SEISMOLOGICAL INSTITUTE
BOX 517
S-751 20 UPPSALA
SWEDEN

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BOX 517
751 20 UPPSALA 1
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

NOTES (1) Starting with this bulletin, regional magnitudes (M_L with recalculation into m) will be given for Fennoscandian events on the basis of methods developed in Report No. 5-76 from our institute.
(2) A large number of Grängesberg rockbursts, following the event on Aug. 30, 1974, have been recorded in 1975-1976 but will be omitted here. All readings and their interpretation up to July, 1976, incl., are collected in Report No. 6-76 from our institute.
(3) Our institute reports are distributed according to our mailing list. Additional copies are available free of charge upon special request, as long as our stock lasts.

J A N U A R Y 1 - 31, 1975

1975
Jan. 1 Up iP 00 35 32.9
iPP 00 36 06.8

		micr	sec
P	Z'	0.2	0.9
PP	Z'	0.2	1.2
Mx	E	3.3	19
Mx	N	2.8	16

Ki iP 00 36 28.8
i 00 36 34.3

		micr	sec
P	Z'	0.1	0.9
Mx	N	2.2	14

Sk iP 00 36 12.7
Um iP 00 35 57.1
i 00 36 02.8
Ud iP 00 35 46.4
i 00 35 52.7
De iP 00 35 21.9
i 00 35 28.0
Turkey-Syria (h = 15 km).
m = 5.7, M = 5.1 (Up,Ki).
Double P, average separation 6.0 sec.

" 1 Up iP 04 04 59.8
(cont.)

1975
Jan. 1 (cont.)
Up ipP 04 05 16.1

		micr	sec
P	Z'	0.1	1.0
pP	Z'	1.2	1.9
Mx	N	4.0	22

Ki iP 04 04 02.7
ipP 04 04 19.8

		micr	sec
P	Z'	0.2	0.9
pP	Z'	0.5	1.1
Mx	N	2.9	18

Sk iP 04 04 30.9 C
ipP 04 04 47.3
Um iP 04 04 32.6
ipP 04 04 48.6
Ud iP 04 04 56.6
ipP 04 05 12.5
De iP 04 05 20.7 C
ipP 04 05 37.6
Alaska.
h = 70 km (Up,Ki,Sk,Um,Ud, De).
m = 6.0, M = 5.4 (Up,Ki).

" 1 Up iP 10 50 33.8
(cont.)

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

1975 Jan.	1	(cont.)					
		De	iP		10 50 09.1		
		Greece (h = N).					
"	1	Ud	iP		11 32 55.2		
		Japan (h = 70 km).					
"	1	Um	iP		12 58 08.1		
		Colombia (h = 160 km).					
"	1	De	i(SKPl)		17 14 46.7		
"	1	Up	iP		20 38 40.8		
		Ki	iP		20 38 26.3		
					micr	sec	
			P	Z'	0.2	1.0	
		Um	iP		20 38 30.8		
		Banda Sea (h = 20 km).					
"	1	Up	iPKPl		21 56 16.7		
		De	iPKPl		21 56 29.0		
"	1	Um	iP		23 05 13.1		
		Guatemala (h = 80 km).					
"	2	Ki	iP		06 23 29.8		
		Um	iP		06 24 11.6		
		Greenland Sea (h = N).					
"	2	Up	i(P)		07 30 06.0	C	
					micr	sec	
			(P)	Z'	0.1	0.8	
"	2	Up	iP		09 09 55.1		
			i		09 10 17.2		
			iS		09 18 46		
					micr	sec	
			P	Z'	0.1	1.5	
			Mx	E	14	18	
			Mx	N	11	18	
			Mx	Z	15	15	
		Ki	iP		09 09 01.2		
					micr	sec	
			P	Z'	0.1	1.5	
			Mx	E	18	13	
			Mx	N	14	15	
			Mx	Z	15	18	
		Um	iP		09 09 25.8		
		Ud	iP		09 09 56.7		
		Kurile Islands (h = 50 km).					
		m = 5.7, M = 6.5 (Up,Ki).					
"	2	Ud	iP		09 57 58.2		

1975 Jan.	2	Up	iP		14 28 12.9	C	
					micr	sec	
			P	Z'	0.2	0.7	
		Ki	iP		14 27 44.6	C	
					micr	sec	
			P	Z'	0.6	1.0	
		Sk	iP		14 28 10.2	C	
		Um	iP		14 27 56.6	C	
		Ud	iP		14 28 19.3	C	
		De	iP		14 28 30.3	C	
		Mariana Islands (h = 310 km).					
		m = 6.3 (Up,Ki).					
"	2	Up	iP		19 42 09.3	C	
					micr	sec	
			P	Z'	0.7	1.6	
		Ki	iP		19 41 14.7	C	
					micr	sec	
			P	Z'	0.1	1.0	
		Um	iP		19 41 40.4		
		Ud	iP		19 42 12.7	C	
		De	iP		19 42 34.2	C	
		Kamchatka (h = 45 km).					
		m = 6.2 (Up,Ki).					
"	3	Up	iPKPl		00 48 41.1		
			iSKPl		00 51 32.3		
		Ki	iPKP		00 48 29.4		
		Sk	iPKP		00 48 33.6		
		Um	iPKP		00 48 34.0		
			iSKPl		00 51 21.0		
		Ud	iPKPl		00 48 41.9		
			iSKPl		00 51 34.9		
		De	iPKPl		00 48 53.9		
			iSKPl		00 51 42.5		
		Fiji Islands (h = 570 km).					
"	3	Up	iP		02 05 04.9		
			iPP		02 05 36.6		
					micr	sec	
			PP	Z'	0.1	1.0	
		Sk	iP		02 05 51.5		
		Ud	iP		02 05 13.0		
		De	iP		02 04 43.7		
			i		02 04 50.8		
		Dodecanese Islands (h = 50 km).					
"	3	Up	iPKP		05 28 59.6		
		Um	iPKP		05 29 09.0	C	
		Ud	iPKP		05 28 59.0		
		South Sandwich Islands (h = N).					
"	3	Um	iPKPl		13 11 18.5		
		Ud	iPKPl		13 11 31.2		

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

1975						
Jan.	3	Up	i(P)		22 59 21.0	
"	4	Ud	iP		00 31 23.1	
		Kamchatka (h = N).				
"	4	Up	iP		12 37 57.3	C
					micr	sec
			P	Z'	0.2	1.0
		Ki	iP		12 37 38.4	C
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		12 38 07.7	C
		Um	iP		12 37 42.9	C
		Ud	iP		12 38 11.1	C
		Tsinghai, China (h = N).				
		m = 5.9 (Up,Ki).				
"	4	Ki	iPKP1		20 57 01.7	
			iPKP2		20 57 14.1	
					micr	sec
			PKP2	Z'	0.1	1.3
		Um	iPKP2		20 57 21.7	
		Ud	iPKP2		20 57 52.4	
		New Zealand (h = 35 km).				
"	5	Ud	iPKP		10 00 35.8	
		Tonga Islands (h = 70 km).				
"	5	Up	iPKP		13 59 12.8	
		Ki	iPKP		13 59 28.9	C
		Um	iPKP		13 59 21.0	C
		South Sandwich Islands (h = N).				
"	6	Ki	iP		00 32 20.5	
					micr	sec
			P	Z'	0.1	0.9
		Um	iP		00 33 04.4	
		Jan Mayen (h = N).				
"	6	Up	iPKP1		04 33 44.9	
"	6	Ud	iP		06 24 46.1	
			i		06 24 52.9	
"	6	Up	iP		19 21 32.8	
					micr	sec
			P	Z'	0.2	1.1
		Ki	iP		19 21 01.7	C
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		19 21 32.2	
		Um	iP		19 21 14.4	
		Ud	iP		19 21 41.2	C
		De	iP		19 21 54.3	
		Ryukyu Islands (h = 40 km).				
		m = 6.0 (Up,Ki).				
1975						
Jan.	6	Ud	iP		20 12 00.0	
		Greece (h = 15 km).				
"	6	Ud	iP		23 14 25.8	
"	6	Up	iP		23 22 54.6	
		Ki	iP		23 22 00.6	C
			ipP		23 22 31.2	
					micr	sec
			P	Z'	0.2	1.0
		Sk	iP		23 22 31.3	
		Um	iP		23 22 27.7	C
		Ud	iP		23 22 53.2	C
			ipP		23 23 24.6	
		De	iP		23 23 17.1	
		Aleutian Islands.				
		h = 130 km (Ki,Ud).				
"	7	Ki	iP		01 56 04.9	
		Ud	iP		01 56 58.4	
		(Kurile Islands).				
"	7	Ki	iP		01 56 21.7	
		Ud	iP		01 57 14.0	
		Kurile Islands (h = 120 km).				
"	7	Ki	iP		07 01 54.5	
"	7	Um	iP		08 18 12.8	D
		Ud	iP		08 18 38.2	
		South of Japan (h = 430 km).				
"	7	Sk	iP		08 42 10.4	
		Ud	iP		08 41 52.3	
		North of Ascension Island (h = N).				
"	8	Up	iP		02 11 43.6	
			ipP		02 12 07.5	
			i(PP)		02 14 59.4	
			iPP		02 15 12.1	
			iSKS		02 22 03	
			iS		02 22 25	
					micr	sec
			P	Z'	0.2	1.3
			pP	Z'	0.7	1.5
			PP	Z'	0.7	1.9
			Mx	E	2.8	28
			Mx	N	6.5	27
			Mx	Z	4.0	26
		Ki	iP		02 11 42.4	
			ipP		02 12 07.3	
			iPP		02 15 05.5	
			iSKS		02 22 01	
			iS		02 22 21.2	

(cont.)

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

1975
Jan. 8 (cont.)

Ki			micr	sec
	P	Z'	0.4	1.3
	pP	Z'	0.7	1.3
	Mx	E	2.7	24
	Mx	N	4.3	22
	Mx	Z	4.7	25
Sk	iP		02 11 56.4	
	ipP		02 12 20.9	
	iPP		02 15 38.6	
Um	iP		02 11 39.4	
	ipP		02 12 04.9	
	iPP		02 15 11.5	
	iSKS		02 21 57	
	iS		02 22 21	
Ud	iP		02 11 52.3	
	ipP		02 12 17.1	
	iPP		02 15 24.1	
De	iP		02 11 51.3	
	ipP		02 12 15.1	

Sumatra.
h = 90 km (Up,Ki,Sk,Um,Ud,De).
m = 6.3, M = 5.8 (Up,Ki).
Between P and pP, there are two clear phases at all stations, following P after 7.5 and 16.5 sec in average.

" 8 Ki iP 11 53 39.9
Ud iP 11 54 32.6
Aleutian Islands (h = 55 km).

" 8 Up iSKPl 13 55 20.7

			micr	sec
	SKPl	Z'	0.1	0.8

Sk iSKPl 13 55 14.2
Ud iSKPl 13 55 24.2
New Hebrides Islands (h = 120 km).

" 8 Up iP 14 50 58.7
Ki iP 14 51 06.1
Sk eP 14 50 48
Ud iP 14 50 46.3
Venezuela (h = 60 km).

" 8 Ud iP 16 16 57.8

" 8 Ki iP 19 02 49.4
Um iP 19 03 32.2

" 8 Up iP 19 09 37.7
Ki iP 19 09 00.2
Sk i 19 09 45.3
Um iP 19 09 16.2
Ud iP 19 09 44.6
Japan (h = 55 km).

1975
Jan. 8 Ud iP 19 33 08.6
Greece (h = 50 km).

" 8 Up iP 19 37 24.5
iS 19 41 23

			micr	sec
	P	Z'	0.3	0.7
	Mx	E	7.3	13
	Mx	N	7.0	9
	Mx	Z	11	9
Ki	iP		19 38 38.2	
			micr	sec
	P	Z'	0.1	0.8
	Mx	E	8.5	13
	Mx	N	7.8	10
	Mx	Z	8.5	10
Sk	iP		19 38 05.9	
	i		19 38 09.1	
Um	iP		19 38 01.3	
	i		19 38 04.5	
	iS		19 42 31	
Ud	iP		19 37 32.6	
	iS		19 41 44.5	
De	iP		19 36 55.9	

Greece (h = 20 km).
m = 5.8, M = 5.6 (Up,Ki).

" 8 Up iP 19 43 28.4
Um iP 19 43 01.1
iPcP 19 43 33.4
Ud iP 19 43 31.9
Kurile Islands (h = 80 km).

" 8 Up iP 20 03 11.5
Sk iP 20 03 51.6
Um iP 20 03 49.8
Ud iP 20 03 13.2
De iP 20 02 38.4
Greece (h = 35 km).

" 8 Ud iP 20 29 32.1
Greece.

" 9 Up iP 02 23 59.1
Ki iP 02 23 58.3 C

			micr	sec
	P	Z'	0.1	0.8

Sk iP 02 24 12.7
Um iP 02 23 56.2 C
Ud iP 02 24 08.6 C
ipP 02 24 36.7
De iP 02 24 10.3
Sumatra.
h = 110 km (Ud).

" 9 Ud iPKPl 03 49 00.1

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

1975							
Jan.	9	De	iPKPl		04 24 25.3		
		Fiji Islands (h = 550 km).					
"	9	Um	iPKPl		08 30 07.6		
"	9	Um	i(P)		10 03 46.2		
		Banda Sea (h = 20 km).					
"	9	Up	iP		18 59 09.4		
		Ki	iP		19 00 17.0		
			i		19 00 28.5		
		Sk	iP		18 59 48.3		
		Ud	iP		18 59 14.9		
			i		18 59 27.1		
		Crete (h = 45 km).					
"	9	Up	iP		23 15 05.8		
			i		23 16 14.0		
			iSn		23 19 41.6		
					micr	sec	
			P	Z'	0.3	1.3	
		Ki	iP		23 15 40.9		
					micr	sec	
			P	Z'	0.1	0.9	
			Mx	E	1.9	9	
			Mx	N	2.3	11	
			Mx	Z	1.4	9	
		Sk	iPn		23 16 04.8		
		Ud	iP		23 15 21.4		
			i		23 15 26.6		
		Caucasus (h = 30 km).					
		m = 5.8 (Up,Ki).					
"	9	Up	iP		23 45 23.7		
			iSn		23 50 07.4		
					micr	sec	
			P	Z'	0.1	1.1	
		Ki	iP		23 46 01.5		
		Sk	iPn		23 46 34.7		
		Ud	iP		23 45 43.2		
		Caucasus (h = N).					
"	10	Ki	iP		00 03 03.2		
		Ud	iP		00 02 42.9		
		Caucasus (h = N).					
"	10	Up	iP		01 14 48.4		
			iSn		01 19 23.7		
		Ki	iP		01 15 17.1		
			iPn		01 15 56.4		
			iSn		01 20 56.8		
		Sk	iPn		01 15 51.2		
		Ud	iP		01 14 58.2		
		Caucasus (h = N).					

1975							
Jan.	10	Up	iP		01 34 43.7		
			iSn		01 39 20.8		
					micr	sec	
			P	Z'	0.1	1.0	
		Ki	iP		01 35 18.1		
			iSn		01 41 12.0		
		Sk	iPn		01 35 49.9		
		Ud	iP		01 34 58.9		
		Caucasus (h = N).					
"	10	Up	iP		03 02 24.3		
		Ki	iP		03 02 06.8		
		Luzon (h = 40 km).					
"	10	Sk	iP		03 57 36.1		
		Ud	iP		03 57 01.0		
		Crete.					
"	10	Ud	iP		04 08 44.4		
		Afghanistan-USSR.					
		Intermediate depth.					
"	10	Ki	iPn		04 42 16.6		
		Ud	iP		04 41 17.5		
		Caucasus.					
"	10	Ud	i		10 04 44.1		
			i(Sgl)		10 04 57.2		
"	10	Ud	iP		12 39 29.0		
"	10	Ki	iP		14 12 29.0		
"	10	Up	i(P)		14 26 39.4		
		Ud	iP		14 26 49.5		
		Iran (h = N).					
"	10	Ud	i(P)		16 57 29.3		
"	10	Ud	iPKP		18 43 13.2		
		Solomon Islands (h = N).					
"	10	Up	iP		20 51 34.4		
			i		20 51 49.5		
					micr	sec	
			i	Z'	0.1	1.0	
		Ki	iP		20 50 40.3		
		Ud	iP		20 51 34.0		
		De	iP		20 52 02.1		
		Aleutian Islands (h = 60 km).					
"	10	Ud	i(P)		23 11 02.3		
			i		23 11 04.6		
"	11	Ud	iP		02 35 50.4		

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

1975 Jan.	11	Um	iPKPl	04 44 13.7	
"	11	Ud	iPKPl	08 06 18.9	C
"	11	Um	iPKPl	09 49 46.0	
"	11	Up	iP	10 11 52.6	
		Iran (h = N).			
"	11	Ud	iP	10 21 53.8	
		Iran (h = N).			
"	11	Up	iP	10 39 22.1	
		Ki	iP	10 39 23.8	
		Sk	iP	10 39 38.1	
		Um	iP	10 39 21.4	
		Ud	iP	10 39 34.2	
		De	iP	10 39 33.7	
		Sumatra (h = 100 km).			
"	11	Up	iP	12 15 26.9	
			i	12 15 37.8	
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	12 16 04.7	
			i	12 16 16.6	
				micr sec	
			P Z'	0.1 1.0	
		Sk	iP	12 16 02.2	
			i	12 16 13.8	
		Um	iP	12 15 41.4	
			i	12 15 52.9	
		Ud	iP	12 15 40.0	
			i	12 15 53.1	
		De	iP	12 15 29.1	
		Iran (h = 25 km).			
		m = 5.5 (Up,Ki).			
		The second phase appears in average 11.8 sec after P (either another shock, or pP with h = 55 km).			
"	11	Ud	iP	13 32 33.8	C
"	11	Sk	iP	15 58 40.8	
		Ud	iP	15 58 02.2	
		Italy (h = 20 km).			
"	11	Ki	iP	18 13 27.3	
		Sk	eP	18 12 57	
		Um	eP	18 12 56	
		Ud	iP	18 12 25.9	
		De	iP	18 11 55.8	
		Crete (h = N).			

1975 Jan.	11	Um	iP	18 20 14.5	
		Guatemala (h = 100 km).			
"	11	Up	iP	21 33 11.5	
			i	21 33 17.2	
				micr sec	
			P Z'	0.1 1.0	
			Mx N	1.7 19	
		Ki	iP	21 32 59.2	
			i	21 33 04.7	
				micr sec	
			P Z'	0.1 1.0	
			Mx E	0.7 10	
			Mx N	1.8 18	
			Mx Z	0.6 10	
		Sk	iP	21 33 23.8	
		Um	iP	21 33 01.4	
			i	21 33 06.0	
		Ud	iP	21 33 24.7	
			i	21 33 29.9	
		Yunnan, China (h = N).			
		m = 6.0, M = 5.3 (Up,Ki).			
		The second phase, in average 5.3 sec after P, gives h = 20 km, if interpreted as pP.			
"	11	Ki	iP	22 23 22.7	
			ipP	22 23 36.9	
		Um	iP	22 23 40.9	C
			ipP	22 23 54.7	
		Ud	iP	22 24 11.5	
			ipP	22 24 26.9	
		Japan.			
		h = 55 km (Ki,Um,Ud).			
"	11	Up	iPKP	22 53 37.9	
		Ki	iPKP	22 53 24.3	
		Sk	iPKP	22 53 35.3	
		Um	iPKP	22 53 31.0	C
		New Hebrides Islands (h = 150 km).			
"	12	Um	iP	01 48 42.1	
		Ud	iP	01 48 53.7	
		California (h = 2 km).			
"	12	Ud	i(Sgl)	02 10 49.3	
"	12	Um	iP	03 11 47.9	
			i	03 11 55.4	
"	12	Ud	iPKPl	03 23 46.2	
		De	iPKPl	03 23 57.1	

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

1975 Jan.	12	Up	iP		04 20 04.4	
		Ki	iP		04 20 41.7	
		Sk	iP		04 20 41.1	
		Um	iP		04 20 18.2	
		Ud	iP		04 20 17.6	
		Iran (h = N).				
"	12	Ud	iP		04 35 19.8	
"	12	Up	iP		04 45 07.8	
			i		04 45 17.3	
					micr	sec
			P	Z'	0.1	1.0
			i	Z'	0.2	1.0
		Ki	iP		04 45 48.9	
		Sk	eP		04 45 49	
			iPn		04 46 12.0	
		Um	iP		04 45 20.1	
		Ud	iP		04 45 18.3	
			i		04 45 24.3	
		De	iP		04 45 03.2	
			i		04 45 15.4	
		Turkey (h = 40 km).				
"	12	Ud	iP		05 18 46.4	
"	12	Sk	eP		09 34 17	
		Ud	iP		09 34 17.7	
"	12	Um	iPKPl		13 28 44.5	
"	12	Up	iSn		14 01 52.9	
		Ki	iP		13 57 49.7	
			iPn		13 58 30.9	
		Sk	iPn		13 58 20.0	
		Um	iP		13 57 25.4	
			iSn		14 02 31.4	
		Ud	iP		13 57 31.0	
		De	iPn		13 57 37.4	
		Caucasus (h = N).				
"	12	Um	iP		14 02 56.9	
		Greece.				
"	12	Up	iPKPl		18 07 15.8	
					micr	sec
			PKPl	Z'	0.5	1.5
			Mx	N	2.1	20
			Mx	Z	2.8	19
		Ki	iPKPl		18 06 54.6	
					micr	sec
			PKPl	Z'	0.5	1.7
			Mx	E	1.1	17
			Mx	N	1.2	18
			Mx	Z	1.1	18
		(cont.)				

1975 Jan.	12	(cont.)				
		Sk	iPKPl		18 07 08.9	
		Um	iPKPl		18 07 05.0	
			ipPKPl		18 07 18.1	
		Ud	iPKPl		18 07 16.9	
			ipPKPl		18 07 27.5	
		De	iPKPl		18 07 27.0	
			ipPKPl		18 07 38.2	
			i		18 07 41.2	
		South of Kermadec Islands.				
		h = 45 km (Um,Ud,De).				
		M = 6.0 (Up,Ki).				
"	12	Up	iP		21 34 26.9 C	
					micr	sec
			P	Z'	0.1	1.1
		Ki	iP		21 33 54.9 C	
		Sk	iP		21 34 02.5	
		Um	iP		21 34 13.4	
		Ud	iP		21 34 19.3 C	
		De	iP		21 34 35.1	
		California (h = 8 km).				
"	12	Ki	iP		22 10 36.2	
		Ud	iP		22 11 28.9	
		De	iP		22 11 51.9	
		Alaska (h = 45 km).				
"	13	Up	iP		00 41 46.4	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		00 40 49.3	
		Sk	e(P)		00 41 16	
		Ud	iP		00 41 43.3	
		De	iP		00 42 07.8	
		Alaska (h = 70 km).				
"	13	Up	iPKPl		01 07 15.7	
			i		01 07 24.1	
					micr	sec
			PKPl	Z'	0.1	1.0
		Ki	iPKP		01 07 08.9	
		Um	i(PKP)		01 07 08.5	
			iPKP		01 07 13.8	
		Ud	iPKPl		01 07 15.7	
			i		01 07 26.3	
			iSKPl		01 10 06.7	
		De	iPKPl		01 07 28.0 C	
		Fiji Islands (h = 620 km).				
"	13	Ki	iP		01 30 18.4	
		Um	iP		01 30 37.8	
		Ud	iP		01 31 07.1	
		Japan (h = 60 km).				
"	13	Ud	iP		03 55 48.4	

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

1975 Jan.	13	Ki	iP		04 48 31.8		
		Ud	iP		04 48 04.6		
		De	iP		04 48 03.1		
		North Atlantic Ocean (h = N).					
"	13	Up	iP		08 03 59.2		
			iSn		08 08 29.4		
					micr	sec	
			P	Z'	0.1	1.0	
		Ki	iP		08 04 34.8		
			iPn		08 04 50.7		
			iSn		08 10 06.1		
		Sk	iPn		08 05 04.1		
			i		08 13 04.4		
		Um	iP		08 04 09.6		
			iSn		08 09 03.0		
		Ud	iP		08 04 13.9		
			iSn		08 09 18.1		
		De	iP		08 03 58.5		
		Caucasus (h = N).					
"	13	Ud	iP		08 48 21.8		
		Bulgaria.					
"	13	Up	iP		09 30 06.6		
					micr	sec	
			P	Z'	0.1	1.1	
			Mx	N	6.3	23	
			Mx	Z	6.3	23	
		Ki	iP		09 29 12.9		
					micr	sec	
			P	Z'	0.1	1.0	
			Mx	E	1.6	17	
			Mx	N	2.3	18	
		Sk	iP		09 29 44.0		
		Um	iP		09 29 39.4		
		Ud	iP		09 30 05.6		
			i		09 30 10.6		
		De	iP		09 30 28.0		
		Aleutian Islands (h = 40 km).					
		m = 5.9, M = 5.7 (Up,Ki).					
"	13	Ud	iP		19 40 14.9		
		Aleutian Islands (h = 45 km).					
"	13	Up	iPKP		23 16 06.9		
		Ki	iPKP		23 15 54.8		
		Sk	ePKP		23 16 06		
		Um	iPKP		23 15 59.7		
		Ud	iPKP		23 16 09.6		
		De	iPKP		23 16 16.1		
		Solomon Islands (h = 110 km).					
"	14	Up	iP		01 38 25.3		

1975 Jan.	14	Up	iP		04 24 56.1		
			i		04 24 59.7		
					micr	sec	
			P	Z'	0.1	1.2	
		Um	iP		04 24 37.6		
		Ud	iP		04 25 07.3		
		Japan (h = 40 km).					
"	14	Ud	iP		07 15 07.3		
		South of Greece.					
"	14	Ud	i(Sgl)		10 02 46.0		
"	14	Up	iP		14 14 22.5		
					micr	sec	
			P	Z'	0.1	1.2	
"	14	Up	iP		14 21 52.8		
		Ki	iP		14 21 37.2		
					micr	sec	
			P	Z'	0.1	0.7	
		Sk	iP		14 22 07.0		
		Um	iP		14 21 38.8	C	
		Ud	iP		14 22 07.6		
			i		14 22 15.4		
		De	iP		14 22 14.9		
		Sinkiang, China (h = N).					
"	14	Um	iPKPl		16 32 50.2	C	
		Kermadec Islands (h = 290 km).					
"	14	Ud	iP		17 28 42.5		
		Tibet (h = N).					
"	14	Ki	iP		19 51 10.4		
			i		19 51 17.3		
					micr	sec	
			P	Z'	0.3	1.2	
		Um	iP		19 51 16.2		
		Ud	iP		19 51 34.2		
		Banda Sea (h = 40 km).					
"	14	Up	iP		20 03 07.9		
					micr	sec	
			Mx	E	5.4	20	
			Mx	N	9.9	22	
		Ki	iP		20 02 50.2		
			i		20 02 59.1		
					micr	sec	
			P	Z'	0.5	1.5	
			i	Z'	0.6	1.6	
			Mx	E	14	18	
			Mx	N	20	20	
			Mx	Z	9.6	18	

(cont.)

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

1975
Jan. 14 (cont.)

Um	iP		20 02 55.4	
Ud	iP		20 03 13.8	
De	iP		20 03 21.8	

Banda Sea (h = N).
M = 6.4 (Up,Ki).

" 14	Up	iP		22 13 57.7	
				micr sec	
		P	Z'	0.1 1.3	
	Ki	iP		22 14 43.7	C
				micr sec	
		P	Z'	0.2 1.2	
	Um	iP		22 14 22.0	
	Ud	eP		22 14 13	C
	De	iP		22 13 53.6	C

Iraq (h = 60 km).
m = 5.7 (Up,Ki).

" 14	Up	iP		23 55 07.9	
				micr sec	
		P	Z'	0.1 1.3	
" 15	Ki	iP		02 33 22.6	
	Ud	iP		02 34 16.5	

Aleutian Islands (h = 55 km).

" 15	Sk	iP		05 42 01.4	
	Ud	iP		05 41 26.6	

Ionian Sea (h = N).

" 15	Up	iP		11 45 00.8	
				micr sec	
		P	Z'	1.1 1.5	
		Mx	E	3.4 18	
		Mx	N	10 18	
	Ki	iP		11 44 44.9	D
				micr sec	
		P	Z'	0.6 1.3	
		Mx	N	21 20	
	Sk	iP		11 45 12.1	
	Um	iP		11 44 48.1	D
	Ud	iP		11 45 13.0	D
	De	iP		11 45 18.3	D

Szechwan, China (h = N).
m = 6.7 (Up,Ki).

" 15	Up	iP		19 09 58.4	
	Ki	iP		19 08 26.5	
				micr sec	
		P	Z'	0.1 1.0	
	Um	iP		19 09 09.7	
	Ud	iP		19 09 55.2	
		i		19 09 59.6	

Northeast of Jan Mayen
(h = N).

1975
Jan. 15

Ki	iP		19 12 02.7		
Um	iP		19 12 45.3		
Ud	iP		19 13 35.3		
De	iP		19 14 16.9		

Northeast of Jan Mayen
(h = N).

" 15	Up	iP		20 43 20.1	
		i(PP)		20 47 10.2	
		iPP		20 47 24.7	
				micr sec	
		P	Z'	0.1 0.8	
		PP	Z'	0.1 1.1	
	Um	iP		20 43 14.6	C
	Ud	iP		20 43 29.4	C
		i(PP)		20 46 58.1	
		iPP		20 47 39.8	

Java (h = 140 km).

" 16	Up	iP		00 14 31.0	
	Sk	iP		00 15 16.1	
	Um	iP		00 15 25.1	
	Ud	iP		00 14 40.3	

Italy (h = 20 km).

" 16	Ud	i(P)		08 33 50.3	
" 16	Ud	iP		19 03 45.8	
" 16	Ud	iP		21 45 32.2	
		i		21 45 37.7	
" 17	Up	i(PKP)		09 49 37.7	
		iPKP		09 49 46.9	
		i		09 50 18.3	
		iSKP1		09 53 12.9	
				micr sec	
		PKP	Z'	0.1 1.1	
		SKP1	Z'	0.1 1.0	
		Mx	N	3.0 27	
	Ki	iPKP		09 49 32.4	
		ipPKP		09 50 13.2	
				micr sec	
		PKP	Z'	0.2 1.5	
	Sk	iPKP		09 49 42.5	
	Um	iPKP		09 49 39.3	
		ipPKP		09 50 18.6	
		iSKP1		09 53 07	
	Ud	i(PKP)		09 49 37.7	
		iPKP		09 49 48.6	
		ipPKP		09 50 29.1	
	De	iPKP1		09 49 50.6	
		iPKP		09 49 54.0	
		ipPKP		09 50 35.8	

Tonga Islands.
h = 150 km (Ki,Um,Ud,De).

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

1975					
Jan.	17	Up	iPP		10 46 11.5
		Ki	iP		10 41 45.8
		Um	iP		10 41 50.1
		Ud	iP		10 41 57.3
			i		10 42 20.6
		Ceram Sea (h = N).			
"	17	Up	iP		15 20 07.9
		Ki	iP		15 20 06.8
		Um	iP		15 20 06.0
		Ud	iP		15 20 24.2
		Burma-India (h = N).			
"	18	Ki	iP		00 24 18.5
		Ud	iP		00 24 32.3
		De	iP		00 24 38.1
		Sinkiang, China (h = 90 km).			
"	18	Ud	iP		00 30 30.0
		Kurile Islands (h = 35 km).			
"	18	Up	iP		04 15 15.0
		Ki	iP		04 16 24.0
		Sk	iP		04 15 52.8
		Ud	iP		04 15 20.2
		De	iP		04 14 52.3
		Crete (h = N).			
"	18	Up	iP		04 23 29.9
		Ki	iP		04 23 14.8
		Ud	iP		04 23 45.7
		Szechwan, China.			
"	18	Sk	iP		08 10 30.1
		Ud	iP		08 09 59.5
		East of Crete.			
"	18	Um	iPKP		09 10 35.2
		Ud	iPKP		09 10 50.3
		Tonga Islands (h = N).			
"	18	Up	ePKPl		09 57 57
		Ud	iPKPl		09 58 01.7 C
		De	iPKPl		09 58 12.9 C
"	18	Ki	iP		10 20 44.8
		Tadzhik SSR (h = 240 km).			
"	18	Up	iPKPl		14 38 43.3
		Ki	ePKP		14 38 21
		Sk	iPKPl		14 38 35.4
		Um	iPKPl		14 38 21.9
			i		14 38 35.6
		Ud	iPKPl		14 38 38.6
		Kermadec Islands.			

1975					
Jan.	18	Up	iP		19 12 12.0
					micr sec
			P	Z'	0.1 1.2
		Ki	iP		19 12 35.7 C
		Sk	iP		19 12 35.8
		Um	iP		19 12 23.2
		Ud	iP		19 12 23.0 C
			ipP		19 12 35.4
		Indian Ocean.			
		h = 45 km (Ud).			
"	18	Up	iP		19 22 13.0
		Ki	iP		19 21 57.1 C
		Sk	eP		19 22 22
		Um	iP		19 21 59.1
		Ud	iP		19 22 25.6
		Szechwan, China.			
"	19	Ud	iP		00 46 08.2
		Caucasus (h = 30 km).			
"	19	Ki	iP		03 28 13.3
		Ud	iP		03 28 22.8
		Sumatra (h = 100 km).			
"	19	Up	iP		06 49 43.7
					micr sec
			P	Z'	0.1 1.1
"	19	Up	iP		08 08 59.7
			i		08 09 04.7
			i		08 09 10.2
					micr sec
			P	Z'	0.1 1.0
		Ki	iP		08 09 02.7
					micr sec
			P	Z'	0.1 1.0
		Sk	iP		08 09 21.2
			i		08 09 32.1
		Um	iP		08 08 55.0
			i		08 09 00.7
			i		08 09 05.3
		Ud	iP		08 09 15.3
			i		08 09 20.4
		De	iP		08 09 13.2
		Kashmir-Tibet (h = 60 km).			
		m = 5.8 (Up,Ki).			
		Three successive P phases of about equal amplitude.			
"	19	Up	iP		08 10 38.3
					micr sec
			P	Z'	0.2 1.1
		Ki	iP		08 10 42.2
					micr sec
			P	Z'	0.2 1.1

(cont.)

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

1975
Jan. 19 (cont.)

Sk	iP		08 11 00.7
Um	iP		08 10 33.9
Ud	iP		08 10 54.0
De	iP		08 10 52.8

Kashmir-Tibet.
m = 6.1 (Up,Ki).
Origin time = 08 01 58.7.
Approximate origin times, assuming the same focus as for the preceding event, are given for those aftershocks for which NEIS lacks information.

" 19	Up	iP		08 10 42.0
		iPP		08 12 32
		iS		08 17 38
				micr sec
		P	Z'	3.4 1.3
		Mx	E	200 19
		Mx	N	440 19
		Mx	Z	270 20
	Ki	iP		08 10 46.1
		iPP		08 12 38
		iS		08 17 43
				micr sec
		P	Z'	2.8 1.6
		Mx	E	140 16
		Mx	N	180 11
		Mx	Z	190 18
	Sk	iP		08 11 05.4
	Um	iP		08 10 37.6
		iS		08 17 28
	Ud	iP		08 10 57.4
	De	iP		08 10 56.4

Kashmir-Tibet (h = N).
m = 7.2, M = 7.1 (Up,Ki).

" 19	Sk	iP	08 18 00.3
	Ud	iP	08 17 56.0
	De	iP	08 17 53.5

Kashmir-Tibet.
Origin time = 08 09 00.

" 19	Up	iP		08 20 48.4
		iPP		08 22 42.8
				micr sec
		P	Z'	0.5 1.0
		PP	Z'	3.3 2.5
	Ki	iP		08 20 52.1
				micr sec
		P	Z'	1.0 1.8
	Sk	iP		08 21 11.4
	Um	iP		08 20 44.5
	Ud	iP		08 21 04.3

(cont.)

1975
Jan. 19 (cont.)

De	iP		08 21 01.7

Kashmir-Tibet (h = N).
m = 6.6 (Up,Ki).

" 19	Ud	iP	08 27 20.9

Kashmir-Tibet (h = N).

" 19	Ki	iP	08 39 12.8
	Ud	iP	08 39 25.9

Kashmir-Tibet.
Origin time = 08 30 30.

" 19	Sk	iP	08 41 49.4
	Ud	iP	08 41 42.2

Kashmir-Tibet.
Origin time = 08 32 47.

" 19	Ki	iP	08 53 08.1
	Ud	iP	08 53 21.5

Kashmir-Tibet.
Origin time = 08 44 26.

" 19	Ud	iP	09 08 14.3

" 19	Up	iP	09 21 35.4
	Ki	eP	09 21 38
	Ud	iP	09 21 49.9

Kashmir-Tibet (h = N).

" 19	Ki	iP	09 31 06.0
	Ud	iP	09 31 18.1

Kashmir-Tibet.
Origin time = 09 22 23.

" 19	Ki	iP	10 32 44.5
	Um	iP	10 32 33.8
	Ud	iP	10 32 54.6

Kashmir-Tibet.
Origin time = 10 24 00.

" 19	Up	iP	11 10 31.0
	Ki	iP	11 10 14.3
		i	11 10 34.5
	Um	iP	11 10 20.3
	Ud	iP	11 10 40.7

Panay.

" 19	Up	iP	11 18 24.1
	Ki	iP	11 18 26.0
	Um	iP	11 18 24.9
	Ud	iP	11 18 39.3

Kashmir-Tibet.
Origin time = 11 09 44.

" 19	Um	iPKP1	11 38 52.0

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

1975 Jan.	19	Up	iP		12 02 52.3	
		Ud	iP		12 03 08.1	
		De	iP		12 03 05.4	
		Kashmir-Tibet.				
		Origin time = 11 54 12.				
"	19	Ud	iP		12 15 53.8	
"	19	Up	iP		13 13 16.7	
			i		13 13 18.7	
					micr	sec
			P	Z'	0.1	0.7
			i	Z'	0.1	0.8
		Ki	iP		13 13 19.8	
		Sk	iP		13 13 39.3	
		Um	iP		13 13 12.4	
			i		13 13 14.8	
		Ud	iP		13 13 32.5	D
			i		13 13 34.3	
		De	iP		13 13 30.7	
		Kashmir-Tibet (h = N).				
		Double P.				
"	19	Ud	iP		13 45 45.2	
"	19	Up	iP		15 55 01.2	
		Ud	iP		15 55 15.4	
		Kashmir-Tibet.				
		Origin time = 15 46 20.				
"	19	Up	iP		16 05 20.1	
		Ud	iP		16 05 34.3	
		Kashmir-Tibet.				
		Origin time = 15 56 39.				
"	19	Up	iP		16 24 51.4	
		Ud	iP		16 25 05.6	
		Kashmir-Tibet.				
		Origin time = 16 16 11.				
"	19	Ud	iP		17 50 05.0	
		Kashmir-Tibet (h = N).				
"	19	Up	i(P)		19 05 39.7	
		Um	iP		19 05 46.0	
		De	iP		19 05 44.8	
"	20	Um	iP		04 10 48.2	
		Ud	iP		04 10 31.8	
"	20	Ud	iP		04 46 26.0	
"	20	Ki	iP		04 49 18.4	
		Sk	iP		04 49 38.5	
		Ud	iP		04 49 30.4	
		Kashmir-Tibet.				
		Origin time = 04 40 35.				
1975 Jan.	20	Um	iP		08 54 54.9	
		Ud	iP		08 55 15.4	
		Kashmir-Tibet.				
		Origin time = 08 46 20.				
"	20	Ud	iP		09 26 15.0	
"	20	Ki	iP		09 36 04.4	
		Sk	iP		09 36 24.9	
		Um	iP		09 35 54.2	
		Ud	iP		09 36 16.4	
		Kashmir (h = N).				
"	20	Up	iP		10 50 15.4	
			i		10 50 17.3	
			i		10 50 25.3	
			iS		10 52 22.1	
			iLgl		10 53 24.0	
					micr	sec
			P	Z'	0.1	0.7
			S	Z'	0.1	0.7
			Mx	E	0.7	8
			Mx	N	1.2	10
			Mx	Z	1.5	10
		Ki	iP		10 48 36.0	
			i		10 48 37.9	
			iS		10 49 23.9	
			i(Lgl)		10 49 39.1	
					micr	sec
			P	Z'	0.1	0.5
			S	Z'	1.0	0.5
			Mx	E	1.4	11
			Mx	N	1.5	11
			Mx	Z	1.6	10
		Sk	iP		10 49 25.9	
			i		10 49 27.9	
			iS		10 50 50.8	
			iX		10 51 11.3	
		Um	iP		10 49 27.6	
			i		10 49 28.1	
			iS		10 50 53.5	
			iLgl		10 51 39.7	
		Ud	iP		10 50 12.0	
			i		10 50 13.9	
			i		10 50 21.7	
			iS		10 52 16.5	
			iX		10 52 34.0	
		De	iP		10 50 59.9	
			i		10 51 02.5	
			i		10 51 08.6	
			iS		10 53 43.2	
			iX		10 54 16.0	
			iLgl		10 55 04.3	
		Norwegian Sea (h = N).				
		m = 4.8, M_L = 3.9 (Up,Ki, Sk,Um,Ud,De).				
		(cont.)				

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

1975
Jan. 20 (cont.)
Double P, small and large, about 2 sec apart, probably due to complexities at the Moho boundary.

"	20	Up	iP	11 15 29.5	
				micr	sec
			P Z'	0.1	1.0
		Ki	iP	11 15 31.4	
			i	11 15 44.0	
		Sk	iP	11 15 52.8	
		Um	iP	11 15 25.7	
			i	11 15 51.0	
		Ud	iP	11 15 45.1	
			i	11 15 57.2	
		De	iP	11 15 43.3	

Kashmir-Tibet (h = 50 km).

"	20	Up	iP	12 39 05.5
		Um	iP	12 38 30.7
		De	iP	12 39 40.0

"	20	Sk	iP	13 33 10.8
		Um	iP	13 32 48.9
		Ud	iP	13 33 08.6
		De	iP	13 33 07.6

Kashmir-Tibet (h = N).

"	20	Up	iP	13 53 38.0	
		Ki	iP	13 53 31.8	
		Sk	iP	13 53 49.2	
		Um	iP	13 53 32.8	D
		Ud	iP	13 53 46.9	

Java (h = 90 km).

"	20	Up	iP	17 42 48.5	C
			iPP	17 45 32.4	
			iS	17 52 21	
				micr	sec
			P Z'	0.3	1.0
			Mx E	3.4	18
			Mx N	5.4	20
			Mx Z	7.0	18
		Ki	iP	17 42 10.9	C
				micr	sec
			P Z'	0.2	1.0
			Mx E	14	22
			Mx N	7.9	17
			Mx Z	8.8	18
		Sk	iP	17 42 43.4	C
			iPP	17 45 31.7	
		Um	iP	17 42 26.3	
			i	17 42 27.8	C
		Ud	iP	17 42 56.4	C

(cont.)

1975
Jan. 20 (cont.)

De	iP	17 43 10.6	C

Japan (h = 30 km).
m = 6.3, M = 6.1 (Up,Ki).

"	20	Ud	iPKPl	19 17 04.0
			i	19 17 14.3
		De	iPKPl	19 17 16.7 C
			i	19 17 26.9

Tonga Islands (h = N).

"	20	Up	iP	22 26 58.7
			i	22 27 17.0
		Ki	iP	22 26 32.5
			i	22 26 40.3
				micr sec
			P Z'	0.1 1.1
		Um	iP	22 26 40.3
			i	22 26 59.7
		Ud	iP	22 27 03.4
			i	22 27 22.1

Luzon (h = 40 km).
A second phase appears 18.8 sec after P (Up,Um,Ud).

"	21	Ki	iP	02 20 12.5

Atlantic Ocean (h = N).

"	21	Ki	iP	06 51 07.3
		Sk	iP	06 51 38.1
		Um	iP	06 51 34.4
		Ud	iP	06 51 59.7
		De	iP	06 52 22.3

Aleutian Islands (h = N).

"	21	Ki	iP	09 07 36.2
		Um	iP	09 07 52.0
		Ud	iP	09 08 20.3

Japan (h = 70 km).

"	21	Ki	i(P)	11 39 29.1
		Sk	iP	11 38 39.3

"	21	Ki	iP	19 00 37.3
		Ud	iP	19 01 02.4

"	21	Up	iP	20 54 29.5	C
		Ud	iP	20 54 36.2	C
		De	iP	20 54 53.7	

Kurile Islands (h = 50 km).

"	21	Ki	iPKP	21 31 52.6	C
		Sk	iPKP	21 32 04.7	
		Um	iPKP	21 32 00.1	
			iSKPl	21 35 16.8	

(cont.)

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

1975
Jan. 21 (cont.)
Ud iPKP 21 32 08.8 C
iSKPl 21 35 24.9
New Hebrides Islands
(h = 120 km).

" 21 Up iP 21 58 26.8
Ki iP 21 57 30.9
Sk iP 21 58 00.0
Um iP 21 57 58.3
Ud iP 21 58 21.8
De iP 21 58 47.1
Alaska (h = 35 km).

" 22 Up iPKPl 05 43 28.0
Ud iPKPl 05 43 29.8
De iPKPl 05 43 41.3
Tonga-Kermadec Islands
(h = 170 km).

" 22 Up iP 05 56 30.6
Ki iP 05 56 09.1
Um iP 05 56 16.2
Ud iP 05 56 38.0
Luzon (h = 70 km).

" 22 Up iP 08 42 02.3
micr sec
P Z' 0.2 1.5
Ki iP 08 42 00.2
micr sec
P Z' 0.1 1.5
Mx N 1.6 19
Sk iP 08 42 18.6
Ud iP 08 42 14.2
i 08 42 16.6
Andaman Islands (h = 15 km).
m = 5.9 (Up,Ki).

" 22 Ud iP 11 15 42.8

" 22 Ud iP 13 10 31.0
Yunnan, China (h = 60 km).

" 22 Sk i(Sgl) 13 27 35.7
Ud i(Sgl) 13 29 02.5

" 22 Ud iP 16 17 22.3

" 22 Ki eP 17 35 21
Sk iP 17 35 39.8
Um iP 17 35 14.7
Ud iP 17 35 31.3
Tibet-India (h = 50 km).

" 22 Ki iP 18 24 48.4

1975
Jan. 23 Ud iP 01 47 44.4
Sikkim (h = N).

" 23 Ki iP 04 10 17.5
Ud iP 04 10 44.8
Molucca Passage
(h = 120 km).

" 23 Um iPKPl 09 53 50.1
Ud iPKPl 09 54 02.9
South of Kermadec Islands
(h = 370 km).

" 23 Up i(P) 14 30 47.6
micr sec
(P) Z' 0.1 1.0
Mx E 3.5 17
Mx N 5.1 19
Ki iP 14 30 09.7
i 14 30 15.7
micr sec
P Z' 0.1 1.2
Mx E 7.1 15
Mx N 8.7 15
Mx Z 6.1 14
Sk iP 14 30 42.3
Ud iP 14 30 52.9
Japan (h = 10 km).
m = 5.9, M = 6.1 (Up,Ki).

" 23 De iPKPl 23 00 48.4

" 24 Ud iP 01 32 01.6
Molucca Passage (h = 55 km).

" 24 Ud iP 07 43 30.0
Greece (h = 30 km).

" 24 Up iPKP 14 34 53.6
Sk iPKP 14 34 53.5
De iPKP 14 35 04.6
Santa Cruz Islands
(h = 260 km).

" 24 Up iP 16 37 21.1
micr sec
P Z' 0.1 1.0
Sk iP 16 38 08.7
Um iP 16 38 03.8
Ud iP 16 37 27.7
De iP 16 36 49.1
Albania (h = N).

" 24 Up iP 18 46 54.6
Mariana Islands (h = 120 km).

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

1975 Jan.	24	Up	iPKP1		19 39 37.1	
			i		19 39 40.7	
		Sk	iPKP1		19 39 30.0	
		Um	iPKP1		19 39 24.4	
			i		19 39 29.5	
		Ud	iPKP1		19 39 38.4	
			i		19 39 43.1	
		De	iPKP1		19 39 47.0	
			i		19 39 51.8	
		Kermadec Islands (h = N).				
		Double onsets, in average 4.6 sec apart.				
"	24	Up	iP		22 53 55.6	
		Ud	iP		22 53 55.1	C
		De	iP		22 54 17.6	
		Aleutian Islands (h = 55 km).				
"	25	Sk	iP		00 21 38.3	
		Ud	iP		00 21 05.7	
		De	iP		00 20 40.0	
		Crete (h = N).				
"	25	Up	iP		02 21 21.2	C
			ipP		02 21 31.1	
			iS		02 31 55	
					micr	sec
			P	Z'	0.9	1.5
			Mx	E	11	25
			Mx	N	15	21
			Mx	Z	16	21
		Ki	iP		02 21 22	
			iS		02 31 57	
					micr	sec
			P	Z'	3.0	2.1
			Mx	E	23	22
			Mx	N	16	22
			Mx	Z	23	24
		Sk	iP		02 21 07.9	C
			ipP		02 21 18.6	
		Um	iP		02 21 24.1	C
			ipP		02 21 34.2	
			iS		02 32 04	
		Ud	iP		02 21 11.5	C
			ipP		02 21 21.8	
		De	iP		02 21 14.0	C
			ipP		02 21 24.6	
		Panama-Colombia.				
		h = 40 km (Up,Sk,Um,Ud,De).				
		m = 6.9, M = 6.6 (Up,Ki).				
"	25	Sk	iP		03 37 36.5	
		Um	iP		03 37 53.2	
		Ud	iP		03 37 40.9	
		Panama-Colombia (h = N).				

1975 Jan.	25	Up	iP		14 19 01.6	
					micr	sec
			P	Z'	0.1	0.8
		Sk	iP		14 19 41.3	
		Um	iP		14 19 41.4	
		Ud	iP		14 19 07.2	
		De	iP		14 18 30.9	
		Greece (h = N).				
"	25	Um	iP		15 37 25.6	
		Hindu Kush.				
		Intermediate depth.				
"	25	Up	iP		17 15 38.2	C
		Ki	iP		17 14 45.7	
		Um	iP		17 15 12.1	
			i		17 15 17.1	
			i		17 15 38.2	
		Ud	iP		17 15 37.8	C
			i		17 15 43.3	
		De	iP		17 16 00.1	
		Aleutian Islands (h = N).				
"	25	Ud	iP		18 22 42.0	
"	26	Um	iP		03 45 50.5	
		Mindoro (h = 40 km).				
"	26	Ud	iPKP1		05 26 35.2	
"	26	Up	iP		05 36 00.2	
			i		05 36 08.9	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		05 37 09.0	
					micr	sec
			Mx	E	1.0	14
			Mx	N	1.6	14
			Mx	Z	2.0	14
		Um	iP		05 36 38.4	
			i		05 36 56.8	
		Ud	iP		05 36 07.0	
			i		05 36 17.2	
		De	iP		05 35 34.7	
		Greece (h = 50 km).				
"	26	Sk	iP		06 30 11.5	
		Ud	iP		06 29 39.0	
		Greece.				
"	26	Sk	iSKP1		09 23 59.9	
		Fiji Islands (h = 350 km).				
"	26	Up	iPKP1		11 35 24.2	
		Ud	iPKP1		11 35 26.9	

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

1975				
Jan.	26	Um	iP	19 37 35.5 C
		Unimak Island (h = N).		
"	26	Ki	iP	19 43 54.0
		Banda Sea (h = N).		
"	26	Ki	iPKP	22 09 02.4
		Sk	iPKP	22 09 13.7
		Um	iPKP	22 09 09.4
		New Hebrides Islands (h = 270 km).		
"	26	Ud	iP	23 48 49.5
		Greece.		
"	27	Ki	iP	00 37 35.4
		Ud	iP	00 37 33.0
		Pakistan (h = N).		
"	27	Up	iPKPl	03 21 29.9
		Um	iPKPl	03 21 21.9
		Ud	iPKPl	03 21 29.6
		De	iPKPl	03 21 41.1
		Tonga-Kermadec Islands.		
"	27	Ud	iP	05 02 48.2
		Unimak Island (h = N).		
"	27	Up	iP	08 18 56.5
			i	08 19 02.7
		Sk	iP	08 19 19.4
			i	08 19 24.6
		Um	iP	08 18 53.2
		Ud	iP	08 19 12.6
			i	08 19 18.0
		De	iP	08 19 11.3
		Kashmir-Tibet (h = N).		
		Double onsets, in average 5.6 sec apart.		
"	27	Up	iP	09 07 18.8
		Ud	iP	09 07 26.1
			ipP	09 09 25.7
		De	iP	09 07 37.8
		Bonin Islands.		
		h = 570 km (Ud).		
"	27	Sk	iP	09 32 41.3
		Ud	iP	09 32 34.4 C
		Kashmir-Tibet (h = N).		
"	27	Sk	iP	10 29 07.6
		Um	iP	10 28 58.6
		Japan (h = N).		
"	27	Up	iP	13 08 25.1

1975				
Jan.	27	Ud	iP	13 50 33.3
		De	iP	13 50 32.1
		Kashmir-Tibet (h = N).		
"	27	Up	iPP	15 28 27.4
				micr sec
			Mx E	1.9 20
			Mx N	1.5 21
			Mx Z	2.7 20
		Ki	iP	15 23 55.5
			i	15 24 04.7
				micr sec
			P Z'	0.1 1.3
			Mx E	2.7 22
			Mx N	2.6 22
			Mx Z	2.4 20
		Um	iPP	15 28 22.2
		Ud	iP	15 24 10.1
			iPP	15 28 36.9
		Sumba Island (h = N).		
		M = 5.9 (Up,Ki).		
"	27	Ud	iP	16 06 58.2 C
		De	iP	16 06 57.1
		Kashmir-Tibet (h = N).		
"	27	Up	iP	16 15 58.7
"	27	Ki	iPKPl	18 56 44.6
		South Shetland Islands (h = N).		
"	27	Up	iP	21 44 12.5
		Ki	iP	21 43 19.5
			ipP	21 43 58.3
		Um	iP	21 43 40.9
		Ud	iP	21 44 12.4
			ipP	21 44 49.5
		Aleutian Islands.		
		h = 160 km (Ki,Ud).		
"	27	Um	iPKPl	22 20 39.7
"	28	Ud	iP	02 34 13.5
		Costa Rica (h = N).		
"	28	Ki	iP	06 00 05.6
		Ud	iP	06 00 15.0
		De	iP	06 00 12.4
		Sumatra (h = N).		
"	28	Up	iP	12 03 45.3
			ipP	12 03 54.8
				micr sec
			P Z'	0.2 1.2
			pP Z'	0.2 1.3

(cont.)

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

1975
Jan. 28 (cont.)

Ki	iP		12 02 49.8		
	ipP		12 03 00.0		
			micr	sec	
	P	Z'	0.1	1.0	
	pP	Z'	0.1	1.1	
	Mx	E	0.5	12	
	Mx	N	0.6	14	
Sk	iP		12 03 27.7		
	ipP		12 03 37.8		
Um	iP		12 03 15.9		
	ipP		12 03 26.9		
Ud	iP		12 03 48.1	C	
	ipP		12 03 59.5		
De	iP		12 04 10.7		
	ipP		12 04 22.7		

Komandorsky Islands.
h = 40 km (Up,Ki,Sk,Um,Ud,De).
m = 6.0 (Up,Ki).

" 28	Up	iPKP1	17 43 25.1		
	Ud	iPKP1	17 43 27.5		
" 28	Ki	iP	20 18 25.3		
	Ud	iP	20 19 20.6		

Aleutian Islands
(h = 80 km).

" 28	Up	iP	21 18 14.0		
	Ki	iP	21 19 14.8		
	Sk	iP	21 18 53.9		
	Ud	iP	21 18 26.6		
	De	iP	21 18 00.1		

Cyprus (h = 45 km).

" 29	Ud	iP	00 47 14.7		

Japan (h = 50 km).

" 29	Up	iP	08 14 39.2		
	Ki	iP	08 14 08.5		
	Sk	iP	08 14 36.7		
	Um	iP	08 14 21.7		
	Ud	iP	08 14 46.1		
	De	iP	08 14 57.9		

Bonin Islands (h = 500 km).

" 29	Ki	iP	15 43 30.1	D	
			micr	sec	
		P	Z' 0.1	1.0	
	Ud	iP	15 43 55.3		

Mindanao (h = 60 km).

" 29	Sk	iP	15 58 29.7		
	Ud	iP	15 58 22.6	C	

Tibet-India (h = N).

1975

Jan. 29	Ud	iP	19 05 30.7		
" 29	Ud	iP	19 23 17.7		
" 29	Ud	iP	23 05 15.5		
" 30	Ki	iP	08 28 19.3		
	Ud	i(P)	08 28 52.4		
" 30	Ud	i(Sgl)	12 52 50.1		
	De	i	12 55 33.8		
" 30	Up	iP	13 18 37.2		
	Ki	iP	13 18 04.5		
	Um	i(P)	13 18 25.8		
	Ud	iP	13 18 44.8		

Ryukyu Islands (h = 50 km).

" 30	Up	iP	15 12 59.8	C	
	Ki	iP	15 12 37.6		
	Um	iP	15 12 45.5	C	
	Ud	iP	15 13 09.2	C	

Luzon-Formosa.

" 31	Up	iP	04 37 55.9		
		ipP	04 38 07.4		
	Ki	iP	04 37 17.3		
	Ud	iP	04 38 02.1		
		ipP	04 38 11.9		
	De	ipP	04 38 28.2		

Japan.
h = 40 km (Up,Ud).

" 31	Ud	iP	11 00 56.5		
" 31	Up	iP	12 48 20.1		
		i	12 48 38.1		
			micr	sec	
		P	Z' 0.1	0.6	
	Ki	iP	12 48 19.4		
		i	12 48 38.6		
	Sk	iP	12 48 39.9		
		i	12 48 58.3		
	Um	iP	12 48 14.9		
		i	12 48 33.1		
	Ud	iP	12 48 34.6		
		i	12 48 53.9		
	De	iP	12 48 34.1		
		i	12 48 52.5		

Nepal (h = N).
The second phase appears 18.6 sec in average after P: either another shock in the same area, or pP, leading to h = 70 km.

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

1975						
Jan.	31	Up	iP		13 17 43.8	
"	31	Up	iP		14 12 48.0	C
		Ki	iP		14 12 46.5	
		Ud	iP		14 13 03.9	
		Kashmir-Tibet (h = 45 km).				
"	31	Up	Mx		17 06	
					micr	sec
			Mx	N	1.4	20
			Mx	Z	2.3	19
		Ki	Mx		17 06	
					micr	sec
			Mx	E	1.0	14
			Mx	N	1.1	15
			Mx	Z	1.7	17
		Off Pacific coast of Mexico (h = 45 km). M = 5.6 (Up,Ki).				

Markus Båth

September 21, 1976

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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, 1975

1975						
Feb.	1	Up	iP		06 03 14.0	
		Ki	iP		06 02 20.4	
		Ud	iP		06 03 13.0	C
			i		06 03 16.5	
		De	iP		06 03 36.0	
		Unimak Island (h = 20 km).				
"	1	Ud	iPKPl		09 00 48.2	
"	1	Ud	iP		13 14 04.7	
"	1	Up	iP		14 28 59.7	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		14 28 48.4	D
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		14 29 11.7	
		Um	iP		14 28 49.3	D
		Ud	iP		14 29 11.2	
		De	iP		14 29 15.4	
		Tibet (h = N).				
		m = 5.8 (Up,Ki).				
"	1	Up	iP		15 32 23.4	
		Ki	iP		15 32 07.6	
					micr	sec
			Mx	N	1.4	20
		Ud	iP		15 32 32.8	
			ipP		15 32 43.8	
		Mindoro.				
		h = 40 km (Ud).				
"	1	Up	eP		18 24 48	
		Ki	iP		18 24 49.1	
		(cont.)				

1975						
Feb.	1	(cont.)				
		Sk	iP		18 25 11.7	
		Um	iP		18 24 41.2	
		Ud	iP		18 24 58.5	
		De	iP		18 24 59.4	
		Kashmir (h = 70 km).				
"	1	Up	iPKP		20 01 14.4	
		Ud	iP		19 57 32.1	
			iPKP		20 01 17.0	
		De	iPKP		20 01 22.4	
		New Ireland (h = 55 km).				
"	2	Ud	iPKPl		04 12 19.2	
"	2	Ud	iP		05 24 11.5	
"	2	Um	iPKPl		06 48 33.1	
"	2	Up	iP		07 35 36.8	
			i		07 35 41.4	
			ipP		07 35 52.6	
			iP'P'		08 04 10.1	
					micr	sec
			P	Z'	0.1	1.1
			i	Z'	0.4	1.1
			Mx	E	1.2	21
			Mx	N	2.2	18
			Mx	Z	1.8	19
		Ki	iP		07 34 42.9	
			i		07 34 46.9	
			ipP		07 34 57.5	
					micr	sec
			P	Z'	0.1	1.2
			i	Z'	0.2	1.1
		(cont.)				

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

1975
Feb. 2 (cont.)

Ki			micr	sec
	Mx	E	2.0	16
	Mx	N	2.9	18
	Mx	Z	2.1	19
Sk	eP		07 35 17	
	i		07 35 21.5	
Um	iP		07 35 09.8	
	i		07 35 13.9	
	ipP		07 35 24.8	
	iP'P'		08 04 23.6	
Ud	iP		07 35 38.7	
	i		07 35 42.8	
	ipP		07 35 53.5	
De	iP		07 36 00.4	
	i		07 36 04.7	

Aleutian Islands.
h = 40 km (Up,Ki,Um,Ud).
m = 6.3, M = 5.6 (Up,Ki).
Double P, smaller and larger, 4.2 sec apart; pP belongs to the second P.

