origin time = 21 15 22.

" 15	Um	iP	21 54 08.9

Hindu Kush (h = 230 km).

" 15	Up	iP	23 32 27.6
	Ud	iP	23 32 43.4
	De	iP	23 32 43.2

China.

" 16	Up	iP		01 05 20.3	
		ipP		01 05 25.5	
		i(PP)		01 08 44.9	
		iPP		01 09 22.4	
		iSKS		01 15 56	
				micr	sec
		pP	Z'	0.1	1.0
		Mx	E	11	23
		Mx	N	14	23
		Mx	Z	17	23
	Ki	iP		01 05 04.3	
		ipP		01 05 10.3	
		iSKS		01 15 39	
				micr	sec
		P	Z'	0.3	1.5
		pP	Z'	0.4	1.0
		Mx	E	10	17
		Mx	N	12	20
		Mx	Z	13	22
	Sk	eP		01 05 26	
		ipP		01 05 31.3	
	Um	iP		01 05 09.6	
		ipP		01 05 15.7	
		iSKS		01 15 44	
	Ud	iP		01 05 28.8	
		ipP		01 05 33.9	

(cont.)

1973 Mar. 16 (cont.)

	De	eP	01 05 34
		ipP	01 05 39.5

Molucca Passage.
h = 20 km (Up,Ki,Sk,Um,Ud, De).
m = 6.4, M = 6.5 (Up,Ki).

" 16	Um	iP	01 14 10.4
	Ud	iP	01 14 29.7

Molucca Passage (h = N).

" 16	Up	eP	01 22 43
	Um	iP	01 22 29.0

Molucca Passage (h = N).

" 16	Up	iP	02 25 55.4
	Ki	iP	02 25 40.5
	Um	iP	02 25 45.4
	Ud	iP	02 26 04.2
	De	iP	02 26 10.9

Molucca Passage (h = 45 km).

" 16	Um	iP	03 54 02.7
	Ud	iP	03 54 22.2

Molucca Passage (h = N).

" 16	Up	iP	05 58 11.1 C

" 16	Um	iPKPl	08 27 19.2
	Ud	iPKPl	08 27 33.0
	De	iPKPl	08 27 41.5

" 16	Um	iSgl	12 15 21.8
	Ud	iSgl	12 15 59.6
	De	eSgl	12 16 35

Western USSR.
Explosion.

" 16	Ud	iSgl	15 03 06.6

South Norway, 58.4°N, 6.4°E.
Origin time = 15 00 58.
By combination with Kongsberg and Bergen readings.

" 16	Ud	eP	16 10 43
" 16	Ud	iRg	16 32 10.0
" 16	Ud	i(P)	19 51 25.4
" 16	Ki	iP	19 51 32.0
" 16	Ud	iRg	20 16 25.9

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

1973							
Mar.	16	Up	e(P)		20 17 58		
"	16	Up	iP		22 01 27.7		
					micr	sec	
			P	Z'	0.1	1.1	
		Ki	iP		22 00 48.7		
		Sk	iP		22 01 23.3		
		Um	iP		22 01 05.1		
			i		22 01 06.6		
			ipP		22 01 18.2		
		Ud	iP		22 01 34.9		
		Japan.					
		h = 50 km (Um).					
"	16	Sk	eP		22 04 26		
		Um	iP		22 04 09.0	C	
		Ud	iP		22 04 38.2		
		Japan.					
		Origin time = 21 53 04.					
"	16	Um	i(P)		22 11 30.8		
"	17	Up	iP		00 21 16.6		
		Um	eP		00 20 51	C	
		Ud	iP		00 21 23.0	C	
		Kurile Islands (h = N).					
"	17	Ki	eP		00 21 02		
"	17	Up	i(P)		01 04 19.9		
"	17	Up	iPKP		05 16 08.6		
			iSKP1		05 19 20.8		
			iSKP		05 19 24.7		
					micr	sec	
			SKP1	Z'	0.3	1.2	
		Ki	iPKP		05 15 53.5	C	
			iSKP1		05 18 57.9		
					micr	sec	
			PKP	Z'	0.3	1.4	
		Sk	iPKP		05 16 04.9		
			iSKP1		05 19 16.5		
		Um	i(PKP)		05 15 52.3		
			iPKP		05 16 01.6		
			iSKP1		05 19 07.3		
			iSKP		05 19 18.6		
		Ud	i(PKP)		05 16 00.7		
			iPKP		05 16 10.4		
			iSKP1		05 19 24.2		
			iSKP		05 19 29.1		
		De	i(PKP)		05 16 08.5		
			iPKP		05 16 16.1		
			iSKP1		05 19 32.6		
		New Hebrides Islands (h = 190 km).					
"	17	Up	iP		08 43 29.3		
		(cont.)					

1973							
Mar.	17	(cont.)					
		Up	ipP		08 43 43.4		
			iS		08 53 55		
					micr	sec	
			P	Z'	0.5	1.5	
			pP	Z'	3.8	1.7	
			Mx	E	170	20	
			Mx	N	430	21	
			Mx	Z	320	20	
		Ki	iP		08 43 11.6		
			ipP		08 43 24.4		
			isP		08 43 33.2		
			iS		08 53 25		
					micr	sec	
			P	Z'	1.2	1.6	
			pP	Z'	2.9	1.8	
			Mx	E	390	25	
			Mx	N	350	21	
			Mx	Z	200	21	
		Sk	iP		08 43 35.6		
			epP		08 43 49		
			isP		08 43 54.0		
		Um	iP		08 43 17.3		
			iS		08 53 40		
		Ud	iP		08 43 38.0		
			ipP		08 43 51.1		
		De	iP		08 43 45.4		
			ipP		08 43 57.8		
			isP		08 44 06.8		
		Luzon.					
		h = 50 km (Up,Ki,Sk,Ud,De).					
		m = 6.8, M = 7.8 (Up,Ki).					
"	17	Up	eP		08 56 40		
		Ki	eP		08 56 22		
		Um	iP		08 56 30.7		
		Ud	i(pP)		08 57 02.8		
		Luzon.					
		Origin time = 08 44 04.					
"	17	Ki	iP		12 26 41.2		
			i		12 27 35.2		
		Um	i(P)		12 26 47.0		
		Ud	iP		12 26 54.3		
		De	iP		12 26 53.2		
		Pamir.					
"	17	Up	iP		15 53 53.0		
			ipP		15 54 12.3		
			i		15 57 49.6		
			iS		16 04 46		
					micr	sec	
			P	Z'	0.1	1.3	
			pP	Z'	0.1	0.9	
			Mx	N	1.2	22	
		Ki	iP		15 53 50.5		
			ipP		15 54 12.2		
		(cont.)					

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

1973 Mar. 17 (cont.)

			micr	sec
Ki	P	Z'	0.1	1.3
	pP	Z'	0.1	1.2
	Mx	E	1.6	21
	Mx	N	2.4	23
	Mx	Z	1.7	22
Sk	iP		15 54 06.6	
	ipP		15 54 25.4	
Um	iP		15 53 50.2	
	ipP		15 54 10.1	
	iS		16 04 40	
Ud	iP		15 54 01.6	
	ipP		15 54 21.7	
	iPP		15 57 48.1	
De	ipP		15 54 21.3	

Sumatra.
h = 80 km (Up,Ki,Sk,Um,Ud).
m = 6.1, M = 5.6 (Up,Ki).

" 17 Ud iP 16 52 06.8
Sumatra (h = 60 km).

" 17 Ud iP 19 19 56.2

" 17

Up	iP	20 34 20.9
Sk	eP	20 34 17
Um	iP	20 34 05.3
Ud	iP	20 34 27.8

Mariana Islands (h = 530 km).

" 17

Ud	iPKPl	21 30 28.4
De	iPKPl	21 30 39.8

" 18 Um iPKPl 02 42 16.9
South of Kermadec Islands
(h = N).

" 18

Up	iSgl	06 02 58.5
Ki	ePn	05 58 43
	iSn	05 59 43.7
	iS*	06 00 02.3
Sk	iSgl	06 02 29.4
Um	iSn	06 00 23.1
	i	06 00 36.5
	iSgl	06 00 56.7
Ud	iSgl	06 03 33.5
De	iSgl	06 04 54.0

Northwest USSR,
67.5°N, 34.3°E.
Origin time = 05 57 23.
Explosion.

" 18 Ud iP 09 23 05.1

" 18

Up	iP	11 19 45.5
	ipP	11 19 49.6

(cont.)

1973 Mar. 18 (cont.)

			micr	sec
Up	iPP		11 23 48.5	
	iSKS		11 30 18	
	iS		11 31 02	
	pP	Z'	1.1	1.0
	Mx	E	24	26
	Mx	N	18	25
	Mx	Z	44	26
Ki	iP		11 19 29.5	
	ipP		11 19 34.4	
	iSKS		11 30 01	
	iS		11 30 34	
	P	Z'	0.2	1.5
	pP	Z'	0.3	0.9
	Mx	E	36	26
	Mx	N	13	19
	Mx	Z	28	26
Sk	eP		11 19 55	
	ipP		11 20 01.0	
Um	iP		11 19 34.7	
	ipP		11 19 39.4	
	iSKS		11 30 07	
	iS		11 30 43	
Ud	iP		11 19 53.7	
	ipP		11 19 58.4	
	i(PP)		11 23 03.3	
	iPP		11 24 07.8	
De	iP		11 20 03.7	

Molucca Passage.
h = 20 km (Up,Ki,Sk,Um,Ud).
m = 6.8, M = 6.8 (Up,Ki).

" 18

Up	iP	11 37 17.1
Ki	iP	11 37 03.6
Um	iP	11 37 07.1
Ud	iP	11 37 23.7

Molucca Passage (h = 30 km).

" 18

Ki	iP	12 17 21.7
Um	iP	12 17 26.1

Molucca Passage (h = 40 km).

" 18

Um	iP	13 24 41.1
Ud	iP	13 25 01.8

Molucca Passage.
Origin time = 13 11 22.

" 18 Ud iP 18 13 57.6
Turkey (h = 5 km).

" 18 Um iP 18 33 26.5

" 18

Ud	iPKPl	20 04 28.9
De	iPKPl	20 04 40.1 C

Tonga-Kermadec Islands
(h = 570 km).

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

1973								
Mar.	19	Ud	iPKP2		07 03 07.2			
		Macquarie Islands (h = N).						
"	19	Ud	iP		08 24 32.5			
"	19	Ki	iP		09 18 43.3			
		Ud	iP		09 19 10.7			
		Talaud Islands.						
"	19	Um	i(P)		10 26 46.6			
"	19	Up	iP		11 51 46.3			
			i		11 51 47.4			
			ipP		11 52 11.4			
			iS		12 00 25			
					micr	sec		
			P	Z'	0.6	1.0		
			Mx	E	1.6	27		
			Mx	N	2.8	30		
			Mx	Z	3.6	31		
		Ki	iP		11 50 52.5			
			i		11 50 53.5			
			ipP		11 51 18.4			
			iS		11 58 35			
					micr	sec		
			P	Z'	0.4	0.9		
			Mx	E	1.1	20		
			Mx	N	1.8	20		
			Mx	Z	1.7	22		
		Sk	iP		11 51 26.7			
			i		11 51 27.7			
			iPcP		11 52 01.1			
		Um	iP		11 51 18.6			
			i		11 51 19.7			
			ipP		11 51 44.3			
			iS		11 59 32			
		Ud	iP		11 51 47.4			
			i		11 51 48.8			
			ipP		11 52 13.4			
			i		11 54 18.8			
		De	iP		11 52 09.3			
			i		11 52 10.8			
			ipP		11 52 35.9			
			iPP		11 54 39.2			
		Aleutian Islands.						
		h = 100 km (Up,Ki,Um,Ud,De).						
		m = 6.4, M = 5.3 (Up,Ki).						
		Double P, the second bigger onset in average 1.2 sec after the first one.						
"	19	Ki	iP		12 26 20.9			
		Um	iP		12 26 02.4			
		Ud	iP		12 25 48.2			
			i		12 26 02.1			
		De	iP		12 25 21.8			

1973								
Mar.	19	Um	eSgl		13 02 55			
		Ud	eSgl		13 03 40			
		Western USSR.						
		Explosion.						
"	19	Um	i(Sgl)		13 47 57.5			
"	19	Up	iP		13 50 46.6			
					micr	sec		
			P	Z'	0.1	1.0		
		Ud	iP		13 51 00.1			
"	19	Um	iP		17 14 11.4	D		
		Ud	iP		17 14 40.6	D		
		Japan (h = 60 km).						
"	19	Ki	iP		22 21 28.7			
		Um	iP		22 21 07.4			
		Ud	iP		22 21 06.1			
		De	eP		22 20 52			
		Iran (h = N).						
"	20	Up	iPKP		01 24 55.5			
		Ki	iPKP		01 25 11.1	C		
					micr	sec		
			PKP	Z'	0.1	1.0		
		Um	iPKP		01 25 04.0			
		Ud	iPKP		01 24 54.5			
		South Sandwich Islands (h = N).						
"	20	Um	iP		01 35 18.7			
		Ud	iP		01 35 02.3			
"	20	Up	ePKP1		01 55 24			
		Ud	ePKP1		01 55 25			
		De	iPKP1		01 55 35.1			
"	20	Um	ePKP		05 31 41			
		Ud	iPKP		05 31 33.4			
		Chile (h = 25 km).						
"	20	Up	eP		07 10 29			
		Ki	iP		07 09 35.5			
		Sk	eP		07 10 06			
		Um	iP		07 10 02.5			
		Ud	iP		07 10 27.4			
		De	iP		07 10 50.4			
		Aleutian Islands (h = 15 km).						
"	20	Ud	iP		09 01 52.7			
"	20	Up	iPKP1		10 02 29.6			
		Ud	iPKP1		10 02 31.6	C		
		De	iPKP1		10 02 42.5	C		
		Tonga-Kermadec Islands (h = 420 km).						

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

1973						
Mar.	20	Um	i(Sgl)		12 27 39.5	
"	20	Ud	eP		14 39 00	
		Kurile Islands.				
"	20	Up	i(P)		14 44 45.7	
		De	i(P)		14 44 41.1	
"	20	Up	iSgl		15 37 32.7	
		Ki	iSgl		15 34 50.6	
		Sk	eSgl		15 35 37.2	
		Ud	iSgl		15 37 26.8	
		Off coast of Nordland, Norway.				
		Origin time = 15 33 35.				
		Foreshock to the following event.				
"	20	Up	iSn		15 37 18.4	
			iSgl		15 38 00.0	
		Ki	iPgl		15 34 45.9	
			iSgl		15 35 19.5	
				micr	sec	
			Sgl Z'	0.1	0.5	
		Sk	iPgl		15 35 11.8	
			iSgl		15 36 04.0	
		Um	i		15 35 14.0	
			i		15 35 15.7	
			iPgl		15 35 21.9	
			iSn		15 35 59.2	
			iSgl		15 36 18.4	
		Ud	iSn		15 37 15.4	
			iSgl		15 37 57.4	
		De	eSgl		15 39 44	
		Off coast of Nordland, Norway, 67.4°N, 14.1°E.				
		Origin time = 15 34 03.				
"	20	Ki	iP		16 47 05.1	
"	20	Um	iPKP		18 32 32.0	
		South Indian Ocean (h = N).				
"	20	Up	iP1		19 22 41.9	
			iP2		19 22 46.7	
			ipPP		19 27 40.2	
			i		19 27 44.6	
			iSKS		19 32 59	
				micr	sec	
			Mx E	1.9	24	
			Mx N	2.3	21	
			Mx Z	3.0	24	
		Ki	iP1		19 22 33.8	
			iP2		19 22 37.8	
			ipP		19 23 19.5	
			ipPP		19 27 26.6	
		(cont.)				

1973						
Mar.	20	(cont.)				
		Ki			micr	sec
			P1	Z'	0.1	1.2
			pP	Z'	0.1	1.3
			Mx	E	1.5	20
			Mx	N	4.5	19
		Sk	iP2		19 22 55.3	
			ipPP		19 27 56.2	
		Um	iP2		19 22 39.0	
			ipPP		19 27 29.7	
			iSKS		19 32 53	
		Ud	iP1		19 22 50.6	
			iP2		19 22 55.0	
			ipP		19 23 36.6	
			iPP		19 27 09.7	
		De	iP1		19 22 52.8	
			iP2		19 22 57.7	
			iPP		19 27 09.6	
		Sumbawa Island.				
		h = 180 km (Ki,Ud).				
		M = 5.9 (Up,Ki).				
		In average: P2 - P1 = 4.6 sec.				
"	20	Um	iP		20 32 17.4	
		Ud	eP		20 32 18	
"	21	Up	iP		02 34 55.5	
		Ki	iP		02 34 04.2	
		Ud	iP		02 35 01.6	
		De	iP		02 35 20.4	
		Kurile Islands (h = 55 km).				
"	21	Ud	iP		09 15 12.7	
"	21	Sk	eP		11 31 31	
		Ud	iP		11 30 58.4	
			i		11 30 59.6	
		De	iP		11 30 23.1	
		Greece (h = 30 km).				
"	21	Um	iP		11 35 26.0	
"	21	Um	i		12 19 24.0	
			iSgl		12 19 27.1	
"	21	Um	iSgl		12 25 37.1	
		Ud	eSgl		12 26 21	
		De	eSgl		12 26 56	
		Western USSR.				
		Explosion.				
"	21	Sk	eP		12 35 53	
		Ud	iP		12 35 19.7	
		De	eP		12 34 47	
		Crete.				

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

1973 Mar.	21	Up	iSn	12 43 30.8	
			iSgl	12 43 43.2	
		Ki	iSgl	12 46 21.3	
		Sk	eSgl	12 45 30	
		Um	iSgl	12 44 18.6	
			iSg2	12 44 22.9	
		Ud	iSn	12 44 21.1	
			iSgl	12 44 45.9	
		De	iSgl	12 45 16.6	
		Esthonia, 59.7°N, 24.0°E.			
		Origin time = 12 42 00.			
		Explosion.			
"	21	Um	iP	15 07 55.8	
		Ud	iP	15 08 15.2	
"	21	Um	iP	18 59 03.0	
		Ud	iP	18 59 04.8	
"	21	Up	iP	20 45 55.0	
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	20 45 38.7	
		Um	iP	20 45 41.9	
		Ud	iP	20 46 08.9	
		Szechwan, China.			
"	21	Up	eP	21 56 49	
		Um	iP	21 56 21.8	
		Ud	iP	21 56 53.2	
		Kurile Islands (h = 110 km).			
"	22	Up	iP1	01 16 32.7	
			iP2	01 16 36.9	
				micr sec	
			P2 Z'	0.1 1.0	
		Ki	eP2	01 16 35	
		Sk	iP2	01 16 55.5	
		Um	eP1	01 16 27	
			iP2	01 16 31.1	
		Ud	iP1	01 16 47.0	
			iP2	01 16 51.5	
		De	iP2	01 16 51.4	
		Tibet (h = N).			
		In average: P2 - P1 = 4.3 sec.			
"	22	Up	iP	06 21 24.1	
		Ki	iP	06 21 14.2	
		Um	iP	06 21 15.3	
			i	06 21 18.4	
		Ud	iP	06 21 37.0	
		Burma-China (h = N).			
"	22	Up	iP	10 20 43.6	
"	22	Up	iSn	11 54 27.0	
		(cont.)			

1973 Mar.	22	(cont.)			
		Up	iSgl	11 54 41.1	
		Um	iSgl	11 55 10.4	
		Ud	iSgl	11 55 45.0	
		De	iSgl	11 56 07.5	
		Esthonia, 59.5°N, 25.4°E.			
		Origin time = 11 52 37.			
		Explosion.			
"	22	Up	iP	14 11 47.2	D
		Ki	iP	14 11 56.7	D
				micr sec	
			P Z'	0.1 0.9	
		Sk	eP	14 11 34	
		Um	iP	14 11 55.5	D
		Ud	iP	14 11 35.7	D
		De	iP	14 11 34.8	D
		Leeward Islands (h = 160 km).			
"	22	Up	iPKPl	14 42 12.0	
		Ud	iPKPl	14 42 13.5	
		De	iPKPl	14 42 23.2	
"	22	Up	iRg	18 08 48.7	
		Ud	iRg	18 08 35.5	
		De	eSgl	18 09 53	
		Central Sweden.			
"	22	Up	iP	21 09 34.9	
			ipP	21 09 45.6	
				micr sec	
			P Z'	0.2 1.1	
		Ki	iP	21 08 42.3	
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	21 09 15.9	
		Um	iP	21 09 07.8	
			ipP	21 09 18.2	
		Ud	iP	21 09 34.9	
			ipP	21 09 45.0	
		De	eP	21 09 57	
		Aleutian Islands.			
		h = 40 km (Up,Um,Ud).			
		m = 6.1 (Up,Ki).			
"	22	Up	iP	21 35 21.5	
		Ki	eP	21 34 29	
		Um	iP	21 34 54.1	
		Ud	iP	21 35 21.3	
		Aleutian Islands (h = 50 km).			
"	22	Up	iRg	21 42 50.5	
		Ud	iRg	21 42 37.6	
		Central Sweden.			
"	22	Up	iP	22 52 22.5	
		(cont.)			

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

1973
Mar. 22 (cont.)

Up			micr	sec
	P	Z'	0.1	1.2
Ki	iP		22 52 06.4	
	ipP		22 52 26.4	
			micr	sec
	P	Z'	0.1	1.0
Um	iP		22 52 12.0	
	i		22 52 14.6	
Ud	iP		22 52 30.5	
	ipP		22 52 51.1	

Mindanao.
h = 80 km (Ki,Ud).
m = 6.1 (Up,Ki).

" 22 Ud iP 23 55 11.5
Komandorsky Islands (h = N).

" 23 Ud iP 00 22 16.0
i 00 22 31.4
Komandorsky Islands (h = N).

" 23

Up	iP		02 13 44.7	
Ki	eP		02 14 55	
Um	iP		02 14 20.2	
Ud	iP		02 13 50.1	D
De	eP		02 13 16	

Mediterranean Sea (h = N).

" 23 Um iP 03 58 55.2

" 23

Up	iP		07 06 27.8	
	ipP		07 06 43.2	
	iS		07 15 27	
	i(P'P')		07 34 42.1	
	iP'P'		07 34 50.3	
			micr	sec
	P	Z'	2.0	2.3
	pP	Z'	0.3	1.0
	Mx	E	4.3	22
	Mx	N	4.6	23
	Mx	Z	6.1	18
Ki	iP		07 05 35.0	
	ipP		07 05 52.3	
	iS		07 13 45	
	iP'P'		07 35 13.2	
			micr	sec
	P	Z'	0.4	1.4
	pP	Z'	0.6	1.1
	Mx	E	2.7	16
	Mx	N	6.4	19
	Mx	Z	6.4	19
Sk	iP		07 06 08.7	
Um	iP		07 06 00.5	
	ipP		07 06 17.8	
	iS		07 14 33	

(cont.)

1973
Mar. 23 (cont.)

Um	iP'P'	07 35 00.9	
Ud	iP	07 06 30.4	
	iP'P'	07 34 48.1	
De	iP	07 06 51.4	

Aleutian Islands.
h = 60 km (Up,Ki,Um).
m = 6.4, M = 5.9 (Up,Ki).

" 23

Um	iP	10 12 17.3	C
Ud	iP	10 12 36.9	

Hindu Kush.
Intermediate depth.

" 23

Up	iSgl	11 04 31.9	
Ki	ePn	11 00 16	
	ePgl	11 00 29	
	iSn	11 01 13.8	
	iS*	11 01 33.2	
Um	iSn	11 01 53.9	
	iS*	11 02 21.7	
	iSgl	11 02 26.8	

Northwest USSR,
67.6°N, 33.8°E.
Origin time = 10 58 58.
Explosion.

" 23

Um	iSgl	12 22 35.9	
Ud	iSgl	12 23 23.0	

Western USSR.
Explosion.

" 23 Um eSgl 12 43 11
Western USSR.
Explosion.

" 23 Ud iP 14 07 07.7
Aleutian Islands (h = N).

" 23 De e(Sgl) 14 08 52

" 23

Up	iSgl	14 12 16.6	
Ud	eSgl	14 12 21	
	e(Sg2)	14 12 30	
De	iPgl	14 10 17.6	
	iSgl	14 10 35.1	

Baltic Sea, south of
Sweden, 55.5°N, 15.2°E.
Origin time = 14 09 56.
Explosion.

" 23 De e(Sgl) 14 30 31

" 23 De e(Sgl) 15 05 43

" 23

De	e	15 09 58	
	iSgl	15 10 08.4	

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

1973
Mar. 23 Up iP 15 24 41.7
Ki iP 15 23 44.6
micr sec
P Z' 0.1 0.9
Sk eP 15 24 08
Um iP 15 24 14.3
Ud iP 15 24 34.7
Canada (h = N).

" 23 Up iP 19 24 52.9
micr sec
P Z' 0.3 1.3
Ki iP 19 24 37.1
micr sec
P Z' 0.2 0.9
Sk iP 19 25 04.3
Um iP 19 24 39.8
Ud iP 19 25 05.7
Szechwan, China (h = N).
m = 6.2 (Up,Ki).

" 23 Up iP 19 54 20.1 C
ipP 19 54 29.7
micr sec
P Z' 0.4 1.2
Mx E 7.3 14
Mx N 6.1 14
Mx Z 18 14
Ki iP 19 53 48.9 C
ipP 19 53 58.5
micr sec
P Z' 0.3 1.2
Mx E 9.2 20
Mx N 6.4 19
Mx Z 7.9 21
Sk iP 19 54 19.4 C
ipP 19 54 29.7
Um iP 19 54 01.2 C
ipP 19 54 11.3
Ud iP 19 54 28.6 C
ipP 19 54 38.4
De iP 19 54 40.3 C
Ryukyu Islands.
h = 35 km (Up,Ki,Sk,Um,Ud).
m = 6.3, M = 6.3 (Up,Ki).

" 23 Ud iP 20 13 04.0
Ryukyu Islands (h = 45 km).

" 23 Up iP 21 53 09.8
Ki ipP 21 53 04.2
micr sec
pP Z' 0.1 1.0
Um eP 21 52 59
Ud iP 21 53 18.1
ipP 21 53 30.4
Talaud Islands.
h = 45 km (Ud).

1973
Mar. 24 Up iP 00 38 23.2
i 00 38 31.2
Ki iP 00 38 18.2
Sk eP 00 38 42
Um iP 00 38 15.3 C
Ud iP 00 38 35.9
i 00 38 40.5
De iP 00 38 42.6
Burma (h = N).

" 24 Up iP 00 46 29.9
micr sec
P Z' 0.1 1.0
Mx E 2.9 17
Mx N 4.2 16
Mx Z 6.1 18
Ki eP 00 45 54
micr sec
P Z' 0.1 1.0
Mx E 7.4 20
Mx N 4.5 14
Mx Z 7.3 16
Sk ipP 00 46 29.2
Um iP 00 46 08.3
ipP 00 46 14.4
Ud iP 00 46 35.5
ipP 00 46 41.5
i 00 46 57.4
De ipP 00 46 54.8
South of Japan.
h = 20 km (Um,Ud).
m = 5.9, M = 6.1 (Up,Ki).

" 24 Up iP 07 25 05.2
i 07 25 11.0
micr sec
P Z' 0.1 1.3
Um eP 07 24 41
i 07 24 45.4
Ud eP 07 25 09
i 07 25 13.3
De iP 07 25 29.6
Kamchatka (h = N).

" 24 Ki i(P) 07 59 55.3
Alaska (h = 120 km).

" 24 Up iSn 11 44 20.3
iSgl 11 44 32.7
Um iSgl 11 45 04.7
Ud eSgl 11 45 38
De iSgl 11 45 59.5
Esthonia, 59.5°N, 25.2°E.
Origin time = 11 42 30.
Explosion.

" 24 Up iP 13 05 09.5
(cont.)

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

1973 Mar. 24	(cont.)			
	Um	iP	13 05 04.5	
	Ud	iP	13 05 18.6	
	Java (h = N).			
" 24	Ki	iPn	16 33 13.5	
		iPgl	16 33 22.5	
		iSn	16 33 59.5	
		iSgl	16 34 18.9	
	Um	iSn	16 35 12.5	
		i	16 35 25.0	
		iSgl	16 35 45.1	
	Northwest USSR-Norway border region, 69.5°N, 30.2°E. Origin time = 16 32 13. Explosion.			
" 25	Up	iP	01 10 28.1	
	Um	iP	01 10 08.4	
" 25	Ud	iP	03 13 37.5	
	North Atlantic Ocean (h = N).			
" 25	Up	iPKP1	04 51 16.6	
	Ud	iPKP1	04 51 17.3	
	De	ePKP1	04 51 27	
" 25	Up	iS*	05 33 58.0	
		iSgl	05 34 09.3	
	Ki	ePgl	05 30 04	
		iSn	05 30 51.7	
		iS*	05 31 11.4	
		iSgl	05 31 17.7	
	Sk	iSgl	05 33 37.4	
	Um	iSn	05 31 30.2	
		i	05 31 45.2	
		iSgl	05 32 03.7	
		iSg2	05 32 14.8	
	Ud	iSgl	05 34 37.9	
	De	iSgl	05 36 11.8	
	Northwest USSR, 67.7°N, 34.1°E. Origin time = 05 28 31. Explosion.			
" 25	Ki	eSn	06 16 30	
		iS*	06 16 48.8	
	Um	iSgl	06 17 42.9	
	Northwest USSR. Explosion.			
" 25	Up	iX	07 41 53.9	
	Ud	iP	07 41 19.1	
		iX	07 42 00.3	
	Aleutian Islands (h = N).			
" 25	Up	iP	09 06 54.2 C	
	(cont.)			

1973 Mar. 25	(cont.)			
	Up		micr	sec
		Mx E	1.0	20
		Mx N	1.8	20
		Mx Z	2.9	21
	Ki	eP	09 06 02	
			micr	sec
		Mx E	1.2	16
		Mx N	1.2	16
		Mx Z	1.5	16
	Sk	iP	09 06 38.7 C	
	Um	iP	09 06 26.0 C	
		iPcP	09 07 07.5	
	Ud	iP	09 06 58.5 C	
		iPcP	09 07 30.5	
	De	eP	09 07 20	
	Kurile Islands (h = 40 km). M = 5.3 (Up,Ki).			
" 25	Up	eSn	09 34 47	
		iSgl	09 35 45.0	
	Ki	e(Pgl)	09 31 43	
		iSn	09 32 25.5	
		iS*	09 32 45.8	
	Sk	iSgl	09 35 12.8	
		iSg2	09 35 30.2	
	Um	iSn	09 33 04.1	
		i	09 33 09.9	
		i	09 33 26.0	
		iSgl	09 33 36.8	
	Ud	eSn	09 35 02	
		iSgl	09 36 12.6	
	De	iSgl	09 37 46.5	
	Northwest USSR, 67.7°N, 34.1°E. Origin time = 09 30 05. Explosion.			
" 25	Up	iPgl	10 39 47.4	
		iSgl	10 40 05.2	
		iRg	10 40 10.1	
	Ud	iSgl	10 39 52.4	
		iRg	10 39 55.1	
	De	iSgl	10 41 13.6	
	Bergslagen, central Sweden, 59.9°N, 15.1°E. Origin time = 10 39 24. Rockburst?			
" 25	Ud	eP	11 36 36	
	Aleutian Islands (h = N).			
" 25	Up	iP	13 45 48.8	
	Um	iP	13 45 22.4	
	Ud	iP	13 45 54.1	
		ipP	13 46 11.1	
	De	eP	13 46 13	
	(cont.)			

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

1973
Mar. 25 (cont.)
Kurile Islands.
h = 60 km (Ud).

" 25 Ud iP 16 04 12.8 C
Vancouver Island (h = N).

" 25 Up iP 16 46 58.5
Ud iP 16 46 41.4

" 25 Up iP 19 03 19.8
Ud iP 19 03 36.2
Hindu Kush (h = 90 km).

" 25 Ki iPKP1 21 36 46.8
i 21 37 12.7
Um iPKP1 21 36 53.9
New Zealand (h = 70 km).

" 25 Um iP 21 44 16.1
Ud iP 21 44 46.5
South of Japan (h = 80 km).

" 25 Up iP 22 04 40.2
East China Sea (h = N).

" 25 Up iPKP2 22 24 43.2
Ki iPKP1 22 24 06.8 C
iPKP2 22 24 14.0

		micr	sec
PKP1	Z'	0.1	1.4

Sk iPKP2 22 24 34.8
Um iPKP1 22 24 14.5
i 22 24 42.3
Ud iPKP2 22 24 46.6
De iPKP2 22 24 57.8
New Zealand (h = 70 km).

" 25 Up iP 22 54 33.2
i 22 54 36.5
iPP 22 57 43.9

		micr	sec
Mx	E	4.1	21
Mx	N	2.1	20
Mx	Z	6.9	22

Ki iP 22 54 08.1
i 22 54 12.6

		micr	sec
P	Z'	0.1	1.0
Mx	E	4.0	15
Mx	N	3.6	16
Mx	Z	6.1	16

Sk iP 22 54 07.8
i 22 54 13.8
Um iP 22 54 22.7 C
i 22 54 28.0
(cont.)

1973
Mar. 25 (cont.)
Ud iP 22 54 24.8
i 22 54 29.3
De iP 22 54 36.8
i 22 54 41.8
Gulf of California (h = N).
M = 6.0 (Up,Ki).
Double P, the second bigger in average 4.8 sec delayed.

" 25 Up iP 22 57 26.2
Ud iP 22 57 18.5
De iP 22 57 31.2
Gulf of California.
Origin time = 22 44 57.

" 25 Up iP 23 00 41.2 C
Sk iP 23 01 23.1
Um iP 23 01 17.9 C
Ud iP 23 00 44.8
Greece (h = N).

" 26 Ud iP 00 31 55.6
Molucca Passage (h = N).

" 26 Ud e(pP) 02 21 23
Aleutian Islands (h = 45 km).

" 26 Up iP 02 41 02.4
i 02 41 19.9
Ud iP 02 41 11.3
i 02 41 36.1
Philippine Sea (h = N).

" 26 Up iP1 02 49 17.3
iP2 02 49 19.5

		micr	sec
P2	Z'	0.1	1.0
Mx	E	8.5	22
Mx	N	24	22
Mx	Z	8.6	21

Ki iP2 02 48 58.5
ipP 02 49 09.4

		micr	sec
P2	Z'	0.1	0.8
pP	Z'	0.1	0.8
Mx	E	9.1	16
Mx	N	12	18

Sk iP2 02 49 25.6
ipP 02 49 35.9
i 02 49 49.1
Um iP2 02 49 05.1
iS 02 58 41
Ud iP1 02 49 25.8
iP2 02 49 28.5
ipP 02 49 39.4
(cont.)

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

1973						
Mar.	26	(cont.)				
		De	iP2	02 49 38.7		
		Ryukyu Islands.				
		h = 40 km (Ki,Sk,Ud).				
		m = 5.9, M = 6.4 (Up,Ki).				
		The pP phases refer to P2,				
		the biggest of the P onsets.				
"	26	Up	iP	03 30 41.2		
			i	03 30 43.7		
		Ud	eP	03 31 01		
"	26	Ud	iPKP1	05 28 02.0		
		De	iPKP1	05 28 13.8		
			iSKP1	05 30 57.8		
		Fiji Islands (h = 630 km).				
"	26	Um	iP	07 53 19.5		
		Japan (h = 60 km).				
"	26	Up	iP	08 06 14.2		
			i	08 06 35.4		
			ipP	08 06 42.7		
			isP	08 06 55.3		
			iPP	08 07 53.6		
				micr	sec	
			P	Z'	0.3	1.4
			sP	Z'	0.1	1.1
			PP	Z'	0.6	1.5
		Ki	i(P)	08 06 02.7		
			iP	08 06 17.9 D		
			ipP	08 06 44.4		
			isP	08 06 54.9		
				micr	sec	
			P	Z'	0.1	0.7
		Sk	eP	08 06 37		
			isP	08 07 19.7		
			iPP	08 08 26.7		
		Um	iP	08 06 10.0 D		
			ipP	08 06 39.1		
			isP	08 06 51.1		
		Ud	iP	08 06 31.3 D		
			ipP	08 06 59.8		
		De	iP	08 06 30.0 D		
			ipP	08 06 58.0		
			isP	08 07 10.8		
			iPP	08 08 17.0		
		Tadzhik-Sinkiang.				
		h = 130 km (Up,Ki,Sk,Um,Ud,				
		De).				
		m = 5.8 (Up,Ki).				
		The sP phases are very well				
		developed.				
"	26	Up	iP	08 41 03.3 D		
			esP	08 41 47		
			iPP	08 42 43.2		
		(cont.)				

1973						
Mar.	26	(cont.)				
		Ki	e(P)	08 40 53		
			iP	08 41 06.7 D		
			ipP	08 41 34.6		
				micr	sec	
			P	Z'	0.1	0.6
		Sk	iP	08 41 27.1 D		
			isP	08 42 07.6		
			iPP	08 43 12.2		
		Um	iP	08 40 58.8 D		
			isP	08 41 39.1		
		Ud	iP	08 41 19.9 D		
			ipP	08 41 47.5		
			isP	08 42 00.1		
		De	iP	08 41 18.6 D		
			ipP	08 41 46.5		
			iPP	08 43 06.7		
		Tadzhik-Sinkiang.				
		h = 150 km (Up,Ki,Sk,Um,Ud,				
		De).				
"	26	Ud	i(P)	11 08 55.5		
"	26	Um	iPKP	11 22 45.3		
			i	11 23 05.0		
		Ud	i(pPP)	11 23 42.8		
			iPKKP	11 33 47.8		
		De	i(PKKP)	11 33 42.0		
		Argentina (h = 120 km).				
"	26	Ki	e(Sgl)	12 21 20		
"	26	Up	iSgl	12 24 12.0		
		Um	iSgl	12 24 30.7		
		De	iSgl	12 25 43.0		
		Western USSR.				
		Explosion.				
"	26	Ki	iP	12 57 45.2		
			ipP	12 58 26.8		
		Mariana Islands.				
		h = 170 km (Ki).				
"	26	Up	iP	15 07 41.0		
		Um	iP	15 07 19.0		
			ipP	15 07 31.5		
		Ud	iP	15 07 48.3		
		De	iP	15 08 03.5		
		Japan.				
		h = 45 km (Um).				
"	26	Up	iP	17 46 46.1		
		Um	iP	17 46 24.4		
			ipP	17 46 35.2		
		Ud	iP	17 46 53.2 C		
		De	iP	17 47 07.7		
		Japan.				
		h = 40 km (Um).				

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

1973					
Mar.	26	Up	eP	21 58 30	
			ipP	21 58 47.4	
		Ki	iP	21 57 36.4	
		Um	iP	21 58 02.2	
			ipP	21 58 21.6	
		Ud	iP	21 58 31.5	
		De	iP	21 58 53.8	
		Aleutian Islands.			
		h = 70 km (Up,Um).			
"	26	Up	iP	23 05 17.2	C
		Um	iP	23 05 04.0	
			i	23 05 16.0	
		De	eP	23 05 37	
		Formosa (h = 30 km).			
"	27	Ki	iP	00 09 06.9	
		Um	iP	00 08 57.1	
		Azores Islands (h = N).			
"	27	Up	iP	02 20 00.2	
		Ki	iP	02 19 21.6	
		Sk	iP	02 19 55.1	
		Um	iP	02 19 37.6	
			i	02 19 42.7	
		Ud	iP	02 20 07.6	
		De	iP	02 20 22.6	
		Japan (h = 60 km).			
"	27	Up	eP	03 16 58	
		Ki	eP	03 18 10	
		Sk	eP	03 17 36	
		Um	iP	03 17 29.8	
		Ud	iP	03 17 06.0	
		De	eP	03 16 37	
		Crete.			
"	27	Up	iP	03 49 29.0	C
		Ki	iP	03 49 04.0	
		Sk	iP	03 49 31.7	
		Um	iP	03 49 11.7	
		Ud	iP	03 49 37.6	C
		De	iP	03 49 47.8	C
		Ryukyu Islands (h = 80 km).			
"	27	Ud	iP	06 57 16.3	
		Kurile Islands.			
"	27	Um	iP	10 24 26.5	
"	27	Ud	i(Sgl)	10 49 50.1	
"	27	Ud	i(Sgl)	11 22 30.6	
"	27	Um	iP	11 56 05.1	C
"	27	Um	i(Sgl)	12 19 01.7	

1973					
Mar.	27	Up	iSgl	12 21 57.7	
		Um	iSgl	12 22 17.3	
		Ud	iSgl	12 22 57.8	
		Western USSR.			
		Explosion.			
"	27	Up	iP	12 42 48.9	C
			ipP	12 42 57.8	
				micr	sec
			P Z'	0.5	1.0
			Mx E	0.9	18
			Mx N	0.8	18
			Mx Z	1.2	18
		Ki	iP	12 41 55.4	C
				micr	sec
			P Z'	0.3	1.0
			Mx E	1.2	18
			Mx N	2.3	21
			Mx Z	2.3	18
		Sk	iP	12 42 29.6	C
			i	12 42 35.4	
			iPcP	12 43 06.8	
		Um	iP	12 42 21.3	C
		Ud	iP	12 42 50.6	C
			ipP	12 42 58.5	
		De	iP	12 43 12.5	C
			ipP	12 43 21.2	
		Aleutian Islands.			
		h = 30 km (Up,Ud,De).			
		m = 6.5, M = 5.3 (Up,Ki).			
"	27	Up	iP	15 43 12.6	D
		Um	iP	15 43 54.4	
		Ud	iP	15 43 19.6	
		De	eP	15 42 44	
		Greece (h = N).			
"	27	Up	iPKP1	16 55 42.1	C
		Ud	iPKP1	16 55 43.0	
		De	iPKP1	16 55 52.6	
"	27	Ud	iSKP1	20 17 40.0	
		New Hebrides Islands			
		(h = 140 km).			
"	28	Ki	iP	03 20 47.3	
		Sk	iP	03 21 00.5	
			iS	03 22 44.9	
		Um	iP	03 21 23.6	
			iS	03 23 29.2	
			i	03 24 01.3	
		Ud	iP	03 21 48.4	
			i(S)	03 24 21.8	
		Norwegian Sea, near			
		71°1/2 N, 2°W.			
		Origin time = 03 18 45.			

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

1973
Mar. 28 Up iP 03 41 48.3
Ud iP 03 41 54.2
Japan (h = 70 km).

" 28 Up iP 03 44 03.7 C
micr sec
P Z' 0.1 0.8
Ki iP 03 44 41.3 C
micr sec
P Z' 0.1 0.8
Mx E 1.1 15
Sk iP 03 44 38.5 C
Um iP 03 44 17.6 C
iPP 03 46 09.6
Ud iP 03 44 18.8 C
De iP 03 44 02.4 C
Iran (h = 35 km).
m = 5.6 (Up,Ki).

" 28 Ud iPKPl 04 13 05.5
De iPKPl 04 13 15.4

" 28 Up iSgl 10 53 35.4
Um iSgl 10 54 11.3
Ud eSgl 10 54 36
Esthonia.
Explosion.

" 28 Um iSgl 12 17 10.8
Ud iSgl 12 18 03.4
Western USSR.
Explosion.

" 28 Sk iP 13 44 46.6
Um iP 13 44 33.9
Ethiopia (h = N).

" 28 Up iP 13 51 11.8
micr sec
Mx E 2.7 16
Mx N 2.6 18
Mx Z 3.3 20
Ki iP 13 51 56.8
micr sec
P Z' 0.1 1.0
Mx E 4.1 17
Mx N 2.2 15
Mx Z 2.2 13
Sk iP 13 51 43.3
Um iP 13 51 31.2
iPcP 13 52 38.4
iS 13 59 10
Ud iP 13 51 21.2
De iP 13 50 58.7
Ethiopia (h = N).
M = 5.6 (Up,Ki).

1973
Mar. 28 Up iP 14 27 56.7
micr sec
P Z' 0.1 0.9
Mx E 1.0 14
Mx N 1.8 20
Mx Z 2.8 14
Ki iP 14 28 46.3
micr sec
P Z' 0.2 1.5
Mx E 1.4 14
Mx N 1.8 13
Mx Z 1.4 15
Sk iP 14 28 30.1 C
Um iP 14 28 17.5 C
iPcP 14 29 20.7
Ud iP 14 28 06.8 C
De eP 14 27 46
Ethiopia (h = N).
m = 5.9, M = 5.3 (Up,Ki).

" 28 Up ipP 14 52 12.1
micr sec
pP Z' 0.1 1.1
Ki eP 14 51 46
ipP 14 51 54.2
Um iP 14 51 50.8
ipP 14 51 59.1
Ud iP 14 52 12.4
ipP 14 52 19.8
Luzon.
h = 30 km (Ki,Um,Ud).

" 28 Up iP 15 08 12.8
micr sec
P Z' 0.2 1.5
Mx E 1.7 15
Mx N 2.0 16
Mx Z 2.6 19
Ki iP 15 09 04.3
micr sec
Mx E 2.2 15
Mx N 1.8 13
Mx Z 2.5 14
Sk eP 15 08 43
Um iP 15 08 33.4
Ud iP 15 08 23.3
Ethiopia (h = N).
M = 5.4 (Up,Ki).

" 28 Ud eP 15 13 43

" 28 Um i(P) 15 15 07.8

" 28 Um iPKP 17 03 44.3
Ud iPKP 17 03 52.3
De iPKP 17 03 56.7
New Guinea (h = 80 km).

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

1973
Mar. 28 Ki iSgl 20 27 18.6
Sk eSgl 20 27 24
Um iSn 20 27 32.0
iSgl 20 27 45.0
Ud iSgl 20 29 15.2
Nordland, Norway,
66.5°N, 14.5°E.
Origin time = 20 25 50.
Explosion.

" 28 Ud iPKPl 22 45 58.8
De iPKPl 22 46 09.9
Fiji Islands (h = 610 km).

" 29 Up iP 00 07 42.3
ipP 00 07 51.8

		micr	sec
P	Z'	0.2	1.2
Mx	E	6.4	22
Mx	N	17	22
Mx	Z	4.6	20

Ki iP 00 07 18.9
ipP 00 07 28.5

		micr	sec
pP	Z'	0.2	1.0
Mx	E	4.5	15
Mx	N	5.4	13
Mx	Z	6.6	13

Sk ipP 00 07 56.5
i 00 08 05.0
Um iP 00 07 26.5 C
ipP 00 07 37.0
Ud iP 00 07 50.5
ipP 00 08 01.4
De e(P) 00 08 06
Ryukyu Islands.
h = 35 km (Up,Ki,Um,Ud).
m = 6.1, M = 6.2 (Up,Ki).

" 29 Up eSgl 05 25 28
Ki eSgl 05 26 19
Um iSgl 05 24 52.9
Ud eSgl 05 26 31
Lake Ladoga region.
Explosion.

" 29 Ud iP 05 54 17.3

" 29 Ud i(P) 06 25 57.0

" 29 Ki iP 06 33 22.7
i 06 33 42.6
Sumatra (h = 50 km).

" 29 Up iSgl 08 01 13.5
Ud eSgl 08 01 16
(cont.)

1973
Mar. 29 (cont.)
De iPgl 07 59 21.2
iPn 07 59 23.1
iSgl 07 59 33.7
iSn 07 59 37.5
iRg 07 59 39.2
Baltic Sea, south of Sweden,
56.0°N, 15.2°E.
Origin time = 07 59 05.
Explosion.
A series of similar events from the same location was recorded on Mar. 29 with the following origin times:
08 24 05, 08 40 59, 09 39 21, 09 52 08, 10 03 07, 10 29 21, 10 42 43, 10 51 43, 10 58 48, 11 05 13, 11 12 05, 11 50 50, 11 55 45, 12 00 20.
The Pn- and Sn-phases at De have relatively large amplitudes compared to Pgl and Sgl, which may be due to Moho-reflected P- and S-waves arriving almost simultaneously with Pn and Sn at the distance of De.

" 29 Up iPKPl 11 42 29.2
Um i(PKP) 11 42 18.4
iPKP 11 42 25.9
Ud iPKPl 11 42 31.2
De iPKPl 11 42 42.0
Tonga-Kermadec Islands
(h = 540 km).

" 29 Um iSgl 13 17 41.6
Western USSR.
Explosion.

" 29 Um i(Sgl) 14 59 46.1

" 29 Ud i(P) 16 31 52.4

" 29 Um iP 16 56 41.0
Japan (h = 40 km).

" 29 Um iSgl 17 12 23.8
Lake Ladoga.
Explosion.

" 29 Um iP 18 08 38.5
Ud iP 18 09 08.9
Japan (h = 40 km).

" 29 Um iP 18 14 29.1
Ud iP 18 15 01.5
De eP 18 15 13

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

1973 Mar.	29	Up	iP		22 43 10.3	
		Ud	iP		22 43 16.2	
"	29	Ud	iPKPl		23 53 07.3	
		De	iPKPl		23 53 17.7	
"	30	Up	ePl		00 10 44	
			i		00 10 50.4	
			iP2		00 10 54.0	C
					micr	sec
			P2	Z'	0.1	1.3
			Mx	E	1.9	20
			Mx	N	2.2	24
			Mx	Z	2.8	25
		Ki	iPl		00 09 07.7	
					micr	sec
			Pl	Z'	0.8	2.0
			Mx	E	2.2	15
			Mx	N	4.7	18
			Mx	Z	3.4	17
		Sk	iPl		00 09 59.1	
		Um	iPl		00 09 58.8	C
		Ud	iPl		00 10 41.2	D
			iP2		00 10 50.3	C
		De	iPl		00 11 23.1	
			iP2		00 11 30.9	
		Norwegian Sea (h = N).				
		m = 5.2, M = 4.5 (Up,Ki).				
"	30	Up	iP		03 12 53.2	
		Ki	eP		03 12 12	
		Um	iP		03 12 29.2	
		Ud	iP		03 13 00.3	
		De	iP		03 13 16.9	
		Japan (h = 55 km).				
"	30	Up	iP		03 29 12.3	C
		Ki	iP		03 29 11.8	C
					micr	sec
			P	Z'	0.1	0.8
		Sk	iP		03 29 26.4	
		Um	iP		03 29 09.2	C
		Ud	iP		03 29 21.9	
		De	eP		03 29 21	
		Sumatra (h = 90 km).				
"	30	Up	iPKP		04 06 20.2	
		Ki	ePKP		04 06 41	
		Um	iPKP		04 06 28.0	
		Ud	iPKP		04 06 19.3	
		De	ePKP		04 06 14	
		Scotia Sea (h = N).				
"	30	Up	i		07 06 18.1	
		Ud	iP		07 06 10.2	
		South of Japan (h = 15 km).				

1973 Mar.	30	Ki	iP		08 00 41.6	
"	30	Up	iSgl		10 38 25.4	
		Ki	iPn		10 34 12.1	
			iSn		10 35 11.3	
			iS*		10 35 30.0	
			iSgl		10 35 34.8	
		Sk	iSgl		10 38 06.1	
		Um	iSn		10 35 52.2	
			iSgl		10 36 25.6	
		Ud	iSgl		10 38 58.4	
		De	eSgl		10 40 31	
		Northwest USSR, 67.9°N, 33.6°E.				
		Origin time = 10 32 56.				
		Explosion.				
"	30	Up	i(P)		13 42 32.2	
"	30	Ud	i(P)		13 43 54.2	
"	30	Up	e(P)		17 20 22	
"	31	Ud	iP		01 51 17.6	
		Mindanao (h = 90 km).				
"	31	Ud	ePKP		12 08 23	
		New Guinea (h = 120 km).				
"	31	Ki	i(Sgl)		12 59 15.0	
		Um	i(Sgl)		13 00 21.8	
		Northwest USSR.				
		Explosion.				
"	31	Up	eP		14 11 52	
		Ki	eP		14 11 05	
		Um	iP		14 11 27.2	
		Ud	iP		14 11 58.1	
		Kurile Islands.				
"	31	Um	iP		19 22 29.5	
"	31	Sk	eP		19 24 29	
"	31	Up	iP		19 25 40.0	
		Ud	iP		19 25 49.2	
"	31	Up	iP		20 56 09.0	
		Ki	iP		20 55 17.9	
		Um	eP		20 55 46	
		Kurile Islands (h = 45 km).				
"	31	Up	eP		23 37 32	
		Ki	iP		23 39 01.1	
		Sk	eP		23 38 26	
		Um	iP		23 38 13.8	

(cont.)

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

1973
Mar. 31 (cont.)
Ud iP 23 37 48.6
De iP 23 37 09.0
Rumania (h = 160 km).

Markus Båth
Klaus Meyer
Rutger Wahlström
Ota Kulhánek

December 15, 1974

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, 1973

1973
Apr. 1 Up iP 06 38 33.7
Um iP 06 38 57.2
Ethiopia (h = N).

" 1 Up eP 07 21 39
ipP 07 21 46.0
micr sec
Mx E 3.8 20
Mx N 3.4 16
Mx Z 3.5 20
Ki ipP 07 22 31.5
micr sec
pP Z' 0.1 1.0
Mx E 7.7 22
Mx N 4.6 20
Mx Z 3.7 21
Sk iP 07 22 15.1
i 07 23 23.0
Um iP 07 22 02.5
ipP 07 22 08.8
iPcP 07 23 10.8
iPP 07 24 13.6
iS 07 29 38
Ud iP 07 21 55.9
Ethiopia.
h = 25 km (Up,Um).
M = 5.7 (Up,Ki).

" 1 Um i(Sgl) 08 20 13.4

" 1 Ud iP 08 52 37.2
Iceland (h = N).

" 1 Ki iP 08 54 44.0
micr sec
P Z' 0.1 1.0
Mx E 2.0 19
Mx N 1.3 15
Um iP 08 55 01.3
(cont.)

1973
Apr. 1 (cont.)
Ud iP 08 54 58.7
Iceland (h = N).

" 1 Up i 09 04 38.4
iS* 09 05 21.8
iSgl 09 05 31.9
Ki ePgl 09 01 25
iSn 09 02 13.7
iS* 09 02 31.6
iSgl 09 02 35.5
Sk iSgl 09 05 04.3
Um iSn 09 02 54.1
i 09 03 09.8
iSgl 09 03 29.2
Ud iSgl 09 05 56.2
Northwest USSR,
67.9°N, 33.6°E.
Origin time = 09 00 00.
Explosion.

" 1 Ki eP 09 54 03
Um i 09 54 27.8
Ud iP 09 54 14.7
i 09 54 43.6

" 1 Ki iPgl 11 02 48.7
iSn 11 03 24.5
iSgl 11 03 41.4

" 1 Um iP 11 11 42.4

" 1 Ki iPn 12 14 17.9
iPgl 12 14 27.3
iSn 12 15 06.4
iSgl 12 15 23.5
Um eSgl 12 16 46
Northwest USSR-Norway border region.
Origin time = 12 13 14.
Explosion.

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

1973 Apr. 1 Ud iP 14 38 22.4
Pamir.

" 1 Um iP 14 45 16.8
Ud iP 14 45 44.2
South of Japan (h = N).

" 1 Ud iP 21 25 15.8

" 1 Um iP 22 00 05.8

" 2 Ki iP 01 35 42.4
Um iP 01 35 23.6 C
Ud iP 01 35 32.0 C
Iran (h = N).

" 2 Up micr sec
Mx N 3.0 19
Ki eP 02 51 02
micr sec
Mx E 2.7 10
Mx N 1.2 12
Mx Z 1.7 10
Sk i(P) 02 51 25.7
Um iP 02 50 50.7
ipP 02 51 03.1
Ud iP 02 51 08.5
Afghanistan-USSR.
h = 55 km (Um).
M = 5.3 (Up,Ki).

" 2 Ud iP 09 59 15.7

" 2 Ki ePn 12 09 41
iSn 12 10 27.5
iS* 12 10 39.4
Um iSgl 12 12 14.4
Northwest USSR-Norway border region, 69.5°N, 30.1°E.
Origin time = 12 08 40.
Explosion.

" 2 Up iP 19 35 41.9
micr sec
P Z' 0.1 1.5
Ki iP 19 36 15.2
i 19 36 29.0
micr sec
P Z' 0.1 1.2
Um i(PcP) 19 36 22.6
Ud iP 19 35 30.3
i 19 35 47.2
De iP 19 35 21.8
Atlantic Ocean (h = N).
m = 5.8 (Up,Ki).

" 2 Ki i(P) 21 39 13.7

1973 Apr. 2 Ud iPKPl 23 17 08.3
De iPKPl 23 17 18.7
Tonga-Kermadec Islands (h = 600 km).

" 2 Ki eP 23 28 44
Ud iP 23 28 54.0
Sumatra (h = 100 km).

" 3 Ki iP 02 14 30.3
Ud iP 02 14 55.7
Mindanao (h = 80 km).

" 3 Ki eP 04 15 49
Mariana Islands (h = N).

" 3 Ud i(P) 05 01 41.0

" 3 Up iRg 08 29 02.8
Ud iRg 08 28 48.9
Central Sweden.

" 3 Up iP 11 01 22.9 D
Ki iP 11 00 35.9 D
Um iP 11 00 57.6 D
Ud iP 11 01 28.7 D
De eP 11 01 48
Kurile Islands (h = N).

" 3 Up i 12 00 42.5
i 12 00 44.4
iRg 12 00 46.8
Ud i 12 00 56.4
iRg 12 01 00.7
Central Sweden.

" 3 Up iSn 12 21 55.8
iSgl 12 22 09.7
Ki eSgl 12 24 37
Sk eSgl 12 23 59
Um iSgl 12 22 38.2
Ud eSgl 12 23 12
De eSgl 12 23 44
Esthonia.
Explosion.

" 3 Up eSgl 12 29 34
Um eSgl 12 29 46
Western USSR.
Explosion.

" 3 Ki iP 12 55 22.6
Molucca Passage (h = 150 km).

" 3 Up i 13 03 21.4
iSgl 13 03 25.9
(cont.)

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

1973						
Apr.	3	(cont.)				
		Ki	iSgl		13 06 21.8	
		Sk	eSgl		13 05 26	
		Um	iSgl		13 04 15.9	
		Ud	iSgl		13 04 28.6	
		Esthonia.				
		Explosion.				
"	3	Up	iP		14 06 33.2	D
			ipP		14 07 12.4	
			iS		14 17 00	
			isS		14 18 05	
					micr	sec
			P	Z'	1.0	1.1
		Ki	iP		14 06 35.6	D
			ipP		14 07 13.0	
					micr	sec
			P	Z'	1.3	1.2
		Sk	iP		14 06 20.8	D
			ipP		14 06 58.5	
		Um	iP		14 06 37.3	D
			ipP		14 07 16.5	
			isP		14 07 31.8	
			iS		14 17 09	
			isS		14 18 12	
		Ud	iP		14 06 23.7	D
			ipP		14 07 02.4	
			isP		14 07 20.3	
		De	iP		14 06 25.9	D
			ipP		14 07 03.8	
		Colombia.				
		h = 150 km (Up,Ki,Sk,Um,Ud, De).				
		m = 6.7 (Up,Ki).				
"	3	Up	iP		17 09 00.0	
		Ki	iP		17 08 41.8	
		Um	iP		17 08 47.6	
		Luzon (h = 45 km).				
"	3	Up	iP		17 35 44.0	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		17 35 43.1	C
					micr	sec
			P	Z'	0.2	0.9
		Sk	iP		17 35 57.0	C
		Um	iP		17 35 40.9	C
		Ud	iP		17 35 53.0	C
		De	eP		17 35 52	
		Sumatra (h = 100 km).				
		m = 6.3 (Up,Ki).				
"	3	Up	iP		20 15 34.8	D
					micr	sec
			P	Z'	0.1	1.0
		(cont.)				

1973						
Apr.	3	(cont.)				
		Ki	iP		20 16 04.0	D
					micr	sec
			P	Z'	0.1	1.0
		Um	iP		20 15 51.7	D
		Ud	iP		20 15 24.4	
		Atlantic Ocean (h = N).				
		m = 6.0 (Up,Ki).				
"	3	Um	iP		21 14 49.3	
"	3	Um	iP		21 41 31.9	
		Ud	iP		21 42 00.7	
		Japan (h = 60 km).				
"	3	Ud	iP		22 27 21.0	
		Afghanistan-USSR.				
"	4	Um	iP		01 43 37.8	
			i		01 43 41.8	
		Ud	iP		01 43 09.7	
		Ascension Island (h = N).				
"	4	Ud	iP		07 45 51.2	
		De	eP		07 45 50	
		Hindu Kush (h = 110 km).				
"	4	Ki	iP		10 02 09.3	
		Um	iP		10 02 21.1	
		Ud	iP		10 02 42.0	
		De	iP		10 02 54.8	
		Mariana Islands (h = 300 km).				
"	4	De	i(P)		15 03 58.6	
"	4	Um	iP		18 02 15.4	
		Tibet (h = 50 km).				
"	4	Um	iP		19 08 24.4	
"	4	Ki	iP		21 41 46.7	
		Kurile Islands (h = N).				
"	4	Up	iP		22 01 58.0	
					micr	sec
			P	Z'	0.1	1.1
		Ki	iP		22 01 12.6	
					micr	sec
			P	Z'	0.1	1.1
		Um	iP		22 01 34.2	
		Ud	iP		22 02 04.7	
		De	iP		22 02 22.2	
		Kurile Islands (h = N).				
		m = 6.0 (Up,Ki).				
"	5	Up	iP		00 07 48.8	
		(cont.)				

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

1973
Apr. 5 (cont.)

	Ki	iP	00 07 03.0	
			micr	sec
		P Z'	0.1	1.0
	Um	iP	00 07 24.1	
	Ud	iP	00 07 54.4	
	De	iP	00 08 12.7	

Kurile Islands (h = N).

" 5

Up	iRg	02 55 22.3	
Ud	iRg	02 55 17.0	

Central Sweden.

" 5

Up			micr	sec
	Mx	N	2.1	20
Ki	iP		04 44 37.6	
	i		04 44 39.7	
	i		04 44 45.9	
	iS		04 54 59	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	4.5	18
	Mx	N	3.8	18
	Mx	Z	4.2	18
Um	iP		04 44 43.8	
	i		04 44 45.7	
	i		04 44 52.5	
	iS		04 55 08	
Ud	iP		04 45 02.7	
	i		04 45 04.8	

Panay (h = 5 km).
M = 5.9 (Up,Ki).

" 5

Ki	iP	05 36 53.5	

Panay (h = N).

" 5

Up	iSgl	09 03 13.6	
Um	iSgl	09 04 02.4	
Ud	iSgl	09 02 08.3	

Near Bergen, Norway,
60.3°N, 5.2°E.
Origin time = 08 59 56.
Explosion.
By combination with
Bergen and Kongsberg
readings.

" 5

Ki	eP	19 31 46	
Ud	iP	19 31 17.9	
	i	19 31 23.5	
De	iP	19 31 06.6	

Iran (h = N).

" 5

Up	iP		22 28 02.8	C
			micr	sec
	P	Z'	0.3	1.0

(cont.)

1973
Apr. 5 (cont.)

Up			micr	sec
	Mx	E	2.7	16
	Mx	N	3.4	19
	Mx	Z	4.9	19
Ki	iP		22 27 17.4	C
			micr	sec
	P	Z'	0.4	1.0
	Mx	E	8.4	19
	Mx	Z	7.3	18
Sk	eP		22 27 59	
	iPcP		22 28 21.7	
Um	iP		22 27 38.2	C
Ud	iP		22 28 08.7	C
De	iP		22 28 27.6	C
	ipP		22 28 38.3	

Kurile Islands.
h = 40 km (De).
m = 6.6, M = 5.8 (Up,Ki).

" 5

Ki	iP	22 45 46.8	C
Um	iP	22 46 07.3	
Ud	iP	22 46 38.4	

Kurile Islands (h = N).

" 5

Up	eP	22 53 01	
Ki	eP	22 52 14	
Um	eP	22 52 37	
Ud	iP	22 53 06.3	

Kurile Islands (h = N).

" 5

Ki	iP	23 17 09.0	
Um	iP	23 17 31.0	
Ud	iP	23 18 01.2	

Kurile Islands (h = N).

" 5

Ud	iP	23 43 32.0	

Kurile Islands (h = 50 km).

" 5

Ki	iP	23 44 17.2	
Ud	iP	23 45 08.8	

Kurile Islands (h = N).

" 6

Up	iP	00 11 47.0	
Ki	iP	00 11 01.5	
Um	iP	00 11 22.7	
Ud	iP	00 11 53.7	

Kurile Islands (h = N).

" 6

Up	iP		00 13 00.1	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		00 12 14.7	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	1.4	17
	Mx	Z	1.2	16

(cont.)

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

1973 Apr. 6 (cont.)

Sk	eP		00 12 58	
Um	iP		00 12 33.7	
Ud	iP		00 13 05.5	
De	iP		00 13 24.1	

Kurile Islands (h = N).
m = 6.2 (Up,Ki).

" 6

Up	iP		01 57 14.1	
			micr	sec
	P	Z'	0.1	1.0
Ki	eP		01 56 21	
Ud	iP		01 57 14.9	

Aleutian Islands (h = 50 km).

" 6

Up	iP		01 59 03.3	D
			micr	sec
	P	Z'	0.3	1.2
	Mx	E	2.1	16
	Mx	N	2.1	20
	Mx	Z	2.6	16
Ki	iP		01 58 17.4	D
	i		01 58 42.3	
			micr	sec
	P	Z'	0.3	1.0
	Mx	E	4.8	18
	Mx	Z	3.0	15
Sk	eP		01 58 58	D
Um	iP		01 58 38.2	D
Ud	iP		01 59 09.8	D
De	iP		01 59 27.1	

Kurile Islands (h = N).
m = 6.5, M = 5.7 (Up,Ki).

" 6

Ud	iP		02 08 19.4

Kurile Islands (h = N).

" 6

Um	iP		02 34 08.9

Japan (h = 150 km).

" 6

Ki	eP		05 51 11
Ud	iP		05 52 03.3

Kurile Islands (h = N).

" 6

Up	iP		07 20 23.5
Ki	iP		07 19 37.7
Ud	iP		07 20 29.0 C

Kurile Islands (h = N).

" 6

Ki	iP		07 22 26.0
Ud	iP		07 23 17.4

Kurile Islands (h = N).

" 6

Ud	iP		07 43 14.4

Kurile Islands (h = 35 km).

1973 Apr. 6

Ki	iPKP		08 48 23.3
Sk	iPKP		08 48 34.5
Um	iPKP		08 48 29.7

Santa Cruz Islands
(h = 210 km).

" 6

Ki	iPn		10 51 49.0
	iPgl		10 51 59.1
	iSn		10 52 37.6
	iS*		10 52 50.7
Um	iSgl		10 54 19.6

Northwest USSR-Norway border region, 69.3°N, 31.1°E.
Origin time = 10 50 45.
Explosion.

" 6

Ud	iP		10 55 13.9

Kurile Islands (h = N).

" 6

Up	iSgl		12 46 58.2
Ki	i		12 43 02.8
	iSn		12 43 43.1
	iS*		12 44 02.1
Sk	iSgl		12 46 30.7
Um	iSn		12 44 22.7
	iSgl		12 44 57.3

Northwest USSR.
Origin time = 12 41 27.
Explosion.

" 6

Up	iP		14 19 26.0	
	i		14 19 35.4	
			micr	sec
	P	Z'	0.1	1.3
	i	Z'	0.1	1.0
Ki	iP		14 20 33.6	
	i		14 20 42.5	
			micr	sec
	P	Z'	0.1	0.9
Sk	iP		14 20 04.7	
	i		14 20 14.9	
Um	iP		14 19 57.5	
Ud	iP		14 19 33.3	
	i		14 19 42.7	
De	iP		14 19 00.7	
	i		14 19 09.7	

Crete (h = 15 km).
m = 5.5 (Up,Ki).
Double P, in average 9.4 sec apart. The second phase could be interpreted as pP for a focal depth of 35 km.

" 6

Ki	iPn		14 24 08.4
	iSn		14 25 04.5
	iS*		14 25 23.1

(cont.)

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

1973						
Apr.	6	(cont.)				
		Um	iSgl		14 26 25.5	
			i		14 26 44.9	
		Northwest USSR.				
		Origin time = 14 22 54.				
		Explosion.				
"	6	Ud	iP		14 57 01.6	
		Kurile Islands (h = N).				
"	6	Ud	iP		15 07 48.9	
"	6	Up	iP		15 09 05.7	
		Ki	iP		15 08 19.8	
					micr	sec
			P	Z'	0.1	1.2
		Um	iP		15 08 41.1	
		Ud	iP		15 09 11.8	
		De	iP		15 09 30.5	
		Kurile Islands (h = N).				
"	6	Up	iP		15 20 08.2	
		Ki	iP		15 19 22.8 C	
					micr	sec
			P	Z'	0.1	1.0
		Um	iP		15 19 43.7	
		Ud	iP		15 20 14.1 C	
		Kurile Islands (h = N).				
"	6	Ud	iP		16 12 23.6	
"	6	Ki	iP		17 05 06.5	
		Ud	iP		17 05 19.5	
		Tadzhik-Sinkiang (h = 150 km).				
"	6	Ud	iP		18 39 56.7	
		Aleutian Islands (h = 20 km).				
"	6	Ud	iP		18 57 12.4	
		Aleutian Islands (h = 40 km).				
"	6	Ud	iPKP1		19 01 01.2	
		De	iPKP1		19 01 12.0	
		Tonga Islands (h = 240 km).				
"	6	Up	iSgl		19 17 13.3	
		Ki	iSgl		19 15 09.2	
		Sk	iS*		19 15 12.5	
			iSgl		19 15 17.5	
		Um	iSn		19 15 23.7	
			iSgl		19 15 37.3	
		Nordland, Norway,				
		66.5°N, 14.3°E.				
		Origin time = 19 13 42.				
		Explosion.				
"	6	Ud	iP		23 38 54.0	
		Greenland Sea (h = N).				

1973						
Apr.	7	Up	iP		03 12 42.0	
			i		03 12 47.9	
			i		03 12 55.6	
			iS		03 22 20	
					micr	sec
			P	Z'	0.7	1.0
			Mx	E	21	19
			Mx	N	57	27
			Mx	Z	46	20
		Ki	iP		03 12 46.1	
			i		03 12 51.7	
			i		03 12 59.4	
					micr	sec
			P	Z'	0.5	1.0
			Mx	E	37	20
			Mx	N	46	18
			Mx	Z	23	19
		Sk	iP		03 12 59.9	
			i		03 13 05.4	
			i		03 13 13.2	
		Um	iP		03 12 40.3 C	
			i		03 12 46.1	
			i		03 12 53.8	
			iS		03 22 23	
		Ud	iP		03 12 53.8 C	
			i		03 12 59.4	
			i		03 13 07.3	
		De	iP		03 12 50.8	
			i		03 12 56.4	
			i		03 13 04.3	
		Nicobar Islands (h = N).				
		m = 6.7, M = 6.9 (Up,Ki).				
		Multiple P, in average 5.6 and 13.4 sec after the first onset. Interpreting either the second or the third onset as pP, the focal depth would be 20 km or 50 km, respectively.				
"	7	Up	iP1		03 26 30.9	
			iP2		03 26 50.9	
					micr	sec
			P1	Z'	0.1	1.3
		Ki	eP1		03 26 35	
			iP2		03 26 54.4	
					micr	sec
			P2	Z'	0.1	1.0
		Um	iP1		03 26 29.5	
			iP2		03 26 49.0	
		Ud	iP1		03 26 41.9	
			iP2		03 27 02.2	
		De	iP2		03 26 59.5	
		Nicobar Islands (h = N).				
		m = 5.9 (Up,Ki).				
		Double P, in average 19.8 sec apart.				

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

1973
Apr. 7 Um iP 05 44 37.6
Molucca Passage (h = 45 km).

" 7 Up iP 09 46 37.5
Mindoro (h = N).

" 7 Up iP 10 56 59.4
Um iP 10 57 12.4
Ud iP 10 57 14.5
Iran (h = N).

" 7 Up iSgl 12 08 14.4
Ki iSgl 12 09 16.2
Um iSgl 12 07 37.6
Ud iSgl 12 09 12.0
De eSgl 12 09 54
Lake Ladoga region.
Explosion.

" 7 Ki iPn 12 22 46.2
iSn 12 23 34.8
iSgl 12 23 51.8
Um iSgl 12 25 18.4
i 12 25 29.6
Northwest USSR-Norway border region, 69.4°N, 31.1°E.
Origin time = 12 21 42.
Explosion.

" 7 Up iPKP 12 41 33.9
iY 12 41 59.6

			micr	sec
	Y	Z'	0.1	1.3
	Mx	E	2.3	20
	Mx	N	4.7	20
	Mx	Z	5.7	21

Ki iPKP 12 41 49.7
iY 12 42 13.7

			micr	sec
	Y	Z'	0.2	1.3
	Mx	E	5.5	20
	Mx	N	5.0	17
	Mx	Z	4.8	17

Sk iPKP 12 41 40.2
Um iPKP 12 41 42.2
iX 12 41 48.7
iY 12 42 06.6
Ud iX 12 41 38.9
iY 12 41 57.3
De i 12 41 45.2
South Atlantic Ocean
(h = N).
M = 6.3 (Up,Ki).
The phase Y arrives in average 24.7 sec after PKP.

1973
Apr. 7 Up iPKP 15 07 56.7
Um iPKP 15 08 04.0
De i(pPKP) 15 08 00.3
South Sandwich Islands
(h = N).

" 7 Um iP 15 44 40.3

" 7 Um iP 16 14 54.2
Ud iP 16 15 24.8
Kurile Islands (h = N).

" 7 Up iP 17 45 52.8
Ki micr sec
Mx E 0.9 15
Mx N 0.9 13
Um iP 17 46 12.0
Ud iP 17 46 01.7
Ethiopia (h = N).

" 7 Ud eP 18 30 19
Mindanao (h = 180 km).

" 7 Up iP 19 34 22.6 C
ipP 19 34 26.8
Ki iP 19 35 46.6
Sk iP 19 35 11.5
Um iP 19 35 06.1 C
ipP 19 35 10.5
Ud iP 19 34 29.8 C
ipP 19 34 34.8
De iP 19 33 51.8 C
Albania.
h = 15 km (Up,Um,Ud).

" 7 Up iRg 20 04 42.3
Ud iRg 20 04 30.5
Central Sweden.

" 7 Ki iP 23 36 53.8
Um iP 23 37 08.0
Ud iP 23 37 32.0
Bonin Islands (h = 450 km).

" 7 Ud iP 23 45 16.9

" 8 Up iP 01 29 49.2
Ki iP 01 29 57.6
Um iP 01 29 47.6
Ud iP 01 30 05.8
Afghanistan-USSR (h = 230 km).

" 8 Up iP 04 17 24.2 D
Sk eP 04 18 07
Um iP 04 18 06.9
Ud iP 04 17 30.0
Greece-Albania (h = 45 km).

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

1973 Apr. 8 Ki iSn 06 45 28.7
iS* 06 45 47.4
iSg1 06 45 52.0
Um iSn 06 46 10.6
iSg1 06 46 41.0
Northwest USSR.
Explosion.

" 8 Um iP 09 58 18.2 C
Turkey.

" 8 Um iP 10 09 20.6

" 8 Up iPKP 13 00 10.3 C
iPP 13 02 25
iSKP1 13 03 34.7

		micr	sec
PKP	Z'	0.2	1.3
SKP1	Z'	0.8	1.6
Mx	E	6.5	21
Mx	N	9.9	22
Mx	Z	17	22

Ki iPKP 12 59 57.2 C
iPP 13 01 40

		micr	sec
PKP	Z'	0.2	1.1
Mx	E	9.9	23
Mx	N	8.6	22
Mx	Z	7.0	22

Sk iPKP 13 00 08.0 C
iSKP1 13 03 32.5
Um iPKP 13 00 03.4 C
iPP 13 02 01
Ud iPKP 13 00 11.9
i 13 00 14.2
iSKP1 13 03 39.0
De i(PKP) 13 00 08.3
iPKP 13 00 18.3
i 13 00 20.9
iSKP1 13 03 48.4
New Hebrides Islands
(h = 35 km).
M = 6.6 (Up,Ki).

" 8 Um iPKP 13 30 32.3
Ud ePKP 13 30 39

" 8 Um iP 16 41 38.1
Mariana Islands (h = 50 km).

" 8 Ud iP 20 37 30.4
Black Sea.

" 8 Up iPKP1 21 08 01.3
ipPKP1 21 08 35.0

		micr	sec
pPKP1	Z'	0.1	1.2

(cont.)

1973 Apr. 8 (cont.)
Ki iPKP 21 07 51.2
Sk ePKP 21 08 01
Um i(PKP) 21 07 49.4
iPKP 21 07 57.1
iSKP1 21 11 22.9
Ud iPKP1 21 08 02.1
De iPKP 21 08 12.7
iPKP1 21 08 13.6
ipPKP1 21 08 43.0
Tonga-Kermadec Islands.
h = 120 km (Up,De).

" 8 Um iP 21 41 01.7
Ud iP 21 41 27.5

" 8 Up iP 22 05 42.1 C
i 22 05 52.1

		micr	sec
P	Z'	0.4	0.9

Ki iP 22 04 53.9 C

		micr	sec
P	Z'	0.2	0.7

Sk iP 22 05 30.5
Um iP 22 05 16.5 C
Ud iP 22 05 47.8 C
De iP 22 06 06.6 C
Kurile Islands (h = 100 km).
m = 6.3 (Up,Ki).

" 8 Um iP 23 06 16.2
New Guinea (h = 70 km).

" 9 Um iP 03 30 13.0
ipP 03 30 50.0
Ud ipP 03 30 40.4
Nicaragua.
h = 150 km (Um).

" 9 Up iP 08 44 05.8 D
i 08 44 15.6
ipP 08 44 57.1

		micr	sec
P	Z'	0.2	1.0

Ki iP 08 43 39.4 D

		micr	sec
P	Z'	0.1	1.1

Sk iP 08 44 07.7 D
ipP 08 44 58.8
Um iP 08 43 49.4 D
ipP 08 44 40.6
Ud iP 08 44 15.5 D
ipP 08 45 06.6
De iP 08 44 25.2 D
ipP 08 45 16.7
East China Sea.
h = 210 km (Up,Sk,Um,Ud,De).
m = 5.7 (Up,Ki).

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

1973				
Apr.	9	Um	iP	08 47 29.1
		Ud	iP	08 46 50.9
		North Atlantic Ocean (h = N).		
"	9	Ud	i(P)	09 53 17.7
"	9	Up	eSgl	12 22 37
		Ki	eSgl	12 24 35
		Sk	eSgl	12 24 24
		Um	iSgl	12 22 54.3
		Ud	iSgl	12 23 38.6
		De	eSgl	12 24 00
			iSg2	12 24 11.9
		Western USSR.		
		Explosion.		
"	9	Um	iP	15 25 25.1
		Ud	iP	15 25 51.1
		South of Japan (h = 55 km).		
"	9	Up	iSgl	15 41 39.9
		Sk	iPgl	15 39 31.1
			iSn	15 39 50.2
			iSgl	15 39 57.6
		Um	iSgl	15 41 49.4
		Ud	iSgl	15 40 48.2
			iSg2	15 40 55.2
		Near west coast of Norway, 62.7°N, 8.6°E.		
		Origin time = 15 38 57.		
"	9	Ud	iP	21 17 31.1
"	9	Up	iP	23 01 56.6 D
				micr sec
			P Z'	0.1 0.8
		Ki	iP	23 01 23.3 D
				micr sec
			P Z'	0.1 0.8
		Sk	iP	23 01 53.1
		Um	iP	23 01 37.7 D
		Ud	iP	23 02 03.8 D
		De	iP	23 02 16.4 D
		Bonin Islands (h = 90 km).		
		m = 5.7 (Up,Ki).		
"	10	Ki	iP	00 18 27.9
		Sk	iP	00 18 46.2
		Um	iP	00 18 18.7
		Ud	iP	00 18 37.2
		De	iP	00 18 35.1
		Kashmir (h = 60 km).		
"	10	Ud	iPKPl	00 37 16.3
		De	iPKPl	00 37 27.9 D
"	10	Ud	iPKPl	01 28 08.9
		(cont.)		

1973				
Apr.	10	(cont.)		
		De	ePKPl	01 28 17
		Tonga Islands (h = 270 km).		
"	10	De	i(P)	01 42 28.4
"	10	Ud	iP	02 21 57.5
		De	iP	02 21 25.8
		Crete (h = N).		
"	10	Ud	iPKPl	07 54 04.4
		De	iPKPl	07 54 15.5 D
		Fiji Islands (h = 550 km).		
"	10	De	e(Pn)	08 32 31
			e(Pgl)	08 32 39
			e(Sgl)	08 33 31
		From the same focal area as the following event.		
		Explosion.		
"	10	Up	iPn	09 03 22.2
			iSn	09 04 09.3
			iSgl	09 04 24.8
		Sk	e(Sgl)	09 06 52
		Um	iSgl	09 06 14.3
		Ud	iPn	09 03 40.6
			iSn	09 04 44.8
			iSgl	09 05 04.6
		De	iPn	09 03 17.6
			iPgl	09 03 26.6
			iSgl	09 04 19.0
			iRg	09 04 36.5
		Off coast of Latvia.		
		Origin time = 09 02 18.		
		Explosion.		
"	10	Up	iSn	10 25 32.2
			iSgl	10 25 44.9
		Ki	iSn	10 27 32.9
			eSgl	10 28 25
		Um	iSgl	10 26 19.8
		Ud	iSgl	10 26 51.0
		De	eSgl	10 27 16
		Esthonia, 59.7°N, 24.2°E.		
		Origin time = 10 24 00.		
		Explosion.		
"	10	Up	eSgl	10 45 12
		Sk	iSgl	10 44 32.7
		Ud	iSgl	10 44 05.2
		De	eSgl	10 44 51
		Near west coast of Norway, 59.9°N, 5.9°E.		
		Origin time = 10 42 02.		
		By combination with Bergen and Kongsberg readings.		

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

1973					
Apr.	10	Ud	i(Sgl)	13 21 06.8	
"	10	De	i(Rg)	13 22 28.5	
"	10	De	i(Sgl)	13 36 01.5	
"	10	Ud	iP	13 37 37.1	
"	10	De	i(Sgl)	15 05 43.6	
"	10	Ud	i(P)	15 07 34.1	
"	10	Ud	i(P)	15 16 20.5	
"	10	Ud	i(P)	15 23 34.9	
"	10	Ud	iP	15 52 42.5	
"	10	Ud	iP	16 08 26.0	
			i	16 08 37.4	
"	10	Up	iP	18 15 21.2 C	
		Ki	iP	18 15 28.9	
		Um	iP	18 15 19.9	
		Ud	iP	18 15 37.8 C	
		De	iP	18 15 34.7	
		Afghanistan-USSR (h = 130 km).			
"	10	Up	iP	19 11 31.0	
		Ud	iP	19 11 31.5	
		Aleutian Islands (h = 220 km).			
"	10	Up	iP	19 16 51.7	
		Ki	iP	19 16 52.2	
		Um	iP	19 16 48.0	
		Ud	iP	19 17 03.9	
		Andaman Islands (h = N).			
"	10	Up	iP	20 09 58.1	
		Ki	iP	20 09 48.4 C	
				micr sec	
			P Z'	0.1 0.8	
		Um	iPP	20 14 05.3	
		Ud	iP	20 10 06.6 C	
			i(PP)	20 14 06.1	
			iPP	20 14 25.5	
		Sumba Island (h = N).			
"	10	Ud	iP	21 16 37.1 C	
"	11	Up	iP	04 38 25.6	
		Ki	iP	04 38 08.0	
			ipP	04 38 14.3	
				micr sec	
			pP Z'	0.2 1.5	
		Um	iP	04 38 14.0	
		(cont.)			

1973					
Apr.	11	(cont.)			
		Um	ipP	04 38 19.7	
		Ud	iP	04 38 33.6	
			ipP	04 38 39.7	
		Panay.			
		h = 20 km (Ki,Um,Ud).			
"	11	Up	i(Pn)	05 02 14.1	
			iPn	05 02 16.2	
			iPgl	05 02 19.5	
			iSn	05 02 45.6	
			i	05 02 50.0	
			iSgl	05 02 51.7	
				micr sec	
			Pgl Z'	0.1 0.5	
			Sgl Z'	0.3 0.6	
		Ki	ePn	05 03 55	
			iSn	05 05 41.4	
			i	05 06 30.8	
			iSgl	05 06 35.0	
				micr sec	
			Sgl Z'	0.1 0.8	
		Sk	ePn	05 02 47	
			i	05 02 57.2	
			iPgl	05 03 02.3	
			iSn	05 03 40.5	
			i	05 03 49.5	
			iSgl	05 04 04.8	
			i	05 04 07.3	
			i	05 04 09.1	
		Um	iPgl	05 03 21.6	
			i	05 04 16.7	
			i	05 04 31.9	
			i	05 04 37.5	
			iSgl	05 04 39.3	
		Ud	iPgl	05 01 58.7 D	
			iSgl	05 02 15.8	
		De	iPn	05 02 15.5	
			iPgl	05 02 18.9	
			i	05 02 22.9	
			iSn	05 02 44.6	
			iSgl	05 02 51.4	
		Lake Vener region, Sweden, 58.8°N, 13.4°E.			
		Origin time = 05 01 37.			
		Felt.			
"	11	Ki	eP	05 21 01	
		Alaska (h = 15 km).			
"	11	Up		micr sec	
			Mx N	1.3 24	
		Ki	iP	09 36 35.2	
				micr sec	
			Mx E	1.2 18	
			Mx N	1.0 19	
			Mx Z	1.3 19	
		(cont.)			

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

1973
Apr. 11 (cont.)
Ud i 09 37 22.9
Halmahera (h = N).
M = 5.5 (Up,Ki).

" 11 Up iP 10 51 52.2
Ud eP 10 51 54
Aleutian Islands (h = 45 km).

" 11 Ud iP 13 03 54.2
Mexico (h = N).

" 11 Up eP 14 48 36
Ud iP 14 48 36.6
i 14 48 44.5
Greece.

" 11 Up iPKP 19 53 01.3
i 19 53 11.4
Sk ePKP 19 52 56
Um iPKP 19 52 50.3
Ud iPKP 19 53 02.8

" 11 Um iP 20 04 43.7
Ud iP 20 05 11.8
Japan (h = 60 km).

" 12 Ki iPKP 02 20 05.4
New Hebrides Islands
(h = 55 km).

" 12 Ki eP 02 42 01
Ud iP 02 42 53.2
Kurile Islands (h = 60 km).

" 12 Ki iP 04 52 02.8
micr sec
Mx E 0.9 18
Mx N 0.7 17
Ud iP 04 52 46.3
Ryukyu Islands (h = 35 km).

" 12 Up iP 05 14 17.1
iPcP 05 14 40.7
micr sec
P Z' 0.1 1.0
Ki iP 05 13 35.0
micr sec
P Z' 0.1 0.9
Sk iP 05 14 09.9
Um iP 05 13 53.0
Ud iP 05 14 24.8
De iP 05 14 41.1
Japan (h = 70 km).
m = 5.8 (Up,Ki).

" 12 Ud iP 07 57 23.3

1973
Apr. 12 Up iP 08 38 32.8
micr sec
P Z' 0.1 0.9
Ki iP 08 38 42.1 C
Sk iP 08 38 59.2
Um iP 08 38 31.6 C
Ud iP 08 38 49.6 C
De iP 08 38 45.9 C
Hindu Kush (h = 190 km).

" 12 Up iP 12 15 28.5
Ki iP 12 15 29.9
Sk eP 12 15 45
Um iP 12 15 25.1
Ud iP 12 15 40.2
De iP 12 15 37.8
Nicobar Islands (h = 230 km).

" 12 Up eP 12 27 53
Ki iP 12 27 00.7
Ud iP 12 27 56.7
Kurile Islands (h = 55 km).

" 12 Up iSgl 12 51 32.6
Sk eSgl 12 51 33
Ud iSgl 12 50 32.0
De iSn 12 50 24.7
i 12 50 54.1
South Norway,
58.5°N, 6.9°E.
Origin time = 12 48 30.
By combination with Bergen
and Kongsberg readings.

" 12 Ki iPKP 12 55 52.5
i 12 56 06.9
Sk iPKP 12 56 06.3
Um iPKP 12 56 02.9
i 12 56 16.6
Ud iPKP 12 56 13.7
i 12 56 27.5
The second phase (Ki,Um,Ud)
arrives in average 13.9 sec
after PKP.

" 12 Up iP 13 59 49.6
iS 14 08 21
micr sec
P Z' 0.3 1.0
Mx E 11 23
Mx N 22 21
Mx Z 36 22
Ki iP 13 58 59.5
iS 14 06 47
micr sec
P Z' 0.2 1.4
(cont.)

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

1973 Apr.	12	(cont.)				
		Ki			micr	sec
			Mx	E	15	20
			Mx	N	18	22
			Mx	Z	17	22
		Sk	iP		13 59	35.3
		Um	iP		13 59	22.2
		Ud	iP		13 59	54.0
		De	iP		14 00	15.1
		Kurile Islands (h = 50 km).				
		m = 6.2, M = 6.4 (Up,Ki).				
"	12	Ud	iPKP1		15 19	40.3
		De	iPKP1		15 19	51.5
"	12	Ud	iP		18 03	17.1
		Greece.				
"	12	Up	iSg1		19 00	27.1
		Sk	iSg1		18 59	03.1
			iSg2		18 59	08.2
		Um	i		18 59	01.5
			iSg1		19 00	46.3
			iSg2		19 00	53.7
		Ud	iSg1		18 59	29.9
		De	iSg2		19 00	50.5
		Near west coast of Norway, 61.7°N, 5.1°E.				
		Origin time = 18 57 05.				
		By combination with Bergen and Kongsberg readings.				
"	13	Ki	eP		00 23	38
		Mindanao (h = N).				
"	13	Um	iP		01 15	44.9
		Ud	iP		01 16	09.7
"	13	Ki	iP		04 16	58.8
		Ud	iP		04 17	24.7
		Mindanao (h = 30 km).				
"	13	Up	iP		08 16	54.1
					micr	sec
			P	Z'	0.1	0.8
			Mx	E	0.6	12
			Mx	N	0.5	10
			Mx	Z	0.9	10
		Ki	iP		08 18	11.8
					micr	sec
			P	Z'	0.1	1.2
		Sk	iP		08 17	33.1
		Um	iP		08 17	36.5
		Ud	iP		08 17	00.0
		De	eP		08 16	22
		Italy (h = 45 km).				
		m = 5.4 (Up,Ki).				

1973 Apr.	13	Ud	iP		11 28	11.5
"	13	Um	iP		12 34	40.0
		Ud	iP		12 34	54.3
"	13	Ki	iPn		14 19	43.5
			iSn		14 20	42.0
			i		14 20	55.7
			iS*		14 21	03.4
		Northwest USSR.				
		Origin time = 14 18 26.				
		Explosion.				
"	13	Up	iP		14 23	03.5
		Ki	iP		14 23	48.9
					micr	sec
			P	Z'	0.1	1.1
		Sk	iP		14 23	36.1
		Um	iP		14 23	22.9
		Ud	iP		14 23	12.7
		Ethiopia (h = N).				
"	13	Um	i(P)		14 55	41.5
"	13	Ud	iP		15 29	16.4
"	13	Ud	iP		15 52	53.7
"	13	Um	iSg1		16 10	20.4
		Western USSR.				
		Explosion.				
"	13	Ud	iP		18 39	48.2
"	13	Up	iP		19 26	45.7
		Ki	iP		19 25	52.1 C
		Um	iP		19 26	17.8
		Ud	iP		19 26	49.3 C
			i		19 27	37.9
		Kamchatka (h = 50 km).				
"	13	Up	iPKP		20 12	16.0 C
		Ki	iX		20 12	11.5
		Um	iPKP		20 12	10.3
			iX		20 12	17.4
		Ud	iPKP		20 12	20.2 C
			iPP		20 15	44.6
		De	iPKP1		20 12	29.5 C
		Fiji Islands (h = 670 km).				
"	13	Up	iPg1		20 40	16.5
			iSg2		20 40	28.0
			iRg		20 40	31.2
		Sk	eSg1		20 41	45
		Um	iSg1		20 41	57.7
		Ud	iPg1		20 40	26.8
			iSg1		20 40	45.6
		(cont.)				

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

1973 Apr.	13	(cont.)				
		De	eSgl		20 42 13	
		Central Sweden, near 60°1/2 N, 16°E. Origin time = 20 40 03.				
"	13	Ud	iP		21 15 13.8	
"	13	Up	iPKP		22 55 53.6	C
		Um	iPKP		22 56 00.4	
		Ud	iPKP		22 55 50.7	
		Chile (h = 10 km).				
"	14	Sk	iP		03 16 36.7	
		Ud	iP		03 16 04.4	
		Crete (h = 35 km).				
"	14	Ud	iP		07 11 39.5	C
"	14	Up	iP1		08 46 44.9	
			iP2		08 46 47.7	
			ipP		08 46 52.5	
			iS		08 57 15	
					micr	sec
			P2	Z'	0.1	0.9
			pP	Z'	0.2	1.0
			Mx	E	15	26
			Mx	N	14	25
			Mx	Z	29	25
		Ki	iP1		08 46 41.0	
			iP2		08 46 44.3	
			iS		08 57 09	
					micr	sec
			P1	Z'	0.1	1.0
			P2	Z'	0.2	1.4
			Mx	E	26	18
			Mx	N	20	18
			Mx	Z	22	18
		Sk	iP2		08 46 33.4	
		Um	iP1		08 46 46.5	
			iP2		08 46 49.5	
			iS		08 57 19	
		Ud	iP1		08 46 34.8	
			iP2		08 46 37.8	
			ipP		08 46 41.7	
		De	iP1		08 46 39.7	
			iP2		08 46 43.0	
			ipP		08 46 47.0	
		Costa Rica. h = 25 km (Up,Ud,De). m = 6.1, M = 6.6 (Up,Ki). In average, P2 - P1 = 3.1 sec.				
"	14	Up	iP		09 07 12.9	
		Um	iP		09 07 14.9	
		Ud	iP		09 07 02.2	
		Costa Rica (h = N).				
1973 Apr.	14	Ud	iP		11 00 32.5	
			i		11 00 42.1	
"	14	Up	ePKP1		15 26 50	
		Um	iPKP1		15 26 38.6	
		Ud	iPKP1		15 26 51.8	
		De	ePKP2		15 27 15	
		Kermadec Islands (h = 280 km)				
"	14	Ki	eP		16 30 35	
					micr	sec
			Mx	E	0.8	17
			Mx	Z	0.9	17
		Um	iP		16 30 42.3	
		Ud	eP		16 31 01	
			i		16 31 39.4	
		Mindanao (h = 25 km).				
"	14	Ki	iP		19 57 15.2	
		(Kirghiz-Sinkiang).				
"	14	Up	iP		19 57 25.5	
		Ki	iP		19 57 21.2	
		Sk	iP		19 57 46.0	
		Ud	iP		19 57 41.6	
		Kirghiz-Sinkiang (h = 45 km).				
"	14	Um	iP		23 48 31.0	
		Japan (h = 100 km).				
"	15	Um	iP		00 22 34.7	
"	15	Um	ePKP		03 54 12	
			i		03 54 23.0	
		New Guinea (h = 110 km).				
"	15	Up	iPKP		06 29 00.6	
			i		06 29 10.7	
			iSKP1		06 31 49.2	
					micr	sec
			PKP	Z'	0.1	0.9
			SKP1	Z'	0.1	1.0
		Ki	iX		06 28 53.3	
					micr	sec
			X	Z'	0.1	1.1
		Sk	i(PKP)		06 28 54.2	
			iSKP1		06 31 42.1	
		Um	i(PKP)		06 28 48.4	
			iPKP		06 28 55.9	
			iX		06 29 02.5	
			iSKP1		06 31 37.8	
		Ud	iPKP		06 29 02.0	
			iSKP1		06 31 50.8	
		De	iSKP1		06 31 59.8	
		Fiji Islands (h = 610 km).				
"	15	Um	iP		08 12 21.7	C
		Ud	iP		08 12 42.3	C
		Mindanao (h = 610 km).				

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

1973
Apr. 15 Up i 11 01 17.5
iSgl 11 01 59.4
Ki iSn 10 58 48.6
iS* 10 59 10.2
Sk iSgl 11 01 36.1
Um iSn 10 59 27.1
i 10 59 43.3
iSgl 11 00 00.6
Ud eSgl 11 02 29
De iSgl 11 04 03.4
Northwest USSR,
67.5°N, 33.7°E.
Origin time = 10 56 36.
Explosion.

" 15 Up iP 13 24 27.0
micr sec
P Z' 0.1 1.3
Um iP 13 24 49.4
Ud iP 13 24 31.7
Lake Tanganyika (h = 35 km).

" 15 Up iP 19 29 35.2
Aleutian Islands (h = 80 km).

" 15 Um iP 20 42 15.1
Mariana Islands (h = 210 km).

" 15 Ud iP 23 12 08.9
Greece.

" 16 Up iP 00 11 06.5
i(PP) 00 11 51.7
Ki iP 00 12 14.7
Sk eP 00 11 46
Um iP 00 11 44.8
ipP 00 11 54.3
Ud iP 00 11 15.2
De iP 00 10 42.1
iPP 00 11 04.9
Crete.
h = 40 km (Um).

" 16 Um iP 03 59 45.3 C
Japan (h = 50 km).

" 16 Um iP 04 12 57.2
Japan (h = 55 km).

" 16 Um iP 04 47 38.0

" 16 Ud iP 08 38 10.7
Japan (h = 55 km).

" 16 Ud iP 14 33 29.8
Greece (h = N).

1973
Apr. 16 Up iP 14 59 00.2 C
iPcP 14 59 23.6
micr sec
P Z' 0.4 1.0
Ki iP 14 58 07.0 C
micr sec
P Z' 0.1 0.8
Sk iP 14 58 40.2
Um iP 14 58 33.4 C
Ud eP 14 59 01 C
De iP 14 59 22.9 C
Aleutian Islands (h = 55 km).
m = 6.2 (Up,Ki).

" 16 Um iP 16 51 26.3

" 16 Um iP 20 34 48.3
Japan (h = 50 km).

" 17 Up iP 03 45 37.8
Um iP 03 45 39.2
Ud iP 03 45 53.9
Afghanistan (h = 40 km).

" 17 Up iSgl 06 22 13.3
Ki iPgl 06 18 01.4
iSg2 06 18 05.4
micr sec
Pgl Z' 1.2 0.3
Sg2 Z' 1.3 0.3
Sk i 06 20 28.8
iSgl 06 20 47.1
Um iPgl 06 19 11.6
iSn 06 19 50.3
i 06 19 54.6
iSgl 06 20 07.1
iSg2 06 20 10.8
Ud iS* 06 22 16.2
iSgl 06 22 23.5
De eSgl 06 24 07
Lapland, Sweden,
67.9°N, 20.0°E.
Origin time = 06 17 59.
Felt at Kiruna, especially
20 km NW of the densely
populated area.

" 17 Up iSgl 12 08 50.5
Ki eSgl 12 10 43
Um iSgl 12 09 06.6
Ud iSgl 12 09 50.8
De eSgl 12 10 18
Western USSR.
Explosion.

" 17 Up iP 12 15 21.8
Ud iP 12 15 23.0

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

1973
Apr. 17 Up iSgl 12 24 51.8
Um iSgl 12 25 22.5
Ud iSn 12 25 25.0
iSgl 12 25 54.0
De eSgl 12 26 16
Esthonia.
Explosion.

" 17 Up iP2 12 48 49.3 C
iPP 12 53 16.5

		micr	sec
P2	Z'	0.1	1.0
Mx	E	14	25
Mx	N	39	25
Mx	Z	15	21

Ki iP1 12 48 24.3
iP2 12 48 29.8

		micr	sec
P1	Z'	0.1	1.3
P2	Z'	0.4	1.6
Mx	E	13	20
Mx	N	16	20
Mx	Z	13	20

Um iP1 12 48 29.2
iP2 12 48 36.6
iPP 12 52 56.0
Ud iP1 12 48 48.8
iP2 12 48 56.1
iPP 12 53 27.6
De iPP 12 53 37.6
New Guinea (h = N).
m = 6.6, M = 6.8 (Up,Ki).
If P2 is interpreted as pP, the focal depth would be 25 km.

" 17 Up iSgl 13 07 41.9
Ki iSgl 13 10 32.8
Sk iSgl 13 09 40.7
Um iSgl 13 08 32.3
De iSgl 13 09 11.9
Esthonia, 59.2°N, 23.8°E.
Origin time = 13 06 00.
Explosion.

" 17 Ki iP 14 34 56.7
Ud iP 14 35 22.2
Mindanao (h = 70 km).

" 17 Up iP 22 20 25.5 D

		micr	sec
P	Z'	0.1	1.0
Mx	E	2.4	18
Mx	N	3.8	21
Mx	Z	4.3	21

Ki iP 22 19 33.6
(cont.)