" 2	Up	iP	07 54 32.6	C
	Ki	iP	07 54 06.0	C
	Sk	iP	07 54 41.7	
	Um	iP	07 54 13.2	C
	Ud	iP	07 54 47.1	
	De	iP	07 54 57.9	C

USSR-Mongolia (h = N).

" 2	Ud	iP	08 04 19.5	
" 2	Up	iP	08 16 38.8	
	Ud	iP	08 16 53.3	
	De	iP	08 17 04.4	

USSR-Mongolia.
Origin time = 08 08 59.

" 2	Ud	iP	08 30 53.4	
" 2	Up	iP	08 36 01.3	
	Sk	i(P)	08 35 38.8	
	Ud	i(P)	08 36 28.0	
" 2	Up	iP	08 54 26.0	C
		i	08 54 29.6	
		iS	09 03 03	
		iP'P'	09 23 04.6	
			micr	sec
		P Z'	0.2	1.0
		i Z'	0.6	1.0

(cont.)

1975
Feb. 2 (cont.)

Up			micr	sec
	P'P'	Z'	0.4	1.8
	Mx	E	40	17
	Mx	N	73	18
	Mx	Z	110	17
Ki	iP		08 53 32.5	C
	i		08 53 35.9	
	iS		09 01 36	
	iP'P'		09 23 18.9	
	i		09 23 30.4	
			micr	sec
	P	Z'	0.1	1.3
	i	Z'	0.5	1.2
	P'P'	Z'	1.0	2.8
	Mx	E	100	16
	Mx	N	100	17
	Mx	Z	110	16
Sk	iP		08 54 07.1	
	i		08 54 10.2	
Ud	i(P)		08 54 26.5	
	iP		08 54 28.2	
	i		08 54 31.5	
	iP'P'		09 23 08.4	
De	iP		08 54 50.5	C
	i		08 54 53.3	
	iP'P'		09 22 55.8	

Aleutian Islands (h = 10 km).
m = 6.6, M = 7.1 (Up,Ki).
Multiple P, average separation 3.2 sec.

" 2	Up	iP	09 04 26.3	
" 2	Up	iP	09 07 10.8	
	Ud	iP	09 07 12.4	
" 2	Ud	iP	09 08 34.2	
" 2	Ud	iP	09 44 02.0	
" 2	Ud	iP	11 03 52.3	
" 2	Up	iP	11 25 19.3	
	Ki	iP	11 24 07.2	
" 2	Ud	iP	14 10 04.4	
	De	iP	14 10 09.0	
" 2	Ud	iP	15 30 44.3	

Aleutian Islands (h = 55 km).

" 2	Up	iP	16 03 52.1	

(cont.)

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

1975
Feb. 2 (cont.)

Ki	iP		16 03 00.0	
Ud	iP		16 03 53.8	

Aleutian Islands (h = 30 km).

" 2	Up	iPKP		16 09 50.6
		i		16 09 58.8
	Ki	iPKP		16 09 41.3
	Ud	i(PKP)		16 09 47.1
		iPKP		16 09 51.1
		i		16 09 58.7
	De	iPKP		16 09 57.3

Fiji Islands (h = 460 km).

" 2	Up	iP		16 28 13.1 C
				micr sec
		P	Z'	0.1 1.1
	Ki	iP		16 27 28.0
				micr sec
		P	Z'	0.1 1.1
	Sk	iP		16 28 03.8
	Ud	iP		16 28 19.6 C
	De	iP		16 28 37.6

Kurile Islands (h = 80 km).
m = 5.8 (Up,Ki).

" 2	Up	iP		19 22 48.0
		i		19 23 31.7
				micr sec
		P	Z'	0.1 0.9
		Mx	E	1.0 17
		Mx	N	1.6 18
		Mx	Z	1.1 17
	Ki	iP		19 22 51.5
				micr sec
		P	Z'	0.1 0.7
		Mx	N	1.2 14
	Sk	iP		19 23 10.6
	Um	iP		19 22 44.0
		i		19 23 17.4
	Ud	iP		19 23 03.6
	De	iP		19 23 02.2

Kashmir-Tibet (h = 20 km).
m = 6.0, M = 5.1 (Up,Ki).

" 2	Up	iP		21 16 44.8
	Sk	iP		21 17 28.2
	Um	iP		21 17 24.6
	Ud	iP		21 16 51.5
	De	iP		21 16 13.6

Greece (h = N).

" 3	Up	iP		01 15 41.5

(cont.)

1975
Feb. 3 (cont.)

Up	ipP		01 16 34.7
	iS		01 25 58
	isS		01 27 05
			micr sec
	pP	Z'	0.2 1.4
Ki	iP		01 15 31.0 C
	ipP		01 16 23.9
	iPP		01 18 43.1
			micr sec
	P	Z'	0.2 1.5
	pP	Z'	0.5 1.5
	PP	Z'	0.2 1.4
Sk	iP		01 15 24.1
	ipP		01 16 16.7
	isP		01 16 39.6
Um	iP		01 15 39.0 C
	ipP		01 16 32.7
	iS		01 25 40
	isS		01 26 51
Ud	iP		01 15 32.1 C
	ipP		01 16 25.8
	i		01 16 43.2
	isP		01 16 48.8
	iPP		01 18 45.6
De	iP		01 15 39.1
	ipP		01 16 33.3

Mexico-Guatemala.
h = 220 km (Up,Ki,Sk,Um,Ud, De).
m = 5.8 (Up,Ki).

" 3	Ud	iP		04 33 22.6
		i		04 33 27.1
" 3	Ki	iP		06 18 34.0
	Ud	iP		06 18 25.9

South of Panama (h = N).

" 3	Ud	iP		07 17 30.1
" 3	Up	iP		08 17 53.6
	Ki	eP		08 17 05
	Um	iP		08 17 26.0
	Ud	iP		08 17 57.9

Kurile Islands (h = 70 km).

" 3	Ud	i(P)		08 36 37.1
" 3	Up	iPKPl		08 59 06.5
	Ud	iPKPl		08 59 06.4
" 3	Ud	iP		10 04 08.9

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

1975						
Feb.	3	Ki	iP		14 19 28.4	
		Um	iP		14 19 17.3	
		Ud	iP		14 19 38.8	
		Tadzhik-Sinkiang (h = N).				
"	3	Sk	iP		16 01 41.4	
		Ud	iP		16 01 42.4	
		Banda Sea (h = 340 km).				
"	3	Up	iP		16 19 54.9	
"	3	Up	iP		16 59 22.8	
		Ki	iP		16 59 07.2	C
		Um	iP		16 59 12.4	
		Ud	iP		16 59 31.0	
			i(PP)		17 03 26.2	
		De	iP		16 59 35.9	
		Banda Sea (h = 20 km).				
"	3	Sk	iP		23 29 09.5	
		Ud	iP		23 28 39.4	
		Dodecanese Islands.				
"	4	Ud	iP		01 20 03.2	
"	4	Up	iP		01 43 37.7	
					micr sec	
			P	Z'	0.1 1.0	
		Ki	iP		01 42 57.7	
		Um	iP		01 43 22.6	
		Ud	iP		01 43 29.5	
		Montana, USA (h = 8 km).				
"	4	Up	iPKPl		02 07 40.9	
		Ud	iPKPl		02 07 42.1	
		De	iPKPl		02 07 53.7	
"	4	Um	iPKPl		03 22 25.0	
		Ud	iPKPl		03 22 37.0	
"	4	Ud	iP		04 40 23.0	
"	4	Up	iP		06 36 02.4	C
			ipP		06 36 13.3	
					micr sec	
			P	Z'	0.1 1.1	
		Ki	iP		06 35 09.7	C
					micr sec	
			P	Z'	0.1 1.2	
		Um	iP		06 35 34.6	C
			ipP		06 35 45.8	
		Kamchatka.				
		h = 40 km (Up,Um).				
		m = 5.8 (Up,Ki).				

1975						
Feb.	4	Um	iPKP		09 30 14.8	
			iSKPl		09 32 55.5	
		Ud	iPKPl		09 30 21.9	
		De	iPKPl		09 30 33.1	D
		Fiji Islands (h = 620 km).				
"	4	Up	iP		09 49 24.9	
"	4	Up	iP		11 46 28.8	
			iPP		11 48 54	
			iS		11 54 56.7	
					micr sec	
			P	Z'	2.0 1.3	
			Mx	E	290 18	
			Mx	N	510 18	
			Mx	Z	240 18	
		Ki	iP		11 45 53.9	
			iS		11 53 50	
					micr sec	
			P	Z'	2.2 1.2	
			Mx	E	180 15	
			Mx	N	150 14	
			Mx	Z	290 16	
		Sk	iP		11 46 28.8	
		Um	iP		11 46 08.2	
			iPP		11 48 26	
			iS		11 54 16	
		Ud	iP		11 46 39.0	
		De	iP		11 46 52.6	
		NE China (h = N).				
		m = 7.1, M = 7.6 (Up,Ki).				
"	4	Um	iP		11 58 08.0	
		NE China (h = N).				
"	4	Ud	iP		13 11 15.4	
"	4	Up	iP		13 43 01.5	
		Ki	iP		13 42 28.5	
		Sk	iP		13 43 02.3	
		Um	i(P)		13 42 38.2	
			iP		13 42 41.9	
		Ud	iP		13 43 13.6	
			i		13 43 21.4	
		De	iP		13 43 27.3	
		NE China (h = N).				
"	4	Up	iP		13 50 35.4	
		Ki	iP		13 50 00.5	
		Um	iP		13 50 12.9	
		Ud	iP		13 50 46.6	
		NE China (h = N).				
"	4	Um	iP		14 06 49.5	
		NE China (h = N).				

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

1975 Feb.	4	Sk	iP	14 13 36.0	
		NE China (h = N).			
"	4	Ud	i(Sgl)	14 39 45.3	
"	4	Up	iP	14 43 07.9	
"	4	Ud	i(Sgl)	14 47 24.4	
"	4	Ud	iP	17 09 53.1	
		De	iP	17 10 15.0	
		Kamchatka.			
"	4	Up	iP	19 06 58.3	
		Ki	iP	19 06 18.8	
		Sk	iP	19 06 57.7	
		Um	iP	19 06 37.0	
		De	iP	19 07 22.0	
		NE China (h = N).			
"	4	Ud	iPKPl	19 23 40.6	D
"	4	Ud	i(Sgl)	19 48 28.5	
"	4	Up	iP	20 31 57.3	D
			ipP	20 32 44.5	
				micr sec	
			P Z'	0.2 1.5	
		Ki	iP	20 31 32.0	
				micr sec	
			P Z'	0.2 1.3	
		Sk	iP	20 32 05.0	
		Um	ipP	20 32 25.4	
		Ud	iP	20 32 06.6	D
			ipP	20 32 54.7	
		De	iP	20 32 18.0	
			ipP	20 33 04.2	
		Formosa.			
		h = 190 km (Up,Ud,De).			
		m = 5.7 (Up,Ki).			
"	4	Up	iSgl	21 39 56.2	
			iRg	21 40 00.2	
		Rockburst at the iron ore mines at Ramhäll, Sweden, 60.1°N, 18.0°E.			
		Origin time = 21 39 47.			
		Felt.			
"	4	Up	iPKPl	22 49 54.7	C
		Ud	iPKPl	22 49 57.4	C
"	5	Um	iP	02 32 15.3	
		Japan (h = 170 km).			

1975 Feb.	5	Ud	iP	03 03 10.8	
"	5	Up	iPKPl	04 21 36.6	D
		Sk	iPKPl	04 21 30.8	
		Um	iPKPl	04 21 26.0	
		Ud	iPKPl	04 21 38.0	D
		South of Kermadec Islands.			
"	5	Up	iP	05 51 16.3	
				micr sec	
			P Z'	0.1 0.9	
		Ki	iP	05 51 23.7	
		Sk	iP	05 51 41.1	
		Um	iP	05 51 13.5	
		Ud	iP	05 51 33.0	
			ipP	05 52 10.8	
		De	iP	05 51 29.8	
		Afghanistan-USSR.			
		h = 180 km (Ud).			
"	5	Up	iP	06 45 09.6	
		Ud	iP	06 45 18.2	
		Ryukyu Islands (h = N).			
"	5	Ud	iP	06 59 56.7	
"	5	Up	iPKP	07 06 21.9	
		Ki	iPKP	07 06 37.0	
				micr sec	
			PKP Z'	0.2 1.1	
		Sk	iPKP	07 06 24.3	
		Um	iPKP	07 06 30.0	
		Ud	iPKP	07 06 20.1	
		South Sandwich Islands (h = N).			
"	5	Um	iP	10 50 01.9	
		Ud	iP	10 50 27.5	
		South of Japan (h = 450 km).			
"	5	Ki	iP	16 04 51.6	
		Sk	iP	16 04 10.8	
"	5	Up	iP	18 38 14.7	
		Ki	iP	18 37 56.8	
		Ud	iP	18 38 24.8	
			ipP	18 38 37.8	
		Mindanao.			
		h = 50 km (Ud).			
"	5	Ud	iPKP	21 52 32.0	
"	5	Ud	iP	21 54 16.9	
		De	iP	21 54 30.3	
		NE China (h = N).			

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

1975 Feb.	5	Up	iP		23 54 09.9	C
					micr	sec
			P	Z'	0.1	1.1
		Ki	iP		23 53 17.2	C
					micr	sec
			P	Z'	0.1	0.8
		Um	iP		23 53 42.0	C
		Ud	iP		23 54 13.3	C
		De	iP		23 54 34.3	C
		Kamchatka (h = 30 km).				
		m = 6.0 (Up,Ki).				
"	6	Up	iP		04 35 16.3	
			i		04 35 22.3	
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	1.7	18
			Mx	N	2.8	16
		Ki	iP		04 34 41.4	
			i		04 34 46.5	
					micr	sec
			P	Z'	0.1	1.3
			Mx	E	2.7	17
			Mx	N	2.6	18
		Sk	iP		04 35 13.9	
			i		04 35 20.0	
		Um	iP		04 34 55.1	
			i		04 35 00.4	
		Ud	iP		04 35 26.9	
			i		04 35 32.2	
		De	iP		04 35 40.3	
			i		04 35 45.9	
		NE China (h = N).				
		m = 5.8, M = 5.6 (Up,Ki).				
		Double P, average				
		separation = 5.6 sec.				
"	6	Up	iP		06 49 23.9	D
		Ud	iP		06 49 38.6	D
		De	iP		06 49 39.4	
		Nepal (h = N).				
"	6	Ud	iP		09 39 36.3	
"	6	De	iPKPl		11 56 39.5	
			i		11 56 51.4	
		Tonga-Kermadec Islands				
		(h = N).				
"	6	Ki	iP		12 14 10.1	
		Um	iP		12 14 34.8	
		Ud	iP		12 15 24.9	

1975 Feb.	6	Ud	iPgl	15 13 07.4	
			iSgl	15 13 24.3	
"	6	Ud	iP	15 22 26.0	
"	6	De	iPKPl	15 59 45.5	
"	6	Um	iP	16 06 21.8	
		NE China (h = N).			
"	6	Sk	iP	17 01 09.8	
		Ud	iP	17 01 08.1	
		De	iP	17 01 07.1	
		Venezuela (h = N).			
"	6	Up	iP	17 38 57.8	
		Ud	iP	17 39 11.0	
"	6	Up	iSgl	17 44 25.5	
			iRg	17 44 29.4	
		Rockburst at the iron ore			
		mines at Ramhäll, Sweden,			
		60.1°N, 18.0°E.			
		Origin time = 17 44 16.			
		Felt.			
"	6	Up	iSgl	17 48 41.3	
			iRg	17 48 46.0	
		Rockburst at the iron ore			
		mines at Ramhäll, Sweden,			
		60.1°N, 18.0°E.			
		Origin time = 17 48 33.			
		Felt.			
"	6	Ki	iP	17 58 50.3	
			iS	18 00 15.8	
			iTPg	18 04 01.6	
			i	18 04 34.2	
		Sk	iP	17 59 28.8	
		Um	iP	17 59 35.5	
		Ud	iP	18 00 16.8	
			i	18 00 26.3	
			i	18 00 32.9	
		De	iP	18 01 06.2	
			i	18 01 15.9	
		Norwegian Sea (h = N).			
"	6	Ud	iP	21 14 38.1	
"	6	Up	iP	21 35 17.5	C
		Sk	iP	21 35 15.4	
		Ud	iP	21 35 30.9	C
		East of Lake Baikal (h = N).			

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

1975						
Feb.	6	Up	iP		21 38	37.8
					micr	sec
			P	Z'	0.1	1.2
"	7	Up	iP		01 17	04.5
"	7	Ud	iP		02 52	56.2
		Uzbekh SSR.				
"	7	Up	iPKP		05 10	25.7
					micr	sec
			Mx	E	9.0	24
			Mx	N	11	21
			Mx	Z	17	20
		Ki	iPKP		05 10	15.3
					micr	sec
			Mx	E	21	25
			Mx	N	18	24
			Mx	Z	23	25
		Sk	iPKP		05 10	24.1
			i		05 10	26.3
		Um	iPKP		05 10	18.4
		Ud	iPKP		05 10	28.9
		De	iPKP		05 10	31.9
			i		05 10	34.2
			i		05 10	36.7
		New Britain (h = N).				
		M = 6.7 (Up,Ki).				
"	7	Sk	iP		05 21	01.5
		Ud	iP		05 20	50.6
			i		05 20	56.2
"	7	Ud	iPgl		05 48	52.8
			iSgl		05 49	10.0
"	7	Up	iP		16 52	44.4
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		16 52	05.5
		Sk	iP		16 52	38.5
		Um	iP		16 52	22.2
			i		16 52	26.9
		Ud	iP		16 52	51.1
		De	eP		16 53	05
		Japan (h = 55 km).				
"	8	Um	iPKP		03 30	20.2
		Ud	iPKP		03 30	24.4
			i		03 30	29.3
		Tonga Islands (h = 170 km).				

1975						
Feb.	8	Up	iP		08 24	55.1
			iSn		08 27	37.4
		Ki	iP		08 26	21.4
			iSn		08 30	22.3
		Sk	iP		08 25	49.2
			iS		08 29	35.6
		Um	iP		08 25	36.9
			iSn		08 28	55.1
		Ud	iP		08 25	19.4
			iSn		08 28	03.5
		De	iP		08 24	28.7
		Rumania (h = 25 km).				
"	8	Up	iPKPl		11 44	26.5
		Ud	iPKPl		11 44	27.9
		De	iPKPl		11 44	37.8
"	8	Ud	iP		12 05	06.7
		Aleutian Islands (h = 55 km).				
"	8	Um	iP		12 48	18.2
		Kurile Islands (h = N).				
"	8	Ud	iPKPl		20 10	06.2
		De	iPKPl		20 10	16.7 C
"	8	Ki	iP		23 58	26.2
		Sk	iP		23 58	57.1
		Um	iP		23 58	53.9
		Ud	iP		23 59	19.8
		De	iP		23 59	42.0
		Aleutian Islands (h = N).				
"	9	Up	Mx		05 38	
					micr	sec
			Mx	E	0.9	16
			Mx	N	3.3	23
			Mx	Z	1.0	18
		Ki	Mx		05 39	
					micr	sec
			Mx	E	2.9	21
			Mx	N	2.3	18
			Mx	Z	1.7	17
		Java (h = 25 km).				
		M = 5.9 (Up,Ki).				
"	9	De	ePKPl		05 57	27
		Fiji Islands (h = 450 km).				
"	9	Up	iPKPl		07 28	05.1
			i		07 28	08.1
		(cont.)				

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

1975
Feb. 9 (cont.)

Up			micr	sec
	PKPl	Z'	0.1	1.0
Ki	ePKP		07 27 45	
Sk	iPKPl		07 27 56.9	
	i		07 28 13.6	
Um	iPKPl		07 27 52.0	
Ud	iPKPl		07 28 06.1	
	i		07 28 11.4	
De	iPKPl		07 28 13.2	
	i		07 28 24.4	

Kermadec Islands (h = 25 km).

" 9 Ud iP 07 37 14.6

" 9 Ki iP 09 23 02.9
Ud iP 09 23 58.5
Aleutian Islands (h = 45 km).

" 9 Ud i(P) 09 34 24.1

" 9 Ud iP 10 13 15.2

" 9 Um iP 10 36 12.4
Ud iP 10 36 13.6
Indian Ocean (h = N).

" 9 Up iP 11 12 06.4

			micr	sec
	P	Z'	0.1	1.1
	Mx	E	1.4	18
	Mx	N	1.7	19
	Mx	Z	2.7	20
Ki	iP		11 11 06.6	
	ipP		11 11 12.9	
			micr	sec
	pP	Z'	0.1	1.0
	Mx	E	1.6	17
	Mx	N	1.3	15
	Mx	Z	1.5	14
Sk	eP		11 11 48	
Um	iP		11 11 38.5	
	ipP		11 11 44.6	
	iS		11 20 00	
Ud	iP		11 12 08.1	
	ipP		11 12 14.2	
De	ipP		11 12 36.2	

Aleutian Islands.
h = 25 km (Ki,Um,Ud).
m = 5.9, M = 5.4 (Up,Ki).

" 9 Up iP 12 27 48.4
(cont.)

1975
Feb. 9 (cont.)

Um	iP		12 27 46.5	
Ud	iP		12 28 04.6	

Hindu Kush.
Intermediate depth.

" 9 Up iP 12 40 55.8

			micr	sec
	Mx	E	1.0	11
	Mx	N	1.0	12
	Mx	Z	1.1	12
Ki	iP		12 42 09.8	
			micr	sec
	Mx	E	1.4	14
Sk	eP		12 41 37	
Ud	iP		12 41 03.9	
De	iP		12 40 30.6	

Aegean Sea (h = 30 km).
M = 4.6 (Up,Ki).

" 9 Ud iP 12 42 54.3
Aegean Sea.

" 9 Up iP 14 44 21.4

			micr	sec
	P	Z'	0.1	1.2
Ki	iP		14 44 48.4	
Sk	iP		14 44 47.7	
Um	iP		14 44 32.3	
	i		14 44 38.8	
Ud	iP		14 44 33.3 C	

Indian Ocean (h = N).

" 9 Up iP 15 34 46.4
Um iP 15 34 57.3
Ud iP 15 34 59.8
Indian Ocean (h = N).

" 9 Um iP 17 54 26.2
iPP 17 56 15.7
Ud iP 17 54 44.6
ipP 17 55 27.3
De eP 17 54 41
Hindu Kush.
h = 210 km (Ud).

" 9 Ud iP 18 51 47.2

" 9 Ud iP 18 55 01.5

" 9 Ud iP 18 57 02.0

" 9 Um ePP 20 08 20
(cont.)

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

1975
Feb. 9 (cont.)

Um	i	20 08 25.1	
Ud	i	20 08 26.8	

Banda Sea (h = N).

" 9	Up	iP	21 53 01.4
	Ud	iP	21 53 17.2

Hindu Kush (h = 240 km).

" 9	Up	iP	23 36 42.1
	Ki	iP	23 36 28.2
	Um	i(P)	23 36 25.8
		iP	23 36 29.6
	Ud	iP	23 36 54.6

China-India (h = N).
Late arrivals compared to the NEIS solution.

" 10	Um	iP	00 09 43.4

Aleutian Islands (h = 45 km).

" 10	Ud	i(P)	00 30 14.2
" 10	Ud	iP	02 29 48.1
" 10	Um	iPKPl	04 48 20.9
" 10	Ud	iP	05 02 22.1

Aleutian Islands (h = N).

" 10	Ud	iP	06 24 34.4
" 10	Up	iP	10 15 44.1
	Ki	iP	10 14 48.1
	Um	iP	10 15 17.7
	Ud	iP	10 15 40.1
	De	iP	10 16 05.1

Alaska (h = N).
Late arrivals compared to the NEIS solution.

" 10	Um	iP	10 34 01.1

South of Japan (h = N).

" 10	Ud	iP	10 39 28.6
" 10	Ki	iPgl	13 11 51.5
		iSn	13 12 14.2
		iSgl	13 12 16.3
			micr sec
		Sgl Z'	0.1 0.8
	Sk	iSgl	13 14 01.8
	Um	iSgl	13 14 02.0

(cont.)

1975
Feb. 10 (cont.)

North Norway,
68.7°N, 16.0°E.
Origin time = 13 11 18.
m = 4.0, M_L = 2.1 (Ki,Sk,Um).

" 10	Ki	iP	15 44 28.6
" 10	Up	iPKPl	15 49 56.7
	Ud	iPKPl	15 49 58.7
" 10	Ki	iP	19 10 29.2

Banda Sea (h = N).

" 10	Up	eP	19 16 27	
			micr	sec
		Mx E	0.8	16
		Mx N	1.3	15
		Mx Z	1.2	18
	Ki	iP	19 16 54.0	D
			micr	sec
		P Z'	0.1	1.0
		Mx E	1.2	21
		Mx N	0.7	15
		Mx Z	0.7	15
	Sk	iP	19 16 14.6	
	Um	iP	19 16 44.8	D
	Ud	iP	19 16 10.6	
		i	19 16 52.1	

North Atlantic Ocean (h = N).
M = 4.8 (Up,Ki).

" 10	Um	iP	19 56 07.0
	Ud	iP	19 56 08.6

Indian Ocean (h = N).

" 10	Um	iP	20 03 54.6
	Ud	iP	20 03 37.0
	De	eP	20 03 04

Turkey (h = N).

" 10	Up	iP	20 31 36.9	
			micr	sec
		P Z'	0.1	1.1
		Mx E	0.7	15
		Mx N	0.7	15
		Mx Z	1.1	16
	Ki	iP	20 31 04.1	
			micr	sec
		Mx E	0.7	13
		Mx N	0.6	14
		Mx Z	0.7	13
	Um	iP	20 31 19.2	D

(cont.)

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

1975
Feb. 10 (cont.)

Ud	iP	20 31 46.3	D
De	iP	20 31 58.5	

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

"	10	Ki	iP	21 24 46.7
		Sk	iP	21 24 46.2
		Um	iP	21 24 30.7 C
		Ud	iP	21 24 31.8 C
		De	iP	21 24 25.4

Indian Ocean (h = N).

"	11	Um	iP	03 54 08.7
		Ud	iP	03 54 25.8

Hindu Kush (h = 160 km).

"	11	Um	iP	04 48 27.7
		Ud	iP	04 48 33.9
"	11	Ud	iPKP1	05 33 07.1
"	11	Ud	iP	06 50 27.7

Kashmir-Tibet (h = N).

"	11	Ki	iPKP1	08 25 24.0
		Um	iPKP1	08 25 32.0

New Zealand (h = 160 km).

"	11	Ud	iP	09 44 35.9
"	11	Um	iP	10 37 39.8
			i	10 37 49.8

Japan (h = 90 km).

"	11	Up	iP	11 29 21.7
		Ud	iP	11 29 29.8
		De	iP	11 29 52.3

NE Siberia.

"	11	Up	iP	14 41 24.4	D
		Ki	iP	14 40 29.6	
		Sk	iP	14 40 59.3	D
		Um	iP	14 40 58.0	D
		Ud	iP	14 41 22.6	D
		De	iP	14 41 45.4	

Alaska Peninsula (h = 20 km).

"	11	Ud	iPKP1	19 09 26.5
			i	19 09 28.5
		De	iPKP1	19 09 37.5
			i	19 09 39.0

1975
Feb. 11

Up	iP			20 38 04.9	
				micr	sec
	P		Z'	0.1	1.3
	Mx		E	0.7	12
	Mx		N	1.0	14
	Mx		Z	1.5	16
Ki	iP			20 38 07.3	
				micr	sec
	P		Z'	0.1	0.8
	Mx		E	0.7	9
	Mx		N	1.2	12
	Mx		Z	0.6	9
Sk	iP			20 38 28.1	
Um	iP			20 38 00.7	
	i			20 38 50.2	
Ud	iP			20 38 21.1	
De	iP			20 38 20.7	
	iPP			20 40 06.9	

Sinkiang, China (h = N).
m = 5.5, M = 5.1 (Up,Ki).

"	11	Ud	iP	20 52 43.9
"	11	Ud	iP	22 09 41.9
			ePP	22 11 46
		De	iP	22 09 36.0

Bolivia (h = 560 km).

"	11	Up	iP	22 11 58.9	
			i	22 19 32.5	
				micr	sec
			P	Z' 0.1	1.2
			Mx	E 0.5	10
			Mx	N 0.7	14
			Mx	Z 1.0	11
		Ki	iP	22 11 58.1	
				micr	sec
			P	Z' 0.1	1.0
			Mx	N 0.6	10
		Sk	iP	22 12 19.3	
		Um	iP	22 11 54.1	
			iPP	22 13 22.4	
		Ud	iP	22 12 13.1	
			iPP	22 13 47.9	
		De	iP	22 12 12.3	
			iPP	22 13 49.6	

Sinkiang, China (h = N).
m = 5.5, M = 4.9 (Up,Ki).

"	11	Up	iP	22 26 05.0	
				micr	sec
			P	Z' 0.1	1.3

(cont.)

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

1975
Feb. 11 (cont.)

	Um	iP		22 25 36.0
	Ud	iP		22 26 13.6
" 11	Ud	iP		23 04 13.3
" 12	Up	iPKP		02 58 51.8
	Ki	iPKP		02 59 07.3
	Um	iPKP		02 59 00.0
	Ud	iPKP		02 58 50.3
	South Sandwich Islands.			
" 12	Up	iPKPl		03 38 09.5
	Ud	iPKPl		03 38 13.0
" 12	Ud	iP		04 03 59.2
" 12	Um	iP		08 57 16.0
	Ud	iP		08 57 50.5
" 12	Ud	iP		09 56 15.6
	South of Japan (h = 450 km).			
" 12	Um	iP		10 15 32.1
	Panama (h = 25 km).			
" 12	Ud	i(P)		12 25 30.7
" 12	Ki	iP		12 52 34.1
	Sk	iP		12 53 09.0
	Um	iP		12 52 47.7
	Ud	eP		12 53 20
	NE China (h = N).			
" 12	Ud	i(Sgl)		13 30 24.0
" 12	Ud	iP		13 38 24.8
" 12	Up	iP		13 42 27.8
		i		13 42 29.5
		iPP		13 43 55.7
		iLgl		13 55 47.0
				micr sec
		P	Z'	0.2 1.1
		Mx	E	2.2 8
		Mx	N	1.3 7
		Mx	Z	4.8 8
	Ki	iP		13 42 20.0
		i		13 42 22.2
		iPP		13 43 51.1
				micr sec
		P	Z'	0.2 1.0

(cont.)

1975
Feb. 12 (cont.)

	Ki			micr sec
		Mx	E	2.3 9
		Mx	N	1.0 8
		Mx	Z	2.2 9
	Sk	iP		13 42 46.8
		i		13 42 48.6
	Um	iP		13 42 17.7
		i		13 42 19.7
		iLgl		13 55 18.1
	Ud	iP		13 42 44.4 C
		i		13 42 46.2
	De	iP		13 42 46.8
		i		13 42 48.8
	Alma-Ata (h = N).			
	m = 5.7, M = 5.6 (Up,Ki).			
	Double P, smaller and larger, average separation = 1.9 sec.			
" 12	Ud	i(P)		23 00 05.0
" 13	Ud	iP		01 03 41.8
" 13	Up	iPKP		01 20 32.0
	Ki	iPKP		01 20 21.0
	Um	iPKP		01 20 27.5
	Ud	iPKP		01 20 35.3
	De	iPKP		01 20 40.5 C
	Solomon Islands (h = 490 km).			
" 13	Um	iPKPl		02 43 43.8
" 13	Ki	iP		03 28 48.6
	Ud	iP		03 29 01.7
	Sinkiang, China (h = N).			
" 13	Ud	iPKPl		10 56 43.4
	De	iPKPl		10 56 54.0
" 13	Ud	i(P)		13 15 18.6
" 13	Ud	i(P)		13 59 29.9
" 13	Ud	i(P)		14 17 02.5
" 13	Ud	i(P)		14 21 30.2
	De	i(P)		14 21 17.3
" 13	De	i(P)		14 23 28.4
		i		14 23 29.9
" 13	Up	iPKPl		17 26 53.5

(cont.)

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

1975
Feb. 13 (cont.)

Ud	iPKPl	17 26 55.6
De	iPKPl	17 27 05.4

Tonga-Kermadec Islands
(h = 510 km).

" 13	Um	iP	17 37 14.5
	Ud	iP	17 37 35.6
" 14	Ud	i(P)	01 34 33.2
" 14	Um	iP	07 16 29.3
" 14	Um	iP	08 04 23.7
" 14	Um	iP	08 47 09.2
" 14	Ud	iP	10 05 05.4
		i	10 05 11.1
" 14	Sk	iP	11 30 37.8
	Um	iP	11 30 37.4
	Ud	iP	11 30 00.7
	De	iP	11 29 21.7

Albania (h = 35 km).

" 14	Sk	iP	11 36 40.8
	Ud	iP	11 36 50.5
		i	11 36 55.5
" 14	Ud	iP	11 48 53.6
" 14	Up	iSgl	13 26 38.3
	Sk	i	13 26 19.9
		iSgl	13 26 37.9
	Um	iSgl	13 27 59.2
	Ud	iSgl	13 25 38.7
	De	eSn	13 25 30

South Norway,
58.4°N, 6.8°E.
Origin time = 13 23 36.
By combination with Bergen and Kongsberg readings.
m = 4.2, M_L = 2.6 (Up,Sk, Um,Ud).

" 14	Um	iP	20 27 02.6
" 14	Up	iP	21 05 53.1
	Ki	iP	21 05 48.7
" 14	Um	iP	22 37 10.5

1975
Feb. 14

Ud	i(P)		23 23 31.2
" 15	Sk	iP	00 09 20.6
		ipP	00 09 54.7
	Um	iP	00 09 35.9
		ipP	00 10 11.5
	Ud	iP	00 09 20.3
		ipP	00 09 56.1

Nicaragua.
h = 140 km (Sk,Um,Ud).

" 15	Um	i(P)	00 25 42.6
" 15	Sk	i(P)	01 24 20.0
	Um	i(P)	01 24 04.1
" 15	Um	iP	01 36 18.0
" 15	Up	iP	06 28 25.7
		ipP	06 28 33.3
			micr sec
		P Z'	0.2 1.5
		pP Z'	0.1 1.3
	Ki	iP	06 29 02.4
		ipP	06 29 10.2
			micr sec
		pP Z'	0.1 1.5
	Sk	iP	06 28 49.3
		ipP	06 28 59.3
	Um	iP	06 28 42.3
		ipP	06 28 51.2
	Ud	iP	06 28 31.1
		ipP	06 28 39.3
	De	eP	06 28 17

Mozambique Channel.
h = 30 km (Up,Ki,Sk,Um,Ud).
m = 5.9 (Up,Ki).

" 15	Um	iP	07 24 57.2
" 15	Up	iP	08 02 12.2
	Ud	iP	08 02 11.7
	De	eP	08 02 34

Aleutian Islands (h = 50 km).

" 15	Up	iP	08 33 32.2 C
	Ki	iP	08 33 12.9 C
	Um	iP	08 33 20.3
	Ud	iP	08 33 39.7 C

Samar (h = 70 km).

" 15	Up	iP	10 28 39.0
		i	10 28 52.1

(cont.)

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

1975
Feb. 15 (cont.)

Up	iPP		10 29 07.5		
			micr	sec	
	Mx	E	0.7	15	
	Mx	N	1.0	11	
	Mx	Z	0.8	10	
Ki	iP		10 29 45.9		C
			micr	sec	
	Mx	E	0.5	11	
Sk	iP		10 29 19.0		
Um	iP		10 29 11.7		
Ud	iP		10 28 47.5		C
De	iP		10 28 15.0		

Dodecanese Islands (h = 30 km).
M = 4.6 (Up,Ki).

" 15 Ud i(P) 11 02 19.8

" 15 Ud i(P) 11 17 48.3

" 15 Ud i(P) 12 02 58.0

" 15 Up iP 13 18 30.1

			micr	sec
	P	Z'	0.2	1.5
	Mx	E	1.0	18
	Mx	N	1.4	13
	Mx	Z	1.9	13
Ki	iP		13 17 53.2	
			micr	sec
	P	Z'	0.2	1.7
	Mx	E	1.2	10
	Mx	N	1.0	12
	Mx	Z	1.5	14
Sk	iP		13 18 28.4	
Um	iP		13 18 07.4	
Ud	iP		13 18 39.1	

NE China (h = N).
m = 6.0, M = 5.4 (Up,Ki).

" 15 Um i(P) 14 14 29.4

" 15 Um i(P) 14 31 24.4

" 15 Up iP 18 26 55.1

" 15 Ki iP 20 15 14.2
ipP 20 15 26.2
Um iP 20 15 40.7
ipP 20 15 53.1
Ud iP 20 16 06.4
ipP 20 16 18.7
Aleutian Islands.
h = 45 km (Ki,Um,Ud).

1975
Feb. 15 Ki iP 22 16 20.9
Um iP 22 15 57.3
i 22 16 00.9
Ud iP 22 15 47.3
De iP 22 15 31.6
Mozambique Channel (h = N).

" 16 Up iP 05 13 26.3
Ki iP 05 13 02.9 C
iPKP 05 17 06.7

			micr	sec
	P	Z'	0.1	1.0

Um iP 05 13 12.5
iPKP 05 17 09.5
iPP 05 17 53.8
Ud iP 05 13 33.7
De iPKP 05 17 22.7
iPP 05 18 41.2
New Guinea (h = 170 km).

" 16 Ud iP 10 04 46.9

" 16 Ki iP 10 39 20.4
Ud iP 10 40 35.6

" 16 Ud iP 10 46 29.0

" 16 Up i 11 07 09.0
iSgl 11 07 24.3

" 16 Ud i(Sgl) 11 14 58.8

" 16 Ud i(P) 11 34 42.4

" 16 Up iP 14 11 45.7

			micr	sec
	Mx	E	1.1	15
	Mx	N	1.5	17
	Mx	Z	2.0	15
Ki	iP		14 11 08.8	
			micr	sec
	P	Z'	0.2	1.5
	Mx	E	1.0	14
	Mx	N	1.3	17
	Mx	Z	1.4	15
Sk	iP		14 11 44.4	
Um	iP		14 11 22.9	
	i		14 11 24.5	
Ud	iP		14 11 54.2	
	i		14 11 55.4	
De	iP		14 12 08.0	

NE China (h = N).
M = 5.4 (Up,Ki).

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

1975 Feb.	16	Ud	iPKPl		20 45 31.4	C
"	17	Ud	iP		01 10 10.8	
"	17	Ud	iP		01 33 50.7	
"	17	Ki	iP		01 55 23.1	
		Ud	iP		01 55 48.8	
"	17	Up	iP		03 49 32.5	
			iS		03 58 49	
					micr sec	
			P	Z'	0.5 1.6	
			Mx	E	1.9 17	
			Mx	N	6.7 22	
			Mx	Z	4.6 21	
		Ki	iP		03 49 27.2	
			i		03 49 29.1	
			iS		03 58 35	
					micr sec	
			P	Z'	0.9 1.9	
			Mx	E	3.1 13	
			Mx	N	5.8 18	
			Mx	Z	3.0 15	
		Sk	iP		03 49 47.8	
		Um	iP		03 49 25.7	
			i		03 49 27.1	
			iS		03 58 33	
		Ud	iP		03 49 46.3	
			i		03 49 47.7	
		De	iP		03 49 46.2	
			i		03 49 48.6	
		Burma (h = 6 km).				
		m = 6.6, M = 6.0 (Up,Ki).				
		Double P, average				
		separation = 1.8 sec.				
		Unusually long periods				
		(1.6-2.0 sec) of PZ'.				
"	17	Up	iP		06 16 59.2	
					micr sec	
			P	Z'	0.1 1.0	
		Ki	iP		06 16 14.7	
		Um	iP		06 16 35.0	
		Ud	iP		06 17 05.8	
			ipP		06 17 22.3	
		Japan.				
		h = 60 km (Ud).				
"	17	Um	iPKPl		06 31 16.5	
"	17	Ki	iP		08 18 02.6	
		(cont.)				

1975 Feb.	17	(cont.)		
		Um	iP	08 17 51.8
		Ud	iP	08 18 08.4
		Hindu Kush (h = 200 km).		
"	18	Ki	iP	03 58 08.9
		Ud	iP	03 58 18.5
"	18	Um	iP	07 27 07.2
"	18	Sk	iP	10 37 11.4
		Um	iP	10 37 25.7
		South of Panama (h = 20 km).		
"	18	Um	iPKPl	14 29 03.1
			i	14 29 07.0
		Ud	iPKPl	14 29 14.8
"	18	Ki	iP	15 23 41.5
		Ud	iP	15 24 07.1
		Mindanao (h = 60 km).		
"	19	Um	ePKPl	02 12 11
"	19	Up	iP	07 39 49.9
		Ki	iP	07 38 54.6
		Ud	iP	07 39 51.1
		Aleutian Islands (h = 55 km).		
"	19	Ud	eP	09 27 32
		Indian Ocean.		
"	19	Ki	iP	09 38 39.9
		Um	iP	09 38 51.0
		Ud	iP	09 39 15.2
		Mariana Islands (h = N).		
"	19	Up	iPKP	09 58 03.4
		Ki	iPKP	09 58 19.2
		Um	iPKP	09 58 11.7
		Ud	iPKP	09 58 01.6
		South Sandwich Islands		
		(h = 55 km).		
"	19	Up	iP	20 33 15.8 C
		Um	iP	20 33 04.2 C
		Ud	iP	20 33 23.9 C
		Samar (h = 110 km).		
"	20	Sk	iP	03 36 05.8
		Um	iP	03 36 20.0
		Ud	iP	03 36 13.2
		Guatemala (h = 140 km).		

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

1976

Feb.	20	Up	iP	04 14 02.8	
		Ki	iP	04 13 28.8	
		Um	iP	04 13 44.4	
			iPcP	04 14 09.6	
			ipP	04 15 25.9	
		Ud	iP	04 14 11.0	
		De	iP	04 14 23.6	
		South of Japan.			
		h = 470 km (Um).			
"	20	Up	iP	05 39 52.6	C
			iPn	05 40 59.8	
			iPP	05 41 11.1	
				micr sec	
			P Z'	0.2 0.9	
			PP Z'	0.2 1.0	
		Ki	iP	05 39 37.0	C
			iPn	05 40 37.4	
			iPP	05 40 51.1	
				micr sec	
			P Z'	0.2 0.9	
			PP Z'	0.2 1.0	
		Sk	iP	05 40 08.4	C
			iPP	05 41 30.8	
		Um	iP	05 39 37.7	C
		Ud	iP	05 40 09.0	C
			iPn	05 41 22.2	
			iPP	05 41 33.9	
		De	iP	05 40 16.0	C
			iPP	05 41 43.5	
		Kazakh SSR.			
		m = 6.0 (Up,Ki).			
		Underground explosion.			
"	20	De	i(P)	08 48 29.5	
"	20	Up	iP	14 00 25.1	
				micr sec	
			P Z'	0.1 0.8	
		Sk	iP	14 01 05.8	
		Um	iP	14 01 05.3	
		Ud	iP	14 00 32.0	
			i	14 00 36.4	
		De	iP	13 59 54.4	
		Greece (h = 4 km).			
"	20	Up	iP	14 49 40.4	
				micr sec	
			P Z'	0.1 1.2	
		Ki	iP	14 50 21.1	C
			i	14 51 05.2	
		Sk	iP	14 50 17.3	C
		Um	iP	14 49 54.1	C
		(cont.)			

1975

Feb.	20	(cont.)			
		Um	iSn	14 55 20.1	
		Ud	iP	14 49 57.2	C
			i	14 50 06.5	
		De	iP	14 49 39.6	
		Caucasus (h = N).			
"	20	Up	iP	18 36 02.7	
		Ki	iP	18 36 09.7	
		Um	iP	18 35 59.9	
		Ud	iP	18 36 19.7	
		Afghanistan-USSR (h = 180 km).			
"	20	Um	iPKPl	18 57 03.4	
		Ud	iPKPl	18 57 15.8	
"	20	Ud	iP	19 06 42.6	
		De	eP	19 06 09	
		Crete.			
"	20	Um	iPKPl	19 33 15.3	C
		Ud	iPKPl	19 33 25.9	
"	20	Up	iP	19 57 18.8	
		Um	iP	19 56 56.8	
			ipP	19 57 11.4	
		Ud	iP	19 57 24.5	
		Japan.			
		h = 55 km (Um).			
"	20	Um	iP	20 57 50.3	
"	20	Ud	i(P)	21 17 19.2	
"	20	Up	iPKPl	22 31 53.3	
		Ud	iPKPl	22 31 54.9	
			i	22 32 03.6	
"	21	Ud	iP	01 37 27.0	
		Aleutian Islands (h = 50 km).			
"	21	Um	iP	02 27 06.1	
"	21	Ki	iP	06 02 14.8	C
		Ud	iP	06 03 12.2	
			iPcP	06 03 48.1	
		Kamchatka (h = 110 km).			
"	21	Ud	iP	08 30 49.2	
"	21	Ud	iP	14 38 44.9	
"	21	Ud	iP	21 08 44.6	
		Pakistan.			

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

1975 Feb.	22	Up	iP		01 00 10.3	
		Ki	iP		00 59 56.6	
		Sk	iP		00 59 52.2	
		Um	iP		01 00 02.2	
			i		01 00 15.3	
		Ud	iP		00 59 55.1	
		De	iP		01 00 10.0	
		Mexico (h = 40 km).				
"	22	Up	iP		05 11 35.0	
			iPP		05 13 08.8	
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		05 11 25.2	
		Sk	iP		05 11 52.4	
		Um	iP		05 11 24.1	C
		Ud	iP		05 11 52.0	C
		De	iP		05 11 56.6	
		Sinkiang, China (h = N).				
"	22	Ki	eP		05 48 54	
		Um	iP		05 48 57.7	
		Ud	iP		05 49 16.0	
		Leyte (h = 45 km).				
"	22	Up	iP		08 47 03.5	C
			iS		08 55 55	
			iP'P'		09 15 15.7	
					micr	sec
			P	Z'	2.8	1.0
			Mx	E	32	22
			Mx	N	46	21
			Mx	Z	47	19
		Ki	iP		08 46 10.7	C
			iS		08 54 21	
					micr	sec
			P	Z'	1.2	0.9
			Mx	E	36	18
			Mx	N	42	17
			Mx	Z	29	17
		Sk	iP		08 46 43.1	C
		Um	iP		08 46 36.6	C
			iP'P'		09 15 22.6	
		Ud	iP		08 47 04.8	C
			iP'P'		09 15 18.6	
		De	iP		08 47 26.4	C
			iPP		08 50 10.8	
		Aleutian Islands (h = 50 km).				
		m = 7.1, M = 6.8 (Up,Ki).				
"	22	Up	iP		09 08 02.4	
		Ud	iP		09 08 01.3	

1975 Feb.	22	Up	iPKPl		10 06 59.6	
		Ud	iPKPl		10 07 02.8	
		De	iPKPl		10 07 12.9	
"	22	Up	iP		10 31 07.5	
		Ud	iP		10 31 07.6	
		Aleutian Islands (h = 50 km).				
"	22	Ud	iP		10 31 50.8	
		Japan (h = 40 km).				
"	22	Up	iP		15 38 01.3	C
			i		15 38 17.2	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		15 37 17.9	
					micr	sec
			P	Z'	0.1	1.0
		Um	iP		15 37 36.6	
		Ud	iP		15 38 08.2	C
		De	eP		15 38 25	
		Japan (h = 20 km).				
		m = 6.0 (Up,Ki).				
"	22	Up	iP		16 38 18.2	
			ipP		16 38 29.6	
		Ud	iP		16 38 18.7	
			ipP		16 38 29.8	
		Aleutian Islands.				
		h = 40 km (Up,Ud).				
"	22	Up	iP		20 09 07.2	
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		20 08 15.3	
		Ud	iP		20 09 07.6	
		De	iP		20 09 29.6	
		Aleutian Islands (h = 45 km).				
"	22	Ud	iP		22 07 53.6	
		Banda Sea (h = N).				
"	22	Up	iPKPl		22 23 24.0	D
			ipPKPl		22 25 08.4	
			iSKPl		22 26 38.9	
					micr	sec
			PKPl	Z'	2.8	1.0
			SKPl	Z'	0.3	1.8
			Mx	E	4.9	23
			Mx	N	5.2	28
			Mx	Z	4.0	24
		Ki	i(PKP)		22 23 02.5	
			i		22 23 07.3	

(cont.)

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

1975
Feb. 22 (cont.)

Ki	iPKP		22 23 13.5	
	iSKPl		22 26 11.0	
			micr	sec
	PKP	Z'	0.3	1.0
	SKPl	Z'	1.6	1.5
Sk	i(PKP)		22 23 17.7	
	iPKPl		22 23 26.6	
	iSKPl		22 26 25.5	
Um	e(PKP)		22 23 09	
	iPKP		22 23 13.8	
	iSKPl		22 26 20.8	
Ud	iPKPl		22 23 26.3	D
	ipPKPl		22 25 02.9	
	iSKPl		22 26 33.8	
De	iPKP		22 23 33.7	
	iPKPl		22 23 37.2	
	ipPKPl		22 25 09.5	

Tonga-Kermadec Islands.
h = 410 km (Up,Ud,De).

" 22

Up	iP		22 58 40.3	C
			micr	sec
	P	Z'	0.2	1.1
Ki	iP		22 57 47.5	C
Um	iP		22 58 13.3	
	ipP		22 58 28.4	
Ud	iP		22 58 41.4	
De	iP		22 59 03.2	

Aleutian Islands.
h = 55 km (Um).

" 22

Up	iPKPl		23 12 23.4	
Ud	iPKPl		23 12 25.8	
De	iPKPl		23 12 39.0	

" 23

Up	iP		01 27 10.7	C
			micr	sec
	P	Z'	0.1	0.9
Ud	iP		01 27 10.5	
De	iP		01 27 33.4	C

Aleutian Islands (h = 55 km).

" 23

Up	iPKPl		03 05 05.1	D
	i		03 05 09.6	
			micr	sec
	PKPl	Z'	0.2	1.1
Ki	iPKP		03 04 54.7	
Um	iPKP		03 04 53.5	
	i		03 05 05.5	
	iSKPl		03 08 03.4	

(cont.)

1975
Feb. 23 (cont.)

Ud	iPKPl		03 05 07.8	D
	i		03 05 12.1	
De	iPKPl		03 05 18.2	D
	i		03 05 21.8	

Tonga-Kermadec Islands
(h = 380 km).
Double PKPl, average
separation = 4.1 sec.

" 23

Up	iP		03 10 41.5	
	i		03 12 26.5	
			micr	sec
	P	Z'	0.2	0.9
Ki	iP		03 10 24.4	
	i		03 10 25.4	
			micr	sec
	P	Z'	0.4	1.0
Sk	iP		03 10 45.9	
Um	iP		03 10 30.0	
	i		03 10 30.7	
Ud	iP		03 10 49.3	
	i		03 10 50.3	
De	iP		03 10 55.4	

Mindanao (h = 620 km).
m = 6.2 (Up,Ki).
Large P preceded by smaller
P, 0.9 sec in advance in
average (Ki,Um,Ud).

" 23

Up	iPKPl		03 56 37.9	
Ud	iPKPl		03 56 39.9	
De	iPKPl		03 56 50.2	

" 23

Up	i(PP)		04 12 11.2	

Chile (h = N).

" 23

Up	iP		05 20 39.3	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		05 19 47.2	
Sk	eP		05 20 19	
Um	iP		05 20 12.3	
Ud	iP		05 20 40.8	
De	iP		05 21 02.6	

Aleutian Islands (h = 50 km).

" 23

Um	iPKP		07 53 03.2	
Ud	ePKP		07 53 12	

Santa Cruz Islands (h = N).

" 23

Ud	iP		12 37 34.0	

(cont.)

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

1975
Feb. 23 (cont.)

De	eP		12 37 30

Hindu Kush.
Intermediate depth.

" 24

Um	iP		02 34 00.7
Ud	eP		02 34 31

Japan (h = 30 km).

" 24

Up	eSn		03 15 06
	iS*		03 15 36.8
	iSgl		03 15 41.5
	i		03 15 47.0
Ki	iPn		03 13 02.7
	iPgl		03 13 11.2
	iSn		03 13 40.8
	iSgl		03 13 55.9
			micr sec
	Sgl	Z'	0.1 0.7
Sk	iPgl		03 13 00.2
	iSgl		03 13 36.2
Um	iPn		03 13 09.7
	iPgl		03 13 20.0
	i		03 13 29.5
	iSn		03 13 53.3
	iSgl		03 14 12.7
Ud	iSn		03 14 51.5
	iS*		03 15 19.7
	iSgl		03 15 25.2
De	iSgl		03 17 21.5

Nordland, Norway,
66.3°N, 12.7°E.
Origin time = 03 12 11.
m = 4.4, M_L = 2.9 (Up,Ki,Sk, Um,Ud,De).

" 24

Ud	eP		04 20 44

" 24

Ud	iP		06 39 33.2

Aleutian Islands (h = 60 km).

" 24

Up	iP		09 09 24.2
			micr sec
	P	Z'	0.1 1.3
Um	iP		09 09 07.6
Ud	iP		09 09 33.8
De	eP		09 09 42

Ryukyu Islands (h = 80 km).

" 24

Up	iP		10 20 22.5
	ipP		10 20 39.4

(cont.)

1975
Feb. 24 (cont.)

Um	iP		10 19 57.2 C
	ipP		10 20 13.8
Ud	iP		10 20 29.1 C

Japan.
h = 60 km (Up,Um).

" 24

Ud	i(P)		14 17 13.1

" 24

Up	iP		20 31 03.4
Um	iP		20 30 36.2
Ud	iP		20 31 04.0

Aleutian Islands (h = 60 km).

" 24

Ud	iPKPl		20 53 16.7

" 24

Um	iP		21 02 04.7

" 24

Ud	eP		22 32 18

Aegean Sea (h = N).

" 25

Up	iP		02 42 36.8
Um	iP		02 42 15.2
Ud	iP		02 42 44.3

South of Japan.

" 25

Up	iP		02 46 16.7
Sk	eP		02 47 10
Um	iP		02 46 53.7
Ud	iP		02 46 33.4 C
De	iP		02 45 56.2

Rumania (h = 150 km).

" 25

Ud	iPKP		05 38 51.0

New Britain (h = N).

" 25

Up	iP		06 35 35.9
Ki	iP		06 35 41.3
			micr sec
	P	Z'	0.1 0.8
Sk	iP		06 36 01.0
Um	iP		06 35 27.6
	i		06 35 35.6
Ud	iP		06 35 49.3
De	iP		06 35 49.7

Tadzhik-Sinkiang (h = N).

" 25

Um	eP		10 12 14
Ud	iP		10 12 30.3

Pamir.

" 25

Ud	i(P)		11 21 10.7

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

1975
Feb. 25 Ki iPgl 13 16 23.1
iSgl 13 16 54.9
Um iSgl 13 18 49.5
Norway-Finland,
69.6°N, 25.4°E.
Origin time = 13 15 40.
By combination with Finnish
station readings.
m = 4.0, M_L = 2.1 (Ki,Um).

" 25 Up iSgl 13 28 35.7
Ud iSgl 13 27 35.1
Off coast of south Norway,
58.0°N, 6.3°E.
Origin time = 13 25 22.
By combination with Bergen
and Kongsberg readings.
m = 4.2, M_L = 2.5 (Ud).

" 25 Ud iP 15 32 16.4

" 25 Up iP 21 20 13.8
Ki iP 21 19 38.8
micr sec
P Z' 0.1 1.1
Sk iP 21 20 14.0
Um iP 21 19 51.2
i 21 19 53.2
Ud iP 21 20 24.7
De iP 21 20 38.3
NE China (h = N).

" 25 Up iP 22 13 48.0
Sk eP 22 13 45
Um iP 22 13 28.1 C
Ud iP 22 13 56.4
De eP 22 14 09
Japan (h = 70 km).

" 25 Up iP 23 06 54.7
Ki iP 23 06 04.2
Sk eP 23 06 41
Um iP 23 06 27.9
Ud iP 23 06 59.9
De iP 23 07 20.0
Okhotsk Sea (h = 430 km).

" 26 Um iP 00 06 31.8
Ud iP 00 07 04.9

" 26 Up iP 04 54 59.6
i 04 55 05.4
(cont.)

1975
Feb. 26 (cont.)
Up micr sec
P Z' 0.1 1.0
Mx E 2.7 9
Mx N 4.9 14
Mx Z 6.0 15
Ki iP 04 53 42.7
i1 04 53 49.9
i2 04 54 47.3
iS 04 57 48
micr sec
P Z' 0.2 1.2
i1 Z' 13 3.7
Mx E 5.8 9
Mx N 5.9 10
Mx Z 4.4 11
Sk eP 04 54 30
i 04 54 31.6
i 04 54 37.5
Um iP 04 54 20.7
i 04 54 23.0
iS 04 58 53
Ud iP 04 55 00.2
i 04 55 01.8
i 04 55 07.8
iPP 04 55 54.7
De iP 04 55 30.7
i 04 55 32.4
i 04 55 38.0
Arctic Ocean (h = N).
M = 5.5 (Up,Ki).
Multiple P.

" 26 Sk eP 06 56 17
Ud iP 06 55 41.0
Greece (h = N).

" 26 Ud iP 08 04 46.6
Aegean Sea (h = 35 km).

" 26 Ki iSgl 10 36 17.4
Um iSgl 10 36 12.1
Karelian SSR.
m = 4.3, M_L = 2.7 (Ki,Um).

" 26 Ud iPKPl 11 23 41.3
De iPKPl 11 23 52.4

" 26 Up iSgl 11 53 38.2
Ud iPgl 11 52 27.3
i 11 52 47.7
iSgl 11 52 49.0
(cont.)

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

1975
Feb. 26 (cont.)

Ud	iRg	11 52 56.0
De	iPgl	11 52 46.1
	iSgl	11 53 19.6

Bohuslän-Dalsland, Sweden, 58.8°N, 11.9°E.
Origin time = 11 52 00.
m = 3.9, M_L = 1.9 (Up,Ud).
Near-surface event.

" 26 Ud i(P) 12 01 48.5

" 26

Up	iPKP	14 47 40.7
Um	iPKP	14 47 34.6
Ud	iPKP	14 47 43.3
De	iPKP	14 47 48.7

Solomon Islands (h = 55 km).

" 26 Up iP 14 54 06.5

" 26

Ki	iP	17 27 45.3
Um	iP	17 27 21.1
Ud	iP	17 27 22.1
	i	17 27 26.6

Iran (h = 55 km).

" 26 Ud iP 18 35 51.6
North Atlantic Ocean (h = N).

" 26 Ud iP 19 43 08.1
North Atlantic Ocean (h = N).

" 26 Ud iP 20 29 02.8
Chile (h = 80 km).

" 26 Ud iP 22 00 47.2
Hindu Kush.
Intermediate depth.

" 26 Ud iP 23 33 55.4

" 27 Um iP 00 49 56.7
Japan (h = 60 km).

" 27

Up	iP	02 10 25.2
Ud	iP	02 10 30.7
De	eP	02 09 57

West of Crete (h = N).

" 27

Up	ePn	03 38 40
Um	iP	03 38 43.1
	iPn	03 38 49.0

(cont.)

1975
Feb. 27 (cont.)

Ud	iP	03 38 53.1
	iPn	03 39 04.4

Caucasus (h = N).

" 27 Um iP 03 45 27.0
Japan (h = 100 km).

" 27

Up	iPKPl		07 53 15.3	
			micr	sec
	PKPl	Z'	0.1	0.8
Ud	iPKPl		07 53 17.5	
De	iPKPl		07 53 27.7	

" 27

Ud	iPKPl	08 03 59.0
De	iPKPl	08 04 10.4

" 27 Ud iP 10 04 58.8

" 27

Up	iP	13 16 45.9
Um	iP	13 16 59.3
	i	13 17 30.0
Ud	iP	13 17 01.7

Iran (h = N).

" 27

Up	iPKP		14 42 31.8	
			micr	sec
	Mx	E	2.2	23
	Mx	N	4.2	23
	Mx	Z	5.0	24
Ki			micr	sec
	Mx	N	3.8	23
Um	iPKP		14 42 24.0	
Ud	iPKP		14 42 34.0	
De	iPKP		14 42 39.2	

New Britain (h = 80 km).
M = 5.9 (Up,Ki).

" 27 Ud iP 15 21 51.8
Aleutian Islands (h = 140 km).

" 27

Up	i(PKP)		19 00 58.8	
	iPKP		19 01 02.3	
	i		19 01 16.6	
	iSKPl		19 03 49.0	
			micr	sec
	SKPl	Z'	0.1	1.0
Ki	iPKP		19 00 54.4	
	iSKPl		19 03 23.5	
			micr	sec
	SKPl	Z'	1.0	2.0
Sk	iSKPl		19 03 41.0	
Um	i(PKP)		19 00 49.9	

(cont.)

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

1975
Feb. 27 (cont.)

Um	iPKP	19 01 01.6	
	iSKP1	19 03 36.0	
Ud	i(PKP)	19 01 01.8	
	iPKP	19 01 08.4	
	iSKP1	19 03 50.7	
De	iPKP	19 01 10.4	
	iPKP1	19 01 13.2	
	iSKP1	19 04 00.3	

Fiji Islands (h = 590 km).

" 27

Ki	iP	20 09 48.9	
Ud	iP	20 10 32.8	

" 27

Ud	iPKP1	22 21 40.4	

" 28

Um	iP	02 06 46.0	
Ud	iP	02 07 03.9	

Ceram (h = 60 km).