1973
Apr. 17 (cont.)
Ki

		micr	sec
Mx	E	2.6	20
Mx	N	3.0	22
Mx	Z	2.4	20

Sk iPcP 22 20 57.7
Um iP 22 19 58.3 D
Ud iP 22 20 29.8 D
iPcP 22 21 00.7
De iP 22 20 50.5 D
Kurile Islands (h = 40 km).
M = 5.6 (Up,Ki).

" 18 Ki iP 03 20 53.2
Um iP 03 20 39.2
Ud iP 03 20 09.2
Atlantic Ocean (h = N).

" 18 Ki iPgl 06 23 59.0
i 06 24 22.8
iSgl 06 24 37.1
Sk iS* 06 24 40.1
iSgl 06 24 44.0
Um iPgl 06 24 15.8
iSn 06 24 50.5
iSgl 06 25 04.5
Nordland, Norway,
66.4°N, 14.3°E.
Origin time = 06 23 10.
Explosion.

" 18 De iP 07 42 02.2

" 18 De iP 14 43 15.3

" 18 Um iSgl 14 44 37.8
Western USSR.
Explosion.

" 18 Um iP 17 02 31.7

" 18 De ePKPl 18 30 33
Fiji Islands (h = 620 km).

" 18 Up iP 23 08 23.3

		micr	sec
P	Z'	0.1	1.2

Ki iP 23 08 04.4
Um iP 23 08 11.0
Ud iP 23 08 31.4
Samar (h = 55 km).

" 19 Ki iPKP 01 51 27.0

		micr	sec
PKP	Z'	0.1	1.3

Um iPKP 01 51 35.1
Ud iPKP 01 51 44.5
Loyalty Islands (h = 35 km).

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

1973					
Apr.	19	Ud	iPKP1	03 35 36.0	
		De	iPKP1	03 35 46.8	D
		Fiji Islands (h = 560 km).			
"	19	Up	iP	04 39 49.4	C
			iPn	04 40 54.3	
		Ki	iP	04 39 34.2	C
				micr sec	
			P Z'	0.2 0.6	
		Sk	iP	04 40 05.3	C
		Um	iP	04 39 34.1	
			iPn	04 40 16.9	
		Ud	iP	04 40 05.9	C
		De	eP	04 40 13	
		Kazakh SSR.			
		Underground explosion.			
"	19	Ud	iP	06 05 44.0	
		Dodecanese Islands			
		(h = 45 km).			
"	19	Ud	iPKP	06 40 29.5	
		Loyalty Islands (h = 40 km).			
"	19	Up	iRg	07 11 20.5	
		Ud	iSgl	07 11 16.3	
			iRg	07 11 20.2	
		Central Sweden.			
"	19	Ud	eP	10 58 25	
		De	iP	10 58 09.1	
"	19	Up	iP	11 31 38.2	
		Ud	iP	11 31 45.9	
		De	iP	11 31 13.6	
		Dodecanese Islands.			
"	19	Up	iS*	12 29 48.2	
			iSgl	12 29 51.8	
		Um	iSgl	12 30 14.6	
		Ud	iSgl	12 30 54.2	
		De	eSgl	12 31 24	
		Western USSR.			
		Explosion.			
"	19	Up	iSgl	12 52 25.3	
		Um	eSgl	12 52 41	
		Ud	iSgl	12 53 27.5	
		De	eSgl	12 53 58	
		Western USSR.			
		Explosion.			
"	19	Up	eP	17 45 38	
		Ki	eP	17 47 02	
				micr sec	
			P Z'	0.1 1.0	
		(cont.)			

1973				
Apr.	19	(cont.)		
		Sk	eP	17 46 18
		Ud	eP	17 45 34
		Italy (h = 5 km).		
"	19	Ud	iP	21 44 52.3
		Japan (h = 20 km).		
"	19	Up	eP	22 18 52
		Ud	iP	22 19 01.3
		De	eP	22 18 30
		Aegean Sea (h = 15 km).		
"	19	Up	iP	23 12 06.2
		Ki	eP	23 12 43
		Um	iP	23 12 20.2
		Ud	iP	23 12 21.0
		De	eP	23 12 07
		Iran (h = N).		
"	20	Ud	iPKP	00 52 24.7
		De	ePKP	00 52 30
		Samoa Islands (h = 50 km).		
"	20	Ki	iP	02 31 32.2
		Ud	iP	02 31 40.0 D
		De	eP	02 31 38
"	20	Ud	iP	06 26 00.4
		Crete.		
"	20	Ud	iP	07 28 36.1
"	20	Up	iPKP1	08 44 04.4
		Ud	iPKP1	08 44 06.8
		De	ePKP1	08 44 17
"	20	Up	eP	09 32 02
		Ud	iP	09 31 50.3
		Guatemala (h = 90 km).		
"	20	Ki	i(Sgl)	10 33 37.4
"	20	Up	iSgl	10 49 26.9
		Ki	ePn	10 45 11
			iSn	10 46 08.4
			iSgl	10 46 29.0
		Sk	eSgl	10 48 55
		Um	iSn	10 46 49.8
			i	10 47 04.8
			iSgl	10 47 24.2
		Ud	iSgl	10 49 57.6
		De	eSgl	10 51 26
		Northwest USSR,		
		67.8°N, 33.7°E.		
		Origin time = 10 43 54.		
		Explosion.		

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

1973 Apr.	20	Up	iSn	12 04 20.8	
			iS*	12 04 30.6	
			iSgl	12 04 34.3	
		Ki	eSgl	12 07 07	
		Sk	eSg2	12 06 37	
		Um	iSgl	12 05 08.2	
		Ud	iSn	12 05 08.4	
			eSgl	12 05 35	
		De	eSg2	12 06 06	
		Esthonia, 59.4°N, 25.3°E.			
		Origin time = 12 02 30.			
		Explosion.			
"	20	Ki	eSg2	12 14 14	
		Um	iSgl	12 12 22.1	
		Ud	iSgl	12 13 05.2	
		De	iSgl	12 13 33.8	
		Western USSR, probably			
		from the same focal area as			
		the following event.			
		Origin time = 12 09 21.			
		Explosion.			
"	20	Up	iSgl	12 15 44.9	
		Ki	eSgl	12 17 42	
		Sk	iSg2	12 17 36.2	
		Um	iSn	12 15 32.6	
			iSgl	12 16 01.9	
		Ud	iSgl	12 16 45.3	
		De	eSgl	12 17 11	
		Western USSR,			
		59.3°N, 27.9°E.			
		Origin time = 12 13 00.			
		Explosion.			
"	20	Up	iSn	13 02 50.3	
			iSgl	13 03 03.9	
		Ki	eS*	13 05 28	
			iSgl	13 05 34.9	
		Sk	iSgl	13 04 53.1	
		Um	iSgl	13 03 38.0	
		Ud	iSn	13 03 38.6	
			iSgl	13 04 05.5	
		De	iSgl	13 04 29.9	
		Esthonia, 59.4°N, 25.3°E.			
		Origin time = 13 01 00.			
		Explosion.			
"	20	Up	iPn	14 57 31.9	
			iSn	14 58 11.9	
			iSgl	14 58 22.1	
			iSg2	14 58 27.2	
		Ki	eSgl	15 02 22	
		Sk	iSgl	15 00 41.1	
		Um	iSg2	15 00 21.7	
		Ud	iPn	14 57 49.2	
			iPgl	14 58 02.9	
		(cont.)			
1973 Apr.	20	(cont.)			
		Ud	iSgl	14 59 09.8	
		De	iPn	14 57 31.9	
			iPgl	14 57 40.2	
			iSgl	14 58 31.9	
		Off coast of Latvia,			
		56.7°N, 20.7°E.			
		Origin time = 14 56 33.			
		Explosion.			
"	20	Um	iP	15 32 03.5	
"	20	Up	iSgl	16 03 03.1	
		Ki	iSgl	16 05 47.0	
		Sk	iSgl	16 04 58.7	
		Um	iSgl	16 03 45.3	
		Ud	iSn	16 03 45.4	
			iSgl	16 04 06.5	
		De	iSgl	16 04 35.9	
			i	16 04 48.1	
		Esthonia, 59.7°N, 23.4°E.			
		Origin time = 16 01 30.			
		Explosion.			
"	20	Up	iSgl	16 37 56.4	
		Ud	iSgl	16 38 44.3	
		De	iSgl	16 38 04.2	
		Off coast of Latvia,			
		56.7°N, 20.7°E.			
		Origin time = 16 36 06.			
		Explosion.			
"	20	Up	iSgl	16 46 38.5	
		Ud	iSgl	16 47 26.4	
		De	iSgl	16 46 47.6	
		Off coast of Latvia,			
		56.7°N, 20.7°E.			
		Origin time = 16 44 49.			
		Explosion.			
"	20	Up	iSgl	17 00 10.7	
		Ud	iSgl	17 00 58.9	
		Off coast of Latvia,			
		56.7°N, 20.7°E.			
		Origin time = 16 58 22.			
		Explosion.			
"	20	Ud	iP	19 14 17.1	
"	20	Ud	iP	21 20 41.5	
"	21	Up	iP	04 36 49.6	
		Sk	eP	04 37 15	
		Um	iP	04 36 46.4	
		Ud	iP	04 37 04.9	
			i	04 37 06.2	
		De	iP	04 37 03.8	
		Afghanistan-USSR (h = 90 km).			

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

1973 Apr.	21	Up	iPKPl		05 29 36.3	C
			ipPKPl		05 29 47.5	
					micr	sec
			PKPl	Z'	0.1	0.8
		Ki	iPKP		05 29 18.6	
		Sk	iPKP		05 29 27.8	
			iPKPl		05 29 31.3	C
		Um	iPKP		05 29 24.0	
			iPKPl		05 29 26.2	C
			ipPKPl		05 29 37.8	
		Ud	iPKP		05 29 31.5	
			iPKPl		05 29 38.1	C
		De	iPKPl		05 29 45.7	C
		South of Kermadec Islands.				
		h = 40 km (Up,Um).				
"	21	Ki	ePgl		10 11 28	
			iSn		10 12 12.3	
			iS*		10 12 31.1	
		Um	eSn		10 13 02	
			eSgl		10 13 36	
		Northwest USSR.				
		Explosion.				
"	21	Ki	iPn		12 45 49.3	
			iSn		12 46 38.1	
			iSgl		12 46 55.9	
		Um	iSgl		12 48 21.8	
		Northwest USSR-Norway border region, 69.3°N, 31.0°E.				
		Origin time = 12 44 46.				
		Explosion.				
"	21	Ki	iP		13 32 23.0	
		Um	iP		13 32 16.6	
		Ud	iP		13 32 39.0	
		Tien-Shan.				
"	21	Up	iPKPl		14 30 06.5	D
			ipPKPl		14 30 22.6	
					micr	sec
			PKPl	Z'	0.1	0.7
			pPKPl	Z'	0.1	0.9
			Mx	N	0.8	23
			Mx	Z	0.8	22
		Ki	iPKP		14 29 46.7	
		Sk	iPKPl		14 30 01.6	D
			ipPKPl		14 30 16.5	
		Um	iPKP		14 29 55.3	
			iPKPl		14 29 56.6	D
			ipPKPl		14 30 11.9	
			iPP		14 33 33.5	
		Ud	iPKPl		14 30 08.5	D
			ipPKPl		14 30 23.4	
		De	ePKPl		14 30 18	
			ipPKPl		14 30 32.8	
		South of Kermadec Islands.				
		h = 50 km (Up,Sk,Um,Ud,De).				
1973 Apr.	21	Um	iPKPl		15 02 07.4	
		Ud	iPKPl		15 02 19.6	
"	21	Um	iP		15 16 13.2	
		Ud	iP		15 16 44.5	
		Japan (h = N).				
"	21	Um	iPKPl		15 23 15.0	
		Ud	ePKPl		15 23 27	
"	21	Up	iPKPl		17 25 02.9	
			i(pPKPl)		17 25 16.6	
		Ki	ePKP		17 24 45	
		Sk	iPKPl		17 24 52.9	
		Um	iPKPl		17 24 47.7	
		Ud	iPKPl		17 25 00.8	
			i		17 25 05.6	
		De	ePKPl		17 25 14	
		South of Kermadec Islands.				
		Origin time = 17 05 13.				
"	21	Ki	iPKP		20 49 30.2	
		Sk	iPKP		20 49 41.7	
		Um	iPKP		20 49 36.5	D
		Ud	ePKP		20 49 46	
		De	ePKP		20 49 55	
		New Hebrides Islands (h = N).				
"	21	Ud	iP		22 22 33.5	
		Kamchatka (h = N).				
"	22	Ki	epP		01 13 40	
		Um	ipP		01 13 42.4	
		Ud	ipP		01 13 25.9	
		Colombia (h = 90 km).				
"	22	Ud	iPKP		02 06 25.8	
		South Sandwich Islands (h = 100 km).				
"	22	Ki	eP		03 49 39	
		Um	iP		03 50 07.9	
		Alaska (h = 15 km).				
"	22	Up	iP		05 56 56.5	
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		05 56 40.4	
					micr	sec
			Mx	E	0.5	13
			Mx	N	1.0	19
			Mx	Z	0.4	13
		Sk	iP		05 57 06.9	
		Um	iP		05 56 44.3	
		Ud	iP		05 57 08.8	
		De	iP		05 57 14.8	
		Yunnan, China (h = N).				

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

1973 Apr.	22	Up	iP	07 35 55.2	
		Ki	eP	07 35 38	
		Sk	eP	07 36 06	
		Um	iP	07 35 44.0	
		Ud	iP	07 36 08.5	
		Yunnan, China.			
		Origin time = 07 25 20.			
"	22	Ki	eP	08 20 41	
		Um	iP	08 20 58.0	
		Ud	iP	08 21 27.9	
		De	eP	08 21 46	
		Japan (h = N).			
"	22	Up	iPKP1	10 42 01.9	
		Sk	iPKP1	10 41 57.9	
		Um	iPKP1	10 41 52.0	
		Ud	iPKP1	10 42 03.9	
		South of Kermadec Islands.			
		Origin time = 10 22 14.			
"	22	Up	iP	12 00 47.3	
		Ki	iP	12 00 15.4	
		Sk	eP	12 00 47	
		Um	iP	12 00 28.7	
		Ud	iP	12 00 55.6	
		Ryukyu Islands (h = 50 km).			
"	22	Up	iP	13 45 04.5	
		Ki	iP	13 46 13.9	
		Sk	iP	13 45 43.4	
		Um	iP	13 45 38.4	
		Ud	iP	13 45 11.6	
		De	iP	13 44 39.7	
		Crete (h = 55 km).			
"	22	Up	iPKP2	20 50 34.1	
		Ki	ePKP1	20 50 02	
		Um	iPKP1	20 50 07.3	
		Ud	iPKP2	20 50 39.0	
		New Zealand (h = 15 km).			
"	22	Um	iP	21 06 37.7	
		Ud	iP	21 06 41.0	
"	22	Um	iP	21 31 41.1	
		Ud	eP	21 32 06	
"	22	Up	iP	21 36 54.7	
		Ki	iP	21 37 37.1	
		Sk	iP	21 37 30.7	
		Um	iP	21 37 09.3	
		Ud	iP	21 37 09.8	
			i	21 37 18.2	
		De	iP	21 36 51.6	
		Iran (h = 55 km).			

1973 Apr.	22	Up	iP	21 53 12.5	
				micr	sec
			P Z'	0.1	1.1
		Ki	iP	21 52 19.6	
		Um	iP	21 52 46.2	
		Ud	iP	21 53 13.8	
		Aleutian Islands (h = 55 km).			
"	22	Up	eP	21 55 54	
		Ud	eP	21 55 55	
		Aleutian Islands (h = 45 km).			
"	22	Up	iRg	22 07 25.3	
		Ud	iSgl	22 07 06.4	
			iRg	22 07 09.8	
		Central Sweden.			
"	22	Ki	iP	22 14 17.9	
		Um	iP	22 13 52.1	
		Uganda (h = N).			
"	22	Up	iP	22 26 10.9	
		Turkey (h = 40 km).			
"	22	Um	iP	22 53 42.4	
		Ud	iP	22 54 00.6	
"	22	Up	iP	22 56 10.9	
		Ud	iP	22 56 11.6	
		Aleutian Islands (h = 40 km).			
"	23	Um	iP	00 06 13.7	
		Ud	iP	00 06 21.5	
"	23	Ki	iP	00 15 57.5	
		Sk	eP	00 16 18	
		Um	iP	00 15 49.5	
		Ud	iP	00 16 10.2	
		Pamir.			
"	23	Ki	eP	03 00 45	
		Um	iP	03 00 53.8	
		Ud	iP	03 00 42.3	
		Iceland (h = 5 km).			
"	23	Ud	iP	08 34 11.5	
"	23	Up	iSgl	13 10 50.4	
		Um	iSgl	13 11 07.4	
		Ud	eSgl	13 11 53	
		Western USSR.			
		Explosion.			
"	23	Up	iP	13 41 00.8	
		Ki	eP	13 40 37	
		Sk	eP	13 41 05	
		Um	iP	13 40 46.1	
		(cont.)			

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

1973 Apr.	23	(cont.)				
		Ud	iP		13 41 11.2	
		Formosa (h = 40 km).				
"	23	Ud	iP		13 42 23.2	
		De	iP		13 41 34.2	
		Italy (h = N).				
"	23	Up	iPKP1		14 31 09.9	C
			iPKP2		14 31 19.9	
					micr	sec
			PKP1	Z'	0.1	0.7
			PKP2	Z'	0.1	0.6
		Ki	iPKP1		14 30 49.7	
		Sk	iPKP		14 31 00.8	
			iPKP1		14 31 05.6	C
		Um	iPKP		14 30 57.6	
			iPKP1		14 31 00.4	C
		Ud	iPKP		14 31 04.2	
			iPKP1		14 31 11.9	C
			iPKP2		14 31 23.4	
		De	iPKP1		14 31 19.6	
			iPKP2		14 31 37.1	
		South of Kermadec Islands (h = N).				
"	23	Up	ePKP1		14 40 50	
		Sk	iPKP1		14 40 43.4	
		Um	iPKP2		14 40 48.2	
		Ud	iPKP1		14 40 52.4	
			iPKP2		14 41 04.8	
		De	iPKP1		14 41 01.7	
		South of Kermadec Islands. Origin time = 14 21 00.				
"	23	Ud	iP		16 28 58.6	
"	23	Ki	iP		16 38 29.9	
			ipP		16 39 11.8	
		Sk	iP		16 38 12.4	
			ipP		16 38 54.3	
		Um	iP		16 38 29.5	
			ipP		16 39 12.2	
		Ud	iP		16 38 14.4	
			ipP		16 38 57.1	
		De	iP		16 38 16.0	
		Colombia. h = 170 km (Ki,Sk,Um,Ud).				
"	23	Um	iP		17 56 30.7	
		Japan (h = 40 km).				
"	23	Um	ePKP		18 47 47	
		Ud	iPKP1		18 47 54.2	D
		De	iPKP1		18 48 05.4	D
		Fiji Islands (h = 650 km).				
1973 Apr.	23	Um	iP		20 09 38.9	
		Ud	iP		20 10 10.0	
		Kurile Islands (h = 60 km).				
"	23	Um	iP		22 07 36.4	
"	23	Ud	iP		22 16 11.7	
"	24	Ki	iP		04 05 28.3	
					micr	sec
			Mx	E	0.8	18
			Mx	N	0.5	17
			Mx	Z	0.7	17
		Um	eP		04 05 33	
		Ud	iP		04 05 54.2	
		De	iP		04 05 58.7	
		Mindanao (h = N).				
"	24	Ud	iP		07 33 12.9	C
"	24	Up	iP		10 01 05.0	
					micr	sec
			Mx	E	0.7	18
			Mx	N	0.8	19
			Mx	Z	0.6	19
		Ki	eP		10 00 23	
					micr	sec
			Mx	E	1.4	17
			Mx	N	1.3	17
			Mx	Z	0.9	17
		Sk	iPcP		10 01 25.9	
		Um	iP		10 00 41.2	C
			ipP		10 00 50.1	
		Ud	iP		10 01 11.7	C
			ipP		10 01 21.7	
		Japan. h = 35 km (Um,Ud). M = 5.3 (Up,Ki).				
"	24	Sk	eSgl		12 15 01	
		Um	iSgl		12 13 38.2	
		Ud	iSgl		12 14 21.8	
		De	eSgl		12 14 43	
		Western USSR. Explosion.				
"	24	Up	iSn		12 21 34.0	
			iSgl		12 21 47.3	
		Sk	eSgl		12 23 34	
		Um	iSgl		12 22 18.3	
		Ud	iSgl		12 22 50.4	
		De	iSgl		12 23 13.5	
		Esthonia, 59.5°N, 25.4°E. Origin time = 12 19 42. Explosion.				
"	24	Up	eSgl		14 15 18	
		(cont.)				

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

1973
Apr. 24 (cont.)

	Sk	iSgl	14 17 03.6	
	Um	iSgl	14 15 42.6	
	Ud	iSgl	14 16 20.3	
	De	iSgl	14 16 45.7	
	Western USSR.			
	Explosion.			
" 24	Up	iSgl	14 44 31.0	
	Sk	eSgl	14 46 04	
	Um	iSgl	14 44 41.3	
	Western USSR.			
	Explosion.			
" 24	Ki	i(Sn)	14 45 41.3	
		i(Sgl)	14 46 02.4	
" 24	Up	iP	18 55 06.3	D
		ipP	18 55 36.5	
			micr	sec
		P Z'	0.1	1.0
	Ki	iP	18 55 08.5	D
		ipP	18 55 40.0	
			micr	sec
		P Z'	0.1	1.3
		pP Z'	0.3	1.5
	Sk	iP	18 54 54.1	D
		ipP	18 55 24.0	
	Um	iP	18 55 10.3	D
		ipP	18 55 40.4	
		iS	19 05 43	
	Ud	iP	18 54 56.8	D
		ipP	18 55 26.2	
	De	iP	18 54 59.0	D
		i	18 55 01.7	
		ipP	18 55 27.0	
		isP	18 55 44.4	
	Colombia.			
	h = 120 km (Up,Ki,Sk,Um,Ud, De).			
	m = 5.7 (Up,Ki).			
" 24	Ud	iP	19 54 01.9	
	Kurile Islands (h = 70 km).			
" 24	Ki	epP	21 29 46	
	Sk	eP	21 29 24	
	Um	iP	21 29 37.7	
		ipP	21 29 50.2	
	Ud	ipP	21 29 37.0	
	Colombia.			
	h = 45 km (Um).			
" 24	Up	iP	21 42 55.4	D
		iSKS	21 53 24	
		iS	21 53 44	
	(cont.)			

1973
Apr. 24 (cont.)

	Up		micr	sec
		P Z'	0.5	1.0
		Mx E	6.4	25
		Mx N	6.3	23
		Mx Z	10	20
	Ki	iP	21 42 59.0	D
		iSKS	21 53 26	
		iS	21 53 45	
			micr	sec
		P Z'	2.2	1.5
		Mx E	9.2	20
		Mx N	4.6	20
		Mx Z	5.0	18
	Sk	iP	21 42 45.3	D
		iP'P'	22 08 41.4	
		i	22 09 00.6	
	Um	iP	21 43 01.7	D
		iS	21 53 51	
	Ud	iP	21 42 48.6	D
	De	iP	21 42 51.1	D
	Colombia (h = 50 km).			
	m = 7.0, M = 6.2 (Up,Ki).			
" 24	Up	iP2	21 45 58.7	
			micr	sec
		P2 Z'	0.4	1.5
	Ki	iP1	21 45 59.0	
			micr	sec
		P1 Z'	0.4	1.6
	Sk	iP1	21 45 45.6	
	Um	iP1	21 46 01.7	
		iP2	21 46 04.7	
	Ud	iP1	21 45 48.8	
		iP2	21 45 51.9	
	De	iP1	21 45 51.5	
		i	21 45 59.9	
	Colombia.			
	Origin time = 21 33 10.			
	m = 6.5 (Up,Ki).			
	Double P, in average 3.1 sec apart.			
" 24	Um	iP	21 54 30.4	
" 24	Up	iP	22 59 53.3	
			micr	sec
		Mx E	2.3	20
		Mx N	3.2	20
		Mx Z	2.8	19
	Ki	iP	22 59 53.3	
			micr	sec
		P Z'	0.2	1.5
		Mx E	2.1	18
		Mx N	2.6	18
		Mx Z	1.9	18
	Sk	iP	22 59 39.5	
	(cont.)			

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

1973
Apr. 24 (cont.)

Um	iP	22 59 56.2	
Ud	iP	22 59 43.8	
De	iP	22 59 45.8	

Colombia (h = N).
M = 5.8 (Up,Ki).

" 25

Up	iP	00 17 52.9	
Um	eP	00 18 32	
Ud	iP	00 18 00.1	

Greece.

" 25

Sk	eP	02 02 30	
Um	eP	02 02 46	

Colombia (h = N).

" 25

Up	iSgl	02 18 04.6	
Ki	i	02 19 29.4	
	iSn	02 19 46.0	
Sk	iSgl	02 18 43.9	
Um	iPgl	02 17 52.2	
	i	02 17 55.3	
	iSn	02 18 17.3	
	iSgl	02 18 25.1	
Ud	eSgl	02 18 32	

Off coast of Hälsingland, Sweden, 61.7°N, 17.8°E.
Origin time = 02 17 10.

" 25

Ud	iP	02 47 28.4	
	i	02 47 37.4	

Colombia (h = N).

" 25

Up	iP	03 24 20.3		D
		micr	sec	
	P	Z' 0.2	0.9	
Ki	iP	03 24 27.4		D
	iPP	03 26 04.2		
		micr	sec	
	P	Z' 0.1	0.9	
	PP	Z' 0.3	1.7	
Sk	iP	03 24 44.8		D
	iPP	03 26 27.4		
Um	iP	03 24 17.0		D
Ud	iP	03 24 37.0		D
	iPP	03 26 14.6		
De	iP	03 24 34.6		D

Tadzhik SSR (h = 140 km).
m = 5.6 (Up,Ki).

" 25

Ud	iPKP	06 59 07.6	

Tonga Islands (h = 350 km).

" 25

Um	iP	07 50 23.6	

Japan (h = N).

" 25

Ud	iP	07 58 20.3	

Colombia (h = N).

1973
Apr. 25

Up	iP	08 43 25.3	
Ud	iP	08 43 38.6	

Iran (h = 45 km).

" 25

Up	i(Sgl)	10 54 35.0	

" 25

Um	iSgl	14 02 43.7	

Western USSR.
Explosion.

" 25

Up	iSn	14 30 55.4	
	iSgl	14 31 08.9	
Ki	eSgl	14 33 41	
Um	iSgl	14 31 42.9	
Ud	iSn	14 31 43.0	
	iSgl	14 32 11.5	
De	eSn	14 32 04	
	iSgl	14 32 40.5	

Esthonia, 59.6°N, 24.5°E.
Origin time = 14 29 19.
Explosion.

" 25

Up	iPl	14 32 53.5		C
	iP2	14 32 54.5		
	iP3	14 32 58.5		
	ipP2	14 33 12.5		
		micr	sec	
	P2	Z' 0.2	1.0	
	pP2	Z' 0.2	0.8	
	Mx	N 1.1	21	
	Mx	Z 1.4	20	
Ki	iPl	14 32 16.8		
	iP2	14 32 17.8		
	iP3	14 32 21.8		
	ipP2	14 32 35.8		
		micr	sec	
	P2	Z' 0.2	1.0	
	pP2	Z' 0.2	1.0	
	Mx	E 1.6	17	
	Mx	N 1.4	16	
	Mx	Z 1.1	15	
Sk	iP2	14 32 50.1		
Um	iPl	14 32 32.9		C
	iP2	14 32 34.0		
	iP3	14 32 37.9		
	iPcP	14 32 50.2		
	ipP2	14 32 52.1		
Ud	iPl	14 33 00.8		
	iP2	14 33 01.8		
	iP3	14 33 06.1		
	ipPl	14 33 18.8		
	ipP2	14 33 19.9		
De	iP2	14 33 15.5		
	iP3	14 33 19.4		
	ipP2	14 33 33.6		

Japan.
h = 70 km (Up,Ki,Um,Ud,De).
(cont.)

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

1973 Apr.	25	(cont.) m = 6.0, M = 5.5 (Up,Ki). Multiple P phases, the second and third onsets considerably bigger than the first one. In average: P2 - P1 = 1.0 sec, P3 - P1 = 5.1 sec.				
"	25	Up	iSgl	15 28 57.3		
		Ud	iSgl	15 29 04.1		
		De	i	15 26 57.7		
			iPgl	15 26 59.4		
			iSgl	15 27 17.3		
		Baltic Sea, south of Sweden, 55.6°N, 15.2°E. Origin time = 15 26 41. Explosion.				
"	25	Up	iSgl	15 29 12.2		
		Ud	iSgl	15 29 17.0		
		De	iPgl	15 27 13.8		
			iSgl	15 27 29.9		
		Baltic Sea, south of Sweden, 55.6°N, 15.2°E. Origin time = 15 26 54. Explosion.				
"	25	Up	iSgl	15 29 43.7		
		Ud	iSgl	15 29 48.7		
		De	iPgl	15 27 45.8		
			iSgl	15 28 01.9		
		Baltic Sea, south of Sweden, 55.6°N, 15.2°E. Origin time = 15 27 26. Explosion.				
"	25	Ud	iP	16 47 33.5		
"	25	Up	eP	17 34 16		
		Ki	iP	17 33 45.5		
				micr	sec	
			P	Z' 0.1	0.9	
		Um	iP	17 33 58.5		
		Ud	iP	17 34 21.9		
		Volcano Islands (h = N).				
"	25	Ud	iP	19 12 31.0		
		Colombia (h = N).				
"	25	Up	iSgl	19 34 00.8		
		Ud	iPgl	19 33 00.6		
			iSn	19 33 18.1		
			iSgl	19 33 20.3		
		De	iSgl	19 33 51.5		
		Lake Vener region, Sweden, 58.7°N, 12.7°E. Origin time = 19 32 36.				

1973 Apr.	25	Um	i(Sgl)	19 33 21.3		
"	25	Up	iPKP1	20 32 43.5	D	
			iPKP2	20 32 49.7		
				micr	sec	
			PKP1	Z' 0.1	0.9	
			PKP2	Z' 0.2	0.8	
		Ki	iPKP1	20 32 22.2	D	
		Sk	iPKP	20 32 38.1		
			iPKP1	20 32 38.6		
		Um	iPKP1	20 32 33.1	D	
			i	20 34 19.8		
		Ud	iPKP1	20 32 45.6	D	
			iPKP2	20 32 52.8		
		De	iPKP1	20 32 53.6		
			iPKP2	20 33 07.0		
		Kermadec Islands (h = 390 km).				
"	25	Up	iPKP	21 53 26.3		
			ipPKP	21 53 45.4		
			iY	21 53 49.5		
				micr	sec	
			PKP	Z' 0.1	0.9	
			Y	Z' 0.1	0.8	
			Mx	E 3.1	23	
			Mx	N 2.7	19	
			Mx	Z 3.5	20	
		Ki	iPKP	21 53 41.1		
			iX	21 53 45.0		
			ipPKP	21 54 01.1		
			iY	21 54 05.1		
			iSKP1	21 57 03.1		
				micr	sec	
			PKP	Z' 0.1	1.1	
			X	Z' 0.3	1.3	
			Y	Z' 0.4	1.5	
			SKP1	Z' 0.3	1.5	
			Mx	E 2.0	21	
			Mx	N 3.2	20	
			Mx	Z 1.9	20	
		Sk	iPKP	21 53 32.1		
			iY	21 53 55.0		
		Um	i(PKP)	21 53 27.6		
			iPKP	21 53 34.1		
			ipPKP	21 53 53.4		
		Ud	iPKP	21 53 24.9		
			ipPKP	21 53 43.3		
			iY	21 53 47.2		
		De	e(PKP)	21 53 13		
			iPKP	21 53 19.8		
			iY	21 53 41.8		
		South Sandwich Islands. h = 70 km (Up,Ki,Um,Ud). M = 6.2 (Up,Ki). Probably two events, about 4.0 sec apart, X being PKP and Y pPKP of the second event.				

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

1973						
Apr.	25	Up	Mx		22 16	
					micr	sec
			Mx	E	0.9	22
			Mx	N	1.4	19
		Prince Edward Island (h = N).				
"	25	Ud	iP		22 36 42.5	
		Nevada.				
		Underground explosion.				
"	25	Um	iP		22 57 54.3	
"	26	Ud	iP		00 49 42.9	
"	26	Up	iPKP1		02 38 55.4	
		Um	iPKP1		02 38 45.6 D	
		Ud	iPKP1		02 38 57.1	
"	26	Ud	iP		06 04 09.7	
"	26	Um	eP		06 06 19	
		Japan (h = N).				
"	26	Sk	iP		07 55 36.9	
		Um	iP		07 55 53.5	
		Ud	iP		07 55 40.2	
		De	iP		07 55 43.0	
		Colombia (h = N).				
"	26	Up	iP		14 38 09.4 C	
			i		14 38 12.4	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		14 38 36.3 C	
			i		14 38 39.5	
					micr	sec
			P	Z'	0.1	0.8
		Sk	iP		14 38 40.6 C	
			i		14 38 44.1	
		Um	iP		14 38 17.7 C	
			i		14 38 20.4	
		Ud	iP		14 38 24.8 C	
			i		14 38 27.6	
			iPP		14 40 11.1	
		De	iP		14 38 13.2	
		Iran (h = 45 km).				
		m = 5.8 (Up,Ki).				
		Double P, in average 3.0 sec apart.				
"	26	Up	iSgl		16 21 46.2	
		Ki	iSgl		16 19 41.3	
		Sk	iSgl		16 19 45.8	
		Um	iSn		16 19 56.6	
			iSgl		16 20 08.6	
		Ud	iSgl		16 21 34.1	
		(cont.)				

1973						
Apr.	26	(cont.)				
		Nordland, Norway, 66.5°N, 14.0°E.				
		Origin time = 16 18 12.				
		Explosion.				
"	26	Up	iP		17 26 48.8 C	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		17 26 14.6	
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		17 26 22.8	
		Um	iP		17 26 34.0 C	
		Ud	iP		17 26 40.7 C	
		De	iP		17 26 57.3	
		Nevada.				
		m = 5.9 (Up,Ki).				
		Underground explosion.				
"	26	Um	i(P)		19 35 59.7	
"	26	Up	iP		20 40 12.7 C	
			iPP		20 44 29.9	
			iSKS		20 50 55	
			iS		20 51 44	
					micr	sec
			P	Z'	0.1	1.1
			Mx	E	1.5	20
			Mx	N	3.4	21
			Mx	Z	4.2	22
		Ki	iP		20 39 37.2 C	
			iPP		20 43 25.1	
			eSKS		20 50 13	
			eS		20 50 34	
					micr	sec
			P	Z'	0.1	1.2
			Mx	E	1.8	20
			Mx	N	3.4	22
			Mx	Z	2.6	21
		Sk	iP		20 39 54.3 C	
		Um	iP		20 39 55.1 C	
			iPP		20 43 51.6	
			iSKS		20 50 37	
			iS		20 51 10	
		Ud	iP		20 40 09.8	
			iPP		20 44 20.0	
		Hawaii (h = 50 km).				
		m = 6.2, M = 5.9 (Up,Ki).				
"	27	Ki	i(P)		00 32 35.5	
"	27	Up	iP		00 36 14.7	
					micr	sec
			P	Z'	0.1	1.1
			Mx	E	0.7	14
		(cont.)				

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

1973
Apr. 27 (cont.)

Up			micr	sec
	Mx	N	0.6	14
	Mx	Z	0.7	13
Ki	iP		00 37	14.5
			micr	sec
	Mx	E	0.7	15
	Mx	N	0.4	12
Um	iP		00 36	39.4
Ud	iP		00 36	26.3
De	eP		00 35	53

Turkey (h = N).
M = 4.6 (Up,Ki).

" 27 Ud iP 07 52 03.1
Luzon.

" 27 Ud iP 15 11 09.8
De eP 15 11 04
Afghanistan-USSR (h = 140 km).

" 27 Ud iP 16 17 28.9

" 27

Up	Mx		19	24
			micr	sec
	Mx	N	1.0	23
	Mx	Z	0.9	21
Ki	Mx		19	23
			micr	sec
	Mx	E	1.7	19
	Mx	N	0.7	18
	Mx	Z	0.9	17

Celebes (h = N).
M = 5.5 (Up,Ki).

" 27 Ud iP 20 57 54.2

" 28 Um iP 02 44 44.1
Japan (h = 50 km).

" 28

Ki	iP		03 05	07.0
Sk	iP		03 04	38.9
Ud	iP		03 04	07.8
De	iP		03 03	36.0

Crete (h = N).

" 28

Up			micr	sec
	Mx	E	0.6	12
	Mx	N	0.8	15
	Mx	Z	1.0	13
Ki	eP		04 54	24
			micr	sec
	Mx	E	1.1	15
	Mx	N	0.6	16
	Mx	Z	0.5	12
Ud	iP		04 54	59.4

Ryukyu Islands (h = 100 km).
M = 5.3 (Up,Ki).

1973
Apr. 28 Up iP 05 20 00.5

" 28

Up	iP	07 30 58.8 D
Um	i	07 34 32.6
Ud	iP	07 31 01.0 D

" 28

Up	iP		11 02	24.1 C
Ki	iP		11 02	23.4
			micr	sec
	P	Z'	0.1	0.9
Sk	iP		11 02	37.2
Um	iP		11 02	21.2 C
Ud	iP		11 02	33.5 C
De	iP		11 02	32.2

Sumatra (h = 80 km).

" 28 Ud i(P) 11 54 54.3

" 28 Ki i(Sgl) 12 05 19.7
Northwest USSR.
Explosion.

" 28

Up	iSgl	12 18 29.0
Um	iSgl	12 18 45.9
Ud	iSgl	12 19 28.4

Western USSR.
Explosion.

" 28 Ud iP 12 34 13.3
Ecuador (h = 110 km).

" 28

Up	iSgl	12 46 15.7
Um	i(Sn)	12 46 19.4
	iSgl	12 46 36.6
De	iSgl	12 47 48.6

Western USSR.
Explosion.

" 28 De iPKPl 21 32 37.5
Fiji Islands (h = 400 km).

" 29

Up	eP	00 49 03
Um	iP	00 48 39.3
Ud	iP	00 49 08.7

Japan (h = N).

" 29

Up	iP	02 16 02.2
Ud	eP	02 16 12

Luzon-Formosa (h = N).

" 29 Um i(P) 08 02 44.8

" 29

Up	iSgl	10 58 32.3
Ki	eSgl	11 00 39
Um	iSgl	10 58 55.5
Ud	iSgl	10 59 33.3
De	iSgl	11 00 07.9

Western USSR.
Explosion.

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

1973 Apr.	29	Ki	iPn		14 29 05.4
			iPgl		14 29 16.7
			iSn		14 29 54.8
			iS*		14 30 10.6
		Um	iSgl		14 31 39.8
		Northwest USSR-Norway border region, 69.5°N, 31.2°E. Origin time = 14 28 00. Explosion.			
"	29	Ud	iP		14 32 54.0
		Tadzhik SSR.			
"	29	Um	iP		14 44 26.8
		Morocco (h = 20 km).			
"	29	Up	iPKPl		15 47 57.3 C
					micr sec
			PKPl	Z'	0.1 0.8
		Sk	iPKPl		15 47 49.7
		Um	iPKPl		15 47 45.3 C
		Ud	iPKPl		15 47 59.0
		De	iPKPl		15 48 07.9 C
			iPKP2		15 48 16.9
		Kermadec Islands (h = 60 km).			
"	29	De	iPKPl		18 56 12.0
		Fiji Islands (h = 360 km).			
"	29	Up	eP		20 04 35
					micr sec
			Mx	N	1.4 16
			Mx	Z	0.7 13
		Ki	iP		20 04 57.9
					micr sec
			Mx	E	1.0 10
			Mx	N	1.1 13
		Sk	iP		20 05 03.9
		Um	iP		20 04 40.0
		Ud	iP		20 04 50.4
			i		20 04 55.5
		De	eP		20 04 43
		Pakistan (h = 25 km). M = 5.2 (Up,Ki).			
"	29	Ud	iP		21 46 29.2
		Kamchatka (h = N).			
"	29	Ud	iPKPl		23 49 59.1
		De	iPKPl		23 50 09.5
"	30	Up	iPKPl		02 12 33.5
					micr sec
			PKPl	Z'	0.1 0.7
		Ud	iPKPl		02 12 35.8
		De	iPKPl		02 12 46.2
		Tonga-Kermadec Islands (h = 480 km).			

1973 Apr.	30	Ki	iSn		05 09 41.6
			i(Sgl)		05 10 02.4
		Um	iSgl		05 11 05.1
		Northwest USSR. Explosion.			
"	30	Up	iP		07 37 24.3
		Ki	iP		07 37 02.6
		Um	eP		07 37 05
		Ud	iP		07 37 35.8
		De	iP		07 37 46.4
		USSR-Mongolia (h = N).			
"	30	Up	iPKP		08 57 19.4
			iSKPl		08 59 56.9
		Ki	iPKP		08 57 04.6
			iSKPl		08 59 30.6
					micr sec
			SKPl	Z'	0.1 1.1
		Sk	iSKPl		08 59 49.7
		Um	i(PKP)		08 57 07.1
			iPKP		08 57 12.6
			iSKPl		08 59 43.7
		Ud	i(PKP)		08 57 11.6
			iPKP		08 57 21.5
			iSKPl		08 59 59.6
		De	i(PKP)		08 57 20.1
			iPKP		08 57 23.9
		Fiji Islands (h = 610 km).			
"	30	Up	iSgl		09 31 27.1
		Ki	ePn		09 27 21
			iPgl		09 27 30.0
			iSn		09 28 10.6
			iSgl		09 28 26.5
		Sk	iSgl		09 30 56.9
		Um	i(Sn)		09 28 48.9
			iSgl		09 29 25.2
		Ud	eSgl		09 32 01
		Northwest USSR. Explosion.			
"	30	Ud	iP		12 00 43.4
"	30	Ki	iP		15 54 07.9
			iPn		15 54 41.8
		Um	iP		15 53 40.6
		Ud	iP		15 53 42.8
		Caucasus (h = 45 km).			
"	30	Ud	iP		16 51 44.0
		Ryukyu Islands (h = 60 km).			
"	30	Um	iP		21 13 37.2
		Colombia (h = 25 km).			
"	30	Up	iP		22 49 17.2 C
		(cont.)			

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

1973

Apr.	30	(cont.)					
		Up	ipP		22	49	28.1
					micr		sec
			P	Z'	0.1		1.0
		Ki	iP		22	48	38.7
			ipP		22	48	49.4
					micr		sec
			P	Z'	0.1		1.0
		Sk	iP		22	49	11.5
			ipP		22	49	23.9
		Um	iP		22	48	55.7 C
			ipP		22	49	06.7
		Ud	iP		22	49	24.4 C
			ipP		22	49	35.7
		De	iP		22	49	39.3

Japan.
h = 40 km (Up,Ki,Sk,Um,Ud).
m = 6.0 (Up,Ki).

"	30	Up	eP		23	43	29
		Ki	iP		23	42	35.9
		Ud	iP		23	43	28.9

Aleutian Islands (h = 60 km).

Markus Båth
Klaus Meyer
Rutger Wahlström
Ota Kulhánek

December 26, 1974

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 Y 1 - 31, 1973

1973					
May	1	Ki	eP	00 21 02	
		Um	iP	00 21 12.9	
		Mariana Islands (h = 25 km).			
"	1	Up	iP	01 03 38.9	
		Sk	eP	01 03 25	
		Um	iP	01 03 14.1	
		Ud	iP	01 03 44.9	
		De	iP	01 04 03.0	
		Kurile Islands (h = 55 km).			
"	1	Um	iP	05 49 05.3 D	
		Adriatic Sea (h = N).			
"	1	Um	iP	07 26 43.5	
		Colombia (h = N).			
"	1	Up	ePKP1	08 01 14	
		Ki	iPKP	08 01 10.3	
		Um	i(PKP)	08 01 13.6	
			iPKP	08 01 17.1	
			iSKP1	08 03 54.8	
		Ud	iPKP1	08 01 16.3	
		De	iPKP1	08 01 26.1	
		Fiji Islands (h = 600 km).			
"	1	Um	ePKP	10 59 29	
		New Guinea (h = 25 km).			
"	1	Up	iPKP1	15 33 44.5 D	
				micr sec	
			PKP1 Z'	0.1 0.8	
		Um	iSKP1	15 36 27.0	
		Ud	iPKP1	15 33 46.5 D	
		De	iPKP1	15 33 56.8	
		Tonga-Kermadec Islands (h = 540 km).			

1973				
May	1	Up	iP	20 27 46.4 C
		Ki	iP	20 26 53.8
		Ud	iP	20 27 46.4 C
		Aleutian Islands (h = N).		
"	1	Ki	iP	20 54 51.9
		Ud	iP	20 55 46.7
"	2	Sk	e	01 45 15
		Ud	iPKP	01 45 09.3
		De	iPKP	01 45 13.8
		New Guinea (h = 30 km).		
"	2	Ud	iP	05 30 09.2
		Kurile Islands (h = 50 km).		
"	2	Ud	iP	06 10 08.7
"	2	Up	iP	20 45 38.4
		Ud	iP	20 45 48.2
		De	iP	20 45 20.4
"	2	Up	iP	23 23 21.4 C
		Ki	iP	23 24 15.0 C
		Um	iP	23 23 52.0 C
		Ud	iP	23 23 09.8
		De	iP	23 22 50.0 C
		North Atlantic Ocean (h = N).		
"	3	Up	eP	01 27 24
		Sk	eP	01 28 03
		Um	iP	01 28 03.3
		Ud	iP	01 27 30.1
		Ionian Sea (h = 30 km).		
"	3	Up	iPKP1	02 41 55.5
		(cont.)		

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

1973 May	3	(cont.)				
		Ud	iPKP1	02 41 58.5		
		De	ePKP1	02 42 07		
		Tonga-Kermadec Islands (h = 400 km).				
"	3	Um	iP	05 49 31.1		
			i	05 49 44.8		
		Ud	i	05 50 06.7		
		Queen Elizabeth Islands (h = N).				
"	3	Up	iP	07 51 50.8	C	
		Ki	iP	07 52 28.6		
		Sk	eP	07 52 27		
		Um	iP	07 52 05.8		
		Ud	iP	07 52 06.1	C	
		De	iP	07 51 48.8	C	
		Iran (h = 40 km).				
"	3	Ki	i(P)	11 28 34.5		
		Um	i(P)	11 28 48.6		
"	3	Up	i(P)	12 52 50.2		
		De	i(P)	12 53 25.3		
"	3	Up	iSg1	13 09 35.5		
		Um	eSg1	13 10 09		
		De	eSg1	13 11 03		
			iSg2	13 11 12.2		
		Esthonia. Explosion.				
"	3	De	ePKP1	13 44 47		
		Fiji Islands (h = 600 km).				
"	3	Up	iSg1	14 49 58.9		
		Um	iSg1	14 50 37.5		
		Ud	eSg1	14 51 04		
		De	eSg1	14 51 35		
		Esthonia. Explosion.				
"	3	Up	iPKP	23 29 42.8		
			iPS	23 40 25		
		Ki	iPKP	23 29 53.3		
				micr	sec	
			Mx E	1.0	16	
		Um	iPKP	23 29 47.1		
			iPS	23 40 44		
		Ud	iPKP	23 29 45.3		
		De	iPKP	23 29 40.7		
		Kerguelen Islands (h = N).				
"	3	Up	ePKP	23 33 25		
		(cont.)				

1973 May	3	(cont.)				
		Um	iPKP	23 33 16.1		
		Ud	iPKP	23 33 27.6		
"	4	Up	i	00 01 59.2		
			iRg	00 02 02.6		
		Ud	iRg	00 01 48.2		
		De	eSg1	00 03 03		
		Bergslagen, central Sweden.				
"	4	Ud	iP	00 12 49.6		
"	4	Up	eP	00 28 51		
		Um	iP	00 28 36.1		
"	4	De	ePKP1	01 39 39		
		Fiji Islands (h = 590 km).				
"	4	Up	iSg1	09 27 12.5		
		Sk	eS*	09 27 04		
			iSg1	09 27 07.8		
		Um	eSg1	09 28 17		
		Ud	iPg1	09 25 52.6		
			iSg1	09 26 10.2		
		Southeast Norway, 60.5°N, 11.3°E. Origin time = 09 25 30.				
"	4	Up	iP1	11 40 45.1		
			i	11 40 47.2		
			iSKS	11 51 17		
				micr	sec	
			P1 Z'	0.2	1.4	
			Mx E	3.0	22	
			Mx N	2.0	22	
			Mx Z	5.7	27	
		Ki	iP1	11 40 29.3		
				micr	sec	
			P1 Z'	0.3	1.4	
			Mx E	2.5	23	
			Mx N	1.4	20	
			Mx Z	3.5	22	
		Sk	iP2	11 40 56.3		
		Um	iP1	11 40 33.0		
			i	11 40 35.0		
			iP2	11 40 40.5		
			iPP	11 44 24.2		
			iSKS	11 51 06		
		Ud	iP1	11 40 52.4		
			i	11 40 53.6		
		De	iP1	11 41 00.0		
		Molucca Passage (h = N). m = 6.6, M = 5.9 (Up,Ki). Double P: P2 - P1 = 7.5 sec.				
"	4	Up	eP	12 03 37		
		(cont.)				

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

1973 May 4 (cont.)

	Ki	eP		12 03 23	
Molucca Passage (h = N).					
" 4	Sk	iP		22 31 43.2	
	Um	iP		22 31 58.9	
	Ud	iP		22 31 46.7	
Colombia (h = N).					
" 5	Up	iP		00 08 49.3	D
		ipP		00 09 05.9	
		iSKS		00 19 10	
		iS		00 19 23	
				micr sec	
		P	Z'	0.1 0.7	
		pP	Z'	0.2 1.0	
		Mx	E	1.1 22	
		Mx	N	1.8 20	
		Mx	Z	1.9 23	
	Ki	iP		00 08 49.6	D
		ipP		00 09 05.6	
		iS		00 19 25	
				micr sec	
		P	Z'	0.5 1.2	
		pP	Z'	0.4 0.9	
		Mx	E	1.4 17	
		Mx	N	1.6 19	
		Mx	Z	1.3 19	
	Sk	iP		00 09 03.1	D
	Um	iP		00 08 46.3	D
		ipP		00 09 03.8	
		iS		00 19 18	
	Ud	iP		00 08 59.0	D
		ipP		00 09 16.3	
		iPP		00 12 29.5	
	De	iP		00 08 57.2	D
		ipP		00 09 13.9	
Sumatra.					
h = 60 km (Up,Ki,Um,Ud,De).					
m = 6.4, M = 5.6 (Up,Ki).					
" 5	Um	iPKP		01 54 02.4	
Solomon Islands (h = 15 km).					
" 5	Um	iP		03 48 01.0	
Japan (h = 55 km).					
" 5	Up	iP		04 03 51.3	C
		ipP		04 04 03.7	
				micr sec	
		P	Z'	0.1 1.0	
		pP	Z'	0.2 1.2	
	Ki	iP		04 03 11.6	C
		ipP		04 03 24.1	
				micr sec	
		P	Z'	0.1 1.0	

(cont.)

1973 May 5 (cont.)

	Ki			micr sec	
		pP	Z'	0.1 1.1	
	Sk	iP		04 03 45.4	C
		ipP		04 03 57.9	
	Um	iP		04 03 29.5	C
		ipP		04 03 41.6	
	Ud	iP		04 03 58.9	C
		ipP		04 04 11.3	
	De	iP		04 04 14.0	C
		ipP		04 04 26.5	
Japan.					
h = 45 km (Up,Ki,Sk,Um,Ud, De).					
m = 5.8 (Up,Ki).					
" 5	Up	iP		05 23 46.5	
	Sk	iP		05 23 40.9	
	Um	iP		05 23 24.9	
	Ud	iP		05 23 53.8	
Japan (h = 80 km).					
" 5	Up	eP		06 19 45	
	Ki	iP		06 20 16.6	
				micr sec	
		Mx	E	0.6 13	
		Mx	N	0.7 15	
	Sk	eP		06 20 18	
	Um	iP		06 19 57.8	
	Ud	iP		06 19 59.6	
Iran (h = N).					
" 5	Um	iP		07 51 41.0	
	Ud	iP		07 52 12.0	
Japan (h = 15 km).					
" 5	Up	iP		08 14 27.5	
	Sk	iP		08 15 09.5	
	Um	iP		08 15 05.7	
	Ud	iP		08 14 37.8	
Aegean Sea (h = N).					
" 5	Ud	iP		08 25 56.8	
Aegean Sea (h = 25 km).					
" 5	Ud	iP		08 57 32.8	
Japan (h = 110 km).					
" 5	Up	iPKP1		10 27 29.1	
	Ud	iPKP1		10 27 31.7	
	De	iPKP1		10 27 42.2	
Tonga-Kermadec Islands (h = 590 km).					
" 5	Um	iP		11 00 28.9	
	Ud	iP		11 00 02.8	

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

1973 May	5	Up	iSg1	11 28 18.7	
		Um	iSg1	11 28 36.4	
		De	eSg1	11 29 56	
		Western USSR.			
		Explosion.			
"	5	Up	iSg1	11 40 19.4	
			iSg2	11 40 32.6	
		Ki	iPg1	11 36 19.6	
			iSn	11 37 03.6	
			iS*	11 37 23.0	
		Sk	iSg1	11 39 56.4	
		Um	iSn	11 37 44.8	
			i(S*)	11 38 13.8	
			iSg1	11 38 17.3	
		Ud	iSg1	11 40 53.1	
		De	eSg1	11 42 14	
		Northwest USSR,			
		67.8°N, 33.7°E.			
		Origin time = 11 34 50.			
		Explosion.			
"	5	Up	Mx	20 07	
				micr sec	
			Mx N	1.0 22	
			Mx Z	0.9 22	
		Ki	Mx	20 04	
				micr sec	
			Mx E	0.9 20	
			Mx N	1.2 21	
			Mx Z	1.2 20	
		Fiji Islands (h = N).			
		M = 5.6 (Up,Ki).			
"	6	Up	iP	04 07 05.7 C	
				micr sec	
			P Z'	0.1 1.1	
		Ki	iP	04 07 39.6 C	
				micr sec	
			P Z'	0.1 0.9	
		Sk	iP	04 07 39.4	
		Um	iP	04 07 17.8 C	
			iPP	04 09 00.9	
		Ud	iP	04 07 21.2	
		De	iP	04 07 07.8	
		Iran (h = 30 km).			
		m = 5.7 (Up,Ki).			
"	6	Ud	eP	07 12 44	
		Kodiak Island (h = 55 km).			
"	6	Ki	iP	10 48 57.4	
		Mariana Islands (h = N).			
"	6	Ki	iPn	12 02 17.6	
		(cont.)			

1973 May	6	(cont.)			
		Ki	iSn	12 03 04.2	
			iSg1	12 03 18.2	
		Um	iSg1	12 04 48.8	
		Northwest USSR-Norway			
		border region,			
		69.4°N, 30.4°E.			
		Origin time = 12 01 16.			
		Explosion.			
"	6	Ki	iP	13 30 16.0	
		Sk	eP	13 30 29	
		Um	iP	13 30 05.0	
		Ud	iP	13 30 23.3	
		Hindu Kush (h = 230 km).			
"	6	Up	iP	14 49 11.8 D	
			iPcP	14 49 41.4	
			ipP	14 50 55.2	
			iS	14 57 05	
				micr sec	
			P Z'	0.1 0.5	
			pP Z'	0.1 1.0	
		Ki	iP	14 48 32.4 D	
			ipP	14 50 13.0	
			iS	14 55 52	
				micr sec	
			P Z'	0.1 0.5	
			pP Z'	0.2 1.3	
		Sk	iP	14 49 07.1 D	
			ipP	14 50 50.7	
			iS	14 56 59.2	
		Um	iP	14 48 49.1 D	
			iPcP	14 49 26.8	
			ipP	14 50 31.3	
			iS	14 56 21	
		Ud	iP	14 49 20.3 D	
			iS	14 57 32.4	
		De	iP	14 49 35.5 D	
		Eastern USSR.			
		h = 510 km (Up,Ki,Sk,Um).			
		m = 5.5 (Up,Ki).			
"	6	Up	iP	15 21 57.9	
		Ki	iP	15 21 03.9	
		Sk	iP	15 21 40.7	
		Um	iP	15 21 29.3	
		Ud	iP	15 22 01.3	
		De	iP	15 22 23.1	
		Kamchatka (h = 55 km).			
"	6	Ki	iP	16 12 45.1	
		New Guinea (h = 60 km).			
"	7	Sk	iP	04 42 17.8	
		Um	iP	04 42 33.9	
		Colombia (h = 60 km).			

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

1973					
May	7	Ud	iP	06 04 54.2	
"	7	Up	iP	07 53 58.6	
		Ud	iP	07 54 18.8	
"	7	Up	iP	11 05 12.0	D
			ipP	11 05 23.3	
		Ki	iP	11 05 15.7	D
			ipP	11 05 26.6	
		Sk	iP	11 05 29.9	
		Um	iP	11 05 10.1	D
			ipP	11 05 21.7	
		Ud	iP	11 05 23.2	D
		De	iP	11 05 20.7	
		Nicobar Islands.			
		h = 40 km (Up,Ki,Um).			
"	7	Up	iSg1	12 17 22.3	
		Ki	iSg1	12 19 21.1	
		Sk	eSg1	12 19 00	
		Um	iSg1	12 17 35.4	
			iSg2	12 17 43.6	
		Ud	iSg1	12 18 22.9	
		De	eSg1	12 18 48	
		Western USSR,			
		59.5°N, 27.8°E.			
		Origin time = 12 14 40.			
		Explosion.			
"	7	Ki	iP	15 01 48.5	C
		Sk	iP	15 01 34.7	C
		Um	iP	15 01 51.0	
		Ud	iP	15 01 38.1	C
		De	eP	15 01 41	
		Colombia (h = N).			
"	7	Ud	iP	15 54 18.8	
"	7	Up	eP	16 40 33	
		Sk	iP	16 40 12.1	
		Ud	iP	16 40 25.0	
		Revilla Gigedo Islands			
		region (h = N).			
"	7	Ud	eP	22 43 01	
		Aegean Sea.			
"	8	Um	iP	00 34 10.6	
		Azores Islands (h = N).			
"	8	Up	e(PKP)	01 02 30	
			ePKP	01 02 41	
			iSKP1	01 05 54.1	
		Ki	iPKP	01 02 27.6	
		Sk	ePKP	01 02 39	
		(cont.)			

1973					
May	8	(cont.)			
		Um	iPKP	01 02 33.6	
			iSKP1	01 05 39.6	
		Ud	ePKP	01 02 44	
		De	iPKP	01 02 50.7	
		New Hebrides Islands			
		(h = 150 km).			
"	8	Um	eP	04 58 40	
		Ud	iP	04 58 40.3	
"	8	Up	iSKP1	05 06 00.1	
				micr	sec
			SKP1 Z'	0.1	1.0
		Ki	iPKP	05 03 01.3	
			iSKP1	05 05 34.8	
				micr	sec
			SKP1 Z'	0.1	1.2
		Sk	ePKP	05 03 11	
			iSKP1	05 05 52.7	
		Um	iPKP	05 03 09.5	C
			iSKP1	05 05 46.9	
		Ud	iPKP	05 03 19.3	C
			iSKP1	05 06 01.8	
			iSKP2	05 06 09.5	
		De	iPKP1	05 03 16.6	
			iPKP	05 03 23.9	
		Fiji Islands (h = 540 km).			
"	8	Up	iP	07 59 46.0	
			i	07 59 59.7	
			ipP	08 00 11.5	
		Ki	iP	07 58 59.8	
			iPcP	07 59 44.7	
		Sk	eP	07 59 37	
			iPcP	08 00 06.7	
		Um	iP	07 59 20.5	
			ipP	07 59 45.3	
		Ud	iP	07 59 51.7	
			ipP	08 00 17.8	
		De	iP	08 00 11.2	
		Kurile Islands.			
		h = 100 km (Up,Um,Ud).			
"	8	Up	iSg1	08 12 39.4	
		Ud	iPn	08 11 14.8	
			iPg1	08 11 16.9	
			iSg1	08 11 45.6	
		De	iPn	08 11 23.4	
			iSg1	08 11 58.5	
		Off coast of Bohuslän,			
		59.4°N, 11.0°E.			
		Origin time = 08 10 40.			
		Explosion.			

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

1973
May 8 Up iSg1 08 13 30.1
Ud iPn 08 12 06.2
iPg1 08 12 07.9
iSg1 08 12 36.6
De iPn 08 12 13.3
iSg1 08 12 49.7
Off coast of Bohuslän, 59.4°N, 11.0°E.
Origin time = 08 11 31.
Explosion.

" 8 Up iSg1 08 44 22.0
Sk eSg2 08 45 05
Um iSg1 08 46 03.2
Ud iPg1 08 42 56.7
iSg1 08 43 29.9
i 08 43 36.5
De iSg1 08 43 39.8
Skagerrak, 58.4°N, 10.1°E.
Origin time = 08 42 12.
Explosion.

" 8 Up iSg1 08 45 21.3
Sk eSg2 08 46 05
Ud iPg1 08 43 55.3
iSg1 08 44 30.1
i 08 44 37.4
De ePg1 08 44 03
iSg1 08 44 39.1
i 08 44 46.7
Skagerrak, 58.4°N, 10.1°E.
Origin time = 08 43 12.
Explosion.

" 8 De iP 09 14 33.0

" 8 Up iP 10 11 46.3
Ki eP 10 11 27
micr sec
Mx E 0.6 16
Mx N 0.6 14
Mx Z 0.4 11
Sk eP 10 11 56
Um iP 10 11 32.1
Ud iP 10 11 59.1
Kansu, China (h = N).

" 8 De i(Sg1) 10 45 13.8

" 8 Um iP 11 11 22.9
Ud iP 11 11 43.1
De iP 11 11 40.7
Tadzhik SSR (h = N).

" 8 Ki e(P) 11 29 56
Sk e(P) 11 30 01

1973
May 8 Ki iP 11 30 12.8
iS 11 31 33.9
iTPg1 11 35 39.7
Sk iP 11 30 42.9
e 11 32 23
iS 11 32 29.4
Um iP 11 30 52.7
Ud eP 11 31 30
Norwegian Sea, 72°N, 2°E.
Origin time = 11 28 27.

" 8 Ki iSg1 12 08 03.5
Sk eS* 12 08 06
iSg1 12 08 10.1
Um iSg1 12 08 28.6
Nordland, Norway, 66.4°N, 14.3°E.
Origin time = 12 06 36.
Explosion.

" 8 Up iSg1 12 14 04.5
Um eSg1 12 14 21
De eSg1 12 15 32
Western USSR.
Explosion.

" 8 Up iSn 12 18 56.3
iSg1 12 19 09.0
Ki eSg1 12 21 40
Sk eSg1 12 21 01
Um iSg1 12 19 42.3
Ud eSg1 12 20 12
De iSg1 12 20 37.9
Esthonia, 59.5°N, 24.9°E.
Origin time = 12 17 12.
Explosion.

" 8 Ud iP 13 04 55.4
De iP 13 05 11.1

" 8 Um i(P) 15 18 49.8

" 8 Um eP 16 22 41
Ud iP 16 23 01.5

" 8 Um iP 17 39 52.0

" 8 Sk eP 19 12 34
Ud iP 19 11 55.8
Italy (h = N).

" 9 De i(Sg1) 10 45 50.5

" 9 Up iSg1 10 57 27.7
Um iSg1 10 57 41.6
(cont.)

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

1973 May	9	(cont.)			
		Ud	iSg1	10 58 27.0	
		De	eSg1	10 58 56	
		Western USSR.			
		Explosion.			
"	9	De	i(Sg1)	11 20 20.3	
"	9	Ud	i(Pg1)	12 49 22.9	
			i(Sg1)	12 49 43.6	
"	9	De	i(Sg1)	13 06 19.0	
"	9	Up	iSg1	14 05 03.6	
		De	iSg1	14 05 47.7	
"	9	Up	iPg1	14 25 08.1	
			iSg1	14 25 22.5	
			iRg	14 25 30.0	
		Sk	e	14 27 26	
			iSg1	14 27 41.1	
		Um	iSg1	14 27 23.3	
		Ud	iPn	14 25 33.4	
			iSg1	14 26 11.3	
			i	14 26 14.3	
		De	iPn	14 25 41.0	
			iSg1	14 26 36.5	
		Off coast of Södermanland, Sweden, 58.8°N, 18.2°E.			
		Origin time = 14 24 49.			
		Explosion.			
		The following four events are from the same area.			
"	9	Up	iPg1	14 25 20.4	
			iSg1	14 25 36.4	
			iRg	14 25 42.3	
		Um	iSg1	14 27 36.1	
		Ud	iPn	14 25 46.6	
			iSg1	14 26 23.7	
			i	14 26 27.1	
		De	iPn	14 25 53.6	
		Origin time = 14 25 01.			
		Explosion.			
"	9	Up	iPg1	14 28 15.4	
			iSg1	14 28 29.8	
			iRg	14 28 37.4	
		Um	iSg1	14 30 30.9	
		Ud	ePg1	14 28 43	
			iSg1	14 29 18.5	
		De	ePg1	14 28 59	
			iSg1	14 29 42.4	
		Origin time = 14 27 56.			
		Explosion.			

1973 May	9	Up	iPg1	14 28 25.8	
			iSg1	14 28 40.8	
			iRg	14 28 48.0	
		Sk	eSg1	14 31 00	
		Um	iSg1	14 30 41.4	
		Ud	ePg1	14 28 54	
			iSg1	14 29 28.7	
		De	ePg1	14 29 08	
			iSg1	14 29 52.9	
		Origin time = 14 28 07.			
		Explosion.			
"	9	Up	iPg1	14 28 34.8	
			iSg1	14 28 49.8	
			iRg	14 28 57.2	
		Ud	ePg1	14 29 03	
			i	14 29 35.5	
			iSg1	14 29 37.5	
		De	ePg1	14 29 18	
			iSg1	14 30 02.3	
		Origin time = 14 28 16.			
		Explosion.			
"	9	Ki	iP	14 30 37.1	
		Halmahera (h = 55 km).			
"	9	De	i(Sg1)	14 35 15.7	
"	9	De	i(Pg1)	15 49 45.5	
			iSg1	15 50 02.0	
"	9	De	i(Pg1)	15 59 01.2	
			iSg1	15 59 21.4	
"	9	Up	iRg	21 14 42.8	
		Ud	iRg	21 14 27.9	
		De	eSg1	21 15 42	
		Central Sweden.			
"	10	Um	iP	01 41 20.0	
"	10	Up	iP	11 50 26.5	C
			i	11 50 39.3	
			ipP	11 50 45.2	
				micr sec	
			P Z'	0.3 1.0	
		Sk	iP	11 50 05.8	C
		Um	iP	11 49 59.5	C
			ipP	11 50 17.5	
			iPcP	11 50 34.0	
		Ud	iP	11 50 27.4	C
			ipP	11 50 45.1	
			iPcP	11 50 51.8	
		De	iP	11 50 49.3	C
		Aleutian Islands.			
		h = 70 km (Up,Um,Ud).			

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

1973
May 10 Up i 13 34 35.2
iSg1 13 34 45.1
Sk iSg1 13 36 24.3
Um iSg1 13 34 54.7
Ud i 13 35 34.0
De iSg1 13 36 09.7
Western USSR,
59.5°N, 28.5°E.
Origin time = 13 31 55.
Explosion.

" 10 Up iP 13 58 55.6
Luzon (h = 45 km).

" 10 Sk iSg1 14 49 59.9
Um iSg1 14 48 30.8
Ud iSg1 14 49 23.5
De eSg1 14 49 45
Western USSR,
59.5°N, 28.5°E.
Origin time = 14 45 30.
Explosion.

" 10 Up iP 18 03 42.3
Sk iP 18 03 24.7
Um iP 18 03 35.9
Mexico (h = N).

" 10 Up iRg 20 03 50.4
Ud iRg 20 03 39.0
Central Sweden.

" 10 Ud iRg 20 07 18.8

" 10 Sk eP 23 59 02
Ud iP 23 58 48.5
Indian Ocean (h = N).

" 11 Sk iP 00 12 08.1
i 00 12 11.1
Um iP 00 12 10.9
i 00 12 13.6
Ud iP 00 12 49.0
De iP 00 13 26.6
Greenland Sea (h = N).

" 11 Up eSg1 04 27 47
Sk iS* 04 25 46.6
iSg1 04 25 50.5
Um iSn 04 25 57.5
(cont.)

1973
May 11 (cont.)
Um iSg1 04 26 11.4
Ud iSg1 04 27 38.1
Nordland, Norway,
66.5°N, 14.4°E.
Origin time = 04 24 17.
Explosion.

" 11 Up e(P) 10 59 10
micr sec
Mx E 1.0 21
Mx N 0.9 21
Mx Z 0.9 21
Ki iP 10 58 48.6
iPP 11 02 39.2
micr sec
Mx E 1.1 20
Mx N 1.2 21
Um iP 10 58 58.2
Ud iP 10 59 14.0
Molucca Passage
(h = 25 km).
M = 5.4 (Up,Ki).

" 11 Ud iPKP1 10 58 55.5
De iPKP1 10 59 04.5

" 11 Up iP 12 16 48.8
Ud iP 12 16 54.1 C

" 11 Up iP 13 59 38.6
i(sP) 14 00 03.8
iPP 14 00 54.1
iS 14 05 27
micr sec
P Z' 0.1 1.1
Mx E 1.5 20
Mx N 2.4 17
Mx Z 2.8 12
Ki iP 14 00 06.9
micr sec
P Z' 0.1 1.2
Mx E 4.6 14
Mx N 5.4 15
Mx Z 3.7 14
Sk iP 14 00 13.3
Um iP 13 59 45.9
iS 14 05 37
Ud iP 13 59 54.1
ipP 14 00 09.6
De iP 13 59 42.6
Iran.
h = 60 km (Ud).
m = 5.6, M = 5.4 (Up,Ki).

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

1973					
May	11	Up	iPKP1	16 15 33.1	
			i	16 15 38.1	
		Um	iPKP1	16 15 21.9	D
		Ud	iPKP1	16 15 35.9	
		De	iPKP1	16 15 44.2	
"	11	Ud	iP	17 05 02.6	
"	11	Ud	iP	19 12 38.3	
"	11	Ud	iP	20 46 08.7	
		Sinkiang, China.			
"	11	Ud	iP	22 01 45.6	
"	11	Um	iP	23 04 10.5	C
		Ud	iP	23 04 24.4	
"	12	Up	iP	05 59 41.9	C
			ipP	05 59 56.6	
		Ki	iP	05 59 42.2	C
				micr sec	
			P Z'	0.2 0.8	
		Sk	iP	05 59 55.4	C
		Um	iP	05 59 39.0	C
		Ud	iP	05 59 51.1	C
			ipP	06 00 04.9	
		De	iP	05 59 49.5	C
		Sumatra.			
		h = 50 km (Up,Ud).			
"	12	Up	eP	06 48 39	
			i	06 48 45.4	
		Ki	ipP	06 48 28.0	
				micr sec	
			pP Z'	0.1 1.3	
		Um	ipP	06 48 33.3	
		Ud	iP	06 48 47.4	
			ipP	06 48 54.2	
		Luzon.			
		h = 25 km (Up,Ud).			
"	12	Um	iP	07 15 39.8	
		Ud	iP	07 16 04.3	
		De	iP	07 16 27.8	
		Unimak Island (h = N).			
"	12	Up	iP	07 24 49.6	
		Um	iP	07 24 24.3	
		Ud	iP	07 24 48.5	
		Unimak Island (h = N).			
"	12	Up	eP	07 34 41	
		Um	iP	07 34 15.2	
		Ud	iP	07 34 38.3	
		Unimak Island (h = N).			

1973					
May	12	Ud	iPKP1	07 42 46.4	
		De	iPKP1	07 42 57.1	
"	12	Um	iP	08 20 11.2	
"	12	Um	iP	09 37 03.5	
		Turkey (h = 20 km).			
"	12	Ud	iP	15 48 16.2	
"	12	Up	iPP	16 39 44.7	
				micr sec	
			PP Z'	0.3 2.0	
			Mx E	2.3 20	
			Mx N	2.1 20	
			Mx Z	4.1 20	
		Ki		micr sec	
			Mx E	2.4 21	
			Mx N	2.1 20	
		Um	iPP	16 39 24.7	
		New Ireland (h = 15 km).			
		M = 5.9 (Up,Ki).			
"	12	Ki	iP	22 10 04.4	
		Kashmir-Sinkiang			
		(h = 90 km).			
"	12	Up	iP	22 32 38.6	C
			iPP	22 34 25.2	
		Ki	eP	22 32 52	
		Sk	iP	22 33 05.5	
		Um	iP	22 32 38.5	C
		Ud	iP	22 32 55.6	C
		De	iP	22 32 50.8	C
		Hindu Kush (h = 100 km).			
"	13	Up	iP	01 43 15.0	
				micr sec	
			Mx E	0.8 20	
			Mx N	0.7 20	
			Mx Z	1.3 19	
		Ki	iP	01 44 00.7	C
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	01 43 27.9	
		Um	iP	01 43 40.6	C
			ipP	01 43 50.8	
		Ud	iP	01 43 09.3	C
			ipP	01 43 19.8	
		North of Ascension Island.			
		h = 40 km (Um,Ud).			
"	13	Up	iP	04 37 52.4	
		Um	iP	04 37 45.1	
		Ud	iP	04 38 05.7	

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

1973					
May	13	Up	iP	04 58 51.5	
		Ki	iP	04 58 19.4	D
		Sk	iP	04 58 48.5	
		Um	iP	04 58 33.1	D
		Ud	iP	04 58 58.5	D
		De	iP	04 59 10.2	
		Bonin Islands (h = 450 km).			
"	13	Ud	iP	06 23 30.9	
		California (h = N).			
"	13	Ud	iP	10 30 33.5	
"	13	Up	iP	11 28 55.3	
			ipP	11 28 59.0	
		Ki	iP	11 29 31.2	
			ipP	11 29 34.0	
		Um	iP	11 29 08.8	
			ipP	11 29 12.6	
		Ud	iP	11 29 07.7	
			ipP	11 29 11.2	
		Arabian Sea.			
		h = 15 km (Up,Ki,Um,Ud).			
"	13	Up	iP	13 08 18.1	
		Ki	iP	13 08 00.9	
				micr	sec
			Mx E	0.5	16
			Mx N	0.7	20
		Um	iP	13 08 07.7	
		Ud	iP	13 08 27.3	
		Mindoro (h = 1 km).			
"	13	Ki	ePKP	13 31 12	
		Easter Island (h = N).			
"	13	Ki	iPKP	16 50 55.1	
		Easter Island (h = N).			
"	13	Ud	iP	18 18 54.2	
"	14	Up	iP	02 29 58.9	
		Ki	iP	02 29 13.5	
		Sk	iP	02 29 48.5	C
		Um	iP	02 29 33.6	C
		Ud	iP	02 30 05.0	C
		De	iP	02 30 22.9	C
		Kurile Islands (h = 60 km).			
"	14	Ud	iP	06 15 22.3	
		Talaud Islands (h = 100 km).			
"	14	Up	iSn	12 03 35.0	
			iSg1	12 03 46.5	
		Ki	eSg1	12 06 18	
		(cont.)			

1973					
May	14	(cont.)			
		Sk	iSg1	12 05 37.6	
		Um	iSg1	12 04 20.6	
		Ud	iSg1	12 04 47.6	
			iSg2	12 04 55.7	
		De	iSg1	12 05 16.4	
		Esthonia, 59.6°N, 24.7°E.			
		Origin time = 12 01 54.			
		Explosion.			
"	14	Up	i(PKP)	17 30 21.5	
		Ki	iPKP	17 30 10.9	
		Um	iPKP	17 30 17.9	
		Ud	iPKP	17 30 26.8	
		De	iPKP	17 30 35.8	
		Fiji Islands (h = 55 km).			
"	14	Ud	iP	18 41 46.9	D
		Windward Islands (h = N).			
"	14	Up	iPKP1	21 25 24.6	
		Ud	iPKP1	21 25 26.6	D
		De	iPKP1	21 25 37.3	
		Tonga-Kermadec Islands			
		(h = 660 km).			
"	14	Up	iPKP1	21 34 13.4	
		Ki	iPKP	21 34 04.5	
		Sk	iPKP	21 34 15.5	
		Um	iPKP	21 34 10.1	C
			i	21 34 13.1	
		Ud	iPKP1	21 34 14.5	C
		De	iPKP1	21 34 25.6	C
		Tonga-Kermadec Islands			
		(h = 500 km).			
"	15	Um	iP	03 29 25.1	
		Japan (h = 90 km).			
"	15	Up	iPKP1	04 08 42.1	
		Ud	iPKP1	04 08 43.5	
			i	04 08 50.5	
		De	iPKP1	04 08 53.5	
"	15	Ud	iP	04 25 10.7	
		Sinkiang, China			
		(h = 45 km).			
"	15	Up	iP	05 11 08.4	
		Um	iP	05 10 50.6	D
		Ud	iP	05 11 15.8	D
"	15	Up	iPKP1	06 07 23.7	
		Um	iPKP1	06 07 12.5	
			i	06 07 25.6	
		(cont.)			

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

1973 May 15 (cont.)

	Ud	iPKP	06 07 24.6
		iPKP1	06 07 26.0
	De	iPKP1	06 07 35.9
" 15	Up	iP	06 25 32.3
	Um	iP	06 25 10.0
	Ud	iP	06 25 39.9

Japan (h = 50 km).

" 15	Ud	iP	10 18 37.2
" 15	Up	i	12 30 58.4
		eSg1	12 31 11
	Sk	iSg1	12 32 48.4
	Um	iSn	12 30 53.1
		i	12 31 08.0
		iSg1	12 31 18.0
	Ud	i	12 31 58.7
	De	iSg1	12 32 30.6

Western USSR, 59.4°N, 28.3°E.
Origin time = 12 28 16.
Explosion.

" 15	Up	i	13 00 41.1
		iSg1	13 00 47.1
	Ki	i(Sn)	13 02 56.1
		iSg1	13 03 39.4
	Um	iSg1	13 01 35.1
	Ud	iSg1	13 01 39.6
	De	e	13 01 58
		iSg1	13 02 14.6
		i	13 02 18.6

Esthonia, 59.2°N, 24.2°E.
Origin time = 12 59 00.
Explosion.

" 15	Ki	iP	14 35 43.4
	Ud	iP	14 36 38.1
" 15	Ud	iP	14 47 38.9
" 15	Up	iSg1	15 05 28.3
	Ud	iSn	15 04 08.1
		iSg1	15 04 24.3

Southern Norway.
Origin time = 15 02 30.
Solution obtained by combination with Bergen readings.

" 15	Up	iP	18 48 03.2 C
	Ki	iP	18 48 10.3 C

(cont.)

1973 May 15 (cont.)

	Um	iP	18 48 00.5 C
	Ud	iP	18 48 19.8 C
		ipP	18 48 50.0
	De	iP	18 48 16.0 C

Afghanistan-USSR.
h = 140 km (Ud).

" 15	Um	iP	21 51 00.0 D
" 15	Um	iP	21 51 54.6 D
	Ud	iP	21 52 08.0
" 16	Ud	iP	01 34 01.7

Tien-Shan.

" 16	Ud	iPKP1	08 15 16.8

Tonga-Kermadec Islands (h = 610 km).

" 16	Ki	iSg1	09 41 10.5
	Sk	eS*	09 43 20
		iSg1	09 43 23.1

North Norway, 68.9°N, 17.6°E.
Origin time = 09 40 23.
Solution obtained by combination with Tromsoe readings.

" 16	Um	iP	09 45 34.0
" 16	Ki	iPg1	10 30 52.8
		i	10 31 04.8
		iSn	10 31 30.9
		iS*	10 31 43.1
	Sk	eSg1	10 34 34
	Um	iSg1	10 33 17.8
	Ud	eSg1	10 35 47

Northwest USSR-Norway border region, 69.6°N, 30.5°E.
Origin time = 10 29 41.
Explosion.

" 16	Up	i(Sg1)	14 09 27.3
	Um	eSg1	14 09 44
	Ud	eSg1	14 10 22
	De	iSg1	14 10 53.6

Western USSR.
Explosion.

" 16	Up	eSn	14 20 09
		iSg1	14 20 22.5

(cont.)

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

1973 May 16	(cont.)					
	Ki	iSg1	14	22	55.0	
	Sk	iSg1	14	22	12.5	
	Um	iSg1	14	20	58.3	
	Ud	iSg1	14	21	28.9	
		iSg2	14	21	39.0	
	De	iSg1	14	21	52.4	
	Esthonia, 59.6°N, 24.3°E.					
	Origin time = 14 18 34.					
	Explosion.					
" 16	Sk	iP	17	36	13.8	
	Ud	iP	17	35	40.5	
	Greece.					
" 16	Ud	iPKP1	19	25	46.0	
	De	iPKP1	19	25	57.5	
	Tonga-Kermadec Islands					
	(h = 610 km).					
" 17	Up	iP	06	28	46.0	
	Ki	eP	06	28	01	
	Sk	eP	06	28	36	
	Um	iP	06	28	20.9	
	Ud	iP	06	28	52.6	
	De	iP	06	29	11.1	
	Kurile Islands (h = N).					
" 17	Up	iP	09	46	08.6	D
		i	09	46	10.4	
		i	09	46	26.3	
			micr		sec	
		P Z'	0.2		1.0	
		Mx E	0.7		6	
		Mx N	1.9		6	
		Mx Z	1.6		6	
	Ki	iP	09	45	59.9	D
		i	09	46	02.1	
		i	09	46	10.4	
			micr		sec	
		P Z'	0.2		1.0	
		Mx E	1.1		9	
		Mx N	1.9		9	
		Mx Z	1.1		10	
	Sk	iP	09	46	26.6	
		i	09	46	28.7	
	Um	iP	09	45	59.9	
	Ud	iP	09	46	24.4	D
		i	09	46	26.2	
	De	iP	09	46	29.4	
		iPP	09	48	23.1	
	Sinkiang, China (h = N).					
	m = 5.8 (Up,Ki).					
" 17	Ki	iP	11	14	48.0	
	Sinkiang, China.					

1973 May 17	Ki	iPn	11	20	59.4	
		iSn	11	21	47.4	
		iSg1	11	22	03.6	
	Northwest USSR-Norway					
	border region.					
	Origin time = 11 19 56.					
	Explosion.					
" 17	De	iP	13	29	11.6	
" 17	Up	iSn	14	37	26.1	
		iSg1	14	37	39.3	
	Ki	iSg1	14	40	12.5	
		iSg2	14	40	25.2	
	Sk	eSg1	14	39	29	
	Um	iSg1	14	38	14.5	
		i	14	38	18.3	
	Ud	iSn	14	38	16.2	
		iSg1	14	38	41.8	
	De	iS*	14	39	06.3	
		iSg1	14	39	11.3	
	Esthonia, 59.7°N, 24.2°E.					
	Origin time = 14 35 54.					
	Explosion.					
" 17	Up	iP	15	56	01.7	C
			micr		sec	
		P Z'	0.2		1.4	
	Ki	iP	15	55	25.2	C
		ipP	15	55	40.4	
	Sk	iP	15	55	57.0	C
	Um	iP	15	55	41.4	C
		ipP	15	55	55.7	
	Ud	iP	15	56	08.9	C
		ipP	15	56	24.1	
	De	iP	15	56	22.4	C
	Japan.					
	h = 55 km (Ki,Um,Ud).					
" 17	Up	iP	16	11	19.7	C
			micr		sec	
		P Z'	0.1		0.9	
	Ki	iP	16	10	47.3	C
	Sk	iP	16	10	52.5	
	Um	iP	16	11	05.9	
	Ud	iP	16	11	10.2	C
		i	16	11	15.7	
	De	iP	16	11	26.5	C
	Colorado.					
	Underground nuclear explosion.					
" 17	Up	iP	16	18	30.4	
			micr		sec	
		P Z'	0.1		1.0	
	Ki	iP	16	19	02.5	
	(cont.)					

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

1973 May 17 (cont.)

	Ki		micr	sec	
		Mx E	0.5	11	
		Mx N	0.8	14	
		Mx Z	0.5	13	
	Sk	iP	16	19 03.1	
		iPP	16	20 33.9	
	Um	iP	16	18 37.4	
	Ud	iP	16	18 46.6	C
		i	16	18 51.0	
		i	16	19 13.7	
	De	eP	16	18 38	

Iran (h = 45 km).

" 17	Ki	iP	19	34 18.0	
	Sk	eP	19	34 34	
	Um	iP	19	34 11.7	
		i	19	34 23.8	
	Ud	iP	19	34 28.5	
		i	19	34 43.3	

Sumatra (h = 80 km).

" 18	Ud	iP	01	08 39.6

Greece (h = N).

" 18	Um	iP	08	25 13.3

Mexico (h = N).

" 18	Ud	iP	08	57 51.0

" 18	Ud	iPKP1	09	33 34.4
	De	iPKP1	09	33 45.7

Fiji Islands (h = 600 km).

" 18	Up	iP	10	47 49.9	
			micr	sec	
		P Z'	0.1	1.0	
		Mx E	0.6	17	
		Mx N	1.1	20	
		Mx Z	1.2	18	
	Ki	iP	10	47 03.8	
			micr	sec	
		P Z'	0.1	1.4	
		Mx E	0.9	18	
		Mx N	1.3	19	
		Mx Z	0.9	17	
	Sk	iP	10	47 40.0	
	Um	iP	10	47 24.6	D
	Ud	iP	10	47 55.9	D
	De	iP	10	48 14.1	

Kurile Islands (h = N).
m = 5.9, M = 5.1 (Up,Ki).

" 18	Up	eSg1	10	51 40	
	Ud	iPg1	10	50 15.0	

(cont.)

1973 May 18 (cont.)

	Ud	i	10	50 18.2
		iSg1	10	50 48.2
		i	10	50 56.0
	De	iPg1	10	50 21.6
		i	10	50 23.6
		iSg1	10	50 57.1
		i	10	51 05.8

Skagerrak, 58.3°N, 10.2°E.
Origin time = 10 49 30.
Explosion.
The following seven events are from the same area.

" 18	Ud	iPg1	11	12 14.9	
		iSg1	11	12 45.5	
		i	11	12 53.1	
	De	i(Pg1)	11	12 21.7	
		iSg1	11	12 52.0	

Origin time = 11 11 28.
Explosion.

" 18	Up	iSg1	11	13 47.7	
	Ud	iPg1	11	12 25.6	
		eSg1	11	12 56	
		i	11	13 04.8	

Origin time = 11 11 38.
Explosion.

" 18	Up	iSg1	11	14 01.8	
	Ud	iPg1	11	12 37.3	
		iSg1	11	13 09.1	
		i	11	13 17.1	
	De	iSg1	11	13 13.5	

Origin time = 11 11 51.
Explosion.

" 18	Up	iSg1	11	46 54.2	
	Ud	iPg1	11	45 29.1	
		iSg1	11	46 02.7	
		i	11	46 10.1	
	De	iPg1	11	45 35.6	
		i	11	45 37.7	
		iSg1	11	46 12.6	
		i	11	46 23.7	

Origin time = 11 44 45.
Explosion.

" 18	Up	iSg1	12	08 15.1	
	Ud	iPg1	12	06 51.6	
		iSg1	12	07 25.0	
		i	12	07 33.2	
	De	iPg1	12	06 56.9	
		iSg1	12	07 31.7	

Origin time = 12 06 07.
Explosion.

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

1973 May	18	Up	iSg1	12 09 16.5	
		Ud	iPg1	12 07 52.5	
			iSg1	12 08 25.2	
			i	12 08 33.9	
		De	iSg1	12 08 34.4	
		Origin time = 12 07 07.			
		Explosion.			
"	18	Up	iSg1	12 09 42.3	
		Ud	iPg1	12 08 18.5	
			iSg1	12 08 51.7	
			i	12 09 00.1	
		De	iPg1	12 08 21.5	
			i	12 08 24.8	
			iSg1	12 09 00.0	
		Origin time = 12 07 34.			
		Explosion.			
"	18	Up	iSg1	12 16 58.1	
		Ki	iSg1	12 19 52.5	
		Sk	eSg1	12 18 56	
		Um	iSg1	12 17 48.3	
		Ud	iSg1	12 17 58.3	
		De	iSg1	12 18 25.9	
		Esthonia, 59.4°N, 23.4°E.			
		Origin time = 12 15 23.			
		Explosion.			
"	18	Up	iSg1	12 26 24.7	
		Ud	iSg1	12 25 34.5	
			i	12 25 42.3	
		De	i	12 25 39.8	
			iSg1	12 25 42.4	
		From the same location as the eight Skagerrak explosions earlier this date.			
		Origin time = 12 24 17.			
		Explosion.			
		The two following events are from the same area too.			
"	18	Up	iSg1	12 26 56.0	
		Ud	iSg1	12 26 05.8	
			i	12 26 13.7	
		De	iSg1	12 26 13.1	
			i	12 26 17.7	
		Origin time = 12 24 48.			
		Explosion.			
"	18	Up	iSg1	12 27 18.1	
		Ud	iSg1	12 26 27.8	
			i	12 26 36.7	
		De	iSg1	12 26 35.6	
		Origin time = 12 25 10.			
		Explosion.			

1973 May	18	Up	eSg1	12 31 03	
		Um	iSg1	12 31 31.4	
		Ud	eSg1	12 32 10	
		De	eSg1	12 32 35	
		Western USSR.			
		Explosion.			
"	18	Sk	e	14 12 52	
			i	14 14 09.7	
			i	14 16 35.5	
		Um	i	14 12 26.7	
		Probably northwest USSR.			
		Explosion.			
"	18	Up	iSn	17 37 20.4	
			iSg1	17 37 54.5	
		Ki	ePg1	17 35 16	
			e	17 35 37	
			iSg1	17 35 51.2	
		Sk	iPg1	17 35 17.0	
			iSg1	17 35 56.2	
		Um	iPg1	17 35 30.4	
			iSn	17 36 04.6	
			iSg1	17 36 18.0	
			iSg2	17 36 23.2	
		Ud	i	17 37 30.9	
			iSg1	17 37 47.9	
		Nordland, Norway, 66.4°N, 14.6°E.			
		Origin time = 17 34 27.			
		Explosion.			
"	18	Ki	iP	18 41 32.2	
		Alaska (h = 130 km).			
"	18	Ud	iP	22 19 59.1	
"	19	Up	iP	00 42 51.9	
			iS	00 47 21	
				micr	sec
			P Z'	0.3	1.8
			Mx E	1.0	20
			Mx N	0.8	15
			Mx Z	1.3	19
		Ki	iP	00 42 50.9	
				micr	sec
			P Z'	0.2	2.0
			Mx E	1.3	15
			Mx N	1.0	12
			Mx Z	1.2	16
		Sk	iP	00 42 22.0	
		Um	iP	00 42 57.7	
			iS	00 47 28	
		Ud	iP	00 42 34.3	
		De	iP	00 42 45.3	
		(cont.)			

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

1973
May 19 (cont.)
North Atlantic Ocean
(h = N).
m = 5.6, M = 4.5 (Up,Ki).

" 19 Sk iP 00 49 10.1
Ud iP 00 49 22.0
North Atlantic Ocean
(h = N).

" 19 Ud iP 08 43 27.3

" 19 Up iP 11 14 29.9
Ki iP 11 14 37.6
Sk iP 11 14 54.4
Um iP 11 14 26.8
Ud iP 11 14 45.5
De iP 11 14 41.9
Afghanistan-USSR
(h = 110 km).

" 19 Up iSg1 12 13 21.6
Ki eSg1 12 15 17
Sk iSg1 12 15 10.1
Um eSg1 12 13 41
Ud iSg1 12 14 22.3
De iSg1 12 14 48.3
Western USSR,
59.4°N, 27.4°E.
Origin time = 12 10 45.
Explosion.

" 19 Ki iPg1 12 50 40.5
iSn 12 51 15.0
iSg1 12 51 28.8
Um iSg1 12 51 31.2
Probably northern Finland,
near 65°3/4 N, 27°1/2 E.
Origin time = 12 49 37.
Explosion?
By combination with Tromsoe
readings.

" 19 Up iSg1 15 11 03.6
Ki iSg1 15 13 45.0
Um iSg1 15 11 46.1
Ud iSn 15 11 46.2
iSg1 15 12 07.2
De eSg1 15 12 46
Near coast of southwest
Finland.
Explosion?

" 19 Up iSg1 18 18 28.3
(cont.)

1973
May 19 (cont.)
Ud iPg1 18 17 02.1
i 18 17 05.1
iSg1 18 17 35.5
i 18 17 43.1
De i(Pg1) 18 17 10.6
iSg1 18 17 43.8
i 18 17 54.8
Skagerrak, 58.3°N, 10.2°E.
Origin time = 18 16 18.
Explosion.
During the following 17
min, 17 more explosions
were carried out in the
same area with intervals
of approximately one
minute. They were recorded
at Up, Ud and De. Cf the
series in the same area
on May 18.

" 19 Sk iP 18 32 05.5
Peru (h = 80 km).

" 19 Up iP 21 55 52.9
Ki e(P) 21 56 49
iPn 21 57 07.9
Ud iP 21 56 10.6
iPn 21 56 21.4
Caucasus (h = N).

" 20 Up iP 18 28 07.3 C
Ki iP 18 27 10.8 C
iPcP 18 28 23.5
micr sec
P Z' 0.1 0.9
Sk iP 18 27 39.2 C
iPcP 18 28 38.6
Um iP 18 27 40.2 C
iPcP 18 28 38.8
Ud iP 18 28 04.2 C
iPcP 18 28 52.6
De iP 18 28 28.8 C
Alaska (h = 120 km).

" 21 Um iP 02 30 26.8
Ud iP 02 30 46.3
Afghanistan-USSR
(h = 90 km).

" 21 Ud iP 02 59 23.3

" 21 Up iPKP1 03 41 22.2
Ud iPKP1 03 41 24.7 D
De iPKP1 03 41 35.0 D

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

1973 May	21	Ud	iPKP1	05 17 57.2	
		De	iPKP1	05 18 07.0	
		Fiji Islands (h = 550 km).			
"	21	Up	iSg1	06 10 11.3	
		Ki	iSg1	06 10 59.6	
		Sk	iSg1	06 11 26.0	
		Um	iSg1	06 09 35.8	
		Ud	eSg1	06 11 11	
		De	iSg1	06 11 54.1	
		Lake Ladoga region.			
		Explosion?			
"	21	Up	iP	09 27 22.2	
			iPcP	09 27 49.9	
		Ki	iP	09 26 34.3	
		Um	iP	09 26 56.6	
			iPcP	09 27 33.7	
		Ud	iP	09 27 27.7	
		De	iP	09 27 46.5	
		Kurile Islands			
		(h = 140 km).			
"	21	Um	iP	12 01 55.4	
		Ud	eP	12 01 54	
		Indian Ocean (h = N).			
"	21	Up	iSg1	12 16 29.1	
		Ki	eSg1	12 18 02	
		Sk	iSg1	12 17 23.3	
		Um	iSg1	12 16 04.9	
		Ud	iSg1	12 16 38.4	
		De	iSg1	12 17 00.4	
		Esthonia, 59.5°N, 24.8°E.			
		Origin time = 12 13 34.			
		Explosion.			
"	21	De	i(Sg1)	12 24 14.8	
"	21	Up	iPg1	12 40 26.1	
			iSg1	12 40 40.2	
			iRg	12 40 45.0	
		Sk	eSg2	12 43 04	
		Um	iSg1	12 42 41.2	
		Ud	iPg1	12 40 53.3	
			iSg1	12 41 27.8	
		De	iPn	12 40 58.9	
			iSg1	12 41 48.2	
		Off coast of Södermanland,			
		Sweden, 58.9°N, 17.8°E.			
		Origin time = 12 40 09.			
		Explosion.			
		The five following events			
		have the same location.			

1973 May	21	Up	iPg1	12 52 37.5	
			iSg1	12 52 51.5	
			iRg	12 52 57.0	
		Sk	eSg2	12 55 16	
		Um	iSg1	12 54 53.5	
		Ud	iSg1	12 53 39.2	
		De	ePn	12 53 11	
			iSg1	12 53 59.7	
			i	12 54 06.1	
		Origin time = 12 52 21.			
		Explosion.			
"	21	Up	iPg1	13 04 54.8	
			iSg1	13 05 09.2	
			iRg	13 05 14.6	
		Sk	eSg2	13 07 33	
		Um	iSg1	13 07 10.8	
		Ud	iS*	13 05 54.6	
			iSg1	13 05 56.5	
		De	iPn	13 05 28.4	
			iSg1	13 06 17.1	
			i	13 06 22.9	
		Origin time = 13 04 38.			
		Explosion.			
"	21	Up	iPg1	13 20 37.6	
			iSg1	13 20 51.3	
			iRg	13 20 56.9	
		Sk	eSg2	13 23 15	
		Um	iSg1	13 22 53.1	
		Ud	iSg1	13 21 37.4	
			i	13 21 45.9	
		De	iPn	13 21 10.6	
			iSg1	13 21 59.6	
			i	13 22 05.6	
		Origin time = 13 20 20.			
		Explosion.			
"	21	Up	iPg1	13 45 26.2	
			iSg1	13 45 40.3	
			iRg	13 45 45.7	
		Sk	eSg2	13 48 04	
		Um	iSg1	13 47 41.8	
		Ud	iPg1	13 45 53.4	
			iS*	13 46 25.9	
			iSg1	13 46 27.9	
		De	iPn	13 45 59.4	
			iSg1	13 46 48.7	
			i	13 46 54.4	
		Origin time = 13 45 09.			
		Explosion.			
"	21	Up	iPg1	14 07 23.6	
			iSg1	14 07 37.4	
			iRg	14 07 42.9	
		(cont.)			

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

1973 May 21 (cont.)

Sk	eSg2	14	10 02
Um	iSg1	14	09 39.7
Ud	ePg1	14	07 52
	iSg1	14	08 24.8
De	ePn	14	07 57
	iSg1	14	08 46.1
	i	14	08 50.9

Origin time = 14 07 06.
Explosion.

" 21 Um i(Sg1) 15 09 28.5

" 21

Up	iP	15	38 02.1
Um	iP	15	37 56.6

Mexico (h = 100 km).

" 21

Ki	ePn	18	53 24
	iPg1	18	53 32.7
	iSn	18	54 10.4
	iS*	18	54 22.8
Um	i	18	55 40.3
	iSg1	18	55 59.2

Northwest USSR-Norway border region, 69.6°N, 30.1°E.
Origin time = 18 52 23.
Explosion.

" 21

Up	iP	20	29 39.4
	ipP	20	29 48.8
Ki	iP	20	29 09.9
	ipP	20	29 19.5
Sk	iP	20	29 40.5
Um	iP	20	29 22.4
	ipP	20	29 30.6
Ud	iP	20	29 48.4
De	eP	20	30 02

Ryukyu Islands.
h = 35 km (Up,Ki,Um).

" 21

Up	iPg1	21	19 40.5
	iSg1	21	20 00.0
	iRg	21	20 04.0
Ud	iSg1	21	19 45.3
	iRg	21	19 50.6
De	iSg1	21	21 02.3

Bergslagen, central Sweden.
Origin time = 21 19 16.

" 21

Ki	iX	22	00 30.9
Um	iP	22	00 14.1
	iX	22	00 27.7
Ud	eP	22	00 25

Sunda Strait (h = 90 km).

1973 May 22

			micr	sec
Ki				
	Mx	E	0.7	13
	Mx	N	1.3	17
	Mx	Z	0.5	13
Ud	iP		00 57	25.9

Iran (h = 35 km).

" 22 Um iP 03 49 26.1
Hindu Kush (h = 180 km).

" 22 Ud iP 04 12 30.5

" 22

Up	iPKP1	10	10 34.1
Ud	iPKP1	10	10 36.6
De	iPKP1	10	10 46.1

" 22

Up	iSn	13	24 18.5
	iSg1	13	24 30.5
Ki	eSg1	13	27 08
Sk	e	13	26 07
	iSg1	13	26 22.0
Um	iSg1	13	25 07.3
Ud	eSg1	13	25 35
De	iSg1	13	25 56.2

Esthonia, 59.3°N, 25.0°E.
Origin time = 13 22 30.
Explosion.

" 22

Up	iSg1	15	04 12.5
Sk	iSg1	15	06 03.3
Um	iSg1	15	04 37.2
Ud	iSg1	15	05 15.8
De	iSg1	15	05 42.8

Esthonia.
Explosion.