" 28

Up	iP	04 25 20.8	
	i	04 25 33.6	
Um	iP	04 25 10.6	
Ud	i(P)	04 25 19.4	
	iP	04 25 31.3	

Luzon.

" 28

Up	iP	11 03 24.4	
	iPP	11 05 03.9	
Sk	eP	11 03 48	
Um	iP	11 03 21.6	
Ud	iP	11 03 40.8	
De	iP	11 03 38.5	

Afghanistan-USSR (h = 80 km).

" 28

Ud	iP	12 52 33.9	

" 28

Up	iSg1	13 06 24.2	
Ud	iPg1	13 05 02.4	
	iSg1	13 05 25.6	

Southeast Norway-Oslo Fjord.
Origin time = 13 04 31.
m = 3.9, M_L = 1.9 (Up,Ud).

" 28

Up	iPKP1	13 22 50.7	
	ipPKP1	13 23 03.2	
		micr	sec
	PKP1	Z' 0.1	1.0
	pPKP1	Z' 0.1	0.9
Ud	iPKP1	13 22 51.3	

Tonga-Kermadec Islands.
h = 45 km (Up).

1975
Feb. 28

Up	iP	15 08 54.9	C
		micr	sec
	P	Z' 0.1	0.7
Ki	iP	15 08 20.9	
	i	15 08 22.0	C
		micr	sec
	P	Z' 0.1	1.0
Sk	iP	15 08 51.3	C
Um	iP	15 08 35.4	
	i	15 08 36.5	C
Ud	iP	15 09 01.5	
	i	15 09 02.6	C
De	iP	15 09 14.7	C

South of Japan (h = 420 km).
m = 5.5 (Up,Ki).
Small precursors, 1.1 sec ahead of the main P phase (Ki,Um,Ud).

" 28

Up	iP	15 26 48.4	C
		micr	sec
	P	Z' 0.1	0.9
Ki	iP	15 26 14.5	C
		micr	sec
	P	Z' 0.1	0.9
Sk	iP	15 26 22.1	C
Um	iP	15 26 33.9	C
Ud	iP	15 26 40.7	C
De	iP	15 26 57.3	

Nevada.
m = 5.9 (Up,Ki).
Underground explosion.

" 28

Up	iP	15 57 33.6	
Um	iP	15 57 30.0	
Ud	iP	15 57 44.1	

Sumatra (h = N).

" 28

Ud	iPKP1	17 33 46.8	

" 28

Up	iPKP1	17 34 22.2	
Ud	iPKP1	17 34 23.5	

" 28

Up	iP	19 55 32.6	
Sk	iP	19 56 18.8	
Um	iP	19 56 14.7	
Ud	iP	19 55 41.2	
De	iP	19 55 04.7	

Greece (h = 35 km).

" 28

Up	iP	21 00 17.8	
Ki	iP	20 59 49.7	

(cont.)

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

1975
Feb. 28 (cont.)
Ud iP 21 00 24.5
Mariana Islands (h = 550 km).

" 28 Um iP 21 45 19.9
Ud iP 21 45 53.7
Japan (h = 100 km).

" 28 The Hindu Kush intermediate-depth earthquake (origin time = 23 56 36.6) is recorded on March 1 and listed in the next monthly bulletin.

Markus Båth

October 5, 1976

SEISMOLOGICAL INSTITUTE
BOX 517
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SWEDEN

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BOX 517
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SWEDEN

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

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

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

M A R C H 1 - 31, 1975

1975 Mar.	1	Up	iP		00 04 00.8 C
			ipP		00 04 43.5
			iPP		00 05 32.7
					micr sec
			P	Z'	0.5 0.9
		Ki	iP		00 04 09.7 C
			ipP		00 04 52.5
					micr sec
			P	Z'	0.6 1.0
		Sk	iP		00 04 26.3 C
			ipP		00 05 10.7
		Um	iP		00 03 59.3 C
		Ud	iP		00 04 17.1 C
			ipP		00 05 01.7
			iPP		00 06 01.7
		De	iP		00 04 13.3 C
			ipP		00 04 58.6
			iPP		00 05 53.3
			iPcP		00 06 01.2
		Hindu Kush.			
		h = 210 km (Up,Ki,Sk,Ud,De).			
		m = 6.1 (Up,Ki).			
"	1	Ud	i(P)		05 10 37.5
			i		05 11 03.4
"	1	Up	iPKP1		06 09 11.8
		Ki	ePKP		06 09 03
		Um	iPKP1		06 09 00.7
			iSKP1		06 12 22.2
		Ud	iPKP1		06 09 13.4
		De	iPKP1		06 09 25.0 D
		Tonga-Kermadec Islands			
		(h = 270 km).			
"	1	Um	iP		06 53 04.8
		Ud	iP		06 53 35.4
		Japan (h = 80 km).			

1975 Mar.	1	Up	iP	09 36 19.3
		Um	iP	09 35 45.3
		Ud	eP	09 36 24
		Okhotsk Sea (h = 540 km).		
"	1	Ud	iP	12 34 39.2
"	1	Ud	iP	13 25 25.7
			i	13 25 35.1
"	2	Um	i(P)	05 06 54.6
"	2	Ki	iP	07 27 22.1
		Mariana Islands (h = 260 km).		
"	2	De	iPKP1	09 27 50.4
		Tonga Islands (h = N).		
"	2	Ki	iPKP1	11 01 54.3
		Um	iPKP1	11 02 02.9
"	2	Up	iP	13 24 48.2
		Ud	i	13 25 16.0
		De	iP	13 24 27.1
		Rumania (h = N).		
"	2	Ki	iP1	14 22 02.6
			iP2	14 22 11.9
		Um	iP1	14 22 38.7
			iP2	14 22 49.1
		Ud	iP2	14 23 27.6
		De	iP2	14 23 58.0
		Arctic Ocean (h = N).		
		Double P.		
"	2	Up	iP1	14 29 31.1
			iP2	14 29 37.8
		(cont.)		

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

1975
Mar. 2 (cont.)

Up			micr	sec	
	P2	Z'	0.2	1.5	
	Mx	E	1.2	21	
	Mx	N	0.9	13	
	Mx	Z	1.1	12	
Ki	iP1		14 28 16.0		
	iP2		14 28 24.3		
	iS		14 32 14		
			micr	sec	
	P1	Z'	0.2	1.0	
	P2	Z'	0.6	1.5	
	Mx	E	1.3	13	
	Mx	N	2.1	20	
	Mx	Z	2.4	20	
Sk	iP1		14 29 02.5		
	iP2		14 29 09.7		
Um	iP1		14 28 54.2		
	i		14 28 58.1		
	iP2		14 29 03.6		
	iS		14 33 27		
Ud	iP1		14 29 32.1		
	iP2		14 29 39.3		
De	iP1		14 30 02.7		
	iP2		14 30 11.3		

Arctic Ocean (h = N).
m = 5.8, M = 4.6 (Up,Ki).
Double P.

" 2	Ud	iP	19 46 37.2	

Banda Sea (h = N).

" 2	Up	iP	23 16 05.7	
		i	23 16 21.0	
	Ki	iP	23 15 31.3	
	Sk	iP	23 16 01.9	
	Um	iP	23 15 46.5	
	Ud	iP	23 16 12.2	
	De	iP	23 16 25.1	

Bonin Islands (h = N).

" 3	Up	iP	02 25 24.7	
	Ki	iP	02 25 18.2	
	Um	iP	02 25 15.3	
		i	02 25 25.3	
	Ud	iP	02 25 36.1	
	De	iP	02 25 37.1	

Burma (h = 90 km).

" 3	Ki	iP	09 54 37.0	
	Sk	iP	09 54 14.5	
	Um	iP	09 54 36.6	
	Ud	iP	09 54 16.0	
	De	iP	09 54 15.5	

Leeward Islands (h = 40 km).

1975
Mar. 3

Up	iP		09 55 48.6		D
	ipP		09 56 29.6		
	isP		09 56 50.1		
	iPP		09 57 22.7		
	iS		10 01 45		
			micr	sec	
	P	Z'	0.3	1.0	
	pP	Z'	0.4	1.2	
Ki	iP		09 55 57.4		D
	ipP		09 56 37.9		
	iPP		09 57 36.3		
			micr	sec	
	P	Z'	0.3	1.0	
	pP	Z'	0.3	1.5	
Sk	iP		09 56 14.3		D
	ipP		09 56 55.4		
	iPP		09 57 58.5		
Um	iP		09 55 47.0		D
	ipP		09 56 28.4		
	isP		09 56 48.7		
	iPP		09 57 18.9		
	iS		10 01 44		
Ud	iP		09 56 05.2		D
	ipP		09 56 46.2		
	isP		09 57 07.7		
	iPP		09 57 47.2		
De	iP		09 56 01.5		D
	ipP		09 56 42.8		
	isP		09 57 03.8		
	iPP		09 57 41.0		

Hindu Kush.
h = 200 km (Up,Ki,Sk,Um,Ud, De).
m = 5.8 (Up,Ki).
The clear dilatation may be preceded by a small compression.

" 3	Up	iP	13 15 42.0	
	Ud	iP	13 15 43.7	
" 3	Ud	iP	14 06 45.7	
" 3	Ud	i	14 41 36.9	
		i(Sgl)	14 41 56.2	
" 3	Um	iP	15 40 34.0	C

Japan (h = 90 km).

" 3	Ki	iP	16 11 56.0	
	Ud	iP	16 11 30.7	

Iran-Iraq (h = N).

" 3	Um	iP	17 25 43.7	

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

1975

Mar.	3	Up	iP1	19 34 43.5
			iP2	19 34 59.5
		Sk	iP1	19 35 00.5
			iP2	19 35 16.0
		Um	iP2	19 34 53.1
		Ud	iP1	19 34 56.0
			iP2	19 35 11.7
		De	eP2	19 35 11

Burma-India (h = 40 km).
Double P, P2 - P1 = 15.7 sec; alternatively, pP - P = 15.7 sec with h = 60 km.

"	4	Up	iP	00 36 30.1
		Ki	iP	00 36 32.2
		Um	iP	00 36 28.2
		Ud	iP	00 36 42.9
		De	iP	00 36 40.4

Andaman Islands.

"	4	Up	iPKP1	01 42 56.2
			i	01 43 09.1
		Sk	iPKP1	01 42 47.6
		Ud	iPKP1	01 42 56.6
		De	iPKP1	01 43 06.1
			i	01 43 16.0

Tonga-Kermadec Islands.

"	4	De	iPKP1	09 07 28.1

Fiji Islands (h = 460 km).

"	4	Ud	eSgl	10 34 19
		De	iSgl	10 34 11.8

"	4	Up	iP		10 55 17.3
			ipP		10 55 29.6
					micr sec
			P	Z'	0.1 1.3
			pP	Z'	0.1 1.3
		Um	iP		10 54 49.2
		Ud	iP		10 55 24.5
		De	iP		10 55 42.0

Kamchatka.
h = 45 km (Up).

"	4	De	iP	11 05 32.1

Kamchatka (h = 70 km).

"	4	Up	iP	11 31 55.2
			i(PP)	11 36 07.2
		Ki	iP	11 31 39.8
			iPP	11 35 52.0
				micr sec
			P	Z' 0.2 1.3
		Sk	eP	11 32 02

(cont.)

1975

Mar.	4	(cont.)		
		Um	iP	11 31 45.5
			ipP	11 31 54.2
			i(PP)	11 35 34.9
			iPP	11 35 59.0
		Ud	iP	11 32 04.0
			ipP	11 32 12.7
		De	iP	11 32 08.6
			iPP	11 36 38.0

Banda Sea.
h = 30 km (Um,Ud).

"	4	Ud	eSgl	11 51 01
		De	iPgl	11 48 50.3
			iSgl	11 49 30.4

"	4	Up	iP	17 08 30.1
		Ki	iP	17 08 38.0
		Sk	eP	17 08 56
		Um	iP	17 08 28.4
		Ud	iP	17 08 47.2
			ipP	17 09 11.3
		De	iP	17 08 43.4

Afghanistan-USSR.
h = 110 km (Ud).

"	4	Up	iP	20 56 56.6
		Sk	iP	20 57 08.9
		Um	iP	20 56 47.7
		Ud	iP	20 57 09.7

Szechwan, China (h = N).

"	4	Up	iP	23 01 41.4
			ipP	23 01 52.3
		Um	iP	23 01 25.1
		Ud	iP	23 01 51.1 C
		De	eP	23 02 02

Ryukyu Islands.
h = 45 km (Up).

"	5	Up	eP		00 36 06
			i		00 36 20.8
			i(PP)		00 39 20.8
			iPP		00 40 22.6
			iSKS		00 46 47
					micr sec
			(PP)	Z'	0.1 1.7
			PP	Z'	6.4 3.0
			Mx	E	8.9 21
			Mx	N	16 22
			Mx	Z	18 24
		Ki	iP		00 36 01.5
			i(PP)		00 39 46.6
			iPP		00 39 58.8
			iSKS		00 46 27

(cont.)

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

1975
Mar. 5 (cont.)

			micr	sec
Ki				
	P	Z'	0.3	1.5
	(PP)	Z'	0.9	2.5
	PP	Z'	6.4	3.5
	Mx	E	17	20
	Mx	N	16	20
	Mx	Z	17	19
Sk	eP		00 36 20	
	iPP		00 40 36.8	
Um	iP		00 35 57.8	
	i		00 36 05.1	
	i		00 36 11.4	
	i(PP)		00 38 43.5	
	iPP		00 40 06.8	
	iSKS		00 46 37	
	iPKKP		00 52 27.2	
Ud	iP		00 36 23.3	
	i		00 36 29.2	
	i(PP)		00 39 13.6	
	i		00 40 20.7	
	iPP		00 40 35.5	
	iPKKP		00 52 20.2	
De	eP		00 36 29	
	i		00 36 34.4	
	i(PP)		00 40 10.6	
	iPP		00 40 42.1	

Ceram Sea (h = N).
m = 7.5, M = 6.7 (Up,Ki).
m refers to PP.

" 5 Up iP 01 22 14.7
De iP 01 22 39.8
Kamchatka.

" 5 De iPP 01 36 20.4
Ceram Sea (h = 55 km).

" 5 Um iP 02 38 32.7
Ud iP 02 38 47.0
Afghanistan-USSR.

" 5 Up iPKP1 04 04 23.0
Ud iPKP1 04 04 24.8

" 5 Up i 05 37 06.2
Um iP 05 37 25.4
i 05 37 38.2
Ud iP 05 36 41.9
i 05 37 03.7
De iP 05 36 20.6
North Atlantic Ocean (h = N).

" 5 Up iP 09 27 18.3
(cont.)

1975
Mar. 5 (cont.)

Ki iP 09 26 53.6
Sk eP 09 27 23
Ud iP 09 27 27.9
i 09 27 36.4
i 09 27 49.1
De iP 09 27 36.3
Formosa (h = 55 km).

" 5 Up iPKP 10 46 21.7
iSKP1 10 49 52.7

			micr	sec
	PKP	Z'	0.1	1.3

Ki iPKP 10 46 09.0 D

			micr	sec
	PKP	Z'	0.1	1.0

Sk i(PKP) 10 46 11.2
iPKP 10 46 19.5
Um iPKP 10 46 15.1
iSKP1 10 49 40.7
Ud i(PKP) 10 46 14.0
iPKP 10 46 23.9
iSKP1 10 49 55.4
De i(PKP) 10 46 20.8
iPKP 10 46 29.9
iSKP1 10 50 06.1
New Hebrides Islands
(h = 55 km).

" 5 Um iP 11 10 16.1
Ud iP 11 09 55.6

" 5 Up iP 14 00 11.4
i 14 00 12.8
i 14 00 17.7

			micr	sec
	P	Z'	0.1	1.1

Ki iP 14 00 16.3 C
i 14 00 22.6

			micr	sec
	P	Z'	0.1	1.0

Sk iP 13 59 58.8 C
i 14 00 05.4
Um iP 14 00 17.2 C
i 14 00 18.6
i 14 00 23.5
Ud iP 14 00 00.9 C
i 14 00 02.4
i 14 00 06.6
De iP 14 00 01.7 C
i 14 00 03.0
i 14 00 07.1
Venezuela (h = 50 km).
m = 5.7 (Up,Ki).
Triple P.

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

1975 Mar.	5	Ud	iRg		15 15 09.3	
		De	iPgl		15 14 03.3	
			eSgl		15 14 24	
			iRg		15 14 29.3	
		Near-surface event.				
"	5	De	iP		15 30 15.7	
		Venezuela (h = 35 km).				
"	5	Sk	iPKP		20 01 40.7	
		Santa Cruz Islands (h = 110 km).				
"	5	Up	iPKP		21 50 44.8	
			ipPKP		21 51 06.8	
		Ki	iPKP		21 50 59.7	
			ipPKP		21 51 21.7	
					micr	sec
			PKP	Z'	0.1	1.0
		Sk	ePKP		21 50 50	
		Um	iPKP		21 50 52.7	
			ipPKP		21 51 14.8	
		Ud	iPKP		21 50 43.1 C	
			ipPKP		21 51 05.1	
			iPP		21 52 08.1	
		South Sandwich Islands. h = 80 km (Up,Ki,Um,Ud).				
"	6	Um	iP		02 13 39.9	
		Venezuela (h = 45 km).				
"	6	Ud	iPKPl		06 06 04.5	
"	6	Um	iP		07 37 28.7	
		South of Japan (h = 40 km).				
"	6	Ud	i		09 41 22.8	
			iSgl		09 41 45.0	
"	6	Ud	iP		10 12 31.3	
"	6	Up	iP		18 28 57.3	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		18 28 05.3	
					micr	sec
			P	Z'	0.1	1.0
		Um	iP		18 28 29.8	
		Ud	iP		18 29 01.2	
		De	iP		18 29 22.2	
		Kamchatka (h = N). m = 5.9 (Up,Ki).				
"	6	Ud	iP		20 01 55.1	

1975 Mar.	6	Um	iP		22 06 03.2	
		Japan (h = N).				
"	7	Ud	iPKPl		02 49 42.8	
		De	iPKPl		02 49 55.9	
		Tonga Islands (h = 35 km).				
"	7	Up	iP		04 16 32.3	
			ipP		04 16 38.1	
			i		04 16 41.3	
			iS		04 19 09.5	
			iLg2		04 20 59.9	
					micr	sec
			P	Z'	0.2	1.3
			i	Z'	0.4	1.3
			Mx	E	2.1	7
			Mx	N	2.1	6
			Mx	Z	4.2	8
		Ki	iP		04 17 55.9	
			ipP		04 18 00.3	
					micr	sec
			pP	Z'	0.1	1.2
			Mx	E	2.9	10
			Mx	N	2.0	8
		Sk	iP		04 17 31.4	
			ipP		04 17 36.2	
			i		04 21 20.5	
			iLg2		04 23 21.8	
		Um	iP		04 17 13.8	
			ipP		04 17 18.6	
			iS		04 20 26.6	
			iLgl		04 22 34.8	
		Ud	iP		04 16 50.5	
			ipP		04 16 55.6	
			i		04 17 01.1	
			iLg2		04 21 45.9	
		De	iP		04 16 09.5	
			i(Lg2)		04 20 28.0	
		Rumania. h = 25 km (Up,Ki,Sk,Um,Ud). m = 5.2 (Up,Ki).				
"	7	Up	iP		07 12 29.7 C	
			iPP		07 14 08.1	
			iS		07 18 50.9	
					micr	sec
			P	Z'	0.6	1.2
			Mx	E	6.5	21
			Mx	N	6.4	18
			Mx	Z	9.7	18
		Ki	iP		07 13 02.6 C	
					micr	sec
			P	Z'	1.1	1.0
			Mx	E	14	13

(cont.)

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

1975
Mar. 7 (cont.)

Ki			micr	sec	
	Mx	N	10	14	
	Mx	Z	16	14	
Sk	iP		07 13 03.5		C
	iPP		07 14 40.7		
Um	iP		07 12 41.4		
	iPP		07 14 26.2		
	iS		07 19 04		
Ud	iP		07 12 45.1		C
	iPP		07 14 32.6		
	iS		07 19 13.3		
De	iP		07 12 30.1		C

Iran (h = 25 km).
m = 6.5, M = 6.0 (Up,Ki).

" 7 Ud iP 08 06 22.7

" 7 Ud i(Sgl) 09 03 38.3

" 7 Up eP 10 50 14
Ki iP 10 50 44.0
Ud iP 10 50 27.2
De iP 10 50 12.2
Iran (h = N).

" 7 Ud iP 12 22 23.4
De eP 12 22 09
Iran (h = N).

" 7 Ki iP 13 20 26.2
Ud iP 13 20 07.8
De iP 13 19 56.8
Iran.
Origin time = 13 12 07.

" 7 Up iP 14 34 43.7
ipP 14 34 48.7
iPP 14 36 21.3
micr sec
P Z' 0.1 1.0
Ki iP 14 35 17.1
iPP 14 36 54.1
micr sec
P Z' 0.3 1.3
Sk iP 14 35 17.6
Um iP 14 34 55.1
ipP 14 35 00.5
iPP 14 36 34.5
Ud iP 14 34 58.8
ipP 14 35 04.0
De iP 14 34 44.2
ipP 14 34 49.1
Iran.
h = 25 km (Up,Um,Ud,De).
m = 5.8 (Up,Ki).

1975
Mar. 7 Ud iP 15 00 36.0

" 7 Up iP 15 11 48.7 C
micr sec
P Z' 0.2 1.2
Ki iP 15 11 14.4 C
micr sec
P Z' 0.1 1.1
Sk iP 15 11 22.6 C
Um iP 15 11 34.1 C
Ud iP 15 11 40.5 C
De iP 15 11 57.1 C
Nevada.
m = 6.0 (Up,Ki).
Underground explosion.

" 7 Up iP 15 44 27.6
Ki iP 15 45 02.7
Sk eP 15 45 03
Um iP 15 44 37.6
Ud iP 15 44 41.8
De iP 15 44 27.9
Iran (h = 25 km).

" 7 Up iP 15 47 03.4
Ki eP 15 46 11
Um iP 15 46 36.4
Kurile Islands.

" 7 Up iP 17 46 41.1
micr sec
P Z' 0.2 1.2
Ki iP 17 46 24.7
micr sec
P Z' 0.2 1.0
Sk iP 17 46 51.1
Um iP 17 46 28.1 C
Ud iP 17 46 53.1 C
De iP 17 47 00.4
Szechwan, China (h = N).
m = 6.3 (Up,Ki).

" 7 Up iP 17 50 18.2
micr sec
P Z' 0.1 1.2
Ki iP 17 50 51.4
Um iP 17 50 30.4
Ud iP 17 50 33.7
De iP 17 50 18.7
Iran (h = N).

" 7 Up iP 19 06 20.7
Ki iP 19 06 52.8
Ud eP 19 06 35
De eP 19 06 21
Iran (h = 20 km).

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

1975 Mar.	7	Up	iRg		20 02 04.4
		Ud	iSgl		20 01 40.8
			iRg		20 01 51.2
		Central Sweden.			
		Near-surface event.			
"	7	Up	eP		20 09 46
		Ki	iP		20 10 19.7
		Ud	iP		20 10 00.4
		De	iP		20 09 50.8
		Iran.			
		Origin time = 20 02 00.			
"	7	Up	eP		20 35 47
"	7	Up	i(P)		20 41 15.5
		Ki	iP		20 41 31.8
"	7	Ud	iPKPl		22 32 27.3
		De	iPKPl		22 32 40.3
"	7	Ki	iP		23 33 44.9
		Ud	iP		23 33 26.9
		De	eP		23 33 14
		Iran (h = N).			
"	7	Ud	iP		23 59 02.9
"	8	Ki	eP		00 17 14
		Ud	iP		00 16 53.6
		De	iP		00 16 40.4
		Iran (h = N).			
"	8	Up	iP		05 27 37.8
			i		05 27 42.6
					micr sec
			P	Z'	0.1 1.2
		Ki	eP		05 26 34
					micr sec
			P	Z'	0.1 1.5
		Um	iP		05 27 17.0
		Ud	iP		05 27 31.3
		De	iP		05 27 53.7
		Queen Elizabeth Islands (h = N).			
		m = 5.5 (Up,Ki).			
"	8	Ud	iP		05 54 23.7
"	8	Um	iP		06 12 25.5
		Japan (h = 45 km).			
"	8	Up	iP		08 46 32.0 C
			i		08 46 40.4
					micr sec
			P	Z'	0.1 0.8
		(cont.)			

1975 Mar.	8	(cont.)			
		Ki	iP		08 47 21.7
		Um	iP		08 47 00.6 C
		Ud	iP		08 46 18.2 C
		De	iP		08 46 01.8 C
		North Atlantic Ocean (h = N).			
"	8	Up	iP		09 45 27.0
		Ki	iP		09 44 59.1
		Sk	eP		09 45 24
		Ud	iP		09 45 33.7
		Mariana Islands (h = 150 km).			
"	8	Up	iPgl		12 36 55.0
			iSgl		12 37 21.2
		Ud	iPgl		12 36 51.9
			iSgl		12 37 14.6
			iRg		12 37 24.7
		De	iSgl		12 37 30.0
		Östergötland, Sweden, 58.6°N, 15.0°E.			
		Origin time = 12 36 23.			
		m = 3.8, M_L = 1.8 (Up,Ud,De).			
		Near-surface event.			
"	8	Up	iPKPl		14 56 18.8
		Ud	iPKPl		14 56 22.7 D
		De	iPKPl		14 56 34.1 D
"	8	Up	iP		16 42 51.1
			i		16 43 05.9
		Sk	iP		16 43 46.6
		Um	iP		16 43 31.5
		Ud	iP		16 43 07.5
		De	iP		16 42 28.9
		Rumania (h = 150 km).			
"	8	Up	i		19 44 56.7
		Ud	iPKPl		19 44 48.2
			i		19 44 56.2
"	9	Up	iP		06 47 30.8
		Sk	iP		06 48 06.9
		Um	iP		06 47 45.0
		De	iP		06 47 31.1 C
		Iran (h = N).			
"	9	Um	iP		10 04 16.9
			ipP		10 04 34.4
		Ud	iP		10 04 46.5
		Japan.			
		h = 60 km (Um).			
"	9	Um	iP		13 45 16.0
		Ud	iP		13 45 40.9
		(cont.)			

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

1975				
Mar.	9	(cont.)		
		De	iP	13 45 55.7
		Japan (h = 60 km).		
"	9	Up	iP	14 12 55.7 C
			i	14 13 05.6
		Sk	iP	14 13 10.4 C
		Um	iP	14 12 42.4
		Ud	iP	14 13 11.1 C
		De	iP	14 13 16.7
		Sinkiang, China (h = N).		
"	9	Ud	iP	15 08 05.5
"	9	Up	iPKPl	16 04 06.5
		Um	iPKP	16 04 04.0
		Ud	iPKPl	16 04 07.9
		De	iPKPl	16 04 18.8 C
		Tonga-Kermadec Islands (h = 170 km).		
"	9	Up	iP	17 58 02.9
		Um	iP	17 57 41.6
		Ud	eP	17 58 13
		Japan (h = 35 km).		
"	9	Up	iP	18 02 14.6
		Um	iP	18 01 55.4
			ipP	18 02 22.5
		Ud	ipP	18 02 50.1
		South of Japan. h = 110 km (Um).		
"	9	Ki	iP	18 30 37.4
		Um	iP	18 30 16.0
		Ud	iP	18 30 17.1
			i	18 30 22.1
		Iran (h = N).		
"	9	Up	i(P)	19 17 50.8
"	9	Up	iP	21 23 09.3
		Ud	iP	21 23 12.6
		Okhotsk Sea (h = 430 km).		
"	10	Up	iP	03 15 40.9
		Ud	iP	03 15 57.4
		Kashmir-Tibet (h = 50 km).		
"	10	Ud	i(Sgl)	04 42 14.6
"	10	Um	iP	05 12 09.8
		Molucca Passage (h = 70 km).		

1975					
Mar.	10	Up	iP		07 07 13.8
		Ki	iP		07 06 48.5
					micr sec
			P	Z'	0.1 1.0
		Um	eP		07 06 58
			ipP		07 07 12.3
		Ud	iP		07 07 22.5
		De	iP		07 07 29.6
		Formosa. h = 55 km (Um).			
"	10	Up	iP		07 37 20.8
		Um	iP		07 37 15.4
		Ud	iP		07 37 37.4 C
		Kirghiz SSR (h = N).			
"	10	Ud	i(Sgl)		09 00 57.4
"	10	Ud	i(Sgl)		10 02 55.4
"	10	Ud	iP		12 08 45.2
		Hindu Kush. Intermediate depth.			
"	10	Up	iP		12 25 59.3
		Ud	iP		12 26 08.4
		Talaud Islands (h = 70 km).			
"	10	Ud	i(Sgl)		12 38 56.2
"	10	Um	iP		13 12 17.5
		Mariana Islands (h = 35 km).			
"	10	Up	iP		21 12 56.7
		Um	iP		21 12 46.4
		Ud	iP		21 13 05.0
		Mindanao (h = 55 km).			
"	11	Sk	iP		04 41 40.4
		Ud	iP		04 41 49.1
		North Atlantic Ocean (h = N).			
"	11	Ud	i		05 13 11.1
			i(Sgl)		05 13 31.0
"	11	Up	iP		05 49 52.8
			iPn		05 50 53.4
			iPP		05 51 12.1
					micr sec
			P	Z'	0.2 0.9
			PP	Z'	0.1 1.0
		Ki	iP		05 49 37.4 C
					micr sec
			P	Z'	0.2 0.8
		(cont.)			

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

1975
Mar. 11 (cont.)

Sk	iP		05 50 09.0 C
Um	iP		05 49 38.2
Ud	iP		05 50 09.6 C
	iPn		05 51 21.7
De	iP		05 50 16.5
	iPP		05 51 44.2

Kazakh SSR.
m = 6.1 (Up,Ki).
Underground explosion.

" 11

Up	iP		09 08 44.9	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		09 08 06.6	
			micr	sec
	P	Z'	0.1	1.1
Sk	iP		09 08 40.7	
Um	iP		09 08 22.9 C	
Ud	iP		09 08 52.4	

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

" 11 Up iP 11 34 52.0

" 11 Ud iP 12 30 44.4

" 11 Ud iP 13 48 30.0

" 11

Ki	iP		17 52 29.1	
Sk	eP		17 52 31	
Um	iP		17 52 09.8	
Ud	iP		17 52 13.8	

Iran.

" 11 Ud iP 19 00 25.5

" 11

Up			micr	sec
	Mx	N	0.8	18
Ki	iP		23 45 59.1	
	iS		23 48 45.0	
			micr	sec
	P	Z'	0.2	1.2
	Mx	N	0.9	13
	Mx	Z	0.5	13
Sk	iP		23 45 36.9	
Um	iP		23 46 15.1	
Ud	iP		23 46 07.4	
	iS		23 48 57.8	

Iceland (h = N).
M = 4.2 (Up,Ki).
Late arrivals compared to the NEIS solution.

" 12

Up	iP		00 10 28.1	
	i		00 10 42.5	

(cont.)

1975
Mar. 12 (cont.)

Up			micr	sec
	i	Z'	0.1	1.3

" 12

Sk	iP	00 32 42.9
Um	iP	00 32 39.7

" 12

Sk	iP	01 39 41.7
Ud	iP	01 39 45.3

Mindanao (h = 100 km).

" 12

Up	iPKPl	04 59 49.6
Sk	iPKPl	04 59 42.3
Um	iPKPl	04 59 36.8
Ud	iPKPl	04 59 51.6
De	iPKPl	05 00 00.3

Tonga-Kermadec Islands.

" 12 Ud iP 10 32 39.3

" 12

Ud	ePKPl	10 39 20
De	iPKPl	10 39 33.0

Tonga-Kermadec Islands
(h = 190 km).

" 12

Up	iP	10 54 29.1
	iPcP	10 54 53.7
Ki	iP	10 53 35.8
	iPcP	10 54 21.2
Sk	eP	10 54 08
	iPcP	10 54 41.1
Um	iP	10 54 05.4
	iPcP	10 54 37.2
Ud	iP	10 54 29.6
De	eP	10 54 52

Aleutian Islands (h = 55 km).

" 12 Ud iP 12 40 33.4

" 12

Um	iP	13 19 36.8
	ipP	13 19 47.0

Japan.
h = 40 km (Um).

" 12

Up	iRg	14 11 51.6
Ud	iRg	14 10 53.8

Central Sweden.
Near-surface event.

" 12 Ud iP 20 52 05.6

" 13

Ki	iP	05 50 54.6
Um	i(P)	05 50 59.2

Banda Sea (h = N).

" 13

Ud	iPKPl	07 21 24.0
De	iPKPl	07 21 34.2

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

1975 Mar.	13	Up	iP		08 23 12.5		
			i		08 23 18.8		
					micr	sec	
			P	Z'	0.1	1.3	
			i	Z'	0.2	1.4	
		Ki	iP		08 23 11.6		
			i		08 23 18.2		
					micr	sec	
			i	Z'	0.1	1.4	
		Sk	eP		08 23 29		
			i		08 23 35.2		
		Um	iP		08 23 09.1		
			i		08 23 15.1		
		Ud	iP		08 23 24.4		
			i		08 23 30.6		
		Andaman Islands (h = N).					
		m = 5.9 (Up,Ki).					
		Double P, in average 6.4 sec apart.					
"	13	Um	iP		10 12 19.2		
"	13	Ud	iP		14 43 37.2		
"	13	Up	ePKP		15 45 24		
			iPP		15 46 29.2		
			iSKS		15 52 13		
			iPKKP		15 56 06.4		
			i		15 56 15.8		
					micr	sec	
			PP	Z'	0.7	2.1	
			Mx	E	22	23	
			Mx	N	14	26	
			Mx	Z	43	23	
		Ki	iPKP		15 45 30.5		
			i		15 45 40.0		
			iPP		15 46 49.4		
			iSKS		15 52 35		
			iPKKP		15 55 52.9		
					micr	sec	
			PP	Z'	0.4	1.9	
			Mx	E	13	20	
			Mx	N	19	22	
			Mx	Z	17	20	
		Sk	ePKP		15 45 27		
			i		15 46 38.0		
			iPKKP		15 56 06.4		
			i		15 56 15.6		
		Um	iPKP		15 45 28.6		
			i		15 45 37.4		
			iPKKP		15 55 54.0		
			i		15 56 03.4		
		Ud	iPKP		15 45 20.5		
			i		15 45 29.6		
			iPP		15 46 15.4		
			iPKKP		15 56 14.5		
		(cont.)					

1975 Mar.	13	(cont.)					
		Ud	i		15 56 25.6		
		De	iPKP		15 45 18.9		
			i		15 45 40.5		
			iPKKP		15 56 13.0		
			i		15 56 20.2		
		Chile (h = 4 km).					
		m = 6.9, M = 6.8 (Up,Ki).					
		Double PKP and PKKP phases, 9.1 and 9.3 sec apart, resp.					
"	13	Up	iP		16 30 01.2		
					micr	sec	
			P	Z'	0.1	1.0	
		Ki	iP		16 29 12.0		
			i		16 29 17.1		
					micr	sec	
			P	Z'	0.2	1.5	
		Sk	iP		16 29 48.2		
		Um	iP		16 29 35.6	D	
		Ud	iP		16 30 06.3	D	
			i		16 30 10.4		
		De	iP		16 30 24.4		
		Kurile Islands (h = N).					
		m = 6.1 (Up,Ki).					
"	13	Ud	iP		17 39 51.3		
		Caspian Sea.					
"	13	Up	i(PKP)		19 04 32.4		
			iPKP		19 04 43.3		
			iPP		19 07 27		
			iSKP1		19 08 09.1		
			iSKP2		19 08 17.1		
			iPKKP		19 14 13.1		
			i		19 14 39.4		
					micr	sec	
			PKP	Z'	0.1	0.8	
			SKP1	Z'	1.9	1.3	
			SKP2	Z'	3.0	1.7	
			Mx	E	17	24	
			Mx	N	34	23	
			Mx	Z	59	23	
		Ki	i(PKP)		19 04 18.0		
			iPKP		19 04 30.5		
			iSKP1		19 07 45.4		
					micr	sec	
			PKP	Z'	0.5	1.5	
			SKP1	Z'	9.0	1.8	
			Mx	E	33	28	
			Mx	N	39	24	
			Mx	Z	43	25	
		Sk	i(PKP)		19 04 31.9		
			iPKP		19 04 41.2		
			i		19 04 45.4		
			iSKP1		19 08 03.5		
		(cont.)					

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

1975
Mar. 13 (cont.)

Um	i(PKP)		19 04 22.4	
	i		19 04 29.1	
	iPKP		19 04 37.0	
	iSKP1		19 07 57.3	
	i(PKKP)		19 13 51.2	
Ud	i(PKP)		19 04 36.1	
	iPKP		19 04 44.0	
	iSKP1		19 08 11.8	
	iSKP2		19 08 21.4	
De	i(PKP)		19 04 45.6	
	iPKP		19 04 48.8	
	iSKP1		19 08 19.0	
	iSP		19 17 56.8	

Loyalty Islands (h = 90 km).
M = 7.1 (Up,Ki).

" 13 Up iPKP1 19 40 45.6

" 13 Ki iPKP 22 04 59.3
Chile (h = 25 km).

" 13

Up	iP		23 52 36.0	
	i		23 52 40.2	
	ipP		23 52 44.3	
			micr sec	
	pP	Z'	0.1 1.0	
Ki	iP		23 52 27.1	C
	ipP		23 52 35.2	
			micr sec	
	P	Z'	0.1 1.3	
	pP	Z'	0.3 1.7	
Sk	eP		23 52 17	
	ipP		23 52 26.3	
Um	iP		23 52 33.7	
	i		23 52 38.7	
	ipP		23 52 43.1	
Ud	iP		23 52 25.4	
	ipP		23 52 34.1	
De	iP		23 52 33.8	

Caribbean Sea.
h = 35 km (Up,Ki,Sk,Um,Ud).
m = 5.9 (Up,Ki).

" 14 Ud iPKP 00 21 12.0
De iPKP 00 21 19.0
Loyalty Islands (h = 60 km).

" 14 Ud iP 01 01 03.9

" 14 Um i(P) 01 02 35.6

" 14

Up	iP		02 04 30.8	C
	i		02 04 40.0	

(cont.)

1975
Mar. 14 (cont.)

Up			micr sec	
	P	Z'	0.3 1.8	
	Mx	E	1.9 17	
	Mx	N	2.9 20	
	Mx	Z	4.3 20	
Ki	iP		02 03 17.0	C
	iTSg		02 10 44.7	
			micr sec	
	P	Z'	0.7 2.0	
	Mx	E	3.7 13	
	Mx	N	5.8 13	
	Mx	Z	4.5 12	
Sk	iP		02 03 29.2	C
	iS		02 05 16.5	
Um	iP		02 03 54.2	C
Ud	iP		02 04 16.0	
De	iP		02 05 01.6	

Jan Mayen (h = N).
m = 5.2, M = 4.7 (Up,Ki).

" 14 Up iP 04 06 00.7
Ki iP 04 05 32.1 C
Sk iP 04 05 57.3
Um iP 04 05 45.0
Ud iP 04 06 08.8
Mariana Islands (h = 110 km).

" 14

Up	iP		05 26 12.2	C
	ipP		05 26 20.4	
			micr sec	
	P	Z'	0.1 1.0	
	Mx	E	0.7 15	
	Mx	N	0.9 17	
	Mx	Z	1.4 17	
Ki	iP		05 25 23.7	
			micr sec	
	Mx	E	1.7 19	
	Mx	N	1.1 17	
Sk	iP		05 25 59.5	
Um	iP		05 25 46.0	C
	ipP		05 25 53.7	
Ud	iP		05 26 17.1	C
	ipP		05 26 24.6	
De	iP		05 26 36.3	

Kurile Islands.
h = 30 km (Up,Um,Ud).
M = 5.3 (Up,Ki).

" 14 Um iP 05 58 49.2
Ud iP 05 58 59.2
Tadzhik SSR.

" 14 Up iP 06 16 54.3
ipP 06 17 33.8
(cont.)

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

1975
Mar. 14 (cont.)

Up	iS		06 27 06	
	isS		06 28 23	
			micr	sec
	P	Z'	0.3	1.6
Ki	iP		06 16 42.4	C
	ipP		06 17 21.4	
			micr	sec
	P	Z'	0.6	1.5
Sk	iP		06 16 37.0	C
	ipP		06 17 15.1	
Um	iP		06 16 51.2	
	ipP		06 17 30.2	
	iS		06 27 02	
	isS		06 28 18	
Ud	iP		06 16 45.5	
	ipP		06 17 25.4	
De	iP		06 16 53.7	
	ipP		06 17 32.6	

Mexico.
h = 160 km (Up,Ki,Sk,Um,Ud, De).
m = 6.0 (Up,Ki).

" 14 Ud iP 06 57 27.0

" 14 Ud iP 08 04 18.2

" 14

Up	iP		13 34 49.6	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		13 34 02.0	
Um	iP		13 34 23.4	
Ud	iP		13 34 55.3	
	ipP		13 35 02.4	

Kurile Islands.
h = 25 km (Ud).

" 14

Sk	iSgl		14 01 17.8	
	iRg		14 01 20.8	

" 14

Up	eP		14 07 40	
	ipP		14 07 52.6	
Ki	iP		14 07 02.8	
	ipP		14 07 15.5	
			micr	sec
	Mx	E	0.7	15
	Mx	N	0.7	15
Sk	iP		14 07 35.4	
	ipP		14 07 48.0	
Um	iP		14 07 18.7	C
	ipP		14 07 31.2	
Ud	iP		14 07 47.8	
	ipP		14 08 00.5	

Japan.
h = 45 km (Up,Ki,Sk,Um,Ud).

1975
Mar. 14

Up	iP		16 16 25.8	C
	ipP		16 16 36.1	
			micr	sec
	P	Z'	0.1	0.7
Ki	iP		16 15 40.8	C
Sk	iP		16 16 15.5	
Um	iP		16 16 00.4	C
Ud	iP		16 16 31.7	C
De	iP		16 16 49.7	C

Kurile Islands.
h = 40 km (Up).

" 14

Up	iSgl		17 07 57.8
Sk	eSgl		17 07 59
Ud	i		17 06 53.0
	iSgl		17 06 57.9

" 14

Up	iP		18 58 14.6	C
Ki	iP		18 58 00.6	
Sk	iP		18 58 27.6	C
Um	iP		18 58 02.5	
Ud	iP		18 58 28.3	

Tsinghai, China (h = N).

" 14

Up	iP		19 46 55.9	C
	iPP		19 51 17.4	
Ki	iP		19 46 44.4	
Sk	iP		19 47 03.1	
Um	iP		19 46 46.6	
Ud	iP		19 47 03.6	
	iPP		19 51 31.7	
De	iP		19 47 07.6	

Flores Sea (h = 280 km).

" 14

Up	iP		20 13 05.7	
			micr	sec
	Mx	N	0.7	20
	Mx	Z	0.8	19
Ki	iP		20 12 48.8	
Ud	eP		20 13 13	

New Guinea (h = 35 km).

" 14

Um	iP		22 54 31.5
Ud	iP		22 55 03.2

Kurile Islands (h = 140 km).

" 14 Um iPKPl 23 35 29.9

" 15

Ki	iP		01 01 33.1
Ud	iP		01 01 59.2

Mindanao (h = N).

" 15

Up	i(pPKP)		03 33 44.4
Ud	i(pPKP)		03 33 46.2

Solomon Islands (h = 30 km).

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

1975				
Mar.	15	Um	iP	05 18 43.5
"	15	Up	iP	10 10 52.2
		Ki	iP	10 09 59.0
		Um	iP	10 10 24.0
		Ud	iP	10 10 54.7
		De	iP	10 11 16.5
		Kamchatka (h = N).		
"	15	Um	iPKPl	11 45 36.1
"	15	Um	iP	16 18 06.9
		Ud	iP	16 18 23.7
			i	16 18 29.0
		De	iP	16 18 29.3
		Celebes (h = 40 km).		
"	15	Ud	iPKPl	16 48 27.4
"	15	Up	i	18 00 03.5
		Ud	iPgl	17 59 15.6
			iSgl	17 59 20.5
			iRg	17 59 22.4
		Central Sweden.		
		Near-surface event.		
"	15	Ud	eP	18 31 23
		De	iP	18 30 49.8
"	15	Ud	eP	20 38 02
		Japan.		
"	16	Ud	ePKPl	05 36 15
"	16	Up	iP	05 37 10.5 C
				micr sec
			P Z'	0.1 1.2
		Ki	iP	05 36 54.7 C
				micr sec
			P Z'	0.1 1.0
		Um	iP	05 36 57.9 C
		Ud	iP	05 37 22.9 C
		Szechwan, China (h = N).		
		m = 5.9 (Up,Ki).		
"	16	Ud	iP	07 40 08.4
		Molucca Passage (h = 120 km).		
"	16	Ud	iPKPl	08 23 00.1
		De	iPKPl	08 23 11.1 C
		Tonga-Kermadec Islands (h = 670 km).		
"	16	Up	iP	08 41 59.1
		(cont.)		

1975				
Mar.	16	(cont.)		
		Um	iP	08 42 31.9
		Ud	iP	08 42 05.7
		Aegean Sea (h = 5 km).		
"	16	Up	iP	10 31 25.0
				micr sec
			P Z'	0.1 1.0
		Ki	iP	10 31 41.3
		Sk	eP	10 31 53
		Um	iP	10 31 27.4
		Ud	iP	10 31 40.5
		De	iP	10 31 33.1
		Pakistan (h = 35 km).		
"	16	Up	iPKPl	17 09 14.7
			i	17 09 23.4
		Ud	iPKPl	17 09 16.1
		De	i	17 09 34.0
"	16	Up	iP	23 51 41.6
			iPcP	23 52 05.4
		Ki	iP	23 50 56.3
		Um	iP	23 51 16.7
			iPcP	23 51 47.0
		Ud	iP	23 51 47.7 C
			iPcP	23 52 14.7
		De	iP	23 52 05.1
		Kurile Islands (h = 45 km).		
"	17	Ud	iP	01 41 56.4
		Kurile Islands (h = 100 km).		
"	17	Up	iP	02 11 21.3
				micr sec
			Mx E	2.2 15
			Mx N	1.2 14
			Mx Z	1.4 12
		Ki		micr sec
			Mx E	2.8 13
			Mx N	0.8 11
			Mx Z	0.8 12
		Um	iP	02 11 57.9
			i	02 12 04.2
		Ud	iP	02 11 29.0
		De	iP	02 10 55.6
		Aegean Sea (h = 2 km).		
		M = 4.6 (Up,Ki).		
"	17	Up	iP	05 15 52.0
			i	05 15 58.5
			iS	05 19 26
				micr sec
			P Z'	0.2 1.2
		(cont.)		

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

1975
Mar. 17 (cont.)

Up			micr	sec
	Mx	E	29	15
	Mx	N	16	15
	Mx	Z	17	13
Ki	iP		05 17 05.6	
	i		05 17 10.0	
	iLgl		05 25 48	
			micr	sec
	P	Z'	0.1	1.0
	Mx	E	31	12
	Mx	N	8.9	10
	Mx	Z	8.4	10
Sk	iP		05 16 33.6	
	i		05 16 38.1	
Um	iP		05 16 26.0	
	i		05 16 30.5	
	i		05 16 37.0	
	iS		05 20 36	
Ud	iP		05 15 58.6	
	i		05 16 02.7	
	i		05 16 06.6	
De	iP		05 15 24.8	
	i		05 15 27.8	
	i		05 15 35.0	

Aegean Sea (h = 3 km).
m = 5.5, M = 5.6 (Up,Ki).
Multiple P; average delay after first P = 4.5 and 9.7 sec.

" 17

Up	iP		05 22 23.9	
	i		05 22 30.1	
			micr	sec
	P	Z'	0.2	1.5
	Mx	E	18	15
	Mx	N	10	15
	Mx	Z	12	13
Ki	iP		05 23 36.4	
	iLgl		05 32 23	
			micr	sec
	P	Z'	0.1	1.0
	Mx	E	21	12
	Mx	N	8.5	10
	Mx	Z	7.4	10
Sk	iP		05 23 09.5	
	i		05 23 15.3	
Um	iP		05 23 01.7	
	i		05 23 07.4	
Ud	iP		05 22 33.6	
	i		05 22 39.8	
De	eP		05 21 59	
	i		05 22 02.9	

Aegean Sea (h = 5 km).
m = 5.4, M = 5.5 (Up,Ki).
Double P; average delay of second P = 5.6 sec.

1975
Mar. 17

Up	iP		05 39 54.5	
	i		05 39 59.6	
	iS		05 43 27	
			micr	sec
	P	Z'	0.1	1.0
	i	Z'	0.4	1.1
	Mx	E	56	15
	Mx	N	30	15
	Mx	Z	33	13
Ki	iP		05 41 05.5	
	i		05 41 09.5	
	iS		05 45 52	
	iLgl		05 49 44	
			micr	sec
	P	Z'	0.4	1.3
	Mx	E	59	12
	Mx	N	23	10
	Mx	Z	20	10
Sk	iP		05 40 35.9	
	i		05 40 41.4	
Um	iP		05 40 27.5	
	i		05 40 31.8	
	iS		05 44 40	
Ud	iP		05 40 00.5	
	i		05 40 05.7	
De	iP		05 39 24.1	
	i		05 39 29.3	

Aegean Sea (h = 5 km).
m = 5.6, M = 6.0 (Up,Ki).
Multiple P; average delay of second P = 4.9 sec.

" 17 Um iP 11 01 59.8
Banda Sea (h = 540 km).

" 17 Ud iPKP 16 53 39.1
i 16 53 44.6

" 17

Up	iP		17 50 24.6	
	ipP		17 50 37.2	
			micr	sec
	P	Z'	0.1	0.9
Ki	iP		17 49 32.9	
Sk	iP		17 50 03.9	
Um	iP		17 49 58.1	
Ud	iP		17 50 24.9	
	ipP		17 50 39.4	
De	iP		17 50 47.2	

Aleutian Islands.
h = 50 km (Up,Ud).

" 17 Ud iP 17 52 31.4
Aegean Sea (h = 5 km).

" 17 Up iP 19 12 06.3
(cont.)

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

1975
Mar. 17 (cont.)

Ki	iP		19 11 52.8		C
	ipP		19 12 10.2		
			micr	sec	
	pP	Z'	0.2	1.5	
Sk	iP		19 12 12.6		
Um	iP		19 11 56.7		
	ipP		19 12 14.6		
Ud	iP		19 12 14.8		
	ipP		19 12 32.2		
	iPP		19 16 09.2		

Celebes.
h = 70 km (Ki,Um,Ud).

" 17 Ki iP 21 00 44.8
Sk iP 21 01 12.1
Um iP 21 01 12.9
Ud eP 21 01 38
Kodiak Island (h = 70 km).

" 17 Up micr sec
Mx E 3.6 23
Mx N 6.6 24
Mx Z 6.0 20
Ki micr sec
Mx E 4.5 18
Mx N 5.8 18
Mx Z 5.5 19
Um iP 22 25 03.4
Ud iP 22 25 25.4
New Guinea (h = N).
M = 6.2 (Up,Ki).

" 17 Um iP 22 54 36.6
New Guinea (h = 35 km).

" 17 Um iP 23 36 11.5
New Guinea (h = N).

" 18 Up iP 00 50 34.4

" 18 Ud iP 01 24 28.4
i 01 24 44.1
Peru (h = 40 km).

" 18 Ud eP 03 57 49
Aegean Sea (h = 5 km).

" 18 Um iP 04 31 07.4 C
Ud iP 04 30 53.6
Dominican Republic (h = 40 km).

" 18 Up i(P) 07 02 38.3

" 18 Um iP 07 08 10.8
New Guinea (h = 50 km).

1975
Mar. 18 Up iP 07 11 59.3
Ud iP 07 12 13.2

" 18 Up iSgl 09 21 07.0
Ud iPgl 09 19 52.8
iSgl 09 20 23.6
iRg 09 20 35.1
De iPgl 09 19 40.2
iSgl 09 20 05.0
West coast of Sweden,
57.9°N, 11.7°E.
Origin time = 09 19 11.
m = 3.9, M_L = 2.0 (Up,Ud,De).

" 18 Up iP 09 28 33.2
Ki iP 09 28 34.4
Um eP 09 28 26
Ud iP 09 28 49.6
Sinkiang, China (h = N).

" 18 Ud iPKPl 12 37 49.5

" 18 Up iPn 13 17 20.3 C
i 13 17 30.2
iSn 13 18 45.9
iS* 13 19 21.3
micr sec
Pn Z' 0.1 0.9
Sn Z' 0.2 0.7
S* Z' 0.5 0.9
Ki iPn 13 17 01.8 C
i 13 17 11.9
iSn 13 18 08.9
micr sec
Pn Z' 0.1 0.5
i Z' 0.1 0.6
Sn Z' 0.5 0.9
Sk iPn 13 16 22.5 C
i 13 16 32.0
iSn 13 17 03.4
Um iPn 13 17 03.0
i 13 17 11.7
iSn 13 18 14.8
i 13 18 34.9
Ud iPn 13 17 03.3
i 13 17 12.2
iSn 13 18 15.6
De ePn 13 17 48
i 13 18 06.8
iSn 13 19 31.5
iS* 13 20 21.0
Norwegian Sea (h = N).
m = 4.9, M_L = 4.0 (Up,Ki,Sk,Um,
Ud,De).
(cont.)

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

1975
Mar. 18 (cont.)
Pn is followed by another clear phase after 11.8 sec in average.

" 18 Up eP 14 46 34
Ud eP 14 46 21
Colombia (h = 170 km).

" 18 Up iP 17 34 39.9 D
ipP 17 35 12.6
iS 17 46 00
micr sec
P Z' 0.6 1.3
Ki iP 17 34 43.1
micr sec
P Z' 0.3 1.4
Sk iP 17 34 28.4 D
Um iP 17 34 44.3 D
ipP 17 35 16.0
iS 17 46 08
Ud iP 17 34 30.9 D
ipP 17 35 02.1
De iP 17 34 31.4
Peru.
h = 120 km (Up,Um,Ud).
m = 6.8 (Up,Ki).

" 18 Up iP 18 53 09.1
micr sec
P Z' 0.2 1.4
Mx E 6.6 16
Mx N 23 20
Mx Z 13 16
Ki iP 18 52 59.7
ipP 18 53 05.0
micr sec
Mx E 7.0 19
Mx N 28 18
Mx Z 7.8 14
Sk iP 18 53 26.3
ipP 18 53 32.6
Um iP 18 52 57.7
ipP 18 53 03.9
Ud iP 18 53 23.5
ipP 18 53 30.3
De iP 18 53 27.3
Tibet.
h = 25 km (Ki,Sk,Um,Ud).
M = 5.8 (Up,Ki).

" 18 Ki iP 20 57 42.1
Ud iP 20 58 35.0

" 19 Ud iP 13 20 12.9

1975
Mar. 19 Up iP 16 47 22.1
Um iP 16 46 55.9
Ud iP 16 47 22.4
Aleutian Islands (h = 60 km).

" 19 Up iP 22 26 40.2
Ki iP 22 26 29.0
Um iP 22 26 28.2
Ud iP 22 26 56.2
De eP 22 27 00
i 22 27 07.8
Sinkiang, China.

" 19 Um iP 22 54 20.3

" 20 Up iP 02 51 11.7
Ki iP 02 50 53.8
Um iP 02 50 59.0
Ud iP 02 51 18.4 C
i 02 51 30.7
Talaud Islands (h = 90 km).

" 20 Up iP 03 34 40.7
ipP 03 34 53.1
micr sec
P Z' 0.1 0.8
Ki iP 03 33 48.8
micr sec
P Z' 0.1 1.0
Sk eP 03 34 20
Um iP 03 34 14.9 C
ipP 03 34 27.2
Ud iP 03 34 41.4
ipP 03 34 53.4
De iP 03 35 03.2
ipP 03 35 15.0
Aleutian Islands.
h = 45 km (Up,Um,Ud,De).
m = 5.9 (Up,Ki).

" 20 Up iP 03 38 30.3
ipP 03 38 42.2
isP 03 38 49.9
micr sec
P Z' 0.1 0.9
Sk iP 03 38 09.3
Ud iP 03 38 30.2
ipP 03 38 42.4
isP 03 38 50.9
De iP 03 38 51.5
Aleutian Islands.
h = 45 km (Up,Ud).

" 20 Up eP 06 55 57
Sk eP 06 56 43
(cont.)

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

1975
Mar. 20 (cont.)

Um	iP		06 56 37.2
Ud	eP		06 56 02
	ipP		06 56 16.3

Greece.
h = 70 km (Ud).

" 20	Up	iP		07 22 32.0
			micr	sec
		P	Z' 0.2	1.0
	Ki	iP		07 21 38.6
	Sk	iP		07 22 11.4
	Um	iP		07 22 04.8
	Ud	iP		07 22 32.6
	De	eP		07 22 56

Aleutian Islands (h = 55 km).

" 20	Up	iP		07 41 34.3 C
			micr	sec
		P	Z' 0.5	1.2
	Ki	iP		07 40 41.5 C
			micr	sec
		P	Z' 0.1	1.4
	Sk	iP		07 41 13.6 C
	Um	iP		07 41 07.0 C
		ipP		07 41 22.2
	Ud	iP		07 41 35.2 C
	De	iP		07 41 56.9 C

Aleutian Islands.
h = 55 km (Um).
m = 6.0 (Up,Ki).

" 20	Um	iP	07 46 26.7
" 20	Um	iP	10 25 44.6

Indian Ocean (h = N).

" 20	Up	i(Sgl)	11 09 46.3
	Ud	i(Sgl)	11 09 31.6
" 20	Up	iPKPl	13 36 45.9
	Ud	iPKPl	13 36 47.0
" 20	Ud	iPKPl	15 59 03.1
" 20	Um	iP	20 13 32.9
	Ud	iP	20 14 03.2

Japan (h = 40 km).

" 20	Ud	iPKP	23 09 44.0
		i	23 09 53.6
" 21	Ud	iP	00 41 09.1

Indian Ocean (h = N).

" 21	Up	iSKPl	04 45 48.4

(cont.)

1975
Mar. 21 (cont.)

Sk	iPKP		04 42 24.6
Um	iPKP		04 42 20.4
	ipPKP		04 42 51.8
	iSKPl		04 45 37.4
Ud	iPKP		04 42 30.5
	iSKPl		04 45 50.9
De	i(PKP)		04 42 27.8

New Hebrides Islands.
h = 110 km (Um).

" 21	Up	iP		13 27 03.3
	Ud	iP		13 27 05.1 C

Aleutian Islands (h = 55 km).

" 22	Sk	iP	04 04 13.6
	Ud	eP	04 04 37

Alaska (h = 25 km).

" 22	Up	iP	05 22 24.8

Greece.

" 22	Um	iP	05 28 42.1
	Ud	eP	05 28 26

Venezuela (h = N).

" 22	Um	iPKPl	05 46 41.6
" 22	Ud	iPKPl	06 42 02.5
" 22	Sk	iP	08 39 09.0
" 22	Up	iP	14 05 53.5
	Ki	eP	14 05 07
	Um	iP	14 05 28.1 C
	Ud	iP	14 05 59.4

Kurile Islands (h = N).

" 22	Ud	iP	14 17 53.6
" 22	Ud	iP	15 30 00.9
" 22	Up	iP	15 40 30.0
		i	15 40 34.1
			micr sec
		P	Z' 0.2 1.4
		Mx	E 1.6 17
		Mx	N 2.6 21
		Mx	Z 2.6 19
	Ki	iP	15 40 45.8
			micr sec
		Mx	E 2.0 11
		Mx	N 1.8 13
		Mx	Z 1.8 11
	Sk	iP	15 40 56.6
	Um	iP	15 40 32.6 C

(cont.)

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

1975
Mar. 22 (cont.)

Ud	iP	15 40 46.4	C
De	iP	15 40 39.0	C

Pakistan (h = 40 km).
M = 5.4 (Up,Ki).

" 22	Um	iP	16 51 18.2
" 22	Um	iPKP1	18 40 09.2
" 22	Up	iP	19 04 47.6
		ipP	19 04 59.4
	Ki	iP	19 03 53.1
	Sk	eP	19 04 30
		ipP	19 04 39.8
	Um	iP	19 04 18.1
	Ud	iP	19 04 49.3
		i(pPcP)	19 05 41.4
	De	iP	19 05 12.6
		i(pPcP)	19 05 55.2

Kamchatka.
h = 40 km (Up,Sk).

" 22	Um	iPKP2	22 57 02.5
	Ud	iPKP2	22 57 20.2
	De	iPKP2	22 57 25.9

Auckland Islands (h = N).

" 23	Ud	iP	01 17 44.9

New Guinea (h = N).

" 23	Ki	iP	01 27 42.0
	Um	iP	01 27 34.5

Kashmir (h = N).

" 23	Up	iP1	07 44 32.7	C
		ipP1	07 44 37.2	
		iP2	07 44 46.4	
		ipP2	07 44 51.0	
		iS	07 54 23	
			micr	sec
		P1 Z'	1.1	1.2
		P2 Z'	0.9	0.9
		Mx E	98	22
		Mx N	220	22
		Mx Z	97	19
	Ki	iP1	07 44 09.6	C
		ipP1	07 44 14.2	
		iP2	07 44 23.0	
		ipP2	07 44 28.0	
		iS	07 53 37	
			micr	sec
		P1 Z'	2.2	1.6
		P2 Z'	1.0	1.3
		Mx E	63	16
		Mx N	110	19
		Mx Z	55	15

(cont.)

1975
Mar. 23 (cont.)

Sk	iP1	07 44 36.9	C
	ipP1	07 44 41.3	
Um	iP1	07 44 17.6	C
	ipP1	07 44 22.3	
	iP2	07 44 29.9	
	ipP2	07 44 35.1	
	iS	07 53 55	
Ud	iP1	07 44 42.7	C
	ipP1	07 44 47.2	
	iP2	07 44 55.6	
De	iP1	07 44 50.8	
	ipP1	07 44 55.2	
	iP2	07 45 03.9	
	iPP	07 47 57.9	

Formosa.
Interpreted as two shocks, 13.1 sec apart.
h_1 = 15 km (Up,Ki,Sk,Um,Ud, De).
h_2 = 20 km (Up,Ki,Um).
$m_1 = m_2 = 6.9$, M = 7.0 (Up,Ki).

" 23	Up	iP	13 38 00.9

Formosa (h = N).

" 23	Sk	iP	14 16 51.2
	Ud	iP	14 16 19.3
	De	iP	14 15 47.9

Crete.

" 23	Up	iP	14 29 19.2
	Ki	iP	14 28 54.7
	Ud	iP	14 29 28.7

Formosa (h = N).

" 23	Up	iPKP1	18 23 56.8
	Ud	iPKP1	18 24 00.9
" 23	Ud	iP	19 35 31.8

Crete.

" 23	Up	iP	19 59 01.8	C
		iPcP	19 59 28.2	
			micr	sec
		P Z'	0.2	0.8
	Ki	iP	19 58 13.8	C
		iPcP	19 58 58.4	
			micr	sec
		P Z'	0.2	0.5
	Sk	iP	19 58 48.6	C
	Um	iP	19 58 35.2	
	Ud	iP	19 59 06.1	C
	De	iP	19 59 25.7	C

Kurile Islands (h = N).
m = 6.4 (Up,Ki).

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

1975 Mar.	23	Up	iP	21 45 17.3	C
		Ki	iP	21 45 44.5	
		Um	iP	21 45 27.7	
		Ud	iP	21 45 28.2	
		De	iP	21 45 15.3	
		Indian Ocean.			
"	24	Up	iP	00 57 30.4	
		Ud	iP	00 57 25.7	
"	24	Up	iP	02 36 37.4	
			ipP	02 36 42.5	
			iS	02 39 14.3	
			iLg2	02 40 46.4	
		Ki	iP	02 38 10.9	
			iLg1	02 44 32.8	
		Sk	iP	02 37 18.0	
		Um	iP	02 37 23.1	
			ipP	02 37 28.2	
		Ud	iP	02 36 35.3	
			iLi	02 40 00.4	
		De	iP	02 35 43.2	
			iLg2	02 38 42.9	
		Italy-Austria.			
		h = 25 km (Up,Um).			
"	24	Ki	iP	04 50 13.4	
		Sk	iP	04 50 25.6	
			iS	04 52 12.3	
		Ud	iP	04 51 12.1	
		Jan Mayen region.			
"	24	Up	iP	05 42 03.4	
			i	05 42 05.4	C
				micr sec	
			P Z'	0.2 1.0	
			Mx E	3.4 28	
			Mx N	6.5 27	
		Ki	iP	05 42 20.1	
			i	05 42 22.6	
				micr sec	
			P Z'	0.1 0.9	
			Mx E	3.6 11	
			Mx N	3.6 13	
			Mx Z	2.2 13	
		Sk	iP	05 42 31.4	
			i	05 42 33.5	C
		Um	iP	05 42 06.6	
			i	05 42 08.4	C
			iPP	05 43 54.8	
		Ud	iP	05 42 19.5	
			i	05 42 21.5	C
			iPP	05 44 14.0	
		De	iP	05 42 12.3	
			i	05 42 14.1	C
		(cont.)			

1975 Mar.	24	(cont.)			
		De	iPP	05 44 06.8	
		Pakistan (h = 25 km).			
		m = 6.0, M = 5.4 (Up,Ki).			
		Double P, in average 2.0 sec apart.			
"	24	Sk	iP	07 12 22.3	
		Um	i(P)	07 12 48.1	
		Ud	i(P)	07 12 28.5	
		Guatemala (h = 60 km).			
"	24	Up	iPKP1	14 40 00.2	
		Um	iPKP1	14 39 50.3	
		Ud	iPKP1	14 40 02.2	
			iPKP2	14 40 13.6	
		South of Kermadec Islands (h = N).			
"	24	Up	iP	15 24 18.2	
		Ud	iP	15 24 24.8	
		Greece (h = 50 km).			
"	24	Up	iRg	15 25 30.7	
			i	15 25 31.4	
		Dannemora, Sweden, 60.1°N, 17.5°E.			
		Origin time = 15 25 14.			
		Rockburst at the iron ore mines.			
		Felt.			
"	24	Up	iPKP1	15 43 40.2	C
		Ki	iPKP	15 43 33.9	
			iSKP1	15 46 01.7	
		Um	iPKP	15 43 35.0	
			i	15 43 41.6	
			iSKP1	15 46 18.9	
		Ud	iPKP1	15 43 42.4	C
			iSKP1	15 46 27.4	
		De	iPKP1	15 43 53.8	D
			iSKP1	15 46 36.1	
		Fiji Islands (h = 650 km).			
"	24	Ud	iPKP1	17 59 17.8	
		De	iPKP1	17 59 30.4	
"	24	Ud	iP	21 01 54.2	
		India-China.			
"	24	Up	iP	21 12 56.8	
		Ud	iP	21 12 44.0	
"	25	Up	i(pP)	02 44 18.5	
			i	02 44 27.4	
		(cont.)			

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

1975 Mar.	25	(cont.)			
		Sk	iP		02 43 44.3
		Um	iP		02 44 03.7
			ipP		02 44 15.3
		Ud	eP		02 43 57
		Guatemala.			
		h = 45 km (Um).			
"	25	Ud	iP		02 58 28.8
		De	iP		02 57 56.0
		Crete (h = N).			
"	25	Ud	iP		03 45 06.1
		Crete.			
"	25	Up	iPKKP2		07 10 53.2
		Ki	iPKP		06 59 51.7
			ipPKP		07 00 38.8
			iPKKP2		07 10 37.6
					micr sec
			PKP	Z'	0.1 1.4
			pPKP	Z'	0.2 1.6
		Um	iPKP		06 59 49.9
			iPKKP2		07 10 42.7
		Ud	iPKP		06 59 41.1
			iPKKP2		07 11 00.0
		De	iPKP		06 59 40.0
		Argentina.			
		h = 180 km (Ki).			
"	25	Up	iP		10 22 25.8
		Um	iP		10 22 12.8
		Ud	iP		10 22 34.5
		Ryukyu Islands (h = 50 km).			
"	25	Up	iPKP1		10 40 38.5
"	25	Ud	iPKP1		13 56 33.2
		De	iPKP1		13 56 43.4
		Tonga Islands (h = N).			
"	25	Ud	iPKP1		18 59 19.1
		De	iPKP1		18 59 30.1
"	25	Up	iSKP1		21 28 10.6
					micr sec
			SKP1	Z'	0.1 1.2
		Ki	iPKP		21 24 29.0
		Um	iPKP		21 24 36.9
		Ud	iPKP		21 24 47.5
		De	iPKP		21 24 54.0
		New Hebrides Islands			
		(h = 15 km).			
"	25	Up	iP		23 50 51.3

1975 Mar.	26	Ud	iPKP1		02 07 51.8
"	26	Up	iPKP1		03 47 29.4
			iPKP2		03 47 35.1
		Um	iPKP1		03 47 17.5
		Ud	iPKP1		03 47 30.4
		South of Kermadec Islands			
		(h = 430 km).			
"	26	Up	iP		03 51 31.5
					micr sec
			P	Z'	0.1 1.5
			Mx	E	0.9 16
			Mx	N	0.8 15
			Mx	Z	1.0 18
		Ki	iP		03 52 18.7
					micr sec
			P	Z'	0.1 1.2
		Sk	iP		03 51 58.5
		Um	iP		03 51 54.6
		Ud	iP		03 51 36.9
		De	iP		03 51 13.4
		Lake Tanganyika (h = N).			
		m = 5.8 (Up,Ki).			
"	26	Ud	iP		04 08 00.5
"	26	Up	iP		04 55 56.0
		Ud	iP		04 56 14.5
"	26	Up	ipP		13 27 02.3
		Ki	ipP		13 26 40.0
		Ud	iP		13 27 03.3
			ipP		13 27 09.1
		Formosa.			
		h = 20 km (Ud).			
"	26	Ud	iP		13 27 47.0
		Hindu Kush.			
		Intermediate depth.			
"	26	Ud	iP		13 55 50.0
		De	iP		13 55 32.2
		Iran.			
"	26	Up	iP		14 45 00.8
		Ud	iP		14 45 15.2
		Pakistan (h = N).			
"	26	Up	iP		16 28 39.8 C
			ipP		16 28 47.2
		Ki	iP		16 29 00.6 C
		Sk	iP		16 29 07.3
			ipP		16 29 14.6
		Um	iP		16 28 45.9 C
			ipP		16 28 53.3
		(cont.)			

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

1975
Mar. 26 (cont.)

Ud	iP		16 28 54.3	C
	ipP		16 29 00.8	
De	iP		16 28 44.6	
	ipP		16 28 51.3	

Arabian Sea.
h = 30 km (Up,Sk,Um,Ud,De).

" 26

Up	iP		16 43 38.4	
Ki	iP		16 42 59.6	
Um	iP		16 43 17.2	
	ipP		16 43 34.0	
Ud	iP		16 43 46.7	
De	iP		16 44 01.0	

Japan.
h = 60 km (Um).

" 26

Up	iP		18 13 21.0	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		18 12 27.2	
Sk	iP		18 13 04.6	
Um	iP		18 12 52.5	
Ud	iP		18 13 24.6	
De	iP		18 13 46.1	

Kamchatka (h = N).

" 26

De	iPKPl		18 25 06.4	

" 26

Up	iP		18 33 50.8	
	ipP		18 34 05.4	
Ki	iP		18 33 26.3	
	ipP		18 33 41.3	
Sk	ipP		18 34 08.9	
Ud	ipP		18 34 14.5	

Formosa.
h = 55 km (Up,Ki).

" 26

Ud	iP		19 05 53.3	C

" 26

Ki	iP		19 50 07.2	
Um	iP		19 50 22.8	C
Ud	iP		19 50 49.6	

South of Japan (h = N).

" 26

Ud	iP		20 04 52.1	

Pakistan (h = 45 km).

" 26

De	eP		21 55 35	

Colombia (h = 170 km).

" 26

Up	iP		23 32 43.4	
			micr	sec
	Mx	N	1.1	20
	Mx	Z	1.1	20

(cont.)

1975
Mar. 26 (cont.)

Ki	iP		23 32 30.1	
			micr	sec
	Mx	E	1.2	16
	Mx	N	2.3	21
	Mx	Z	1.4	17
Sk	iP		23 32 50.9	
	ipP		23 33 01.1	
Um	iP		23 32 34.3	C
	ipP		23 32 44.5	
Ud	iP		23 32 52.3	C
	ipP		23 33 02.8	
De	iP		23 32 57.9	

Celebes Sea.
h = 40 km (Sk,Um,Ud).
M = 5.5 (Up,Ki).

" 27

Up	iPKPl		04 38 06.4	
Sk	iPKPl		04 38 02.0	
Um	iPKPl		04 37 55.6	
Ud	iPKPl		04 38 08.9	
De	iPKPl		04 38 18.8	

Kermadec Islands.

" 27

Up	iP		05 19 41.5	
	i		05 19 46.2	
	iS		05 23 15	
			micr	sec
	P	Z'	0.2	1.4
	i	Z'	3.2	1.8
	Mx	E	540	20
	Mx	N	350	18
	Mx	Z	270	16
Ki	iP		05 20 55.3	
	i		05 20 59.8	
	iS		05 25 43	
			micr	sec
	P	Z'	0.2	1.5
	i	Z'	1.3	1.5
	Mx	E	320	15
	Mx	N	110	10
	Mx	Z	90	10
Sk	iP		05 20 26.1	
	i		05 20 30.9	
Um	iP		05 20 19.0	
	i		05 20 24.3	
	iS		05 24 33	
Ud	iP		05 19 52.5	C
	i		05 19 56.4	
De	iP		05 19 14.3	
	i		05 19 18.4	
	i		05 19 22.6	

Aegean Sea (h = 5 km).
m = 6.4, M = 6.8 (Up,Ki).
Multiple P, in average 4.5 sec between first and second onsets.

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

1975 Mar.	27	Up	iP		06 20 20.2		
			i		06 20 23.3		
					micr	sec	
			P	Z'	0.1	1.4	
		Ki	eP		06 21 32		
			i		06 21 36.3		
		Sk	iP		06 21 07.4		
			i		06 21 11.1		
		Um	iP		06 20 57.8		
			i		06 21 02.0		
		Ud	iP		06 20 29.1		
			i		06 20 33.1		
		De	eP		06 19 54		
		Aegean Sea (h = N).					
		Double P, in average 3.8 sec apart.					
"	27	Up	iP		08 11 11.2		
		Ud	iP		08 11 16.6		
"	27	Um	iPKPl		08 21 25.3		
			i		08 21 39.3		
		Ud	ePKPl		08 21 44		
"	27	Up	iPKPl		10 15 51.7		
		Ki	iPKPl		10 15 31.7		
		Sk	iPKPl		10 15 46.2		
		Um	iPKPl		10 15 40.9		
		Ud	iPKPl		10 15 53.5		
		De	ePKPl		10 16 02		
		South of Kermadec Islands (h = 130 km).					
"	27	Ud	iP		11 16 29.4		
		Aegean Sea (h = N).					
"	27	Ud	iPKPl		14 48 38.6		
"	27	Up	iPKP		15 58 05.9		
		Ki	iPKP		15 58 21.3		
		Um	iPKP		15 58 13.6		
		Ud	iPKP		15 58 05.1		
		South Atlantic Ocean (h = N).					
"	27	Up	iP		18 10 59.1		
		Ki	iP		18 10 35.8		
					micr	sec	
			Mx	E	0.7	16	
			Mx	N	0.5	15	
			Mx	Z	0.5	12	
		Um	iP		18 10 44.4		
			i		18 10 50.8		
		Ud	iP		18 11 09.4		
		Formosa (h = N).					

1975 Mar.	27	Up	iP		19 01 17.8		
		Ki	iP		19 00 23.9		
		Um	iP		19 00 50.6		
		Ud	iP		19 01 19.1		
		Aleutian Islands (h = N).					
"	27	Ud	iPKPl		19 33 00.4		
"	27	Up	eP		19 47 19		
		Ki	i		19 48 58.0		
					micr	sec	
			Mx	E	0.7	13	
			Mx	N	0.5	12	
		Sk	e		19 48 07		
			i		19 48 18.3		
		Um	iP		19 47 56.4	D	
			i		19 48 11.3		
		Ud	iP		19 47 27.1		
			i		19 47 34.9		
		De	e		19 46 59		
		Aegean Sea (h = 5 km).					
"	27	Up	eP		20 31 23		
			i		20 31 42.2		
		Ki	eP		20 30 53		
		Um	i		20 31 25.8		
		Ud	iP		20 31 31.7		
			i		20 31 51.4		
		Formosa (h = N).					
"	27	Um	iP		20 35 49.9		
		Ud	iP		20 35 22.0		
		Aegean Sea.					
"	27	Um	iP		21 21 17.7		
		Ud	iP		21 20 51.3		
		Aegean Sea.					
"	27	Ud	eP		23 12 49		
		Aegean Sea.					
"	28	Up	iP		02 42 21.8	C	
			i		02 42 25.9		
			iS		02 51 35		
					micr	sec	
			P	Z'	0.3	1.3	
			i	Z'	1.6	1.6	
			Mx	E	3.1	20	
			Mx	N	2.7	19	
			Mx	Z	4.6	21	
		Ki	iP		02 41 45.9		
			i		02 41 49.7		
			iS		02 50 31		
			iP'P'		03 10 35.0		

(cont.)

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

1975
Mar. 28 (cont.)

			micr	sec
Ki				
	P	Z'	0.2	1.3
	i	Z'	0.7	1.7
	Mx	E	4.6	14
	Mx	N	4.3	16
	Mx	Z	5.4	14
Sk	iP		02 41 54.4	
	i		02 41 57.6	
Um	iP		02 42 06.3	
	i		02 42 10.0	
	iS		02 51 07	
	iP'P'		03 10 23.7	
Ud	iP		02 42 12.9	
	i		02 42 16.6	
De	iP		02 42 30.6	
	i		02 42 34.2	

Idaho, USA (h = 5 km).
m = 6.8, M = 5.9 (Up,Ki).
Double P, in average 3.7 sec apart.

"	28	Ki	iPgl	03 17 24.5
			iSgl	03 18 16.3
		Sk	eS*	03 18 27
			iSgl	03 18 31.3
		Um	iSn	03 18 57.1
			iSgl	03 19 25.7
		Ud	iSgl	03 20 08.3

Norwegian Sea,
near 67.7°N, 9.7°E.
Origin time = 03 16 17.
m = 4.2, M_L = 2.5 (Ki,Sk,Um, Ud).

"	28	Up	iPKPl	03 20 24.8
		Sk	iPKPl	03 20 20.5
		Um	iPKPl	03 20 15.6
		Ud	iPKPl	03 20 26.9

Tonga-Kermadec Islands.

"	28	Ud	iP	03 37 05.5
"	28	Um	iP	05 24 26.9
"	28	Up	iP	05 59 54.2
			ipP	06 00 41.6
		Ki	iP	06 00 03.1
		Um	iP	05 59 52.6 C
			ipP	06 00 39.9
		Ud	iP	06 00 10.6 C
			ipP	06 00 58.2
		De	iP	06 00 07.3

Hindu Kush.
h = 230 km (Up,Um,Ud).

1975
Mar. 28

	Up	iP	07 47 38.1
	Ki	iP	07 47 13.7
	Sk	iP	07 47 48.8
	Um	iP	07 47 19.1
	Ud	iP	07 47 51.2
	De	iP	07 48 00.0

Mongolia (h = N).

"	28	Um	iP	08 21 09.0
			iPP	08 25 25.8
		Ud	eP	08 21 27

Banda Sea (h = N).

"	28	Ud	iP	08 37 40.6

Aegean Sea.

"	28	Up	iP	09 21 12.2
		Ud	iP	09 21 20.6
"	28	Um	iPKP	17 07 23.4
"	28	Um	iP	18 00 10.1
			i	18 00 24.5
"	28	Up	iPKP	19 51 26.4
		Um	iPKP	19 51 20.0
			i	19 51 33.7
		Ud	iPKP	19 51 29.1
		De	iPKP	19 51 34.1

Solomon Islands (h = 80 km).

"	28	Ki	iP	20 41 14.7
		Um	iP	20 41 20.6
		Ud	iP	20 41 36.7

Celebes (h = 110 km).

"	29	Um	iP	01 00 16.6
"	29	Um	iPKPl	01 09 51.1
			i	01 10 00.6
		Ud	iPKPl	01 10 08.2
"	29	Up	iP	01 59 21.0
		Ki	iP	02 00 25.5
		Sk	iP	01 59 35.5
		Um	iP	01 59 56.6
			i	02 00 02.5
		Ud	iP	01 59 13.4

Strait of Gibraltar (h = N).

"	29	Sk	iP	03 07 40.9
		Um	iP	03 07 16.5
		Ud	iP	03 07 37.3
"	29	Ud	iP	03 13 17.2
"	29	Ud	i(P)	08 33 32.4

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

1975 Mar.	29	Up	iP		09 45 33.1	
			ipP		09 45 38.3	
			iS		09 52 57	
					micr	sec
			pP	Z'	0.2	1.3
			Mx	E	2.7	18
			Mx	N	4.4	19
			Mx	Z	5.2	17
		Ki	iP		09 46 11.1	
			ipP		09 46 17.9	
			iS		09 54 10	
					micr	sec
			pP	Z'	0.1	1.3
			Mx	E	3.0	19
			Mx	N	4.3	20
			Mx	Z	5.5	16
		Sk	iP		09 46 05.3	
			ipP		09 46 10.5	
		Um	iP		09 45 49.4	
			ipP		09 45 55.0	
			iPcP		09 46 57.6	
			iS		09 53 25	
		Ud	iP		09 45 44.2	
			ipP		09 45 50.0	
		De	iP		09 45 28.0	
		Gulf of Aden.				
		h = 20 km (Up,Ki,Sk,Um,Ud).				
		m = 5.8, M = 5.6 (Up,Ki).				
"	29	Up	iP		10 19 24.4	
		Ki	iP		10 19 21.2	
		Sk	iP		10 19 41.1	
		Um	iP		10 19 18.2	
		Ud	iP		10 19 37.2	D
		Burma.				
"	29	Ki	iPKPl		15 22 14.0	
		Um	iPKPl		15 22 24.2	
		Ud	iPKPl		15 22 24.5	
"	29	Ki	iP		15 26 24.4	
		Um	iP		15 26 38.6	
"	29	Sk	eP		15 44 21	
		Ud	iP		15 43 46.9	
		Greece (h = N).				
"	29	Ki	iP		18 08 47.6	
		Ud	iP		18 08 59.0	
		Sunda Strait region				
		(h = 90 km).				
"	29	Up	iP		20 08 23.5	C
		(cont.)				

1975 Mar.	29	(cont.)				
		Up			micr	sec
			P	Z'	0.1	0.8
		Ki	iP		20 07 45.1	C
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		20 08 18.0	
		Um	iP		20 08 02.1	C
		Ud	iP		20 08 30.8	C
		De	iP		20 08 45.2	C
		Japan (h = 80 km).				
		m = 5.8 (Up,Ki).				
"	29	Ud	iPKPl		20 15 08.3	
		De	iPKPl		20 15 19.1	
"	30	Um	iP		02 13 26.5	
		Ud	eP		02 12 55	
		Aegean Sea.				
"	30	Um	iPKPl		03 25 51.6	C
		Ud	iPKPl		03 26 03.4	
"	30	Sk	eP		04 19 35	
		Um	iP		04 19 18.4	
		Ud	iP		04 19 47.4	
		Japan (h = 80 km).				
"	30	Up	iP		10 56 35.5	C
		Ki	iP		10 56 34.7	
		Sk	iP		10 56 48.5	
		Um	iP		10 56 32.0	C
		Ud	iP		10 56 46.2	C
			ipP		10 57 28.6	
		De	iP		10 56 44.2	
		Sumatra.				
		h = 170 km (Ud).				
"	30	Ki	eP		13 09 12	
					micr	sec
			Mx	E	0.4	12
		Sk	eP		13 08 39	
		Um	iP		13 08 30.3	
		Ud	iP		13 08 03.6	
		Aegean Sea.				
"	30	Ud	iP		13 48 24.6	
		Aegean Sea.				
"	30	Ud	eP		13 56 40	
"	30	Ud	iP		14 10 56.3	
		De	iP		14 10 35.6	
"	30	Ud	iP		15 32 21.0	
			i		15 32 30.1	

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

1975						
Mar.	30	Ud	iP		22 48 28.7	
"	30	Up			micr	sec
			Mx	E	4.5	23
			Mx	N	4.5	21
			Mx	Z	10	21
		Ki	iPKP		22 51 05.5	
			iPP		22 52 30.6	
					micr	sec
			PKP	Z'	0.1	1.3
			PP	Z'	0.1	1.5
			Mx	E	6.8	22
			Mx	N	9.0	22
			Mx	Z	9.2	24
		Um	iPKP		22 50 50.3	
			iPP		22 52 01.6	
		Ud	iPP		22 51 32.5	
		De	i		22 54 10.6	
"	31	Up	iP		01 49 12.0	
			ipP		01 49 52.3	
					micr	sec
			pP	Z'	0.1	1.2
		Ki	iP		01 48 45.8	C
			ipP		01 49 23.4	
		Sk	iP		01 49 14.9	
		Um	iP		01 48 56.4	C
			ipP		01 49 34.3	
		Ud	iP		01 49 22.0	C
			ipP		01 50 00.9	
		De	iP		01 49 32.3	
		East China Sea.				
		h = 150 km (Up,Ki,Um,Ud).				
"	31	Up	iP		02 38 02.8	C
		Um	iP		02 37 58.4	
"	31	Ud	i(Sgl)		02 53 18.9	
"	31	Ki	iP		03 01 30.5	
		Ud	iP		03 02 04.3	
"	31	Up	iP		03 03 53.7	
					micr	sec
			P	Z'	0.2	1.0
			Mx	E	1.0	13
			Mx	N	2.5	23
			Mx	Z	2.4	13
		Ki	iP		03 03 30.1	
			i		03 03 48.9	
					micr	sec
			P	Z'	0.2	1.0
			Mx	E	1.2	16
			Mx	N	1.2	14
			Mx	Z	0.6	10
		(cont.)				

1975						
Mar.	31	(cont.)				
		Sk	iP		03 03 56.2	
		Um	iP		03 03 38.4	
		Ud	iP		03 04 03.2	
			i		03 04 22.4	
		De	iP		03 04 11.8	
		Formosa (h = 30 km).				
		m = 6.2, M = 5.6 (Up,Ki).				
"	31	Up	iP		05 59 28.8	
			ipP		05 59 38.8	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		05 58 43.2	
			ipP		05 58 54.6	
		Sk	iP		05 58 59.4	
			ipP		05 59 09.9	
		Um	iP		05 59 08.3	C
			ipP		05 59 18.3	
		Ud	iP		05 59 21.9	C
			ipP		05 59 31.7	
		De	iP		05 59 42.3	
			ipP		05 59 52.2	
		Vancouver Island.				
		h = 40 km (Up,Ki,Sk,Um,Ud, De).				
"	31	Ki	iP		06 12 30.1	
"	31	Um	i(P)		07 03 53.0	
"	31	Up	iP		08 32 12.3	
			i		08 32 15.0	
			ipP		08 32 28.0	
					micr	sec
			pP	Z'	0.1	1.0
		Ki	iP		08 33 35.6	
		Sk	iP		08 33 06.1	
		Um	iP		08 32 53.1	
			i		08 32 54.8	
			ipP		08 33 09.3	
			iS		08 36 13.3	
			iLgl		08 38 23.4	
		Ud	iP		08 32 27.1	
			i		08 32 29.7	
			ipP		08 32 43.3	
		De	iP		08 31 47.8	
		Rumania.				
		h = 80 km (Up,Um,Ud).				
"	31	Up	iP		10 13 28.0	C
					micr	sec
			P	Z'	0.3	1.4
			Mx	E	3.3	12
			Mx	N	3.6	11
			Mx	Z	5.8	11
		(cont.)				

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

1975

Mar.	31	(cont.)					
		Ki	iP		10 13 05.3	C	
					micr	sec	
			P	Z'	0.2	1.2	
			Mx	E	12	11	
			Mx	N	5.6	11	
			Mx	Z	12	11	
		Sk	iP		10 13 38.9		
			ipP		10 13 52.2		
		Um	iP		10 13 10.6	C	
		Ud	iP		10 13 42.9	C	
		De	iP		10 13 51.5	C	
		Mongolia.					
		h = 50 km (Sk).					
		m = 5.8, M = 5.7 (Up,Ki).					
"	31	Up	ePKPl		11 01 44		
			ipPKPl		11 01 57.7		
		Ud	iPKPl		11 01 44.5		
			ipPKPl		11 02 00.2		
		De	iPKPl		11 01 55.5		
			ipPKPl		11 02 09.5		
		Tonga Islands.					
		h = 50 km (Up,Ud,De).					
"	31	Up	iP		13 10 02.3	C	
		Ki	iP		13 10 09.0		
		Sk	eP		13 10 25		
		Um	iP		13 09 59.0		
		Ud	iP		13 10 18.5		
		De	eP		13 10 15		
		Tadzhik SSR (h = 160 km).					
"	31	Up	iP		17 16 16.2		
		Ud	iP		17 16 01.2		
"	31	Ud	iP		17 27 40.3		
"	31	Up	iP		19 15 39.2		
		Ud	iP		19 15 46.2		
		Kurile Islands (h = N).					
"	31	Up	iP		22 49 04.9		
		Ud	iP		22 49 05.9		
			i		22 49 15.6		

Markus Båth
Klaus Meyer

November 2, 1976

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BOX 517
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BOX 517
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SWEDEN

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

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

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

A P R I L 1 - 30, 1975

1975				
Apr.	1	Ud	iP	02 07 40.2
"	1	Ki	iPKP	02 52 09.5
		Um	iPKP	02 52 07.4
		Ud	iPKP	02 51 58.1
			ipPKP	02 52 07.2
		De	iPKP	02 51 54.4
		Chile.		
		h = 30 km (Ud).		
"	1	Up	iPKPl	03 13 31.3
		Um	i(PKP)	03 13 19.8
			iPKP	03 13 28.8
		Ud	iPKPl	03 13 34.0 D
		De	iPKPl	03 13 43.6
		Tonga-Kermadec Islands		
		(h = 580 km).		
"	1	Up	iP	08 24 52.4
		Ki	iP	08 26 09.1
		Sk	iP	08 25 35.6
		Um	i	08 25 44.4
		Ud	iP	08 25 04.6
		De	iP	08 24 26.6
		Greece (h = 6 km).		
		Consistent positive residuals		
		versus the NEIS solution.		
"	1	Ud	iP	12 54 23.5
"	1	Up	iSgl	15 25 00.8
		Ud	iSn	15 23 39.7
			iSgl	15 23 59.3
		De	iSgl	15 24 49.8
		Southwest Norway.		
"	1	Ki	eP	16 27 30
		Um	iP	16 27 20.4
		(cont.)		

1975				
Apr.	1	(cont.)		
		Ud	iP	16 27 42.2
		De	iP	16 27 44.3
		Tibet-India (h = N).		
"	1	Ki	iP	18 57 52.2
		Um	iP	18 58 18.1
		Ud	iP	18 58 47.8
		Aleutian Islands.		
"	1	Up	iP	19 32 14.2
		Ki	iP	19 31 28.5 C
		Um	iP	19 31 48.4
		Ud	iP	19 32 19.5
			ipP	19 32 29.6
		Kurile Islands.		
		h = 35 km (Ud).		
"	2	Ud	iP	02 50 59.5
		Hindu Kush.		
		Intermediate depth.		
"	2	Ki	iP	03 55 50.2
		Ud	iP	03 56 25.4
		Formosa (h = N).		
"	2	Up	iP	04 28 33.8
		Ki	iP	04 29 40.2
				micr sec
			Mx E	0.4 10
			Mx N	0.4 10
			Mx Z	0.4 11
		Sk	iP	04 29 13.5
		Um	iP	04 29 10.3
		Ud	iP	04 28 41.7
		Crete (h = N).		
"	2	Up	iP	08 55 37.7
		(cont.)		

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

1975
Apr. 2 (cont.)

Up	i		08 55 38.8	
	iS		09 05 13	
			micr	sec
	P	Z'	0.2	1.1
	Mx	E	2.1	22
	Mx	N	1.6	18
	Mx	Z	1.8	22
Ki	iP		08 55 01.5	
	iS		09 04 00	
			micr	sec
	P	Z'	0.1	1.0
	Mx	E	2.7	19
	Mx	N	2.3	18
	Mx	Z	2.7	18
Sk	iP		08 55 33.2	
Ud	iP		08 55 45.2	
	i		08 55 46.2	
De	iP		08 55 59.3	

Japan (h = 70 km).
m = 5.9, M = 5.6 (Up,Ki).

" 2	Up	iP	10 47 34.1	
		i	10 47 42.9	
	Ki	iP	10 47 12.1	
		i	10 47 22.6	
	Ud	iP	10 47 43.1	
		i	10 47 50.7	

Luzon (h = 45 km).

" 2	Up	iPKPl	10 50 50.3	
	Ki	iPKP	10 50 48.8	
	Ud	iPKPl	10 50 57.2	
	De	iPKPl	10 51 09.1	C

Tonga Islands (h = N).

" 2	Up	iP	14 54 16.5
	Ki	iP	14 53 23.5
		i	14 53 35.4
	Ud	iP	14 54 16.4
		i	14 54 34.8
	De	iP	14 54 39.4

Aleutian Islands (h = 60 km).

" 2	Up	iP	15 27 47.8
	Ki	iP	15 27 25.3
	Ud	iP	15 27 58.1

Formosa.

" 2	Up	i	15 28 56.0
		iRg	15 28 59.7
	Ud	iSgl	15 29 15.4

Central Sweden.
Near-surface event.

1975
Apr. 2 Ki iP 15 29 04.4

" 2	Ki	iP	16 15 18.0
	Ud	iP	16 15 52.7

Formosa (h = 55 km).

" 2	Ki	iP	16 38 22.8
	Ud	iP	16 38 03.7
" 2	Ud	iP	21 15 47.2
" 2	Ud	eP	21 17 47

Idaho, USA (h = 7 km).

" 2	Up	iPKPl	23 25 04.9
" 3	Up	iPKPl	00 51 11.9
	Ud	iPKPl	00 51 15.0
	De	iPKPl	00 51 25.4

Tonga-Kermadec Islands.

" 3	Ud	iP	02 52 25.6
" 3	Up	iPKP	03 33 01.4
	Ki	iPKP	03 32 48.3 C
	Sk	iPKP	03 32 58.5 C
	Ud	iPKP	03 33 04.2 D
	De	iPKP	03 33 10.7 D
		iSKPl	03 36 26.3

Santa Cruz Islands (h = 120 km).

" 3	Up	iP	06 38 53.7	C
		ipP	06 39 13.3	
			micr	sec
		P Z'	0.1	0.8
	Ki	iP	06 38 34.7	C
		ipP	06 38 54.3	
			micr	sec
		P Z'	0.1	0.8
	Sk	iP	06 39 00.7	
	Ud	iP	06 39 03.1	C
	De	iP	06 39 09.8	C

Luzon.
h = 70 km (Up,Ki).
m = 5.8 (Up,Ki).

" 3	Up	iPgl	06 41 12.0
		i	06 41 52.5
		i	06 42 09.8
		iSgl	06 42 33.7
	Ki	iSgl	06 44 51.1
	Sk	i(P*)	06 40 47.1
		iPgl	06 40 54.4
		iSn	06 41 38.9

(cont.)

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

1975
Apr. 3 (cont.)

Sk	iSgl	06 42 03.3
Ud	iPn	06 40 28.5
	i(P*)	06 40 34.3
	iPgl	06 40 37.7
	iSn	06 41 19.9
	iSgl	06 41 35.4
De	iPn	06 40 42.8
	i	06 40 46.4
	iSn	06 41 43.8
	iSgl	06 42 10.4

Coast of southwest Norway, 59.6°N, 5.3°E.
Origin time = 06 39 23.
m = 4.5, M_L = 3.3 (Up,Ki,Sk, Ud,De).

" 3

Ud	iP	10 03 43.4

" 3

Ud	iPKPl	12 23 23.3
De	iPKPl	12 23 34.2 D

" 3

Up	iSgl	13 59 48.0
Ud	iRg	14 00 13.3
De	i(Rg)	14 00 40.5

Regional near-surface event.

" 3

Up	iRg	14 16 20.4
Ud	i	14 16 34.4
	iRg	14 16 39.8
De	iRg	14 16 58.4

Regional near-surface event.

" 3

Up	iP	14 45 17.2
Ki	iP	14 44 34.5
Sk	iP	14 45 09.3
Ud	iP	14 45 23.7
De	eP	14 45 40

Japan (h = 80 km).

" 3

Ki	i(Sgl)	15 12 31.3
Sk	i(Sgl)	15 13 12.2

" 3

Up	iPgl	15 42 15.9
	iSgl	15 42 33.0
	i	15 42 36.4
	iRg	15 42 41.6
Sk	iSgl	15 43 48.8
Ud	iSgl	15 42 13.2
	iRg	15 42 17.3
De	iSgl	15 43 48.9

Bergslagen, Sweden, near 60°N, 15°E.
Origin time = 15 41 54.
m = 4.0, M_L = 2.2 (Ud).
Near-surface event.

1975
Apr. 3

Up	iP	16 26 19.7
Ud	iP	16 26 27.4
De	eP	16 26 46

Kurile Islands (h = N).

" 3

Ud	eP	17 25 27

" 3

Ud	iP	20 40 46.6

" 3

Up	iPKPl	21 26 18.2
Sk	ePKPl	21 26 12
Um	iPKPl	21 26 12.4 C
Ud	iPKPl	21 26 20.0
	i	21 26 24.0
De	iPKPl	21 26 31.3

Kermadec Islands (h = 50 km).

" 3

Ud	iP	22 55 10.3

" 4

Ud	iP	00 43 14.2

Luzon (h = 15 km).

" 4

Up	iP	02 30 27.9
Sk	iP	02 31 07.0
Ud	iP	02 30 34.9
De	eP	02 30 02

Crete (h = N).

" 4

Sk	iP	02 59 50.1
Ud	iP	02 59 17.7

Greece (h = N).

" 4

Ud	iP	04 28 31.6

Kurile Islands (h = 40 km).

" 4

Ud	iP	04 56 34.9

" 4

Up	iP		05 21 05.6	
	i		05 21 07.3 D	
	iS		05 24 59	
			micr	sec
	P	Z'	0.5	0.9
	Mx	E	1.5	8
	Mx	N	2.1	12
	Mx	Z	4.3	14
Ki	iP		05 22 18.9	
	i		05 22 33.7	
	iS		05 27 08	
			micr	sec
	P	Z'	0.1	1.1
	i	Z'	0.2	1.2
	Mx	E	1.4	10
	Mx	N	1.7	16
	Mx	Z	1.1	10

(cont.)

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

1975
Apr. 4 (cont.)

Sk	iP	05 21 45.9	D
	i	05 21 47.4	
	i	05 21 59.0	
Um	iP	05 21 42.3	
	i	05 21 43.9	D
	i	05 21 57.2	
Ud	iP	05 21 11.9	D
	i	05 21 13.6	D
	iS	05 25 15.3	
De	iP	05 20 35.5	D
	i	05 20 36.6	D
	iS	05 24 09.1	

Greece (h = 55 km).
m = 5.8, M = 5.0 (Up,Ki).
Multiple P with arrivals in average 1.5 and 14.3 sec after the first onset.

" 4 Ki iP 06 06 01.6
New Guinea (h = N).

" 4 Ud iPKPl 06 14 40.2

" 4 Sk iP 09 15 21.0
Ud iP 09 14 42.2
Italy (h = N).

" 4 Up iPKP 11 31 45.9
iPKPl 11 31 50.4

			micr	sec
	PKPl	Z'	0.3	1.0

Ki iPKP 11 31 28.7

			micr	sec
	PKP	Z'	0.1	1.2

Sk iPKP 11 31 43.4
iPKPl 11 31 44.8
Um iPKPl 11 31 38.6 C
iPP 11 35 11.0
Ud iPKP 11 31 47.8
iPKPl 11 31 52.3
De iPKP 11 31 55.6
iPKPl 11 32 00.5
Kermadec Islands (h = 45 km).

" 4 Ki iP 13 44 34.2

" 4 Sk eP 14 49 09
Um i(P) 14 49 36.6
Guatemala (h = 140 km).

" 4 Up iP 17 53 43.8 C
iS 18 04 01

			micr	sec
	P	Z'	0.1	1.3

(cont.)

1975
Apr. 4 (cont.)

			micr	sec
Up				
	Mx	E	1.0	17
	Mx	N	1.0	18
	Mx	Z	1.2	18
Ki				
	Mx	E	1.0	14
	Mx	N	1.1	15
	Mx	Z	1.4	17

Sk iP 17 54 05.3
i 17 54 28.0
Um iP 17 53 59.1 C
iS 18 04 22
Ud iP 17 53 49.4 C
De iP 17 53 33.2
Madagascar (h = N).
M = 5.4 (Up,Ki).

" 4 Sk e(pPKP) 21 13 41
Um iPKP 21 13 33.6
Ud ePKP 21 13 26
South Atlantic Ocean (h = N).

" 4 Ud iP 22 54 01.0

" 5 Um iP 00 11 45.4

" 5 Ud iP 00 27 30.8

" 5 Up iP 03 35 29.9
Sk iP 03 36 09.2
Um iP 03 36 14.0
i 03 36 38.1
Ud iP 03 35 37.0
De eP 03 35 04
Greece (h = 120 km).

" 5 Ki iSgl 03 42 41.3
Sk iSgl 03 42 47.3
i 03 42 52.6
Um iSgl 03 43 10.0
Nordland, Norway.
m = 4.0, M_L = 2.1 (Ki,Sk,Um).
Explosion?

" 5 Ud iPKPl 09 00 47.8
Tonga-Kermadec Islands (h = 560 km).

" 5 Up iP 09 46 45.3
iS 09 56 45

			micr	sec
	P	Z'	0.1	1.3
	Mx	E	2.3	20
	Mx	N	2.8	22
	Mx	Z	3.8	19

(cont.)

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

1975
Apr. 5 (cont.)

Ki	iP		09 46 50.3	
	i		09 47 02.8	
			micr	sec
	P	Z'	0.2	1.3
	i	Z'	0.3	1.3
	Mx	E	2.6	20
	Mx	N	1.6	19
	Mx	Z	1.1	18
Sk	iP		09 46 30.7	
Um	iP		09 46 49.9	
	i		09 47 00.2	
	iS		09 56 52	
Ud	iP		09 46 33.6	
De	iP		09 46 35.6	

Venezuela (h = N).
m = 6.0, M = 5.8 (Up,Ki).

" 5 Ud iP 10 55 20.2

" 5

Up	iP		17 03 19.8	C
	ipP		17 03 31.0	
	iS		17 11 56.7	
			micr	sec
	P	Z'	1.4	1.5
	pP	Z'	0.3	1.0
	Mx	E	2.8	21
	Mx	N	2.9	20
	Mx	Z	5.4	20
Ki	iP		17 02 26.9	C
	ipP		17 02 37.5	
			micr	sec
	P	Z'	0.5	1.2
	pP	Z'	0.3	1.0
	Mx	E	4.8	18
	Mx	N	4.0	17
	Mx	Z	4.4	15
Sk	iP		17 03 03.2	C
Um	iP		17 02 52.1	C
	ipP		17 03 03.0	
Ud	iP		17 03 23.4	C
	ipP		17 03 34.5	
De	iP		17 03 45.2	C
	ipP		17 03 56.3	

Kamchatka.
h = 40 km (Up,Ki,Um,Ud,De).
m = 6.7, M = 5.7 (Up,Ki).

" 5

Up	iP		18 00 31.0	C
	ipP		18 00 37.9	
	iS		18 09 06.0	
			micr	sec
	P	Z'	0.9	1.3
	pP	Z'	1.3	1.3
	Mx	E	4.3	22

(cont.)

1975
Apr. 5 (cont.)

Up			micr	sec
	Mx	N	6.8	19
	Mx	Z	8.9	20
Ki	iP		17 59 37.9	C
	ipP		17 59 45.1	
			micr	sec
	P	Z'	0.6	1.4
	pP	Z'	0.6	1.2
	Mx	E	6.0	18
	Mx	N	7.1	23
	Mx	Z	3.8	18
Sk	iP		18 00 14.4	C
	ipP		18 00 21.1	
Um	iP		18 00 02.6	C
	ipP		18 00 09.6	
Ud	iP		18 00 34.9	C
	ipP		18 00 41.9	
De	iP		18 00 55.9	C
	ipP		18 01 02.8	

Kamchatka.
h = 25 km (Up,Ki,Sk,Um,Ud, De).
m = 6.7, M = 6.0 (Up,Ki).

" 5

Up	iP		19 56 48.5
Sk	iP		19 56 22.3
Um	iP		19 56 34.1
Ud	iP		19 56 40.9

Nevada.
Underground explosion.

" 5

Up	iP		20 10 53.6
Ud	iP		20 11 09.8
	i		20 11 31.3

Sumatra.

" 5

Up	iP		20 37 25.3	
Ki	iP		20 36 54.5	
Um	iP		20 37 07.5	
Ud	iP		20 37 32.4	C

Volcano Islands (h = 160 km).

" 5

Up	iP		20 50 50.6	
			micr	sec
	P	Z'	0.1	0.9
	Mx	E	1.9	24
	Mx	N	1.0	22
	Mx	Z	2.5	23
Ki	iP		20 50 50.8	
			micr	sec
	P	Z'	0.1	0.9
	Mx	E	3.0	23
	Mx	N	2.0	21
	Mx	Z	4.1	22

(cont.)

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

1975
Apr. 5 (cont.)

Sk	iP	20 50 36.1	
Um	iP	20 50 53.7	
Ud	iP	20 50 40.1	
De	iP	20 50 42.7	

Colombia (h = 50 km).
m = 5.8, M = 5.7 (Up,Ki).

" 5

Up	iP	22 04 22.4	
	i	22 04 36.0	
Ud	eP	22 04 31	

" 5

Up	iP	22 42 42.0	
Ki	iP	22 41 48.3	
Um	iP	22 42 13.9	
Ud	iP	22 42 46.3	

Kamchatka.

" 6

Up	iPKPl	00 30 31.8	
Ud	iPKPl	00 30 34.7	D
De	iPKPl	00 30 45.6	D

Tonga-Kermadec Islands
(h = 460 km).

" 6

Up	iSKPl	02 46 41.6	
Um	iPKP	02 43 19.8	
Ud	iSKPl	02 46 45.7	

New Hebrides Islands
(h = 140 km).

" 6

Um	iP	05 03 10.9	
	i	05 03 15.0	
Ud	eP	05 02 55	

Congo (h = 35 km).

" 6

Up	iP	05 58 58.7	
Ki	iP	05 58 05.4	
Sk	iP	05 58 42.1	
Um	iP	05 58 31.1	
Ud	eP	05 59 00	
De	iP	05 59 22.8	

Kamchatka (h = N).

" 6

Up	iPKPl	07 21 59.0	
Sk	iPKPl	07 21 51.7	
Um	iPKPl	07 21 46.6	C
Ud	iPKPl	07 22 00.2	
De	iPKPl	07 22 08.2	

Kermadec Islands.

" 6

Ud	eP	07 42 47	

" 6

Um	iP	09 17 09.9	
Ud	iP	09 17 28.2	

(cont.)

1975
Apr. 6 (cont.)

De	eP	09 17 26	

Afghanistan-USSR
(h = 220 km).

" 6

Up	iP		10 05 52.1	C
	ipP		10 06 02.8	
	iS		10 14 26	
			micr	sec
	P	Z'	0.9	1.1
	Mx	E	20	21
	Mx	N	29	18
	Mx	Z	43	19
Ki	iP		10 04 58.8	C
			micr	sec
	P	Z'	0.5	1.1
	Mx	E	32	19
	Mx	N	29	19
	Mx	Z	25	16
Sk	iP		10 05 35.7	
Um	iP		10 05 23.9	C
	iS		10 13 29	
Ud	iP		10 05 55.5	C
	iS		10 14 39.4	
De	iP		10 06 16.9	C

Kamchatka.
h = 40 km (Up).
m = 6.7, M = 6.6 (Up,Ki).

" 6

Um	iP	10 24 41.5	
Ud	iP	10 24 59.2	

Hindu Kush (h = 150 km).

" 6

Up	iP		10 45 29.2	C
	iS		10 54 05.1	
			micr	sec
	P	Z'	4.3	1.8
	Mx	E	19	22
	Mx	N	26	18
	Mx	Z	33	18
Ki	iP		10 44 36.7	C
			micr	sec
	P	Z'	1.4	1.5
	Mx	E	35	18
	Mx	N	22	16
	Mx	Z	19	17
Sk	iP		10 45 12.8	C
Um	iP		10 45 01.5	C
Ud	iP		10 45 33.2	C
	iS		10 54 07.6	
De	iP		10 45 54.4	C

Kamchatka (h = N).
m = 7.1, M = 6.6 (Up,Ki).

" 6

Ud	iP	11 09 57.4	

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

1975 Apr.	6	Ud	iP		11 19 50.0
"	6	Up	iP		13 46 29.8
		Ki	iP		13 45 37.6
			ipP		13 45 48.7
		Sk	iP		13 46 14.9
		Um	iP		13 46 03.3
		Ud	iP		13 46 34.5
		De	iP		13 46 55.7
		Kamchatka.			
		h = 40 km (Ki).			
"	6	Up	iP		13 56 12.3
		Ki	iP		13 55 18.6
		Sk	eP		13 55 57
		Um	iP		13 55 43.9
		Ud	iP		13 56 16.1
		De	iP		13 56 37.2
		Kamchatka (h = N).			
"	6	Ud	iP		15 29 20.7
			ipP		15 29 49.9
		Aleutian Islands.			
		h = 120 km (Ud).			
"	6	Up	iP		15 47 23.8
					micr sec
			P	Z'	0.2 1.5
		Ki	iP		15 46 30.6
		Um	iP		15 46 55.6
		Ud	iP		15 47 28.1
		Kamchatka (h = N).			
"	6	Ud	iP		17 16 03.0
"	6	Ud	iP		19 34 02.6
"	7	Ud	eP		01 43 31
"	7	Up	iP		01 58 28.4
		Ud	iP		01 58 22.4
		Queen Charlotte Islands			
		(h = N).			
"	7	Up	iP		03 39 47.3
			ipP		03 39 57.7
					micr sec
			P	Z'	0.1 1.3
		Ki	iP		03 38 54.2
		Um	iP		03 39 19.9
			ipP		03 39 29.9
		Ud	iP		03 39 52.0
		De	iP		03 40 12.1
		Kamchatka.			
		h = 40 km (Up,Um).			

1975 Apr.	7	Ki	iP		06 49 07.5
		Sk	iP		06 49 24.9
		Um	iP		06 48 58.3 C
		Ud	iP		06 49 16.6
		Pakistan (h = 35 km).			
"	7	Up	iPKPl		07 02 37.1
		Ud	iPKPl		07 02 38.4
"	7	Up	iP		08 13 46.9 C
			ipP		08 13 57.2
					micr sec
			P	Z'	0.1 0.8
		Ki	ipP		08 14 00.1
					micr sec
			pP	Z'	0.3 1.0
		Sk	eP		08 14 03
			epP		08 14 13
		Um	iP		08 13 44.7 C
			ipP		08 13 53.6
		Ud	iP		08 13 57.1 C
			ipP		08 14 07.2
		De	iP		08 13 55.4 C
			ipP		08 14 05.0
		Sumatra.			
		h = 35 km (Up,Um,Ud,De).			
		m = 6.4 (Up,Ki).			
"	7	Up	iPKP		08 24 45.7
		Um	iPKP		08 25 00.5
		Ud	iPKP		08 24 46.5
		South Atlantic Ocean (h = N).			
"	7	Ki	iP		15 34 26.1
		Ud	iP		15 34 50.9
		Mindanao (h = 590 km).			
"	7	Up	iP		18 01 31.1
			ipP		18 01 41.7
					micr sec
			P	Z'	0.3 1.3
		Ki	iP		18 00 37.5
					micr sec
			P	Z'	0.1 0.9
		Sk	eP		18 01 16
		Um	iP		18 01 03.3 C
		Ud	iP		18 01 35.3
		De	iP		18 01 55.7
		Kamchatka.			
		h = 40 km (Up).			
		m = 6.1 (Up,Ki).			
"	7	Ki	iP		22 26 49.9
		Um	iP		22 26 55.0
		Ud	iP		22 27 14.1
		Tanimbar Islands (h = N).			

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

1975					
Apr.	7	Ki	iP		22 58 45.8
		Azores Islands (h = N).			
"	7	Ki	iP		23 32 46.4
		Azores Islands (h = N).			
"	8	Um	iP		00 48 41.1
		Ud	iP		00 48 52.4
		Pakistan (h = 25 km).			
"	8	Ki	iP		01 58 32.7
			i		01 58 37.6
					micr sec
			P	Z'	0.1 1.0
		Sk	iP		01 57 57.9
		Um	iP		01 58 27.5
		Ud	iP		01 57 47.4
			i		01 57 53.0
		Azores Islands (h = N).			
"	8	Ki	iP		03 35 24.4
		Sk	iP		03 34 49.6
		Azores Islands (h = N).			
"	8	Up	iP		06 38 35.4 C
			ipP		06 38 47.7
					micr sec
			P	Z'	0.8 1.3
			Mx	E	1.7 15
			Mx	N	2.1 17
			Mx	Z	3.4 18
		Ki	iP		06 37 55.4 C
			ipP		06 38 08.1
			iPP		06 40 16.7
					micr sec
			P	Z'	0.8 1.9
			Mx	E	3.2 16
			Mx	N	2.6 17
			Mx	Z	3.7 16
		Sk	iP		06 38 29.1 C
			iPP		06 41 06.0
		Um	iP		06 38 13.2 C
		Ud	iP		06 38 42.5 C
			ipP		06 39 56.0
		De	iP		06 38 57.7 C
			ipP		06 39 10.6
			iPP		06 41 39.4
		Japan.			
		h = 50 km (Up,Ki,Ud,De).			
		m = 6.4, M = 5.7 (Up,Ki).			
"	8	Ki	iP		06 50 29.1
		Azores Islands (h = N).			
"	8	Ki	iP		08 26 41.8
		Azores Islands (h = N).			

1975					
Apr.	8	Ki	iP		08 33 01.6
		Azores Islands (h = N).			
"	8	Up	iP		11 43 33.1
					micr sec
			P	Z'	0.1 1.0
		Ki	iP		11 43 56.1
			i		11 44 00.4
					micr sec
			P	Z'	0.2 1.1
		Sk	iP		11 43 20.3
		Um	iP		11 43 51.0
			i		11 43 56.0
		Ud	iP		11 43 11.8
			i		11 43 16.2
		Azores Islands (h = N).			
		m = 5.8 (Up,Ki).			
		Double P, in average 4.6 sec apart.			
"	8	Ud	i(P)		14 40 14.5
"	8	Ud	i(P)		15 43 27.4
"	8	Ki	iP		16 23 36.3
			i		16 23 41.4
		Um	iP		16 23 31.6
		Azores Islands (h = N).			
"	8	Up	iP		17 12 40.1
			ipP		17 12 49.5
		Ki	iP		17 11 45.0
		Um	iP		17 12 10.9
			ipP		17 12 18.1
		Ud	iP		17 12 44.1
			ipP		17 12 51.9
		De	ipP		17 13 13.6
		Kamchatka.			
		h = 30 km (Up,Um,Ud).			
"	8	Ud	iP		19 31 01.7
		Pamir.			
"	8	Up	iP		20 43 25.1
			ipP		20 43 34.7
		Ki	iP		20 42 32.7
			ipP		20 42 42.1
					micr sec
			P	Z'	0.1 0.7
		Sk	iP		20 43 02.2
			ipP		20 43 12.1
		Um	iP		20 42 59.3
			ipP		20 43 09.0
		Ud	iP		20 43 23.7
			ipP		20 43 33.7
		De	iP		20 43 46.6
		(cont.)			

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

1975
Apr. 8 (cont.)

De	ipP		20 43 56.4

Aleutian Islands.
h = 35 km (Up,Ki,Sk,Um,Ud, De).

" 8	Up	eP	21 42 40
	Ki	iP	21 41 47.0
	Um	iP	21 42 11.5
	Ud	iP	21 42 44.4

Kamchatka (h = N).

" 8	Up	iP		22 01 20.2 C
		ipP		22 01 29.3
			micr	sec
		P	Z' 0.1	0.9
		pP	Z' 0.1	1.3
	Ki	iP		22 00 27.9 C
		ipP		22 00 38.6
			micr	sec
		P	Z' 0.1	0.9
	Sk	eP		22 01 06
	Um	iP		22 00 52.9 C
		ipP		22 01 03.6
	Ud	iP		22 01 24.2
	De	iP		22 01 45.3

Kamchatka.
h = 40 km (Up,Ki,Um).
m = 5.9 (Up,Ki).

" 8	Ki	iP	23 47 34.7
	Um	iP	23 48 00.0

Kamchatka (h = N).

" 9	Up	iP	03 37 43.2
	Ki	iP	03 37 44.0
	Um	iP	03 37 32.9
	Ud	iP	03 37 55.6

Tibet (h = N).

" 9	Um	iP	03 57 13.3

" 9	Up	ePKP		06 44 48
		iPP		06 45 47.9
			micr	sec
		PP	Z' 0.5	1.8
		Mx	E 2.0	15
		Mx	N 2.5	20
		Mx	Z 4.0	21
	Ki	iPKP		06 44 39.3
		iSKS		06 50 56
			micr	sec
		Mx	E 2.2	17
		Mx	N 4.3	22
		Mx	Z 4.2	21

(cont.)

1975
Apr. 9 (cont.)

Sk	iPKP	06 44 46.4
	iPP	06 45 37.4
Um	i(PKP)	06 44 41.3
	iPKP	06 44 44.3
	i(PP)	06 45 14.7
	iPP	06 45 24.1
	iSKS	06 51 10
Ud	iPKP	06 44 49.7
	i(PP)	06 45 41.9
	iPP	06 45 56.6
De	iPKP	06 44 54.9
	ipPKP	06 45 32.1

New Britain.
h = 140 km (De).
M = 6.1 (Up,Ki).
M uncorrected for focal depth.

" 9	Ud	iP	11 04 28.8
" 9	Um	iP	11 33 57.3

" 9	Up	iP		15 16 09.9
		ipP		15 16 20.3
			micr	sec
		P	Z' 0.1	1.1
	Ki	iP		15 15 50.9
		ipP		15 16 00.8
			micr	sec
		P	Z' 0.1	1.0
	Um	iP		15 15 57.4
		ipP		15 16 08.0
	Ud	iP		15 16 18.1
		ipP		15 16 28.7

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

" 9	Up	iSgl	15 36 11.5
	Ud	iPn	15 35 30.2
		iSn	15 36 01.9
		iSgl	15 36 05.8
	De	iSgl	15 35 28.8
		iRg	15 35 36.9

Småland, Sweden,
57.7°N, 14.7°E.
Origin time = 15 34 50.
m = 3.9, M_L = 2.0 (Up,Ud,De).
Near-surface event.

" 9	Um	iPKPl	15 41 45.3

" 9	Ud	iPKPl	19 27 36.5 C
	De	iPKPl	19 27 47.4

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

1975					
Apr.	9	Um	iP		20 05 36.3
		NE China.			
"	9	Ki	iP		21 15 39.6
		Kurile Islands (h = 90 km).			
"	9	Up	iP		21 54 24.3
		Ki	iP		21 54 27.8
		Um	iP		21 54 20.4
			i		21 54 28.8
		Ud	iP		21 54 41.0
		Tibet-India (h = N).			
"	9	Up	iP		22 33 01.6
			iPP		22 34 35.6
					micr sec
			P	Z'	0.1 0.9
		Ki	iP		22 33 06.8
					micr sec
			P	Z'	0.2 0.9
		Sk	iP		22 33 25.9 D
			iPP		22 35 05.2
		Um	iP		22 32 58.3 D
			iPP		22 34 27.4
		Ud	iP		22 33 18.5 D
			iPP		22 34 56.3
		De	iP		22 33 16.3 D
			iPP		22 34 55.5
		Tadzhik SSR (h = 80 km).			
		m = 5.8 (Up,Ki).			
"	10	Ud	iPKPl		00 31 42.5
"	10	Ki	iP		00 38 36.1
		Um	iP		00 39 01.5
		Ud	iP		00 39 35.6
		Kamchatka (h = N).			
"	10	Up	iP		02 33 37.5
		Ki	iP		02 32 44.6
		Um	iP		02 33 09.6
		Ud	iP		02 33 43.4
		De	iP		02 34 04.1
		Kamchatka (h = N).			
"	10	Um	iPKPl		10 57 23.2
"	10	Ud	iP		11 49 17.0
"	10	Ki	iP		13 30 40.7
			ipP		13 30 51.4
		Um	iP		13 31 06.6
			ipP		13 31 16.0
		Ud	eP		13 31 43
		Kamchatka.			
		h = 35 km (Ki,Um).			

1975					
Apr.	10	Ud	iP		15 08 03.7
"	10	Um	iPKP		15 38 22.0
		Ud	iPKP		15 38 31.8
		De	iPKP		15 38 37.0
		Solomon Islands (h = 150 km).			
"	10	Up	Mx		16 52
					micr sec
			Mx	E	0.9 19
			Mx	N	0.8 19
			Mx	Z	1.3 19
		Ki	Mx		16 49
					micr sec
			Mx	E	1.1 20
			Mx	N	0.8 19
			Mx	Z	1.1 19
		Indian Ocean (h = N).			
		M = 5.6 (Up,Ki).			
"	10	Um	iPKP		17 09 18.7
		Loyalty Islands (h = 110 km).			
"	10	Um	iPKP		18 31 16.6
		Ud	iPKP		18 31 22.6
		Samoa Islands (h = 15 km).			
"	10	Ki	eP		20 30 34
"	11	Up	iPKP		00 30 11.6
			iPKPl		00 30 13.6
			iX		00 30 16.2
			iY		00 30 18.2
					micr sec
			PKPl	Z'	0.1 1.0
			Y	Z'	0.7 1.5
			Mx	E	2.7 20
			Mx	N	2.4 19
			Mx	Z	5.4 20
		Ki	iPKP		00 30 10.4
			iPKPl		00 30 12.0
					micr sec
			PKPl	Z'	0.5 1.3
			Mx	E	3.0 19
			Mx	N	4.3 22
			Mx	Z	5.8 22
		Sk	iPKP		00 30 17.3
			iPKPl		00 30 19.9
			iX		00 30 21.5
			iY		00 30 24.2
		Um	iPKP		00 30 09.8
			iPKPl		00 30 11.5
		Ud	iPKP		00 30 15.4
			iPKPl		00 30 18.8
			iX		00 30 21.3
			iY		00 30 24.9

(cont.)