" 22

Up	iP	15	31 14.0
	i	15	31 19.7
Sk	iP	15	31 53.8
Um	iP	15	31 58.3
Ud	iP	15	31 20.8
De	iP	15	30 45.3

Greece.

" 22

Up	ePKP	17	24 47
Um	iSKP1	17	28 18.6
Ud	iPKP	17	24 48.7
De	iPKP	17	24 56.3
	i	17	25 00.5

Tonga Islands (h = N).

" 22

Ki	iPg1	17	46 19.3
	iSg1	17	46 36.9

Finnish Lapland.

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

1973 May	22	Um	iP	20 23 16.9	
		Ud	iP	20 23 48.0	
"	22	Um	iPKP	22 23 46.6	
		De	iPKP	22 23 53.0	
			i	22 23 59.1	
		New Guinea (h = 15 km).			
"	23	De	iP	00 06 06.8	
"	23	Up	iP	02 08 14.1	
			i	02 08 40.3	
		Ud	iP	02 08 27.0	
			i	02 08 53.5	
		Burma-India (h = 60 km).			
		The second phase at Up and Ud may be interpreted as P for an event from the same focal area occurring 26 sec later or as pP for the present event, giving a focal depth of 110 km.			
"	23	Up	iP	05 34 56.1	
		Ud	iP	05 34 58.2	
"	23	Ud	iP	06 41 03.9	
"	23	Up	iP	10 29 00.7	
			ipP	10 29 08.9	
				micr sec	
			Mx E	0.6 20	
			Mx N	0.5 18	
			Mx Z	0.6 18	
		Ki	ipP	10 29 52.9	
		Sk	ipP	10 29 21.8	
		Um	ipP	10 29 33.4	
		Ud	iP	10 28 55.6	
			ipP	10 29 03.3	
		De	iP	10 28 35.8	
		Ascension Island.			
		h = 30 km (Up,Ud).			
"	23	Up	iSg1	11 09 53.5	
			iRg	11 10 11.9	
		Sk	iSg1	11 09 49.7	
		Um	iSg1	11 10 37.1	
		Ud	iPg1	11 09 03.4	
			iSg1	11 09 25.5	
			iRg	11 09 29.6	
		De	eSg1	11 11 18	
		Central Sweden, 61.4°N, 13.8°E.			
		Origin time = 11 08 38. (cont.)			

1973 May	23	(cont.) An explosion experiment described in detail by E. Abrahamsson (1974): Operation Block, Royal Swedish Fortifications Administration, Rep. No. 119:5, 103 pp.			
"	23	Up	iPKP	12 21 19.6	
		Ki	iPKP	12 21 34.5	
		Ud	iPKP	12 21 18.3	
		South Sandwich Islands (h = 120 km).			
"	23	Up	eSg1	12 29 34	
		Sk	eSg1	12 31 21	
		Um	iSg1	12 29 43.7	
		De	eSg1	12 30 53	
		Western USSR. Explosion.			
"	23	Up	iSg1	13 20 14.3	
		Ki	iSg1	13 22 18.0	
		Sk	iSg1	13 22 05.7	
		Um	i	13 20 17.4	
			iSg1	13 20 32.4	
		Ud	iSg1	13 21 14.8	
		De	iSg1	13 21 37.8	
		Western USSR, 59.2°N, 28.3°E.			
		Origin time = 13 17 22. Explosion.			
"	23	Um	iSg1	13 44 59.8	
		De	eSg1	13 45 59	
		Esthonia. Explosion.			
"	23	Up	iSg1	13 46 56.5	
		Ki	eSg1	13 49 34	
		Sk	eSg1	13 48 43	
		Um	iSg1	13 47 31.7	
		De	eSg1	13 48 22	
		Esthonia. Explosion.			
"	23	Up	iSg1	13 58 27.7	
		Ud	iSg1	13 57 53.0	
		De	ePn	13 57 10	
			iPg1	13 57 11.4	
			iSg1	13 57 34.4	
			iRg	13 57 41.1	
		Västergötland, Sweden, 57.9°N, 12.4°E.			
		Origin time = 13 56 42.			

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

1973 May	23	Up	iPg1	17 45 20.7	
			iSg1	17 45 53.0	
		Um	iSg1	17 46 55.0	
		De	iSg1	17 47 28.4	
		Baltic Sea, southwest of Finland, 59.6°N, 22.2°E.			
		Origin time = 17 44 37.			
		Explosion.			
"	23	Up	iPg1	18 01 25.9	
			iSg1	18 01 59.6	
		Um	iSg1	18 03 01.7	
		De	iSg1	18 03 34.6	
		Baltic Sea, southwest of Finland, 59.6°N, 22.2°E.			
		Origin time = 18 00 44.			
		Explosion.			
"	23	Up	iPg1	18 18 24.5	
			iSg1	18 18 56.4	
		Um	iSg1	18 19 58.9	
		Ud	iSg1	18 20 00.6	
		De	ePg1	18 19 22	
			eSg1	18 20 30	
		Baltic Sea, southwest of Finland, 59.6°N, 22.0°E.			
		Origin time = 18 17 44.			
		Explosion.			
"	23	Up	iPg1	18 18 40.3	
			iSg1	18 19 11.8	
		Sk	eSg1	18 21 09	
		Um	iSg1	18 20 14.9	
		Ud	iSg1	18 20 17.7	
		Baltic Sea, southwest of Finland, 59.6°N, 22.0°E.			
		Origin time = 18 18 00.			
		Explosion.			
"	23	Ud	iRg	20 00 27.9	
"	24	Up	iP	02 04 50.5	C
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	02 04 29.2	C
		Sk	iP	02 04 55.4	
		Um	iP	02 04 35.8	
		Ud	iP	02 05 00.1	C
			i	02 05 08.2	
		De	eP	02 05 07	
		Luzon-Formosa (h = N).			
"	24	Up	iP	02 35 19.2	
		Ki	iP	02 35 43.3	
		Ud	iP	02 35 29.2	
		(cont.)			
1973 May	24	(cont.)			
		Ud	i	02 35 38.4	
		Indian Ocean (h = N).			
"	24	De	iP	08 35 43.7	
"	24	Ud	iPn	11 38 10.2	
			iPg1	11 38 12.2	
			iSg1	11 38 42.0	
		De	iPg1	11 38 12.5	
			iSg1	11 38 42.7	
		Bohuslän, Sweden, 58.2°N, 11.4°E.			
		Origin time = 11 37 33.			
"	24	Ud	eSg1	12 02 35	
		De	ePg1	12 00 47	
			iPn	12 00 47.4	
			iSg1	12 01 01.0	
		Probably explosion off coast of south Sweden.			
		Origin time = 11 59 29.			
"	24	Ki	iPn	12 40 32.9	
			iSn	12 41 21.0	
			iS*	12 41 34.2	
		Um	iSg1	12 43 06.4	
		Northwest USSR-Norway border region, 69.5°N, 30.9°E.			
		Origin time = 12 39 30.			
		Explosion.			
"	24	Up	iSg1	12 49 38.6	
		Ki	iSg1	12 51 33.7	
		Sk	iSg1	12 51 21.9	
		Um	iSg1	12 49 56.6	
		Ud	iSg1	12 50 38.1	
		De	iSg1	12 51 03.4	
		Western USSR, 59.3°N, 28.0°E.			
		Origin time = 12 46 51.			
		Explosion.			
"	24	Ud	iP	13 21 09.7	
"	24	Up	iRg	13 45 15.4	
		Ud	iRg	13 45 28.9	
"	24	Up	iSg1	13 46 12.7	
		Um	iSg1	13 46 31.9	
		De	eSg1	13 47 45	
		Western USSR.			
		Explosion.			
"	24	De	iRg	13 48 06.0	

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

1973 May 24 Ki i(Pn) 14 12 58.0
i(Sn) 14 13 26.4

" 24 Ud iP 14 46 52.7
De iP 14 47 00.2

" 24 Ud iP 14 48 44.1

" 24 Ud i(P) 15 12 08.7

" 24 Um eP 15 54 11
Ud iP 15 54 43.0
Japan (h = N).

" 24 Um iP 17 23 25.8
Japan (h = 380 km).

" 24 Up iP 18 58 09.9 C
ipP 18 58 22.7
micr sec
P Z' 0.1 1.0
Mx E 1.0 17
Mx N 1.0 19
Mx Z 1.0 19
Ki iP 18 57 16.9 C
iPcP 18 58 02.5
micr sec
P Z' 0.1 0.8
Mx E 1.6 17
Mx N 0.7 15
Mx Z 1.0 18
Sk iP 18 57 48.4
iPcP 18 58 21.7
Um iP 18 57 43.5
ipP 18 57 55.3
iPcP 18 58 18.9
Ud iP 18 58 09.6 C
ipP 18 58 22.4
iPcP 18 58 36.1
De iP 18 58 31.8 C
i 18 58 45.8
Aleutian Islands.
h = 45 km (Up,Um,Ud).
m = 6.0, M = 5.1 (Up,Ki).

" 24 Um ipP 19 03 43.7
iPcP 19 04 12.4
Ud iP 19 03 57.0
ipP 19 04 10.2
De eP 19 04 21
ipP 19 04 32.4
Aleutian Islands
h = 45 km (Ud,De).
Origin time = 18 53 00.

1973 May 24 Up ipP 19 47 12.8
i 19 47 38.2
Ki iP 19 46 35.7
ipP 19 47 02.0
i 19 47 27.1
micr sec
pP Z' 0.1 1.3
Sk iP 19 46 28.9
ipP 19 46 54.3
Um iP 19 46 43.6
ipP 19 47 09.9
i 19 47 36.0
Ud iP 19 46 37.1
ipP 19 47 02.6
De iP 19 46 43.3
ipP 19 47 09.9
Guatemala.
h = 100 km (Ki,Sk,Um,Ud,De).
The phase, following the first onset by about 52 sec, could be P of another event from the same focal area.

" 24 Ud i(P) 20 13 25.5

" 24 Ud iP 21 05 19.8
Kurile Islands (h = N).

" 24 Up eRg 21 14 29
Ud iRg 21 14 16.5
De eSg1 21 15 31
Bergslagen, central Sweden.

" 24 Up iP 22 29 56.6
Um iP 22 29 33.2
Ud iP 22 30 03.0
i 22 30 15.5
Japan (h = N).

" 24 Sk eP 23 23 02
Um iP 23 22 40.5
Ud iP 23 22 41.1
De eP 23 22 24
Iran (h = N).

" 25 Up i(pP) 00 13 19.3
Ud iP 00 13 04.0
Aleutian Islands
(h = 25 km).

" 25 Ud iP 03 08 50.6
Aleutian Islands
(h = 45 km).

" 25 Ki i(Pn) 08 38 14.8
i(Sn) 08 38 42.1

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

1973 May	25	Um	i(Sg1)	08 41 09.6	
"	25	Ki	i(Pn)	08 41 35.3	
			i(Sn)	08 42 03.3	
"	25	Ki	i(Pn)	08 43 23.3	
			i(Sn)	08 43 50.3	
			i	08 44 05.1	
"	25	Up	iP	08 48 27.0	
			ipP	08 48 39.4	
				micr	sec
			Mx E	0.8	14
			Mx N	1.4	16
			Mx Z	1.4	15
		Ki	ipP	08 49 01.6	
				micr	sec
			Mx E	1.5	13
			Mx N	2.0	14
			Mx Z	1.3	13
		Sk	i	08 49 04.0	
			ipP	08 49 08.0	
		Um	eP	08 48 33	
			ipP	08 48 44.7	
		Ud	iP	08 48 42.6	
			ipP	08 48 54.4	
			iPP	08 50 42.7	
		De	eP	08 48 33	
			ipP	08 48 44.2	
		Pakistan.			
		h = 45 km (Up,Um,Ud,De).			
		M = 5.2 (Up,Ki).			
"	25	Up	i	11 11 20.2	
			iSg1	11 11 31.8	
		Ki	iSg1	11 14 07.5	
		Sk	iSg1	11 13 23.8	
		Um	iSg1	11 12 05.3	
		Ud	iSg1	11 12 34.4	
		De	iSg1	11 13 01.5	
		Esthonia, 59.5°N, 25.2°E.			
		Origin time = 11 09 30.			
		Explosion.			
"	25	Ud	iP	11 47 46.3	
"	25	Up	iSg1	13 10 12.1	
		Sk	eSg1	13 10 11	
		Um	iSg1	13 11 32.9	
		Ud	iS*	13 09 07.7	
			iSg1	13 09 12.9	
		South Norway,			
		58.5°N, 6.4°E.			
		Origin time = 13 07 07.			
		Solution obtained by combination with Bergen readings.			

1973 May	25	Up	iSg1	13 11 24.0	
		Ki	i(Sg2)	13 13 54.5	
		Sk	eSg1	13 13 16	
		Um	iSg1	13 11 47.4	
		De	e	13 12 47	
			iSg1	13 13 00.5	
		Esthonia.			
		Explosion.			
"	25	Up	iP	13 28 17.2	
		Ki	iP	13 27 24.4	
		Sk	iP	13 27 53.2	
		Um	iP	13 27 51.2	
		Ud	iP	13 28 15.7	
		De	iP	13 28 38.0	
		South of Alaska (h = 40 km).			
"	25	Um	iP	17 06 52.6	
		Ud	iP	17 07 16.7	
		Kurile Islands.			
"	25	De	iPKP1	18 06 17.6	
			i	18 06 23.9	
			i	18 06 33.9	
		Tonga-Kermadec Islands			
		(h = N).			
"	26	Up	iP	02 26 59.0	C
			ipP	02 27 12.7	
				micr	sec
			pP Z'	0.1	1.3
		Ki	eP	02 26 21	
		Sk	eP	02 26 58	
		Um	iP	02 26 37.0	C
			ipP	02 26 50.0	
		Ud	iP	02 27 06.3	C
			ipP	02 27 20.3	
		De	eP	02 27 22	
			ipP	02 27 34.3	
		Japan.			
		h = 50 km (Up,Um,Ud,De).			
"	26	Up	iP	03 17 49.1	
		Um	iP	03 17 23.0	
		Ud	iP	03 17 49.0	
		Aleutian Islands			
		(h = 60 km).			
"	26	Ud	iPKP1	04 03 34.0	
		De	iPKP1	04 03 44.8	
"	26	Ki	ePKP	04 23 05	
		Sk	ePKP	04 23 15	
		Um	iPKP	04 23 10.7	
		Ud	iSKP1	04 26 24.7	
		New Hebrides Islands			
		(h = 200 km).			

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

1973 May	26	Up	iP		07 08 38.7	
		Ki	iP		07 07 22.1	
			i		07 07 30.9	
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		07 07 40.1	
		Um	iP		07 08 01.7	C
		Ud	iP		07 08 26.4	
			i		07 08 39.2	
		Jan Mayen.				
"	26	Up	iP		08 26 54.3	
			ipP		08 27 03.2	
		Ud	iP		08 26 59.9	
			ipP		08 27 09.5	
		Kurile Islands.				
		h = 35 km (Up,Ud).				
"	26	Up	iSg1		08 40 34.2	
		Um	iSg1		08 41 12.4	
		Gulf of Finland,				
		59.6°N, 24.0°E.				
		Origin time = 08 38 52.				
		Explosion.				
		See note for following event.				
"	26	Up	iPn		08 42 22.3	
			iSn		08 43 01.5	
			iSg1		08 43 13.2	
		Sk	eSg1		08 45 03	
		Um	iSg1		08 43 51.3	
		Ud	iSn		08 43 53.1	
			iSg1		08 44 15.5	
		De	iPn		08 43 02.6	
			iSg1		08 44 43.3	
		Gulf of Finland,				
		59.6°N, 24.0°E.				
		Origin time = 08 41 31.				
		Explosion.				
		The recorded wave trains are similar to those of the events on May 23, 17 44, 18 00, 18 17 and 18 18.				
"	26	Up	iPn		08 42 40.1	
		Um	iSg1		08 44 09.4	
		De	iPn		08 43 20.9	
		Gulf of Finland,				
		59.6°N, 24.0°E.				
		Origin time = 08 41 49.				
		Explosion.				
		See note for foregoing event.				
"	26	Up	iSg1		11 03 37.2	
		Ud	iSg1		11 02 36.0	
		(cont.)				
1973 May	26	(cont.)				
		Near coast of southwest Norway, 59.5°N, 5.7°E.				
		Origin time = 11 00 25.				
		Solution obtained by combination with Bergen and Kongsberg readings.				
"	26	Ki	iPn		11 40 34.1	
			iPg1		11 40 42.3	
			iSn		11 41 20.4	
			iSg1		11 41 35.3	
		Um	iSg1		11 43 08.2	
		Northwest USSR-Norway border region,				
		69.6°N, 30.1°E.				
		Origin time = 11 39 33.				
		Explosion.				
"	26	Up	iSg1		12 15 04.1	
		Ki	eSg1		12 17 03	
		Sk	eSg1		12 16 54	
		Um	iSg1		12 15 21.5	
		Ud	iSg1		12 16 04.7	
		De	e(Sg2)		12 16 38	
		Western USSR.				
		Explosion.				
"	26	Up	iP		12 30 31.6	C
			ipP		12 30 41.6	
			iS		12 39 22	
			iP'P'		12 58 40.1	
					micr	sec
			P	Z'	0.6	0.9
			Mx	E	4.2	20
			Mx	N	5.7	20
			Mx	Z	6.4	19
		Ki	iP		12 29 38.9	C
			iS		12 37 49	
					micr	sec
			P	Z'	0.2	1.4
			Mx	Z	6.9	18
		Sk	iP		12 30 11.2	
		Um	iP		12 30 04.3	C
			ipP		12 30 14.7	
			iS		12 38 35	
			iP'P'		12 58 51.3	
		Ud	iP		12 30 32.4	C
			iP'P'		12 58 47.7	
		De	iP		12 30 54.5	C
			ipP		12 31 04.0	
		Aleutian Islands.				
		h = 35 km (Up,Um,De).				
		m = 6.4, M = 5.8 (Up,Ki).				

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

1973 May	26	Up	iP	13 23 06.0	C
			ipP	13 23 20.8	
				micr sec	
			P Z'	0.1 0.9	
		Ki	iP	13 22 13.3	
		Sk	eP	13 22 45	
		Um	iP	13 22 39.0	
		Ud	iP	13 23 06.9	
		De	iP	13 23 28.6	
		Aleutian Islands.			
		h = 55 km (Up).			
"	26	Up	i(PKP2)	16 10 52.2	
		Sk	ePKP1	16 10 43	
		Um	iPKP1	16 10 35.4	
		Ud	ePKP1	16 10 46	
			i(PKP2)	16 10 55.8	
"	26	Ki	iP	23 13 34.0	
		Alaska (h = 170 km).			
"	26	Ud	iP	23 15 44.7	
"	26	Ud	eP	23 58 38	
		California (h = 10 km).			
"	27	Um	i(PP)	00 48 46.3	
		De	ePKP	00 48 32	
		New Guinea (h = 25 km).			
"	27	Up	iP	06 33 02.9	
		Um	iP	06 32 44.0	D
		Ud	eP	06 33 10	
"	27	Up	iPKP1	06 56 44.9	
			i	06 56 46.7	
		Ki	iPKP	06 56 37.6	
			iSKP1	06 59 32.0	
		Sk	e(PKP)	06 56 39	
			iPKP	06 56 46.8	
		Um	i(PKP)	06 56 40.3	
			iPKP	06 56 44.3	
			iSKP1	06 59 43.8	
		Ud	iPKP1	06 56 46.7	
			i	06 56 48.1	
		De	iPKP1	06 56 57.5	D
			i	06 56 59.5	
		Fiji Islands (h = 420 km).			
		Double PKP1 phases, in average 1.7 sec apart.			
"	27	Up	ePKP1	08 07 13	
		Ki	i(PKP)	08 06 51.4	
			iPKP	08 06 56.0	
		Um	iSKP1	08 09 42.1	
		(cont.)			
1973 May	27	(cont.)			
		Ud	iPKP1	08 07 15.3	
		De	ePKP1	08 07 28	
"	27	Um	iP	09 37 41.6	
		Malawi (h = N).			
"	27	De	iPg1	10 26 59.8	
			iSg1	10 27 44.6	
"	27	Up	iS*	10 41 49.8	
			iSg1	10 41 59.2	
		Ki	iSn	10 38 41.3	
			iSg1	10 39 03.2	
		Sk	iSg1	10 41 29.9	
		Um	eSn	10 39 21	
			iSg1	10 39 54.5	
		Ud	iSg1	10 42 25.5	
		De	eSg1	10 43 55	
		Northwest USSR, 67.8°N, 34.0°E.			
		Origin time = 10 36 24.			
		Explosion.			
"	27	Up	iP	13 43 15.3	
"	27	Up	iP	14 45 27.9	
"	27	Up	iP	16 32 56.5	
		Um	iP	16 32 39.3	
		Ud	iP	16 33 03.3	C
		Volcano Islands (h = N).			
"	27	Up	eP	19 58 18	
		Ki	iP	19 57 41.4	
		Sk	eP	19 58 14	
		Um	iP	19 57 56.6	
		Ud	iP	19 58 26.0	
		De	iP	19 58 39.5	
		Sea of Japan (h = 370 km).			
"	27	Up	iP	21 28 40.7	
		Ki	iP	21 29 06.8	
		Ud	iP	21 28 51.5	
		De	eP	21 28 38	
		Indian Ocean (h = N).			
"	27	Um	iP	22 08 07.6	
"	28	Ud	iP	06 08 21.3	
"	28	Um	iP	06 44 42.9	
		Hindu Kush.			
		Intermediate depth.			
"	28	Up	iSg1	12 11 42.5	
		(cont.)			

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

1973 May	28	(cont.)					
		Ki	e(Sg2)		12	13	55
		Sk	eSg1		12	13	27
		Um	i		12	11	48.1
			iSg1		12	11	57.9
		Ud	eSg1		12	12	40
		De	eSg1		12	13	04
		Western USSR.					
		Explosion.					
"	28	Up	iP		12	59	08.5
		Hindu Kush.					
		Intermediate depth.					
"	28	Up	iSg1		14	15	52.8
		Um	iSg1		14	16	14.6
		De	eSg1		14	17	17
		Western USSR,					
		59.2°N, 27.5°E.					
		Origin time = 14 13 15.					
		Explosion.					
"	28	Up	iSg1		14	16	01.7
		Sk	eSg1		14	17	47
		Um	iSg1		14	16	22.0
		Ud	iSg1		14	17	01.9
		De	iSg1		14	17	24.9
		Western USSR,					
		59.2°N, 27.5°E.					
		Origin time = 14 13 23.					
		Explosion.					
"	28	Ud	iP		16	57	36.9
		Greece.					
"	28	Up	iP		17	54	14.1
		Ud	iP		17	54	21.3
		Greece.					
"	28	Up	eP1		20	39	52
			iP2		20	39	55.9
			iP4		20	40	20.0
			iP4P4		20	43	43.7
			iS		20	50	20
					micr		sec
			P4	Z'	0.1		1.3
			Mx	E	1.9		20
			Mx	N	2.0		22
			Mx	Z	4.9		21
		Ki	iP4		20	40	43.0
			iP4P4		20	44	12.0
			iS		20	51	03
					micr		sec
			P4P4	Z'	0.2		1.9
			Mx	E	3.0		20
			Mx	N	4.7		22
		(cont.)					

1973 May	28	(cont.)					
		Ki			micr		sec
			Mx	Z	2.6		21
		Sk	iP4P4		20	44	11.3
		Um	iP3		20	40	12.6
			iP4		20	40	29.1
			iS		20	50	44
		Ud	eP2		20	40	04
			iP3		20	40	11.2
			iP4		20	40	27.4
		De	eP1		20	39	50
			iP4		20	40	15.8
		Mascarene Islands (h = N).					
		m = 6.1, M = 5.8 (Up,Ki).					
		Multiple event.					
"	29	Um	iP		00	51	27.8
"	29	Up	iP		01	56	24.3
		Ud	iP		01	56	25.3
		Aleutian Islands					
		(h = 45 km).					
"	29	Up	iP		01	57	36.0 C
			i		01	57	40.3
			ipP		01	57	51.5
			iS		02	06	30
			iP'P'		02	26	01.7
					micr		sec
			P	Z'	0.1		1.0
			i	Z'	0.2		0.9
			Mx	E	2.0		18
			Mx	N	3.2		22
			Mx	Z	3.9		22
		Ki	iP		01	56	43.2 C
			i		01	56	46.9
			ipP		01	56	57.6
			iS		02	04	54
					micr		sec
			P	Z'	0.1		1.0
			i	Z'	0.2		1.0
			Mx	E	3.2		16
			Mx	N	4.6		20
			Mx	Z	3.8		19
		Sk	iP		01	57	16.1 C
			i		01	57	20.3
			ipP		01	57	31.6
		Um	iP		01	57	09.0 C
			i		01	57	13.0
			ipP		01	57	23.6
			iS		02	05	42
		Ud	iP		01	57	37.9 C
			i		01	57	41.6
			ipP		01	57	53.1
		De	iP		01	57	59.4 C
			i		01	58	03.1
		(cont.)					

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

1973 May 29 (cont.)

	De	ipP	01 58 15.1	

Aleutian Islands.
h = 55 km (Up,Ki,Sk,Um,Ud,De).
m = 6.2, M = 5.7 (Up,Ki).
Double P phases, in average 3.9 sec apart. If pP belongs to the second, bigger onset, the focal depth is 40 km.

" 29	Up	iP	02 01 53.5	C
		ipP	02 02 06.1	
			micr	sec
		P Z'	0.1	1.0
	Ki	iP	02 01 00.0	
	Sk	eP	02 01 34	
	Um	iP	02 01 26.3	
		ipP	02 01 38.8	
	Ud	iP	02 01 54.9	C
		ipP	02 02 07.7	
	De	iP	02 02 16.6	
		ipP	02 02 29.1	

Aleutian Islands.
h = 45 km (Up,Um,Ud,De).
Origin time = 01 51 02.

" 29	Up	eP	04 55 23	
	Ki	iP	04 53 40.9	
		iTSg1	04 58 47.9	
	Sk	iP	04 54 19.8	
		iS	04 56 06.0	
	Um	iP	04 54 28.6	
		i	04 54 32.4	
		iTSg1	05 01 09.0	
	Ud	iP	04 55 07.9	
	De	eP	04 55 59	

Norwegian Sea (h = N).

" 29	Up	iP	05 22 57.9	

Aleutian Islands
(h = 40 km).

" 29	Up	iP	06 25 08.9	C
		iPcP	06 25 39.3	
		iP'P'	06 53 37.6	
			micr	sec
		P Z'	1.4	1.4
		Mx E	1.0	18
		Mx N	2.5	23
		Mx Z	3.5	23
	Ki	iP	06 24 15.3	C
		iPcP	06 25 06.6	
			micr	sec
		P Z'	2.2	1.4

(cont.)

1973 May 29 (cont.)

	Ki		micr	sec
		Mx E	1.5	18
		Mx N	1.3	19
		Mx Z	1.5	16
	Sk	iP	06 24 44.6	C
		iPcP	06 25 23.8	
	Um	iP	06 24 42.8	C
		ipP	06 24 50.3	
		iPcP	06 25 21.3	
		iS	06 33 04	
		iScS	06 34 31	
		iP'P'	06 53 49.7	
	Ud	iP	06 25 07.9	C
		ipP	06 25 15.3	
		iPcP	06 25 38.8	
	De	iP	06 25 30.8	C
		eP'P'	06 53 28	

Unimak Island.
h = 25 km (Um,Ud).
m = 7.0, M = 5.4 (Up,Ki).

" 29	Ud	iP	07 32 38.9	

Uzbek SSR.

" 29	Ud	i(P)	09 30 36.7	
" 29	Up	ePKP2	11 31 07	
	Ki	iPKP1	11 30 35.0	
	Um	iPKP1	11 30 41.3	
		iPKP2	11 30 51.2	
	Ud	iPKP2	11 31 12.8	
	De	iPKP2	11 31 23.9	

New Zealand (h = 55 km).

" 29	Up	iP	11 59 48.4	

Mascarene Islands
(h = N).

" 29	Up	iPn	12 51 47.1	
		iSg1	12 52 14.9	
		iRg	12 52 32.8	
	Um	iSg1	12 54 20.8	
	Ud	iSg1	12 52 58.2	
	De	eSn	12 52 42	
		iSg1	12 52 51.0	

Gotland Island region, Sweden, 58.0°N, 18.6°E.
Origin time = 12 51 15.

" 29	Up	iSg1	13 02 21.6	
	Sk	eSg1	13 04 21	
	Um	iSg1	13 03 12.9	
	Ud	iSg1	13 03 22.9	

(cont.)

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

1973					
May	29	(cont.)			
		De	iSg1	13 03 54.7	
		Esthonia, 59.5°N, 23.3°E.			
		Origin time = 13 00 50.			
		Explosion.			
"	29	Up	iSg1	13 10 15.1	
		Um	iSg1	13 10 29.2	
			eRg	13 11 02	
		Ud	eSg1	13 11 16	
		De	eSg1	13 11 44	
		Western USSR,			
		59.6°N, 27.7°E.			
		Origin time = 13 07 35.			
		Explosion.			
		The occurrence of Rg (as here at Um) on our records is rare for Esthonian and western USSR explosions.			
"	29	Up	i	14 11 08.2	
			iSg1	14 12 16.9	
			iSg2	14 12 23.6	
		Sk	eSg1	14 14 02	
		Um	iSg1	14 12 30.6	
		Ud	iSg1	14 13 14.7	
		De	e	14 13 35	
			iSg1	14 13 47.4	
		Western USSR.			
		Explosion.			
"	29	Up	iP	17 55 52.1	
		Ud	iP	17 56 04.9	
		Arabian Sea.			
"	29	Up	iP	23 17 30.1	
		Ki	iP	23 16 35.1	
		Ud	iP	23 17 32.9	
		Komandorsky Islands			
		(h = N).			
"	29	Up	iP	23 19 30.1	
		Ud	iP	23 19 31.0	
"	30	Up	iP	04 51 12.5	
			ipP	04 51 40.5	
			iSKS	05 01 36	
				micr	sec
			Mx E	0.9	22
			Mx N	0.8	23
			Mx Z	1.2	22
		Ki	iP	04 51 13.9	
			ipP	04 51 42.7	
			iSKS	05 01 42	
		(cont.)			

1973					
May	30	(cont.)			
		Ki		micr	sec
			P Z'	0.1	1.3
			Mx E	2.6	26
			Mx N	0.9	20
			Mx Z	1.9	25
		Sk	iP	04 51 01.0	
		Um	iP	04 51 16.3	D
			ipP	04 51 45.8	
			iSKS	05 01 42	
		Ud	iP	04 51 03.6	D
			ipP	04 51 32.5	
		De	iP	04 51 04.6	D
		Ecuador.			
		h = 110 km (Up,Ki,Um,Ud).			
		M = 5.5 (Up,Ki).			
"	30	Ki	iPKP	06 48 57.8	
		Sk	iPKP	06 49 08.3	
		Um	iPKP	06 49 03.9	
		New Hebrides Islands			
		(h = 120 km).			
"	30	Up	i	10 33 19.1	
			iSg1	10 33 30.4	
			i(Sg2)	10 33 39.9	
		Um	iSg1	10 34 04.5	
		Ud	eSg1	10 34 32	
			iSg2	10 34 45.8	
		De	iSg1	10 34 57.8	
		Esthonia, 59.3°N, 25.5°E.			
		Origin time = 10 31 26.			
		Explosion.			
"	30	Up	i(Sg1)	12 15 29.5	
			i(Sg2)	12 15 38.7	
		Um	iSg1	12 15 41.4	
		Ud	iSg1	12 16 26.3	
		De	iSg1	12 17 03.0	
		Western USSR.			
		Explosion.			
"	30	Up	iSg1	12 35 59.6	
		Um	iSg1	12 36 20.5	
		Ud	eSg1	12 37 04	
		Western USSR.			
		Explosion.			
"	30	Up	i	12 41 44.5	
			iSg1	12 41 52.9	
		Ki	eSg1	12 43 57	
		Um	iSg1	12 42 07.8	
		Ud	eSg1	12 42 51	
		De	eSg1	12 43 26	
		(cont.)			

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

1973 May	30	(cont.) Western USSR. Explosion.			
"	30	De	eRg	12 44 39	
"	30	Um	iSg1	13 52 57.6	
		Lake Ladoga region. Explosion?			
"	30	Up	i(Sn)	14 19 09.4	
		Um	iSg1	14 19 58.8	
		De	iSg1	14 20 56.4	
		Esthonia. Explosion.			
"	30	Um	i(Sg1)	14 53 27.6	
"	30	Up	iSg1	15 38 06.6	
			i	15 38 10.1	
		Sk	iSg1	15 39 20.6	
		Um	eSg1	15 39 44	
		Ud	iPg1	15 37 34.3	
			iSg1	15 37 44.3	
		De	iSg1	15 39 18.7	
		Bergslagen, Sweden, 60.1°N, 14.9°E. Origin time = 15 37 22.			
"	30	Up	eSg1	16 01 47	
		Ki	iSn	15 59 34.2	
			iSg1	15 59 43.9	
		Sk	iS*	15 59 49.3	
			iSg1	15 59 52.2	
		Um	iSn	15 59 57.8	
			iSg1	16 00 12.0	
		Ud	iSg1	16 01 38.8	
		Nordland, Norway, 66.5°N, 14.2°E. Origin time = 15 58 17. Explosion.			
"	30	Um	iP	17 46 17.9	
		Gulf of California (h = N).			
"	30	Ud	iP	17 49 06.7	
"	30	Ud	iP	20 47 25.3	
		Hindu Kush. Intermediate depth.			
"	31	Up	iP	04 31 54.1	
		Um	iP	04 31 34.5	
		Ud	iP	04 32 02.8	
		Japan (h = N).			

1973 May	31	Up	iP		05 51 54.0	C
			iS		06 02 17	
					micr	sec
			Mx	E	1.2	24
			Mx	N	1.0	23
			Mx	Z	2.7	24
		Ki	iP		05 51 45.3	C
			ipP		05 52 11.9	
			iS		06 02 03	
					micr	sec
			P	Z'	0.1	1.5
			Mx	E	1.8	20
			Mx	N	2.6	24
			Mx	Z	3.5	24
		Sk	iP		05 51 36.6	C
		Um	iP		05 51 51.9	C
			ipP		05 52 19.2	
			iS		06 02 12	
		Ud	iP		05 51 44.5	C
		De	iP		05 51 51.3	C
		Guatemala. h = 100 km (Ki,Um). M = 5.5 (Up,Ki).				
"	31	Up	eP		07 29 18	
		Ud	iP		07 29 24.9	
"	31	Up	iPKP		09 03 27.2	
		Ud	iPKP		09 03 29.5	
"	31	Ud	iP		11 19 08.0	
		Aegean Sea.				
"	31	Up	iSg1		12 24 57.5	
		Sk	eSg1		12 26 41	
		Um	iSg1		12 25 16.7	
		Ud	iSg1		12 25 55.7	
		De	eSg1		12 26 30	
		Western USSR. Explosion.				
"	31	Ki	iP		12 34 14.1	
		Um	iP		12 34 09.5	
		Ud	e(pP)		12 34 38	
		Sumatra (h = N).				
"	31	Sk	eSg1		12 43 37	
		Um	iSg1		12 42 05.4	
		Ud	iSg1		12 42 53.0	
		De	eSg1		12 43 18	
		Western USSR. Explosion.				
"	31	Up	iP		17 47 52.2	C
			i		17 48 03.6	
		(cont.)				

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

1973 May 31 (cont.)

Up			micr	sec		
	P	Z'	0.1	1.0		
Ki	iP		17	46	58.6	C
Sk	iP		17	47	32.6	
Um	iP		17	47	24.9	C
	i		17	47	36.9	
Ud	iP		17	47	53.4	C
	i		17	48	05.9	

Aleutian Islands
(h = 10 km).
If the second phase at Up, Um and Ud is interpreted as pP, the focal depth is 45 km.

" 31

Up	iP	19	58	17.0	
	ipP	19	58	26.4	
Ki	iP	19	58	50.0	
	i	19	58	55.2	
Sk	ipP	19	59	00.5	
Um	iP	19	58	28.2	
Ud	iP	19	58	32.6	
De	iP	19	58	16.9	

Iran.
h = 35 km (Up).

" 31

Ki	iP	20	08	17.8	
Sk	iP	20	08	54.3	
Um	iP	20	08	35.4	

" 31

Up	iP	23	50	16.5	C
	iX	23	50	32.8	
	iS	23	58	35	
	iY	23	59	02	
		micr	sec		
	P Z'	0.3	0.9		
	X Z'	0.5	0.8		
	Mx E	4.4	18		
	Mx N	2.8	16		
	Mx Z	4.4	15		
Ki	iP	23	50	10.9	C
	iX	23	50	26.9	
	iPP	23	52	30.2	
	iS	23	58	26	
	iY	23	58	50	
		micr	sec		
	P Z'	0.5	1.9		
	X Z'	0.9	1.5		
	Mx E	6.1	14		
	Mx N	9.1	15		
Sk	iP	23	50	33.0	C
	ipP	23	50	42.6	
	iX	23	50	49.5	
Um	iP	23	50	09.3	C
	ipP	23	50	19.4	

(cont.)

1973 May 31 (cont.)

Um	iX	23	50	25.2	
	iS	23	58	22	
Ud	iP	23	50	30.0	C
	iX	23	50	45.9	
De	iP	23	50	30.7	C
	iX	23	50	46.7	

Burma-India.
h = 35 km (Sk,Um).
m = 6.5, M = 6.0 (Up,Ki).
In average, X - P = 16.1 sec.

Markus Båth
Klaus Meyer
Rutger Wahlström

January 22, 1975

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 U N E 1 - 30, 1973

1973 June	1	Up	iP		00 01 26.5
		Iònian Sea.			
"	1	Up	iP		00 25 12.2
		Ud	iP		00 25 25.8
"	1	Up	iP		02 34 23.5
"	1	Ud	iP		02 52 34.6
"	1	Up	iPKP1		04 13 23.8
		Um	iPKP1		04 13 13.6
		Ud	iPKP1		04 13 25.8
"	1	Up		micr	sec
			Mx	E 6.1	24
			Mx	N 4.4	22
			Mx	Z 10	23
		Ki	ePKP		07 42 04
				micr	sec
			Mx	E 9.0	22
			Mx	N 7.8	21
		Sk	iPKP		07 42 07.6
		Um	iPKP		07 42 01.3
		Indian Ocean (h = N).			
		M = 6.4 (Up,Ki).			
"	1	Ud	ePKP1		08 12 18
"	1	Ki	e(PKP)		08 47 52
			iPKP		08 47 57.5
		Um	iPKP		08 47 54.0
		South of Australia (h = N).			
"	1	Up	eP		10 55 38
		Ki	eP		10 55 44
"	1	Up	iSgl		11 37 08.4
		Sk	iSgl		11 38 46.8
		Ud	iSgl		11 37 19.8
		(cont.)			

1973 June	1	(cont.)			
		De	iPgl		11 35 08.0
			iSgl		11 35 25.2
		Southern Baltic Sea.			
		Explosion?			
"	1	Up	iP		12 54 09.4
			iLgl		13 08 58
				micr	sec
			Mx	E 0.3	6
			Mx	N 1.1	6
			Mx	Z 0.9	7
		Ki	iP		12 53 58.7 C
				micr	sec
			Mx	E 0.7	8
			Mx	N 1.1	9
		Um	iP		12 53 50.0
		Ud	iP		12 54 23.0
		Sinkiang, China (h = N).			
"	1	Up	iP		13 13 34.6
			i		13 13 38.7
		Ki	iP		13 13 23.8
			i		13 13 26.6
		Sk	iP		13 13 51.1
		Um	iP		13 13 27.4
		Ud	iP		13 13 47.0
			i		13 13 49.9
		De	iP		13 13 53.2
		Burma-China (h = N).			
"	1	Up	iP		16 50 27.2
			i		16 50 31.1
		Ki	iP		16 50 16.8
			i		16 50 21.3
		Ud	iP		16 50 39.9
		Yunnan, China.			
"	1	Ki	iP		16 52 54.7
		Um	iP		16 52 50.4

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

1973
June 1 Ud iPKP1 20 18 41.5
De iPKP1 20 18 52.4 D
Fiji Islands (h = 610 km).

" 1 Um iP 21 36 40.4
Ud iP 21 36 42.0
De iP 21 36 24.0

" 2 Sk eP 08 39 25
Sinkiang, China.

" 2 Up iSg1 12 31 11.9
Ki iSg1 12 28 16.8
Um iSg1 12 29 10.3
iRg 12 29 46.8
Northwest USSR-Finland border region.
Explosion.

" 2 Ki iP 13 50 30.9
Ud iP 13 50 04.6
i 13 50 09.0
De iP 13 49 52.9
Iran (h = N).

" 2 Sk eP 15 14 04
Ud iP 15 14 19.5

" 2 Ki iP 18 30 34.6
Sinkiang, China.

" 2 Up iP 20 15 21.7
Ud iP 20 15 31.6
Greece.

" 2 Up iP 20 18 54.4
ipP 20 19 01.1
Ki iP 20 18 54.9
ipP 20 19 01.4

		micr	sec
Mx	E	1.1	17
Mx	N	0.9	20

Sk iP 20 18 38.1
ipP 20 18 44.0
Um iP 20 18 58.2
ipP 20 19 05.3
iS 20 28 24
Ud iP 20 18 42.2
ipP 20 18 49.1
De iP 20 18 45.6
Dominican Republic.
h = 25 km (Up,Ki,Sk,Um,Ud).

" 3 Up iP 00 04 51.1 C
ipP 00 04 58.8
iS 00 11 03
iLg1 00 19 00
(cont.)

1973
June 3 (cont.)
Up

		micr	sec
P	Z'	0.3	1.0
pP	Z'	1.2	1.2
Mx	E	9.3	15
Mx	N	7.8	10
Mx	Z	14	13

Ki iP 00 04 38.2 D
ipP 00 04 45.3
iS 00 10 40

		micr	sec
P	Z'	0.2	1.0
pP	Z'	1.4	2.0
Mx	E	6.8	13
Mx	N	5.3	12

Sk iP 00 05 07.6 C
ipP 00 05 14.8
Um iP 00 04 38.6 D
ipP 00 04 45.9
iS 00 10 42
Ud iP 00 05 07.4 C
ipP 00 05 15.3
De iP 00 05 11.2 C
ipP 00 05 18.9
Sinkiang, China.
h = 30 km (Up,Ki,Sk,Um,Ud,De).
m = 6.1, M = 6.0 (Up,Ki).

" 3 Up iPKP2 00 10 34.4

		micr	sec
PKP2	Z'	0.1	1.0

Ki iPKP2 00 10 27.5

		micr	sec
PKP2	Z'	0.2	1.0

Um iPKP2 00 10 27.9
Ud iPKP2 00 10 42.1
De iPKP2 00 10 46.2

" 3 Up iSg1 10 53 52.9
Ki iPn 10 49 43.6
iSn 10 50 42.9
iS* 10 51 02.8
Sk iSn 10 52 39.2
iSg1 10 53 30.0
Um iSn 10 51 21.8
iSg1 10 51 55.7
iSg2 10 52 08.2
Ud iSg1 10 54 31.7
Northwest USSR.
Explosion.

" 3 Ud iPKP1 14 28 18.8
Tonga-Kermadec Islands
(h = 540 km).

" 3 Ki iP 15 18 19.8

" 3 Um iP 16 21 01.7

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

1973 June	4	Ki	iP	00 30 36.1
		Sk	iP	00 31 10.3
		Um	iP	00 30 55.4
		Ud	iP	00 31 25.2
		Japan (h = 60 km).		
"	4	Up	iP	02 53 34.7
		Ki	iP	02 52 40.7
		Ud	iP	02 53 35.5
		Aleutian Islands (h = 20 km).		
"	4	Um	iP	02 54 47.0
		Ud	iP	02 55 14.9
		Japan (h = 60 km).		
"	4	Up	ePKP1	09 42 03
		Ki	iPKP	09 41 53.9
		Um	ePKP	09 41 57
			iSKP1	09 44 44.9
		Ud	iPKP1	09 42 05.7
			iSKP1	09 44 57.4
		Tonga-Kermadec Islands (h = 550 km).		
"	4	Ki	i	10 09 35.1
			i(Sgl)	10 10 13.9
		Ud	i	10 11 06.2
"	4	Up	iP	10 10 26.4
		Sk	iP	10 10 32.8
		Ud	eP	10 10 33
		Mindanao (h = 80 km).		
"	4	De	eP	11 06 49
"	4	Up	iSgl	11 45 41.3
		Um	eSgl	11 46 06
		Ud	iSgl	11 46 46.0
		De	iSgl	11 47 04.7
		Esthonia. Explosion.		
"	4	Ki	e	13 22 16
		Sk	i	13 21 34.2
		Um	i(PP)	13 22 14.2
		De	iPKP	13 21 20.2
"	4	Um	iSgl	14 17 50.3
		De	eSgl	14 18 45
		Western USSR. Explosion.		
"	4	Up	iP	15 45 12.5
		Um	iP	15 44 47.0
		Ud	iP	15 45 20.0
		Sea of Japan (h = N).		

1973 June	4	Ud	iPgl	16 06 08.7
			iSgl	16 06 29.9
			iRg	16 06 41.0
		De	iSgl	16 07 26.7
		Oslo Fjord region. By combination with Kongsberg reading.		
"	4	Up	iP	16 31 58.9
		Ki	eP	16 30 53
		Sk	iP	16 32 01.9
"	4	Up	iP	16 32 15.2
			i	16 32 23.8
		Ki	iP	16 31 09.1
		Ud	iP	16 32 16.8
		Aleutian Islands (h = 50 km).		
"	5	Up	iP	00 27 55.2
		Ud	iP	00 27 48.9
		North Atlantic Ocean (h = N).		
"	5	Ud	iP	01 28 31.3
		De	iP	01 28 21.1
		Pakistan (h = N).		
"	5	Up	iPKP	02 26 26.7
		Ki	iPKP	02 26 12.7
		Sk	iPKP	02 26 28.8
		Um	iPKP	02 26 19.8
		Ud	iPKP	02 26 29.9
		De	iPKP	02 26 35.5 C
		New Hebrides Islands (h = 10 km).		
"	5	Up	iP	03 09 03.3
		Ki	iP	03 08 10.2
		Sk	e(P)	03 08 38
		Um	iP	03 08 37.2
		Ud	iP	03 09 02.2 C
		De	iP	03 09 25.9
		Unimak Island (h = 15 km).		
"	5	Up	iPKP	03 31 39.3
			i	03 31 52.6
			iPP	03 33 56
			iSKP1	03 35 07.4
				micr sec
			i Z'	0.1 1.5
			Mx E	2.6 22
			Mx N	4.4 22
			Mx Z	4.9 21
		Ki	iPKP	03 31 24.9
			i	03 31 38.6

(cont.)

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

1973 June 5 (cont.)

Ki			micr	sec
	i	Z'	0.1	1.2
	Mx	E	3.0	18
	Mx	N	5.1	21
	Mx	Z	4.6	22
Sk	iPKP		03 31	36.6
	i		03 31	49.5
	iSKP1		03 35	00.8
Um	iPKP		03 31	31.6
	i		03 31	44.9
	iPP		03 33	37
	iSKP1		03 34	55.5
Ud	iPKP		03 31	40.2
	i		03 31	53.5
	iSKP1		03 35	10.7
De	iPKP		03 31	45.6
	i		03 32	00.9
	iSKP1		03 35	18.1

New Hebrides Islands
(h = 25 km).
M = 6.3 (Up,Ki).
PKP is followed by another, larger phase after 13.6 sec in average.

" 5	Up	iP	05 38	15.5
	Ud	eP	05 38	36

" 5	Um	iSgl	06 31	28.6
	Ud	iSgl	06 33	01.0
	De	eSgl	06 33	45
		iSg2	06 33	56.5

Lake Ladoga.
Explosion.

" 5	Ki	ePKP	07 54	42
	Um	iPKP	07 54	41.9
	Ud	iPKP	07 54	50.7
	De	iPKP	07 54	58.2

New Hebrides Islands
(h = 15 km).

" 5	Um	iP	08 06	32.5

" 5	Ki	iPKP	09 23	32.4
	Um	iPKP	09 23	39.1
	Ud	iPKP	09 23	48.6
	De	iPKP	09 23	55.1

New Hebrides Islands
(h = 20 km).

" 5	Up	iP	10 46	48.0
	Ki	iP	10 46	16.2
	Sk	iP	10 46	44.4
	Um	iP	10 46	30.1
	Ud	iP	10 46	54.4

(cont.)

1973 June 5 (cont.)

De	iP		10 47	06.7

Bonin Islands (h = 340 km).

" 5	Up	iSgl	11 26	13.1
	Sk	iSgl	11 28	02.4
	Um	iSgl	11 26	36.3
	Ud	iSgl	11 27	22.5
	De	i	11 27	37.6
		iSgl	11 27	50.8

Western USSR.
Explosion.

" 5	Up	eSgl	11 56	53
	Ud	e	11 55	43
		iSgl	11 56	00

Southwest Norway.
By combination with Kongsberg readings.

" 5	Sk	iP	12 44	34.4

" 5	Up	iSgl	13 14	11.6
	Ki	iSgl	13 16	58.7
	Um	i	13 14	21.6
		iSgl	13 14	58.0
	Ud	iSn	13 15	01.6
		iSgl	13 15	27.2
	De	eSn	13 15	21
		eSgl	13 15	57

Esthonia.
Explosion.

" 5	Up	iP	13 41	33.4
	Sk	iP	13 41	38.0
	Um	iP	13 41	21.3
	Ud	iP	13 41	43.1 C
	De	eP	13 41	52

Formosa (h = N).

" 5	Up	iSgl	13 41	53.5
	Um	eSgl	13 42	09

Western USSR.
Explosion.

" 5	Up	eP	16 10	53

" 5	Up	iP	17 11	48.5
	Ki	iP	17 11	14.7
	Sk	eP	17 11	23
	Um	iP	17 11	34.1
	Ud	iP	17 11	40.8

Nevada.
Underground explosion.