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

1975
Apr. 11 (cont.)

	De	iPKP		00 30 13.9	
		iPKPl		00 30 16.5	
		iX		00 30 17.8	
		iY		00 30 20.2	

South of Australia (h = N).
M = 6.3 (Up,Ki).
Interpreted as two shocks, about 4.7 sec apart.
PKP, PKPl refer to the first shock, while X, Y are the corresponding phases of the second shock.

" 11	Ki	iPKPl		00 33 50.2	
	Sk	iPKPl		00 33 59.7	
	Um	iPKPl		00 33 49.6	
	Ud	iPKPl		00 33 59.1	

South of Australia.
Origin time = 00 14 14.

" 11	Up	iPKP		00 41 08.4	
		iPKPl		00 41 10.8	
				micr	sec
		PKPl	Z'	0.1	1.3
	Ki	iPKPl		00 41 08.6	
				micr	sec
		PKPl	Z'	0.3	1.5
	Sk	iPKP		00 41 17.5	
		iPKPl		00 41 19.0	
	Um	iPKP		00 41 07.5	
		iPKPl		00 41 09.0	
	Ud	iPKP		00 41 19.2	
		iPKPl		00 41 20.6	
	De	iPKPl		00 41 13.8	

South of Australia.
Origin time = 00 21 34.

" 11	Um	eP		00 55 48	

South of Panama (h = N).

" 11	Up	iP		01 54 24.9	
	Ki	iP		01 53 30.6	
	Ud	eP		01 54 27	
	De	iP		01 54 48.5	

Kamchatka (h = N).

" 11	Ki	iPKPl		05 18 34.2	
	Ud	iPKPl		05 18 45.3	

South of Australia.
Origin time = 04 59 00.

" 11	Up	iP		10 58 03.3	C
		iPcP		10 58 30.5	

(cont.)

1975
Apr. 11 (cont.)

	Up			micr	sec
		P	Z'	0.1	0.9
		Mx	E	0.9	19
		Mx	N	1.3	24
		Mx	Z	1.6	23
	Ki	iP		10 57 09.5	C
		iPcP		10 58 00.5	
				micr	sec
		P	Z'	0.3	0.9
		Mx	E	0.6	16
		Mx	N	0.7	18
		Mx	Z	0.9	17
	Sk	iP		10 57 38.7	C
		iPcP		10 58 17.8	
	Um	iP		10 57 36.5	C
		iPcP		10 58 17.0	
		iP'P'		11 26 43.0	
	Ud	iP		10 58 01.8	C
		iPcP		10 58 32.2	
	De	iP		10 58 24.5	C

Unimak Island (h = 20 km).
m = 6.2, M = 5.1 (Up,Ki).

" 11	Up	iPKP		12 00 53.4	
		iSKPl		12 03 44.4	
				micr	sec
		SKPl	Z'	0.1	1.5
	Ki	iSKPl		12 03 14.7	
	Sk	iPKP		12 00 48.4	
	Um	iSKPl		12 03 32.7	
	Ud	iPKP		12 00 54.0	
		iSKPl		12 03 46.3	
	De	iPKPl		12 01 03.6	

Fiji Islands (h = 570 km).

" 11	Ki	iP		14 33 46.2	
	Um	iP		14 33 22.2	
	Ud	iP		14 33 24.6	C
	De	iP		14 33 08.7	C

Iran (h = 50 km).

" 11	Ud	iP		16 30 36.7	

Hindu Kush.
Intermediate depth.

" 11	Um	iP		18 38 44.9	

Talaud Islands (h = 90 km).

" 11	Up	iP		19 50 24.9	
	Ki	iP		19 50 09.0	
	Sk	iP		19 50 06.0	
	Um	iP		19 50 18.4	

Mexico (h = 210 km).

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

1975 Apr.	11	Up	iP	20 09 07.2	
		Ki	iP	20 08 12.2	
		Um	iP	20 08 38.5	
		Ud	iP	20 09 11.9	
		De	eP	20 09 31	
		Kamchatka (h = N).			
"	11	Um	iP	20 59 36.6	
		Japan (h = 60 km).			
"	11	Ki	eP	21 10 20	
		Um	iP	21 10 46.8	C
			ipP	21 10 57.1	
		Ud	iP	21 11 11.1	C
			ipP	21 11 21.4	
		Aleutian Islands.			
		h = 40 km (Um,Ud).			
"	11	Up	iP	22 27 13.1	C
		Ki	iP	22 26 34.7	
		Sk	iP	22 27 07.8	
		Um	iP	22 26 51.4	C
		Ud	iP	22 27 20.4	C
		De	iP	22 27 34.8	C
		Japan (h = 70 km).			
"	11	Ud	iP	23 57 51.6	
		De	eP	23 57 51	
"	12	Up	iPKPl	00 53 36.7	
		Um	iSKPl	00 56 19.5	
		Ud	iPKPl	00 53 39.0	
			i	00 56 15.9	
		De	iPKPl	00 53 48.7	
		Tonga-Kermadec Islands.			
"	12	Up	iP	01 10 44.9	
		Um	iP	01 10 34.2	
		Ud	iP	01 10 59.1	
		Nepal.			
"	12	Um	iP	01 13 30.5	
		Japan (h = 60 km).			
"	12	Ud	iPKPl	03 00 22.2	
"	12	Up	eP	04 20 52	
		Ki	iP	04 21 26.5	
		Um	iP	04 21 07.0	
			i	04 21 10.5	
		Ud	iP	04 21 08.7	
		De	iP	04 20 55.2	
		Iran (h = 40 km).			
"	12	Up	iPKP	07 00 21.3	
		Um	iPKP	07 00 13.5	

1975 Apr.	12	Up	iP	09 39 08.8	C
		Ud	iP	09 39 20.3	
		Szechwan, China (h = 20 km).			
"	12	Ud	iP	10 26 21.7	
"	12	Up	iRg	11 14 49.2	
		Ud	iRg	11 14 36.2	
		Central Sweden.			
		Near-surface event.			
"	12	Um	iP	13 24 20.3	
		Ud	iP	13 23 53.4	
		North Atlantic Ocean (h = N).			
"	12	Um	iSKPl	14 46 49.6	
		Fiji Islands (h = 560 km).			
"	12	Ki	iP	15 47 07.6	
		Peru (h = 80 km).			
"	12	Up	iP	16 51 37.3	
		Ki	iP	16 52 50.6	
		Sk	iP	16 52 11.8	
		Um	iP	16 52 15.8	C
		Ud	iP	16 51 38.3	C
		De	iP	16 51 00.9	
		Sicily (h = 170 km).			
"	12	Ki	iP	17 23 04.3	
		Ud	iP	17 23 30.5	
		Luzon (h = 20 km).			
"	12	Up	iPKPl	21 08 48.1	D
			i	21 08 58.2	
				micr sec	
			PKPl Z'	0.1 0.9	
		Um	iPKPl	21 08 39.6	
		Ud	iPKPl	21 08 50.3	D
			ipPKPl	21 09 34.3	
		De	iPKPl	21 09 00.4	D
			ipPKPl	21 09 46.1	
		Tonga-Kermadec Islands.			
		h = 170 km (Ud,De).			
"	13	Up	iP	00 30 32.0	
		Ki	iP	00 29 51.9	
		Sk	iP	00 30 25.5	
		Um	iP	00 30 09.5	C
		Ud	iP	00 30 38.8	
		Japan (h = 50 km).			
"	13	Up	iP	01 47 27.6	C
			ipP	01 48 31.1	
				micr sec	
			P Z'	0.3 1.4	

(cont.)

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

1975
Apr. 13 (cont.)

Up			micr	sec
	Mx	E	1.8	23
	Mx	N	1.6	18
	Mx	Z	2.5	23
Ki	iP		01 47 11.5 C	
	ipP		01 48 12.5	
			micr	sec
	P	Z'	0.4	1.4
	Mx	E	2.4	18
	Mx	N	1.4	16
	Mx	Z	2.6	19
Sk	iP		01 47 32.8	
Um	iP		01 47 16.9 C	
	ipP		01 48 18.9	
	iS		01 57 26	
Ud	iP		01 47 35.6	
De	iP		01 47 41.4	

Mindanao.
h = 260 km (Up,Ki,Um).
m = 6.2, M = 5.7 (Up,Ki).
M uncorrected for focal depth.

" 13	Up	iP	02 06 03.2	
			micr	sec
		P	Z' 0.1	1.0
	Ki	iP	02 06 05.0	
		ipP	02 06 42.8	
			micr	sec
		P	Z' 0.1	1.0
	Sk	iP	02 05 50.5	
	Um	iP	02 06 06.8	
	Ud	iP	02 05 53.3	

Colombia.
h = 150 km (Ki).
m = 5.6 (Up,Ki).

" 13	Ki	eP	07 45 01
	Um	iP	07 45 21.5
" 13	Sk	iP	13 44 16.4
	Ud	iP	13 44 11.2
" 13	Ki	iP	14 35 54.2
	Ud	iP	14 36 03.5

Sumatra (h = 40 km).

" 13	Ud	iP	15 10 03.2

Uzbekh SSR.

" 14	Ud	iPKPl	00 17 54.2
" 14	Ki	iP	00 19 31.2

(cont.)

1975
Apr. 14 (cont.)

	Ud	iP	00 19 19.4

Colombia (h = 160 km).

" 14	Um	iPKPl	00 21 19.6
	Ud	iPKPl	00 21 32.6
" 14	Ki	iP	04 04 53.8
	Ud	iP	04 05 19.6

Mindanao (h = 40 km).

" 14	Ud	iP	05 43 59.1

Japan (h = 40 km).

" 14	Up	i(P)	07 26 04.9
" 14	Ki	iP	07 41 58.4
	Sk	iP	07 42 21.1
	Um	iP	07 42 04.2
	Ud	iP	07 42 22.4

Molucca Passage (h = 45 km).

" 14	Ud	iP	11 05 41.4
" 14	Ud	iP	11 43 24.5
		i	11 43 28.5

Formosa (h = 45 km).

" 14	Up	iP	13 06 26.0 C
	Ki	iP	13 06 34.5
	Sk	iP	13 06 50.9
	Um	iP	13 06 24.2 C
	Ud	iP	13 06 42.6 C
	De	iP	13 06 39.2

Hindu Kush (h = 230 km).

" 14	Ud	iP	13 16 48.6

Celebes (h = 70 km).

" 14	Ud	i(P)	15 59 43.2
" 14	Um	iP	16 19 22.2
" 14	Up	iP	21 02 49.1 C
		ipP	21 02 59.2
	Ki	iP	21 01 56.0
		ipP	21 02 05.8
	Sk	iP	21 02 32.5
		ipP	21 02 42.9
	Um	iP	21 02 21.1 C
		ipP	21 02 31.4
	Ud	iP	21 02 51.7
		ipP	21 03 02.7
	De	eP	21 03 14

(cont.)

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

1975
Apr. 14 (cont.)

De	ipP		21 03 24.6

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

" 15

Um	iP		00 29 18.1
Ud	iP		00 29 22.4
De	iP		00 29 20.5

Java.

" 15

Up	iP		01 28 03.3
Ki	eP		01 27 16
Um	iP		01 27 37.7
Ud	iP		01 28 08.9
De	eP		01 28 28

Kurile Islands (h = N).

" 15

Ud	iP		02 59 22.4

Indian Ocean.

" 15

Up	iP		09 52 51.2
Ki	iP		09 53 06.4
Sk	iP		09 53 17.9
Um	iP		09 52 52.4
Ud	iP		09 53 06.2

Pakistan (h = N).

" 15

Up	iP		09 59 30.2
	i		09 59 57.3
Ki	iP		09 59 41.5
	i		09 59 48.0
			micr sec
	P	Z'	0.1 1.0
Sk	iP		09 59 18.5
	i		09 59 26.5
Um	eP		09 59 44
	i		09 59 47.7
	i		10 00 09.2
Ud	iP		09 59 19.3
	i		09 59 25.9

Venezuela (h = 45 km).

" 15

Up	iP		10 37 54.6
Ki	iP		10 38 01.9
Sk	iP		10 38 20.2
Um	iP		10 37 51.9
Ud	iP		10 38 10.6
De	iP		10 38 07.5

Afghanistan-USSR (h = 120 km).

" 15

Ud	iPKP1		12 51 12.3
De	iPKP1		12 51 24.8

Fiji Islands (h = 620 km).

1975
Apr. 15

Up	i(P)		12 59 16.1
Ud	i(P)		12 59 33.5

" 15

Ud	iP		14 18 35.5

" 15

Up	iSgl		17 54 21.7
Ki	iPn		17 50 50.0
	iPgl		17 50 55.8
	i		17 51 19.0
	iSn		17 51 31.3
	iSgl		17 51 46.2
			micr sec
	Sgl	Z'	0.1 0.6
Sk	iPn		17 51 06.5
	iSn		17 52 00.2
	i		17 52 07.5
	iSgl		17 52 23.9
Um	iPn		17 51 21.3
	i		17 51 29.4
	iSn		17 52 23.8
	iSgl		17 52 51.9
Ud	iSgl		17 54 03.2

Off coast of north Norway, 68.1°N, 11.5°E.
Origin time = 17 49 56.
m = 4.3, M_L = 2.8 (Up,Ki, Sk,Um,Ud).

" 15

Ud	iP		20 31 25.4

" 15

Up	iP		20 51 01.9
Ki	iP		20 50 09.3
Sk	eP		20 50 42
Um	iP		20 50 35.3
Ud	iP		20 51 03.2

Aleutian Islands (h = 140 km).

" 15

Up	iP		21 16 14.8
Ud	iP		21 16 01.2

" 15

Um	iP		22 49 46.6

" 16

Um	iP		00 08 44.1
Ud	iP		00 08 06.1
	i		00 08 12.7

Greece.

" 16

Up	iP		01 31 02.8
	iS		01 33 55.1
			micr sec
	P	Z'	3.0 1.1
	Mx	E	240 17
	Mx	N	180 20
	Mx	Z	160 18

Δ = 16°
5.20
0.94
6.14

(cont.)

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

1975
Apr. 16 (cont.)

Ki	iP		01 29 57.7
	iS		01 32 04
			micr sec
	P	Z'	5.1 1.0
	Mx	E	220 16
	Mx	N	310 18
	Mx	Z	220 16
Sk	iP		01 30 01.8
	i		01 30 03.8
	iS		01 32 05.8
Um	iP		01 30 31.2
Ud	iP		01 30 45.3
	i		01 30 47.0
De	iP		01 31 34.2

Jan Mayen (h = 15 km).
m = 6.5, M = 6.5 (Up,Ki).

" 16 Ki ePKP 02 19 01
South of Africa (h = N).

" 16

Up	iP		03 03 48.4
Sk	eP		03 04 24
Um	iP		03 04 11.0
Ud	iP		03 03 59.3

Ethiopia (h = N).

" 16

Up			micr sec
	Mx	E	0.8 20
	Mx	Z	1.4 20
Ki	iP		04 58 57.5
			micr sec
	Mx	E	0.6 16
	Mx	N	0.6 16
Sk	iP		04 58 46.5
Um	iP		04 59 02.5
	i		04 59 24.8
	iPP		05 02 27.1
Ud	iP		04 58 52.7

Costa Rica (h = 70 km).
M = 5.2 (Up,Ki).

" 16

Up	iP	08 48 59.0
Ki	iP	08 48 40.8

" 16 Sk eP 11 36 23
Colombia (h = 160 km).

" 16

Ki	iP	11 57 24.7
Ud	iP	11 57 48.7

Mindanao (h = 80 km).

" 16

Up	iSgl	14 11 49.5
Sk	eSgl	14 12 06
Ud	iPgl	14 10 26.3

(cont.)

1975
Apr. 16 (cont.)

Ud	iSgl	14 10 48.5
De	iSgl	14 11 55.0

Southeast Norway,
59.7°N, 10.6°E.
Origin time = 14 09 58.
m = 3.8, M_L = 1.8 (Up,Ud).

" 16

Ud	iPKPl	14 27 24.9
De	iPKPl	14 27 34.4 C
	ipPKPl	14 27 47.2

Tonga Islands.
h = 45 km (De).

" 16

De	ePKPl	15 59 22
	ipPKPl	15 59 33.4

Tonga Islands (h = N).

" 16 Ud iP 16 31 41.5
Alaska Peninsula (h = 120 km).

" 16

Up	iP	18 57 53.1
	ipP	18 58 03.3
Ki	iP	18 57 34.5
Um	iP	18 57 40.6
	ipP	18 57 51.7
Ud	iP	18 58 01.1 C
	ipP	18 58 12.6

Samar.
h = 40 km (Up,Um,Ud).

" 16 Ud eP 19 44 01
Mindanao (h = 70 km).

" 16

Up	ePKPl	19 57 04
Ud	iPKPl	19 57 06.4
	i	19 57 17.0
De	iPKPl	19 57 18.4

Tonga-Kermadec Islands.

" 16

Ki	iP	21 34 20.7
Ud	iP	21 33 36.7
	i	21 33 49.7

" 16

Up	iP		21 44 12.8
			micr sec
	P	Z'	0.1 1.0
	Mx	E	4.0 25
	Mx	N	3.7 25
	Mx	Z	5.3 24
Ki	iP		21 43 22.6
			micr sec
	P	Z'	0.1 1.4
	Mx	E	3.6 18
	Mx	N	4.2 19
	Mx	Z	5.0 18

(cont.)

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

1975
Apr. 16 (cont.)
Sk iP 21 43 59.8
Um iP 21 43 47.2
Ud iP 21 44 17.5
De iP 21 44 36.2
Kurile Islands (h = 30 km).
m = 5.9, M = 5.8 (Up,Ki).

" 16 Ud iP 21 53 25.8

" 16 Sk eP 21 56 02
Ud iP 21 55 29.5
i 21 55 38.2
Greece.

" 17 Ud iP 01 30 10.1

" 17 Ud ePKPl 01 35 19
De iPKPl 01 35 28.2
Tonga Islands (h = N).

" 17 Ki iP 02 14 14.9
Sk iP 02 13 32.0
North Atlantic Ocean (h = N).

" 17 Ud iPKPl 03 11 17.2

" 17 Ud iPKPl 03 28 09.1

" 17 Sk iP 04 11 46.9
Japan (h = 45 km).

" 17 Ud iPKPl 07 35 21.8
De iPKPl 07 35 32.1

" 17 Up iP 07 39 32.5
i 07 39 51.6
iS 07 42 41.3
Ki iP 07 40 39.3
Sk eP 07 40 17
Um iP 07 40 03.9
i 07 40 14.5
iS 07 43 45.5
Ud iP 07 39 45.2
iS 07 43 15.8
De iP 07 39 14.9
iS 07 42 13.4
Black Sea (h = N).

" 17 Ud iP 12 00 40.9

" 17 Ud iP 12 25 24.5

" 17 Ki iP 12 30 26.8
Ud iP 12 31 19.6
Aleutian Islands (h = 35 km).

1975
Apr. 17 Ud iP 13 45 27.8

" 17 Um iP 18 00 13.3

" 17 Up iP 18 52 31.7 C
micr sec
P Z' 0.1 0.9
Ki iP 18 51 53.6
micr sec
P Z' 0.1 1.0
Sk iP 18 52 26.5
iPP 18 55 06.9
Um iP 18 52 10.3 C
ipP 18 52 29.5
Ud iP 18 52 39.5 C
De iP 18 52 53.9
Japan.
h = 70 km (Um).
m = 5.7 (Up,Ki).

" 17 Ud iP 21 37 32.9
Greece.

" 17 Um iPKP 22 12 16.0
Ud ePKP 22 12 19
De iPKP 22 12 29.4
Fiji Islands (h = 420 km).

" 18 Up i(P) 05 26 13.1
i 05 26 18.1
micr sec
(P) Z' 0.1 1.6
Ud i(P) 05 25 57.4

" 18 Up iRg 09 56 24.3
Ud iRg 09 56 21.0
Central Sweden.
Near-surface event.

" 18 Up iP 10 18 35.1
Ki eP 10 18 24
ipP 10 19 08.8
Talaud Islands.
h = 180 km (Ki).

" 18 Up iP 11 17 35.6
Ud iP 11 17 48.8

" 18 Ki iPgl 20 13 22.9 D
Rockburst at the ore mines at Kiruna, Sweden.
Felt.

" 18 Ki iRg 20 14 05.9
Kiruna rockburst.

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

1975
Apr. 18 Ki i 20 25 59.3
iRg 20 26 02.5
Kiruna rockburst.
Felt.

" 18 Up iP 20 30 10.0
Ki iP 20 29 17.7
Kamchatka.

" 18 Up iP 21 03 56.8
Sk iP 21 04 39.9
Um iP 21 04 35.4
Ud iP 21 04 06.0
De iP 21 03 28.5
Aegean Sea (h = 10 km).

" 18 Up iP 21 13 22.1
Ud iP 21 13 21.1

" 18 Up iPgl 22 30 49.4
iSgl 22 31 13.3
iRg 22 31 19.3
Ud iSgl 22 31 09.1
De iSgl 22 31 33.2
Östergötland, Sweden,
58.7°N, 15.2°E.
Origin time = 22 30 18.
m = 3.8, M_L = 1.8 (Up,Ud).
Near-surface event.

" 19 Um iP 02 10 27.7

" 19 Sk i(P) 04 44 16.1
i 04 44 42.5
Um i(P) 04 45 14.2

" 19 Up iP 05 06 32.3
Ki iP 05 06 30.1
Sk iP 05 06 00.6
Um iP 05 06 32.8
Ud iP 05 06 14.6
North Atlantic Ocean (h = N).

" 19 Up iP 05 58 01.8
Um iP 05 58 07.2
Ud iP 05 57 47.1

" 19 Up Mx 07 54
micr sec
Mx E 0.9 19
Mx N 1.4 20
Mx Z 1.8 19
Ki Mx 07 52
micr sec
Mx E 0.8 18
(cont.)

1975
Apr. 19 (cont.)
Ki micr sec
Mx N 0.9 18
Mx Z 1.1 18
South Pacific Ocean (h = N).
M = 5.9 (Up,Ki).

" 19 Up iSgl 11 51 30.4
Sk iSgl 11 50 03.1
Um iSgl 11 51 53.7
Ud iSgl 11 50 28.2
De eSgl 11 51 45
West coast of Norway,
61.8°N, 5.0°E.
Origin time = 11 48 08.
By combination with Bergen readings.
m = 4.1, M_L = 2.4 (Sk,Um, Ud).

" 19 Um i(Sgl) 12 02 18.2

" 19 Up iP 12 32 57.4
Ki iP 12 33 19.3
ipP 12 33 25.6
micr sec
pP Z' 0.1 1.3
Sk iP 12 32 49.6
Um iP 12 33 12.2
Ud iP 12 32 45.4
ipP 12 32 51.7
De iP 12 32 38.9
North Atlantic Ocean.
h = 25 km (Ki,Ud).

" 19 Ki iP 13 51 24.3
Um iP 13 51 03.2
Arabian Sea.
Origin time = 13 41 31.

" 19 Up iP 13 55 08.3
iS 14 02 42
micr sec
P Z' 0.1 1.0
Mx E 1.3 22
Mx N 1.6 22
Mx Z 3.3 22
Ki iP 13 55 42.3
ipP 13 55 49.4
micr sec
P Z' 0.1 1.0
Mx E 1.7 16
Mx N 2.5 20
Mx Z 2.7 18
Sk iP 13 55 39.4
Um iP 13 55 21.6
(cont.)

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

1975
Apr. 19 (cont.)

Um	ipP	13 55 28.9
	iS	14 02 59
Ud	iP	13 55 20.7
De	iP	13 55 04.7

Arabian Sea.
h = 30 km (Ki,Um).
m = 5.8, M = 5.3 (Up,Ki).

" 19

Ki	iP	13 58 02.9
Ud	iP	13 57 48.6

" 19

Ki	iP	13 59 14.0

" 19

Ki	iP	14 21 37.1
Sk	eP	14 21 36
Um	iP	14 21 16.7

Arabian Sea.
Origin time = 14 11 45.
Approximate origin times, based upon the same coordinates as for the earthquake at 13 45 50, April 19, are given for those Arabian Sea aftershocks, which have not been reported by NEIS.
Ki,Um are obviously our most sensitive stations for this sequence.

" 19

Ud	i(Sgl)	14 43 40.3
De	i(Sgl)	14 42 18.3

" 19

Ki	iP	17 19 24.4
Um	eP	17 19 04

Arabian Sea (h = N).

" 19

Um	iPKP	17 19 54.7

" 19

Up	iP	17 20 13.2
	ipP	17 20 17.8
Ki	iP	17 20 47.1
Sk	eP	17 20 47
Um	iP	17 20 27.5
Ud	eP	17 20 28
	ipP	17 20 32.8

Arabian Sea.
h = 20 km (Up,Ud).

" 19

Up	iP	17 30 51.6
	ipP	17 30 59.8
Ki	iP	17 31 27.0
	ipP	17 31 33.8
Um	iP	17 31 06.2
	ipP	17 31 13.1

(cont.)

1975
Apr. 19 (cont.)

Ud	eP	17 31 04

Arabian Sea.
h = 30 km (Up,Ki,Um).

" 19

Up	eP	17 36 01
Ki	iP	17 36 33.5
	ipP	17 36 40.5
Sk	eP	17 36 33
Um	iP	17 36 13.9
Ud	ipP	17 36 18.2

Arabian Sea.
h = 30 km (Ki).

" 19

Up	eP	17 42 42
Ki	iP	17 43 17.8
Sk	eP	17 43 14
Um	iP	17 42 56.8

Arabian Sea (h = N).

" 19

Ki	iP	17 44 36.4
Um	iP	17 44 16.3

Arabian Sea.
Origin time = 17 34 44.

" 19

Ki	iP	17 46 26.8
Um	eP	17 46 07
	ipP	17 46 13.9

Arabian Sea.
h = 30 km (Um).
Origin time = 17 36 35.

" 19

Ki	iP	17 48 29.6
Um	iP	17 48 09.2
Ud	iP	17 48 08.5

Arabian Sea (h = N).

" 19

Ki	iP	17 50 24.4
Um	iP	17 50 03.7

Arabian Sea.
Origin time = 17 40 32.

" 19

Ki	iP	17 55 52.3
Um	eP	17 55 29
Ud	iP	17 55 26.2

Arabian Sea (h = N).

" 19

Up	eP	18 00 11
Ki	iP	18 00 44.3
Sk	eP	18 00 43
Um	iP	18 00 23.5
	ipP	18 00 30.6
Ud	iP	18 00 22.2

Arabian Sea.
h = 30 km (Um).

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

1975				
Apr.	19	Ki	eP	18 05 26
"	19	Up	iP	18 13 58.1
		Ki	e(P)	18 14 26
		Um	iP	18 14 11.7
		Arabian Sea.		
		Origin time = 18 04 40.		
"	19	Up	iP	18 14 31.9
		Ki	iP	18 15 05.4
		Sk	iP	18 15 05.6
		Um	iP	18 14 45.3
		Arabian Sea (h = N).		
"	19	Up	iP	18 18 45.9
			ipP	18 18 52.3
		Ki	iP	18 19 19.6
		Sk	iP	18 19 16.6
		Um	iP	18 18 59.2
		Ud	iP	18 18 58.5
		Arabian Sea.		
		h = 25 km (Up).		
"	19	Ki	iP	18 20 17.2
		Um	iP	18 19 59.4
			ipP	18 20 05.6
		Ud	iP	18 19 52.1
			ipP	18 19 59.2
		Arabian Sea.		
		h = 25 km (Um,Ud).		
		Origin time = 18 10 24.		
"	19	Ki	iP	18 21 10.6
		Um	iP	18 20 49.7
		Arabian Sea.		
		Origin time = 18 11 18.		
"	19	Up	iP	18 25 29.7
			ipP	18 25 35.6
		Ki	iP	18 26 03.7
			ipP	18 26 09.8
		Sk	eP	18 26 01
			ipP	18 26 06.7
		Um	iP	18 25 42.9
			ipP	18 25 47.8
		Ud	iP	18 25 41.9
			ipP	18 25 47.4
		De	iP	18 25 24.9
		Arabian Sea.		
		h = 20 km (Up,Ki,Sk,Um,Ud).		
"	19	Sk	iP	18 26 53.0
		Um	iP	18 26 43.3
"	19	Um	iP	18 31 33.1

1975				
Apr.	19	Ki	iP	18 34 21.6
		Um	iP	18 34 00.7
		Arabian Sea.		
		Origin time = 18 24 29.		
"	19	Up	iP	18 53 17.8
		Ki	iP	18 53 51.1
				micr sec
			P Z'	0.1 1.0
		Sk	iP	18 53 48.1
		Um	iP	18 53 30.4
		Ud	iP	18 53 29.8
		De	iP	18 53 14.2
		Arabian Sea (h = N).		
"	19	Up	eP	18 59 00
		Ki	eP	18 59 36
		Um	iP	18 59 13.7
			ipP	18 59 19.3
		Arabian Sea (h = N).		
		h = 20 km (Um).		
"	19	Ki	iP	19 19 18.4
		Sk	eP	19 19 16
		Um	iP	19 18 57.8
		Ud	eP	19 18 59
		Arabian Sea (h = N).		
"	19	Up	iP	19 26 01.8
		Ki	iP	19 26 38.8
		Um	iP	19 26 18.0
		Arabian Sea (h = N).		
"	19	Ki	iP	19 27 43.2
		Um	iP	19 28 09.7
		Ud	iP	19 28 34.8
		Unimak Island (h = 50 km).		
"	19	Ki	eP	19 35 11
		Um	iP	19 34 51.5
		Arabian Sea.		
		Origin time = 19 25 20.		
"	19	Up	iP	20 25 02.2
			ipP	20 25 10.6
				micr sec
			P Z'	0.1 1.5
			Mx E	1.1 22
			Mx N	0.9 17
			Mx Z	2.0 21
		Ki	iP	20 25 35.4
				micr sec
			P Z'	0.2 1.5
			Mx E	1.4 17
			Mx N	0.9 18
			Mx Z	1.9 18

(cont.)

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

1975
Apr. 19 (cont.)

Sk	iP		20 25 32.7
Um	iP		20 25 14.8
Ud	iP		20 25 14.1
De	iP		20 24 58.2

Arabian Sea.
h = 35 km (Up).
m = 5.8, M = 5.1 (Up,Ki).

" 19 Up	iP		21 30 32.2
	ipP		21 30 38.6
Ki	iP		21 31 05.5
	ipP		21 31 12.1
			micr sec
	pP	Z'	0.1 1.1
Sk	iP		21 31 03.5
	ipP		21 31 09.8
Um	iP		21 30 45.9
	ipP		21 30 51.5
Ud	iP		21 30 46.3

Arabian Sea.
h = 25 km (Up,Ki,Sk,Um).

" 19 Up	iP		21 39 08.9
Ki	iP		21 39 42.9
Um	iP		21 39 22.2

Arabian Sea (h = N).

" 19 Um	eP		22 06 58

Arabian Sea (h = N).

" 19 Ki	eP		23 03 44
" 19 Up	iP		23 38 28.4
Ki	iP		23 39 01.4
	ipP		23 39 07.2
			micr sec
	pP	Z'	0.1 1.1
Sk	ipP		23 39 04.7
Um	iP		23 38 41.0
	ipP		23 38 46.8
Ud	iP		23 38 37.8
De	ipP		23 38 31.6
	i		23 38 38.0

Arabian Sea.
h = 25 km (Ki,Um).

" 20 Ki	iP		00 18 59.5
Um	iP		00 18 39.4

Arabian Sea.
Origin time = 00 09 07.

" 20 Um	iP		00 53 21.5

1975
Apr. 20

Ki	iP		01 09 42.3
Um	iP		01 09 22.3

Arabian Sea (h = N).

" 20 Ki	iP		02 16 26.3
Um	iP		02 16 05.3

Arabian Sea (h = N).

" 20 Up	iP		03 50 25.4
Ki	iP		03 50 59.1
	ipP		03 51 04.4
Um	eP		03 50 39
	ipP		03 50 43.8

Arabian Sea.
h = 20 km (Ki,Um).

" 20 Up	iP		04 27 27.2
Ud	iP		04 27 32.7
" 20 Up	iP		05 19 02.3
	ipP		05 19 07.2
Ki	iP		05 19 36.0
			micr sec
	P	Z'	0.1 1.0
Sk	eP		05 19 35
Um	iP		05 19 15.3

Arabian Sea.
h = 20 km (Up).

" 20 Up	ipP		09 06 13.5
			micr sec
	pP	Z'	0.1 1.1
Ki	iP		09 06 42.2
	ipP		09 06 47.3
			micr sec
	pP	Z'	0.1 1.4
Sk	ipP		09 06 44.3
Um	iP		09 06 22.6
	ipP		09 06 26.8
Ud	iP		09 06 21.2
	ipP		09 06 26.2

Arabian Sea.
h = 20 km (Ki,Um,Ud).
m = 5.8 (Up,Ki).

" 20 Ki	iP		10 04 57.9
Um	iP		10 04 37.4

Arabian Sea (h = N).

" 20 Ki	iP		10 10 03.4
Um	iP		10 09 42.8

Arabian Sea.
Origin time = 10 00 11.

" 20 Um	iP		10 38 51.1

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

1975
Apr. 20 Up iPKP 11 59 55.8
i 12 00 01.6
iPP 12 02 24.0
micr sec
PKP Z' 0.5 1.8
PP Z' 0.1 1.5
Mx E 4.6 20
Mx N 4.0 22
Mx Z 6.2 20
Ki iPKP 11 59 57.8
i 12 00 03.4
iPP 12 02 25.0
micr sec
PKP Z' 0.3 1.7
PP Z' 0.3 2.0
Mx E 4.5 18
Mx N 4.4 18
Mx Z 6.9 18
Sk iPKP 11 59 52.4
i 11 59 57.7
iPP 12 02 06.1
Um ePKP 12 00 00
i 12 00 04.9
iPP 12 02 25.7
Ud iPKP 11 59 51.0
i 11 59 57.8
iPP 12 02 06.1
De iPKP 11 59 53.3
i 11 59 58.4
iPP 12 02 11.1
South Pacific Ocean (h = N).
m = 6.0, M = 6.3 (Up,Ki).
PP is consistently early.

" 20 Ki iP 13 53 40.5
Um iP 13 53 48.9
i 13 53 53.3
Ud iP 13 54 21.2
Japan.

" 20 Ki iP 14 49 00.0
Um iP 14 48 39.5
ipP 14 48 44.7
Arabian Sea.
h = 20 km (Um).

" 20 Ki i 15 00 36.7
Um iP 15 00 29.8
Banda Sea (h = 170 km).

" 20 Up iP 17 47 18.3
i 17 47 20.3
iS 17 56 41
micr sec
P Z' 0.1 1.1
(cont.)

1975
Apr. 20 (cont.)
Up micr sec
Mx E 11 13
Mx N 16 14
Mx Z 13 16
Ki iP 17 46 44.1
i 17 46 46.7
iS 17 55 40
micr sec
P Z' 0.5 2.0
Mx E 9.6 15
Mx N 15 17
Mx Z 10 16
Sk iP 17 47 17.9
i 17 47 23.7
Um iP 17 46 57.8
i 17 47 02.7
iS 17 56 05
Ud iP 17 47 25.7
i 17 47 28.7
i 17 47 33.8
De iP 17 47 40.4
iPP 17 50 27.4
Japan (h = 7 km).
m = 6.2, M = 6.5 (Up,Ki).

" 20 Up iPKP2 18 29 11.7
Ki iPKP1 18 28 39.9
Um iPKP1 18 28 48.4
New Zealand (h = 230 km).

" 20 Up iP 18 59 12.1
ipP 18 59 19.3
micr sec
P Z' 0.3 1.2
pP Z' 0.4 1.2
Ki iP 18 58 19.3
ipP 18 58 26.1
micr sec
P Z' 0.2 1.1
pP Z' 0.2 1.3
Sk iP 18 58 56.0
Um iP 18 58 44.9
ipP 18 58 51.1
Ud iP 18 59 16.1
ipP 18 59 23.5
De iP 18 59 36.9
ipP 18 59 44.1
Kamchatka.
h = 25 km (Up,Ki,Um,Ud,De).
m = 6.3 (Up,Ki).

" 20 Um iPKP 20 06 24.5

" 20 Ki iP 21 32 37.9
Um iP 21 32 17.3
(cont.)

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

1975
Apr. 20 (cont.)
Ud eP 21 32 19
Arabian Sea (h = N).

" 20 Up iPKPl 22 14 16.7
ipPKPl 22 15 47.8
Sk iPKPl 22 14 09.5
Um iPKPl 22 14 04.7
Ud iPKPl 22 14 18.6
ipPKPl 22 15 50.2
De iPKPl 22 14 27.9
iPKP2 22 14 34.5
Kermadec Islands.
h = 380 km (Up,Ud).

" 20 Up iP 22 33 45.8
Ki iP 22 32 53.0
Um iP 22 33 17.9
ipP 22 33 29.1
Kamchatka.
h = 40 km (Um).

" 20 Ki eP 22 52 36
Um eP 22 52 15
Arabian Sea (h = N).

" 21 Ki eP 00 54 16
Ud iP 00 53 35.2
Azores Islands (h = N).

" 21 Ud iPKPl 02 24 18.6

" 21 Ki iP 02 35 49.1
Arabian Sea (h = N).

" 21 Ki iP 02 36 33.6
Um iP 02 36 10.3
Ud eP 02 36 04
Arabian Sea.

" 21 Ki eP 03 06 32
Um iP 03 06 12.1
Ud iP 03 05 41.0
North of Ascension Island
(h = N).

" 21 Up iP 03 19 49.2

" 21 Up iP 03 56 40.0 C
micr sec
P Z' 0.1 0.8
Ki iP 03 56 01.2 C
Sk iP 03 56 34.6 C
Um iP 03 56 18.2 C
Ud iP 03 56 47.3 C
De iP 03 57 01.8 C
Japan (h = 60 km).

1975
Apr. 21 Ki iP 04 04 09.6
ipP 04 04 14.7
Arabian Sea.
h = 20 km (Ki).

" 21 Ud iP 05 40 38.8
Greece (h = 90 km).

" 21 Ki iP 06 19 02.3
North Atlantic Ocean
(h = N).

" 21 Up iP 06 20 49.2
Ki iP 06 21 10.6
Sk eP 06 20 34
Um iP 06 21 03.4
Ud eP 06 20 32
De iP 06 20 23.5
North Atlantic Ocean
(h = N).

" 21 Up i(P) 07 53 54.0

" 21 Ki iP 09 01 16.0
Um iP 09 01 02.1
Ud iP 09 00 18.7
Azores Islands.

" 21 Ud eP 09 01 17
De iP 09 01 19.6
Colombia (h = 150 km).

" 21 Up iPKPl 11 32 47.5
Sk iPKPl 11 32 41.3
Um iPKPl 11 32 35.7
Ud iPKPl 11 32 49.3
iPKP2 11 32 54.1
De iPKPl 11 32 57.9
Kermadec Islands.

" 21 Up iP 12 01 31.5
Ki iP 12 02 01.9
Um eP 12 01 46
Arabian Sea (h = N).

" 21 Ki eP 15 17 11
Sk eP 15 17 10
Arabian Sea (h = N).

" 21 Up iP 17 05 37.7
Ki iP 17 05 46.0
Um iP 17 05 35.8
Ud iP 17 05 54.3
Hindu Kush.
Intermediate depth.

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

1975 Apr.	21	Ki	iP	19 21 28.4
			i	19 21 39.5
		Um	iP	19 21 23.2
			i	19 21 30.3
		North Atlantic Ocean (h = N).		
"	21	Up	iP	20 26 09.0
		Sk	iP	20 26 47.7
		Um	iP	20 26 50.2
		Ud	iP	20 26 15.1
		De	iP	20 25 40.2
		Greece (h = 80 km).		
"	21	Up	iPKP1	20 37 12.0
		Um	iSKP1	20 39 55.6
		Ud	iPKP1	20 37 14.1
"	21	Ki	ipP	21 14 35.3
		Sk	eP	21 14 28
			ipP	21 14 32.5
		Um	iP	21 14 07.6
			ipP	21 14 14.9
		Arabian Sea.		
		h = 30 km (Um).		
"	21	Up	eP	22 18 12
		Ki	iP	22 18 10.4
		Um	iP	22 18 06.4
		Ud	iP	22 18 28.2
		Sinkiang, China.		
"	21	Up	iPKP1	22 28 34.9
		Ud	iPKP1	22 28 37.5
		De	iPKP1	22 28 49.0
"	21	Up	iP	23 16 36.5
		Ki	iP	23 16 19.7
		Sk	eP	23 16 44
		Um	iP	23 16 25.9
		Ud	iP	23 16 45.4
		Mindanao (h = 110 km).		
"	21	Up	iPKP1	23 54 00.5 C
			iPKP2	23 54 04.6
				micr sec
			PKP1 Z'	0.1 1.1
		Ki	ePKP	23 53 42
		Sk	iPKP1	23 53 53.7 C
		Um	iPKP1	23 53 48.7 C
		Ud	iPKP1	23 54 02.1 C
			iPKP2	23 54 07.2
		De	iPKP1	23 54 10.7
		Kermadec Islands (h = 45 km).		
"	22	Up	iP	00 24 03.9
		(cont.)		

1975 Apr.	22	(cont.)		
		Ki	iP	00 24 04.4
		Sk	iP	00 23 48.9
		Um	iP	00 24 07.1
		Ud	iP	00 23 53.0
		Colombia (h = 35 km).		
"	22	Um	iP	00 44 19.6
		Arabian Sea (h = N).		
"	22	Um	iP	00 45 08.6
		Turkey (h = N).		
"	22	Up	iSgl	03 08 29.5
		Ki	iSgl	03 06 24.0
		Sk	iSgl	03 06 32.0
		Um	iPgl	03 06 05.4
			iSgl	03 06 55.6
		Ud	iSgl	03 08 19.1
		Nordland, Norway, 66.5°N, 14.3°E.		
		Origin time = 03 04 59.		
		m = 4.1, M_L = 2.3 (Ki,Sk,Um, Ud).		
		Explosion?		
"	22	Um	iP	03 44 42.9
"	22	Up	iP	03 48 09.2
			ipP	03 48 16.3
		Ki	iP	03 48 44.0
				micr sec
			P Z'	0.1 1.6
		Sk	eP	03 48 41
		Um	iP	03 48 23.1
		Ud	iP	03 48 21.4
		De	iP	03 48 04.9
		Arabian Sea.		
		h = 30 km (Up).		
"	22	Ud	iPKP1	06 25 25.6
		De	iPKP1	06 25 36.9
			i	06 25 45.3
"	22	Up	iP	06 44 48.4
		Ki	iP	06 45 24.4
			ipP	06 45 29.3
		Sk	iP	06 45 19.1
			ipP	06 45 24.8
		Um	iP	06 45 03.0
		Ud	iP	06 45 01.1
			ipP	06 45 05.9
		De	iP	06 44 44.7
		Arabian Sea.		
		h = 20 km (Ki,Sk,Ud).		

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

1975				
Apr.	22	Up	iPKPl	07 59 00.5
		Um	iPKPl	07 58 45.2
		Kermadec Islands (h = 390 km).		
"	22	Um	iP	08 40 52.3
		Ud	iP	08 40 50.2
		Arabian Sea (h = N).		
"	22	Um	iP	11 20 41.9
		Azores Islands (h = N).		
"	22	Up	i(P)	12 30 47.4
		Um	i(P)	12 31 10.8
			i	12 31 38.7
"	22	Ki	iP	13 02 31.4
"	22	Ki	iPKP	14 44 27.4
		Um	iPKP	14 44 35.0
		De	iPKP	14 44 51.6
		Santa Cruz Islands (h = 640 km).		
"	22	Up	iSn	15 23 08.1
			iSgl	15 23 20.3
		Sk	eSn	15 23 18
			iSgl	15 23 33.7
		Um	eSgl	15 24 38
		Ud	iPgl	15 21 59.7
			iSgl	15 22 17.2
		De	iSgl	15 23 36.7
		Southeast Norway,		
		59.9°N, 11.2°E.		
		Origin time = 15 21 38.		
		m = 4.1, M_L = 2.3 (Um,Ud,De).		
"	22	Up	iP	15 32 22.8
		Ki	iP	15 32 56.5 C
		Um	iP	15 32 35.2
		Ud	iP	15 32 35.7
			ipP	15 32 44.8
		Arabian Sea.		
		h = 35 km (Ud).		
"	22	Ki	eP	16 27 14
		Um	iP	16 26 54.7
		Arabian Sea.		
		Origin time = 16 17 23.		
"	22	Ud	iP	18 06 32.7
			i	18 06 52.4
		Crete.		
"	22	Up	iP	18 34 57.0
		(cont.)		

1975				
Apr.	22	(cont.)		
		Ki	iP	18 35 29.6
				micr sec
			P Z'	0.1 1.3
		Sk	iP	18 35 27.7
		Um	iP	18 35 09.9
		Ud	iP	18 35 09.7
		De	eP	18 34 53
		Arabian Sea (h = N).		
"	22	Ki	iP	20 04 48.6
		Um	iP	20 04 27.4
		Arabian Sea.		
		Origin time = 19 54 56.		
"	22	Up	iP	20 05 39.4
		Sk	epP	20 05 44
		Um	ipP	20 05 28.7
		Ud	iP	20 05 47.8
			ipP	20 06 03.2
		Japan.		
		h = 55 km (Ud).		
"	22	Up	iP	20 15 56.6
		Ki	iP	20 15 10.2
		Sk	iP	20 15 46.7
		Um	iP	20 15 31.3
		Ud	iP	20 16 02.8 C
		De	iP	20 16 21.4 C
		Kurile Islands (h = 80 km).		
"	22	Ki	iP	20 26 06.6
			iS	20 27 44.3
			iTPg	20 32 10.8
			iTSg	20 32 56.8
		Um	iP	20 27 01.0
		Ud	iP	20 27 50.8
		De	iP	20 28 30.0
		Norwegian Sea (h = N).		
"	22	Up	iP	21 01 05.1
		Ki	iP	20 59 27.0
			iTPg	21 05 34.3
			iTSg	21 06 19.9
		Sk	iP	21 00 13.7
		Um	iP	21 00 17.1
		Ud	iP	21 01 07.7
		De	iP	21 01 46.6
		Norwegian Sea.		
		Origin time = 20 57 33.		
"	22	Ki	iP	21 23 47.1
			i	21 23 51.6

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

1975					
Apr.	22	Up	iP		21 35 14.9 C
			ipP		21 35 45.6
		Ki	iP		21 35 16.0 C
		Sk	iP		21 35 30.7
		Um	iP		21 35 12.1 C
		Ud	iP		21 35 26.0 C
			ipP		21 35 56.8
		De	iP		21 35 24.1 C
			ipP		21 35 54.4
		Nicobar Islands.			
		h = 120 km (Up,Ud,De).			
"	22	Up	iP		21 44 44.2
					micr sec
			P	Z'	0.1 1.5
			Mx	Z	0.9 21
		Ki	iP		21 45 17.5
					micr sec
			P	Z'	0.1 1.4
			Mx	E	0.7 20
			Mx	N	0.6 18
			Mx	Z	0.8 18
		Sk	iP		21 45 14.6
		Um	iP		21 44 56.7
		Ud	iP		21 44 56.0
		De	iP		21 44 40.2
		Arabian Sea (h = N).			
		m = 5.7 (Up,Ki).			
"	22	Up	iP		22 27 08.4 C
		Ki	iP		22 27 42.2 C
			ipP		22 27 47.6
					micr sec
			P	Z'	0.1 1.2
			pP	Z'	0.1 1.4
		Sk	iP		22 27 39.8
		Um	iP		22 27 21.5
			ipP		22 27 26.6
		Ud	iP		22 27 20.3
		De	iP		22 27 04.4
		Arabian Sea.			
		h = 20 km (Ki,Um).			
"	22	Up	iP		22 51 36.2
			i		22 54 42.9
		Ki	iP		22 50 10.0
			iTPg		22 56 04.6
			iTSg		22 56 28.1
		Sk	iP		22 50 39.3
			iS		22 52 19.9
		Um	iP		22 50 57.4
			i		22 52 59.5
		Ud	iP		22 51 27.6
			i		22 54 18.1
		(cont.)			

1975					
Apr.	22	(cont.)			
		De	iP		22 52 15.5
			iS		22 55 27.2
		Norwegian Sea (h = N).			
"	22	Ki	iP		23 00 33.9
			ipP		23 00 40.8
		Um	iP		23 00 13.5
		Ud	eP		23 00 14
		Arabian Sea.			
		h = 30 km (Ki).			
		Origin time = 22 50 42.			
"	22	Ki	iP		23 12 03.4
"	22	Ki	iP		23 22 48.6
		Sk	iP		23 22 44.6
		Um	iP		23 22 27.6
		Arabian Sea.			
		Origin time = 23 12 56.			
"	22	Up	iP		23 36 32.6 C
					micr sec
			Mx	Z	0.8 22
		Ki	iP		23 37 06.3
			ipP		23 37 12.6
					micr sec
			pP	Z'	0.1 1.0
		Sk	iP		23 37 02.0
		Um	iP		23 36 44.7
		Ud	iP		23 36 44.4
		De	eP		23 36 30
		Arabian Sea.			
		h = 25 km (Ki).			
"	23	Up	iP		00 27 38.2 C
		Ki	iP		00 26 58.4 C
		Sk	iP		00 27 33.6
		Um	iP		00 27 15.6 C
		Ud	iP		00 27 46.9
		De	iP		00 28 02.0
		Russia-China (h = 500 km).			
"	23	Up	iP		00 30 37.9
		Ki	iP		00 29 44.4
		Sk	iP		00 30 20.6
		Um	iP		00 30 09.9
		Ud	iP		00 30 41.2
		De	iP		00 31 02.7
		Kamchatka (h = N).			
"	23	Up	iP		01 12 40.9
					micr sec
			Mx	E	0.6 12
		(cont.)			

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

1975
Apr. 23 (cont.)

Up			micr	sec
	Mx	N	0.6	11
	Mx	Z	0.9	11
Ki	eP		01 13 55	
			micr	sec
	Mx	E	0.4	11
	Mx	N	0.3	8
Sk	iP		01 13 29.4	
Um	iP		01 13 19.8	
	i		01 13 30.7	
Ud	iP		01 12 54.6	
De	iP		01 12 20.7	

Aegean Sea (h = 20 km).
M = 4.4 (Up,Ki).

" 23

Up	iRg	02 25 57.9
Ud	iRg	02 25 40.8

Central Sweden.
Near-surface event.

" 23

Ki	iP	02 54 06.9
Um	iP	02 53 46.6
Ud	iP	02 53 47.3

Arabian Sea.
Origin time = 02 44 15.

" 23

Up	eP	03 55 32
Ki	iP	03 56 04.9
Um	iP	03 55 44.1
Ud	iP	03 55 43.9

Arabian Sea.
Origin time = 03 46 13.

" 23

Up	iP		05 19 46.9	
	i		05 19 55.2	
	iLgl		05 33 03	
			micr	sec
	P	Z'	0.1	0.8
	Mx	N	1.3	15
	Mx	Z	0.6	6
Ki	iP		05 19 32.7	
			micr	sec
	Mx	E	0.4	10
	Mx	N	1.2	14
Sk	iP		05 20 02.5	
Um	iP		05 19 33.6	
Ud	iP		05 20 02.5	
De	iP		05 20 08.4	

Kazakh-Sinkiang (h = N).
M = 5.0 (Up,Ki).

" 23

Ki	iP	05 22 42.3
Sk	eP	05 22 40

(cont.)

1975
Apr. 23 (cont.)

Um	iP	05 22 21.7
	ipP	05 22 28.4

Arabian Sea.
h = 25 km (Um).

" 23

Ki	iP	07 42 39.8
Um	iP	07 42 19.8

Arabian Sea.
Origin time = 07 32 48.

" 23

Ki	iP	08 24 48.3
Um	iP	08 24 28.0

Arabian Sea.
Origin time = 08 14 56.

" 23

Up	eP		08 25 49	
	ipP		08 25 54.6	
Ki	iP		08 26 23.3	
	ipP		08 26 28.5	
			micr	sec
	P	Z'	0.1	1.3
Um	iP		08 26 03.3	
Ud	iP		08 26 02.5	
De	eP		08 25 45	

Arabian Sea.
h = 20 km (Up,Ki).

" 23

Up	iP		08 26 55.6	
Ki	iP		08 27 29.1	D
	ipP		08 27 35.2	
			micr	sec
	P	Z'	0.1	1.0
	pP	Z'	0.1	1.2
Sk	iP		08 27 26.1	
Um	iP		08 27 09.0	D
	ipP		08 27 14.7	
Ud	iP		08 27 08.1	
	ipP		08 27 13.7	
De	iP		08 26 52.5	

Arabian Sea.
h = 25 km (Ki,Um,Ud).

" 23

Up	iP		08 39 54.3	
	ipP		08 42 04.6	
Ki	iP		08 39 39.1	
	ipP		08 41 49.3	
			micr	sec
	P	Z'	0.1	1.1
	pP	Z'	0.1	1.0
Sk	iP		08 39 59.7	
	ipP		08 42 09.4	
Um	iP		08 39 44.1	
	ipP		08 41 54.4	

(cont.)

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

1975
Apr. 23 (cont.)

Ud	iP		08 40 03.1
	ipP		08 42 13.0
De	iP		08 40 08.2
	ipP		08 42 18.5

Mindanao.
h = 600 km (Up,Ki,Sk,Um,Ud, De).

" 23

Up	iP		09 15 17.2
Ki	iP		09 15 23.6
Sk	iP		09 15 41.9
Um	iP		09 15 13.9
Ud	iP		09 15 33.1
De	iP		09 15 31.0

Kashmir (h = 80 km).

" 23

Up	iP		10 17 21.5 C
Ki	iP		10 17 54.7
	ipP		10 18 00.8
			micr sec
	P	Z'	0.1 1.0
Sk	iP		10 17 50.1
Um	iP		10 17 34.1
	ipP		10 17 40.0
Ud	iP		10 17 33.5
De	iP		10 17 13.4

Arabian Sea.
h = 25 km (Ki,Um).

" 23

Ki	iP		10 35 12.2
	ipP		10 35 17.6
Um	iP		10 34 51.8
De	iP		10 34 35.8

Arabian Sea.
h = 20 km (Ki).
Origin time = 10 25 20.

" 23

Up	iP		11 27 40.5
	i		11 28 04.3
	iPP		11 31 08.0
	iSKS		11 38 07
			micr sec
	P	Z'	0.2 1.8
	i	Z'	0.3 1.7
	PP	Z'	0.6 2.3
	Mx	E	3.4 22
	Mx	N	2.8 22
	Mx	Z	7.6 23
Ki	iP		11 27 25.4 C
	i		11 27 48.2
	iPP		11 30 41.7
	iS		11 37 45

(cont.)

1975
Apr. 23 (cont.)

Ki			micr sec
	P	Z'	0.1 1.5
	i	Z'	0.3 1.8
	PP	Z'	0.5 2.4
	Mx	E	5.3 19
	Mx	N	6.9 22
	Mx	Z	8.3 23
Sk	iP		11 27 22.6
Um	iP		11 27 35.8
	iSKS		11 37 59
Ud	iP		11 27 32.3
De	iP		11 27 40.2

Mexico (h = 10 km).
m = 6.2, M = 6.0 (Up,Ki).

" 23

Up	iP		12 14 50.6
Ki	iP		12 15 23.5
Um	iP		12 15 03.9
Ud	eP		12 15 03

Arabian Sea (h = N).

" 23

Up	eP		12 15 09
Ki	iP		12 15 40.3
Um	iP		12 15 20.0
Ud	iP		12 15 18.5
De	iP		12 15 02.7

Arabian Sea.
Origin time = 12 05 48.

" 23 De eP 13 36 15

" 23 De iPKP1 15 00 38.2
Tonga Islands (h = 40 km).

" 23

Up	iP		15 11 28.0
Ki	iP		15 12 01.8
Um	iP		15 11 41.1 C
Ud	eP		15 11 40
De	eP		15 11 24

Arabian Sea (h = N).

" 23

Up	iP		15 11 36.7
Ki	iP		15 12 10.4 C
	ipP		15 12 15.7
			micr sec
	P	Z'	0.1 1.1
	pP	Z'	0.2 1.4
	Mx	E	0.7 16
	Mx	N	0.8 19
	Mx	Z	1.1 18
Sk	iP		15 12 07.6
Um	iP		15 11 50.3 C

(cont.)

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

1975
Apr. 23 (cont.)
Ud iP 15 11 49.8
De iP 15 11 33.5
Arabian Sea.
h = 20 km (Ki).
Origin time = 15 02 19.

" 23 Up iP 15 21 23.0
Ki iP 15 21 56.1
Um iP 15 21 35.5
De iP 15 21 22.0
Arabian Sea (h = N).

" 23 Ki iP 18 55 39.4
Um iP 18 55 17.0
Arabian Sea.
Origin time = 18 45 46.

" 23 Ud iP 19 18 18.4

" 23 Up i(P) 20 10 30.0

" 23 Um iP 22 38 07.1
Ud iP 22 38 25.7
Mindanao (h = 70 km).
Late arrivals compared to
the NEIS solution.

" 24 Up iP 00 15 00.8
Ki iP 00 15 34.6
Um iP 00 15 14.4
Ud iP 00 15 13.4
Arabian Sea (h = N).

" 24 Up iP 01 45 31.6 C
Ki iP 01 45 29.2 C
Sk iP 01 45 49.9
Um iP 01 45 25.4 C
Ud iP 01 45 45.8 C
De iP 01 45 45.8
Nepal (h = N).

" 24 Up iP 02 02 01.3
Ud iP 02 02 12.0
De eP 02 02 04
Pakistan.

" 24 Um iPKP1 03 27 37.9

" 24 Ud iP 04 07 15.6
Iran (h = 80 km).

" 24 Ki ePKP1 04 39 50

1975
Apr. 24 Up iP 05 39 42.8
Ki iP 05 40 18.0
Um iP 05 39 57.0
Arabian Sea (h = N).

" 24 Um iP 07 08 12.2

" 24 Ki iP 12 32 55.5
Um iP 12 32 31.9
Ud iP 12 32 33.1
Iran.

" 24 Ud iP 14 21 41.3
Nevada.
Underground explosion.

" 24 Ki eP 21 38 19
ipP 21 39 01.7
Afghanistan-USSR.
h = 210 km (Ki).

" 24 Up iP 23 03 11.2 C
iS 23 07 12.1
micr sec
P Z' 0.2 1.0
Ki iP 23 04 23.0 C
Sk iP 23 03 51.2 C
Um iP 23 03 46.9 C
Ud iP 23 03 18.4 C
De iP 23 02 43.1 C
Greece (h = 80 km).

" 24 Ki iP 23 23 56.6
Um iP 23 24 13.9
ipP 23 24 22.4
Ud iP 23 24 42.2
Japan.
h = 30 km (Um).

" 25 Ki iPKP 00 00 47.1
Santa Cruz Islands
(h = 230 km).

" 25 Up iPKP1 04 59 58.6
iPKP2 05 00 05.0
micr sec
PKP2 Z' 0.1 0.8
Ki ePKP 04 59 37
Sk iPKP1 04 59 52.8
Um iPKP1 04 59 47.2
Ud iPKP1 05 00 00.2
iPKP2 05 00 07.9
De iPKP2 05 00 21.5
Kermadec Islands (h = 420 km).

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

1975
Apr. 25 Up iP 05 04 47.4
micr sec
P Z' 0.1 0.8
Ki iP 05 05 26.0
Sk iP 05 05 25.8
i 05 05 34.9
Um iP 05 04 57.0
Ud iP 05 05 07.7
De iP 05 04 58.2
Caspian Sea region.

" 25 Ud ePKPl 13 20 55

" 25 Ki iPKP 14 07 34.4
Chile (h = N).

" 25 Up iP 14 33 55.5
micr sec
P Z' 0.1 1.1
Ki iP 14 33 02.4
ipP 14 33 14.2
micr sec
P Z' 0.1 1.0
Sk iP 14 33 38.6
Um iP 14 33 27.6
ipP 14 33 38.8
Ud iP 14 33 59.9
De iP 14 34 20.3
iPP 14 34 31.5
Kamchatka.
h = 40 km (Ki,Um,De).
m = 5.9 (Up,Ki).

" 25 Up iP 17 48 47.9
ipP 17 49 09.9
Ki iP 17 48 08.0
Sk eP 17 48 43
Um iP 17 48 25.6
ipP 17 48 47.5
Ud iP 17 48 55.3 C
ipP 17 49 17.1
De iP 17 49 09.8
Japan.
h = 80 km (Up,Um,Ud).

" 25 Up ePKPl 21 30 25
Um iPKP 21 30 18.2
Ud iPKPl 21 30 25.5
De iPKPl 21 30 37.0
Fiji Islands (h = 610 km).

" 26 Up iP 03 25 41.8 C
micr sec
P Z' 0.1 0.9
(cont.)

1975
Apr. 26 (cont.)
Ki iP 03 25 01.3 C
ipP 03 25 26.3
Sk iP 03 25 35.5
Um iP 03 25 19.2 C
ipP 03 25 44.3
Ud iP 03 25 49.5
ipP 03 26 14.3
isP 03 26 25.4
De iP 03 26 04.8
Japan.
h = 100 km (Ki,Um,Ud).

" 26 Ud iPKPl 05 39 33.0

" 26 Ki iP 07 09 37.7

" 26 Ud iPKPl 17 39 59.5

" 26 Up iP 19 45 33.1
Ki eP 19 46 07
Um iP 19 45 45.2
Arabian Sea (h = 25 km).

" 26 Ud iPKPl 19 47 17.5
De iPKPl 19 47 29.7

" 26 Sk iPKP 21 57 01.0
Um iPKP 21 56 55.6

" 27 Ud iP 05 29 38.9

" 27 Up iP 05 43 55.3 C
micr sec
P Z' 0.8 0.8
Ki iP 05 43 38.6 C
i(PP) 05 44 42.5
micr sec
P Z' 0.7 0.6
Sk iP 05 44 10.4 C
iPP 05 45 33.1
Um iP 05 43 39.8 C
Ud iP 05 44 11.3 C
De iP 05 44 18.9 C
iPP 05 45 44.6
Kazakh SSR.
m = 6.7 (Up,Ki).
Underground explosion.

" 27 Up iP 07 18 54.9 C
micr sec
P Z' 0.1 0.9
Ki iP 07 18 17.9 C
micr sec
P Z' 0.1 0.9
(cont.)

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

1975
Apr. 27 (cont.)

Sk	iP	07 18 49.5	
Um	iP	07 18 34.1	C
Ud	iP	07 19 02.0	C
De	iP	07 19 15.8	

Japan (h = 60 km).
m = 5.7 (Up,Ki).

" 27	Um	iPKP	08 41 09.8	
		i	08 41 27.2	
" 27	Ud	iP	10 18 33.3	

Greece.

" 27	Ud	iP	12 10 38.9	
" 27	Up	iSgl	15 07 18.6	
		iRg	15 07 24.5	
	Um	iSgl	15 09 03.8	
	Ud	iSgl	15 06 54.7	
		iRg	15 07 01.2	

Central Sweden.
Near-surface event.

" 27	Ud	iP	21 40 04.9	

Crete (h = N).

" 27	Up	iPKPl	23 25 30.5	
	Um	iPKPl	23 25 20.2	
	Ud	iPKPl	23 25 32.1	
	De	iPKPl	23 25 41.5	

Kermadec Islands (h = 210 km).

" 28	Ud	iPKPl	00 59 45.5	
" 28	Up	i	02 05 52.9	
		i	02 07 07.1	
		iSgl	02 07 37.5	
	Sk	i	02 06 04.9	
		i	02 06 25.1	
	Um	i	02 06 16.6	
		i	02 07 40.9	
		iSgl	02 08 20.6	
	Ud	i	02 05 30.0	
		iSgl	02 06 37.8	
	De	iSgl	02 07 36.6	

Southwest coast of Norway, near 60.8°N, 4.7°E.
Poor agreement between data.
m = 4.4, M_L = 2.9 (Up,Sk,Um, Ud,De).

" 28	Up	iP	02 08 15.8	C
		iPP	02 09 37.4	
			micr sec	
		P Z'	0.2 1.0	

(cont.)

1975
Apr. 28 (cont.)

Ki	iP	02 08 48.1	C	
	iPP	02 10 21.5		
		micr sec		
	P Z'	0.1 1.0		
Sk	iP	02 08 49.5		
Um	iP	02 08 26.5	C	
Ud	iP	02 08 32.1	C	
De	iP	02 08 18.1	C	
	i	02 08 23.2		

Iran (h = 40 km).
m = 5.7 (Up,Ki).

" 28	Up	iP	02 34 41.2	
		iPP	02 35 09.8	
	Ki	iP	02 35 46.0	C
			micr sec	
		P Z'	0.2 0.5	
	Sk	iP	02 35 19.8	
	Um	iP	02 35 11.1	C
	Ud	iP	02 34 49.8	C
	De	iP	02 34 19.2	C

East of Crete (h = N).

" 28	Ud	iPKPl	06 51 08.2	
" 28	Up	iP	09 27 27.5	
	Ki	iP	09 27 24.3	
	Um	iP	09 27 21.1	
	Ud	iP	09 27 41.5	
	De	iP	09 27 43.1	

Kashmir-Tibet (h = N).

" 28	Up	iP	10 51 15.2	
	Ki	iP	10 50 51.2	
	Um	iP	10 51 00.9	
	Ud	iP	10 51 25.0	
	De	eP	10 51 35	

Formosa (h = 40 km).

" 28	Up	iP	11 15 04.8	D
		i	11 15 07.8	
		iS	11 21 45	
			micr sec	
		P Z'	0.9 1.6	
		Mx E	7.9 14	
		Mx N	7.9 21	
		Mx Z	17 15	
	Ki	iP	11 15 03.7	D
		i	11 15 08.1	
		iPP	11 16 52.8	
			micr sec	
		P Z'	1.2 1.6	
		PP Z'	0.6 1.7	
		Mx E	13 12	
		Mx N	70 20	
		Mx Z	15 14	

(cont.)

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

1975					
Apr.	28	(cont.)			
		Sk	iP		11 15 25.3 D
			i		11 15 28.2
			iPP		11 17 22.4
		Um	iP		11 14 58.0 D
			i		11 15 00.7
			iPP		11 16 44.2
		Ud	iP		11 15 19.9 D
			i		11 15 23.1
			iPP		11 17 12.2
		De	iP		11 15 20.4
			i		11 15 23.4
			iPP		11 17 13.3
		Kashmir-Tibet (h = N).			
		m = 6.7, M = 6.0 (Up,Ki).			
		Double P, smaller and larger,			
		average separation = 3.2 sec.			
"	28	Ki	iP		11 52 09.0
		Ud	iP		11 52 35.8
		Mindanao (h = 50 km).			
"	28	Up	iP		12 06 55.6
					micr sec
			P	Z'	0.1 1.0
		Ki	iP		12 06 53.7
			i		12 06 57.2
					micr sec
			P	Z'	0.2 1.0
		Sk	iP		12 07 15.9
		Um	iP		12 06 50.0
		Ud	iP		12 07 10.3
			i		12 07 13.4
		De	iP		12 07 11.1
			i		12 07 13.3
		Kashmir-Tibet (h = 30 km).			
		m = 6.0 (Up,Ki).			
		Double P, average separation			
		= 2.9 sec.			
"	28	Ki	iP		12 32 51.8
"	28	Ud	iPKP1		12 49 34.0
"	28	Up	iP		13 14 25.1
		Ki	iP		13 14 18.2
		Ud	iP		13 14 40.5
		Kashmir-Tibet (h = 55 km).			
"	28	Up	iP		14 41 00.7
		Ki	eP		14 40 45
		Mindanao (h = N).			
"	28	Ki	iP		15 30 43.6
"	28	Ud	iPKP1		17 32 45.8
		De	iPKP1		17 32 56.7

1975					
Apr.	28	Up	iP		17 57 33.1
		Ki	iP		17 57 15.6
		Sk	iP		17 57 40.1
		Ud	iP		17 57 41.4
		Mindanao (h = 70 km).			
"	28	Ud	iP		18 13 57.7
"	29	Ud	iP		02 42 24.9
"	29	Up	iP		03 16 20.0
			i		03 16 23.6
					micr sec
			P	Z'	0.2 1.4
		Ki	iP		03 16 19.7
			i		03 16 22.8
					micr sec
			P	Z'	0.1 0.9
			Mx	N	1.2 14
		Sk	iP		03 16 42.8
		Um	iP		03 16 15.6
			i		03 16 17.6
		Ud	iP		03 16 36.2
			i		03 16 39.6
		De	iP		03 16 37.1
		Kashmir-Tibet (h = N).			
		m = 5.9 (Up,Ki).			
		Double P, in average			
		3.0 sec apart.			
"	29	Um	iPKP		04 36 34.5
"	29	Ki	iP		05 17 49.9
		Ud	eP		05 18 06
		Kashmir-Tibet (h = N).			
"	29	Up	iP		05 55 17.4
		Japan (h = 40 km).			
"	29	Ud	iPKP1		08 19 11.7
		De	iPKP1		08 19 21.9
"	29	Up	iP		08 49 58.0
		Ud	iP		08 50 13.2
"	29	Up	iP		08 54 24.3
			i		08 54 31.7
					micr sec
			Mx	N	1.9 18
		Ki	iP		08 54 07.0
					micr sec
			Mx	E	0.7 13
			Mx	N	1.7 15
			Mx	Z	1.5 14
		Sk	eP		08 54 31
		Um	iP		08 54 12.6
		(cont.)			

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

1975 Apr.	29	(cont.)			
		Um	i	08 54 20.0	
		Ud	iP	08 54 31.7	
		Mindoro (h = 55 km).			
		M = 5.6 (Up,Ki).			
"	29	Up	iP	09 01 55.3	
		Ki	iP	09 01 37.3	
			i	09 01 44.3	
		Um	iP	09 01 43.3	C
		Ud	iP	09 02 04.5	
		Mindoro (h = 50 km).			
"	29	Ki	iP	12 13 01.0	
		Um	iP	12 12 41.2	
		Ud	iP	12 12 40.6	
		Arabian Sea (h = N).			
"	29	Up	iPKPl	13 17 19.8	D
		Ki	iSKPl	13 19 56.5	
		Sk	iSKPl	13 20 11.5	
		Um	iSKPl	13 20 07.0	
		Ud	iPKPl	13 17 21.9	D
			iSKPl	13 20 18.6	
		De	iPKPl	13 17 33.3	
		Tonga-Kermadec Islands (h = 470 km).			
"	29	Um	iP	15 04 02.5	
		Ud	iP	15 04 33.7	
		Japan (h = 130 km).			
"	29	Up	iPKP2	15 40 17.3	
		Ki	iPKPl	15 39 45.1	D
			ipPKPl	15 40 16.2	
				micr sec	
			PKPl Z'	0.1 0.8	
		Sk	iPKPl	15 39 57.5	
		Um	iPKPl	15 39 52.6	D
			ipPKPl	15 40 23.3	
		Ud	iPKPl	15 40 15.0	
			iPKP2	15 40 23.0	
		De	ePKP2	15 40 33	
		New Zealand.			
		h = 110 (Ki,Um).			
"	29	Up	iP	17 27 13.0	
		Ki	iP	17 26 37.5	
				micr sec	
			P Z'	0.1 0.6	
		Sk	eP	17 27 09	
		Um	iP	17 26 52.6	
		Ud	iP	17 27 20.7	
		Japan (h = 370 km).			

1975 Apr.	29	Up	iP	20 37 38.7	
		Ki	iP	20 36 45.6	
		Sk	iP	20 37 18.7	
		Um	iP	20 37 11.3	
		Ud	iP	20 37 41.1	
		De	iP	20 38 02.7	
		Kamchatka (h = N).			
"	29	Up	iP	20 56 24.8	
		Ki	iP	20 55 31.6	
		Um	i(pP)	20 56 07.0	
		Ud	iP	20 56 28.0	
		De	iP	20 56 50.4	
		Kamchatka (h = N).			
"	29	Ki	iP	23 00 38.7	
		Ud	iP	23 01 05.1	
		Mindanao (h = 90 km).			
"	30	Up	iP	03 14 49.1	
		Ki	iP	03 14 47.1	
				micr sec	
			P Z'	0.1 0.5	
		Sk	eP	03 15 10	
		Um	iP	03 14 42.1	
		Ud	iP	03 15 04.2	
		De	eP	03 15 04	
		Sinkiang, China (h = 30 km).			
"	30	Ki	iP	03 17 32.5	
"	30	Ki	iP	03 29 23.3	
"	30	Up	iP	04 34 18.0	C
			i	04 34 19.4	
			iPP	04 34 45.6	
			iPcP	04 37 51.0	
			iS	04 38 36	
				micr sec	
			P Z'	0.1 1.0	
			i Z'	1.2 1.0	
			Mx E	3.0 22	
			Mx N	3.9 20	
			Mx Z	7.2 21	
		Ki	iP	04 35 20.8	C
			iPP	04 36 12.1	
				micr sec	
			P Z'	0.8 0.8	
			Mx E	3.0 18	
			Mx N	3.2 20	
			Mx Z	2.7 17	
		Sk	iP	04 34 57.2	C
		Um	iP	04 34 46.6	C
		Ud	iP	04 34 28.2	C
		(cont.)			

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

1975
Apr. 30 (cont.)

Ud	i		04 34 30.4	
	iPP		04 35 01.7	
De	iP		04 33 59.0	C

Turkey (h = 55 km).
m = 6.6, M = 5.1 (Up,Ki).
Double P.

" 30 Ki iP 04 51 38.0
Mongolia (h = N).

" 30

Up	iP		07 18 55.5		C
			micr	sec	
	P	Z'	0.2	0.8	
	Mx	E	1.0	20	
	Mx	N	2.0	22	
	Mx	Z	1.4	20	
Ki	iP		07 18 02.8		C
			micr	sec	
	P	Z'	0.1	0.8	
	Mx	E	1.2	18	
	Mx	N	1.2	18	
	Mx	Z	0.8	15	
Sk	iP		07 18 35.4		C
Um	iP		07 18 28.6		C
Ud	iP		07 18 56.5		C
De	iP		07 19 18.5		C

Aleutian Islands (h = 50 km).
m = 6.1, M = 5.4 (Up,Ki).

" 30

Up	iP	09 01 15.9
Ud	iP	09 01 30.2

Tibet (h = N).

" 30

Ki	iP	09 19 31.0
Ud	eP	09 19 53

" 30

Ud	iSgl	10 50 18.5
De	iSgl	10 50 37.6

" 30 Ud iP 10 58 00.3

" 30

Up	i(Rg)	11 10 28.4
Ud	iPgl	11 10 13.8
	iSgl	11 10 39.3

" 30

Up	iPKPl		11 18 52.0	
			micr	sec
	PKPl	Z'	0.1	0.8
Ud	iPKPl		11 18 54.0	
De	iPKPl		11 19 04.1	

Tonga-Kermadec Islands
(h = 70 km).

1975
Apr. 30 Ud iP 11 45 13.3
Mindanao (h = 80 km).

" 30 Ud iP 12 19 37.6

" 30 Ud iP 12 37 11.3

" 30 Ud iP 15 05 35.7
Formosa (h = N).

" 30

Up	iP	15 11 48.7	C
Ki	iP	15 11 14.6	C
Sk	iP	15 11 22.5	
Um	iP	15 11 34.1	C
Ud	iP	15 11 40.7	C
De	iP	15 11 57.5	

Nevada.
Underground explosion.

" 30 Ud iP 17 25 57.6

" 30 Ud iP 18 01 45.2
De iP 18 01 29.7

" 30 Ud iP 18 24 43.1

" 30 Ud iSKPl 18 34 11.3
New Hebrides Islands
(h = 15 km).

" 30

Ud	iP	22 02 19.1
	i	22 02 26.4

Greece.

" 30

Um	ipP	22 18 25.0
Ud	iP	22 18 17.8
	ipP	22 18 23.9

Arabian Sea.
h = 25 km (Ud).

" 30

Up	iP	23 34 59.7
Ki	iP	23 34 39.4
Um	iP	23 34 46.4
Ud	iP	23 35 09.2

Luzon (h = 60 km).

" 30

Up	iP	23 49 48.4
Ki	iP	23 50 21.8
	ipP	23 50 27.8
Sk	iP	23 50 19.2
Um	iP	23 50 01.8
	ipP	23 50 07.5
Ud	iP	23 50 00.7

(cont.)

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

1975
Apr. 30 (cont.)
De eP 23 49 46
Arabian Sea.
h = 25 km (Ki,Um).

Markus Båth
Klaus Meyer
Rutger Wahlström

November 5, 1976

SEISMOLOGISKA INSTITUTIONEN
BOX 517
751 20 UPPSALA 1

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BOX 517
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SWEDEN

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

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

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

M A Y 1 - 31, 1975

1975 May	1	Up	iP		02 47 00.4	
		Ki	iP		02 47 33.9	
		Sk	eP		02 47 31	
		Um	iP		02 47 13.0	
		Ud	eP		02 47 11	
		Arabian Sea (h = N).				
"	1	Up	iPKP2		03 40 16.6	
			i		03 40 23.3	
					micr	sec
			PKP2	Z'	0.1	1.0
		Ki	iPKP		03 40 13.4	
			ipPKP		03 40 23.5	
					micr	sec
			pPKP	Z'	0.1	1.1
		Sk	iPKP1		03 40 21.0	
			ipPKP1		03 40 31.8	
		Um	iPKP1		03 40 12.5	
			ipPKP1		03 40 22.7	
		Ud	iPKP1		03 40 18.4	
			iPKP2		03 40 26.6	
			ipPKP2		03 40 35.8	
		De	iPKP2		03 40 22.6	
		West of Macquarie Islands.				
		h = 30 km (Ki,Sk,Um,Ud).				
"	1	Ud	i(P)		03 46 47.9	
"	1	Ud	iP		06 37 04.3	
"	1	Up	ipP		08 25 01.1	
		Ki	ipP		08 24 26.6	
		Um	iP		08 24 30.0	
			ipP		08 24 45.5	
		Ud	iP		08 24 57.9	
			ipP		08 25 13.6	
		De	i		08 25 31.1	
		Japan.				
		h = 50 km (Um,Ud).				

1975 May	1	Up	iPKP1		09 53 34.9	
		Ud	iPKP1		09 53 37.4	
		De	iPKP1		09 53 48.4	
"	1	Up	iP		11 01 32.3	
		Um	i		11 01 40.3	
		Ud	iP		11 01 48.0	
		De	iP		11 01 45.6	
		Afghanistan-USSR (h = 120 km).				
"	1	Ud	iP		12 02 25.3	
		Guatemala (h = N).				
"	1	Up	iP		12 49 30.8	
		Ki	iP		12 49 20.1	
		Um	iP		12 49 19.3	
		Ud	iP		12 49 39.9	
		Mindoro (h = 50 km).				
"	1	Up	iSgl		16 38 41.2	
		Sk	e		16 37 29	
			iSgl		16 37 47.8	
		Um	eSgl		16 39 27	
		Ud	iSn		16 37 28.7	
			iSgl		16 37 40.3	
		De	i		16 38 45.0	
		Coast of southwest Norway,				
		near 61°N, 5°E.				
		Origin time = 16 35 38.				
"	1	Up	iP		17 02 11.5	C
			ipP		17 02 20.8	
					micr	sec
			P	Z'	0.2	1.4
			Mx	E	1.3	12
			Mx	Z	2.3	11
		Ki	iP		17 01 43.4	C
			ipP		17 01 53.3	
		(cont.)				

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

1975
May 1 (cont.)

			micr	sec	
Ki					
	P	Z'	0.1	1.4	
	pP	Z'	0.3	2.2	
	Mx	E	1.0	12	
	Mx	N	1.3	13	
	Mx	Z	1.0	12	
Sk	iP		17 02 12.5		
Um	iP		17 01 53.6		C
	iS		17 11 32		
Ud	iP		17 02 20.6		C
	i(PcP)		17 02 33.0		
De	iP		17 02 32.4		

Ryukyu Islands.
h = 30 km (Up,Ki).
m = 5.8, M = 5.5 (Up,Ki).

" 1	Up	iSgl	17 06 30.5	
	Sk	iSgl	17 05 38.1	
	Um	eSgl	17 07 25	
	Ud	iPn	17 04 31.9	
		iSn	17 05 19.4	
		i	17 05 36.1	
	De	e	17 06 29	
		iSgl	17 06 46.9	

Same location as the event 16 35 this day.
Origin time = 17 03 29.

" 1	Up	iP	18 06 21.9	
	Sk	eP	18 06 24	
	Um	iP	18 06 35.0	
	Ud	iP	18 06 13.9	
" 1	Up	iP	18 58 53.1	
	Ki	iP	18 57 59.3	
	Sk	iP	18 58 30.1	
	Um	iP	18 58 26.0	
		ipP	18 58 32.1	
	Ud	iP	18 58 51.3	
	De	iP	18 59 14.5	
		ipP	18 59 20.4	

Aleutian Islands.
h = 20 km (Um,De).

" 1	Up	iP	19 12 32.0	
	Ki	iP	19 11 39.2	
	Um	iP	19 12 04.4	
	Ud	iP	19 12 30.6	

Aleutian Islands (h = N).

" 1	Ki	iP	19 19 33.1	
	Um	iP	19 19 49.4	

(cont.)

1975
May 1 (cont.)

	Ud	iP	19 20 19.6	

Japan (h = 70 km).

" 1	Um	iP	19 31 29.4	
	Ud	iP	19 31 58.8	

Aleutian Islands (h = 10 km).

" 1	Up	iP	21 22 15.1	
	Ki	iP	21 22 05.8	C

		micr	sec
Mx	E	1.5	18
Mx	N	1.6	17
Mx	Z	1.1	15

	Um	iP	21 22 03.6	
	Ud	iP	21 22 24.2	

Mindoro (h = 50 km).

" 2	Up	iPKPl	00 01 43.2	
	Ud	iPKPl	00 01 46.0	
	De	iPKPl	00 01 53.5	
" 2	Ki	iP	02 22 33.7	
	Um	iP	02 22 23.9	
	Ud	iP	02 22 43.0	

Hindu Kush (h = 240 km).

" 2	Ud	iP	05 09 06.4	

Turkey (h = 45 km).

" 2	Um	iP	05 45 51.1	
" 2	Up	iP	07 28 14.2	
	Um	iP	07 28 47.1	
" 2	Ki	iP	07 37 58.3	
	Um	iP	07 38 43.2	
	Ud	iP	07 39 20.2	
" 2	Up	i(pP)	11 15 32.6	
	Ud	iP	11 16 15.3	

Kurile Islands (h = 55 km).

" 2	Up	i(P)	11 16 21.6	
" 2	Up	iP	14 16 45.1	
	Ki	iP	14 15 53.9	
	Um	iP	14 16 13.4	
		i	14 16 24.6	
	Ud	iP	14 16 50.5	
" 2	Up	iP	14 20 03.2	
	Ki	eP	14 19 10	C

(cont.)

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

1975
May 2 (cont.)

Um	iP	14 19 32.0	
Ud	iP	14 20 02.3	
	i	14 20 15.5	

Aleutian Islands (h = N).

" 2	Up	iP	20 47 45.2	
	Ki	eP	20 47 14	
	Sk	eP	20 47 42	
	Um	iP	20 47 27.6	
	Ud	iP	20 47 48.0	
" 2	Um	iP	21 36 22.9	

Aleutian Islands (h = N).

" 3	Um	iP	00 08 35.1	
	Ud	iP	00 08 58.0	

Mindanao (h = 50 km).

" 3	Ud	iP	01 06 59.6	
" 3	De	iP	01 36 49.3	
" 3	Up	eP	03 20 58	
		i	03 21 00.8	
	Sk	iP	03 21 43.5	
	Um	iP	03 21 41.0	
		i	03 21 48.8	
	Ud	iP	03 21 05.4	
		i	03 21 11.1	
	De	iP	03 20 34.9	

Greece.

" 3	Up	iP	05 26 15.9	C
	Ki	iP	05 25 29.7	
	Sk	iP	05 26 06.0	
	Um	iP	05 25 50.7	C
	Ud	iP	05 26 22.0	C
	De	iP	05 26 39.9	

Okhotsk Sea (h = 370 km).

" 3	Up	iP	05 51 26.0	
	Ki	iP	05 51 08.9	
	Ud	iP	05 51 34.2	

Mindanao (h = 130 km).

" 3	Up	iP	06 57 38.4		C
			micr	sec	
		P Z'	0.2	0.9	
	Ki	iP	06 57 10.0		C
			micr	sec	
		P Z'	0.2	1.0	
	Sk	iP	06 57 35.3		C
	Um	iP	06 57 21.9		C
	Ud	iP	06 57 44.3		

(cont.)

1975
May 3 (cont.)

De	iP	06 57 55.6	

Mariana Islands (h = 70 km).
m = 6.3 (Up,Ki).

" 3	Up	iP	07 17 59.5	
	Um	iP	07 17 34.6	
	Ud	iP	07 18 05.5	

Kurile Islands (h = N).

" 3	Ki	iP	10 36 04.0	
	Um	iP	10 36 32.2	
	Ud	iP	10 36 57.1	

Unimak Island (h = 35 km).

" 3	Up	iP	10 38 26.8	
	Um	iP	10 38 32.8	
" 3	Up	i	11 15 26.9	
		iPn	11 15 35.6	
	Ud	iP	11 15 31.3	

Caspian Sea (h = N).

" 3	Ud	iP	11 16 08.5	
" 3	Up	iP	16 58 30.1	
	Ud	iP	16 58 40.4	

Ryukyu Islands (h = 60 km).

" 3	Up	iP	17 17 02.3	C
	Ki	iP	17 16 33.7	
	Ud	iP	17 17 10.8	C
		ipP	17 17 26.1	
	De	i	17 17 35.9	

Ryukyu Islands.
h = 55 km (Ud).

" 3	Up	iP	17 30 28.4	
	Ki	iP	17 30 00.2	
	Ud	iP	17 30 37.2	C

Ryukyu Islands (h = 45 km).

" 3	Ud	iP	18 17 10.3	
" 3	Up	iP	18 40 56.0	
		i	18 41 19.2	
	Ki	iP	18 40 28.3	
	Sk	iP	18 40 57.0	
	Um	i	18 40 52.4	
	Ud	iP	18 41 05.2	C
		i	18 41 18.2	
	De	iP	18 41 17.0	

Ryukyu Islands (h = 25 km).

" 4	Up	i(PKP)	00 25 27.1	

(cont.)

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

1975
May 4 (cont.)

Up	iPKP		00 25 40.8	
Ud	i(PKP)		00 25 30.5	
	iPKP		00 25 42.7	
De	e(PKP)		00 25 38	
	iPKP		00 25 51.8	
" 4 Um	iP		00 46 56.0	
" 4 Up	iP		02 29 57.2	
	ipP		02 30 06.6	
Ud	iP		02 30 06.4	
	ipP		02 30 16.7	
De	iP		02 30 18.2	
Ryukyu Islands.				
h = 35 km (Up,Ud).				
" 4 Up	iP		03 52 39.1	
Ki	iP		03 52 13.1	
Um	iP		03 52 21.9	
Ud	iP		03 52 49.1	
" 4 Ud	iPKPl		06 41 44.2	
De	iPKPl		06 41 55.3	
" 4 Um	iP		07 43 32.1	
Ud	iP		07 43 59.6	
Japan (h = 340 km).				
" 4 Ki	iP		08 00 07.8	
Ud	iP		08 00 23.7	
Kashmir-Tibet (h = N).				
" 4 Up	iP		09 43 27.9	C
	ipP		09 43 34.1	
	iS		09 52 57	
			micr	sec
	P	Z'	0.2	0.9
	pP	Z'	0.9	1.4
	Mx	E	2.4	14
	Mx	N	3.9	17
	Mx	Z	5.8	15
Ki	iP		09 42 48.1	
	ipP		09 42 54.2	
	i		09 43 06.9	
			micr	sec
	P	Z'	0.1	0.9
	pP	Z'	0.3	1.3
	i	Z'	0.9	2.0
	Mx	E	4.6	14
	Mx	N	3.4	14
	Mx	Z	4.3	16
Sk	iP		09 43 21.3	
	ipP		09 43 27.5	

(cont.)

1975
May 4 (cont.)

Sk	iPP		09 45 57.5	
Um	iP		09 43 05.7	C
	ipP		09 43 11.6	
	iS		09 52 11	
Ud	iP		09 43 35.1	C
	ipP		09 43 41.3	
	i		09 47 11.0	
De	iP		09 43 50.1	
	ipP		09 43 56.5	
Japan.				
h = 20 km (Up,Ki,Sk,Um,Ud,De).				
m = 6.5, M = 6.1 (Up,Ki).				
" 4 Um	iP		09 51 12.7	C
Ud	iP		09 51 42.1	C
Japan (h = 40 km).				
" 4 Um	iP		12 20 11.4	
Ud	iP		12 20 40.6	
Japan (h = 25 km).				
" 4 Um	iP		13 08 51.1	
Ud	iP		13 09 22.1	
Japan (h = 70 km).				
" 4 Up	iPKPl		21 37 46.5	
Ud	iPKPl		21 37 47.3	
De	iPKPl		21 37 58.0	
Fiji Islands (h = 560 km).				
" 4 Up	iP		21 39 14.7	
Um	iP		21 39 03.1	
Ud	iP		21 39 26.7	
Szechwan, China (h = N).				
" 5 Ud	iP		02 38 27.0	
" 5 Ud	iP		01 21 38.3	
Greece.				
" 5 Ud	iPKPl		03 23 51.8	
De	iPKPl		03 24 02.2	
" 5 Um	iP		04 30 19.6	
Zaire (h = N).				
" 5 Up	iP		05 28 16.2	
	ipP		05 28 20.2	
	i		05 28 41.9	
	iS		05 35 59	
			micr	sec
	P	Z'	0.1	0.9
	pP	Z'	0.2	0.9

(cont.)

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

1975
May 5 (cont.)

Up			micr	sec
	Mx	E	20	13
	Mx	N	28	13
	Mx	Z	33	13
Ki	iP		05 28 04.4	
	ipP		05 28 08.6	
			micr	sec
	pP	Z'	0.2	1.4
	Mx	E	25	13
	Mx	N	20	12
	Mx	Z	23	12
Sk	iP		05 28 30.7	
Um	iP		05 28 04.8	
	i		05 28 06.3	
	i		05 28 47.8	
	iS		05 35 41	
Ud	iP		05 28 30.2	
	ipP		05 28 34.4	
	iPcP		05 29 31.3	
De	iP		05 28 33.7	
	ipP		05 28 37.6	
	iPcP		05 29 34.3	

Tsinghai, China.
h = 15 km (Up,Ki,Ud,De).
m = 6.1, M = 6.6 (Up,Ki).

" 5

Up	iP	05 39 22.8
Ki	iP	05 39 11.5
Sk	iP	05 39 38.2
Um	i	05 39 15.7
Ud	iP	05 39 36.8
De	iP	05 39 41.8

Tsinghai, China (h = N).

" 5

Up	iSgl	08 42 30.5
Sk	eSgl	08 43 22
Ud	iPn	08 41 20.8
	iPgl	08 41 22.3
	iSn	08 41 38.8
	iSgl	08 41 42.0
	iRg	08 41 49.5
De	iSn	08 42 12.5
	iSgl	08 42 19.5

Dalsland, Sweden,
58.9°N, 12.1°E.
Origin time = 08 40 57.
m = 4.4, M_L = 3.0 (Ud).
Near-surface event.

" 5

Up	iP	08 46 52.5
Um	i	08 46 39.7

Japan (h = 55 km).

1975
May 5

Ud	iP	09 35 22.8

" 5

Ud	iP	11 37 14.3

" 5

Sk	i(P)	11 50 07.8
	i	11 50 12.6

" 5

Um	iP	12 09 42.9
Ud	iP	12 10 09.0

Japan (h = 70 km).

" 5

Ki	iP	15 47 31.8
	iS	15 48 37.9
	i	15 48 57.0
	iTSg	15 53 04.2
Sk	iS	15 49 32.3
Um	iS	15 49 57.8
	i	15 50 14.4
	i	15 50 32.5
Ud	iP	15 48 41.3
	i	15 50 07.2
	i	15 51 12.6

Norwegian Sea,
near 71 1/2°N, 7 1/2°E.
Origin time = 15 45 58.

" 5

Up	i(P)	19 13 45.9

" 5

Up	iP		19 36 07.2
Ki	iP		19 36 05.8
			micr sec
	P	Z'	0.1 0.8
Sk	iP		19 36 28.1
Um	iP		19 36 00.7
Ud	iP		19 36 22.6
De	iP		19 36 23.5

Kashmir-Tibet (h = 20 km).

" 5

Up	iP	19 55 20.8
Ud	iP	19 55 33.8
De	iP	19 55 19.4

Iran (h = 50 km).

" 5

Up	i(PKP)		20 47 24.1
	iPKPl		20 47 25.5
	iX		20 51 06.7
			micr sec
	PKPl	Z'	0.1 0.8
	X	Z'	0.1 1.1
	Mx	N	1.4 20
	Mx	Z	2.1 22
Ki	iPKP		20 47 14.8
	iSKPl		20 50 40.1

(cont.)

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

1975
May 5 (cont.)

Ki			micr	sec	
	PKP	Z'	0.1	0.9	
	SKPl	Z'	0.3	2.0	
Sk	i(PKP)		20 47 17.8		
	iSKPl		20 50 55.2		
Um	i(PKP)		20 47 13.1		
	i		20 47 17.7		
	iPKP		20 47 20.6		
	iSKPl		20 50 51.9		
Ud	i(PKP)		20 47 26.0		
	iPKPl		20 47 27.4		
	iSKPl		20 51 03.6		
	iX		20 51 09.7		
De	iPKPl		20 47 37.2	D	
	iSKPl		20 51 12.5		

Tonga-Kermadec Islands (h = 90 km).

" 5	Up	iPKPl	21 15 55.3	
	Ud	iPKPl	21 15 57.8	
" 5	Up	iP	22 07 40.3	
		i	22 07 50.3	
	Ki	iP	22 07 23.5	
	Sk	iP	22 07 46.0	
	Um	iP	22 07 28.7	
	Ud	iP	22 07 49.5	

Mindoro (h = 10 km).

" 6	Um	iP	03 30 44.2	

Ceram Sea (h = 25 km).

" 6	Um	iP	04 39 43.2	
" 6	Ud	iP	04 49 52.2	
" 6	Up	i(P)	07 18 43.1	
" 6	Up	iP	10 20 42.9	C
	Ki	iP	10 20 08.1	
	Um	iP	10 20 22.4	
	Ud	iP	10 20 49.7	

Japan (h = 20 km).

" 6	Up	iP	10 30 19.4		
		i	10 30 21.1		
		iPP	10 33 17.8		
		iS	10 40 12		
			micr	sec	
		P	Z' 0.1	0.9	
		i	Z' 0.1	0.7	
		Mx	E 3.8	20	

(cont.)

1975
May 6 (cont.)

Up			micr	sec
	Mx	N	4.7	14
	Mx	Z	3.8	15
Ki	iP		10 29 44.9	
	iS		10 39 06	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	7.1	16
	Mx	N	8.7	17
	Mx	Z	4.4	13
Sk	iP		10 30 15.8	
Um	iP		10 29 58.8	
	i		10 30 00.5	
	iS		10 39 34	
Ud	iP		10 30 25.9	
	i		10 30 28.2	
De	iP		10 30 35.0	

Japan (h = N).
m = 6.1, M = 6.1 (Up,Ki).
Double P (Up,Um,Ud), smaller and larger, average separation 1.9 sec.

" 6	Up	iP	11 13 13.3	
	Um	iP	11 12 51.3	
" 6	Up	iSgl	12 53 45.8	
	Ud	iSgl	12 54 29.9	
	De	iSgl	12 54 21.0	

Near north Gotland, Sweden, 58.0°N, 18.7°E.
Origin time = 12 52 45.
m = 4.1, M_L = 2.3 (Up,De).
Probably explosion.

" 6	Up	iSgl	15 27 50.8	
	Ud	iPgl	15 26 38.5	
		iSgl	15 27 14.3	
		iRg	15 27 30.4	
	De	iSgl	15 26 44.6	
		i	15 26 51.8	

Off coast of Bohuslän, Sweden, 57.6°N, 11.7°E.
Origin time = 15 25 52.
Near-surface event.

" 6	Up	iRg	16 37 24.9	
	Ud	iRg	16 37 12.5	

Central Sweden.
Near-surface event.

" 6	Ud	iP	17 40 34.4	

Kurile Islands (h = 35 km).

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

1975
May 6 Ud iP 21 16 42.2
Mexico (h = 20 km).

" 6 Um iP 21 44 48.7
Ud iP 21 45 14.0
Unimak Island (h = 50 km).

" 6 Ud iP 23 38 51.5
Gulf of Aden (h = N).

" 7 Up eP 03 44 42
Sk eP 03 44 46
Ud iP 03 44 51.4
Mindanao (h = 45 km).

" 7 Ud iPKPl 07 50 57.2
De iPKPl 07 51 08.3

" 7 Um i(P) 10 44 33.3

" 7 Up iSgl 12 16 23.7
iRg 12 16 25.9
Ud iSgl 12 16 31.6
iRg 12 16 37.2
Central Sweden.
Near-surface event.

" 7 De iP 12 37 45.1
Turkey (h = N).

" 7 Up iP 14 00 47.4

" 7 Ud iPKPl 14 03 47.6
De iPKPl 14 03 59.4
Tonga-Kermadec Islands
(h = 620 km).

" 7 Ud iP 17 50 17.9
i 17 50 22.1
Turkmen SSR.

" 7 Um i(P) 18 04 33.9
Turkey (h = N).

" 7 Sk eSgl 18 18 05
Um iSgl 18 19 46.1
Ud iSn 18 17 39.8
iSgl 18 17 55.0
Coast of southwest Norway,
near 60 1/2°N, 5°E.
Checked with Bergen and
Kongsberg readings.

" 7 Ud iSgl 18 23 15.7
(cont.)

1975
May 7 (cont.)
Same region as the preceding
event.
By combination with Bergen
reading.

" 7 Um iP 18 29 56.1
Ud iP 18 30 15.8
Tadzhik SSR (h = 250 km).

" 7 Ki iPKP 18 53 28.3
Um i(PKP) 18 53 16.7
iPKP 18 53 20.6
South Sandwich Islands
(h = N).

" 7 Up i(P) 19 20 52.8

" 7 Um iP 21 19 50.4
Ud iP 21 20 09.6
Molucca Passage (h = 100 km).

" 7 Ud iP 23 02 03.8

" 7 Up iPKPl 23 30 10.5
Um iPKPl 23 29 59.7
Ud iPKPl 23 30 12.5

" 8 Up iP 01 10 26.3
Ki iP 01 09 32.4
Sk iP 01 09 59.5
Um iP 01 10 00.4
ipP 01 10 06.1
Ud iP 01 10 23.3
ipP 01 10 29.9
De iP 01 10 46.0
Kodiak Island.
h = 20 km (Um,Ud).

" 8 Ud iP 06 50 51.7
i 06 51 02.4

" 8 Ud iP 07 48 49.4
Mariana Islands (h = N).

" 8 Up iPgl 09 30 25.3
iSgl 09 30 41.2
iRg 09 30 48.8
Ud iRg 09 30 33.9
Central Sweden.
Origin time = 09 30 03.
Near-surface event.

" 8 Up iP 10 37 59.7 D
(cont.)

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

1975
May 8 (cont.)

Up	ipP		10 38 10.5	
			micr	sec
	P	Z'	0.1	0.8
	pP	Z'	0.1	0.8
Ki	iP		10 37 07.4	D
	ipP		10 37 17.4	
Sk	iP		10 37 39.1	
	ipP		10 37 49.7	
Um	iP		10 37 32.5	
	ipP		10 37 43.0	
Ud	iP		10 38 00.8	D
	ipP		10 38 11.1	
De	eP		10 38 20	
	ipP		10 38 30.2	

Aleutian Islands.
h = 35 km (Up,Ki,Sk,Um,Ud, De).

" 8

Up	iP		12 04 44.1	
Ki	iP		12 04 47.7	
Sk	iP		12 05 08.1	
	i		12 05 14.6	
Um	iP		12 04 43.8	
	i		12 05 06.5	
Ud	iP		12 05 00.2	
De	i		12 05 02.7	

Kashmir-Tibet (h = N).

" 8

Up	i(P)		16 01 22.3	

" 8

Up	iP		19 24 56.2	
	i		19 25 02.8	
Ki	iP		19 24 55.0	
	i		19 25 03.0	
Um	iP		19 24 52.8	
Ud	iP		19 25 05.7	

Sumatra.

" 8

Um	iPKP		20 53 42.9	
De	iPKP		20 53 55.3	

Loyalty Islands (h = 80 km).

" 8

Um	iPKP		23 11 25.9	

Solomon Islands (h = 60 km).

" 9

Up	iP		04 24 34.3	C
	iPP		04 28 09.6	
Ki	iP		04 24 34.0	C
	ipP		04 24 46.7	
	iPP		04 28 10.2	
			micr	sec
	P	Z'	0.1	0.8
Sk	iP		04 24 47.4	C
Um	iP		04 24 31.5	C

(cont.)

1975
May 9 (cont.)

Um	iPP		04 28 01.7	
Ud	iP		04 24 43.7	C
	ipP		04 24 56.5	
	iPP		04 28 17.9	
De	iP		04 24 42.0	

Sumatra.
h = 45 km (Ki,Ud).

" 9

Up	iPKPl		17 29 52.1	
Ud	i(PKP)		17 29 54.1	
	iPKPl		17 29 55.3	
De	iPKPl		17 30 05.5	

" 9

Ki	iPgl		17 31 50.2	
	iSgl		17 32 18.0	
			micr	sec
	Sgl	Z'	0.1	0.3
Um	iSgl		17 34 09.4	

Off coast of north Norway, 69.2°N, 16.2°E.
Origin time = 17 31 15.
m = 4.4, M_L = 3.1 (Ki).
By combination with Tromsoe reading.

" 9

Ki	iPgl		18 03 35.1	
	iSgl		18 04 03.1	
			micr	sec
	Sgl	Z'	0.2	0.4
Um	iSgl		18 05 52.6	

Same location as the preceding event.
Origin time = 18 02 59.
m = 4.5, M_L = 3.3 (Ki).
By combination with Tromsoe reading.

" 9

Ki	iP		18 08 14.4	
Um	iP		18 07 51.1	
Ud	iP		18 07 51.9	

Iran (h = 35 km).

" 9

Up	iP		18 08 54.2	
	iPP		18 10 22.6	
Ki	iP		18 09 32.0	
Sk	iP		18 09 31.4	
Um	iP		18 09 08.1	
Ud	iP		18 09 09.7	
	i		18 09 13.6	
De	iP		18 08 53.6	
	i		18 09 03.9	

Iran (h = 55 km).

" 9

Ud	iP		18 29 59.7	

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

1975 May	9	Up	iPKP		18 54 44.4		
			iPKP1		18 54 50.7		
			iPKP2		18 54 59.0		
			iPP		18 58 24.4		
					micr	sec	
			PKP	Z'	0.2	1.6	
			PKP1	Z'	0.7	1.4	
			Mx	E	2.1	26	
			Mx	N	2.8	22	
			Mx	Z	3.8	23	
		Ki	i(PKP)		18 54 29.8		
			iPKP1		18 54 31.4		
					micr	sec	
			Mx	E	1.6	21	
			Mx	N	2.2	22	
			Mx	Z	2.1	21	
		Sk	iPKP		18 54 41.3		
			iPKP1		18 54 45.3		
		Um	iPKP		18 54 38.3		
			iPKP1		18 54 40.3		
		Ud	iPKP		18 54 46.1		
			iPKP1		18 54 52.4		
			iPKP2		18 55 01.8		
			iPP		18 58 42.4		
		De	iPKP		18 54 49.8		
			iPKP1		18 55 00.1		
			iPKP2		18 55 12.7		
		South of Kermadec Islands					
		(h = 45 km).					
		M = 6.0 (Up,Ki).					
"	9	Ud	iP		19 21 14.0		
		Mindanao (h = 290 km).					
"	9	Up	iPKP1		21 51 05.1		
			iPKP2		21 51 13.0		
		Sk	iPKP1		21 50 59.7		
		Um	iPKP1		21 50 54.5		
		Ud	iPKP1		21 51 06.8		
			iPKP2		21 51 16.4		
		De	ePKP1		21 51 16		
			iPKP2		21 51 30.3		
		South of Kermadec Islands.					
"	10	Up	iP		04 38 17.4		
			ipP		04 38 27.7		
		Ki	iP		04 37 24.9		
			ipP		04 37 35.0		
		Ud	iP		04 38 18.7		
			ipP		04 38 29.0		
		Aleutian Islands.					
		h = 40 km (Up,Ki,Ud).					
"	10	Um	ePKP		05 41 23		
		New Britain (h = 130 km).					

1975 May	10	Up	iPKP1		13 42 13.2		
		Ud	iPKP1		13 42 15.0		
"	10	Sk	iP		13 43 02.8		
		Um	iP		13 42 35.1		
		Ud	iP		13 42 53.9		
		Pakistan (h = N).					
"	10	Up	iP		14 07 07.7		
		Ud	iP		14 07 19.9		
		De	i		14 06 53.3		
"	10	Up	iPdiff		14 43 06.5		
			iPKP		14 46 33.9		C
			i		14 46 45.2		
			iPP		14 48 04.6		
			iPKKP		14 56 31.7		
					micr	sec	
			i	Z'	0.1	0.8	
			PP	Z'	6.9	3.3	
			Mx	E	132	20	
			Mx	N	103	20	
			Mx	Z	263	20	
		Ki	iPKP		14 46 41.8		
			iPP		14 48 29.9		
					micr	sec	
			PKP	Z'	0.9	2.3	
			PP	Z'	2.4	2.3	
			Mx	E	100	20	
			Mx	N	109	19	
			Mx	Z	62	19	
		Sk	iPKP		14 46 32.9		C
			i		14 47 19.2		
			iPP		14 48 03.2		
		Um	iPKP		14 46 38.5		
			iPP		14 48 25.5		
			iPKKP		14 56 19.6		
			i		14 57 24.9		
		Ud	iPKP		14 46 30.1		C
			i		14 47 39.0		
			iPP		14 47 57.4		
			iPKKP		14 56 41.5		
		De	iPKP		14 46 28.8		C
			iPP		14 47 51.2		
			iPKKP		14 57 51.4		
		Chile (h = 5 km).					
		m = 7.4, M = 7.7 (Up,Ki).					
"	10	Up	iPKP		15 00 54.7		
		Ki	iPKP		15 01 01.5		
		Sk	iPKP		15 00 53.3		
		Um	iPKP		15 00 59.3		
		Ud	iPKP		15 00 51.0		
		Chile (h = N).					

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

1975					
May	10	Um	iPKP		15 10 28.6
		Ud	iPKP		15 10 18.8
		Chile.			
"	10	Sk	i(PKP)		18 31 03.2
		Um	iPKP		18 31 16.9
		Chile (h = 35 km).			
"	11	Up	iP		02 35 56.6
		Ud	iP		02 36 04.2
		Ryukyu Islands (h = N).			
"	11	Um	iP		04 26 18.4
		Ud	iP		04 26 16.1
"	11	Up	iP		06 57 19.6
		Sk	iP		06 57 43.1
		Um	iP		06 57 16.6
		Ud	iP		06 57 36.0
		De	iP		06 57 32.5
		Kashmir-Tibet (h = 25 km).			
"	11	Up	iP		07 07 27.8
			i		07 08 12.6
			iS		07 16 23
					micr sec
			P	Z'	0.2 1.1
			Mx	E	4.2 14
			Mx	N	8.7 17
			Mx	Z	13 16
		Ki	iP		07 06 34.4
					micr sec
			Mx	E	4.7 12
			Mx	N	6.3 15
			Mx	Z	6.6 15
		Sk	iP		07 07 12.2
		Um	iP		07 07 00.1
			iS		07 15 30
		Ud	iP		07 07 31.7 C
		De	iP		07 07 50.9
		Kurile Islands (h = 60 km).			
		M = 6.1 (Up,Ki).			
"	11	Up	iP		07 22 27.5
		Ki	iP		07 21 36.4
		Um	iP		07 22 01.3
		Ud	iP		07 22 32.9
		Kurile Islands (h = 25 km).			
"	11	Ud	iPKP		07 47 42.5
		Santa Cruz Islands (h = 35 km).			
"	11	Up	iPKP1		10 40 35.5 C
		Ud	iPKP1		10 40 37.1 C
		De	iPKP1		10 40 47.3 C

1975					
May	11	Up	iP		14 28 03.7
			ipP		14 28 16.6
					micr sec
			P	Z'	0.1 0.8
		Ki	iP		14 27 42.7
			ipP		14 27 55.4
					micr sec
			pP	Z'	0.1 0.8
		Sk	iP		14 28 08.4 C
			ipP		14 28 21.2
		Um	iP		14 27 49.7
			ipP		14 28 02.3
		Ud	iP		14 28 13.0
			ipP		14 28 25.8
		De	iP		14 28 21.0
			ipP		14 28 34.1
		Luzon.			
		h = 45 km (Up,Ki,Sk,Um,Ud,De).			
		m = 5.8 (Up,Ki).			
"	11	Up	eP		18 47 28
"	11	Up	iP		20 32 36.9
		Kurile Islands (h = 45 km).			
"	11	Up	iP		20 45 59.2
		Ki	iP		20 45 07.7
		Ud	iP		20 46 04.0
		De	i		20 46 38.6
		Kurile Islands (h = 40 km).			
"	11	Up	iP		23 16 46.2
			ipP		23 15 55.7
		Ki	iP		23 17 58.1
		Sk	iP		23 17 27.6
		Ud	iP		23 16 55.9
		De	iP		23 16 19.6
		Greece.			
		h = 40 km (Up).			
"	12	Up	iSgl		00 56 45.8
		Sk	eSgl		00 56 00
		Um	iSgl		00 57 40.9
		Ud	iPgl		00 54 51.9
			iS*		00 55 41.2
			iSgl		00 55 45.5
		De	iSgl		00 56 31.7
		Near Bergen, Norway,			
		60.3°N, 5.1°E.			
		Origin time = 00 53 34.			
		By combination with Bergen			
		and Kongsberg readings.			
"	12	Ki	i(PKP)		01 00 40.3
		Sk	iPKP		01 00 59.2
		Um	iPKP		01 00 54.0
		Santa Cruz Islands (h = 60 km).			

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

1975
May 12 Ud i 05 35 55.1
i(Sgl) 05 36 07.9

" 12 Up iPKP2 08 19 23.6
Sk iPKP1 08 19 12.1
Um iPKP1 08 19 05.9
ipPKP1 08 19 21.6
Ud iPKP1 08 19 17.1
ipPKP1 08 19 33.2
De ipPKP1 08 19 43.1
Kermadec Islands.
h = 55 km (Um,Ud).

" 12 Up iP 08 42 01.2
Ki iP 08 41 08.0
Sk iP 08 41 51.0
Ud iP 08 42 07.2
De iP 08 42 27.5
Kurile Islands (h = 45 km).

" 12 Up iP 10 22 35.0
ipP 10 22 43.7
iPcP 10 23 07.4
micr sec
P Z' 0.1 1.1
Mx E 1.4 15
Mx N 4.4 19
Mx Z 4.7 16
Ki iP 10 22 45.4
micr sec
Mx E 2.2 16
Mx N 1.8 18
Mx Z 1.5 18
Sk iP 10 22 21.4
Um iP 10 22 06.6
Ud iP 10 22 40.5
ipP 10 22 48.9
De iP 10 22 59.7
Kurile Islands.
h = 30 km (Up,Ud).
M = 5.6 (Up,Ki).

" 12 Up iP 11 53 51.8
Ud iP 11 53 56.3
Kurile Islands (h = 45 km).

" 12 Ud iP 11 58 39.4
Sinkiang, China (h = N).

" 12 Um iP 13 01 19.4

" 12 Up iSgl 13 34 13.8
Sk eSgl 13 34 13
e 13 34 27
Ud i 13 32 55.7
iS* 13 33 13.7
(cont.)

1975
May 12 (cont.)
Ud iSgl 13 33 16.7
De iSn 13 33 05.9
iSgl 13 33 26.6
South Norway,
58.4°N, 6.6°E.
Origin time = 13 31 11.
m = 4.3, M_L = 2.8 (Ud).
By combination with Bergen and Kongsberg readings.

" 12 Ud iP 13 40 41.3

" 12 Ud i(P) 14 53 39.3

" 12 Ud iP 15 20 00.0

" 12 Up iSn 15 52 44.2
iSgl 15 52 53.7
Ud iPn 15 51 43.1
iSgl 15 52 04.8
iRg 15 52 10.9
De iSn 15 52 34.8
Dalsland, Sweden,
58.9°N, 12.1°E.
Origin time = 15 51 20.
Near-surface event.
Cf the event on May 5, 08 40.

" 12 Ud iP 19 07 02.0

" 12 Ud iP 19 30 59.0
Iceland (h = N).

" 12 Ud i(P) 19 36 41.2

" 12 Up iP 20 16 58.1
Ki iP 20 16 29.6 C
Sk iP 20 16 54.8
Um iP 20 16 42.4
Ud iP 20 17 04.1
De iP 20 17 15.3
Mariana Islands (h = 170 km).

" 13 Up i(P) 00 02 13.7
iP 00 02 21.7
Um iP 00 01 54.7
Ud iP 00 02 22.2
Aleutian Islands (h = 55 km).

" 13 Up iP 00 27 40.9
Sk iP 00 28 22.7
Um iP 00 28 17.3
Ud iP 00 27 48.7
(cont.)

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

1975
May 13 (cont.)

Ud	i		00 27 54.4
De	iP		00 27 13.6

Greece (h = 35 km).

" 13

Ki	ePKP		06 43 20
Um	iPKP		06 43 16.5
Ud	iPKP		06 43 09.4
De	iPKP		06 43 08.2

Chile (h = 25 km).

" 13

Up	iP		06 47 34.8	
Ki	iP		06 47 05.9	C
			micr	sec
	P	Z'	0.1	1.0
Sk	iP		06 47 32.4	
Um	iP		06 47 18.4	C
	ipP		06 48 39.1	
Ud	iP		06 47 41.3	C
	ipP		06 48 59.1	
De	iP		06 47 51.9	

Mariana Islands.
h = 340 km (Um,Ud).

" 13

Ud	iP		12 22 33.0
De	iP		12 21 58.7

Rumania (h = 140 km).

" 13

Sk	iP		12 34 08.6
Ud	iP		12 34 08.6

Tsinghai, China (h = N).

" 13

Ud	iP		13 23 51.5

" 13

Ud	iP		19 40 47.5

Afghanistan-USSR (h = 250 km).

" 13

Up	iP		20 44 34.2
Ki	iP		20 44 14.2
Ud	iP		20 44 42.8

Luzon (h = 60 km).

" 13

Up	iPKP		21 26 07.4
Ki	iPKP		21 25 53.2

Samoa Islands (h = 35 km).

" 13

Up	iP2		21 32 21.0
	ipPl		21 32 26.1
	i(PP)		21 35 15.2
	iSKS		21 42 53
	iS		21 43 59
			micr sec
	pPl	Z'	0.1 1.1
	(PP)	Z'	0.1 1.2

(cont.)

1975
May 13 (cont.)

Up			micr	sec
	Mx	E	10	19
	Mx	N	10	20
	Mx	Z	20	22
Ki	iPl		21 31 58.8	
	ipPl		21 32 11.7	
	i(PP)		21 34 49.0	
	iSKS		21 42 38	
			micr	sec
	Pl	Z'	0.1	1.3
	pPl	Z'	0.2	1.1
	Mx	E	6.6	16
	Mx	N	15	21
	Mx	Z	7.2	17
Sk	ePl		21 32 24	
	ipPl		21 32 31.1	
Um	iPl		21 32 05.8	
	iP2		21 32 11.1	
	ipPl		21 32 15.6	
	iSKS		21 42 38	
	iS		21 43 21	
	iPKKP		21 48 55.3	
Ud	iPl		21 32 24.3	
	iP2		21 32 30.1	
	ipPl		21 32 36.1	
	i(PP)		21 35 45.3	
	iPKKP		21 48 40.6	
De	iP2		21 32 33.6	
	ipPl		21 32 40.1	
	i(PP)		21 35 49.8	

Molucca Passage (h = 35 km).
Multiple P with arrivals in average 5.6 and 11.5 sec after the first onset.

" 13

Ud	iP		22 11 18.4

Afghanistan-USSR (h = 55 km).

" 14

Up	iP		03 52 02.6
	i		03 52 11.2
Sk	iP		03 52 18.8
Um	iP		03 52 03.8
Ud	iP		03 52 10.6
	i		03 52 22.6
De	iP		03 52 06.1

" 14

Up	iPKPl		04 53 52.5 C
Ud	iPKPl		04 53 54.8
	i		04 54 12.9
De	iPKPl		04 54 05.1

Tonga-Kermadec Islands (h = 580 km).

" 14

Ud	iP		06 56 26.4

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

1975					
May	14	Up	iP		07 23 08.7
		Ud	iP		07 23 17.6
"	14	Up	i		07 29 09.3
		Ud	iPKPl		07 29 13.9
		De	iPKPl		07 29 24.6
"	14	Um	iP		09 23 16.5
		Afghanistan-USSR (h = 50 km).			
"	14	Ki	iP		09 40 06.4
			i		09 40 10.5
		Sk	iP		09 40 18.7
		Ud	iP		09 41 03.4
"	14	Ud	iPKP		09 58 32.3
		De	iPKPl		09 58 40.5
		Tonga Islands (h = N).			
"	14	Up	iP		10 13 35.2
		Ki	iP		10 13 32.0
		Sk	iP		10 13 47.1
		Um	iP		10 13 31.0
		Ud	iP		10 13 44.8
		De	iP		10 13 43.4
		Java (h = 110 km).			
"	14	Up	iP		11 52 27.9
		Ki	iP		11 51 40.6
			ipP		11 52 26.9
		Sk	iP		11 52 16.8
		Um	iP		11 52 02.1
		Ud	iP		11 52 33.6
			ipP		11 53 19.7
		Kurile Islands.			
		h = 200 km (Ki,Ud).			
"	14	Ud	iP		12 26 03.8
"	14	Up	iP		14 11 48.5 C
					micr sec
			P	Z'	0.5 1.3
		Ki	iP		19 11 14.2 C
			iP'P'		14 39 10.3
					micr sec
			P	Z'	0.3 1.3
			P'P'	Z'	0.2 2.0
		Sk	iP		14 11 22.8 C
			iPcP		14 11 43.1
		Um	iP		14 11 34.0 C
			iPcP		14 11 50.3
		Ud	iP		14 11 40.9 C
		De	iP		14 11 57.5 C
		(cont.)			

1975					
May	14	(cont.)			
		Nevada.			
		m = 6.5 (Up,Ki).			
		Underground explosion.			
"	14	Ud	i(P)		14 41 47.6
"	14	Up	i(P)		14 42 55.5
"	14	Um	i(pP)		16 05 38.3
		Hindu Kush (h = 170 km).			
"	14	Ki	iP		16 20 58.7
		Unimak Island (h = 10 km).			
"	14	Um	iP		18 47 12.7
		Ud	iP		18 47 44.0
		Kamchatka (h = 55 km).			
"	14	Up	iP		22 30 17.5 C
					micr sec
			P	Z'	0.1 0.8
"	14	Up	iP		22 30 39.4
			iPP		22 32 18.1
			iS		22 36 46
			i		22 39 17.4
					micr sec
			P	Z'	0.4 1.1
			PP	Z'	0.6 1.6
			i	Z'	0.4 2.1
		Ki	iP		22 30 48.6
			ipP		22 31 12.6
			iPP		22 32 26.8
			i		22 40 05.0
					micr sec
			P	Z'	0.3 1.5
		Sk	iP		22 31 04.6
			ipP		22 31 29.9
			iPP		22 32 48.1
		Um	iP		22 30 37.8
			ipP		22 31 01.4
			iS		22 36 43
			i		22 39 05.5
		Ud	iP		22 30 55.7
			ipP		22 31 20.7
			iPP		22 32 38.5
			i		22 40 00.5
		De	iP		22 30 52.5
			ipP		22 31 15.6
			iPP		22 32 33.7
			i		22 40 18.9
		Hindu Kush.			
		h = 120 km (Ki,Sk,Um,Ud,De).			
		m = 6.0 (Up,Ki).			

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

1975 May	15	Up	iP	00 00 34.9
"	15	Ud	i(P)	04 20 30.7
			i	04 21 05.0
"	15	Up	iP	04 21 31.1
		North Atlantic Ocean (h = N).		
"	15	Ud	i(P)	05 40 28.1
"	15	Ud	iP	07 12 29.2
		Hindu Kush (h = 160 km).		
"	15	Ud	iPKP	08 54 01.0
		Fiji Islands (h = 530 km).		
"	15	Ki	ipP	11 06 22.2
		Um	iP	11 06 40.9
		Ud	iP	11 07 05.5
			ipP	11 07 14.7
		Aleutian Islands.		
		h = 30 km (Ud).		
"	15	Um	i(Sgl)	12 47 06.9
			iRg	12 47 34.9
		Ud	i(Sgl)	12 47 45.5
		Near-surface event.		
"	15	Ki	iP	13 22 56.2
		Colombia (h = 160 km).		
"	15	Up	iSgl	13 49 09.5
		Um	iSgl	13 51 20.1
		Ud	iSgl	13 49 09.4
		De	iPgl	13 47 16.7
			iRg	13 47 28.9
		Near Karlshamn, south Sweden,		
		56.2°N, 14.9°E.		
		Origin time = 13 47 07.		
		m = 4.2, M_L = 2.5 (Up).		
		Explosion.		
"	15	Up	iSgl	14 02 57.1
		Ud	iSgl	14 02 54.9
		De	iPgl	14 01 05.0
			iSgl	14 01 14.7
			iRg	14 01 17.7
		Same location as the		
		preceding event.		
		Origin time = 14 00 56.		
		Explosion.		
"	15	Ki	iP	14 55 43.1
		Um	iP	14 55 24.1

1975 May	15	De	i(P)	15 17 27.0
"	15	Ki	iPgl	16 34 26.4
			iSgl	16 34 54.1
				micr sec
			Sgl Z'	0.1 0.3
		Um	iSgl	16 36 43.6
		Off coast of north Norway,		
		69.2°N, 16.2°E.		
		Origin time = 16 33 51.		
		m = 4.4, M_L = 3.1 (Ki).		
		The following two events		
		have the same location.		
"	15	Ki	iPgl	17 23 34.6
			iSgl	17 24 02.1
				micr sec
			Sgl Z'	0.1 0.3
		Um	iSgl	17 25 54.0
		Origin time = 17 22 59.		
		m = 4.4, M_L = 3.1 (Ki).		
"	15	Ki	iPgl	17 55 08.9
			iSgl	17 55 37.0
				micr sec
			Sgl Z'	0.1 0.3
		Um	iSgl	17 57 26.2
		Origin time = 17 54 33.		
		m = 4.4, M_L = 3.1 (Ki).		
"	15	Up	iPKPl	18 51 56.0
			i	18 52 05.6
		Ki	iPKP	18 51 48.6
		Sk	i(PKP)	18 51 54.3
		Um	i(PKP)	18 51 53.1
			iPKP	18 51 55.4
		Ud	iPKPl	18 51 56.1
			i	18 52 00.0
		De	iPKPl	18 52 06.1
			i	18 52 08.6
		Fiji Islands (h = 630 km).		
"	15	Up	iP	21 18 51.4 C
			ipP	21 19 17.5
			i	21 19 23.8
		Ki	iP	21 18 51.5
			ipP	21 19 16.9
		Sk	iP	21 19 06.7
		Um	iP	21 18 47.0
			ipP	21 19 14.0
			i	21 19 20.0
		Ud	iP	21 19 03.4 C
			i	21 19 36.3
		De	iP	21 19 01.7
		(cont.)		