" 5	Ud	iPKP1	17 35	13.0
	De	ePKP1	17 35	26

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

1973 June	5	Ki	iSgl	18 06 01.9		
		Sk	ePgl	18 05 29		
			iSgl	18 06 07.5		
		Um	iSgl	18 06 30.3		
		Nordland, Norway, 66.3°N, 14.8°E. Origin time = 18 04 38. Explosion.				
"	5	Up	iP	18 08 17.5		
		Sk	e(P)	18 08 08		
		Ud	iP	18 07 59.3		
"	5	Up	iP	21 14 00.5		
		Ud	iP	21 13 47.1		
"	5	Up	iP	23 03 46.8		
		Um	iP	23 03 24.2		
		Ud	iP	23 03 53.9		
		Japan (h = 45 km).				
"	6	Ki	e(P)	02 15 34		
"	6	Ki	iP	02 23 21.1		
		Um	iP	02 23 09.1		
		Ud	iP	02 23 36.8		
		De	iP	02 23 39.8		
		Sinkiang, China (h = 20 km).				
"	6	Up	ePKP	03 20 06		
		New Hebrides Islands (h = 3 km).				
"	6	Ki	iP	07 31 47.5		
		Um	iP	07 32 13.1		
		Ud	iP	07 32 39.4		
		De	eP	07 33 04		
		Aleutian Islands (h = N).				
"	6	Up	iP	12 00 28.1		
		Ki	eP	11 59 46		
		Ud	iP	12 00 34.6		
		Japan (h = 60 km).				
"	6	Um	iSgl	12 31 49.2		
		Western USSR. Explosion.				
"	6	Up	i(P)	12 50 20.5		
		Ki	eP	12 49 51		
		Sk	iP	12 50 01.4		
		De	i(P)	12 50 56.6		
"	6	Up	iP	13 11 48.5 C		
			iPP	13 14 30.6		
				micr	sec	
			P	Z' 0.3	0.9	
			PP	Z' 0.2	1.5	
		(cont.)				

1973 June	6	(cont.)				
		Ki	iP	13 11 13.9 C		
			iPP	13 13 48.8		
				micr	sec	
			P	Z' 0.3	1.0	
			PP	Z' 0.1	1.5	
			Mx	E 0.7	16	
			Mx	N 0.5	14	
			Mx	Z 0.7	14	
		Sk	iP	13 11 22.2 C		
		Um	iP	13 11 33.7 C		
			i	13 11 40.7		
			iPP	13 14 10.1		
		Ud	iP	13 11 40.0 C		
			iPP	13 14 15.3		
		De	iP	13 11 56.9 C		
			iPP	13 14 37.3		
		Nevada. m = 6.4, M = 5.2 (Up,Ki). Underground explosion. PP is well defined but consistently early compared to P by JB tables.				
"	6	Up	iP	15 23 47.0		
"	6	Up	iP	15 58 39.7 C		
			iPP	16 00 20.4		
				micr	sec	
			P	Z' 0.1	0.8	
		Ki	iP	15 58 48.6		
			ipP	15 59 38.3		
				micr	sec	
			P	Z' 0.1	1.0	
		Sk	iP	15 59 05.6		
			iPP	16 00 54.1		
		Um	iP	15 58 38.1		
		Ud	iP	15 58 56.1 C		
			ipP	15 59 49.1		
			iPP	16 00 38.2		
		De	iP	15 58 52.5		
			iPP	16 00 28.6		
		Hindu Kush. h = 245 km (Ki,Ud). m = 5.2 (Up,Ki).				
"	6	Up	iP	16 38 41.4		
		Ki	iP	16 37 50.4		
		Ud	iP	16 38 46.2		
		Kurile Islands.				
"	6	Ki	ePKP	18 20 16		
		New Hebrides Islands (h = 20 km).				
"	6	Ud	iPKP1	19 34 01.1		
		De	iPKP1	19 34 12.0		
"	6	Ki	iP	20 14 54.0		

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

1973 June	6	Up	iP		21 15 25.8	
					micr	sec
			P	Z'	0.1	1.1
			Mx	N	0.7	8
			Mx	Z	0.9	9
		Ki	eP		21 16 51	
		Sk	iP		21 16 09.6	
			i		21 16 13.3	
		Um	iP		21 16 09.1	
			i		21 16 12.6	
		Ud	iP		21 15 31.4	
			i		21 15 32.9	
			i		21 15 37.3	
		De	iP		21 14 53.1	
		Yugoslavia (h = 15 km).				
"	6	Up	ePKP		21 46 42	
		Ki	iPKP		21 46 33.6	
"	7	De	eP		00 11 13	
		Crete (h = 60 km).				
"	7	Up	iPKP2		03 03 58.9	
		Ki	iPKP2		03 03 49.7	
		Sk	iPKP2		03 04 07.7	
		Um	iPKP2		03 03 53.6	
		Ud	iPKP2		03 04 09.2	
		De	iPKP2		03 04 07.1	
		Macquarie Islands (h = N).				
"	7	Up	iP		06 33 56.0	
		Sk	eP		06 34 05	
		De	iP		06 34 21.7	
		Formosa (h = N).				
"	7	Um	iPKP1		08 53 00.9	
		Ud	iPKP1		08 53 18.0	
"	7	Up	iSgl		11 24 20.4	
		Ud	iPgl		11 23 19.3	
			iSgl		11 23 37.5	
		De	iPgl		11 23 37.8	
			iSgl		11 24 11.0	
		Lake Vener, Sweden, 58.8°N, 12.7°E.				
		Origin time = 11 22 55.				
"	7	De	i(P)		12 27 06.1	
"	7	De	eP		13 09 22	
"	7	Up	iP		14 03 40.6	
		Ki	iP		14 03 06.2	
		Sk	iP		14 03 36.2	
		Um	iP		14 03 21.1	
		Ud	iP		14 03 47.5	
		De	iP		14 03 58.8	
		South of Japan (h = 60 km).				
1973 June	7	De	iPKP		17 17 17.6	
		Solomon Islands (h = 45 km).				
"	7	Ki	iPgl		18 18 24.8	
			iSgl		18 19 01.9	
		Sk	iSgl		18 19 08.0	
		Um	iSn		18 19 14.9	
			iSgl		18 19 29.0	
		Ud	iSgl		18 20 56.1	
		De	eSgl		18 22 50	
		Nordland, Norway, 66.5°N, 14.4°E.				
		Origin time = 18 17 36.				
		Explosion.				
"	7	Up	iP		18 45 23.5	
		Ki	iP		18 45 12.7	
		Sk	iP		18 45 05.5	
		Um	iP		18 45 20.6	
		Ud	iP		18 45 13.7	
		De	iP		18 45 19.6	C
		Mexico (h = 80 km).				
"	7	Up	iP		18 47 28.5	
					micr	sec
			Mx	E	10	19
			Mx	N	7.5	21
			Mx	Z	20	19
		Ki	iP		18 47 17.5	
					micr	sec
			Mx	E	16	16
			Mx	N	11	19
			Mx	Z	19	16
		Sk	iP		18 47 10.1	
		Um	iP		18 47 24.5	
		Ud	iP		18 47 18.3	
		De	iP		18 47 24.3	
		Guatemala (h = 70 km).				
		M = 6.4 (Up,Ki).				
"	7	Up	iPKP1		19 14 40.6	
			iPKP		19 14 42.4	
					micr	sec
			PKP	Z'	0.1	1.0
		Ki	iPKP		19 14 33.4	
		Sk	ePKP		19 14 38	
		Um	i(PKP)		19 14 29.4	
			iPKP		19 14 39.6	
		Ud	iPKP1		19 14 42.0	
		De	iPKP1		19 14 53.8	D
			ipPKP1		19 15 43.6	
		Tonga-Kermadec Islands.				
		h = 200 km (De).				
"	7	Ki	eP		19 58 10	
		Sk	eP		19 58 01	
		Um	iP		19 58 16.9	

(cont.)

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

1973 June	7	(cont.)				
		Ud	iP		19 58 10.7	
		De	iP		19 58 18.7	
		Mexico (h = 100 km).				
"	7	Up	iPKP1		23 41 01.1	
		Ud	iPKP1		23 41 04.2	
"	8	Up	iP		00 02 51.1	
			i		00 02 57.3	
			i		00 02 59.5	
		Ki	e(P)		00 02 28	
		Sk	e(P)		00 02 33	
		Um	iP		00 02 34.4	
"	8	De	eP		00 34 44	
"	8	Up	iPKP		01 20 27.0	
			eSKP1		01 23 52	
					micr	sec
			Mx	E	0.9	23
			Mx	N	1.2	22
			Mx	Z	1.4	21
		Ki	iPKP		01 20 11.4	
					micr	sec
			PKP	Z'	0.1	1.0
			Mx	E	0.9	20
			Mx	N	1.7	22
			Mx	Z	1.5	22
		Sk	ePKP		01 20 22	
		Um	iPKP		01 20 17.8	
		Ud	iPKP		01 20 26.8	
			iSKP1		01 24 03.1	
			i		01 24 05.7	
		De	e(PKP)		01 20 24	
			iPKP		01 20 34.3	
			eSKP1		01 24 14	
		New Hebrides Islands (h = 20 km). M = 5.7 (Up,Ki).				
"	8	Up	iP		06 21 50.2	
		Ki	iP		06 21 27.5	
		Um	iP		06 21 35.4	
		Ud	iP		06 22 00.3	
		Formosa (h = 40 km).				
"	8	Up	iP		10 36 10.9	
		Ki	iP		10 35 32.6 C	
		Sk	iP		10 36 05.6	
		Um	iP		10 35 49.2 C	
		Ud	iP		10 36 18.7	
		De	iP		10 36 32.9 C	
		Japan (h = 80 km).				
"	8	Ud	eP		11 52 34	

1973 June	8	Up	iSg1		12 17 00.0	
		Ki	iPn		12 12 52.9	
			iSn		12 13 43.4	
			iS*		12 14 05.2	
		Sk	eSg1		12 16 22	
		Um	iSg1		12 15 00.4	
		Northwest USSR. Explosion.				
"	8	Up	iP		12 27 55.4	
"	8	Um	iSg1		12 45 50.1	
		Western USSR. Explosion.				
"	8	Ki	iP		18 05 36.0	
					micr	sec
			Mx	E	0.7	13
			Mx	N	1.8	20
			Mx	Z	0.6	12
		Um	iP		18 05 20.3	
		Ud	iP		18 05 24.7	
		De	iP		18 05 13.3 C	
		Iran (h = N).				
"	8	Up	iPKP		19 38 41.0 C	
		Ki	iPKP		19 38 26.3	
		Um	iPKP		19 38 33.1	
		Ud	ePKP		19 38 43	
		De	ePKP		19 38 48	
		New Hebrides Islands (h = 10 km).				
"	8	Sk	iP		19 46 03.7	
"	8	Ki	ePKP		19 49 42	
		Sk	ePKP		19 49 51	
		New Hebrides Islands (h = 25 km).				
"	8	Up	i(Rg)		21 05 42.2	
		Ud	i(Rg)		21 05 15.3	
"	8	Up	iP		21 58 07.7	
		Ki	iP		21 58 33.9	
					micr	sec
			Mx	E	0.9	20
			Mx	N	2.1	20
			Mx	Z	0.5	13
		Ud	iP		21 58 22.8	
		De	iP		21 58 10.2	
		Iran (h = N).				
"	9	Up	iP		00 52 56	
"	9	Um	iP		01 10 41.9 C	
		Guatemala (h = 80 km).				

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

1973 June	9	Up	iP			01 47 44.2	C
					micr	sec	
			P	Z'	0.1	1.2	
			Mx	E	0.8	20	
			Mx	N	0.9	20	
			Mx	Z	1.4	21	
		Ki	iP			01 46 50.0	C
			i			01 48 03.2	
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	E	1.2	18	
			Mx	N	0.7	16	
			Mx	Z	1.5	18	
		Sk	iP			01 47 23.7	
		Um	iP			01 47 15.4	
			i			01 48 20.0	
		Ud	iP			01 47 47.8	
			i			01 48 37.9	
		De	iP			01 48 09.2	
			i			01 48 52.3	

Kamchatka (h = N).
m = 6.0, M = 5.1 (Up,Ki).
The second phase parallels PcP but is about 7-10 sec late.

"	9	Up	iP			03 54 17.0	
		Ki	iP			03 53 30.8	
		Sk	iP			03 54 05.6	
		Um	iP			03 53 51.9	
			ipP			03 54 02.1	
		Ud	iP			03 54 22.7	D
			ipP			03 54 33.9	
		De	eP			03 54 40	

Kurile Islands.
h = 40 km (Um,Ud).

"	9	Up	iP2			04 27 14.8	
					micr	sec	
			P2	Z'	0.1	1.0	
			Mx	N	0.9	5	
			Mx	Z	1.2	6	
		Ki	iP1			04 27 04.3	
			iP2			04 27 06.2	
					micr	sec	
			P2	Z'	0.1	1.0	
			Mx	E	0.9	13	
			Mx	N	0.8	12	
			Mx	Z	0.8	12	
		Sk	iP2			04 27 33.5	
		Um	iP2			04 27 03.8	
		Ud	iP1			04 27 29.1	
			iP2			04 27 31.1	
		De	eP2			04 27 34	

Sinkiang, China (h = N).
m = 5.5, M = 5.2 (Up,Ki).
A smaller phase (P1) precedes a larger one (P2) by about 2 sec.

1973 June	9	Up	iSgl			04 55 14.9	
		Ki	iPgl			04 52 34.9	
			iSgl			04 53 12.0	
		Sk	iS*			04 53 16.2	
			iSgl			04 53 18.8	
		Um	iPn			04 52 43.4	
			iPgl			04 52 51.4	
			iSn			04 53 25.9	
			iSgl			04 53 40.4	
		Ud	iSgl			04 55 07.5	
		De	iSgl			04 57 01.8	

Nordland, Norway,
66.5°N, 14.4°E.
Origin time = 04 51 46.
Explosion.

"	9	Ud	iPKP1			08 08 25.3	
		De	iPKP1			08 08 36.8	
"	9	Up	iP			08 27 32.4	C
					micr	sec	
			P	Z'	0.1	0.8	
		Ki	iP			08 27 14.0	C
		Sk	iP			08 27 44.3	C
			i			08 27 48.2	
		Um	iP			08 27 17.9	C
			i			08 27 21.9	
		Ud	iP			08 27 46.4	C
		De	iP			08 27 53.7	
			i			08 27 57.9	

Kansu, China (h = N).

"	9	Up	iPKP			08 40 16.5	
			ipPKP			08 40 37.8	
			iPP			08 42 00.6	
			ipPP			08 42 21.5	
					micr	sec	
			pPKP	Z'	0.3	1.5	
			PP	Z'	0.3	1.5	
			pPP	Z'	0.8	2.0	
			Mx	E	4.5	23	
			Mx	N	6.6	24	
			Mx	Z	13	23	
		Ki	iPKP			08 40 04.0	
			ipPKP			08 40 24.9	
			iPP			08 41 14.1	
			ipPP			08 41 33.3	
					micr	sec	
			PKP	Z'	0.1	1.0	
			PP	Z'	0.2	1.5	
			Mx	E	7.7	20	
			Mx	N	8.6	21	
			Mx	Z	15	26	
		Sk	iPKP			08 40 14.6	
			ipPKP			08 40 33.7	
		Um	iPKP			08 40 09.3	
			ipPKP			08 40 30.4	
			iPS			08 51 26	

(cont.)

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

1973
June 9 (cont.)

	Ud	iPKP	08 40 18.8
		ipPKP	08 40 37.9
		i(PP)	08 41 59.1
	De	iPKP	08 40 24.2
		ipPKP	08 40 44.4

Solomon Islands.
h = 70 km (Up,Ki,Sk,Um,Ud, De).
m = 6.4, M = 6.4 (Up,Ki).
An alternative and perhaps more likely solution would be in terms of two shocks, about 20 sec apart, considering that the amplitudes of the later phases are larger.

" 9	Up	iP	08 48 44.2
	Ki	iP	08 48 06.0
	Um	iP	08 48 22.8
	Ud	iP	08 48 52.0

Japan (h = 80 km).

" 9	Up	iSgl	09 06 54.2
	Um	iSgl	09 06 23.9
	De	iSgl	09 08 40.8

Lake Ladoga.
Explosion.

" 9	Up	iP	09 46 01.1

" 9	Up	iP	14 27 15.4
	Ki	iP	14 26 53.7
	Sk	eP	14 27 20
	Um	iP	14 27 01.4
	Ud	iP	14 27 25.4
	De	iP	14 27 33.2

Luzon-Formosa (h = 190 km).

" 9	Up	iPKP1	18 37 32.8
	Ud	iPKP1	18 37 35.9
	De	ePKP1	18 37 47

" 9	Ki	iP	19 15 54.1 C
	Ud	iP	19 14 58.6
	De	iP	19 14 29.1

Dodecanese Islands (h = 60 km).

" 9	Up	iP	20 43 42.3
	Ki	iP	20 44 20.9
	Um	iP	20 43 56.3
	Ud	iP	20 43 57.4 C
	De	iP	20 43 40.4

Iran (h = 30 km).

" 9	Up	iP	20 46 10.3

(cont.)

1973
June 9 (cont.)

	Ki	iP	20 46 48.1
	Sk	iP	20 46 43.5
	Um	iP	20 46 24.5
	Ud	iP	20 46 25.3
	De	iP	20 46 08.4

Iran (h = N).

" 9	Up	iP		22 08 45.6	
		ipP		22 08 54.5	
	Ki	iP		22 08 45.1	
		ipP		22 08 54.2	
				micr	sec
		pP	Z'	0.1	1.5
		Mx	N	0.9	22
	Sk	iP		22 09 02.6	
		ipP		22 09 10.4	
	Um	iP		22 08 41.7	
		ipP		22 08 50.2	
	Ud	iP		22 08 58.1	
		ipP		22 09 06.3	
	De	iP		22 08 57.0	
		ipP		22 09 05.1	

Andaman Islands.
h = 30 km (Up,Ki,Sk,Um,Ud, De).

" 9	Up	iP		22 56 27.2 C	
				micr	sec
		P	Z'	0.4	1.1
	Ki	iP		22 55 33.4 C	
				micr	sec
		P	Z'	0.2	1.0
	Sk	iP		22 56 11.0	
	Um	iP		22 55 58.3 C	
	Ud	iP		22 56 30.9	
	De	iP		22 56 52.2	

Kamchatka (h = N).
m = 6.3 (Up,Ki).

" 10	Up	iP	00 09 14.2
	Ki	eP	00 08 22
	Um	iP	00 08 46.7
	Ud	eP	00 09 18
	De	iP	00 09 39.6

Kamchatka (h = N).

" 10	Up	iP	08 33 20.6

" 10	Ud	iP	16 08 19.0

Celebes Sea (h = 330 km).

" 10	Up	iP		16 16 20.3	
		iPP		16 17 57.5	
	Ki	iP		16 16 21.2 C	
		i		16 16 26.9	
				micr	sec
		P	Z'	0.1	0.8

(cont.)

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

1973 June 10 (cont.)

	Sk	eP	16 16 45
	Um	iP	16 16 14.8
	Ud	iP	16 16 36.8 C
		i	16 16 41.1
		iPP	16 18 20.8
	De	iP	16 16 35.9

Sinkiang, China (h = N).

" 10

Ud	iP	17 16 28.4

Greece.

" 10

Ki	iP	20 21 07.4
Ud	iP	20 20 43.4
De	eP	20 20 28

Iran (h = N).

" 11

Up	iPKP	00 00 29.7
Ki	iPKP	00 00 45.7 C
Sk	iPKP	00 00 32.6
Um	iPKP	00 00 37.9
Ud	ePKP	00 00 26

South Sandwich Islands (h = N).

" 11

Sk	iP	00 35 03.5

Turkey (h = 25 km).

" 11

Ki	i(P)	03 20 46.9

Yugoslavia (h = 10 km).

" 11

Up	iSg1	06 25 58.8
	iSg2	06 26 06.6
Sk	iSg1	06 24 36.0
Um	iSg1	06 26 27.2
	iSg2	06 26 36.3
Ud	iSg1	06 25 00.2

West coast of Norway, 61.6°N, 4.3°E.
Origin time = 06 22 28.
By combination with Bergen and Kongsberg readings.

" 11

Up	iP		08 52 29.3 C	
	i		08 52 31.1	
	iS		09 00 57	
			micr	sec
	P	Z'	0.8	1.3
	Mx	E	7.6	19
	Mx	N	15	20
	Mx	Z	16	20
Ki	iP		08 51 35.8 C	
	i		08 51 37.9	
			micr	sec
	P	Z'	0.7	1.0
	Mx	E	18	20

(cont.)

1973 June 11 (cont.)

Ki			micr	sec
	Mx	N	17	18
	Mx	Z	16	18
Sk	iP		08 52 13.2 C	
	i		08 52 20.1	
Um	iP		08 52 01.3 C	
	i		08 52 03.0	
	iS		09 00 05	
Ud	iP		08 52 33.1 C	
	i		08 52 34.9	
De	iP		08 52 55.0 C	
	i		08 52 57.0	

Kamchatka (h = 30 km).
m = 6.6, M = 6.3 (Up,Ki).
Double P, small and large, in average 1.9 sec apart.

" 11

Up	iP	09 07 05.4
Ud	eP	09 07 03

" 11

Up	iP	10 27 23.1
	il	10 27 30.9
	i2	10 27 35.8
Ki	il	10 27 11.1
	i2	10 27 18.2
Um	iP	10 27 10.8
	il	10 27 19.2
	i2	10 27 24.0
Ud	iP	10 27 32.1
	il	10 27 37.9
	i2	10 27 45.0
De	i2	10 27 50.9

Samar (h = 20 km).
Besides P, two more phases are clearly recorded, especially the one marked i2.

" 11

Um	iSg1	14 23 55.6
Ud	iSg1	14 24 37.1
De	eSg1	14 25 08.7

Western USSR.
Explosion.

" 11

Ud	iP	19 05 25.3

Caspian Sea.

" 11

Up	iP	20 13 41.4
Ki	iP	20 13 49.6 D
Sk	iP	20 14 09.8
Um	iP	20 13 39.4
Ud	iP	20 13 57.6
De	iP	20 13 55.1

Afghanistan-USSR (h = 100 km).

" 12

Um	iP	01 19 26.5

(cont.)

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

1973 June	12	(cont.)				
		Ud	iP		01 20 01.5	
		Kamchatka (h = N).				
"	12	Ki	iP		03 46 27.5	C
		Sk	iP		03 47 06.2	
		Ud	iP		03 47 25.3	
		Kamchatka (h = N).				
"	12	Up	iP		06 54 27.4	
					micr sec	
			P	Z'	0.2 1.6	
		Ki	iP		06 53 33.7	
		Sk	iP		06 54 10.2	
		Um	iP		06 53 59.6	
		Ud	iP		06 54 31.3	
		Kamchatka (h = N).				
"	12	Ud	i(P)		08 51 35.5	
"	12	Up	iP		11 07 23.7	
		Ki	iP		11 08 30.9	C
		Sk	iP		11 08 03.0	
		Um	iP		11 07 55.6	
		Ud	iP		11 07 30.9	
		De	iP		11 06 59.2	
		Crete (h = 55 km).				
"	12	Up	iP		14 31 49.9	C
					micr sec	
			P	Z'	0.7 1.4	
			Mx	E	1.5 20	
			Mx	N	1.8 20	
			Mx	Z	1.6 20	
		Ki	iP		14 30 55.9	C
					micr sec	
			P	Z'	0.5 1.3	
			Mx	E	2.3 19	
			Mx	N	2.9 17	
			Mx	Z	2.4 17	
		Sk	iP		14 31 32.8	C
		Um	iP		14 31 21.6	C
		Ud	iP		14 31 52.9	C
			i(pP)		14 32 05.7	
		De	iP		14 32 15.0	C
		Kamchatka (h = N).				
		m = 6.5, M = 5.5 (Up,Ki).				
"	12	Up	i(PP)		15 37 44.6	
		Ki	iP		15 34 45.2	
		Um	iP		15 34 57.8	
			i		15 35 07.6	
		Ud	iP		15 35 36.4	
			iPP		15 37 56.9	
		Japan (h = 200 km).				
"	12	Up	iPKP1		19 23 13.5	
		(cont.)				

1973 June	12	(cont.)				
		Ud	iPKP1		19 23 13.4	
			i		19 23 16.3	
		De	iPKP1		19 23 24.1	
		Tonga-Kermadec Islands				
		(h = 45 km).				
"	12	Sk	iP		23 24 36.6	
		North Atlantic Ocean				
		(h = N).				
"	13	Up	iP		00 31 26.3	C
			iPcP		00 31 54.1	
			iPP		00 33 56.9	
					micr sec	
			P	Z'	0.5 1.1	
		Ki	iP		00 30 38.8	C
			iPcP		00 31 24.3	
					micr sec	
			P	Z'	0.4 1.0	
		Sk	iP		00 31 14.2	
			iPP		00 33 37.7	
		Um	iP		00 31 00.6	C
			iPP		00 33 17.1	
		Ud	iP		00 31 31.9	C
			i		00 31 39.0	
		De	iP		00 31 50.5	C
		Kurile Islands (h = 140 km).				
		m = 6.3 (Up,Ki).				
"	13	Ud	iPKP1		06 41 07.2	
"	13	Ki	iPKP		07 00 36.7	
		Ud	iPKP		07 00 47.0	
		New Hebrides Islands				
		(h = 40 km).				
"	13	Ki	iP		16 10 25.1	
		Sk	iP		16 11 13.2	
		Kamchatka.				
"	13	Ki	iP		18 55 51.4	
		Pamir.				
"	14	Up	iPKP1		03 49 42.7	
		Ki	iPKP		03 49 37.1	
		Um	iPKP		03 49 38.4	
		Ud	iPKP1		03 49 45.7	
		De	iPKP1		03 49 57.6	
		Fiji Islands (h = 590 km).				
"	14	Ki	ePg1		07 36 53	
			iSn		07 37 31.2	
		Northwest USSR-Norway border				
		region.				
		Explosion.				

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

1973					
June	14	Ud	iP	09 53 13.3	
			i	09 53 16.4	
"	14	Up	iP	11 15 39.3	
			i	11 15 58.0	
			ipP	11 17 58.8	
				micr sec	
			P Z'	0.2 1.0	
			pP Z'	0.1 1.2	
		Ki	iP	11 15 28.3	C
			ipP	11 17 49.3	
				micr sec	
			P Z'	0.2 1.0	
			pP Z'	0.1 1.0	
		Um	iP	11 15 31.5	
		Ud	iP	11 15 47.5	
		De	iP	11 15 50.0	
		Flores Sea.			
		h = 660 km (Up,Ki).			
		m = 6.5 (Up,Ki).			
"	14	Ki	iP	12 54 29.7	
		Ud	iP	12 55 45.3	
		Arctic Ocean (h = N).			
"	14	Up	iSgl	16 11 57.6	
		Ki	iPgl	16 09 12.4	
			iSgl	16 09 50.1	
		Sk	iSgl	16 09 53.7	
		Um	iPgl	16 09 26.4	
			iSn	16 10 02.0	
			iSgl	16 10 16.1	
		Ud	iSn	16 11 13.3	
			iSgl	16 11 45.7	
		Nordland, Norway,			
		66.4°N, 14.4°E.			
		Origin time = 16 08 24.			
		Explosion.			
"	14	Ud	iP	17 07 01.9	
		Afghanistan-USSR (h = 130 km).			
"	14	Up	iP	18 27 53.6	C
				micr sec	
			P Z'	0.1 0.8	
		Ki	iP	18 28 02.4	
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	18 28 20.0	
		Um	iP	18 27 52.2	
		Ud	iP	18 28 10.2	C
			ipP	18 28 53.7	
			iPP	18 29 53.7	
		De	iP	18 28 06.8	
		Hindu Kush.			
		h = 210 km (Ud).			
		m = 5.4 (Up,Ki).			

1973					
June	14	Ki	iP	19 54 58.9	
		Arctic Ocean (h = N).			
"	14	Ud	iP	21 22 37.4	
		Luzon (h = 80 km).			
"	15	Up	iP	01 18 13.4	D
		Ki	iP	01 17 57.6	D
		Sk	iP	01 17 45.4	
		Um	iP	01 18 08.9	
		Maine, USA.			
"	15	Sk	iP	02 03 21.4	
"	15	De	iP	03 47 51.3	
"	15	Up	i(P)	03 51 59.3	
		Ki	i(P)	03 51 28.8	
		Mariana Islands (h = 15 km).			
"	15	Up	e(P)	08 33 24	
		Ki	e(P)	08 32 50	
		Um	i(P)	08 33 03.4	
"	15	De	i	11 14 51.6	
			i(Sgl)	11 15 11.7	
"	15	Up	iP	11 31 10.9	C
		Ki	iP	11 30 17.1	C
				micr sec	
			P Z'	0.2 1.0	
		Sk	iP	11 30 54.5	
		Um	iP	11 30 42.4	C
		Ud	iP	11 31 14.3	
		De	iP	11 31 36.4	
		Kamchatka (h = N).			
"	15	Up	iP	11 31 17.1	
			iS	11 39 39	
				micr sec	
			P Z'	1.6 1.3	
			Mx E	7.3 22	
			Mx N	9.4 21	
			Mx Z	11 23	
		Ki	iP	11 30 22.8	
				micr sec	
			P Z'	1.0 1.1	
			Mx E	11 19	
			Mx N	21 18	
			Mx Z	9.6 18	
		Sk	iP	11 31 00.3	
		Um	iP	11 30 49.1	
			iS	11 38 51	
		Ud	iP	11 31 20.3	
		De	iP	11 31 43.8	
		Kamchatka (h = N).			
		m = 6.9, M = 6.2 (Up,Ki).			

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

1973
June 15 Up i(P) 11 40 05.3
Ki iP 11 39 22.3 C
Sk iP 11 40 04.3

" 15 Ki iP 11 49 13.5
Kamchatka (h = N).

" 15 Ki iP 11 56 29.2
Sk iP 11 57 07.0
Kamchatka.

" 15 Up iP 11 56 38.6

" 15 Ki iP 12 05 57.0
Sk iP 12 06 33.5
Kamchatka (h = N).

" 15 Up iP 12 21 59.3 C
micr sec
P Z' 1.1 0.9
Ki iP 12 21 06.3 C
ipP 12 21 19.8
micr sec
P Z' 0.2 0.8
Sk iP 12 21 38.6 C
Um iP 12 21 32.5 C
Ud iP 12 22 00.1 C
De iP 12 22 22.1 C
Aleutian Islands.
h = 50 km (Ki).
m = 6.5 (Up,Ki).

" 15 Ki iP 12 23 13.0

" 15 Ki iP 12 25 48.9

" 15 Um iSgl 12 56 42.7
Western USSR.
Explosion.

" 15 Up iP 13 27 21.7
ipP 13 27 35.9
Ki iP 13 26 27.7 C
ipP 13 26 38.9
micr sec
P Z' 0.1 1.1
Sk iP 13 27 04.9
Um iP 13 26 53.4
ipP 13 27 04.4
Ud iP 13 27 24.8
ipP 13 27 40.0
De iP 13 27 47.7
ipP 13 28 01.2
Kamchatka.
h = 50 km (Up,Ki,Um,Ud,De).

" 15 Up iP 13 49 19.9 C
(cont.)

1973
June 15 (cont.)
Up iPcP 13 49 44.2
micr sec
P Z' 0.3 0.8
Ki iP 13 48 27.0 C
micr sec
P Z' 0.1 0.7
Sk iP 13 49 00.2
Um iP 13 48 53.4
Ud iP 13 49 20.9 C
De iP 13 49 42.6 C
Aleutian Islands (h = 50 km).
m = 6.1 (Up,Ki).

" 15 Up i(P) 17 27 42.6
Sk i(P) 17 27 37.2
Ud eP 17 27 40
De iP 17 27 54.7
Kamchatka.

" 15 Up iP 19 30 28.8
Ki iP 19 29 50.0
Sk iP 19 30 01.8
Um iP 19 30 11.5 D
Ud iP 19 30 22.5 D
California (h = N).

" 15 Ud iP 20 19 31.5
Northeast Siberia.

" 15 Up iP 21 06 59.8 C
Ki iP 21 06 05.9
Sk iP 21 06 42.6
Um iP 21 06 31.8
Ud iP 21 07 02.9
Kamchatka (h = 35 km).

" 15 Up iP 21 20 06.3 C
micr sec
P Z' 0.8 1.3
Mx E 1.5 20
Mx N 2.0 22
Mx Z 1.9 20
Ki iP 21 19 12.4 C
i 21 19 17.4
micr sec
P Z' 0.4 0.9
Mx E 2.0 19
Mx N 2.9 17
Mx Z 1.9 18
Sk iP 21 19 49.0 C
ipP 21 19 58.9
Um iP 21 19 38.1 C
Ud iP 21 20 10.1 C
De iP 21 20 31.3 C
ipP 21 20 41.0
Kamchatka.
(cont.)

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

1973
June 15 (cont.)
h = 35 km (Sk,De).
m = 6.6, M = 5.5 (Up,Ki).

" 15

Up	Mx		23 17	
			micr	sec
	Mx	E	1.0	21
	Mx	N	1.4	20
	Mx	Z	1.2	18
Ki	Mx		23 18	
			micr	sec
	Mx	E	1.1	20
	Mx	N	1.2	18
	Mx	Z	0.8	18

Balleny Islands (h = N).
M = 6.0 (Up,Ki).

" 15

Up	iPKP1		23 24 22.5	
			micr	sec
	PKP1	Z'	1.0	1.0
Ki	iPKP		23 24 05.6	
	i		23 24 10.6	
Sk	iPKP		23 24 15.0	
Um	iPKP		23 24 10.3	
Ud	iPKP1		23 24 23.8	
	i(SKP1)		23 27 43.3	
De	iPKP1		23 24 34.4	
	iPKP2		23 24 38.0	

Tonga-Kermadec Islands
(h = 90 km).
PKP1 (Up,Ud) exhibit small C + large D.

" 16

Up	iP		00 14 12.6
Um	iP		00 14 23.1

" 16

Up	iP		01 05 35.1
Ki	iP		01 04 50.5
Um	iP		01 05 10.1
Ud	iP		01 05 41.2 C

Japan (h = 55 km).

" 16

Up	iP		01 47 49.0
Ki	iP		01 47 04.9
Um	iP		01 47 24.4
Ud	iP		01 47 55.4

Japan (h = 70 km).

" 16

Up	iP		03 27 01.5
Um	iP		03 26 39.9

" 16

Ud	iP		04 19 51.3

" 16

Up	iP		05 18 45.8

" 16

Up	iP		07 31 59.0 C

(cont.)

1973
June 16 (cont.)

Up			micr	sec
	P	Z'	0.1	0.6
	Mx	E	0.8	16
	Mx	N	0.9	17
	Mx	Z	0.9	13
Ki	iP		07 31 41.6 C	
			micr	sec
	P	Z'	0.1	1.2
	Mx	E	0.9	13
	Mx	N	0.5	13
	Mx	Z	0.6	12
Sk	iP		07 32 10.7 C	
Um	iP		07 31 44.7 C	
Ud	iP		07 32 13.0 C	
	i		07 32 16.8	
De	iP		07 32 19.2 C	

Tsinghai, China (h = N).
m = 5.8, M = 5.1 (Up,Ki).

" 16

Ki	iP		09 05 21.1

Caucasus.

" 16

Ki	iPn		12 19 01.7
	iSn		12 19 50.0
	iSgl		12 20 07.3
Um	ePn		12 19 39
	iSgl		12 21 33.7

Northwest USSR-Norway border region.
Explosion.

" 16

Up	iP		12 21 00.7	
			micr	sec
	Mx	E	0.8	14
	Mx	N	0.6	13
	Mx	Z	1.5	14
Ki			micr	sec
	Mx	E	1.0	14
	Mx	N	0.8	14
	Mx	Z	1.4	17
Sk	iP		12 20 59.1	
	i		12 21 13.6	
Um	iP		12 20 34.5	
	i		12 20 49.1	
Ud	iP		12 21 13.4	
	i		12 21 27.3	
De	iP		12 21 30.9	
	i		12 21 43.1	

Lake Baikal (h = N).
M = 5.0 (Up,Ki).
P is followed by another phase after in average 13.8 sec.

" 16

Up	iP		14 55 04.8
	iS		15 04 23

(cont.)

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

1973 June	16	(cont.)					
		Up			micr	sec	
			P	Z'	0.3	1.1	
			Mx	E	0.9	18	
			Mx	N	0.7	15	
			Mx	Z	1.1	16	
		Ki	iP		14 54 23.2		
			iS		15 03 04		
					micr	sec	
			P	Z'	0.4	1.5	
			Mx	E	1.0	16	
			Mx	N	1.2	18	
			Mx	Z	1.4	17	
		Sk	iP		14 54 37.0		
		Um	iP		14 54 45.6		
			iS		15 03 44		
		Ud	iP		14 54 58.2		
		De	iP		14 55 17.3		
		Oregon (h = N).					
		m = 6.4, M = 5.3 (Up,Ki).					
"	16	Ud	iP		15 19 00.1		
		Banda Sea (h = 120 km).					
"	16	Up	iP		16 28 15.0		
		Ki	iP		16 27 21.1		
		Um	iP		16 27 48.1		
		Ud	iP		16 28 15.4		
		De	eP		16 28 37		
		Aleutian Islands (h = 50 km).					
"	16	Up	iPKP		16 35 34.0		
		Um	iPKP		16 35 14.5		
		Ud	iPKP		16 35 27.9		
		De	iPKP		16 35 32.1		
"	16	Um	iP		16 52 22.1		
		Kashmir.					
"	16	Ki	iP		18 44 59.7		
		Sk	eP		18 45 37		
		Um	iP		18 45 25.2		
		Ud	iP		18 45 57.1		
		De	eP		18 46 19		
		Kamchatka (h = 45 km).					
"	16	Up	iP		19 59 56.2		
			ipP		20 00 08.3		
		Ki	iP		19 59 02.4		
			ipP		19 59 15.0		
		Sk	iP		19 59 40.3		
		Um	iP		19 59 28.0		
			ipP		19 59 40.5		
		Ud	iP		20 00 01.2		
		De	iP		20 00 21.6		
		Kamchatka.					
		h = 45 km (Up,Ki,Um).					

1973 June	16	Ud	iPKP1		20 13 15.7		
"	16	Up	iP		20 38 45.9		
		Ki	iP		20 38 07.6		
		Sk	iP		20 38 40.6		
		Um	iP		20 38 24.3		
		Ud	iP		20 38 53.2		
		Japan (h = 80 km).					
"	16	Up	iP		20 44 35.0		
			ipP		20 44 47.5		
		Ki	iP		20 43 41.4		
			ipP		20 43 53.5		
		Sk	iP		20 44 17.9		
			ipP		20 44 30.6		
		Um	iP		20 44 06.5		
			ipP		20 44 18.9		
			isP		20 44 26.7		
		Ud	iP		20 44 38.8		
			ipP		20 44 50.8		
		De	iP		20 45 00.4		
		Kamchatka.					
		h = 45 km (Up,Ki,Sk,Um,Ud).					
"	16	Up	iP		22 46 43.9	C	
		Ki	iP		22 46 33.5		
			i		22 46 35.4		
		Sk	iP		22 47 02.1		
		Um	iP		22 46 33.0		
		Ud	iP		22 47 00.1	C	
			i		22 47 19.8		
		Sinkiang, China (h = N).					
"	16	Up	iPKP		23 25 17.9		
			ipPKP		23 25 30.2		
		Ki	iPKP		23 25 32.9		
			ipPKP		23 25 44.9		
					micr	sec	
			PKP	Z'	0.2	1.5	
		Sk	iPKP		23 25 23.4		
			iPKKP		23 35 07.1		
		Um	iPKP		23 25 26.1		
			ipPKP		23 25 38.1		
		Ud	iPKP		23 25 16.0		
			iPKKP		23 35 26.0		
		South Sandwich Islands.					
		h = 45 km (Up,Ki,Um).					
"	16	Up			micr	sec	
			Mx	E	0.9	24	
			Mx	N	0.7	16	
			Mx	Z	1.2	22	
		Ki	iP		23 47 15.0		
					micr	sec	
			Mx	E	0.7	13	
			Mx	N	1.5	18	
			Mx	Z	1.2	14	
		(cont.)					

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

1973 June	16	(cont.) Revilla Gigedo Islands (h = N). M = 5.5 (Up,Ki).				
"	17	Ki	iP		00 26 09.4	
		Sk	eP		00 26 36	
		Um	iP		00 26 21.7	
"	17	Ki	eP		00 29 44	
		Sk	e(P)		00 29 26	
		Um	eP		00 29 19	
		Ud	iP		00 29 20.9	
"	17	Up	iP		04 06 02.2	C
			iS		04 15 00	
					micr	sec
			P	Z'	4.5	1.0
			Mx	E	690	20
			Mx	N	510	19
			Mx	Z	540	19
		Ki	iP		04 05 16.8	C
			ipP		04 05 32.0	
					micr	sec
			P	Z'	4.6	2.5
			pP	Z'	4.5	1.0
			Mx	E	560	20
			Mx	N	890	22
			Mx	Z	850	22
		Sk	iP		04 05 52.9	C
			iP'P'		04 34 09.4	
			i		04 34 36.5	
		Um	iP		04 05 37.7	C
			iP'P'		04 34 24.9	
		Ud	iP		04 06 09.0	C
			iP'P'		04 34 07.2	
		De	iP		04 06 26.1	C
		Japan. h = 55 km (Ki). m = 7.5, M = 8.0 (Up,Ki).				
"	17	Up	iP		04 20 16.3	C
					micr	sec
			P	Z'	0.7	1.0
		Ki	iP		04 19 32.0	C
					micr	sec
			P	Z'	0.3	1.0
		Sk	iP		04 20 06.9	C
		Um	iP		04 19 52.0	C
		Ud	iP		04 20 22.9	C
		De	iP		04 20 40.2	C
		Kurile Islands (h = N). m = 6.7 (Up,Ki).				
"	17	Up	iP		04 23 26.2	
		Ki	iP		04 22 41.5	
		Um	iP		04 23 01.9	
		Japan. Origin time = 04 12 22.				
1973 June	17	Up	iP		04 30 37.4	C
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		04 29 53.7	C
		Sk	iP		04 30 28.9	C
		Um	iP		04 30 13.4	C
		Ud	iP		04 30 44.3	C
		De	iP		04 31 01.2	C
		Japan (h = 35 km).				
"	17	Up	iP		04 59 07.9	C
		Um	iP		04 58 41.9	
		Ud	iP		04 59 14.7	
		Japan. Origin time = 04 48 03.				
"	17	Up	iP		05 02 04.7	
		Um	iP		05 01 41.0	C
		Ud	iP		05 02 11.9	
		Japan. Origin time = 04 51 01.				
"	17	Up	iP		05 03 21.6	
		Ki	iP		05 02 37.2	
		Um	iP		05 02 56.3	
		Ud	iP		05 03 27.9	
		Japan. Origin time = 04 52 17.				
"	17	Up	iP		05 12 55.5	
		Ud	iP		05 13 00.2	
		Japan. Origin time = 05 01 50.				
"	17	Up	iSgl		05 16 57.8	
		Ki	iPn		05 12 44.1	
			iSn		05 13 41.8	
			iSgl		05 14 03.8	
		Sk	iSgl		05 16 27.0	
			i		05 16 35.2	
		Um	iSn		05 14 22.0	
			iSgl		05 14 57.4	
		Ud	iSgl		05 17 30.9	
		Northwest USSR. Explosion?				
"	17	Up	iP		05 19 04.8	
		Um	iP		05 18 41.4	
		Ud	iP		05 19 12.2	
		Japan. Origin time = 05 08 01.				
"	17	Up	iP		05 21 00.6	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		05 20 15.7	C
		(cont.)				

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

1973
June 17 (cont.)

	Sk	iP	05 20 51.1	
	Um	iP	05 20 36.0	C
	Ud	iP	05 21 07.2	
		i	05 21 13.4	
	De	iP	05 21 24.5	

Kurile Islands (h = 30 km).

" 17	Up	iP	05 23 13.0			
			micr	sec		
		P	Z'	0.1	1.0	
	Ki	iP	05 22 29.0			
			micr	sec		
		P	Z'	0.1	1.0	
	Sk	iP	05 23 03.9			C
	Um	iP	05 22 48.5			C
	Ud	iP	05 23 19.3			C
	De	iP	05 23 40.1			

Japan (h = 45 km).
m = 5.9 (Up,Ki).

" 17	Ud	eP	05 32 14	
" 17	Up	iP	05 37 29.7	
	Ud	iP	05 37 36.0	

Japan.
Origin time = 05 26 25.

" 17	Um	iP	05 49 15.8	
	Ud	iP	05 49 09.6	
" 17	Up	iP	05 50 35.9	
	Um	iP	05 50 10.4	C
	Ud	iP	05 50 42.0	

Japan.
Origin time = 05 39 31.

" 17	Up	iP	06 03 12.8			D
			micr	sec		
		P	Z'	0.1	0.8	
	Ki	iP	06 02 28.1			
	Sk	iP	06 03 03.3			
	Um	iP	06 02 47.2			
	Ud	iP	06 03 19.1			
	De	iP	06 03 36.2			

Kurile Islands (h = 45 km).

" 17	Up	iP	06 07 06.5	
	Ud	iP	06 07 11.6	

(Japan).

" 17	Ki	iP	06 18 40.2	
	Um	iP	06 19 00.4	
	Ud	iP	06 19 31.6	

Japan (h = N).

" 17	Ud	iP	06 38 10.2

1973
June 17

	Up	iP	06 40 30.9
	Ki	iP	06 39 46.6
	Sk	iP	06 40 20.5
	Um	iP	06 40 05.6
	Ud	iP	06 40 36.4
	De	iP	06 40 55.7

Kurile Islands (h = N).

" 17	Ud	iP	06 52 52.2
" 17	Ki	iP	06 53 13.4
	Ud	iP	06 54 13.3
" 17	Up	iP	06 54 19.0
	Um	iP	06 53 58.3
	Ud	iP	06 54 25.4

Japan.
Origin time = 06 43 16.

" 17	Up	iP	06 58 51.8
	Ki	iP	06 58 07.4
	Sk	iP	06 58 43.1
	Um	iP	06 58 27.4
	Ud	iP	06 58 58.6

Kurile Islands (h = N).

" 17	Sk	eP	07 04 10
		i	07 04 53.7
" 17	Um	iP	07 11 08.1
	Ud	iP	07 11 39.0

Japan (h = N).

" 17	Um	iP	07 11 55.3
" 17	Ki	iP	07 46 13.4
	Ud	eP	07 47 05

Japan.
Origin time = 07 35 54.

" 17	Ud	iP	07 51 02.5

" 17	Up	iP	07 53 56.9			
		ipP	07 54 09.9			
			micr	sec		
		P	Z'	0.1	1.2	
	Ki	iP	07 53 03.0			C
		ipP	07 53 15.6			
			micr	sec		
		P	Z'	0.1	1.0	
	Sk	iP	07 53 40.7			
		ipP	07 53 52.1			
	Ud	iP	07 54 00.2			C
		ipP	07 54 12.7			
	De	iP	07 54 22.4			

Kamchatka.
h = 45 km (Up,Ki,Sk,Ud).
m = 5.7 (Up,Ki).

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

1973 June	17	Up	iP	07 57 44.0	
		Um	iP	07 57 19.1	
		Ud	iP	07 57 50.2	
		Japan (h = N).			
"	17	Up	iP	08 08 51.8	
		Ud	iP	08 08 58.4	
		Kurile Islands.			
		Origin time = 07 57 52.			
"	17	Up	iP	08 27 47.2	
"	17	Up	iP	08 28 51.7	
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	08 28 06.7	
		Sk	iP	08 28 41.9	
		Um	iP	08 28 27.0 C	
		Ud	iP	08 28 57.7 C	
		De	iP	08 29 14.4	
		Kurile Islands (h = 40 km).			
"	17	Up	iP	08 51 53.5	
		Um	iP	08 51 28.8	
		Ud	iP	08 52 00.1	
		Japan (h = N).			
"	17	Up	iP	08 59 24.2	
			ipP	08 59 33.5	
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	08 58 38.9 C	
			ipP	08 58 48.5	
		Sk	iP	08 59 13.8	
		Um	iP	08 58 58.9	
			ipP	08 59 08.9	
		Ud	iP	08 59 29.9 C	
		De	iP	08 59 47.1	
			ipP	08 59 57.0	
		Japan.			
		h = 35 km (Up,Ki,Um,De).			
"	17	Up	iP	09 01 00.9	
		Ki	iP	09 00 15.5	
		Um	ipP	09 00 47.8	
		Ud	iP	09 01 07.3	
			ipP	09 01 19.2	
		Japan.			
		Origin time = 08 49 57.			
		h = 45 km (Ud).			
"	17	Up	iP	09 06 39.3	
		Ki	iP	09 05 52.7	
		Sk	eP	09 06 28	
		Um	iP	09 06 11.5	
			ipP	09 06 21.3	
		Ud	eP	09 06 41	
		(cont.)			

1973 June	17	(cont.)			
		Ud	ipP	09 06 51.3	
		Japan.			
		h = 40 km (Um,Ud).			
"	17	Ud	iP	09 17 30.1	
"	17	Ud	iP	09 26 38.4	
"	17	Up	iP	09 29 23.1	
			ipP	09 29 33.0	
		Ki	iP	09 28 38.3 C	
		Sk	iP	09 29 13.4	
		Um	iP	09 28 58.2	
		Ud	iP	09 29 29.4	
			ipP	09 29 39.5	
		De	iP	09 29 47.3	
		Kurile Islands.			
		h = 35 km (Up,Ud).			
"	17	Ud	iP	09 40 00.6	
		Japan.			
"	17	Up	iP	10 17 09.4	
		Ud	iP	10 17 14.8	
		Japan.			
		Origin time = 10 06 04.			
"	17	Up	iP	10 35 17.4	
			ipP	10 35 29.5	
		Ki	iP	10 34 35.0	
			ipP	10 34 45.4	
		Um	iP	10 34 53.6	
		Ud	iP	10 35 24.2	
			ipP	10 35 35.5	
		Japan.			
		h = 40 km (Up,Ki,Ud).			
"	17	Up	iP	11 10 24.1	
			ipP	11 10 35.3	
		Ki	iP	11 09 39.2 C	
		Um	iP	11 09 59.3	
		Ud	iP	11 10 30.3	
			ipP	11 10 40.7	
		De	iP	11 10 47.4	
		Kurile Islands.			
		h = 40 km (Up,Ud).			
"	17	Ud	iP	11 11 42.1	
"	17	Ki	iP	11 30 13.0	
		Um	iP	11 30 27.5	
		Ud	iP	11 31 02.4	
		Japan (h = N).			
"	17	Up	iP	11 43 15.0	
		Ki	iP	11 42 47.0	
		(cont.)			

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

1973
June 17 (cont.)

	Sk	iP	11 43 15.9
	Um	iP	11 43 00.3
	Ud	iP	11 43 23.8

Ryukyu Islands (h = N).