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

1975
May 15 (cont.)

	De	ipP		21 19 26.6	
		i		21 19 34.0	

Andaman Islands.
h = 100 km (Up,Ki,Um,De).

" 15	Ud	iP		21 58 52.0	
" 15	Sk	iP		23 23 58.6	
	Um	iP		23 23 37.1	
	Ud	iP		23 24 08.2	
" 15	De	iP		23 27 17.3	
" 16	Up	iP		01 25 02.2	C
		i		01 25 09.7	
				micr	sec
		P	Z'	0.2	1.5
	Ki	iP		01 24 21.7	C
		i		01 24 29.7	
				micr	sec
		P	Z'	0.1	1.0
		Mx	E	0.8	12
		Mx	N	1.2	12
		Mx	Z	0.7	11
	Sk	iP		01 24 56.9	
		i		01 25 04.0	
	Um	iP		01 24 39.1	C
		i		01 24 47.0	
		iS		01 33 13	
	Ud	iP		01 25 10.2	
		i		01 25 17.8	
	De	iP		01 25 26.0	
		i		01 25 33.5	

Sea of Japan (h = 0 km).
m = 6.1 (Up,Ki).
Double P with arrivals in average 7.6 sec after the first onset.

" 16	Up	iP		02 35 38.4	
" 16	Up	iP		02 36 16.8	
		ipP		02 36 27.3	
		iS		02 41 32	
				micr	sec
		P	Z'	0.1	1.3
	Ki	iP		02 36 44.1	
				micr	sec
		P	Z'	0.1	1.3
		Mx	E	0.7	12
		Mx	N	1.1	17
		Mx	Z	1.6	21

(cont.)

1975
May 16 (cont.)

	Um	iP		02 36 34.5	
		ipP		02 36 44.5	
		iS		02 41 59	
	Ud	iP		02 36 00.1	

North Atlantic Ocean.
h = 40 km (Up,Um).
m = 5.6 (Up,Ki).

" 16	Ud	iP		02 40 27.7	
" 16	Up	iP		03 19 48.9	
	Ud	iP		03 19 56.0	
" 16	Um	i(P)		04 00 35.1	
	Ud	i(P)		03 59 55.6	
" 16	Um	iP		05 11 13.7	
	Ud	iP		05 11 28.6	
" 16	Up	iP		08 08 37.1	C
		iS		08 17 21	
				micr	sec
		P	Z'	0.1	0.7
		Mx	N	1.7	23
		Mx	Z	2.5	23
	Ki	iP		08 07 42.9	C
				micr	sec
		P	Z'	0.1	1.2
	Sk	iP		08 08 12.2	
	Um	iP		08 08 10.7	C
		iS		08 16 31	
	Ud	iP		08 08 35.6	C
	De	iP		08 08 58.4	

Unimak Island (h = 10 km).
m = 6.0 (Up,Ki).

" 16	Up	iP		12 14 15.9	

Mexico (h = 55 km).

" 16	Up	iP		17 33 10.9	
	Sk	iP		17 32 58.7	
	Um	iP		17 33 25.6	
	Ud	iP		17 32 54.4	

North Atlantic Ocean (h = 30 km).

" 16	Ud	iP		18 37 33.9	

Hindu Kush (h = 160 km).

" 16	Ud	iP		19 44 47.5	
		i		19 44 54.8	

Yugoslavia (h = 15 km).

" 16	Um	i(P)		21 14 31.8	
	Ud	i(P)		21 15 49.5	

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

1975					
May	16	Um	i(P)		21 16 33.2
		Ud	iP		21 16 52.8
"	17	Ki	iP		00 16 33.3
		Ud	iP		00 16 54.5
		Sinkiang, China (h = 25 km).			
"	17	Ud	iP		02 32 54.9
		De	iP		02 32 24.2
			i		02 32 27.2
		Crete (h = 50 km).			
"	17	Ud	iP		06 35 15.5
		De	iP		06 35 16.4
"	17	Ud	iP		07 09 31.3
"	17	Ud	eSgl		14 40 43
		De	iPn		14 38 06.3
			iSgl		14 38 56.6
"	17	Up	eP		16 05 10
		Ud	iP		16 05 23.8
		De	iP		16 05 08.4
		Iran, the same focal region			
		as the following event.			
		Origin time = 15 57 18.			
"	17	Up	iP		16 27 03.0
			i		16 27 18.6
			iPP		16 28 58.5
			iS		16 33 18
					micr sec
			PP	Z'	0.1 1.4
		Ki	iP		16 27 34.3
					micr sec
			P	Z'	0.1 0.8
			Mx	E	0.8 14
			Mx	N	0.8 12
			Mx	Z	1.1 15
		Sk	iP		16 27 35.9
		Um	iP		16 27 14.0
			ipP		16 27 25.1
			iS		16 33 41
		Ud	iP		16 27 18.7
			ipP		16 27 31.3
			iPP		16 29 22.3
		De	iP		16 27 04.5
			ipP		16 27 16.2
			i		16 27 21.4
		Iran.			
		h = 45 km (Um,Ud,De).			
		m = 5.7 (Up,Ki).			

1975					
May	17	Ud	iP		22 10 36.1 C
"	17	Ki	iP		23 51 34.1
		North Atlantic Ocean (h = N).			
"	18	Ud	iP		04 21 21.2
		De	iP		04 21 02.0
"	18	Up	iP		06 03 57.7
		Ki	iP		06 04 06.5
		Sk	iP		06 04 23.8
		Um	iP		06 03 56.1
		Ud	iP		06 04 14.4
		De	iP		06 04 11.4
		Hindu Kush (h = 220 km).			
"	18	Ud	iP		06 13 37.4
"	18	Up	iP		14 52 21.6
		Ki	iP		14 52 52.6
		Sk	iP		14 52 55.2
		Um	iP		14 52 30.8
			i		14 52 46.6
		Ud	iP		14 52 36.3
			i		14 52 50.3
		De	iP		14 52 21.9
			i		14 52 48.7
		Iran (h = N).			
"	18	Up	iP		15 52 32.9 C
			ipP		15 52 59.5
			iPcP		15 53 29.5
			i(PcS)		15 57 15.3
			iS		16 00 10.7
			i		16 02 07.7
					micr sec
			P	Z'	0.2 1.5
			pP	Z'	0.1 1.0
		Ki	iP		15 51 35.9 C
			ipP		15 52 02.6
			iS		15 58 30.9
					micr sec
			P	Z'	0.3 0.9
			pP	Z'	0.3 1.2
		Sk	iP		15 52 03.9 C
			ipP		15 52 31.2
		Um	iP		15 52 05.6 C
			ipP		15 52 33.3
			i(PcS)		15 56 57.7
			iS		15 59 25.3
		Ud	iP		15 52 29.4 C
			ipP		15 52 57.3
			i(PcS)		15 57 13.3

(cont.)

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

1975
May 18 (cont.)

De	iP	15 52 55.0	C
	ipP	15 53 20.8	
	isP	15 53 32.5	
	i(PcS)	15 57 29.5	

Alaska.
h = 120 km (Up,Ki,Sk,Um,Ud, De).
m = 6.0 (Up,Ki).
Parentheses denote early arrivals, by about 15 sec, wrt JB-Tables.

" 18	Up	iP	16 22 20.6	
" 18	Ud	i(P)	17 02 05.7	
" 18	Um	iPKP	17 07 51.6	
	Ud	iPKP	17 07 42.0	
	De	iPKP	17 07 38.6	

Chile (h = 35 km).

" 18	Up	iP	17 59 08.6	
	Ki	iP	17 59 17.4	
	Sk	iP	17 59 34.7	
	Um	iP	17 59 07.0	
	Ud	iP	17 59 24.8	
	De	iP	17 59 21.7	

Afghanistan-USSR (h = 90 km).

" 18	Um	iP	19 01 17.6	
" 18	Up	iPKPl	19 48 15.3	
		i	19 48 18.8	
	Sk	iPKPl	19 48 09.1	
	Um	iPKPl	19 48 03.9	
	Ud	iPKPl	19 48 16.4	
	De	ePKPl	19 48 28	

Tonga-Kermadec Islands (h = 35 km).

" 18	Up	iSn	22 22 03.4	
		iSgl	22 22 51.0	
	Ki	iPn	22 19 29.5	
		iPgl	22 19 35.6	
		iSn	22 20 13.7	
		iSgl	22 20 26.9	
	Sk	iPn	22 19 36.4	
		iPgl	22 19 44.4	
		iSn	22 20 24.7	
	Um	iPn	22 19 55.5	
		iSn	22 20 57.5	
		i	22 21 15.3	
		iSgl	22 21 24.7	
	Ud	ePn	22 20 25	
		iSn	22 21 48.5	

(cont.)

1975
May 18 (cont.)

Norwegian Sea, 67.9°N, 9.9°E.
Origin time = 22 18 31.
m = 4.6, M_L = 3.4 (Ki,Um).

" 18	Up	iP		22 45 07.8	C
		ipP		22 45 33.4	
				micr sec	
		P	Z'	0.1 1.0	
	Ki	iP		22 44 21.7	
				micr sec	
		P	Z'	0.2 0.9	
	Sk	iP		22 44 57.4	
	Um	iP		22 44 42.6	C
	Ud	iP		22 45 14.0	C
	De	iP		22 45 31.8	C

Kurile Islands.
h = 100 km (Up).
m = 6.0 (Up,Ki).

" 18	Um	iP		23 24 33.8
" 19	Up	iPKPl		00 13 12.7
		iPP		00 16 14.7
				micr sec
		Mx	E	1.0 17
		Mx	N	1.3 18
		Mx	Z	1.5 19
	Ki	i		00 13 07.0
				micr sec
		Mx	E	0.8 17
		Mx	N	1.3 19
		Mx	Z	1.3 19
	Sk	ePKP		00 13 13
	Um	iPKP		00 13 10.4
	Ud	iPKPl		00 13 12.2
		iPP		00 16 16.2
	De	iPKPl		00 13 23.6

Tonga Islands (h = 45 km).
M = 5.8 (Up,Ki).

" 19	Up	eP		03 31 08
		i		03 31 11.3
		i		03 31 15.9
		i		03 31 49.7
		iS		03 35 10.0
				micr sec
		Mx	E	1.4 15
	Ki	iP		03 32 26.6
	Sk	iP		03 31 49.3
	Um	iP		03 31 48.1
		i		03 31 55.7
		i		03 35 17.2
	Ud	iP		03 31 16.2
		i		03 31 20.8

(cont.)

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

1975
May 19 (cont.)

Ud	i		03 31 52.1	
	iS		03 35 20.7	
De	iP		03 30 40.7	
	i		03 30 45.2	

Greece (h = 15 km).

" 19 Ud iP 03 49 26.8

" 19

Up	iP		08 08 49.1	
Ki	iP		08 09 17.1	
Sk	iP		08 09 19.9	
Um	iP		08 08 58.5	
Ud	iP		08 09 04.3	
De	iP		08 08 51.4	
	ipP		08 08 59.1	

Arabian Sea (h = N).

" 19

Up	ipP		11 37 08.5	
Ud	iP		11 37 06.6	

Italy (h = N).

" 19 Ud iP 17 33 10.6

" 19

Up	iP		19 56 14.7	
	ipP		19 56 19.0	
	iPP		19 58 06.2	
	i		19 58 42.1	
	iS		20 03 08	
			micr	sec
	P	Z'	0.1	0.9
	pP	Z'	0.5	1.4
	Mx	E	2.2	15
	Mx	N	4.5	17
	Mx	Z	4.4	14
Ki	iP		19 56 13.8	
	ipP		19 56 17.5	
	iPP		19 58 04.3	
			micr	sec
	pP	Z'	0.4	1.7
	Mx	E	2.7	16
	Mx	N	7.5	14
	Mx	Z	2.5	14
Sk	iP		19 56 35.2	
	ipP		19 56 39.2	
Um	iP		19 56 09.0	
	ipP		19 56 12.4	
	iPcP		19 57 48.0	
	i		19 58 06.3	
	iS		20 02 58	
Ud	iP		19 56 30.5	
	ipP		19 56 34.5	
De	iP		19 56 30.3	
	ipP		19 56 34.2	

(cont.)

1975
May 19 (cont.)

De	iPcP		19 57 55.1	
	i		19 57 58.8	
	iPP		19 58 26.8	

Kashmir-Tibet.
h = 15 km (Up,Ki,Sk,Um,Ud, De).
m = 6.3, M = 5.7 (Up,Ki).

" 19

Up	eP		20 35 26	
Ud	iP		20 35 36.4	

" 19

Up	iP		22 52 57.8	
			micr	sec
	P	Z'	0.1	0.7
Ki	iP		22 52 07.2	
			micr	sec
	P	Z'	0.1	0.7
Sk	iP		22 52 42.8	
Um	iP		22 52 30.8	
Ud	iP		22 53 02.4	
De	iP		22 53 22.6	

Kurile Islands (h = 55 km).
m = 6.1 (Up,Ki).

" 19

Up	iP		23 30 12.3	
	i		23 30 15.4	
Sk	iP		23 30 56.1	
Um	i		23 31 03.2	
Ud	iP		23 30 20.4	
De	iP		23 29 43.1	

Greece-Albania (h = 45 km).

" 19

Ud	iPKP1		23 35 42.5	
De	iPKP1		23 35 52.8	C

" 19

Up	iPKP1		23 36 40.1	
Ud	iPKP1		23 36 41.1	
De	iPKP1		23 36 52.2	C

" 20

Up	iP		01 15 45.1	
Ud	iP		01 15 48.9	
De	iP		01 16 09.7	

Kamchatka (h = 10 km).

" 20

Ki	iP		04 26 10.7	
	i		04 26 26.7	
Sk	iP		04 26 47.3	
Um	iP		04 26 19.1	
Ud	iP		04 26 39.9	
De	iP		04 26 38.7	

" 20 Ud iP 12 18 27.9

Talaud Islands (h = 110 km).

" 20 Um iPKP 13 48 55.7

Chile (h = 110 km).

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

1975 May	20	Ud	iP		13 59 11.0	
		De	iP		13 59 19.1	
"	20	Up	iP		14 20 08.7	
		Ki	eP		14 20 10	
		Um	iP		14 20 09.3	
			i		14 20 15.1	
		Ud	iP		14 19 59.2	
		Costa Rica (h = N).				
"	20	Up	iPKP1		14 50 38.9	D
			i		14 50 41.9	
			ipPKP1		14 52 21.0	
					micr sec	
			PKP1	Z'	0.3 0.6	
			i	Z'	0.3 0.8	
		Ki	iPKP1		14 50 21.4	
			iSKP1		14 53 25.1	
					micr sec	
			PKP1	Z'	0.1 0.9	
		Sk	iPKP1		14 50 31.7	
			iPKP		14 50 39.3	
		Um	iPKP1		14 50 27.1	
			i		14 50 30.2	
			i		14 50 35.9	
			iSKP1		14 53 35.5	
		Ud	iPKP1		14 50 41.3	D
			i		14 50 44.4	
		De	iPKP		14 50 48.7	D
			iPKP1		14 50 51.7	
			i		14 50 54.7	
			ipPKP1		14 52 25.1	
		Tonga-Kermadec Islands.				
		h = 410 km (Up,De).				
		Double PKP1 (Up,Um,Ud),				
		average separation = 3.1 sec.				
"	20	Ki	iPKP		15 29 11.7	
		New Britain (h = 140 km).				
"	20	Up	iP		15 53 07.1	C
		Ki	iP		15 52 48.6	C
		Sk	iP		15 53 10.7	
		Um	iP		15 52 55.1	
		Ud	iP		15 53 15.1	
			i		15 53 26.5	
		De	iP		15 53 21.7	
		Mindanao (h = 70 km).				
"	20	Up	iP		15 55 24.2	
		Ud	iP		15 55 32.3	
			i		15 55 44.0	
"	20	Up	iPKP1		21 40 21.6	
		(cont.)				

1975 May	20	(cont.)				
		Up	i		21 40 25.4	
			iPKP2		21 40 28.7	
					micr sec	
			PKP1	Z'	0.1 0.9	
		Ki	ePKP1		21 40 04	
		Sk	iPKP1		21 40 14.8	
			i		21 40 19.4	
		Um	ePKP1		21 40 10	
			e		21 40 14	
		Ud	iPKP1		21 40 23.2	
			i		21 40 27.3	
		De	iPKP1		21 40 31.7	
			i		21 40 35.0	
			iPKP2		21 40 45.2	
		Kermadec Islands (h = 50 km).				
		Double PKP1 (Up,Um,Ud,De),				
		average separation = 4.1 sec.				
"	20	Up	e(PKP)		21 51 10	
			iPKP		21 51 25.8	
		Um	iPKP		21 51 21.3	
		Sumbawa Island (h = 60 km).				
"	20	Um	iP		23 03 26.6	
		Ud	i(P)		23 03 23.6	
"	21	Up	iP		00 42 26.7	
		Um	iP		00 42 21.3	
		Ud	iP		00 42 43.1	
"	21	Up	iP		03 26 40.0	D
			i		03 26 48.2	
			ipP		03 26 59.5	
					micr sec	
			P	Z'	0.1 0.8	
			i	Z'	0.1 0.8	
			pP	Z'	0.1 0.9	
		Ki	iP		03 26 34.2	D
			ipP		03 26 52.7	
					micr sec	
			P	Z'	0.1 1.0	
			pP	Z'	0.2 1.1	
		Sk	iP		03 26 56.6	
		Um	iP		03 26 32.8	D
			ipP		03 26 51.9	
		Ud	iP		03 26 53.6	D
			i		03 27 01.6	
			ipP		03 27 12.6	
		De	iP		03 26 54.7	
			ipP		03 27 14.2	
		Burma-India.				
		h = 80 km (Up,Ki,Um,Ud,De).				
		m = 6.0 (Up,Ki).				
		(cont.)				

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

1975
May 21 (cont.)
Double P (Up,Ud), average separation = 8.1 sec.

" 21 Ki iP 06 44 01.5
micr sec
P Z' 0.1 1.4
Sk iP 06 44 29.0
Um iP 06 44 30.5
Alaska (h = 35 km).

" 21 Up iP 06 59 36.9
micr sec
P Z' 0.1 1.0
Ki iP 06 59 02.4
Sk iP 06 59 33.8
Um iP 06 59 17.1 D
Ud iP 06 59 44.8 D
De iP 06 59 57.1
South of Japan (h = 390 km).

" 21 Ki iP 14 11 54.5
Ud iP 14 12 08.1
De iP 14 12 08.3
Tadzhik SSR-Sinkiang (h = 60 km).

" 21 Up iP 17 33 45.5
Ki iP 17 33 51.2
Um iP 17 33 42.9
Ud iP 17 34 00.5
De iP 17 34 00.0
Tadzhik SSR (h = 130 km).

" 21 Ki iP 18 31 03.3
Kamchatka (h = 60 km).

" 22 Um iP 03 42 37.0
Ud iP 03 42 52.1

" 22 Up iP 05 14 18.4
Ki iP 05 14 04.5
Um iP 05 14 08.3
Ud iP 05 14 26.0
Celebes (h = 45 km).
Consistently late arrivals, by about 13 sec, compared to the NEIS solution.

" 22 Ud iP 21 08 12.1
Banda Sea (h = 150 km).

" 22 Ki iPKP 21 38 07.5
North of Solomon Islands (h = 470 km).

1975
May 23 De iPKP1 02 43 59.4 D
Fiji Islands (h = 660 km).

" 23 Ki iP 06 20 16.1
Mariana Islands (h = 260 km).

" 23 Up iP 12 14 57.7
Ud iP 12 15 03.2 D
Japan (h = 80 km).

" 23 Up iP 12 23 13.6

" 23 Up iP 15 23 19.5
micr sec
P Z' 0.1 1.4
Ki iP 15 22 31.8
micr sec
P Z' 0.2 1.7
Um iP 15 22 59.6
Ud iP 15 23 13.3 C
Queen Charlotte Islands (h = N).
m = 5.9 (Up,Ki).

" 23 Up iP 15 55 51.4 C
ipP 15 56 02.0
micr sec
P Z' 0.1 1.0
Ki iP 15 55 28.3 C
micr sec
P Z' 0.1 1.0
Sk iP 15 55 54.2
i 15 55 58.9
Um iP 15 55 36.3 C
ipP 15 55 47.0
Ud iP 15 56 00.8
ipP 15 56 10.3
i 15 56 27.9
De iP 15 56 11.0
Formosa.
h = 35 km (Up,Um,Ud).
m = 5.8 (Up,Ki).

" 23 Up iP 16 13 47.7 D
i 16 13 51.2
i 16 13 58.5
i 16 19 49.4
iS 16 23 38.1
micr sec
P Z' 1.0 1.3
Mx E 41 22
Mx N 93 22
Mx Z 41 20
Ki iP 16 13 24.7 D
i 16 13 33.7
(cont.)

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

1975
May 23 (cont.)

Ki	iS		16 22 56		
			micr	sec	
	P	Z'	1.0	1.6	
	Mx	E	26	13	
	Mx	N	47	19	
Sk	iP		16 13 51.9		
Um	iP		16 13 32.9		D
	i		16 13 36.3		
	i		16 13 44.2		
	i		16 18 45.5		
	iS		16 23 11		
Ud	iP		16 13 57.2		D
	i		16 14 00.4		
De	iP		16 14 05.8		
	i		16 14 17.0		
	iPP		16 17 09.1		

Formosa (h = 5 km).
m = 6.7, M = 7.0 (Up,Ki).

" 23	Up	i(P)	16 55 06.8		
			micr	sec	
		(P)	Z' 0.1	1.1	
" 23	Up	iP	21 44 23.1		
" 23	Up	iP	21 52 55.9		
	Ud	iP	21 53 13.2		
" 23	Up	iP	23 28 45.1		
	Ki	iP	23 28 27.6		
	Sk	ipP	23 29 01.1		
	Um	iP	23 28 33.1		
	Ud	iP	23 28 54.8		

Mindoro (h = 40 km).

" 24	Up	iP	01 06 54.8		C
	Ki	iP	01 06 29.8		
	Sk	iP	01 06 58.2		
	Um	iP	01 06 38.9		
	Ud	iP	01 07 04.4		C
	De	iP	01 07 15.2		

Formosa (h = 130 km).

" 24	Ud	iPKP	02 13 06.6		
		i	02 13 11.5		
	De	iPKP	02 13 12.3		

Tonga Islands (h = 20 km).

" 24	Um	iP	05 55 11.7		
" 24	Up	iSgl	03 23 10.2		
	Sk	iSgl	03 23 01.7		
	Um	eSgl	03 24 14		
	Ud	iPgl	03 21 49.5		

(cont.)

1975
May 24 (cont.)

	Ud	iSgl	03 22 08.0		
	De	iSgl	03 23 36.4		

Southeast Norway,
60.5°N, 11.1°E.
Origin time = 03 21 26.
m = 3.9, M_L = 2.0 (Ud).

" 24	De	iPKPl	06 13 48.9		

Tonga Islands (h = N).

" 24	Um	iPKP	10 56 12.3		
	Ud	iPKPl	10 56 11.0		
	De	iPKPl	10 56 17.9		

Tonga Islands (h = 55 km).

" 24	Up	i(P)	11 23 48.2		
" 24	Um	iP	21 13 56.9		C

Japan (h = 60 km).

" 24	Up	iP	22 08 06.4		
	Ki	iP	22 08 40.2		
	Ud	iP	22 08 16.8		
		i	22 08 23.5		

Arabian Sea (h = N).

" 24	Up	iP	22 23 07.2		
	Ud	iP	22 23 11.7		

Kurile Islands (h = 70 km).

" 24	Ud	iPKPl	23 29 53.3		
	De	iPKPl	23 30 02.6		

Fiji Islands (h = 570 km).

" 24	Up	i(PKP)	23 59 00.9		
		iPKP	23 59 05.2		
	Ki	i	23 58 56.6		
	Sk	e(PKP)	23 58 59		
	Um	iPKP	23 58 59.7		
	Ud	i(PKP)	23 59 01.4		
		iPKP	23 59 06.6		
	De	iPKP	23 59 12.6		
		i	23 59 16.5		

Fiji Islands (h = 560 km).

" 25	Up	iP	01 41 55.9		
	Ki	iP	01 42 27.8		
	Sk	iP	01 42 24.9		
	Um	iP	01 42 05.4		
	Ud	iP	01 42 07.0		
	De	iP	01 41 51.3		

Arabian Sea (h = N).

" 25	Up	iP	05 33 59.5		

Kamchatka (h = N).

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

1975 May	25	Ki	iP	07 56 08.2	
		Ud	iP	07 56 33.3	
		Talaud Islands (h = 100 km).			
"	25	Up	e(P)	09 17 23	
			i	09 17 27.7	
"	25	Up	iP	12 42 25.7	C
		Sk	eP	12 42 16	
		Ud	iP	12 42 32.1	C
		Japan (h = 100 km).			
"	25	Up	iP	15 57 52.5	
		Ki	iP	15 56 58.3	
		Um	iP	15 57 26.5	
		Ud	iP	15 57 49.9	
		De	ipP	15 58 21.4	
		Gulf of Alaska (h = N).			
"	25	Up	iP	17 22 30.2	
"	25	Up	iP	19 14 57.1	C
			ipP	19 15 04.2	
			iS	19 23 24	
			i	19 24 47.1	
			iP'P'	19 44 00.8	
				micr sec	
			P Z'	0.1 1.0	
			pP Z'	0.2 1.2	
			Mx E	1.9 17	
			Mx N	2.9 20	
			Mx Z	3.3 22	
		Ki	iP	19 14 02.6	C
			ipP	19 14 10.0	
				micr sec	
			P Z'	0.3 1.0	
			pP Z'	0.5 1.2	
			Mx E	2.0 19	
			Mx N	4.6 20	
			Mx Z	5.7 20	
		Sk	iP	19 14 29.4	C
			ipP	19 14 37.6	
		Um	iP	19 14 30.2	
			ipP	19 14 39.6	
			iS	19 22 33	
			eP'P'	19 44 11	
		Ud	iP	19 14 53.0	
			ipP	19 15 00.8	
			iP'P'	19 44 04.6	
		De	iP	19 15 17.0	
			ipP	19 15 25.6	
			iP'P'	19 43 55.7	
		Gulf of Alaska.			
		h = 25 km (Up,Ki,Sk,Um,Ud, De).			
		m = 6.3, M = 5.6 (Up,Ki).			

1975 May	25	Up	iP	20 39 29.7	
		Um	iP	20 39 42.5	
		Ud	iP	20 39 41.0	
		Arabian Sea (h = N).			
"	25	Up	iP	20 48 35.8	
"	25	Up	iPKP	22 00 52.0	C
		Ud	iPKP	22 00 54.5	
"	25	Ud	iP	23 04 18.6	
			i	23 04 33.5	
		De	iP	23 04 18.4	
		Leeward Islands (h = N).			
"	26	Up	iSgl	00 54 45.0	
		Sk	iSgl	00 54 16.9	
		Um	iSgl	00 55 50.2	
		Ud	iSgl	00 53 44.7	
		De	iSn	00 53 57.0	
			iSgl	00 54 23.4	
		Coast of southwest Norway, 59.6°N, 5.8°E.			
		Origin time = 00 51 41.			
		m = 4.3, M_L = 2.8 (Um,Ud,De).			
		By combination with Bergen and Kongsberg readings.			
"	26	Up	iP	01 15 10.1	
"	26	Up	iPKP	04 55 26.6	
		Ki	iPKP	04 55 14.7	
		Sk	iPKP	04 55 25.7	
		Um	iPKP	04 55 19.3	
		Ud	iPKP	04 55 28.9	
			ipPKP	04 55 52.1	
		De	iPKP	04 55 34.2	
		Solomon Islands (h = 80 km).			
"	26	Um	iP	07 09 59.0	
		Ud	iP	07 10 23.4	
"	26	Up	iP	09 18 23.2	
			i	09 18 24.2	
			iS	09 23 37	
				micr sec	
			P Z'	2.3 0.7	
			Mx E	1370 16	
			Mx N	1151 16	
			Mx Z	261 15	
		Ki	iP	09 19 10.5	
			i	09 19 12.8	
		(cont.)			

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

1975
May 26 (cont.)

Ki			micr	sec
	P	Z'	18	2.6
	Mx	E	788	14
	Mx	N	781	15
	Mx	Z	833	14
Sk	iP		09 18 26.6	
	i		09 18 28.0	
Um	iP		09 18 51.1	
	i		09 18 52.8	
Ud	iP		09 18 09.9	
De	iP		09 17 53.9	

North Atlantic Ocean (h = N).
m = 7.3, M = 7.8 (Up,Ki).
Double P, small and large (Up,Ki,Sk,Um), average separation = 1.6 sec.

" 26

Up	iP		09 59 58.7	
	ipP		10 00 07.7	
			micr	sec
	pP	Z'	0.1	1.0
Ki	iP		10 00 49.5	
Um	iP		10 00 26.1	
Ud	iP		09 59 47.1	
	ipP		09 59 55.0	
De	iP		09 59 30.4	
	ipP		09 59 38.9	

North Atlantic Ocean.
h = 40 km (Up,Ud,De).

" 26

Up	iP	10 29 21.4
	ipP	10 29 29.8
Ki	iP	10 30 08.2
Um	iP	10 29 48.9
	i	10 30 09.2
Ud	iP	10 29 07.8
De	iP	10 28 52.0
	ipP	10 29 01.3

North Atlantic Ocean.
h = 35 km (Up,De).

" 26

Up	iP	10 39 45.8

" 26

Up	iP	10 48 40.1
	i	10 48 46.7
Ki	iP	10 49 34.8
Sk	eP	10 48 50
Um	iP	10 49 06.2
	i	10 49 14.7
Ud	iP	10 48 33.6
De	iP	10 48 17.4 C

" 26

Up	iP	11 10 07.8
	ipP	11 10 14.9

(cont.)

1975
May 26 (cont.)

Ki	eP	11 10 52
Um	iP	11 10 34.3 C
	ipP	11 10 42.1
Ud	iP	11 09 53.6
	ipP	11 10 02.2

North Atlantic Ocean.
h = 30 km (Up,Um,Ud).

" 26

Up	iP	11 25 41.7
	i	11 25 48.9

" 26

Up	iP	11 38 49.3
	i	11 38 57.0
Ki	iP	11 39 44.2
Um	iP	11 39 15.9
	i	11 39 23.8
Ud	iP	11 38 34.6
	i	11 38 43.7

" 26

Up	iP	14 15 53.0

" 26

Up	iP	14 20 33.2
Ki	iP	14 21 20.9
Ud	iP	14 20 19.7
	i	14 20 38.1
De	iP	14 20 04.3

North Atlantic Ocean (h = N).

" 26

Um	iP	14 30 09.2
Ud	iP	14 30 41.1

Kurile Islands (h = 120 km).

" 26

Um	iP	17 05 37.4
Ud	iP	17 06 18.0

" 26

Up	iP	17 10 25.2
Um	iP	17 10 51.1
Ud	iP	17 10 13.5
De	iP	17 09 53.8

North Atlantic Ocean (h = N).

" 26

Up	iP		18 09 19.1 D	
	iPP		18 10 59.9	
			micr	sec
	P	Z'	0.2	1.3
	Mx	E	0.8	9
	Mx	N	1.1	15
	Mx	Z	1.1	9
Ki	iP		18 09 16.0 D	
	ipP		18 09 21.8	
			micr	sec
	P	Z'	0.1	0.8
	pP	Z'	0.2	0.7
	Mx	E	1.7	12

(cont.)

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

1975
May 26 (cont.)

Ki			micr	sec
	Mx	N	3.9	15
	Mx	Z	1.8	13
Sk	iP		18 09 39.8	D
	ipP		18 09 46.7	
Um	iP		18 09 11.3	D
	ipP		18 09 18.2	
	i		18 09 29.8	
Ud	iP		18 09 35.8	D
De	iP		18 09 36.5	D
	i		18 09 38.8	
	iPP		18 11 19.2	

Sinkiang, China.
h = 25 km (Ki,Sk,Um).
m = 5.7, M = 5.2 (Up,Ki).

" 26

Up	iP	18 17 55.0	
	ipP	18 18 07.7	
Um	ipP	18 18 47.2	
Ud	iP	18 18 07.4	
	ipP	18 18 20.9	
De	iP	18 17 31.6	

Rumania (h = 60 km).

" 26

Up	iP		18 34 03.6	C
	ipP		18 34 20.0	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		18 33 19.2	
	i		18 33 28.1	
Sk	iP		18 33 54.6	C
Um	iP		18 33 38.9	C
Ud	iP		18 34 10.1	C
	ipP		18 34 27.3	
De	iP		18 34 27.3	

Japan.
h = 60 km (Up,Ud).

" 26

Up	iP		20 26 07.6	C
	ipP		20 26 21.7	
	i		20 28 33.1	
	iS		20 31 20	
			micr	sec
	P	Z'	0.2	0.9
	pP	Z'	0.2	0.9
	Mx	E	1.7	18
	Mx	N	1.5	17
	Mx	Z	3.1	18
Ki	iP		20 26 55.0	C
	ipP		20 27 09.7	
			micr	sec
	P	Z'	0.1	1.0
	pP	Z'	0.3	1.2

(cont.)

1975
May 26 (cont.)

Ki			micr	sec
	Mx	E	0.7	13
	Mx	N	1.7	16
	Mx	Z	1.1	15
Sk	iP		20 26 09.8	C
	ipP		20 26 24.8	
Um	iP		20 26 35.3	C
	i		20 26 43.2	
	ipP		20 26 50.0	
	iS		20 32 09	
Ud	iP		20 25 54.1	C
	ipP		20 26 08.6	
De	iP		20 25 38.0	C
	i		20 25 48.5	
	ipP		20 25 52.2	

North Atlantic Ocean.
h = 60 km (Up,Ki,Sk,Um,Ud, De).
m = 6.0, M = 5.0 (Up,Ki).

" 26

Up	iP	22 05 14.8
Ud	iP	22 05 32.1
De	iP	22 04 52.6

Rumania (h = 50 km).

" 26

Up	iP		22 07 36.5
	ipP		22 07 43.7
			micr sec
	pP	Z'	0.1 0.9
Ki	iP		22 08 24.7
Sk	i		22 08 08.9
Um	iP		22 08 03.8
	ipP		22 08 11.0
Ud	iP		22 07 22.6
	ipP		22 07 30.1
De	iP		22 07 06.9

North Atlantic Ocean.
h = 25 km (Up,Um,Ud).

" 26

Ud	iPKPl	23 25 33.4
De	iPKPl	23 25 42.7

" 27

Up	iP		00 48 10.5 C
	i		00 48 21.3
Sk	iP		00 48 09.4
Um	iP		00 47 50.9
Ud	iP		00 48 17.8
De	iP		00 48 31.4

Ryukyu Islands (h = 10 km).

" 27

Up	iP	03 22 32.3
Ki	iP	03 23 19.2
Um	iP	03 22 01.0

(cont.)

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

1975
May 27 (cont.)

Ud	eP	03 22 19	

North Atlantic Ocean (h = N).

" 27	Up	iP	06 52 19.4
		i	06 52 28.5
	Ki	iP	06 51 33.9
	Sk	iP	06 52 09.4
	Um	iP	06 51 54.1
	Ud	iP	06 52 25.2
		i	06 52 34.9

Kurile Islands.
h = 30 km (Up,Ud).

" 27	Up	iPKPl	09 30 40.3
	Sk	iPKP	09 30 39.3
	Ud	iPKPl	09 30 39.5
	De	iPKPl	09 30 51.1

Fiji Islands (h = 140 km).

" 27	Ud	iP	09 34 13.0

" 27	Up	iP		10 31 58.5	
		ipP		10 32 17.3	
		i(PP)		10 35 18.0	
		iS		10 43 06	
				micr	sec
		P	Z'	0.1	1.0
		pP	Z'	0.1	1.0
		Mx	E	1.6	26
		Mx	N	1.9	26
		Mx	Z	4.0	28
	Ki	iP		10 31 44.4	
		ipP		10 32 02.9	
		iPP		10 35 25.6	
				micr	sec
		P	Z'	0.3	1.2
		pP	Z'	0.1	1.2
		Mx	E	1.8	20
		Mx	N	4.7	21
		Mx	Z	1.3	19
	Sk	iP		10 32 05.2	
		ipP		10 32 23.5	
		iPP		10 35 50.5	
	Um	iP		10 31 49.2	D
		ipP		10 32 06.8	
		i(PP)		10 35 06.3	
		iS		10 42 49	
	Ud	iP		10 32 06.6	
		ipP		10 32 24.2	
		i(PP)		10 35 14.7	
	De	iP		10 32 11.5	
		ipP		10 32 30.2	
		iPP		10 36 06.9	

Celebes.
(cont.)

1975
May 27 (cont.)
h = 70 km (Up,Ki,Sk,Um,Ud, De).
m = 6.5, M = 5.7 (Up,Ki).

" 27	Ud	i(P)	14 19 56.2
" 27	Ud	i(P)	19 34 42.3
" 27	Up	iP	20 51 43.8
	Um	iP	20 51 20.5
	Ud	iP	20 51 51.2

Japan (h = 90 km).

" 27	Um	iP	22 23 33.8
	Ud	iP	22 23 48.7
" 27	Ud	iP	22 25 03.7
" 28	Up	iP	01 14 17.7
	Ud	iP	01 14 32.2

Afghanistan-USSR (h = 100 km).

" 28	Ud	iP	02 16 46.6
	De	iP	02 16 14.4

Greece.

" 28	Ki	iP	07 09 44.1
	Um	iP	07 10 01.7
" 28	Sk	iSgl	09 43 18.2
	Ud	iSgl	09 43 37.3

Coast of Norway,
61.7°N, 5.0°E.
Origin time = 09 41 18.
m = 4.3, M_L = 2.7 (Ud).
By combination with Bergen readings.

" 28	Up	iP	09 59 47.8
	Um	iP	10 00 15.9
	Ud	iP	09 59 35.1

North Atlantic Ocean (h = N).

" 28	Up	iP		13 45 33.9	
				micr	sec
		P	Z'	0.1	1.1
" 28	Up	iPKP		14 16 24.7	
	Ki	iPKP		14 16 34.7	C
				micr	sec
		Mx	Z	12	34
	Um	iPKP		14 16 31.8	

(cont.)

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

1975
May 28 (cont.)

Ud	iPKP	14 16 23.4 C	
De	iPKP	14 16 22.2 C	

Chile (h = 25 km).

" 28	Ud	iP	14 41 06.2
" 28	Ud	iP	14 57 05.5
" 28	Up	iP	15 09 20.5
	Sk	iP	15 09 06.4
	Um	iP	15 09 25.8
" 28	Up	iP	17 07 56.5
	Ki	iP	17 08 04.9
	Ud	iP	17 08 12.8
	De	iP	17 08 09.2

Afghanistan-USSR (h = 260 km).

" 28	Up	iPKPl	17 21 17.1
	Ud	iPKPl	17 21 19.8
	De	iPKPl	17 21 29.6
" 28	Ud	iP	17 57 26.0
" 28	Ud	iP	21 21 02.9

Kashmir-Tibet (h = 40 km).

" 28	Up	iP	22 48 54.6
	Um	iP	22 48 28.3
	Ud	iP	22 48 57.8
		ipP	22 49 13.1
	De	iP	22 49 19.2

Kamchatka.
h = 55 km (Ud).

" 28	Up	iP		23 05 45.9
				micr sec
		P	Z'	0.1 1.3
	Ki	ipP		23 05 10.3
	Sk	iP		23 05 32.1
	Um	iP		23 05 19.8
		ipP		23 05 30.9
	Ud	iP		23 05 51.2
		ipP		23 06 03.4

Kurile Islands.
h = 40 km (Um,Ud).

" 29	Up	iP	01 59 36.3
	Ki	iP	01 59 02.7
	Sk	iP	01 59 32.0
	Um	iP	01 59 17.1 C
	Ud	iP	01 59 41.2
	De	iP	01 59 55.6

Bonin Islands (h = 430 km).

1975
May

29	Ud	iP		02 28 13.5
	De	iP		02 28 30.3
" 29	Up	iPKPl		07 00 27.3
		iSKPl		07 03 15.7
		i		07 03 39.3
				micr sec
		PKPl	Z'	0.1 0.7
		SKPl	Z'	0.1 1.0
		i	Z'	0.3 1.4
	Ki	i(PKP)		07 00 08.1
		iPKP		07 00 19.1
		iSKPl		07 02 53.1
				micr sec
		SKPl	Z'	0.5 1.6
	Sk	i(PKP)		07 00 19.2
		i		07 00 21.9
		iSKPl		07 03 09.4
	Um	i(PKP)		07 00 13.6
		i		07 00 16.5
		iSKPl		07 03 04.4
	Ud	iPKPl		07 00 29.7
		i		07 02 38.2
		iSKPl		07 03 17.4
	De	iPKPl		07 00 40.8
		i		07 03 23.0
		iSKPl		07 03 26.5

Tonga-Kermadec Islands
(h = 620 km).

" 29	Um	iP	15 48 09.3
" 29	Up	iP	15 55 46.0
	Ki	iP	15 55 11.3
		ipP	15 56 32.7
			micr sec
		pP	Z' 0.1 1.1
	Sk	iP	15 55 42.3
	Um	iP	15 55 24.8
		ipP	15 56 50.0
	Ud	iP	15 55 52.9
		ipP	15 57 13.4

Japan.
h = 380 km (Ki,Um,Ud).

" 29	Ki	iP	16 19 11.5
" 29	Up	iP	19 19 15.8
	Ki	iP	19 18 36.8
	Um	iP	19 18 53.5
	Ud	iP	19 19 22.9

Japan (h = 15 km).

" 29	Ud	iP	20 46 31.9

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

1975 May	29	Ki	iP		22 30 38.4
"	29	Up	iP		23 05 14.6
			ipP		23 05 23.0
		Ki	iP		23 06 02.2
			ipP		23 06 09.9
		Um	iP		23 05 39.5
		Ud	iP		23 05 01.2
			ipP		23 05 09.8
		De	iP		23 04 46.5
		North Atlantic Ocean.			
		h = 30 km (Up,Ki,Ud).			
"	30	Up	iP		00 53 49.2
		Um	iP		00 53 48.2
		Ud	iP		00 54 06.1
		De	eP		00 54 03
		Hindu Kush (h = 220 km).			
"	30	Um	iPKPl		01 22 22.5
		Ud	iPKPl		01 22 36.0 C
"	30	Ud	iPKPl		01 35 23.6
		De	iPKPl		01 35 34.9
		Fiji Islands (h = 560 km).			
"	30	Up	iPKPl		02 30 52.2
			ipPKPl		02 31 02.8
		Um	iPKPl		02 30 41.0
		Ud	iPKPl		02 30 53.8
			ipPKPl		02 31 04.2
		De	iPKPl		02 31 04.5
			ipPKPl		02 31 16.1
		Tonga-Kermadec Islands.			
		h = 30 km (Up,Ud,De).			
"	30	Up	iP		04 18 02.3
					micr sec
			P	Z'	0.1 0.9
		Ki	iP		04 17 15.5
		Sk	iP		04 17 50.2
		Um	iP		04 17 36.7
		Ud	iP		04 18 08.1
		De	iP		04 18 27.2
		Kurile Islands (h = 170 km).			
"	30	Up	iP		04 28 29.1
			i		04 28 35.5
		Um	iP		04 28 20.4
		Ud	iP		04 28 36.5
			i		04 28 48.2
"	30	Up	iP		04 41 57.7
		(cont.)			

1975 May	30	(cont.)			
		Ki	iP		04 42 15.4
		Um	iP		04 42 16.6
		Ud	iP		04 42 17.6
"	30	Up	iP		10 36 10.2
		Ki	iP		10 35 22.1
		Sk	iP		10 35 56.4
		Um	iP		10 35 44.3
		Ud	iP		10 36 15.4
		Kurile Islands (h = 50 km).			
"	30	Ki	iP		13 48 27.7
		Ud	iP		13 48 57.6
			i		13 49 09.0
		Formosa (h = N).			
		The second onset (Ud), when interpreted as pP, gives the focal depth of 40 km.			
"	30	Up	iP		14 26 37.4
			i		14 26 46.8
					micr sec
			P	Z'	0.1 1.0
			Mx	E	1.9 20
			Mx	N	4.4 24
		Ki	iP		14 26 12.1
			i		14 26 23.5
					micr sec
			i	Z'	0.1 1.0
			Mx	E	1.5 16
			Mx	N	3.1 21
		Sk	iP		14 26 38.4
			i		14 26 50.4
		Um	iP		14 26 21.8
			i		14 26 31.7
		Ud	iP		14 26 44.4
			i		14 25 56.0
		Formosa (h = 10 km).			
		m = 5.9, M = 5.7 (Up,Ki).			
		Double P, smaller and larger, average separation = 10.9 sec.			
		The second onset, when interpreted as pP, gives the focal depth of 35 km.			
"	30	Up	iP		17 55 16.7
			i		17 55 27.1
			iPcP		17 55 57.5
			iPP		17 57 32.9
			iS		18 03 42
					micr sec
			P	Z'	0.4 0.7
			i	Z'	0.8 1.3
		(cont.)			

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

1975
May 30 (cont.)

Up			micr	sec
	Mx	E	6.7	15
	Mx	N	24	27
	Mx	Z	11	13
Ki	e(P)		17 55 02	
	iP		17 55 06.3	
	iPP		17 57 11.6	
			micr	sec
	P	Z'	0.3	1.1
	Mx	E	6.9	12
	Mx	N	9.7	13
	Mx	Z	7.4	13
Sk	iP		17 55 29.7	
	i		17 55 31.5	
Um	iP		17 55 06.1	
	i		17 55 07.8	
	iS		18 03 24	
Ud	iP		17 55 28.2	
	i		17 55 30.5	
	iPP		17 57 50.8	
De	iP		17 55 32.3	
	iPcP		17 56 08.6	
	iPP		17 57 56.1	

Burma (h = 55 km).
m = 6.5, M = 6.3 (Up,Ki).
Double P, small and large (Sk,Um,Ud), average separation = 1.9 sec.

" 30	Up	iPKP1	18 06 04.0	
		i	18 06 06.2	
	Ki	iPKP1	18 06 00.2	
		i	18 06 01.6	
			micr	sec
		PKP1	Z' 0.8	2.2
	Sk	iPKP1	18 06 10.2	
	Um	iPKP1	18 05 58.6	
		i	18 06 04.1	
		i	18 06 11.4	
	Ud	iPKP1	18 06 09.3	
		i	18 06 17.4	
		i	18 06 27.0	
	De	iPKP2	18 06 10.3	
		i	18 06 13.1	
		i	18 06 23.1	

South of Australia (h = N).

" 30	Up	iPKP1	18 09 14.4	
			micr	sec
		PKP1	Z' 0.3	1.5
	Ki	iPKP1	18 09 12.5	
		i	18 09 14.3	

(cont.)

1975
May 30 (cont.)

Ki			micr	sec
	PKP1	Z'	0.1	1.0
	i	Z'	0.6	2.0
Sk	iPKP1		18 09 21.8	
	iPKP2		18 09 28.4	
Um	iPKP1		18 09 12.2	
	i		18 09 18.1	
Ud	iPKP2		18 09 23.8	
	i		18 09 31.8	
De	iPKP2		18 09 20.7	
	i		18 09 29.4	

South of Australia (h = 45 km).

" 30	Up	i(P)	18 40 49.2
" 30	Up	iP	18 55 46.1
	Um	iP	18 55 27.9
	Ud	iP	18 55 59.2
" 30	Up	iPKP	20 28 02.6
	Um	iPKP	20 28 10.3
	Ud	iPKP	20 28 01.1

South Atlantic Ocean (h = N).

" 30	Up	iP	20 35 35.9
	Ki	iP	20 35 38.9

Sumatra (h = N).

" 30	Up	i(P)	20 45 00.6
" 30	Up	i(P)	20 45 19.5
" 30	Up	iP	22 08 16.9
	Ki	iP	22 07 33.8
	Sk	iP	22 08 07.8
	Um	iP	22 07 52.9
	Ud	iP	22 08 24.0
	De	iP	22 08 40.3

Japan (h = 120 km).

" 30	Up	iPKP1	23 04 23.8
	Ud	iPKP1	23 04 25.3
	De	iPKP1	23 04 34.4
" 31	Up	iP	01 15 33.9
	Um	iP	01 15 22.7 C
	Ud	iP	01 15 34.2 C
" 31	Ud	iP	03 29 23.4
" 31	Up	iPKP1	07 38 28.5
	Ud	iPKP1	07 38 29.0
	De	iPKP1	07 38 40.0

Fiji Islands (h = 550 km).

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

1975				
May	31	Up	iP	07 55 58.3
		Sk	iP	07 56 04.9
		Um	iP	07 55 47.1
			i	07 55 54.6
			iS	08 06 29
		Ud	iP	07 56 07.5
			i	07 56 13.0
		Mindanao (h = 70 km).		
"	31	Ud	iP	12 46 51.9
		De	iP	12 46 17.0
		Dodecanese Islands (h = 20 km).		
"	31	Up	iP	13 22 47.1
		Ud	iP	13 23 00.6
"	31	Up	iP	23 45 28.7
		Ki	iP	23 44 33.9
		Sk	iP	23 45 02.5
		Um	iP	23 45 02.7
		Ud	iP	23 45 26.8 C
		De	iP	23 45 50.3
		Alaska (h = 130 km).		

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February 22, 1977

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SWEDEN

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

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

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

J U N E 1 - 30, 1975

1975				
June	1	Ud	iP	01 50 45.3
		California (h = 5 km),		
"	1	Up	iP	01 51 57.3
		Ki	iP	01 51 36.7
		Um	iP	01 51 41.4
		Ud	iP	01 52 06.8
			i	01 52 15.7
		Luzon (h = 25 km).		
"	1	Up	iP	05 10 54.0
		Ud	iP	05 11 00.4
		Japan (h = 50 km).		
"	1	Up	iPKPl	06 05 11.7
		Ud	iPKPl	06 05 13.7
			i	06 05 25.0
"	1	Ud	iP	08 38 31.1
"	1	Up	eP	09 29 29
		Ud	iP	09 29 36.5
		Mariana Islands (h = 45 km).		
"	1	Ud	iP	11 48 50.8
"	1	Ki	iP	13 19 55.0
		Alaska (h = 140 km).		
"	1	Up	i(P)	21 07 44.2
		Ki	i(P)	21 08 38.2
"	1	Up	iP	21 29 59.2
		Ud	iP	21 30 13.8
"	2	Up	iP	03 24 12.0
			i	03 24 20.3
			iS	03 28 39
		(cont.)		

1975					
June	2	(cont.)			
				micr	sec
			Mx E	0.8	11
			Mx N	1.1	11
			Mx Z	1.3	11
		Ki	eP	03 25 27	
				micr	sec
			Mx E	0.6	10
			Mx N	0.6	10
			Mx Z	0.7	11
		Sk	iP	03 24 59.2	
		Ud	iP	03 24 28.1	
		De	iP	03 23 55.9	
		Dodecanese Islands (h = 25 km).			
		M = 4.7 (Up,Ki).			
"	2	Ud	iP	04 29 26.0	
		Iran (h = 50 km).			
"	2	Up	iP	05 22 09.9	
"	2	Up		micr	sec
			Mx E	1.7	22
			Mx N	1.4	20
			Mx Z	2.4	20
		Ki		micr	sec
			Mx E	2.0	23
			Mx N	1.7	22
			Mx Z	2.3	22
		Um	iPKP	19 52 12.7	
		Ud	ePKP	19 52 15	
		De	i(PKP)	19 52 23.8	
		New Hebrides Islands (h = 55 km).			
		M = 5.9 (Up,Ki).			
"	2	Up	iP	20 32 38.2	
		Ki	eP	20 32 04	
		(cont.)			

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

1975
June 2 (cont.)

Um	iP		20 32 18.2	
Ud	iP		20 32 44.7	

Japan (h = 60 km).

" 3 Um iSgl 00 44 22.2
Gulf of Bothnia,
61.6°N, 20.9°E.
Origin time = 00 43 10.
m = 3.9, M_L = 2.0 (Um).
Explosion?
Solution from Helsinki
regional bulletin.

" 3

Up	iP		00 48 00.1	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		00 47 50.3	
			micr	sec
	P	Z'	0.2	1.8
	Mx	E	0.9	15
	Mx	N	0.7	12
	Mx	Z	0.9	13
Sk	iP		00 48 14.3	
	ipP		00 48 19.0	
Um	iP		00 47 50.5	
	ipP		00 47 55.7	
Ud	iP		00 48 13.6	
De	iP		00 48 17.0	

Burma.
h = 20 km (Sk,Um).
m = 6.0 (Up,Ki).

" 3

Ud	iPKPl		01 02 55.1	
De	iPKPl		01 03 05.7	

" 3

Up	iP		01 09 31.5	
	ipP		01 09 37.1	
			micr	sec
	pP	Z'	0.1	1.1
Ki	iP		01 09 21.4	
Sk	iP		01 09 45.0	
Um	iP		01 09 21.6	
	ipP		01 09 27.4	
Ud	iP		01 09 44.2	
	ipP		01 09 50.3	

Burma.
h = 25 km (Up,Um,Ud).

" 3

Up	iP		02 46 32.4	
	i1		02 46 38.7	
	i2		02 46 43.0	
Um	iP		02 46 09.1	
Ud	i2		02 46 37.0	

Queen Elizabeth Islands
(h = N).

1975
June 3

Up	iP		03 33 57.0	
			micr	sec
	P	Z'	0.2	1.0
	Mx	N	0.8	16
Ki	iP		03 34 47.1	
	ipP		03 34 57.3	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	0.8	14
	Mx	N	0.7	15
	Mx	Z	0.8	15
Sk	iP		03 34 11.2	
	ipP		03 34 21.0	
Um	iP		03 33 46.7	
	ipP		03 33 57.7	
	iS		03 42 07	
Ud	iP		03 34 10.4	
De	iP		03 34 12.9	
	iPcP		03 34 48.8	

Burma.
h = 40 km (Ki,Sk,Um).
m = 6.2 (Up,Ki).

" 3

Up	eP		03 52 30	
Ki	eP		03 52 25	

" 3 Um iP 05 05 19.2
Iran (h = N).

" 3

Up	iP		05 34 05.7	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		05 33 47.4	
			micr	sec
	P	Z'	0.1	1.0
	Mx	E	0.6	13
	Mx	N	0.7	16
	Mx	Z	1.1	15
Sk	iP		05 34 10.0	
Um	iP		05 33 53.7	
	iS		05 44 15	
Ud	iP		05 34 13.9	

Philippine Islands (h = N).
m = 6.0 (Up,Ki).

" 3

Sk	iPKP		10 04 33.0	
Um	iPKP		10 04 28.9	

" 3 Um iPKPl 13 52 45.8
South of Kermadec Islands
(h = 150 km).

" 3

Up	iP		14 31 48.2	C
			micr	sec
	P	Z'	0.3	1.1

(cont.)

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

1975
June 3 (cont.)

Ki	iP		14 31 13.6	C
			micr	sec
	P	Z'	0.2	1.2
	Mx	E	0.5	12
	Mx	Z	0.5	13
Sk	iP		14 31 21.7	C
Um	iP		14 31 33.3	C
Ud	iP		14 31 40.1	C
De	iP		14 31 56.9	C

Nevada.
Underground explosion.
m = 6.2 (Up,Ki).

" 3

Up	iP		14 51 49.3	C
Ki	iP		14 51 14.8	C
			micr	sec
	P	Z'	0.3	1.5
Sk	iP		14 51 22.6	C
Um	iP		14 51 43.2	C
Ud	iP		14 51 40.7	C
De	iP		14 51 57.5	C

Nevada.
Underground explosion.

" 3

Up	iP		18 21 20.0	
	i1		18 21 21.6	
	i2		18 21 23.9	
	iSKS		18 31 48	
	iS		18 32 12	
			micr	sec
	i1	Z'	0.1	1.0
	i2	Z'	0.7	1.9
	Mx	E	2.7	20
	Mx	N	4.9	21
	Mx	Z	4.6	20
Ki	iP		18 21 01.0	
	i2		18 21 05.1	
	iSKS		18 31 24	
	iS		18 31 38	
			micr	sec
	i2	Z'	0.1	1.0
	Mx	E	3.6	15
	Mx	N	2.6	14
	Mx	Z	3.9	14
Sk	iP		18 21 22.8	
	i2		18 21 27.5	
Um	i1		18 21 09.2	
	i2		18 21 11.8	
	iSKS		18 31 34	
	iS		18 31 49	
Ud	iP		18 21 27.5	
	i1		18 21 29.6	
	i2		18 21 32.1	
De	i2		18 21 38.6	

(cont.)

1975
June 3 (cont.)
Philippine Islands (h = N).
m = 6.3, M = 6.0 (Up,Ki).
Multiple event.

" 3

Up	iP	19 23 20.0
Ki	iP	19 23 01.2
	ipP	19 23 13.3
Sk	iP	19 23 23.4
	ipP	19 23 35.8
Um	iP	19 23 07.6
Ud	iP	19 23 28.1
	ipP	19 23 40.0
De	iP	19 23 35.4

Philippine Islands.
h = 45 km (Ki,Sk,Ud).

" 3

Up	iP	23 20 22.3
Ud	iP	23 20 29.6

" 4

Ki	iP	00 17 35.8
Ud	iP	00 18 02.5

" 4

Up	iP		02 32 54.6	
	i		02 32 58.2	
	iPP		02 34 35.9	
	iS		02 39 39	
			micr	sec
	P	Z'	0.1	0.8
	i	Z'	0.4	1.1
	Mx	E	12	13
	Mx	N	35	17
	Mx	Z	23	13
Ki	iP		02 32 52.8	
	i		02 32 56.4	
	iS		02 39 38	
			micr	sec
	P	Z'	0.2	0.6
	i	Z'	0.5	0.8
	Mx	E	9.3	11
	Mx	N	51	19
	Mx	Z	11	13
Sk	iP		02 33 14.6	
	i		02 33 19.1	
	iPP		02 35 13.8	
Um	iP		02 32 47.4	
	i		02 32 52.1	
	iPP		02 34 31.6	
	iS		02 39 28	
Ud	iP		02 33 09.9	
	i		02 33 14.3	
De	iP		02 33 10.7	
	i		02 33 14.2	

Kashmir-Tibet (h = N).
m = 6.4, M = 6.6 (Up,Ki).
Multiple event.

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

1975 June 4
Up iP 02 46 08.3
Ki iP 02 46 06.7 D
Sk iP 02 46 29.1
Um iP 02 46 01.4
Ud iP 02 46 23.2
De iP 02 46 23.9
Kashmir-Tibet (h = 60 km).

" 4 Ki eP 02 49 59

" 4 Up iP 03 00 17.0
Ki iP 03 01 20.5
Um iP 03 00 42.8
Ud iP 03 00 31.8
Turkey(h = 70 km).

" 4 Up iP 03 01 54.9
Ki eP 03 02 55
Um iP 03 02 20.0
Ud iP 03 02 08.9
De i(P) 03 01 45.9
Turkey.
Origin time = 02 57 14.

" 4 Ki iP 03 17 10.2

" 4 Ki iP 04 37 02.5
Kashmir-Tibet (h = N).

" 4 Um iPKP 04 51 39.9
Loyalty Islands (h = 40 km).

" 4 Up iPKP 05 44 39.0
Ki iPKP 05 44 23.9
iSKPl 05 47 15.5
Um iPKP 05 44 33.2
i 05 44 41.7
iSKPl 05 47 27.6
Ud iPKP 05 44 40.2
Fiji Islands (h = 470 km).

" 4 Ki eP 08 21 52

" 4 Ud iP 09 08 27.9
Japan (h = 70 km).

" 4 Um iP 09 22 36.5
Japan (h = 70 km).

" 4 Ki iP 09 26 22.4

		micr	sec
Mx	E	0.7	16
Mx	N	0.7	15
Mx	Z	0.9	16

(cont.)

1975 June 4 (cont.)
Sk eP 09 26 53
iS 09 28 33.2
Um iP 09 27 07.5
Norwegian Sea, near
72°N, 4°E.
Origin time = 09 24 42.

" 4 Up iP 09 57 12.3
Ki eP 09 56 24
Um iP 09 56 46.8
Ud iP 09 57 18.0
i 09 57 31.8
Kurile Islands (h = N).

" 4 Um iPKPl 10 33 30.6
Ud iPKPl 10 33 45.5

" 4 Ki iP 13 13 41.5
Molucca Sea (h = 30 km).

" 4 Up iP 13 17 34.0
Ud iP 13 17 32.0

" 4 Ki iP 14 29 44.1
Kashmir-Tibet (h = N).