" 17	Up	iP	11 46 35.5
	Ki	iP	11 45 50.6
	Sk	iP	11 46 27.5
	Um	iP	11 46 10.6
	Ud	iP	11 46 41.6
	De	iP	11 47 01.5

Kurile Islands (h = N).

" 17	Up	iP	11 56 34.7
	Ki	iP	11 55 43.5
	Um	iP	11 56 02.9
	Ud	iP	11 56 34.0
	De	iP	11 56 45.8

Japan.
Origin time = 11 45 24.

" 17	Ki	iP	11 56 44.3
	Um	iP	11 56 49.0

Banda Sea (h = 150 km).

" 17	Um	iP	11 57 32.0
	Ud	eP	11 58 04

Japan.
Origin time = 11 46 52.

" 17	Ud	iP	12 00 14.4
" 17	Ud	iP	12 21 53.7
" 17	Up	iP	12 25 27.5 C
		ipP	12 25 38.8
			micr sec
		P Z'	0.1 0.7
	Ki	iP	12 24 42.9
			micr sec
		P Z'	0.1 1.0
	Sk	iP	12 25 18.0 C
	Um	iP	12 25 02.4 C
	Ud	iP	12 25 33.6 C
		ipP	12 25 45.5
	De	iP	12 25 50.9 C
		ipP	12 26 03.7

Japan.
h = 45 km (Up,Ud,De).
m = 6.0 (Up,Ki).

" 17	Ud	eP	12 30 25
" 17	Up	iP	12 35 40.6 C
		ipP	12 35 51.2

(cont.)

1973
June 17 (cont.)

Up			micr sec
	P	Z'	0.1 0.7
	Mx	E	1.3 17
	Mx	N	1.8 15
	Mx	Z	2.0 17
Ki	iP		12 34 56.1 C
	ipP		12 35 05.8
			micr sec
	P	Z'	0.2 1.1
	Mx	E	1.7 16
	Mx	N	2.2 16
	Mx	Z	3.1 17
Sk	iP		12 35 31.2 C
Um	iP		12 35 16.0 C
	ipP		12 35 26.7
	iS		12 44 03
Ud	iP		12 35 47.0
	ipP		12 35 57.3
De	iP		12 36 04.1 C

Japan.
h = 40 km (Up,Ki,Um,Ud).
m = 6.1, M = 5.6 (Up,Ki).

" 17	Ud	iP	12 47 11.4
" 17	Up	iP	13 33 22.9 C
		ipP	13 33 35.6
	Ki	iP	13 32 37.0
	Um	iP	13 32 56.8 C
	Ud	iP	13 33 27.5

Japan.
h = 45 km (Up).

" 17	Ud	iP	13 39 11.3
" 17	Up	iP	13 44 28.1 C
			micr sec
		P Z'	0.4 0.8
		Mx E	1.7 18
		Mx N	1.6 18
		Mx Z	2.4 18
	Ki	iP	13 43 43.9
		i	13 43 48.8
			micr sec
		P Z'	0.2 1.0
		Mx E	4.1 20
		Mx N	2.8 20
		Mx Z	3.7 21
	Sk	iP	13 44 19.6
		i	13 44 24.9
	Um	iP	13 44 04.1
		i	13 44 08.3
		iS	13 52 39
	Ud	iP	13 44 34.4 C
		i	13 44 38.9
	De	iP	13 44 52.1 C

(cont.)

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

1973
June 17 (cont.)

		De	i	13 44 57.5	

Japan (h = 45 km).
m = 6.4, M = 5.6 (Up,Ki).
Probably two shocks, 4.8 sec apart.

"	17	Up	iP	13 54 12.6	C
			ipP	13 54 23.9	
				micr	sec
			P Z'	0.6	1.5
			Mx E	1.3	17
			Mx N	2.6	15
			Mx Z	3.0	15
		Ki	iP	13 53 26.6	
			ipP	13 53 37.7	
				micr	sec
			P Z'	0.1	1.0
			Mx E	3.7	16
			Mx N	4.3	16
			Mx Z	6.5	17
		Sk	iP	13 54 02.9	C
		Um	iP	13 53 48.0	C
			ipP	13 53 59.0	
			i	13 54 11.6	
		Ud	iP	13 54 18.9	C
		De	iP	13 54 36.1	C

Kurile Islands.
h = 40 km (Up,Ki,Um).
m = 6.2, M = 5.8 (Up,Ki).

"	17	Ud	iP	14 21 36.4	
"	17	Up	iP	14 35 16.5	C
			ipP	14 35 28.4	
				micr	sec
			P Z'	0.1	1.0
		Ki	iP	14 34 31.9	C
			ipP	14 34 43.1	
		Sk	iP	14 35 07.0	
		Um	iP	14 34 52.0	
		Ud	iP	14 35 23.1	C
			ipP	14 35 34.8	
		De	iP	14 35 40.7	

Japan.
h = 45 km (Up,Ki,Ud).

"	17	Ki	iP	14 45 05.7	
		De	eP	14 46 31	
"	17	Ud	iP	14 50 13.2	
"	17	Ud	eP	16 07 37	
"	17	Up	iP	16 09 14.2	
"	17	Um	iP	16 31 29.8	

(cont.)

1973
June 17 (cont.)

		Ud	iP	16 32 01.6	

Kurile Islands.
Origin time = 16 20 56.

"	17	Up	iP	16 40 50.8	
		Sk	i(P)	16 40 34.8	
		Ud	iP	16 40 57.7	

Japan.
Origin time = 16 29 47.

"	17	Up	iP	17 04 15.0	C
			ipP	17 04 30.0	
				micr	sec
			P Z'	0.1	0.9
		Ki	iP	17 03 21.3	C
				micr	sec
			P Z'	0.1	0.8
		Sk	iP	17 03 54.8	C
		Um	iP	17 03 47.3	C
		Ud	iP	17 04 15.9	
		De	iP	17 04 38.1	C

Aleutian Islands.
h = 55 km (Up).
m = 5.8 (Up,Ki).

"	17	Sk	eP	17 19 49	
"	17	Um	iP	17 42 42.0	
		Ud	iP	17 43 00.7	
"	17	Ud	iP	17 59 38.4	
"	17	Ki	i(pP)	18 32 34.6	
		Ud	i(pP)	18 33 22.5	

Japan (h = N).

"	17	Up	iP	18 37 50.8	
"	17	Up	iP	19 06 43.0	C
				micr	sec
			P Z'	0.5	1.0
			Mx E	2.4	16
			Mx N	3.0	17
			Mx Z	3.2	16
		Ki	iP	19 05 58.1	C
			ipP	19 06 12.4	
				micr	sec
			P Z'	0.3	1.0
			Mx E	3.0	19
			Mx N	6.4	20
			Mx Z	5.0	18
		Sk	iP	19 06 33.4	C
		Um	iP	19 06 17.8	C
		Ud	iP	19 06 48.5	C
			ipP	19 06 59.6	
		De	iP	19 07 05.7	C

(cont.)

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

1973 June 17 (cont.)

	De	ipP	19 07 19.4	

Kurile Islands.
h = 50 km (Ki,Ud,De).
m = 6.5, M = 5.8 (Up,Ki).

" 17	Up	iP	19 10 24.3	
	Sk	iP	19 10 18.3	
	De	eP	19 10 53	

Japan.
Origin time = 18 59 23.

" 17	Up	iP	19 14 40.1	
			micr	sec
		P Z'	0.1	1.0
	Ki	iP	19 13 56.1	C
		ipP	19 14 06.8	
			micr	sec
		P Z'	0.3	1.0
	Sk	iP	19 14 31.7	
	Um	iP	19 14 16.0	
		ipP	19 14 26.4	
	Ud	iP	19 14 46.5	
	De	iP	19 15 03.8	

Japan.
h = 40 km (Ki,Um).
m = 6.2 (Up,Ki).

" 17	Up	eP	19 52 51

" 17	Up	iP	20 49 00.9	C
		ipP	20 49 12.4	
		iS	20 57 59	
		eP'P'	21 17 04	
			micr	sec
		P Z'	0.7	0.8
		Mx E	13	17
		Mx N	24	17
		Mx Z	30	17
	Ki	iP	20 48 16.3	C
		ipP	20 48 29.3	
		iS	20 56 41	
		eP'P'	21 17 20	
			micr	sec
		P Z'	1.6	1.4
		Mx E	25	19
		Mx N	24	16
		Mx Z	39	19
	Sk	iP	20 48 51.4	C
		eP'P'	21 17 08	
	Um	iP	20 48 35.8	C
		ipP	20 48 50.8	
		iS	20 57 11	
		i(P'P')	21 17 05.2	
		iP'P'	21 17 16.8	
	Ud	iP	20 49 07.3	C

(cont.)

1973 June 17 (cont.)

	Ud	ipP	20 49 18.3	
		iS	20 58 16.5	
		iP'P'	21 17 01.6	
	De	iP	20 49 24.1	C
		ipP	20 49 36.2	
		iS	20 58 49.2	

Japan.
h = 45 km (Up,Ki,Um,Ud,De).
m = 6.9, M = 6.6 (Up,Ki).

" 17	Up	iP	21 14 40.2	
		ipP	21 14 55.0	
	Ki	e(pP)	21 14 04	
	Sk	ipP	21 14 43.7	
	Um	iP	21 14 13.1	
		ipP	21 14 30.0	
	Ud	iP	21 14 45.2	
		ipP	21 15 01.6	
	De	ipP	21 15 15.5	

Japan.
h = 60 km (Up,Um,Ud).

" 17	Up	iP	21 34 10.0
	Ki	eP	21 33 26
	Um	iP	21 33 44.8
	Ud	iP	21 34 17.2

Japan.
Origin time = 21 23 06.

" 17	Up	iP	21 34 46.2
	Ki	iP	21 34 02.1
	Sk	eP	21 34 32
	Um	iP	21 34 21.4
	Ud	iP	21 34 52.0

Japan (h = N).

" 17	Up	iP	21 37 14.4	C
			micr	sec
		P Z'	0.1	0.8
	Ki	iP	21 36 29.7	C
		ipP	21 36 46.4	
	Sk	iP	21 37 05.0	C
	Um	iP	21 36 49.6	C
		ipP	21 37 05.5	
	Ud	iP	21 37 20.8	C
		ipP	21 37 36.9	
	De	iP	21 37 37.6	C

Japan.
h = 60 km (Ki,Um,Ud).

" 17	Up	iP	22 26 34.0	
		ipP	22 26 45.7	
	Ki	iP	22 25 49.8	
		i	22 25 54.3	
	Sk	iP	22 26 21.3	

(cont.)

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

1973 June 17 (cont.)

	Um	iP	22 26 06.5
	Ud	iP	22 26 40.5
		ipP	22 26 52.6
	De	iP	22 26 57.6

Japan.
h = 45 km (Up,Ud).

"	17	Ud	iP	22 55 08.4
"	17	Ud	iP	23 07 02.5
"	17	Um	iP	23 48 26.7
		Ud	eP	23 49 12
"	18	Ud	eP	01 16 55
"	18	Up	iP	01 20 03.5
		Ki	iP	01 19 18.0
		Um	iP	01 19 39.1
		Ud	iP	01 20 09.9
			ipP	01 20 21.3

Kurile Islands.
h = 40 km (Ud).

"	18	Ki	eP	02 06 58
		Um	iP	02 07 16.4
		Ud	iP	02 07 47.3

Japan (h = 35 km).

"	18	Up	iP	02 23 13.0
			ipP	02 23 24.7
		Ki	iP	02 22 28.2 C
		Sk	iP	02 23 04.2
		Um	iP	02 22 48.5
		Ud	iP	02 23 19.3 C
			ipP	02 23 30.9

Japan.
h = 45 km (Up,Ud).

"	18	Up	iP		02 30 36.2
			ipP		02 30 45.1
					micr sec
			Mx	E	0.5 14
			Mx	N	0.7 16
			Mx	Z	0.9 17
		Ki	iP		02 29 52.2
			ipP		02 30 00.7
					micr sec
			P	Z'	0.1 1.3
			Mx	E	0.8 14
			Mx	N	0.7 15
			Mx	Z	1.7 17
		Sk	eP		02 30 29
			ipP		02 30 37.3
		Um	iP		02 30 12.2
			ipP		02 30 20.9

(cont.)

1973 June 18 (cont.)

	Ud	iP	02 30 42.9
		ipP	02 30 51.5
	De	ipP	02 31 10.0

Japan.
h = 30 km (Up,Ki,Sk,Um,Ud).
M = 5.3 (Up,Ki).

"	18	Ud	eP	02 46 13
"	18	Ud	iPKP1	03 16 21.3
		De	iPKP1	03 16 31.0 C

Fiji Islands (h = 650 km).

"	18	Up	iP	03 54 55.0
"	18	Ud	iP	04 20 28.9
"	18	Up	iP	04 34 04.9
		Ki	iP	04 33 19.5
			ipP	04 33 31.9
		Um	iP	04 33 39.4
		Ud	iP	04 34 10.7 C
			ipP	04 34 21.4

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

"	18	Up	iP	04 43 40.3
		Ki	iP	04 42 55.8
		Sk	eP	04 43 28
		Ud	iP	04 43 47.0

Japan (h = N).

"	18	Up	iP	05 06 19.7
		Um	iP	05 05 56.8
			ipP	05 06 08.8
		Ud	iP	05 06 27.6

Kurile Islands.
h = 45 km (Um).

"	18	Up	iP		05 48 44.2 D
					micr sec
			P	Z'	0.1 0.7
			Mx	E	1.5 16
			Mx	N	0.8 16
			Mx	Z	1.3 16
		Ki	iP		05 47 59.4
					micr sec
			P	Z'	0.2 1.0
			Mx	E	1.2 16
			Mx	N	1.6 14
			Mx	Z	1.9 15
		Sk	iP		05 48 34.4
		Um	iP		05 48 19.0 D
		Ud	iP		05 48 50.0 D
			ipP		05 49 03.2
		De	iP		05 49 06.6

(cont.)

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

1973 June	18	(cont.)				
		Japan.				
		h = 50 km (Ud).				
		m = 6.2, M = 5.5 (Up,Ki).				
"	18	Um	iP		06 59 38.5	
"	18	Ud	iP		08 32 04.2	
		Oregon (h = N).				
"	18	Um	iP		08 45 13.2	
		Ud	iP		08 45 44.8	
		Japan.				
		Origin time = 08 34 33.				
"	18	Um	iP		10 09 19.9	
"	18	Sk	iP		10 10 00.7	
"	18	Up	iP		10 28 25.4	
					micr sec	
			P	Z'	0.1 1.0	
		Ki	iP		10 27 34.6	
					micr sec	
			P	Z'	0.2 1.2	
		Sk	iP		10 28 03.7	
		Um	iP		10 28 01.8 D	
			i		10 28 08.5	
		Ud	iP		10 28 25.9 D	
		De	iP		10 28 48.7 D	
		South of Alaska (h = 15 km).				
		m = 6.1 (Up,Ki).				
"	18	Up	iP		11 47 42.7	
		Ki	i(P)		11 47 05.1	
		Ud	iP		11 47 49.1	
		Japan (h = N).				
"	18	Ud	iP		11 55 16.3	
"	18	Sk	e(P)		11 56 06	
		Ud	iP		11 57 22.4	
"	18	Ud	eP		12 12 32	
		De	iP		12 12 20.5	
"	18	Ud	iP		12 35 08.2	
"	18	Ud	iP		12 43 12.3	
"	18	Up	iPgl		12 59 47.8	
			iSgl		12 59 57.9	
		Ud	iSgl		13 00 54.7	
		De	iSn		13 01 19.1	
			iSgl		13 01 29.4	
		Off coast of Södermanland, Sweden.				
		Explosion?				

1973 June	18	Up	iP		13 07 11.1	
"	18	Up	iP		13 24 56.5	
			ipP		13 25 07.7	
		Ki	iP		13 24 13.0	
		Um	iP		13 24 31.4	
			ipP		13 24 42.5	
		Ud	iP		13 25 03.1	
			ipP		13 25 13.7	
		De	eP		13 25 19	
		Japan.				
		h = 40 km (Up,Um,Ud).				
"	18	Ki	iP		13 37 56.8	
		De	eP		13 38 59	
"	18	Up	eP		13 41 39	
		Sk	eP		13 41 24	
"	18	Up	iP		14 40 42.2	
			ipP		14 40 53.1	
		Ki	iP		14 39 57.2	
			ipP		14 40 08.5	
		Sk	iP		14 40 32.6	
		Um	iP		14 40 17.8	
			ipP		14 40 29.4	
		Ud	iP		14 40 48.3	
			ipP		14 40 58.6	
		Kurile Islands.				
		h = 40 km (Up,Ki,Um,Ud).				
"	18	Up	iP		14 42 43.5	
			ipP		14 42 54.1	
		Ki	iP		14 41 58.3	
			ipP		14 42 09.6	
		Um	iP		14 42 18.9	
			ipP		14 42 29.9	
		Ud	iP		14 42 49.5 C	
			i		14 42 56.7	
		De	iP		14 43 07.2	
		Kurile Islands.				
		h = 40 km (Up,Ki,Um).				
"	18	Up	iP		16 07 46.4	
		Ki	i(P)		16 07 17.0	
		Um	iP		16 07 28.5	
			i		16 07 37.9	
		Ud	iP		16 07 54.2	
		De	iP		16 08 06.1	
		Bonin Islands (h = 50 km).				
"	18	Um	iP		17 15 20.5	
		Ud	iP		17 15 51.8	
		Japan.				
		Origin time = 17 04 41.				
"	18	Ki	iP		17 39 51.8	

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

1973 June	18	Up	iP		17 56 49.8	C
			ipP		17 56 59.4	
			iS		18 05 53	
					micr	sec
			P	Z'	0.1	0.9
			pP	Z'	0.7	1.1
			Mx	E	3.6	19
			Mx	N	2.9	18
			Mx	Z	3.6	18
		Ki	iP		17 56 05.9	C
			ipP		17 56 14.1	
			iS		18 04 33	
					micr	sec
			P	Z'	0.2	1.0
			pP	Z'	0.4	1.4
			Mx	E	6.2	16
			Mx	N	4.8	16
			Mx	Z	4.4	17
		Sk	iP		17 56 41.0	
			ipP		17 56 51.6	
		Um	iP		17 56 25.6	C
			ipP		17 56 33.1	
			iS		18 05 11	
		Ud	iP		17 56 56.4	C
			ipP		17 57 06.2	
		De	iP		17 57 12.8	
			ipP		17 57 23.5	
		Japan.				
		h = 35 km (Up,Ki,Sk,Um,Ud, De).				
		m = 6.4, M = 5.9 (Up,Ki).				
"	18	Up	iP		18 35 25.3	
			ipP		18 35 35.7	
		Ki	iP		18 34 40.0	
			ipP		18 34 52.0	
					micr	sec
			pP	Z'	0.1	1.2
		Sk	i(P)		18 35 19.2	
			ipP		18 35 26.6	
		Um	iP		18 35 00.2	
			ipP		18 35 10.9	
		Ud	iP		18 35 32.9	
			ipP		18 35 42.0	
		Japan.				
		h = 40 km (Up,Ki,Um,Ud).				
"	18	De	eP		19 18 23	
"	18	Ki	iP		19 35 51.5	
"	18	Up	iP		20 42 43.0	
			ipP		20 42 55.9	
		Ki	iP		20 41 59.2	
		Sk	iP		20 42 33.7	
		Um	iP		20 42 18.8	
		Ud	iP		20 42 49.6	
		(cont.)				

1973 June	18	(cont.)					
		De	iP		20 43 08.5		
		Japan.					
		h = 50 km (Up).					
"	18	Um	iP		21 48 54.3		
		Ud	iP		21 49 23.9		
		Japan.					
		Origin time = 21 38 13.					
"	18	Um	iP		23 22 01.7		
"	19	Ki	iP		00 05 55.6		
		Um	eP		00 06 17		
		Ud	eP		00 06 51		
		Japan (h = N).					
"	19	Up	iP		02 11 22.1		
		Ki	ipP		02 10 49.2		
		Um	iP		02 10 58.2		
			ipP		02 11 12.7		
		Ud	iP		02 11 30.4		
			ipP		02 11 42.9		
		De	eP		02 11 47		
		Japan.					
		h = 50 km (Um,Ud).					
"	19	Ud	iPKP		02 29 11.3		
		De	iPKP		02 29 15.5		
		Solomon Islands (h = 50 km).					
"	19	Up	iP		02 33 08.5	C	
					micr	sec	
			P	Z'	0.1	0.8	
			Mx	E	0.7	15	
			Mx	N	0.8	16	
			Mx	Z	1.4	17	
		Ki	iP		02 32 23.5	C	
					micr	sec	
			Mx	E	1.1	17	
			Mx	N	1.3	17	
			Mx	Z	2.7	18	
		Sk	iP		02 32 59.4		
		Um	iP		02 32 43.8	C	
		Ud	iP		02 33 14.8	C	
			i		02 33 22.7		
		De	iP		02 33 32.0		
		Japan (h = 50 km).					
		M = 5.3 (Up,Ki).					
"	19	Up	iP		03 05 11.2		
					micr	sec	
			P	Z'	0.1	0.9	
			Mx	E	0.9	16	
			Mx	N	2.0	16	
			Mx	Z	2.5	17	
		Ki	iP		03 04 29.3		
		(cont.)					

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

1973 June 19 (cont.)

			micr	sec
Ki	P	Z'	0.2	1.0
	Mx	E	1.3	15
	Mx	N	1.7	15
	Mx	Z	3.1	18
Sk	iP		03 05 04.0	
Um	iP		03 04 48.4	
	ipP		03 05 01.2	
Ud	iP		03 05 19.3	
De	iP		03 05 36.9	

Japan.
h = 45 km (Um).
m = 6.1, M = 5.5 (Up,Ki).

" 19

Up	iP		03 47 50.8	
	i		03 47 53.3	
	i(PP)		03 51 17.5	
	iSKS		03 58 25	
			micr	sec
	Mx	E	9.1	19
	Mx	N	7.4	19
	Mx	Z	18	18
Ki	iP		03 47 26.1	
	i		03 47 28.7	
	iSKS		03 57 56	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	11	18
	Mx	N	12	18
	Mx	Z	8.9	19
Sk	iP		03 47 52.8	
	i(PP)		03 51 11.0	
Um	iP		03 47 34.2	
	i		03 47 36.4	
	iSKS		03 58 09	
Ud	iP		03 47 55.7	
	i		03 47 58.1	
	i(PP)		03 51 21.5	
De	iP		03 48 06.4	

Caroline Islands (h = N).
M = 6.5 (Up,Ki).
A small P, followed by a larger one, after 2.4 sec.

" 19

Um	iP	04 08 30.0
Ud	iP	04 09 01.7

Japan.
Origin time = 03 57 50.

" 19 Ud iP 04 27 03.2

" 19

Up	iP	04 40 32.5
	ipP	04 40 44.2
Ki	iP	04 39 48.4
	ipP	04 40 00.2
Sk	eP	04 40 24

(cont.)

1973 June 19 (cont.)

Um	iP	04 40 08.0
Ud	iP	04 40 38.9
	ipP	04 40 51.0
De	iP	04 40 55.6

Japan.
h = 45 km (Up,Ki,Ud).

" 19 Ud iP 04 58 14.8

" 19

Um	iPP	05 04 39.3
Ud	iPP	05 04 09.3

Chile-Bolivia (h = 120 km).

" 19

Up	iP	05 25 25.6
Ki	eP	05 24 40
Um	iP	05 25 00.7
Ud	iP	05 25 30.4

Japan (h = 35 km).

" 19

Up	iP	06 37 18.7
	ipP	06 37 33.9
Ki	iP	06 36 33.5
Sk	iP	06 37 08.8
Um	iP	06 36 53.2
Ud	iP	06 37 24.1 C
De	iP	06 37 44.5

Japan.
h = 55 km (Up).

" 19

Up	iP		06 48 58.5 C	
	ipP		06 49 11.7	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		06 48 13.8 C	
	ipP		06 48 26.6	
			micr	sec
	Mx	E	0.7	16
	Mx	N	0.7	17
	Mx	Z	1.0	17
Sk	iP		06 48 48.7	
	ipP		06 49 02.3	
Um	iP		06 48 33.9 C	
	ipP		06 48 46.7	
Ud	iP		06 49 04.8 C	
	i		06 49 13.3	
	ipP		06 49 17.9	
De	iP		06 49 22.1	
	ipP		06 49 34.3	

Japan.
h = 50 km (Up,Ki,Sk,Um,Ud, De).

" 19

Up	ipP	07 47 04.0
Ki	iP	07 46 04.9
Sk	epP	07 46 54
Um	iP	07 46 29.9

(cont.)

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

1973
June 19 (cont.)

	Um	ipP		07 46 39.8
	Ud	iP		07 47 01.1
		ipP		07 47 10.9

Japan.
h = 35 km (Um,Ud).

" 19	Up	iP		08 47 23.2	
				micr	sec
		P	Z'	0.2	1.2
	Ki	iP		08 46 38.9	
				micr	sec
		P	Z'	0.1	1.1
	Sk	iP		08 47 13.4	
	Um	iP		08 46 58.7	
	Ud	iP		08 47 29.9	
	De	iP		08 47 46.7	

Japan (h = 35 km).
m = 6.0 (Up,Ki).

" 19	Up	iP	09 48 23.2
	Ki	iP	09 47 38.7
	Sk	iP	09 48 13.4
	Um	iP	09 47 58.4
	Ud	iP	09 48 29.7
	De	iP	09 48 47.0

Japan (h = 40 km).

" 19	Ud	iP	10 10 36.0

" 19	Up	iP	11 09 53.8
	Ki	iP	11 09 08.9
	Um	iP	11 09 29.2
	Ud	iP	11 10 00.1
		ipP	11 10 11.1
	De	iP	11 10 17.5

Japan.
h = 40 km (Ud).

" 19	Up	iP	11 52 04.4
		ipP	11 52 13.5
	Ki	iP	11 51 19.4
		ipP	11 51 29.2
	Sk	ipP	11 52 04.3
	Um	ipP	11 51 48.8
	Ud	iP	11 52 11.3
		ipP	11 52 20.0

Japan.
h = 35 km (Up,Ki,Ud).

" 19	Up	iP	12 47 54.9
	Ki	iP	12 47 11.4
	Um	iP	12 47 30.3
	Ud	iP	12 48 01.3

Kurile Islands (h = N).

" 19	Um	iPKP	12 59 44.5

1973
June 19

	Up	eSgl	13 04 21
	Ki	iSgl	13 06 56.2
	Sk	iSgl	13 06 09.4
	Um	iSgl	13 04 53.7
	Ud	iSgl	13 05 21.9
	De	iSgl	13 05 50.0

Esthonia.
Explosion.

" 19	Up	iSgl	13 22 26.5
	Ud	iSn	13 21 09.2
		iSgl	13 21 28.0
	De	iSn	13 21 19.7
		iSgl	13 21 38.9

Southwest Norway,
58.5°N, 6.6°E.
Origin time = 13 19 23.
By combination with Bergen and Kongsberg readings.

" 19	Um	iSgl	13 46 53.1

Lake Ladoga.
Explosion.

" 19	Ki	eP	14 19 57

" 19	Um	iP	15 14 41.7
	Ud	iP	15 14 51.5

Andaman Islands (h = N).

" 19	De	iP	15 23 46.6

" 19	Um	iPKP	17 04 56.2
	De	iPKP1	17 05 12.5

Fiji Islands (h = 260 km).

" 19	Up	iP		17 21 19.4	
		ipP		17 21 31.7	
				micr	sec
		P	Z'	0.1	0.9
	Ki	iP		17 20 35.5	
		ipP		17 20 47.0	
				micr	sec
		P	Z'	0.1	1.0
	Sk	iP		17 21 09.9	
		ipP		17 21 22.1	
	Um	iP		17 20 55.2	D
		ipP		17 21 07.3	
	Ud	iP		17 21 26.3	
		ipP		17 21 37.6	
	De	iP		17 21 43.4	

Japan.
h = 45 km (Up,Ki,Sk,Um,Ud).
m = 5.9 (Up,Ki).

" 19	Up	iP		20 16 56.7 C
		ipP		20 17 09.8

(cont.)

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

1973
June 19 (cont.)

Up			micr	sec
	P	Z'	0.1	1.0
	pP	Z'	0.2	1.1
	Mx	E	0.7	18
	Mx	N	0.6	16
	Mx	Z	0.6	16
Ki	iP		20 16 11.7	C
	ipP		20 16 25.2	
			micr	sec
	P	Z'	0.1	1.0
Sk	iP		20 16 46.6	C
	ipP		20 17 00.7	
Um	iP		20 16 31.9	C
	ipP		20 16 45.2	
Ud	iP		20 17 02.9	C
	ipP		20 17 16.3	
De	iP		20 17 19.8	
	ipP		20 17 33.3	

Japan.
h = 50 km (Up,Ki,Sk,Um,Ud, De).
m = 5.9 (Up,Ki).

" 19

Ki	iP	21 10 37.5	
Ud	iP	21 11 29.7	
	ipP	21 11 41.2	

Kurile Islands.
Origin time = 21 00 24.
h = 45 km (Ud).

" 19

Up	iP		22 42 43.0	C
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		22 42 04.3	C
			micr	sec
	P	Z'	0.1	1.0
Sk	iP		22 42 37.3	
Um	iP		22 42 21.2	C
Ud	iP		22 42 50.3	C
De	iP		22 43 05.1	

Japan (h = 70 km).
m = 5.8 (Up,Ki).

" 19

Ud	iP	23 28 31.9	

" 20

Up	iP	05 04 38.4	
Ki	iP	05 03 53.5	
Sk	eP	05 04 29	
Um	iP	05 04 11.9	
Ud	iP	05 04 44.5	
De	eP	05 05 02	

Japan (h = N).

" 20

Up	eP	06 22 38	
	ipP	06 22 50.6	
Ki	iP	06 21 55.1	

(cont.)

1973
June 20 (cont.)

Ki	ipP	06 22 05.9	
Sk	epP	06 22 41	
Um	iP	06 22 15.3	
	ipP	06 22 26.3	

Japan.
h = 40 km (Up,Ki,Um).

" 20

Up	iP	07 02 38.0	
Ud	iP	07 02 44.7	

Kurile Islands (h = N).

" 20

Up	iP		09 31 36.4	C
			micr	sec
	P	Z'	0.1	0.9
Ki	iP		09 30 52.6	
Sk	eP		09 31 26	
Um	iP		09 31 12.3	
Ud	iP		09 31 42.7	C
De	iP		09 32 01.0	

Kurile Islands (h = 35 km).

" 20

Up	iP	10 23 03.0	
	ipP	10 23 13.1	
Ud	iP	10 23 09.9	
	ipP	10 23 18.9	
De	i(P)	10 23 25.6	

Japan.
h = 35 km (Up,Ud).

" 20

Up	iP	10 47 55.2	

" 20

Up	iPKP1		12 21 33.8	
	iPP		12 24 57.8	
	iSS		12 44 03	
			micr	sec
	PKP1	Z'	0.2	1.2
	PP	Z'	0.3	2.0
	Mx	N	0.8	17
	Mx	Z	1.1	17
Ki	iPKP		12 21 21.9	
	eSKP1		12 25 02	
			micr	sec
	PKP	Z'	0.1	1.8
	Mx	E	0.8	18
	Mx	N	1.1	17
Sk	iPKP1		12 21 27.6	
	i		12 21 37.2	
Um	iPKP1		12 21 22.8	
	i		12 23 38.2	
Ud	iPKP1		12 21 35.3	
	i		12 21 36.7	
De	iPKP1		12 21 44.9	
	i		12 21 45.9	

Kermadec Islands (h = 40 km).
M = 5.7 (Up,Ki).

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

1973 June	20	Up	iSgl	12 31 15.0	
		Um	eSgl	12 31 37	
		Ud	iSgl	12 32 16.8	
		Western USSR.			
		Explosion.			
"	20	Up	iP	14 41 59.9	
		Um	iP	14 41 36.5	
		Ud	iP	14 42 07.6	
		Japan (h = 35 km).			
"	20	Up	iP	15 54 39.6	
"	20	Sk	eSgl	17 25 20	
		Um	iPgl	17 25 05.4	
			eSgl	17 27 00	
		Ud	iSgl	17 25 00.7	
			i	17 25 09.5	
		De	iSgl	17 25 49.8	
		West coast of Norway,			
		59.9°N, 5.1°E.			
		Origin time = 17 22 43.			
		By combination with Bergen			
		and Kongsberg readings.			
"	20	Up	iPKP1	18 49 32.8	
			ipPKP1	18 49 44.2	
		Sk	iPKP1	18 49 25.2	
			ipPKP1	18 49 36.8	
		Um	iPKP1	18 49 22.2	C
			ipPKP1	18 49 35.8	
		Ud	iPKP1	18 49 34.4	
			ipPKP1	18 49 45.2	
		De	iPKP1	18 49 43.4	
			i	18 50 02.5	
		Kermadec Islands.			
		h = 45 km (Up,Sk,Um,Ud).			
"	20	Ki	iP	21 36 55.1	
"	20	Up	iP	22 21 24.0	
		Um	iP	22 21 01.1	
			ipP	22 21 10.3	
		Japan.			
		Origin time = 22 10 20.			
		h = 35 km (Um).			
"	20	Ud	iP	23 02 42.3	
"	21	Up	iP	00 14 40.4	
		Ud	iP	00 14 33.6	
"	21	Up	iP	00 58 56.3	
"	21	Ki	iP	01 55 18.9	
		Um	iP	01 54 55.0	
		Ud	iP	01 55 00.6	
1973 June	21	Up	iP	05 32 24.5	
		Ki	iP	05 31 39.8	
		Um	iP	05 31 59.6	
		Ud	iP	05 32 30.8	
		Kurile Islands (h = 60 km).			
"	21	Ud	iP	06 09 42.2	
		Japan (h = 70 km).			
"	21	Up	iP	06 53 27.3	
"	21	Ud	iP	08 17 07.2	
"	21	Ud	eP	09 12 46	
"	21	Up	iP	09 15 10.4	
		Um	iP	09 14 53.1	
		Ud	iP	09 15 18.6	
		Ryukyu Islands (h = 25 km).			
"	21	De	ePKP	10 33 55	
			iSKP1	10 36 39.5	
		Fiji Islands (h = 590 km).			
"	21	Up	iP	10 52 18.0	
"	21	Up	i	12 28 03.7	
			iSgl	12 28 12.1	
		Western USSR.			
		Explosion.			
"	21	Up	iSgl	12 36 42.0	
		Sk	eSgl	12 38 23	
		Um	iSgl	12 36 55.1	
		Ud	iSgl	12 37 39.4	
		De	iSgl	12 38 05.3	
		Western USSR.			
		Explosion.			
"	21	Up	iP	12 49 50.8	
		Ki	iP	12 48 58.1	
		De	eP	12 50 21	
"	21	Up	eP	13 03 19	
		Ki	iP	13 02 35.7	
		Ud	iP	13 03 26.6	
		Japan (h = 40 km).			
"	21	Ud	iP	14 05 38.1	
			i	14 06 03.6	
"	21	Ud	iP	14 16 12.2	
		South of Japan (h = 90 km).			
"	21	Ud	eP	14 26 47	
"	21	Up	iP	14 56 48.7	C
		(cont.)			

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

1973 June	21	(cont.)			
		Up		micr	sec
			P	Z' 0.2	1.2
		Ki	iP	14 56 14.5 C	
				micr	sec
			P	Z' 0.2	1.4
		Sk	iP	14 56 22.8 C	
		Um	iP	14 56 33.9 C	
		Ud	iP	14 56 40.7 C	
		De	iP	14 56 57.7	
		Nevada.			
		m = 6.1 (Up,Ki).			
		Probably underground explosion.			
"	21	Up	eSgl	15 06 12	
		Um	iSgl	15 06 47.6	
		Ud	iSn	15 06 48.1	
			iSgl	15 07 15.7	
		De	iPn	15 05 59.1	
			iSgl	15 07 45.0	
		Esthonia.			
		Explosion.			
"	21	Sk	eP	15 59 01	
"	21	Up	iP	16 13 43.6	
"	21	Up	iP	16 29 07.7	
		Ki	iP	16 28 22.9	
		Ud	iP	16 29 13.7	
		Japan (h = 25 km).			
"	21	Up	iPKPl	17 08 55.0	
		Ud	iPKPl	17 08 56.6	
"	21	Ud	iP	18 29 07.4	
"	21	Up	iP	18 39 05.5	
		Ki	eP	18 38 50	
		Sk	iP	18 39 17.0	
		Ud	iP	18 39 18.8	
		Szechwan, China.			
"	21	Ki	eP	19 17 02	
		Um	iP	19 17 30.3	
		Ud	iP	19 17 49.7	
		Aleutian Islands.			
"	21	Ud	eP	21 29 44	
"	21	Up	ePKPl	22 03 51	
		Um	iPKPl	22 03 40.4	
		Ud	iPKPl	22 03 52.6	
"	22	Up	ePKPl	00 07 55	
		Sk	iPKPl	00 07 48.1	
		Ud	iPKPl	00 07 57.2	

1973 June	22	Up	iPKPl	01 08 35.1	
		Sk	iPKPl	01 08 20.5	
		Um	iPKPl	01 08 15.7	
		Ud	iPKPl	01 08 28.0	
"	22	Um	iP	01 54 45.6	
		Ud	iP	01 55 16.1	
		Japan (h = 70 km).			
"	22	Ud	iP	02 11 03.2	
"	22	Up	iPKP	02 18 48.7	
			iSKPl	02 21 31.3	
		Ki	iPKP	02 18 33.8	
			iSKPl	02 21 05.4	
		Sk	eSKPl	02 21 23	
		Um	iPKP	02 18 40.5	
			iSKPl	02 21 18.3	
		Ud	e(PKP)	02 18 38	
			iPKP	02 18 49.8	
			iSKPl	02 21 32.3	
		De	iPKPl	02 18 49.1	
		Fiji Islands (h = 570 km).			
"	22	Up	iP	03 41 40.4	
		Ki	i(pP)	03 41 30.1	
		Um	i(pP)	03 41 38.8	
		Ud	iP	03 41 49.1	
		Formosa (h = 45 km).			
"	22	Up	iP	04 30 46.7	
		Ki	iP	04 29 53.4	
		Um	iP	04 30 18.1	
		Ud	iP	04 30 50.6	
		Kamchatka.			
"	22	Up	iP	04 34 50.8	
		Um	iP	04 34 24.7	
		Ud	eP	04 34 56	
		Japan.			
		Origin time = 04 23 46.			
"	22	Ki	iP	05 14 09.8	
		Ud	eP	05 14 34	
		Molucca Passage (h = N).			
"	22	Up	iP	06 18 39.7 C	
			i	06 18 41.7	
			iS	06 27 41	
				micr	sec
			P	Z' 0.3	0.8
			Mx	E 11	16
			Mx	N 11	16
			Mx	Z 16	17
		Ki	iP	06 17 55.0 C	
			i	06 17 58.1	
		(cont.)			

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

1973 June	22	(cont.)				
		Ki			micr	sec
			P	Z'	0.3	0.9
			Mx	E	16	17
			Mx	N	18	17
			Mx	Z	27	17
		Sk	iP		06 18 30.5	C
			i		06 18 33.6	
			ipP		06 18 46.8	
		Um	iP		06 18 15.1	C
			i		06 18 17.5	
			iS		06 26 57	
		Ud	iP		06 18 46.0	C
			i		06 18 48.0	
		De	iP		06 19 03.4	
			i		06 19 06.3	
			ipP		06 19 20.1	
		Japan.				
		h = 50 km (Sk,De).				
		m = 6.5, M = 6.4 (Up,Ki).				
		A small P followed by a larger phase after 2.6 sec in average.				
"	22	Up	iP		06 23 19.7	
		Um	ipP		06 23 06.3	
		Ud	iP		06 23 25.6	
		De	ipP		06 23 59.9	
		Japan.				
		Origin time = 06 12 15.				
"	22	Sk	iPKP1		06 28 07.1	
		Um	iPKP1		06 28 03.8	
"	22	Sk	ePKP1		06 47 50	
		Um	iPKP1		06 47 57.6	
		Ud	iPKP1		06 48 10.2	
"	22	Um	iP		07 51 14.6	
		Ud	iP		07 51 40.4	
"	22	Up	iP		09 33 06.6	
		Ud	iP		09 33 12.9	
		Japan.				
		Origin time = 09 22 02.				
"	22	Up	eSg2		11 23 26	
		Ud	iSn		11 23 35.6	
			iSg2		11 24 19.4	
		De	e		11 23 52	
		Lithuania.				
		Explosion?				
"	22	Up	iP		11 47 14.4	
		Ki	iP		11 46 30.0	C
		Sk	iP		11 47 05.3	
		(cont.)				

1973 June	22	(cont.)		
		Um	iP	11 46 49.8
		Ud	iP	11 47 20.8
		De	eP	11 47 39
		Japan (h = 70 km).		
"	22	Up	iP	12 26 21.7
		Sk	iP	12 27 01.6
		Ud	iP	12 26 28.4
		Greece.		
"	22	Up	iSgl	12 33 20.7
		Um	iSgl	12 33 44.7
		Ud	iSgl	12 34 19.1
		Probably western USSR.		
		Explosion?		
"	22	Up	iSgl	12 51 16.2
		Ki	eSgl	12 53 13
		Sk	eSgl	12 53 01
		Um	iSgl	12 51 26.3
			iRg	12 52 07.7
		Ud	eSgl	12 52 16
		De	e	12 52 32
			iSgl	12 52 49.5
		Western USSR.		
		Explosion.		
"	22	Um	ePKP	17 35 56
		Fiji Islands (h = 15 km).		
"	22	Up	iP	18 59 51.3 C
				micr sec
			P Z'	0.1 0.8
		Ki	iP	18 59 22.4 C
				micr sec
			P Z'	0.2 0.8
		Sk	iP	18 59 48.9 C
		Um	iP	18 59 35.0 C
		Ud	iP	18 59 57.9 C
		De	iP	19 00 09.0 C
		Mariana Islands (h = 270 km).		
		m = 5.8 (Up,Ki).		
"	22	Up	iPKP1	20 10 59.4
		Sk	iPKP	20 10 54.5
		Um	iPKP	20 10 59.1
		Ud	iPKP1	20 11 00.3
		De	iPKP1	20 11 12.0 D
		Tonga Islands (h = N).		
"	22	Up	iPKP1	23 06 34.3
			iPKP2	23 06 48.3
		Ki	iPKP1	23 06 17.3 D
		Sk	iPKP1	23 06 31.0
		Um	iPKP1	23 06 25.2
		(cont.)		

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

1973
June 22 (cont.)

	Ud	iPKP1	23 06 35.9
		iPKP2	23 06 52.8
	De	iPKP2	23 07 05.5

New Zealand (h = 370 km).

" 23

	Up	iPP	00 43 59.4
	Ud	iPP	00 44 01.5

New Guinea (h = N).

" 23

	Up	iPKP	00 58 09.7
	Ki	iPKP	00 57 49.9
	Sk	ePKP	00 58 00
	Um	iPKP	00 57 55.7
	Ud	iPKP	00 58 05.2
	De	iPKP	00 58 18.0

Solomon Islands (h = 40 km).

" 23

	Up	iP	02 20 44.0	C
		ipP	02 20 55.7	
			micr	sec
		P Z'	0.5	1.3
		Mx E	0.8	16
		Mx N	1.0	14
		Mx Z	1.5	18
	Ki	iP	02 19 58.3	
		ipP	02 20 10.0	
			micr	sec
		P Z'	0.2	1.2
		Mx E	1.5	16
		Mx N	1.6	17
		Mx Z	2.7	17
	Sk	iP	02 20 33.9	C
		ipP	02 20 45.4	
	Um	iP	02 20 18.6	C
		ipP	02 20 30.6	
	Ud	iP	02 20 49.8	C
		ipP	02 21 02.2	
	De	iP	02 21 07.2	C
		ipP	02 21 18.7	

Kurile Islands.
h = 45 km (Up,Ki,Sk,Um,Ud, De).
m = 6.3, M = 5.4 (Up,Ki).

" 23

	Ud	iPKP1	03 24 22.9
	De	iPKP1	03 24 34.0

" 23

	Up	iP	04 41 59.5
	Ki	eP	04 41 16
	Um	eP	04 41 36
	Ud	iP	04 42 06.2

Japan (h = 40 km).

" 23

	Sk	eP	05 10 26
	Um	iP	05 10 10.5
	Ud	eP	05 10 38

Japan (h = N).

1973
June 23

	Up	iP	05 31 51.9
	Ud	iP	05 31 58.5

Japan.
Origin time = 05 20 48.

" 23

	Up	iP	05 37 42.3
		ipP	05 37 57.0
	Ki	iP	05 36 49.1 C
		ipP	05 37 05.2
	Sk	iP	05 37 22.7
	Um	iP	05 37 15.6
		ipP	05 37 30.8
	Ud	iP	05 37 42.5
	De	iP	05 38 06.1

Aleutian Islands.
h = 55 km (Up,Ki,Um).

" 23

	Um	eP	06 05 55

" 23

	Um	iP	07 42 10.1
	Ud	iP	07 41 40.7

" 23

	Up	iP	08 11 13.4
		ipP	08 11 22.2
	Ki	ipP	08 10 37.9
	Sk	epP	08 11 13
	Um	iP	08 10 49.1
		ipP	08 10 58.0
	Ud	iP	08 11 20.3
	De	ipP	08 11 48.7

Kurile Islands.
h = 35 km (Up,Um).

" 23

	Up	iP	08 27 57.2
	Um	iP	08 27 32.2
	Ud	iP	08 28 03.1

Kurile Islands (h = 70 km).

" 23

	Up	e(Sgl)	09 05 13
	Um	i(Sgl)	09 06 06.5
	Ud	e(Sgl)	09 06 06

" 23

	Up	eSgl	09 15 04
	Um	iSgl	09 15 30.1
	Ud	eSgl	09 16 13

Western USSR.
Explosion.

" 23

	Ki	iP	10 15 27.1
	Ud	iP	10 16 25.3

Kamchatka.
Origin time = 10 05 56.

" 23

	Up	epP	12 15 32
	Ud	iP	12 15 26.5

Japan (h = 60 km).

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

1973 June 23

Up	eSgl	12 31 35	
Um	iSgl	12 31 52.8	
	iRg	12 32 21.1	
Ud	eSgl	12 32 37	

Western USSR.
Explosion.

" 23

Ud	iP	12 35 35.0

" 23

Ki	iPn	12 55 08.8
	iSn	12 56 07.2
Sk	iSgl	12 58 36.1
Um	iSn	12 56 36.0
	iSg2	12 57 06.9
	eRg	12 57 36

Northwest USSR.
Explosion?
A remarkable train of Rg-waves at Um at a distance of about 670 km.

" 23

Ki	iPn	13 13 17.3
	iSn	13 14 04.7
	iS*	13 14 19.4
Sk	iSgl	13 17 04.9
Um	i	13 15 28.3
	iSgl	13 15 47.1
Ud	eS*	13 18 01

Northwest USSR-Norway border region.
Explosion.

" 23

Ki	iPn	15 26 16.0
	iSn	15 27 04.3
	iS*	15 27 17.0
Um	iSgl	15 28 45.1

Northwest USSR-Norway border region.
Explosion.

" 23

Um	iP	16 30 13.0
Ud	eP	16 30 44

Japan.
Origin time = 16 19 33.

" 23

Ud	iP	17 27 59.0

" 23

Up	iP	19 51 39.2
Ud	iP	19 51 45.7

Japan.
Origin time = 19 40 35.

" 23

Up	iP	22 56 16.2

" 24

Um	iPKP1	01 25 37.1
Ud	iPKP1	01 25 45.5
De	iPKP1	01 25 56.2

1973 June 24

Up	iP		02 54 25.3	C
	iS		03 03 14	
	iP'P'		03 22 37.4	
			micr	sec
	P	Z'	5.3	1.5
	P'P'	Z'	1.8	2.5
	Mx	E	210	17
	Mx	N	290	17
	Mx	Z	200	17
Ki	iP		02 53 39.4	C
	iS		03 01 53	
	iP'P'		03 22 55.8	
			micr	sec
	P	Z'	2.2	1.5
	P'P'	Z'	1.6	3.0
	Mx	E	410	19
	Mx	N	480	18
	Mx	Z	620	20
Sk	iP		02 54 15.0	C
Um	iP		02 54 00.0	C
	i(P'P')		03 22 35.1	
	iP'P'		03 22 46.2	
Ud	iP		02 54 31.8	C
	iP'P'		03 22 40.0	
De	iP		02 54 49.2	C

Kurile Islands (h = 50 km).
m = 7.2, M = 7.8 (Up,Ki).

" 24

Up	iP		03 07 47.9	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		03 07 03.3	
Um	iP		03 07 23.4	
Ud	iP		03 07 55.2	
De	iP		03 08 11.7	

Kurile Islands.
Origin time = 02 56 49.

" 24

Up	iP	03 09 43.8
Um	iP	03 09 19.8
Ud	iP	03 09 50.2

Kurile Islands.
Origin time = 02 58 45.

" 24

Up	iP		03 15 19.4	C
			micr	sec
	P	Z'	1.2	1.5
Ki	iP		03 14 34.8	C
			micr	sec
	P	Z'	0.3	1.1
Sk	iP		03 15 09.2	C
Um	iP		03 14 54.5	C
Ud	iP		03 15 25.6	C
De	iP		03 15 43.0	C

Kurile Islands (h = 55 km).
m = 6.6 (Up,Ki).

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

1973 June	24	Sk	iP	03 18 22.5	
"	24	Up	iP	03 20 50.3	
		Ki	iP	03 20 05.6	
		Sk	e(P)	03 20 35	
		Um	iP	03 20 26.1	
		Ud	iP	03 20 56.2	
		Kurile Islands.			
		Origin time = 03 09 51.			
"	24	Up	iP	03 21 43.5	
		Ki	iP	03 20 59.3	
		Sk	iP	03 21 34.5	
		Um	iP	03 21 20.0	
		Ud	iP	03 21 50.0	
		Kurile Islands.			
		Origin time = 03 10 45.			
"	24	Up	iP	03 22 26.0	
		Sk	iP	03 22 42.1	
		Um	iP	03 22 46.3	
"	24	Ud	iP	03 25 13.9	
"	24	Um	iP	03 29 02.0	
		Ud	iP	03 29 21.9	
"	24	Up	iP	03 39 40.0 C	
			i	03 39 44.9	
				micr sec	
			i Z'	0.7 1.5	
		Ki	iP	03 38 54.4 C	
			i	03 39 01.2	
				micr sec	
			i Z'	0.1 1.2	
		Sk	iP	03 39 30.3	
			i	03 39 35.5	
		Um	iP	03 39 15.2 C	
			i	03 39 21.3	
		Ud	iP	03 39 46.2 C	
			i	03 39 50.8	
		De	iP	03 40 03.8	
			i	03 40 07.8	
		Kurile Islands (h = 45 km).			
		m = 6.2 (Up,Ki).			
		Two events, the second one larger, with slightly different epicenters, as evidenced by a systematic variation of the time difference between the two onsets.			
"	24	Up	iP	03 41 40.7	
		Ud	i(P)	03 41 12.7	
"	24	Up	iP	03 51 39.1 C	
		(cont.)			

1973 June	24	(cont.)			
		Ki	iP	03 50 54.1	
		Sk	iP	03 51 29.7	
		Um	iP	03 51 14.6	
		Ud	iP	03 51 45.1 C	
		Kurile Islands (h = N).			
"	24	Up	iP	03 58 50.3 C	
			ipP	03 59 01.2	
		Ki	iP	03 58 05.1 C	
			ipP	03 58 16.5	
		Sk	iP	03 58 40.8	
		Um	iP	03 58 25.4	
			ipP	03 58 36.6	
		Ud	iP	03 58 56.3 C	
			ipP	03 59 07.2	
		De	ipP	03 59 24.9	
		Kurile Islands.			
		h = 40 km (Up,Ki,Um,Ud).			
"	24	Ud	iP	04 01 50.3	
"	24	Up	iP	04 05 07.0	
		Um	iP	04 04 42.7	
		Ud	iP	04 05 13.4	
		Kurile Islands (h = 70 km).			
"	24	Up	iP	04 22 30.7	
		Ud	iP	04 22 36.9	
		Kurile Islands.			
		Origin time = 04 11 30.			
"	24	Up	eP	04 33 31	
		Sk	ipP	04 33 30.1	
		Ud	eP	04 33 38	
		Kurile Islands.			
		Origin time = 04 22 30.			
"	24	Up	iP	04 37 09.3	
		Ud	iP	04 37 15.3	
		Kurile Islands.			
		Origin time = 04 26 08.			
"	24	Um	iP	04 45 39.4	
		Ud	eP	04 46 10	
		Kurile Islands.			
		Origin time = 04 35 03.			
"	24	Up	iP	04 54 26.5	
		Ki	iP	04 53 41.5 C	
		Sk	eP	04 54 18	
		Um	iP	04 54 02.2	
		Ud	iP	04 54 32.6 C	
			ipP	04 54 48.8	
		Kurile Islands.			
		h = 60 km (Ud).			

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

1973 June	24	Up	iP		05 18 48.7	C
			eP'P'		05 46 53	
					micr	sec
			P	Z'	0.3	1.0
		Ki	iP		05 18 03.9	C
					micr	sec
			P	Z'	0.2	1.0
		Sk	iP		05 18 39.2	C
		Um	iP		05 18 24.1	
		Ud	iP		05 18 55.1	C
			eP'P'		05 46 53	
		De	iP		05 19 12.4	C
		Kurile Islands (h = 45 km).				
		m = 6.3 (Up,Ki).				
"	24	Up	eP		05 27 13	
		Ud	iP		05 27 19.8	
		Kurile Islands.				
		Origin time = 05 16 12.				
"	24	Up	iP		05 29 02.2	
		Ki	iP		05 28 53.9	
		Ud	iP		05 29 16.6	
"	24	Up	iP		06 06 34.9	
		Sk	eP		06 06 28	
		Ud	iP		06 06 44.0	
		Kurile Islands.				
		Origin time = 05 55 36.				
"	24	Ki	i(pP)		06 19 54.2	
		Ud	eP		06 20 35	
		Kurile Islands.				
"	24	Up	iP		07 19 55.0	
		Ki	iP		07 19 10.1	
		Um	iP		07 19 30.3	
			ipP		07 19 47.8	
		Ud	iP		07 20 01.2	
		De	epP		07 20 33	
		Kurile Islands.				
		h = 60 km (Um).				
"	24	Up	iP		07 50 56.0	
		Ud	iP		07 51 02.1	
		Kurile Islands.				
		Origin time = 07 39 55.				
"	24	Um	iP		08 03 34.6	
"	24	Up	eP		08 26 42	
		Ud	iP		08 26 48.0	
		Kurile Islands.				
		Origin time = 08 15 41.				
"	24	Up	i(pP)		09 01 27.8	
		Ud	iP		09 01 23.9	
1973 June	24	Up	iP		09 23 14.3	
		Um	iP		09 22 48.8	
		Ud	iP		09 23 20.3	
		Kurile Islands (h = N).				
"	24	Up	iP		10 00 24.1	
			ipP		10 00 33.1	
		Um	iP		10 00 00.1	
		Ud	iP		10 00 30.2	
			ipP		10 00 39.3	
		Japan.				
		h = 35 km (Up,Ud).				
"	24	Up	iP		10 01 25.1	
		Um	i(P)		10 00 57.1	
"	24	Up	iP		10 39 47.6	
			ipP		10 39 55.3	
		Um	iP		10 39 22.1	
		Ud	iP		10 39 52.1	
		Kurile Islands.				
		h = 30 km (Up).				
"	24	Up	iP		10 51 50.2	
		Ud	iP		10 51 56.2	
		Kurile Islands (h = N).				
"	24	Up	iP		11 04 55.0	C
					micr	sec
			P	Z'	0.1	0.7
		Ki	iP		11 04 09.8	C
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		11 04 45.2	C
		Um	iP		11 04 30.3	C
			ipP		11 04 44.9	
		Ud	iP		11 05 01.1	C
		De	iP		11 05 18.6	C
		Kurile Islands.				
		h = 55 km (Um).				
		m = 6.0 (Up,Ki).				
"	24	Ud	i		11 15 29.6	
			i(Sgl)		11 15 50.0	
		De	i		11 13 15.5	
"	24	Ki	iP		12 00 41.2	
		Ud	iP		12 01 38.8	
		Kamchatka.				
		Origin time = 11 51 10.				
"	24	Up	iP		12 10 29.5	
			ipP		12 10 42.0	
		Um	iP		12 10 06.0	
		Ud	iP		12 10 36.5	
		Japan.				
		h = 45 km (Up).				

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

1973 June	24	Up	iP	12 32 08.0	C	
			ipP	12 32 18.5		
		Ki	iP	12 31 23.1	C	
		Sk	iP	12 32 01.6		
		Um	iP	12 31 43.3	C	
			ipP	12 31 54.6		
		Ud	iP	12 32 14.3		
			ipP	12 32 24.8		
		De	iP	12 32 31.7		
		Japan.				
		h = 40 km (Up,Um,Ud).				
"	24	Up	iP	13 56 43.2		
		Ud	iP	13 56 49.2		
		Japan.				
		Origin time = 13 45 38.				
"	24	Ud	iP	14 05 17.4		
		Japan.				
"	24	Up	iP	17 24 57.1		
		Um	ipP	17 24 43.2		
		Ud	iP	17 25 03.2		
			ipP	17 25 14.3		
		Japan.				
		Origin time = 17 13 52.				
		h = 40 km (Ud).				
"	24	Up	eP	17 27 57		
		Ki	iP	17 27 28.2	C	
				micr	sec	
			P Z'	0.2	2.0	
		Sk	iP	17 27 53.6		
		Um	iP	17 27 40.3		
		Ud	iP	17 28 03.2		
		De	eP	17 28 14		
		Mariana Islands (h = N).				
"	24	Up	eP	17 32 50		
			ipP	17 33 02.0		
		Um	iP	17 32 25.4		
			ipP	17 32 37.1		
		Ud	eP	17 32 56		
			ipP	17 33 08.3		
		Japan.				
		Origin time = 17 21 45.				
		h = 45 km (Up,Um,Ud).				
"	24	Up	iP	18 00 28.2		
			ipP	18 00 38.5		
		Ki	iP	17 59 44.1		
		Um	iP	18 00 03.4		
		Ud	iP	18 00 34.3	C	
			ipP	18 00 45.1		
		De	iP	18 00 51.6		
		Kurile Islands.				
		h = 40 km (Up,Ud).				
1973 June	24	Up	iP	18 52 53.9	C	
			ipP	18 53 04.6		
				micr	sec	
			P Z'	0.2	1.2	
			Mx N	0.5	15	
			Mx Z	0.6	16	
		Ki	iP	18 52 09.1	C	
			ipP	18 52 19.8		
				micr	sec	
			P Z'	0.1	1.0	
			Mx E	0.5	16	
			Mx N	0.5	17	
			Mx Z	0.9	17	
		Sk	iP	18 52 44.2		
			ipP	18 52 55.2		
		Um	iP	18 52 29.3	C	
			ipP	18 52 40.2		
		Ud	iP	18 53 00.1	C	
			ipP	18 53 11.1		
		De	iP	18 53 17.6	C	
			ipP	18 53 29.1		
		Kurile Islands.				
		h = 40 km (Up,Ki,Sk,Um,Ud, De).				
		m = 6.0, M = 5.0 (Up,Ki).				
"	24	Up	eP	20 05 16		
"	24	Up	iP	20 11 16.9	C	
			ipP	20 11 31.6		
				micr	sec	
			P Z'	0.3	1.7	
			Mx E	0.6	16	
			Mx N	0.8	18	
			Mx Z	1.1	17	
		Ki	iP	20 10 32.1	C	
			ipP	20 10 47.4		
				micr	sec	
			Mx E	1.2	16	
			Mx N	1.2	16	
			Mx Z	1.9	18	
		Sk	iP	20 11 06.9	C	
			ipP	20 11 21.9		
		Um	iP	20 10 52.6		
			ipP	20 11 07.0		
		Ud	iP	20 11 23.2	C	
			ipP	20 11 38.1		
		De	iP	20 11 40.9	C	
		Kurile Islands.				
		h = 55 km (Up,Ki,Sk,Um,Ud).				
		M = 5.2 (Up,Ki).				
"	24	Ud	iP	20 33 15.6		
"	24	Ud	iP	20 45 45.7		

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

1973 June	24	Up	eP	20 57 02	
		Ki	iP	20 56 17.2	
		Um	iP	20 56 39.4	
		Ud	iP	20 57 08.2	
			ipP	20 57 19.2	
		Japan.			
		Origin time = 20 45 58.			
		h = 40 km (Ud).			
"	24	Up	iPn	21 08 38.8	
			iSn	21 10 00.3	
			iX	21 10 22.5	
			iSg1	21 10 49.7	
		Ki	iPn	21 09 01.8	
			iSn	21 10 44.4	
			iX	21 11 03.1	
		Sk	ePn	21 08 01	
			iSn	21 08 57.2	
		Um	iPn	21 08 44.2	
			iSn	21 10 15.6	
			iX	21 10 32.6	
		Ud	iPn	21 08 11.7	
			iSn	21 09 18.5	
			iX	21 09 37.3	
			iSg2	21 09 57.8	
		De	iSn	21 10 11.8	
			iX	21 10 31.1	
		Norwegian Sea (h = N),			
		62.2°N, 2.2°E.			
		Origin time = 21 06 44.			
		The travel-time curve of X parallels the one for Sn with a delay of about 19 sec.			
"	24	Up	i(Pn)	21 36 34.5	
			iSn	21 37 49.5	
			iSg1	21 38 35.3	
		Ki	eX	21 38 56	
		Sk	iPn	21 35 43.5	
			i	21 36 21.0	
			iSn	21 36 40.2	
		Um	iPn	21 36 30.5	
			iSn	21 38 01.2	
			iX	21 38 18.1	
		Ud	iPn	21 35 58.1	
			iSn	21 37 03.1	
			i	21 37 37.3	
			iSg2	21 37 43.3	
		De	eSn	21 38 02	
			iX	21 38 16.8	
		Norwegian Sea,			
		62.2°N, 2.2°E.			
		Origin time = 21 34 30.			
"	24	Ud	iPKP1	21 55 05.4	
		De	iPKP1	21 55 16.6	
		Fiji Islands (h = 620 km).			

1973 June	24	Ud	iP	23 23 13.6	
"	24	Up	iP	23 30 21.4	
		Um	iP	23 30 40.1	
"	25	Up	iPKP1	00 29 44.7	
		Ud	iPKP1	00 29 45.4	
		De	iPKP1	00 29 55.1	
"	25	Up	iP	00 34 50.6	
		Ki	eP	00 34 06	
		Sk	iP	00 34 42.0	
		Um	iP	00 34 26.0	
			ipP	00 34 37.0	
		Ud	iP	00 34 57.1	
		De	eP	00 35 16	
		Kurile Islands.			
		h = 40 km (Um).			
"	25	Up	iP	00 48 38.7	
		Ki	eP	00 47 54	
		Sk	iP	00 48 30.9	
		Um	iP	00 48 13.9	
		Ud	iP	00 48 45.3	
		Kurile Islands (h = 70 km).			
"	25	Ud	iP	00 54 04.8	
			ipP	00 54 14.4	
"	25	Up	iP	01 26 03.7	
		Ud	iP	01 26 09.8	
		Japan.			
		Origin time = 01 14 59.			
"	25	Sk	iP	06 33 33.0	
		Um	iP	06 33 03.2	
		Ud	iP	06 33 22.9	
		Hindu Kush.			
		Intermediate depth.			
"	25	Up	iP	07 21 55.6	C
				micr	sec
			P Z'	0.1	0.9
		Ki	iP	07 21 02.1	
			iPcP	07 21 47.8	
				micr	sec
			P Z'	0.1	1.3
			Mx E	1.0	16
			Mx N	0.9	20
		Sk	iP	07 21 33.7	C
		Um	iP	07 21 28.5	
			iPcP	07 22 04.4	
		Ud	iP	07 21 55.5	C
		De	iP	07 22 17.6	C
		Aleutian Islands (h = 210 km).			
		m = 5.5 (Up,Ki).			

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

1973							
June	25	Up	iP		07 31 52.3	C	
			ipP		07 32 03.4		
			iS		07 41 49		
					micr	sec	
			P	Z'	0.2	1.2	
			pP	Z'	0.3	1.2	
			Mx	E	1.8	16	
			Mx	N	1.7	16	
			Mx	Z	3.6	16	
		Ki	iP		07 31 31.7	C	
					micr	sec	
			P	Z'	0.2	1.2	
			Mx	E	1.5	13	
			Mx	N	1.7	16	
			Mx	Z	2.0	14	
		Sk	iP		07 31 57.0		
			ipP		07 32 06.3		
		Um	iP		07 31 38.7	C	
			iS		07 41 21		
		Ud	iP		07 32 01.7	C	
		De	iP		07 32 08.7	C	
			ipP		07 32 19.5		
		Luzon.					
		h = 40 km (Up,Sk,De).					
		m = 6.0, M = 5.7 (Up,Ki).					
"	25	Up	iP		08 16 06.4		
			ipP		08 16 18.4		
		Ki	iP		08 15 48.2		
		Sk	epP		08 16 22		
		Um	ipP		08 16 04.9		
		Ud	iP		08 16 15.4		
			ipP		08 16 27.5		
		Luzon.					
		h = 45 km (Up,Ud).					
"	25	Up	iP		08 30 35.3		
		Ud	iP		08 30 42.9		
		De	iP		08 31 00.3		
		Kurile Islands (h = 40 km).					
"	25	Up	iP		10 36 08.9	C	
					micr	sec	
			P	Z'	0.1	0.9	
		Ki	iP		10 36 50.8	C	
					micr	sec	
			Mx	E	0.6	16	
			Mx	N	0.9	20	
			Mx	Z	0.8	18	
		Sk	iP		10 36 44.4		
		Um	iP		10 36 24.1		
			iPP		10 37 58.2		
		Ud	iP		10 36 24.0	C	
		De	iP		10 36 06.4	C	
		Iran (h = 50 km).					
"	25	Up	iP		10 41 50.2		
		(cont.)					
1973							
June	25	(cont.)					
		Ki	eP		10 42 24		
		Sk	iP		10 42 30.5	C	
		Um	iP		10 41 56.2		
		Ud	iP		10 42 18.4		
		De	eP		10 41 53		
"	25	Ki	iP		10 42 43.4		
		Um	iP		10 42 59.9		
		Ud	iP		10 43 33.8		
		Kurile Islands (h = 60 km).					
"	25	Up	iP		11 51 26.7		
			i(PP)		11 54 32.5		
			iPP		11 55 29.1		
		Ki	iP		11 51 10.2		
			iPP		11 55 01.9		
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	E	0.5	17	
			Mx	N	0.6	19	
		Sk	eP		11 51 31		
			i(PP)		11 55 10.7		
		Um	iP		11 51 15.9		
			i		11 51 21.8		
			i(PP)		11 55 00.4		
			iPP		11 55 08.4		
		Ud	eP		11 51 34		
			i(PP)		11 54 40.4		
			iPP		11 55 40.0		
		De	iP		11 51 41.5		
			i(PP)		11 54 55.0		
			iPP		11 55 55.8		
		Molucca Passage (h = N).					
		Clear records of early PP, denoted (PP).					
"	25	Ud	iP		12 09 18.4		
"	25	Ud	iP		12 21 16.5		
"	25	Ki	iSgl		12 30 12.5		
		Um	iSgl		12 28 32.2		
		De	iSgl		12 29 42.0		
		Western USSR.					
		Explosion.					
"	25	Up	iSgl		12 59 44.6		
		Um	iSgl		13 00 20.6		
		Ud	iSn		13 00 20.6		
			iSgl		13 00 45.9		
		De	eSgl		13 01 12		
		Esthonia.					
		Explosion.					
"	25	Um	iPKP		15 22 47.2		
		Ud	ePKP		15 22 39		
		(cont.)					

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

1973 June	25	(cont.)				
		De	iPKP	15 22 41.2		
		South Pacific Ocean (h = N).				
"	25	Up	iP	15 25 13.6		
		Ki	iP	15 24 54.3		
		Ud	iP	15 25 22.8		
		Luzon (h = N).				
"	25	Up	iP	15 54 54.8		
		Ud	iP	15 55 03.9		
		Luzon.				
		Origin time = 15 42 32.				
"	25	Up	iP	16 23 36.8		
		Ki	iP	16 22 51.7		
		Ud	iP	16 23 42.4		
		Kurile Islands (h = 40 km).				
"	25	Ud	iP	16 33 35.0		
"	25	Ud	iP	16 38 16.4		
"	25	Up	iPKPl	18 27 49.2		
			i	18 27 55.7		
		Ud	iPKPl	18 27 51.7		
			i	18 27 58.2		
		De	iPKPl	18 28 01.3		
		Tonga-Kermadec Islands (h = 500 km).				
"	25	Ud	iP	19 10 23.4		
		Japan (h = N).				
"	25	Up	iP	19 17 06.6		
		Ud	iP	19 17 13.1		
		Kurile Islands (h = N).				
"	25	Up	e	19 33 19		
			iSgl	19 33 37.7		
		Ki	iSn	19 31 18.3		
			iSgl	19 31 24.3		
		Sk	i	19 31 03.2		
			iS*	19 31 28.3		
			iSgl	19 31 32.8		
		Um	iPn	19 30 59.9		
			iSn	19 31 38.1		
			iSgl	19 31 52.4		
		Ud	iSgl	19 33 19.7		
		De	eSgl	19 35 13		
		Nordland, Norway, 66.4°N, 14.4°E.				
		Origin time = 19 30 01.				
		Explosion.				
1973 June	25	Up	iP	20 30 45.1		
		Sk	iP	20 31 12.1		
		Um	iP	20 30 50.3		
		Ud	iP	20 30 59.2		
		De	iP	20 30 51.6		
		Pakistan (h = 70 km).				
"	25	Ud	iP	20 32 59.7		
"	25	Up	iP	20 59 53.8	C	
			ipP	21 00 10.1		
		Ki	iP	20 59 36.1	C	
			i	20 59 46.3		
				micr	sec	
			P	Z' 0.1	1.2	
			Mx	E 0.6	18	
			Mx	N 0.6	19	
			Mx	Z 0.8	18	
		Sk	eP	20 59 58		
			ipP	21 00 15.7		
		Um	iP	20 59 42.2	C	
		Ud	iP	21 00 02.0	C	
			ipP	21 00 19.9		
		De	iP	21 00 08.1		
		Mindanao.				
		h = 60 km (Up,Sk,Ud).				
"	25	Up	iP	21 11 16.0		
"	25	Ud	iP	21 27 37.1		
			i	21 27 45.7		
		Japan (h = 70 km).				
"	25	Up	iP	21 35 30.2		
		Ud	iP	21 35 38.7		
"	25	Up	iP	22 24 53.3		
		Ud	iP	22 24 59.5		
		De	iP	22 25 18.0		
		Kurile Islands (h = 50 km).				
"	26	Up	iP	00 51 57.3		
		Ki	iP	00 51 02.7		
		Um	eP	00 51 32		
		Ud	eP	00 51 51		
		De	iP	00 52 17.3		
		Alaska (h = 15 km).				
"	26	Up	iPKPl	03 48 19.1		
		Ud	iPKPl	03 48 21.2		
		De	iPKPl	03 48 30.7		
"	26	Ki	iP	04 14 07.6		
		Um	iP	04 14 04.7		
		Ud	iP	04 14 18.2		
		(cont.)				

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

1973 June	26	(cont.)					
		De	eP		04 14 18		
		Sumatra (h = 80 km).					
"	26	Up	iP		05 46 03.5		
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	N	0.8	22	
			Mx	Z	0.7	21	
		Ki	iP		05 45 10.6		
					micr	sec	
			Mx	E	0.8	18	
			Mx	N	0.8	19	
			Mx	Z	0.9	19	
		Sk	iP		05 45 44.6		
		Um	iP		05 45 36.8		
		Ud	iP		05 46 06.3		
		De	iP		05 46 27.6		
		Aleutian Islands (h = 40 km).					
		M = 5.1 (Up,Ki).					
"	26	Ud	iP		05 51 55.3		
"	26	Up	iP		05 54 43.8		
		Um	iP		05 54 36.7		
		Ud	iP		05 54 56.8		
		Burma-India.					
"	26	Ud	iPKPl		06 43 37.8		
		De	ePKPl		06 43 47		
"	26	Um	iP		07 13 03.4		
		Ud	iP		07 13 32.5		
			ipP		07 13 43.1		
		Japan.					
		h = 40 km (Ud).					
"	26	Up	iP		07 37 14.1		
		Sk	iP		07 36 57.8		
		Um	iP		07 37 16.5		
		Ud	iP		07 37 03.2		
		De	eP		07 37 06		
		Guatemala (h = 40 km).					
"	26	Ud	iP		09 02 50.7		
"	26	Up	iP		11 50 25.5 C		
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	E	0.6	16	
			Mx	N	0.6	18	
			Mx	Z	0.9	16	
		Ki	iP		11 49 40.8 C		
					micr	sec	
			P	Z'	0.1	1.0	
		(cont.)					

1973 June	26	(cont.)					
		Ki			micr	sec	
			Mx	E	0.7	16	
			Mx	N	0.7	17	
			Mx	Z	0.9	16	
		Sk	iP		11 50 15.3 C		
		Um	iP		11 50 01.3		
		Ud	iP		11 50 31.6 C		
		De	iP		11 50 49.5 C		
		Kurile Islands (h = 55 km).					
		m = 5.9, M = 5.1 (Up,Ki).					
"	26	Up	iP		12 22 03.0		
		Ki	eP		12 22 37		
		Um	iP		12 22 25.9		
		Ud	iP		12 21 51.7		
			i		12 21 58.6		
		De	iP		12 21 42.4		
			i		12 21 49.5		
		Atlantic Ocean.					
"	26	Up	iP		12 29 10.6 C		
					micr	sec	
			P	Z'	0.2	0.8	
		Ki	iP		12 28 25.9 C		
		Sk	iP		12 29 01.2 C		
		Um	iP		12 28 46.0 C		
		Ud	iP		12 29 17.1 C		
		De	iP		12 29 34.0 C		
		Kurile Islands (h = 45 km).					
"	26	Um	iP		12 39 19.5		
		Ud	iP		12 40 04.8		
"	26	Ud	iP		13 11 13.9		
"	26	Um	iP		13 50 15.4		
"	26	Up	iP		14 51 27.9		
		Alaska (h = 130 km).					
"	26	Up	iP		15 20 46.0		
"	26	Ki	e		16 08 41		
		Um	i(Sgl)		16 08 16.7		
			i(Rg)		16 08 25.1		
"	26	Up	iP		16 52 17.3		
			i		16 52 33.5		
"	26	Ki	iPn		17 36 36.8		
			iPgl		17 36 43.0		
			i		17 37 09.4		
			iSgl		17 37 29.5		
		Sk	ePn		17 36 45		
		(cont.)					

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

1973 June 26 (cont.)

	Sk	iPgl	17 36 53.1	
		iSn	17 37 31.1	
	Um	iPn	17 37 01.4	
		iSn	17 38 01.0	
		iSgl	17 38 24.5	
	Ud	iPn	17 37 32.2	
		iSgl	17 39 30.6	

Off northwest coast of Norway, 67.4°N, 12.0°E.
Origin time = 17 35 46.

" 26

Up	iP		18 13 28.8	C
	ipP		18 13 40.3	
	iS		18 22 30	
			micr	sec
	P	Z'	1.1	1.7
	Mx	E	4.2	15
	Mx	N	5.8	15
	Mx	Z	8.4	15
Ki	iP		18 12 44.3	C
	ipP		18 12 54.3	
	eS		18 21 07	
	iScS		18 22 33	
			micr	sec
	P	Z'	0.3	1.0
	Mx	E	9.4	19
	Mx	N	8.6	16
	Mx	Z	13	17
Sk	iP		18 13 18.9	C
	ipP		18 13 30.1	
Um	iP		18 13 04.2	C
	ipP		18 13 15.2	
	iS		18 21 44	
Ud	iP		18 13 35.0	C
	ipP		18 13 46.6	
De	iP		18 13 52.3	C
	ipP		18 14 03.8	

Kurile Islands.
h = 40 km (Up,Ki,Sk,Um,Ud,De).
m = 6.6, M = 6.1 (Up,Ki).

" 26

Up	iP		18 27 31.1
Ud	iP		18 27 37.5

Japan (h = 45 km).

" 26

Ud	iP		18 32 54.2

" 26

Up	iP		19 10 52.7	
			micr	sec
	P	Z'	0.1	0.9
Ki	iP		19 11 59.5	C
	i		19 12 05.6	
			micr	sec
	P	Z'	0.1	0.8

(cont.)

1973 June 26 (cont.)

Sk	iP		19 11 31.7	
	i		19 11 36.3	
Um	iP		19 11 24.5	
Ud	iP		19 11 00.2	C
De	iP		19 10 28.4	C

Crete (h = 40 km).
m = 5.7 (Up,Ki).

" 26

Up	e(P)		21 05 39

" 26

Up	iP		22 43 01.8	C
	ipP		22 43 09.0	
	iS		22 52 03	
	eP'P'		23 11 19	
			micr	sec
	P	Z'	0.4	1.0
	pP	Z'	0.7	1.0
	Mx	E	52	24
	Mx	N	52	20
	Mx	Z	46	20
Ki	iP		22 42 17.0	C
	ipP		22 42 26.3	
	iP'P'		23 11 22.9	
	i		23 11 41.7	
			micr	sec
	P	Z'	0.2	1.0
	pP	Z'	0.5	1.0
	Mx	E	78	21
	Mx	N	57	20
	Mx	Z	71	19
Sk	iP		22 42 52.4	C
	ipP		22 42 59.7	
	eP'P'		23 11 21	
Um	iP		22 42 36.5	C
	i		22 42 37.4	
	ipP		22 42 44.3	
	iS		22 51 16	
	eP'P'		23 11 19	
Ud	iP		22 43 08.2	C
	ipP		22 43 17.4	
	iP'P'		23 11 15.3	
De	iP		22 43 25.3	C
	ipP		22 43 32.4	

Kurile Islands.
h = 30 km (Up,Ki,Sk,Um,Ud, De).
m = 6.6, M = 7.0 (Up,Ki).
Alternatively, a double shock, 8 sec apart, might be suggested.

" 26

Up	iP		22 52 39.2	C
	ipP		22 52 49.8	
			micr	sec
	P	Z'	0.3	1.1

(cont.)

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

1973 June	26	(cont.)					
		Ki	iP		22 51 54.5	C	
			ipP		22 52 05.4		
					micr	sec	
			P	Z'	0.3	1.0	
		Sk	iP		22 52 29.8	C	
			ipP		22 52 40.2		
		Um	iP		22 52 14.8	C	
			ipP		22 52 25.7		
		Ud	iP		22 52 45.2	C	
			ipP		22 52 56.3		
		De	iP		22 53 02.8	C	
		Japan.					
		h = 40 km (Up,Ki,Sk,Um,Ud).					
		m = 6.4 (Up,Ki).					
"	26	Up	iP		22 56 35.5	C	
			ipP		22 56 49.2		
					micr	sec	
			P	Z'	0.8	1.6	
		Ki	iP		22 55 50.9	C	
					micr	sec	
			P	Z'	0.5	2.0	
		Sk	iP		22 56 26.5	C	
		Um	iP		22 56 11.3	C	
			ipP		22 56 24.6		
		Ud	iP		22 56 42.0	C	
			ipP		22 56 55.4		
		De	iP		22 56 58.9	C	
		Kurile Islands.					
		h = 50 km (Up,Um,Ud).					
		m = 6.5 (Up,Ki).					
"	26	Ud	iP		23 02 43.5		
			ipP		23 02 56.4		
"	26	Up	iP		23 08 18.6		
			i		23 08 22.8		
			ipP		23 08 29.0		
		Ki	iP		23 07 31.5		
			ipP		23 07 44.6		
		Sk	iP		23 08 08.5		
		Um	iP		23 07 53.2		
			ipP		23 08 04.8		
		Ud	iP		23 08 23.9		
			ipP		23 08 35.1		
		De	iP		23 08 42.1		
			ipP		23 08 52.5		
		Japan.					
		h = 40 km (Up,Ki,Um,Ud,De).					
"	26	Up	iP		23 25 26.1		
		Um	iP		23 25 00.9		
		Ud	iP		23 25 31.8		
			ipP		23 25 43.1		
		Japan.					
		Origin time = 23 14 21.					
		h = 40 km (Ud).					
1973 June	26	Um	iP		23 28 44.6		
		Ud	iP		23 29 11.7		
		Kurile Islands.					
"	26	Up	iP		23 33 52.0		
		Um	iP		23 33 27.2		
		Ud	iP		23 33 58.2		
		Japan.					
		Origin time = 23 22 47.					
"	26	Up	iP		23 36 18.9		
		Ki	iP		23 35 34.1	C	
		Sk	eP		23 36 09		
		Um	iP		23 35 54.2		
			ipP		23 36 05.2		
		Ud	iP		23 36 25.1	C	
		Japan.					
		Origin time = 23 25 14.					
		h = 40 km (Um).					
"	26	Ud	iP		23 44 23.0		
"	27	Up	iP		00 02 20.8		
			ipP		00 02 31.6		
		Ki	iP		00 01 36.0		
			ipP		00 01 47.3		
		Um	eP		00 01 56		
			ipP		00 02 08.4		
		Ud	iP		00 02 27.0		
		De	eP		00 02 45		
		Kurile Islands.					
		h = 45 km (Up,Ki,Um).					
"	27	Up	iPKP1		00 12 20.1		
		Sk	iPKP1		00 12 12.5		
			i		00 12 24.2		
		Um	iPKP1		00 12 07.1		
		Ud	iPKP1		00 12 20.5		
			i		00 12 36.6		
		De	ePKP1		00 12 28		
"	27	Um	iP		00 55 07.1		
		Ud	iP		00 54 51.1		
		De	eP		00 55 04		
			i		00 55 11.4		
"	27	Up	iP		01 14 04.5	C	
			ipP		01 14 16.2		
					micr	sec	
			P	Z'	0.1	1.0	
		Ki	iP		01 13 19.8	C	
					micr	sec	
			P	Z'	0.1	1.0	
		Sk	iP		01 13 55.1	C	
		Um	iP		01 13 40.1	C	
			ipP		01 13 50.2		
		Ud	iP		01 14 10.8	C	
		(cont.)					

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

1973
June 27 (cont.)

	Ud	ipP	01 14 22.5
	De	iP	01 14 27.7 C
		ipP	01 14 40.0

Japan.
h = 40 km (Up,Um,Ud,De).
m = 5.9 (Up,Ki).

" 27	Up	iP	01 30 32.1
		ipP	01 30 40.6
	Ki	iP	01 29 47.8
	Sk	iP	01 30 22.8
	Um	iP	01 30 07.4
		ipP	01 30 15.8
	Ud	iP	01 30 38.5
		ipP	01 30 47.3
	De	eP	01 31 01

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

" 27	Up	iP			01 52 18.1 C
		i			01 52 22.9
		ipP			01 52 31.5
				micr	sec
		P	Z'	0.1	0.8
	Ki	iP			01 51 33.0 C
				micr	sec
		P	Z'	0.1	1.0
	Sk	iP			01 52 08.3 C
	Um	iP			01 51 53.3 C
		ipP			01 52 03.4
	Ud	iP			01 52 24.5 C
		i			01 52 29.1
	De	iP			01 52 41.8 C
		i			01 52 45.0
		ipP			01 52 54.6

Kurile Islands.
h = 45 km (Up,Um,De).
m = 6.0 (Up,Ki).

" 27	Ud	iP	02 08 51.8
" 27	Um	i(pP)	02 48 13.4
	Ud	iP	02 48 34.6
" 27	Up	ipP	03 18 21.2
	Ud	iP	03 18 17.9
		ipP	03 18 27.6

Kurile Islands.
Origin time = 03 07 11.
h = 35 km (Ud).

" 27	Up	iP			03 26 23.1 C
				micr	sec
		P	Z'	0.1	1.4
	Ki	iP			03 25 37.9 C

(cont.)

1973
June 27 (cont.)

	Sk	iP	03 26 13.1
	Um	iP	03 25 58.5
	Ud	iP	03 26 29.1 C
	De	iP	03 26 46.5 C

Kurile Islands (h = 45 km).

" 27	Up	iP	03 51 33.1
	Ki	eP	03 50 48
	Um	iP	03 51 07.9
	Ud	iP	03 51 39.0

Japan.
Origin time = 03 40 28.

" 27	Up	iP			03 53 42.9 C
		ipP			03 53 54.3
	Ki	iP			03 52 58.5 C
		ipP			03 53 11.7
				micr	sec
		P	Z'	0.1	1.2
	Sk	iP			03 53 33.8
	Um	iP			03 53 18.5 C
	Ud	iP			03 53 49.3 C
	De	iP			03 54 06.3

Japan.
h = 45 km (Up,Ki).

" 27	Up	iP	04 05 00.6
	Ud	iP	04 05 06.8

Kurile Islands.
Origin time = 03 54 00.

" 27	Up	iP			04 08 22.1 C
				micr	sec
		Mx	E	0.8	16
		Mx	N	1.0	14
		Mx	Z	1.5	16
	Ki	iP			04 08 06.2 C
				micr	sec
		Mx	E	1.2	14
		Mx	N	0.9	13
		Mx	Z	1.2	14
	Sk	iP			04 08 35.9
	Um	iP			04 08 06.7
	Ud	iP			04 08 37.0 C
	De	iP			04 08 42.6 C

Sinkiang, China.
M = 5.0 (Up,Ki).
Atmospheric nuclear explosion?

" 27	Up	i(pP)	05 26 26.5
	Ki	e(pP)	05 25 47
	Sk	e(pP)	05 26 21
	Ud	e(pP)	05 26 31
		i	05 26 39.2

Japan (h = N).

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

1973 June 27 Ud iP 05 32 42.2
Celebes Sea.

" 27 Ud iSgl 09 06 01.7
De iPgl 09 04 00.2
iSgl 09 04 16.1
Southern Baltic Sea.
Explosion.

" 27 De iPgl 09 06 25.5
iSgl 09 06 42.9
iRg 09 06 52.4
Southern Baltic Sea.
Explosion.

" 27 Up iP 10 18 42.7

" 27 Up iP 12 01 06.1
Ki iP 12 00 12.2
Sk iP 12 00 49.3
Um iP 12 00 37.8
Ud iP 12 01 09.8
De iP 12 01 31.0
Kamchatka (h = 40 km).

" 27 Up iPKP 12 36 26.7
iPKP1 12 36 30.5

			micr	sec
	PKP1	Z'	0.2	0.9

Ki e(PKP) 12 36 07
iPKP 12 36 16.8
iSKP1 12 39 32.1

			micr	sec
	PKP	Z'	0.1	1.0

Sk iPKP1 12 36 24.1 C
Um iPKP1 12 36 18.9 C
i 12 36 22.8
iSKP1 12 39 53.6
Ud iPKP 12 36 27.5
iPKP1 12 36 32.2
De iPKP 12 36 33.1
iPKP1 12 36 40.5
Kermadec Islands (h = 40 km).

" 27 Up iSgl 13 05 22.5
Ki iSgl 13 07 50.9
Sk e 13 07 02
eSgl 13 07 17
Um iSgl 13 05 53.8
Ud iSgl 13 06 18.1
De iSgl 13 06 49.0
Esthonia.
Explosion.

" 27 Up iP 13 19 00.4
(cont.)

1973 June 27 (cont.)
Up

		micr	sec
Mx	E	0.5	9
Mx	N	0.4	9
Mx	Z	0.8	9

Ki iP 13 18 54.9

		micr	sec
Mx	E	1.8	12
Mx	N	0.7	9
Mx	Z	1.8	11

Sk iP 13 19 26.3
Um iP 13 18 51.6
Ud iP 13 19 10.9
De iP 13 19 18.5
Sinkiang, China (h = N).

" 27 Up iSgl 13 30 51.6
Sk iSgl 13 32 32.2
Um iSgl 13 31 03.3
Ud iSgl 13 31 48.1
De eSgl 13 32 15
Western USSR.
Explosion.

" 27 Ud iP 14 26 49.8

" 27 Up i 16 05 31.1
Ud iPgl 16 04 46.2
iSgl 16 05 09.7
iRg 16 05 18.9

" 27 Ud iP 19 14 06.1

" 27 Up iP 20 33 31.8
Ki iP 20 32 47.3
Ud iP 20 33 37.9
Japan (h = N).

" 27 Up iPKP1 21 13 16.6
Um iPKP 21 13 10.7
iSKP1 21 15 58.1
Ud iPKP1 21 13 18.8 C
iSKP1 21 16 10.3
De iPKP1 21 13 29.2 C
iSKP1 21 16 19.0
Tonga-Kermadec Islands
(h = 540 km).

" 28 Ud iP 00 00 28.5

" 28 Up iP 01 33 44.0
Ud iP 01 33 49.6
Japan.
Origin time = 01 22 39.

" 28 Up iP 01 52 01.5
(cont.)

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

1973 June	28	(cont.)				
		Ki	iP		01 51 05.5	
		Ud	iP		01 52 04.7	
		Kamchatka.				
		Origin time = 01 41 36.				
"	28	Ud	iP		08 56 18.9	
"	28	Ud	iPKP		10 47 00.2	
		De	iPKP		10 47 09.5	
		Fiji Islands (h = 640 km).				
"	28	Up	iP		11 01 26.1	
			ipP		11 01 38.4	
					micr	sec
			P	Z'	0.1	1.0
			pP	Z'	0.2	1.0
			Mx	E	2.1	22
			Mx	N	5.4	23
			Mx	Z	3.2	17
		Ki	iP		11 01 01.1	
			i		11 01 09.4	
			ipP		11 01 13.7	
					micr	sec
			P	Z'	0.1	1.2
			pP	Z'	0.2	1.1
			Mx	E	1.4	14
			Mx	N	2.0	14
			Mx	Z	1.7	14
		Sk	iP		11 01 29.4	
			i		11 01 37.4	
			ipP		11 01 42.3	
		Um	iP		11 01 11.8	
			ipP		11 01 23.8	
			iS		11 10 45	
		Ud	iP		11 01 35.7	C
			ipP		11 01 47.8	
		De	iP		11 01 45.7	
			ipP		11 01 57.9	
		Ryukyu Islands.				
		h = 45 km (Up,Ki,Sk,Um,Ud,De).				
		m = 5.9, M = 5.8 (Up,Ki).				
"	28	Um	iP		11 25 27.4	
"	28	Up	iSgl		11 53 28.6	
		Ki	iSgl		11 56 04.6	
		Sk	eSn		11 54 42	
			iSgl		11 55 15.0	
		Um	iSgl		11 54 03.8	
		Ud	iSgl		11 54 32.5	
		De	iSgl		11 54 59.7	
		Esthonia.				
		Explosion.				
"	28	Um	i(Sgl)		12 34 19.7	
1973 June	28	Sk	iSgl		12 52 23.1	
		Um	iSgl		12 50 56.0	
		Ud	iSgl		12 51 40.0	
		De	eSgl		12 52 10	
		Western USSR.				
		Explosion.				
"	28	Up	i(Rg)		12 54 30.9	
		Ud	i(Rg)		12 54 15.7	
"	28	Sk	iPKP		14 29 48.6	
			ipPKP		14 30 21.5	
		Um	iPKP		14 29 43.7	
			ipPKP		14 30 16.5	
		Ud	iPKP		14 29 53.2	
			ipPKP		14 30 25.8	
		De	iPKP		14 30 00.5	
			ipPKP		14 30 32.9	
		Santa Cruz Islands.				
		h = 120 km (Sk,Um,Ud,De).				
"	28	Ud	iP		14 46 36.0	
		Molucca Passage (h = N).				
"	28	Up	iP		15 26 10.7	
			i		15 26 18.8	
"	28	Sk	eP		17 28 34	
		Ud	iP		17 28 30.0	
		New Guinea (h = 60 km).				
"	28	Up	iP		19 27 01.1	
		Sk	iP		19 26 34.9	
		Um	iP		19 26 46.4	
		Ud	iP		19 26 53.0	C
		De	iP		19 27 10.5	
		Nevada.				
		Underground explosion.				
"	28	Ud	iP		19 35 30.0	
"	28	Ud	i(Rg)		21 16 07.9	
"	28	Up	iP		22 08 30.2	C
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		22 08 13.6	C
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		22 08 40.6	C
		Um	iP		22 08 17.5	C
		Ud	iP		22 08 42.6	C
		Szechwan, China (h = N).				
		m = 6.0 (Up,Ki).				

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

1973
June 28 Up iP 22 09 16.3
Ki iP 22 09 00.1
Sk iP 22 09 27.5
Um iP 22 09 03.8
Ud iP 22 09 28.9 C
Szechwan, China.
Origin time = 21 58 49.

" 28 Up iP 22 09 58.2 C
micr sec
P Z' 0.3 1.2
Ki iP 22 09 42.0
micr sec
P Z' 0.2 1.4
Mx E 0.5 12
Mx N 1.8 20
Mx Z 0.6 14
Sk iP 22 10 08.7 C
Um iP 22 09 45.5
Ud iP 22 10 10.8 C
De eP 22 10 16
Szechwan, China (h = N).
m = 6.3 (Up,Ki).

" 28 Up iP 22 15 10.3
Ki iP 22 14 53.5
Sk iP 22 15 23.6
Um iP 22 14 56.4
Ud iP 22 15 23.4
Szechwan, China (h = N).

" 28 Up iP 23 11 56.2

" 28 Up iP 23 29 12.2
Ud iP 23 29 17.8
i 23 29 22.9
Japan.
Origin time = 23 18 07.

" 29 Ud iP 00 01 40.0

" 29 Up iP 00 15 15.7 C
micr sec
P Z' 0.1 0.8
Ki iP 00 14 59.1
Sk iP 00 15 26.4
Um iP 00 15 02.6
Ud iP 00 15 27.9 C
De eP 00 15 34
Szechwan, China (h = N).

" 29 Up iP 00 54 31.6

" 29 Up iP 01 38 52.3
Ud iP 01 38 58.6
Kurile Islands (h = 60 km).

1973
June 29 Up iP 02 36 08.6
ipP 02 36 15.0
micr sec
P Z' 0.1 1.2
Mx E 0.7 18
Mx N 0.8 17
Mx Z 0.6 18
Ki iP 02 35 39.4
ipP 02 35 46.9
iSKS 02 45 51
micr sec
P Z' 0.1 1.0
Mx E 0.8 17
Mx N 0.5 15
Mx Z 0.7 17
Sk iP 02 36 05.9
Um iP 02 35 51.4
ipP 02 35 59.6
Ud eP 02 36 15
ipP 02 36 21.5
De iP 02 36 26.6
ipP 02 36 33.2
Mariana Islands.
h = 25 km (Up,Ki,Um,Ud,De).
m = 6.0, M = 5.3 (Up,Ki).

" 29 Up iP 03 37 51.7 C
iS 03 46 46
micr sec
P Z' 0.5 1.0
Mx E 0.9 18
Mx N 0.9 17
Mx Z 1.8 17
Ki iP 03 37 06.7
ipP 03 37 17.9
iPcP 03 37 47.4
micr sec
P Z' 0.1 1.0
Mx E 1.7 19
Mx N 2.5 20
Mx Z 2.8 20
Sk iP 03 37 42.3 C
iPcP 03 38 09.8
Um iP 03 37 27.1 C
iS 03 46 00
Ud iP 03 37 58.1 C
De iP 03 38 15.4 C
iPcP 03 38 32.1
Japan.
h = 40 km (Ki).
m = 6.3, M = 5.4 (Up,Ki).

" 29 Sk e 08 08 21
Um iP 08 08 23.9
Off Pacific coast of Central America (h = N).

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

1973 June	29	Ud	iSgl		11 52 47.9	
		De	i		11 52 19.3	
			iRg		11 52 21.5	
"	29	Ud	iP		12 30 13.6	
		Kurile Islands (h = N).				
"	29	Um	iSgl		13 11 06.7	
		Lake Ladoga.				
		Explosion.				
"	29	Up	iP		13 46 32.2	
		Um	iP		13 46 08.2	
		Ud	iP		13 46 37.9	
		Japan.				
		Origin time = 13 35 28.				
"	29	Um	iSgl		15 58 02.5	
		Western USSR.				
		Explosion.				
"	29	Sk	iPKP		15 59 27.4	
		South Indian Ocean (h = N).				
"	29	Ud	iP		16 50 08.7	
		Kurile Islands (h = N).				
"	29	Up	iP		17 12 33.0	
		Sk	iP		17 13 10.4	
		Ud	iP		17 12 38.9	
		De	iP		17 12 06.4	
		Crete.				
"	29	Ud	iP		17 16 20.7	
		Greece.				
"	29	Up	iP		18 02 29.4	
					micr	sec
			P	Z'	0.2	1.2
		Ki	iP		18 02 12.6	
					micr	sec
			P	Z'	0.1	1.3
			Mx	E	0.4	12
			Mx	N	0.8	17
			Mx	Z	0.5	12
		Sk	iP		18 02 39.9	
		Um	iP		18 02 16.7	C
		Ud	iP		18 02 41.7	C
		De	iP		18 02 47.3	
		Szechwan, China (h = N).				
		m = 6.0 (Up,Ki).				
"	29	Sk	eP		18 16 43	
		Um	iP		18 16 19.7	
		Ud	iP		18 16 44.7	
		Szechwan, China.				
		Origin time = 18 06 04.				
1973 June	29	Ki	iP		19 31 19.3	
		Um	iP		19 31 32.9	
			i		19 31 47.6	
		Kurile Islands.				
"	29	Ud	iP		19 33 18.4	
"	29	Sk	iP		23 19 42.3	
		Ud	iP		23 19 55.5	
		North Atlantic Ocean				
		(h = N).				
"	30	Um	iP		05 17 24.6	
		Ud	iP		05 17 49.6	
		Aleutian Islands.				
"	30	Up	iPKP		05 42 24.2	
		Um	iPKP		05 42 15.6	
		Ud	iPKP1		05 42 24.9	
		De	iPKP1		05 42 34.8	
		Fiji Islands (h = 580 km).				
"	30	Up			micr	sec
			Mx	E	0.6	20
			Mx	Z	0.9	21
		Ki			micr	sec
			Mx	E	0.6	16
			Mx	N	0.6	19
			Mx	Z	0.9	20
		Sk	iP		08 21 19.1	
		Um	iP		08 21 34.4	
		Ud	iP		08 21 29.1	
		Guatemala (h = 80 km).				
		M = 5.1 (Up,Ki).				
"	30	Up	iP		09 52 35.8	
		Ud	iP		09 52 46.7	
		Szechwan, China.				
		Origin time = 09 42 07.				
"	30	Up	eP		10 43 07	
"	30	Up	i(P)		11 25 27.6	
		Um	i(P)		11 25 20.7	
"	30	Ud	iP		12 24 41.8	
"	30	Up	i(P)		12 36 32.7	
			i		12 36 36.4	
		Ud	i		12 37 28.0	
"	30	Ud	iP		13 42 43.2	
"	30	Ud	iP		15 42 16.9	

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

1973

June	30	Up	iP			17 55 18.4	
			i			17 55 22.4	
						micr	sec
			P		Z'	0.1	1.2
			i		Z'	0.1	0.9
		Ki	iP			17 54 55.2	
			i			17 54 58.6	
						micr	sec
			i		Z'	0.1	1.0
		Sk	iP			17 55 22.5	
			i			17 55 26.8	
		Um	iP			17 55 03.9	
			i			17 55 07.2	
		Ud	iP			17 55 27.7	
			i			17 55 31.5	
		De	iP			17 55 35.6	
			i			17 55 39.0	

Formosa (h = N).
m = 5.9 (Up,Ki).
Two onsets, in average 3.7 sec apart, the first of longer period and lower amplitude than the second one.

"	30	Up	iP			18 06 38.4	
			ipP			18 06 45.2	
						micr	sec
			P		Z'	0.3	1.3
			Mx		E	0.8	16
			Mx		N	0.8	17
			Mx		Z	1.3	14
		Ki	iP			18 05 44.2	C
						micr	sec
			P		Z'	0.2	1.1
			Mx		E	1.0	12
			Mx		N	1.0	16
			Mx		Z	1.4	15
		Sk	iP			18 06 18.8	C
		Um	iP			18 06 10.4	C
			ipP			18 06 19.6	
		Ud	iP			18 06 40.0	C
		De	iP			18 07 02.0	

Aleutian Islands.
h = 30 km (Up,Um).
m = 6.2, M = 5.2 (Up,Ki).

"	30	Up	iPKPl	19 39 40.5
		Um	iSKPl	19 42 24.3
		Ud	iPKPl	19 39 42.7
		De	iPKPl	19 39 53.0

Tonga-Kermadec Islands (h = 490 km).

Markus Båth

February 15, 1975