" 4 Up iRg 15 36 06.6
Ud iRg 15 35 40.8
South-central Sweden.
Near-surface event.

" 4 Up iPgl 15 39 31.8
iSgl 15 39 38.1
iRg 15 39 40.2
Sk iSgl 15 41 46.4
Ud iSgl 15 40 13.5
iRg 15 40 20.1
East-central Sweden.
Near-surface event.

" 4 Um iSgl 16 02 51.0
Gulf of Bothnia,
61.5°N, 20.8°E.
Origin time = 16 01 39.
m = 3.9, M_L = 2.0 (Um).
Explosion?
Solution from Helsinki
regional bulletin.

" 4 Up iP 16 46 34.5
Ki eP 16 47 20
Sk iP 16 47 07.7
Um iP 16 46 54.6
Ud iP 16 46 45.2

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

1975				
June	4	Ud	iP	16 48 13.4
"	4	Um	i(P)	18 08 09.4
"	4	Up	iP	18 10 58.6
		Ki	iP	18 10 26.9 C
		Sk	iP	18 10 55.7
			iPP	18 14 01.7
		Um	iP	18 10 40.5 C
		Ud	iP	18 11 06.1
		De	iP	18 11 17.6
		Bonin Islands (h = 500 km).		
"	4	Ki	iP	18 50 57.9
"	4	Um	iP	20 32 22.7
"	4	De	iPKP	20 40 41.6
		Solomon Islands (h = 170 km).		
"	4	Up	iP	20 46 47.2
		Ki	iP	20 45 54.1
		Ud	iP	20 46 47.2
		De	iP	20 47 10.0
		Aleutian Islands (h = 80 km).		
"	5	Ki	i(pP)	03 47 04.6
		Peru (h = 60 km).		
"	5	Um	iP	04 17 22.1
		Mexico (h = 110 km).		
"	5	Up	iP	06 51 09.8
				micr sec
			P Z'	0.1 0.7
		Ki	iP	06 50 57.6
		Sk	eP	06 51 22
		Ud	iP	06 51 25.6
		De	iP	06 51 30.7
		Sinkiang, China (h = N).		
"	5	Ud	iP	12 30 07.5
		Japan (h = 20 km).		
"	5	Up	iRg	12 33 59.2
		Ud	iRg	12 33 54.5
		South-central Sweden.		
		Near-surface event.		
"	5	Up	iSgl	13 21 59.5
			iRg	13 22 09.1
		Um	iSgl	13 22 33.4
		Gulf of Bothnia,		
		60.9°N, 20.6°E.		
		Origin time = 13 21 01.		
		(cont.)		

1975				
June	5	(cont.)		
		m = 3.9, M_L = 2.0 (Up,Um).		
		Explosion?		
		Solution from Helsinki		
		regional bulletin.		
"	5	Up	iP	13 40 49.3
		Ki	iP	13 40 25.6
		Ud	iP	13 40 56.7
			i	13 41 10.0
		Philippine Islands (h = N).		
"	5	Up	iSgl	14 33 12.3
			iRg	14 33 28.2
		Regional near-surface event.		
"	5	Ud	iP	15 01 39.9
"	5	Ud	iP	15 59 00.1
"	5	Ud	iP	18 40 53.1
"	5	Up	iP	19 36 28.8
		Ud	iP	19 36 45.3
		De	iP	19 36 42.4
		Afghanistan-USSR (h = 110 km).		
"	5	Up	iRg	20 42 06.0
		Ud	iRg	20 41 53.8
		South-central Sweden.		
		Near-surface event.		
"	5	Up	iSKS	20 53 30
		Ki	iSKS	20 53 38.4
		Um	iSKS	20 53 40
		Ud	iP	20 43 04.2
			iPP	20 47 12.0
		Peru-Bolivia (h = 180 km).		
"	5	Up	iP	21 50 38.6
			i	21 50 58.8
		Ki	iP	21 50 26.3
		Ud	iP	21 50 55.2
		De	iP	21 51 00.3
"	5	Up	iP	23 14 29.4 C
		Ki	iP	23 13 46.4
		Ud	iP	23 14 43.1
"	6	Ki	iP	00 03 06.9
		Sk	iP	00 02 52.8
		Um	iP	00 03 09.7
		Ud	iP	00 02 56.6
		De	iP	00 02 59.3
		Panama-Colombia (h = 15 km).		

Up = Uppsala, Si = Kiruna, Sk = Skalstugan, Um = Umeå, Ud = Uddeholm, De = Delaray

1975 June	6	Up	iPKPl		01 26 46.1	
			iSKPl		01 29 31.0	
			iPP		01 29 54.3	
					micr	sec
			PKPl	Z'	0.1	0.7
		Ki	i(PKP)		01 26 25.2	
			iPKP		01 26 40.9	C
			iSKPl		01 29 07.5	
					micr	sec
			PKP	Z'	0.1	0.6
			SKPl	Z'	0.3	1.4
		Sk	i(PKP)		01 26 40.4	
			iPKP		01 26 50.4	
			iSKPl		01 29 23.8	
		Um	i(PKP)		01 26 32.9	
			i(PKP)		01 26 40.5	
			iPKP		01 26 46.1	
			iSKPl		01 29 19.4	
		Ud	iPKPl		01 26 47.8	
			iSKPl		01 29 32.8	
			iSKKP		01 38 06.9	
		De	iPKPl		01 26 59.9	
			iSKPl		01 29 41.9	
		Fiji Islands (h = 660 km).				
"	6	Um	iPKP		05 37 37.4	
		New Ireland (h = 60 km).				
"	6	Up	i(PKP)		06 05 55.9	
		Ki	e(PKP)		06 05 41	
			iPKP		06 05 48.3	
		Um	iPKP		06 05 55.9	
		Ud	i(PKP)		06 06 01.0	
			iPKP		06 06 05.9	
		De	i(PKP)		06 06 02.0	
			iPKP		06 06 13.3	
		Fiji Islands (h = 410 km).				
"	6	Up	iP		10 58 34.0	
		Ki	iP		10 58 33.1	
		Sk	iP		10 58 55.3	
		Um	iP		10 58 27.9	
		Ud	iP		10 58 50.2	D
		De	iP		10 58 50.1	D
		Kashmir-Tibet (h = N).				
"	6	Up	iP		14 34 20.6	
		Sk	eP		14 34 08	
		Ud	iP		14 34 11.5	
		De	iP		14 34 12.5	
		Peru (h = 110 km).				
"	6	Up	iP		15 50 28.8	
		Ud	iP		15 50 35.6	

1975 June	6	Up	i(P)		16 01 28.8	
			iP		16 01 29.2	D
			i		16 01 43.2	
			iS		16 11 28	
					micr	sec
			P	Z'	0.2	0.8
			Mx	E	6.2	15
			Mx	N	4.2	14
			Mx	Z	13	15
		Ki	iP		16 01 03.1	D
					micr	sec
			P	Z'	0.4	1.4
			Mx	E	3.3	13
			Mx	N	3.0	15
			Mx	Z	3.8	15
		Sk	iP		16 01 30.8	D
		Um	iP		16 01 12.9	D
			iS		16 11 01	
		Ud	i(P)		16 01 37.8	
			iP		16 01 38.1	D
			i		16 01 52.0	
		De	iP		16 01 47.6	
		Ryukyu Islands (h = 15 km).				
		m = 6.2, M = 6.0 (Up,Ki).				
		The phase denoted as (P) is				
		a small-amplitude precursor.				
"	6	Ud	iP		17 45 56.1	
"	6	Up	iP		18 58 10.2	
		Sk	iP		18 58 52.5	
		Um	iP		18 58 47.2	
		Ud	iP		18 58 19.5	
		De	eP		18 57 47	
		Greece (h = 30 km).				
"	6	Um	iPKP		19 31 10.5	
		Santa Cruz Islands				
		(h = 35 km).				
"	6	Up	iP		20 12 55.4	
		Ki	iP		20 12 56.8	
		Ud	iP		20 13 12.0	
		De	eP		20 13 11	
		Sinkiang, China (h = 45 km).				
"	6	Um	iP		20 18 56.0	
"	6	Ki	iP		20 55 09.8	
		Ud	iP		20 55 18.5	
			il		20 55 25.3	
		De	il		20 55 22.6	
		Sunda Strait (h = N).				

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

1975 June	6	Up	iP		22 53 30.2
		Ud	eP		22 53 45
		Pakistan (h = N).			
"	7	De	eP		01 28 50
"	7	Up	iP		06 04 26.3
		Um	iP		06 04 35.9
		Ud	iP		06 04 42.2
		De	eP		06 04 28
"	7	Um	iP		08 40 18.7
"	7	Up	iP		08 58 02.6
			ipP		08 58 12.2
			iS		09 07 38
					micr sec
			P	Z'	0.2 1.0
			Mx	E	1.6 21
			Mx	N	2.0 22
			Mx	Z	4.0 21
		Ki	iP		08 57 24.1
			ipP		08 57 33.8
					micr sec
			P	Z'	0.2 1.1
			Mx	E	2.7 18
			Mx	N	2.6 18
			Mx	Z	3.0 19
		Sk	iP		08 57 36.8
			ipP		08 57 45.3
		Um	iP		08 57 45.6
			ipP		08 57 54.2
		Ud	iP		08 57 56.0
			ipP		08 58 04.4
		De	iP		08 58 14.0
			epP		08 58 24
		California.			
		h = 35 km (Up,Ki,Sk,Um,Ud,De).			
		m = 6.1, M = 5.6 (Up,Ki).			
"	7	Up	iSgl		09 25 57.8
		De	iPgl		09 23 40.0
			iSgl		09 24 11.2
		South Baltic Sea.			
"	7	Ud	iP		09 41 06.3
		Kurile Islands (h = 100 km).			
"	7	Up	iP		14 56 43.8
		Sk	iP		14 57 26.2
		Ud	iP		14 57 06.5
		De	iP		14 56 59.6
"	7	Up	iP		15 23 21.9 C
					micr sec
			P	Z'	0.1 0.9
		(cont.)			

1975 June	7	(cont.)			
		Ki	iP		15 22 30.3
		Sk	iP		15 23 06.6 C
		Um	iP		15 22 54.0
		Ud	iP		15 23 26.2 C
		De	iP		15 23 46.7 C
		Kamchatka (h = 45 km).			
"	7	Up	iP		16 03 26.7
		Um	iP		16 03 01.9
		Ud	iP		16 03 33.7
		Kurile Islands (h = N).			
"	7	Up	iP		16 55 20.5
		Um	iP		16 55 02.7
		Ud	iP		16 55 26.8
		Volcano Islands (h = N).			
"	7	Up	iP		17 34 04.9
		Ki	iP		17 35 11.7
		Sk	iP		17 34 44.1
		Ud	iP		17 34 13.3
		De	iP		17 33 40.9
		Crete (h = 80 km).			
"	7	Ud	iP		17 38 14.2
"	7	Up	iP		17 42 06.7
		Ki	iP		17 43 13.8
		Sk	iP		17 42 46.2
		Um	iP		17 42 38.5
		Ud	iP		17 42 14.6
		De	iP		17 41 42.5
		Crete (h = 70 km).			
"	7	De	i(Pgl)		19 36 20.4
			iSgl		19 37 04.3
"	7	Ud	iP		21 59 10.3
		Kurile Islands (h = 55 km).			
"	8	Up	iP		02 35 27.2
		Ud	eP		02 35 39
"	8	Up	iP		03 33 52.7 C
			iPn		03 35 00.0
			iPP		03 35 11.3
					micr sec
			P	Z'	0.2 0.9
		Ki	iP		03 33 37.4 C
			iPn		03 34 37.3
					micr sec
			P	Z'	0.4 0.5
		Sk	iP		03 34 08.5 C
			iPP		03 35 29.0
		Um	iP		03 33 37.7 C
		(cont.)			

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

1975
June 8 (cont.)

Um	iPn	03 34 38.7	
	iPP	03 34 52.5	
Ud	iP	03 34 09.0	C
	iPn	03 35 21.8	
	iPP	03 35 33.6	
De	iP	03 34 16.2	C
	iPn	03 35 31.3	
	iPP	03 35 43.7	

Eastern Kazakh SSR.
m = 6.3 (Up,Ki).
Underground explosion.

" 8 Up i(P) 12 11 39.1

" 8

Up	iPKPl	16 56 11.5
Ud	iPKPl	16 56 13.2
De	iPKPl	16 56 23.8

Tonga-Kermadec Islands
(h = 540 km).

" 8

Up	iP	17 27 53.4
	i	17 28 08.8
Ki	eP	17 29 02
Sk	eP	17 28 32
Um	iP	17 28 26.3
Ud	iP	17 28 00.1
	ipP	17 28 11.7
De	iP	17 27 26.8

Crete.
h = 60 km (Ud).

" 8 Ud iP 18 02 28.2
Aegean Sea (h = N).
About 10 sec early compared
with the NEIS solution.

" 8 Ud iP 18 45 10.5

" 8 De iP 18 45 24.1
Republic of South Africa
(h = N).

" 8

Um	iP	19 41 59.6
De	iP	19 42 27.4

" 8

Up	iP	23 30 13.3
	i	23 30 15.3
	ipP	23 30 22.8
Ud	iP	23 30 00.6
	ipP	23 30 09.5

North Atlantic Ocean.
h = 45 km (Up,Ud).

" 9 Up iP 00 11 00.0
(cont.)

1975
June 9 (cont.)

Ki	iP	00 11 09.3
Sk	iP	00 10 48.4
Ud	iP	00 10 50.0
De	iP	00 10 47.1

Windward Islands (h = 120 km).

" 9

Up	iP	01 51 27.4
Ud	iP	01 51 37.9

" 9

Ki	iP	03 24 24.7
Um	iP	03 24 29.9
Ud	iP	03 24 47.7

Molucca Passage (h = N).

" 9

Up	iP	03 27 10.2
Ud	iP	03 27 23.1

" 9

Um	iPKPl	03 37 26.2
Ud	iPKPl	03 37 38.5

" 9

Up	iP	04 05 00.6
	i	04 05 11.3
Ki	iP	04 04 08.8
Um	iP	04 04 33.6
	i	04 04 42.9
Ud	i	04 05 11.6
De	iP	04 05 25.2

Kamchatka (h = N).

" 9 Ud iPKP 08 05 17.7
Solomon Islands (h = 90 km).

" 9

			micr	sec
Ki	iP		11 30 03.1	
	i		11 30 07.0	
	P	Z'	0.1	1.0
Um	iP		11 30 06.1	
De	iP		11 30 30.6	

Celebes (h = 280 km).

" 9

Up	iP	15 04 47.2
Um	i(pP)	15 04 32.6
Ud	iP	15 04 52.8
De	iP	15 05 10.7

Kurile Islands (h = N).

" 9

			micr	sec
Up	iP		18 44 12.3	
	i		18 44 13.3	
	i		18 44 25.7	
	iPP		18 45 40.7	
	P	Z'	0.1	1.0
	Mx	E	1.0	14
	Mx	N	1.4	10
	Mx	Z	1.1	9

(cont.)

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

1975
June 9 (cont.)

Ki	iP		18 44 20.4		
			micr	sec	
	Mx	N	2.5	10	
Sk	iP		18 44 39.0		
	iPP		18 46 16.8		
Um	iP		18 44 09.4		
	i		18 44 10.7		
Ud	iP		18 44 29.2		
	i		18 44 30.7		
De	iP		18 44 26.2		
	i		18 44 28.0		

Afghanistan-USSR (h = 20 km).
Double P, in average 1.4 sec apart.

" 9

Up	iSgl		20 00 20.3		
Ud	iPgl		19 58 49.9		
	iSgl		19 59 35.6		
De	iPn		19 58 38.5		
	iPgl		19 58 46.0		
	iSgl		19 59 28.2		

Coast of south Norway, 58.3°N, 8.5°E.
Origin time = 19 57 49.
m = 4.2, M_L = 2.6 (Ud,De).
Checked with Kongsberg reading.

" 9

Ud	iP		20 26 39.4		

Sinkiang, China (h = 70 km).

" 9

Up	iP		22 09 19.4		
Ki	iP		22 09 28.7		
Sk	iP		22 09 45.0		
Um	iP		22 09 18.2		
Ud	iP		22 09 36.1		

Hindu Kush (h = 200 km).

" 9

Up	iPKPl		22 43 16.3		
Ud	iPKPl		22 43 18.5		
De	iPKPl		22 43 29.1		

" 10

Up	iP		03 42 50.1		
	i		03 43 02.5		
			micr	sec	
	Mx	E	1.2	20	
	Mx	N	2.7	25	
Ki	iP		03 42 26.6		
	ipP		03 42 31.3		
			micr	sec	
	Mx	N	1.8	18	
Sk	iP		03 42 53.1		
Um	iP		03 42 34.9		
	i		03 42 46.7		

(cont.)

1975
June 10 (cont.)

Ud	iP		03 42 59.5		
	ipP		03 43 04.5		
	i		03 43 12.1		
De	iP		03 43 08.7		
	i		03 43 21.7		

Formosa.
h = 20 km (Ki,Ud).
Double P, in average 12.5 sec apart.

" 10

Up	iP		03 54 04.6		

Formosa (h = 45 km).

" 10

Up	iP		06 11 39.8		
			micr	sec	
	P	Z'	0.2	1.5	
Ki	iP		06 12 10.3		D
			micr	sec	
	P	Z'	0.1	1.2	
Sk	iP		06 11 28.4		
Um	iP		06 11 59.2		D
De	iP		06 11 18.5		D

Azores Islands (h = N).
m = 5.6 (Up,Ki).

" 10

Up	iP		07 35 25.4		
Ki	iP		07 35 54.6		
Um	iP		07 35 44.2		
Ud	iP		07 35 09.6		

Azores Islands (h = N).

" 10

Ud	i(P)		08 34 45.4		

" 10

Ki	eP		08 48 59		
Ud	iP		08 48 07.0		
De	iP		08 47 37.4		
	i		08 47 42.1		

Turkey (h = 60 km).

" 10

Ki	eP		08 59 37		
Sk	i		08 59 02.4		
Um	iP		08 59 26.6		
Ud	iP		08 58 55.5		

Azores Islands (h = N).

" 10

Up	i(PKP)		09 18 24.1		
	iPKP		09 18 28.1		
	i		09 18 36.5		
Ki	i(PKP)		09 18 15.5		
	iPKP		09 18 20.0		
			micr	sec	
	PKP	Z'	0.1	0.9	
Sk	i(PKP)		09 18 23.5		
	iPKP		09 18 30.1		
	iSKPl		09 21 06.9		

(cont.)

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

1975
June 10 (cont.)

	Um	i(PKP)		09 18 16.8	
		iPKP		09 18 26.7	
		iSKP1		09 21 01.6	
	Ud	i(PKP)		09 18 25.2	
		iPKP		09 18 30.3	
		i		09 18 38.2	
	De	iPKP1		09 18 35.3	
		iSKP1		09 21 25.6	

Fiji Islands (h = 580 km).

" 10	Up	e(P)		09 35 36	
				micr	sec
		(P)	Z'	0.1	1.0
" 10	Up	iP		09 52 55.5	
		i		09 53 01.6	
	Ki	iP		09 52 59.5	C
	Sk	iP		09 53 17.8	
	Ud	iP		09 53 11.8	C
	De	iP		09 53 09.9	

Kashmir-Tibet (h = 30 km).

" 10	Up	iPKP2		10 31 34.4	
		ipPKP2		10 31 49.2	
				micr	sec
		pPKP2	Z'	0.1	0.7
	Ki	iPKP		10 30 56.7	
		iPKP1		10 31 01.1	
		ipPKP1		10 31 15.8	
				micr	sec
		PKP1	Z'	0.1	0.9
	Sk	iPKP		10 31 04.9	
		iPKP1		10 31 13.4	
	Um	iPKP		10 31 01.5	
		iPKP1		10 31 08.3	
		iPKP2		10 31 16.4	
		ipPKP1		10 31 23.6	
	Ud	iPKP		10 31 07.8	
		ipPKP		10 31 23.8	
		iPKP2		10 31 38.8	
		ipPKP2		10 31 54.7	
	De	iPKP		10 31 11.7	
		ipPKP2		10 32 05.9	

North Island, New Zealand.
h = 50 km (Up,Ki,Um,Ud).

" 10	Up	iP		12 00 16.5	C
		i		12 00 37.1	
		i		12 00 55.1	
				micr	sec
		P	Z'	0.1	0.8
	Ki	iP		12 00 05.9	
	Sk	iP		12 00 30.5	
		i		12 00 42.6	

(cont.)

1975
June 10 (cont.)

	Um	iP		12 00 06.6	
		i		12 00 18.1	
	Ud	iP		12 00 30.0	
		i		12 00 50.2	
	De	iP		12 00 33.0	
		i		12 00 44.8	

India-China (h = 25 km).

" 10	Ki	iP		13 13 59.5	
	Um	i		13 14 13.0	

Celebes (h = 190 km).

" 10	Up	iP1		13 58 23.1	
		ipP1		13 58 29.8	
		iP2		13 58 35.6	
		ipP2		13 58 41.9	
		iP3		13 58 53.4	
		ipP3		13 59 00.6	
		iS		14 07 39	
				micr	sec
		P1	Z'	0.2	1.5
		pP2	Z'	1.4	0.6
		P3	Z'	1.3	1.3
		pP3	Z'	2.4	1.7
		Mx	E	42	15
		Mx	N	106	20
		Mx	Z	131	18
	Ki	iP1		13 57 38.8	
		ipP1		13 57 45.0	
		iP2		13 57 51.2	
		ipP2		13 57 57.6	
		ipP3		13 58 15.2	
		iS		14 06 21	
				micr	sec
		P1	Z'	0.4	1.5
		P2	Z'	0.6	1.6
		pP2	Z'	0.8	1.5
		pP3	Z'	2.2	2.1
		Mx	E	87	17
		Mx	N	103	16
		Mx	Z	145	17
	Sk	iP1		13 58 14.2	
		iP2		13 58 25.7	
		ipP2		13 58 31.8	
		iP3		13 58 43.5	
	Um	iP1		13 57 59.1	
		iP2		13 58 11.3	
		ipP2		13 58 17.1	
		iP3		13 58 28.2	
		iS		14 06 56	
	Ud	iP1		13 58 29.8	
		ipP1		13 58 35.8	
		iP2		13 58 42.3	
		iP3		13 58 59.7	

(cont.)

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

1975
June 10 (cont.)

De	iP1		13 58 48.1	
	iP2		13 58 59.4	
	iP3		13 59 18.9	

Kurile Islands.
h = 25 km (Up,Ki,Sk,Um,Ud).
m = 7.0, M = 7.2 (Up,Ki).
Multiple event with successively increasing amplitudes. In average, P3-P1 = 30 sec, P2-P1 = 12 sec.

" 10 Up	iP		14 06 21.0	
	ipP		14 06 32.9	
Ki	iP		14 05 35.9	
Ud	iP		14 06 27.3	
	ipP		14 06 38.8	

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

" 10 Up	iP		14 22 24.2	C
	ipP		14 22 34.4	
			micr sec	
	P	Z'	0.2 1.1	
	pP	Z'	0.3 1.3	
Ki	iP		14 21 39.3	
	ipP		14 21 49.4	
			micr sec	
	P	Z'	0.1 1.1	
	pP	Z'	0.1 1.2	
	Mx	E	41 17	
	Mx	N	66 16	
	Mx	Z	31 15	
Sk	iP		14 22 13.8	
	ipP		14 22 24.5	
Um	iP		14 21 59.5	
	ipP		14 22 10.3	
Ud	iP		14 22 30.3	C
	ipP		14 22 40.9	
De	eP		14 22 47.7	
	ipP		14 22 58.5	

Kurile Islands.
h = 40 km (Up,Ki,Sk,Um,Ud,De).
m = 6.0 (Up,Ki).

" 10 Ud	iP		14 25 24.4	
" 10 Up	iP		14 29 41.6	
	ipP		14 29 51.8	
			micr sec	
	P	Z'	0.2 0.9	
Ki	iP		14 28 56.6	
	ipP		14 29 06.7	

(cont.)

1975
June 10 (cont.)

Ki			micr sec	
	P	Z'	0.2 1.0	
	pP	Z'	0.2 1.0	
Sk	iP		14 29 31.3	
	ipP		14 29 41.6	
Um	iP		14 29 16.5	
	ipP		14 29 26.2	
Ud	iP		14 29 48.1	
	ipP		14 29 58.4	
De	iP		14 30 04.6	
	ipP		14 30 14.3	

Kurile Islands-Japan.
h = 40 km (Up,Ki,Sk,Um,Ud,De).
m = 6.2 (Up,Ki).

" 10 Up	iP		14 32 00.1	
Ki	iP		14 32 40.4	
" 10 Up	iP		14 40 25.7	
	ipP		14 40 37.0	
			micr sec	
	pP	Z'	0.2 1.6	
Ki	iP		14 39 41.4	
Sk	eP		14 40 16	
Um	iP		14 40 01.7	
	ipP		14 40 11.6	
Ud	iP		14 40 32.1	

Kurile Islands.
h = 40 km (Up,Um).

" 10 Up	iP2		14 48 54.4	D
	ipP2		14 49 06.2	
			micr sec	
	P2	Z'	0.5 1.0	
	Mx	E	12 16	
	Mx	N	12 15	
Ki	iP2		14 48 09.2	D
	ipP2		14 48 20.2	
			micr sec	
	P2	Z'	0.5 1.3	
	Mx	E	16 15	
	Mx	N	16 16	
	Mx	Z	16 15	
Sk	iP2		14 48 44.7	D
	ipP2		14 48 56.4	
Um	iP1		14 48 28.9	C
	iP2		14 48 30.1	D
	ipP2		14 48 40.7	
Ud	iP1		14 48 59.8	C
	iP2		14 49 01.0	D
	ipP2		14 49 12.4	
De	iP2		14 49 18.4	D
	ipP2		14 49 30.0	

(cont.)

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

1975
June 10 (cont.)
Kurile Islands.
h = 45 km (Up,Ki,Sk,Um,Ud,De).
m = 6.5, M = 6.4 (Up,Ki).
The phase P1 denotes a small amplitude precursor with opposite phase compared with the main onset P2.

" 10	Up	iP		14 49 32.3	D
				micr	sec
		P	Z'	0.2	0.8
	Ki	iP		14 48 47.1	
				micr	sec
		P	Z'	0.3	1.0
	Sk	iP		14 49 23.5	D
	Um	iP		14 49 08.0	
	Ud	iP		14 49 38.9	D
	De	iP		14 49 57.3	D

Kurile Islands.
m = 6.3 (Up,Ki).
Origin time = 14 38 28.

" 10	Up	iP		14 51 43.8	
				micr	sec
		P	Z'	0.1	1.1
	Ki	iP		14 50 58.5	
				micr	sec
		P	Z'	0.1	1.1
	Sk	iP		14 51 32.9	
	Ud	iP		14 51 49.6	C

Kurile Islands.
m = 5.8 (Up,Ki).
Origin time = 14 40 39.

" 10	Up	iP		14 52 35.0	
	Um	iP		14 52 09.6	
	Ud	iP		14 52 40.4	

Kurile Islands.
Origin time = 14 41 29.

" 10	Up	iP		14 53 06.7	
	Ud	iP		14 53 12.5	

Kurile Islands.
Origin time = 14 42 01.

" 10	Up	iP		15 00 23.7	
				micr	sec
		P	Z'	0.1	0.9
	Ki	iP		14 59 38.8	
	Sk	iP		15 00 14.2	
	Um	iP		14 59 59.1	
	Ud	iP		15 00 29.9	C
	De	iP		15 00 47.7	

Kurile Islands (h = 20 km).

1975
June 10

Up	iP		15 10 02.0	C
	i		15 10 04.2	C
			micr	sec
	P	Z'	0.2	1.0
	i	Z'	0.4	0.9
	Mx	E	13	17
	Mx	N	12	15
	Mx	Z	18	16
Ki	iP		15 09 16.9	C
	i		15 09 18.9	C
			micr	sec
	P	Z'	0.1	0.9
	i	Z'	0.3	1.0
	Mx	E	18	14
	Mx	N	25	15
	Mx	Z	32	15
Sk	iP		15 09 51.5	C
	i		15 09 53.7	C
Um	iP		15 09 37.1	C
	i		15 09 39.2	C
Ud	iP		15 10 08.0	C
	i		15 10 10.1	C
De	iP		15 10 25.5	C
	i		15 10 27.6	

Kurile Islands (h = 20 km).
m = 6.4, M = 6.5 (Up,Ki).
Double event, in average 2.0 sec apart.

" 10	Up	iP1		15 12 19.9	C
		iP2		15 12 21.0	D
				micr	sec
		P2	Z'	0.7	1.6
	Ki	iP2		15 11 35.8	D
				micr	sec
		P2	Z'	0.1	1.3
	Sk	iP2		15 12 10.8	D
	Um	iP2		15 11 56.2	D
	Ud	iP1		15 12 26.2	C
		iP2		15 12 27.2	D
	De	iP2		15 12 44.3	D

Kurile Islands (h = 20 km).
m = 6.1 (Up,Ki).
Origin time = 15 01 14.
Double event with opposite phases, in average 1.0 sec apart.

" 10	Up	iP		15 32 22.4	C
		ipP		15 32 31.7	
		i		15 32 35.4	
				micr	sec
		P	Z'	1.2	1.5
		Mx	E	2.8	15
		Mx	N	5.4	17
		Mx	Z	6.0	16

(cont.)

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

1975
June 10 (cont.)

Ki	iP		15 31 36.9		
			micr	sec	
	P	Z'	0.4	1.4	
	Mx	E	7.1	15	
	Mx	N	8.7	15	
	Mx	Z	9.3	15	
Sk	iP		15 32 12.2		C
Um	iP		15 31 56.8		C
	i		15 31 58.1		D
	ipP		15 32 06.1		
Ud	iP		15 32 28.8		C
	ipP		15 32 38.5		
	i		15 32 41.5		
De	iP		15 32 45.5		C
	ipP		15 32 55.8		

Kurile Islands.
h = 35 km (Up,Um,Ud,De).
m = 6.6, M = 6.0 (Up,Ki).

" 10	Up	iP	15 36 26.2		
	Ud	iP	15 36 31.8		
		i	15 36 43.0		

Kurile Islands.
Origin time = 15 25 20.

" 10	Ud	iP	15 37 43.2		
" 10	Up	iP	15 41 15.8		
	Ud	iP	15 41 21.7		
		i	15 41 32.8		

Kurile Islands.
Origin time = 15 30 10.

" 10	Up	iP	15 46 50.3		
	Ki	iP	15 46 04.4		
	Ud	iP	15 46 56.1		

Kurile Islands (h = N).

" 10	Ud	iP	15 49 47.0		
" 10	Ud	iP	15 52 48.4		
" 10	Up	iP	15 57 21.0		
	Ud	iP	15 57 24.1		

Kurile Islands.
Origin time = 15 46 12.

" 10	Up	iP	16 02 13.5		
			micr	sec	
	P	Z'	0.4	1.3	
	Mx	E	3.1	15	
	Mx	N	2.2	14	
	Mx	Z	6.6	16	
	Ki	iP	16 01 28.1		

(cont.)

1975
June 10 (cont.)

Ki				micr	sec
	P	Z'		0.2	1.5
	Mx	E		5.0	19
	Mx	N		2.8	14
	Mx	Z		4.0	16
Sk	iP			16 02 04.4	
Um	iP			16 01 48.8	
Ud	iP			16 02 19.3	
De	iP			16 02 37.6	

Kurile Islands (h = 30 km).
m = 6.2, M = 5.8 (Up,Ki).

" 10	Ud	iP		16 06 44.5	
" 10	Ud	iP		16 12 35.2	
		i		16 12 46.2	
" 10	Up	iP		16 13 31.5	
	Ki	iP		16 13 09.3	
	Ud	iP		16 13 41.4	

Philippine Islands
(h = 30 km).

" 10	Ud	eP		16 25 14	
" 10	Up	iP		16 25 49.4	
				micr	sec
	P	Z'		0.2	1.5
	Ki	iP		16 25 04.4	
				micr	sec
	P	Z'		0.1	1.2
	Sk	iP		16 25 40.7	
	Um	iP		16 25 24.8	
	Ud	iP		16 25 55.4	
	De	iP		16 26 14.4	

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

" 10	Ud	iP		16 30 44.5	
" 10	Up	iP		16 31 39.7	
		ipP		16 31 50.5	
				micr	sec
	P	Z'		0.1	1.1
	Ki	iP		16 30 54.3	C
		ipP		16 31 05.2	
	Sk	iP		16 31 28.8	
	Um	iP		16 31 14.7	
		ipP		16 31 26.0	
	Ud	iP		16 31 45.5	
		ipP		16 31 56.4	
	De	eP		16 32 02	

Kurile Islands.
h = 40 km (Up,Ki,Um,Ud).

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

1975 June	10	Up	iP		16 32 52.6	C
			ipP		16 33 03.6	
					micr sec	
			pP	Z'	0.1 1.0	
		Ki	iP		16 32 07.7	C
			ipP		16 32 19.0	
					micr sec	
			P	Z'	0.1 1.0	
		Um	iP		16 32 28.0	C
			ipP		16 32 39.3	
		Ud	iP		16 32 58.9	C
			ipP		16 33 10.1	
		Kurile Islands.				
		h = 40 km (Up,Ki,Um,Ud).				
		m = 5.9 (Up,Ki).				
"	10	Up	iP		16 34 59.9	C
			ipP		16 35 11.4	
					micr sec	
			P	Z'	0.1 1.0	
		Ki	iP		16 34 14.4	
			ipP		16 34 25.6	
					micr sec	
			P	Z'	0.1 1.0	
		Sk	iP		16 34 49.5	
		Um	iP		16 34 35.1	C
			ipP		16 34 46.8	
		Ud	iP		16 35 06.0	C
			ipP		16 35 17.1	
		De	i		16 35 28.2	
		Kurile Islands.				
		h = 45 km (Up,Ki,Um,Ud).				
		m = 5.9 (Up,Ki).				
"	10	Ki	eP		16 38 28	
		Um	iP		16 38 49.7	
		Ud	iP		16 39 20.2	
		Kurile Islands.				
		Origin time = 16 28 08.				
"	10	Ud	iP		16 41 19.6	
			i		16 41 30.2	
"	10	Ud	iP		17 01 02.3	
"	10	Ud	eP		17 01 30	
"	10	Ud	eP		17 11 36	
"	10	Ud	eP		17 22 15	
			i		17 22 25.3	
"	10	Ud	iP		17 34 00.4	
"	10	Ki	iP		17 35 24.1	
		Um	iP		17 35 43.8	
		(cont.)				

1975 June	10	(cont.)				
		Ud	iP		17 36 14.6	
			i		17 36 24.7	
		Kurile Islands.				
		Origin time = 17 25 02.				
"	10	Ud	iP		17 48 01.6	
"	10	Ud	iP		17 49 37.7	
"	10	Ud	iP		17 54 25.8	
		Kurile Islands (h = N).				
"	10	Up	ipP		18 37 44.6	
		Um	iP		18 37 07.1	
		Ud	iP		18 37 38.3	
			ipP		18 37 50.1	
		Kurile Islands.				
		h = 45 km (Ud).				
"	10	Ud	iP		18 43 22.7	
"	10	Ud	iP		18 51 23.5	
"	10	Ud	iP		18 59 00.9	
"	10	Up	iP		19 08 43.6	C
		Ki	iP		19 07 59.0	
		Sk	iP		19 08 33.8	
		Um	iP		19 08 19.1	
			ipP		19 08 29.5	
		Ud	iP		19 08 49.9	C
			ipP		19 09 00.5	
		Kurile Islands.				
		h = 40 km (Um,Ud).				
"	10	Up	iP		19 17 24.2	C
			i		19 17 31.3	
			ipP		19 17 35.4	
					micr sec	
			P	Z'	0.1 0.9	
		Ki	iP		19 16 39.0	C
					micr sec	
			P	Z'	0.1 1.1	
		Sk	iP		19 17 14.8	C
		Um	iP		19 16 59.6	C
		Ud	iP		19 17 30.4	C
			i		19 17 41.9	
		De	iP		19 17 48.2	
		Kurile Islands.				
		h = 40 km (Up,Ud).				
		m = 5.8 (Up,Ki).				
"	10	Ud	iP		19 19 11.4	
"	10	Um	iP		19 31 46.4	
		(cont.)				

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

1975
June 10 (cont.)
Ud iP 19 32 16.4
Kurile Islands.
Origin time = 19 21 06.

" 10 Up e(P) 19 40 02
i 19 40 10.2

" 10 Ud iP 19 41 36.4

" 10 Um iPKP 19 52 08.6
Santa Cruz Islands
(h = 160 km).

" 10 Ud iP 20 27 00.8
Kurile Islands (h = N).

" 10 Up iP 20 43 38.1
Um iP 20 43 13.2
Ud iP 20 43 44.0
Kurile Islands (h = N).

" 10 Ud iP 20 52 32.5
Kurile Islands (h = N).

" 10 Up iP 20 56 14.4
i 20 56 20.0
Ki iP 20 55 28.7
i 20 55 34.5
Sk eP 20 56 04
Um iP 20 55 49.2
i 20 55 55.1
Ud iP 20 56 20.2
i 20 56 26.3
De eP 20 56 38
Kurile Islands (h = N).
Double P, in average 5.9
sec apart.

" 10 Ud iP 22 23 11.1

" 10 Up iP 22 25 22.2 C
micr sec
P Z' 0.2 1.5
Mx E 1.1 19
Mx N 1.0 18
Mx Z 1.1 17
Ki iP 22 24 37.1
micr sec
Mx E 1.1 15
Mx N 1.1 17
Mx Z 1.5 16
Sk iP 22 25 12.0
Um iP 22 24 57.5 C
i 22 25 10.4
(cont.)

1975
June 10 (cont.)
Ud iP 22 25 28.2 C
ipP 22 25 33.9
i 22 25 40.3
Kurile Islands.
h = 20 km (Ud).
M = 5.3 (Up,Ki).

" 10 Ud iP 22 28 37.0
Afghanistan-USSR (h = N).

" 10 Up iP 23 14 10.5
Um eP 22 13 46
Ud iP 23 14 16.6
Kurile Islands (h = 15 km).

" 10 Up iP 23 21 17.4
Ud iP 23 21 23.8
Kurile Islands.
Origin time = 23 10 13.

" 10 Up iP 23 48 46.8 C
micr sec
P Z' 0.1 0.9
Ki iP 23 48 01.6
Sk iP 23 48 36.5
Um iP 23 48 21.4
Ud iP 23 48 52.8 C
Kurile Islands (h = N).

" 11 Ud iP 00 16 49.4

" 11 Um iP 00 28 22.1
Ud iP 00 28 53.3
i 00 29 05.0
Kurile Islands (h = 35 km).

" 11 Um iP 01 00 57.6
Ud iP 01 01 28.7
Kurile Islands-Japan
(h = 30 km).

" 11 Ud iP 01 23 35.3

" 11 Up iP 01 37 19.9
Ki eP 01 36 33
Um iP 01 36 52.2
Ud iP 01 37 23.6
Kurile Islands-Japan
(h = 15 km).

" 11 Up iP 02 09 20.1
Um iP 02 08 53.9
Ud iP 02 09 25.6

" 11 Ud iP 02 24 32.0

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

1975
June 11 Up iP 02 52 15.9
Ud iP 02 52 22.7 C
i 02 52 37.0
Kurile Islands.
Origin time = 02 41 12.

" 11 Ud iP 03 16 13.1
ipP 03 16 26.8
Kurile Islands-Japan.
h = 50 km (Ud).

" 11 Ud iP 03 57 24.4

" 11 Ud iP 04 04 24.9

" 11 Ud eP 04 23 19

" 11 Ud iP 04 34 20.8

" 11 Ud eP 04 44 19

" 11 Ud iP 05 27 13.1

" 11 Up iP 05 32 21.3 C
micr sec
P Z' 0.1 0.9
Ki iP 05 31 35.9
Sk eP 05 32 12
Um iP 05 31 55.9
Ud iP 05 32 27.6 C
De iP 05 32 45.2
Kurile Islands (h = N).

" 11 Up iP 05 40 15.3
Um iP 05 39 50.6
Ud iP 05 40 21.0
Kurile Islands-Japan
(h = N).

" 11 Ud eP 06 16 36

" 11 Up iP 06 43 02.6
ipP 06 43 12.8
Ki iP 06 42 18.0
Um iP 06 42 38.4
ipP 06 42 48.0
Ud iP 06 43 08.8
ipP 06 43 18.6
De eP 06 43 26
Kurile Islands.
h = 35 km (Up,Um,Ud).

" 11 Up i 06 58 44.1
Ud iP 06 58 40.9

" 11 Up iP 07 31 03.6
(cont.)

1975
June 11 (cont.)
Um iP 07 30 37.0
Ud iP 07 31 09.3
ipP 07 31 19.0
Kurile Islands.
h = 35 km (Ud).

" 11 Up iP 10 16 57.3
Ki iP 10 16 10.9
Um iP 10 16 31.5
Ud iP 10 17 00.1
i 10 17 18.2
Kurile Islands-Japan
(h = N).

" 11 Up iP 10 56 12.3
Ki iP 10 57 11.2
Ud iP 10 55 59.9
i 10 56 10.1
North Atlantic Ocean
(h = N).

" 11 Ud iP 12 16 17.2
ipP 12 16 26.8
Kurile Islands.
h = 35 km (Ud).

" 11 Ud iP 13 10 04.9

" 11 Up iSgl 13 25 49.4
Sk iSgl 13 25 48.0
Um iSgl 13 27 13.6
Ud iPgl 13 23 54.9
i(S*) 13 24 43.6
iSgl 13 24 48.7
Southwest Norway,
58.4°N, 6.3°E.
Origin time = 13 22 42.
m = 4.3, M_L = 2.8 (Up,Sk,Um,Ud).
By combination with Bergen
and Kongsberg readings.

" 11 Ud iSgl 14 24 14.7
Probably west coast of
Norway.
By combination with Bergen
and Kongsberg readings.

" 11 Up iP 14 31 17.5 C
Ki iP 14 30 31.8 C
Sk e 14 31 25
Um iP 14 30 51.7
Ud iP 14 31 23.5 C
De iP 14 31 40.6
Kurile Islands (h = 15 km).

" 11 Ud iP 15 03 12.8
Kurile Islands (h = N).

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

1975 June	11	Ud	iPKPl	15 10 39.4
		De	iPKPl	15 10 50.2
"	11	Up	iP	15 43 41.7
		Ki	iP	15 42 55.1
		Um	iP	15 43 16.7
		Ud	iP	15 43 47.0
			i	15 44 00.9
		De	iP	15 44 05.0
		Kurile Islands (h = 30 km).		
"	11	Ud	iP	16 52 52.1
"	11	Up	iP	16 53 56.5
		Ud	iP	16 54 05.9
		De	i	16 54 05.2
"	11	Ud	iP	16 56 47.9
"	11	Up	iP	17 04 00.3
				micr sec
			P Z'	0.1 0.9
		Ki	iP	17 03 15.1
				micr sec
			P Z'	0.1 1.2
		Sk	iP	17 03 50.0
		Um	iP	17 03 35.6
		Ud	iP	17 04 06.2 C
		De	iP	17 04 24.2
		Kurile Islands (h = 25 km).		
		m = 5.8 (Up,Ki).		
"	11	Up	iP	17 08 35.4
		Ki	iP	17 07 50.6
		Sk	eP	17 08 26
		Um	iP	17 08 10.8
		Ud	iP	17 08 41.9
			i	17 08 52.3
		De	eP	17 08 59
		Kurile Islands (h = 25 km).		
"	11	Up	iP	17 17 04.9
		Um	iP	17 16 41.7
		Ud	iP	17 17 12.1
			i	17 17 26.3
		Kurile Islands (h = 25 km).		
"	11	Ud	iP	17 36 39.3
"	11	Up	iP	17 54 47.1
		Ki	iP	17 54 01.8
		Sk	iP	17 54 38.1
		Um	iP	17 54 17.6 C
		Ud	iP	17 54 53.4 C
		De	iP	17 55 10.9
		Kurile Islands (h = 30 km).		

1975 June	11	Up	iP	18 13 26.1
		Ki	iP	18 12 40.7
		Ud	iP	18 13 32.0
		Kurile Islands (h = N).		
"	11	Ud	iP	18 29 30.3
		Kurile Islands (h = N).		
"	11	Up	iP	18 42 34.6
		Ki	iP	18 41 49.1
		Ud	iP	18 42 40.9
		Kurile Islands (h = N).		
"	11	Up	iP	18 43 57.4
			ipP	18 44 02.4
			iS	18 53 58
		Ki	iP	18 43 22.9
				micr sec
			P Z'	0.5 2.4
		Sk	iP	18 43 52.5
		Um	iP	18 43 37.5 C
			iS	18 53 22
		Ud	iP	18 44 03.5 C
			i	18 44 27.2
		De	eP	18 44 19
		Japan.		
		h = 20 km (Up).		
"	11	Up	iP	18 51 36.5
		Ud	iP	18 51 42.9
		Kurile Islands (h = N).		
"	11	Up	iP	19 18 43.8
			ipP	19 18 55.4
		Ki	eP	19 18 27
			ipP	19 18 39.0
		Ud	ipP	19 19 04.5
		Luzon.		
		h = 40 km (Up,Ki).		
"	11	Ud	iP	19 22 44.0
"	11	Um	iP	20 41 07.3
		Ud	iP	20 41 38.2
		Kurile Islands (h = N).		
"	11	Up	iP	21 09 51.8
		Ud	iP	21 09 57.4
		Kurile Islands (h = N).		
"	11	Ud	iP	21 16 29.2
		Greece (h = 20 km).		
"	11	Ud	iP	21 47 56.5
"	11	Up	iP	23 11 04.5
		(cont.)		

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

1975
June 11 (cont.)

Ki	eP		23 10 20
Um	iP		23 10 39.6
Ud	iP		23 11 10.6
	ipP		23 11 22.1

Kurile Islands.
h = 45 km (Ud).

" 11	Ud	iP		23 47 05.0	
" 12	Up	iP		00 25 21.2	C
		iPcP		00 25 47.7	
				micr	sec
		P	Z'	0.1	0.8
	Ki	iP		00 24 33.1	C
				micr	sec
		P	Z'	0.1	0.6
	Sk	iP		00 25 08.8	
	Um	iP		00 24 55.3	C
		iPcP		00 25 31.5	
	Ud	iP		00 25 26.3	C
		iPcP		00 25 51.2	
	De	iP		00 25 44.8	C
		iPcP		00 25 58.8	

Kurile Islands (h = 60 km).
m = 6.0 (Up,Ki).

" 12	Ud	iP		00 53 08.0	
" 12	Up	iP		01 18 56.5	C
				micr	sec
		Mx	E	0.8	15
		Mx	N	0.8	15
		Mx	Z	0.8	15
	Ki	iP		01 18 10.9	
				micr	sec
		Mx	E	0.9	15
		Mx	N	0.9	15
		Mx	Z	1.1	15
	Sk	iP		01 18 46.4	
	Um	iP		01 18 31.5	
	Ud	iP		01 19 02.9	C
	De	eP		01 19 20	

Kurile Islands (h = 25 km).
M = 5.2 (Up,Ki).

" 12	Ud	iP		01 58 03.0	
" 12	Up	iP		02 00 20.0	
		ipP		02 00 29.7	
	Ki	iP		01 59 35.1	
		ipP		01 59 45.2	
	Sk	eP		02 00 10	
	Um	iP		01 59 54.6	
		ipP		02 00 03.6	
	Ud	iP		02 00 25.7	C

(cont.)

1975
June 12 (cont.)

Ud	ipP		02 00 35.7
De	ipP		02 00 53.1

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

" 12	Um	iP		02 01 14.2	
		i		02 01 25.5	
	Ud	iP		02 01 45.0	
		i		02 01 56.1	

Kurile Islands (h = 20 km).

" 12	Ud	iP		03 13 15.0	

Kurile Islands (h = 35 km).

" 12	Ud	iP		03 43 28.7	
" 12	Um	iP		03 44 31.8	

Japan (h = 150 km).

" 12	Ud	iP		03 52 00.3	
" 12	Ud	iP		03 57 01.8	
		ipP		03 57 13.0	

Kurile Islands.
h = 40 km (Ud).

" 12	Up	iP1		04 38 35.1	
		iP2		04 38 38.7	
	Ki	iP1		04 37 50.7	
	Um	iP2		04 38 14.0	
	Ud	iP1		04 38 41.5	
		iP2		04 38 45.0	

Kurile Islands (h = N).

" 12	Ki	eP		04 42 20	
	Ud	iP		04 43 09.1	

Kurile Islands-Japan
(h = N).

" 12	Up	iP		04 45 09.3	
				micr	sec
		Mx	E	0.8	14
		Mx	N	0.8	15
		Mx	Z	0.9	13
	Ki	iP		04 44 23.7	
				micr	sec
		Mx	E	1.0	19
		Mx	N	1.1	17
		Mx	Z	1.2	16
	Sk	eP		04 45 00	
	Um	iP		04 44 44.1	C
	Ud	iP		04 45 15.1	C
		ipP		04 45 23.7	
	De	iP		04 45 32.4	

Kurile Islands.
h = 30 km (Ud).
M = 5.2 (Up,Ki).

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

1975 June	12	Ud	iP	04 50 37.4	
"	12	Ud	iP	05 31 01.7	
"	12	Ud	iP	05 33 36.4	
"	12	Ud	iP	05 43 49.9	
"	12	Um	iP	05 44 13.0	
		Ud	iP	05 44 43.0	
		Kurile Islands (h = 15 km).			
"	12	Ud	iP	05 49 49.2	
"	12	Ud	iP	06 24 02.0	
"	12	Ud	iP	06 36 17.2	
"	12	Up	iP	06 46 24.5	
		Ki	iP	06 45 39.2	
		Um	iP	06 45 58.5	
		Ud	iP	06 46 30.9	
		Kurile Islands.			
		Origin time = 06 35 20.			
"	12	Ud	iP	07 09 11.1	
"	12	Ud	iP	07 29 00.5	
"	12	Up	iP	08 25 00.6	
		Ki	iP	08 24 15.3	
		Um	iP	08 24 35.5	
		Ud	iP	08 25 06.5 C	
		De	iP	08 25 24.2	
		Kurile Islands (h = 45 km).			
"	12	Ud	iP	09 01 58.5	
"	12	Ki	iP	13 12 42.0	
		South of Mariana Islands (h = 50 km).			
"	12	Up	iP	13 26 25.2	
		Ki	iP	13 25 40.1 C	
		Um	iP	13 26 00.0	
			ipP	13 26 04.6	
			i	13 26 11.7	
		Ud	iP	13 26 31.3	
			ipP	13 26 35.9	
		De	iP	13 26 49.8	
		Kurile Islands.			
		h = 15 km (Um,Ud).			
"	12	Ud	iP	14 07 01.5	
		Kurile Islands-Japan (h = 55 km).			

1975 June	12	Ud	iP		14 16 06.0	
		Iran (h = 45 km).				
"	12	Up	iP		14 42 19.1	C
			ipP		14 42 29.8	
					micr	sec
			P	Z'	0.2	1.4
			pP	Z'	0.1	1.0
		Ki	iP		14 41 34.3	C
					micr	sec
			P	Z'	0.1	1.1
			Mx	E	0.6	14
			Mx	N	0.8	17
			Mx	Z	0.8	15
		Sk	iP		14 42 10.2	
		Um	iP		14 41 54.5	C
			ipP		14 42 05.8	
		Ud	iP		14 42 25.4	C
			ipP		14 42 36.6	
		De	iP		14 42 44.9	
		Kurile Islands.				
		h = 40 km (Up,Um,Ud).				
		m = 5.9 (Up,Ki).				
"	12	Up	iP		14 48 17.0	
			ipP		14 48 29.3	
		Ki	iP		14 47 34.1	
		Um	iP		14 47 53.1	
			ipP		14 48 05.2	
		Ud	iP		14 48 24.0	
			ipP		14 48 36.3	
		Kurile Islands-Japan.				
		h = 45 km (Up,Um,Ud).				
"	12	Up	iP		15 09 43.8	
		Ki	iP		15 08 58.0	
		Um	iP		15 09 18.5	
		Ud	iP		15 09 49.4	C
		De	iP		15 10 07.1	
		Kurile Islands (h = 40 km).				
"	12	Up	iP		15 34 39.5	
			ipP		15 34 49.3	
		Ki	ipP		15 34 03.6	
		Um	iP		15 34 15.6	
			ipP		15 34 25.0	
		Ud	iP		15 34 45.9	
			ipP		15 34 55.9	
		Kurile Islands.				
		h = 35 km (Up,Um,Ud).				
"	12	Up	iP1		19 32 02.9	
		Um	iP2		19 32 50.1	
		Ud	iP1		19 32 05.0	
			iP2		19 32 14.5	
		Sicily (h = 30 km).				

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

1975 June	12	Up	iP		20 25 49.3	
		Ki	iP		20 24 52.8	
			i		20 25 03.6	
		Sk	iP		20 25 28.0	
		Um	iP		20 25 13.3	
		Ud	iP		20 25 43.9	
			i		20 25 55.4	
		Kurile Islands (h = 25 km).				
"	12	Up	eP		20 42 03	
		Um	iP		20 41 37.9	
		Ud	iP		20 42 09.0	
		Kurile Islands-Japan (h = N).				
"	12	Um	iP		20 43 43.1	
		Ud	iP		20 44 14.6	
		Kurile Islands.				
"	12	Up	iP		21 48 10.0	
		Ki	iP		21 47 23.8	
			ipP		21 47 30.7	
		Um	iP		21 47 45.0	
		Ud	iP		21 48 15.6	
		Kurile Islands. h = 20 km (Ki).				
"	12	Up	iP		23 32 10.3	C
			ipP		23 32 20.6	
			iS		23 41 16	
					micr	sec
			P	Z'	0.2	1.5
			pP	Z'	0.6	1.9
			Mx	E	0.8	15
			Mx	N	1.1	15
			Mx	Z	1.4	15
		Ki	iP		23 31 24.4	
			ipP		23 31 34.9	
					micr	sec
			pP	Z'	0.1	1.1
			Mx	E	1.6	15
			Mx	N	1.5	15
			Mx	Z	1.7	14
		Sk	iP		23 31 59.9	
			ipP		23 32 10.8	
		Um	iP		23 31 45.3	C
			ipP		23 31 56.1	
			iS		23 40 31	
		Ud	iP		23 32 15.9	C
			ipP		23 32 26.7	
		De	iP		23 32 34.8	
		Kurile Islands. h = 40 km (Up,Ki,Sk,Um,Ud). m = 6.1, M = 5.4 (Up,Ki).				
"	12	Ud	iP		23 45 17.7	

1975 June	13	Ud	eP		01 56 40	
"	13	Up	iP		06 21 23.3	D
			ipP		06 21 33.4	
			iS		06 32 02	
					micr	sec
			P	Z'	0.3	1.3
			Mx	E	4.2	16
			Mx	N	5.4	17
			Mx	Z	9.5	17
		Ki	iP		06 21 04.7	D
			ipP		06 21 15.9	
			iS		06 31 29	
					micr	sec
			P	Z'	0.2	1.1
			Mx	E	2.8	14
			Mx	N	9.0	19
			Mx	Z	4.1	15
		Sk	iP		06 21 27.4	
		Um	iP		06 21 10.6	
			ipP		06 21 20.9	
			iS		06 31 39	
		Ud	iP		06 21 31.8	D
		De	iP		06 21 41.3	
		Samar. h = 40 km (Up,Ki,Um). m = 6.4, M = 6.2 (Up,Ki).				
"	13	Ki	iP		06 43 13.1	
		Um	iP		06 43 19.3	
		Ud	iP		06 43 39.9	
		Samar (h = N).				
"	13	Um	i		08 36 16.5	
		Ud	iP		08 36 31.2	
		Kurile Islands-Japan (h = N).				
"	13	Ud	iP		10 08 23.2	
		Kurile Islands-Japan (h = 30 km).				
"	13	Up	iP		10 20 32.7	
		Ki	iP		10 21 07.4	
		Sk	eP		10 21 08	
		Um	iP		10 20 44.9	
		Ud	iP		10 20 47.3	
		De	eP		10 20 31	
		Iran (h = 60 km).				
"	13	Up	iP		11 26 30.2	
		Sk	eP		11 26 25	
		Um	iP		11 26 09.9	
		Ud	iP		11 26 38.4	
		Japan (h = 340 km).				

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

1975 June	13	Up	iP		13 08 10.0		
			ipP		13 08 20.9		
					micr	sec	
			P	Z'	0.1	0.7	
			pP	Z'	0.1	1.0	
		Ki	iP		13 07 24.7	C	
			ipP		13 07 35.9		
					micr	sec	
			P	Z'	0.1	1.0	
		Sk	iP		13 07 59.9		
			ipP		13 08 10.8		
		Um	iP		13 07 45.4		
			ipP		13 07 56.2		
		Ud	iP		13 08 16.1	C	
			ipP		13 08 26.8		
		De	iP		13 08 33.4		
		Kurile Islands.					
		h = 40 km (Up,Ki,Sk,Um,Ud).					
		m = 5.9 (Up,Ki).					
"	13	Ki	iP		13 21 10.9		
		Um	iP		13 21 31.4		
		Ud	iP		13 22 02.5		
			ipP		13 22 13.6		
		Kurile Islands.					
		h = 40 km (Ud).					
"	13	Ud	iP		16 50 32.3		
		Kurile Islands (h = N).					
"	13	Up	iP		18 01 04.9		
		Ki	iP		18 00 38.7		
		Um	iP		18 00 48.4		
		Ud	iP		18 01 14.0		
"	13	Up	iP		18 19 16.6	C	
			i		18 19 18.2	C	
			iS		18 28 21.4		
					micr	sec	
			P	Z'	2.3	1.4	
			Mx	E	41	15	
			Mx	N	53	15	
			Mx	Z	81	15	
		Ki	iP		18 18 31.2		
			i		18 18 32.2	C	
			iS		18 27 08		
					micr	sec	
			P	Z'	0.9	1.2	
			Mx	E	59	14	
			Mx	N	71	15	
			Mx	Z	102	15	
		Sk	iP		18 19 06.6		
			i		18 19 08.0	C	
		Um	iP		18 18 52.1	C	
			i		18 18 53.5		
			iS		18 27 29		
		(cont.)					

1975 June	13	(cont.)					
		Ud	iP		18 19 22.7	C	
			i		18 19 23.8	C	
		De	eP		18 19 41		
			i		18 19 42.1	C	
		Kurile Islands (h = 20 km).					
		m = 6.9, M = 7.0 (Up,Ki).					
"	13	Um	iP		18 21 21.3		
		Ud	iP		18 21 52.2	C	
		Kurile Islands.					
		Origin time = 18 10 41.					
"	13	Up	iP		18 22 39.5		
					micr	sec	
			P	Z'	0.2	1.1	
		Ki	iP		18 21 54.0		
					micr	sec	
			P	Z'	0.2	1.2	
		Um	iP		18 22 14.6		
		Ud	iP		18 22 45.3		
		De	iP		18 23 02.6		
		Kurile Islands.					
		m = 6.1 (Up,Ki).					
		Origin time = 18 11 34.					
"	13	Up	iP		18 26 52.8		
		Ki	iP		18 26 06.5		
		Um	iP		18 26 27.3		
		Ud	iP		18 26 57.8		
		De	iP		18 27 15.7		
		Kurile Islands.					
		Origin time = 18 15 47.					
"	13	Up	iP		18 29 52.0	C	
		Ki	iP		18 29 06.6		
		Um	iP		18 29 27.8		
		Ud	iP		18 29 57.9		
		Kurile Islands (h = N).					
"	13	Ud	iP		18 33 27.0		
"	13	Up	iP		18 36 21.6		
		Ki	iP		18 35 36.3		
		Um	iP		18 35 56.8		
		Ud	iP		18 36 27.7	C	
		Kurile Islands (h = 15 km).					
"	13	Ud	iP		18 37 59.0		
"	13	Ki	iP		18 53 15.4		
		Ud	iP		18 54 06.8		
		Kurile Islands.					
		Origin time = 18 42 56.					
"	13	Ki	iP		19 24 31.3		
		Ud	iP		19 25 22.9		
		Kurile Islands (h = 10 km).					

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

1975
June 13 Ki eP 19 25 47
Um iP 19 26 05.5
Ud iP 19 26 36.8
Kurile Islands.
Origin time = 19 15 26.

" 13 Ud iP 19 29 48.5

" 13 Ki iP 19 29 48.4
Ud iP 19 30 38.7
Kurile Islands.
Origin time = 19 19 28.

" 13 Up i(P) 19 31 25.3

" 13 Up iP 19 51 31.7
i 19 51 43.8
micr sec
P Z' 0.1 0.8
Mx E 1.0 14
Mx N 1.3 15
Mx Z 2.3 17
Ki iP 19 50 45.3
micr sec
P Z' 0.1 1.0
Mx E 2.2 16
Mx N 1.8 14
Mx Z 2.8 16
Sk iP 19 51 21.7
Um iP 19 51 06.6 C
i 19 51 08.8
Ud iP 19 51 36.8 C
ipP 19 51 44.2
i 19 51 48.9
De iP 19 51 55.1
Kurile Islands.
h = 25 km (Ud).
m = 5.9, M = 5.4 (Up,Ki).

" 13 Ki iP 19 56 30.8
Um iP 19 56 52.0
Ud iP 19 57 21.6
Kurile Islands (h = N).

" 13 Up iP 20 03 40.9
micr sec
P Z' 0.1 0.8
Mx E 0.8 14
Mx N 0.7 13
Mx Z 1.2 15
Ki iP 20 02 54.6
micr sec
P Z' 0.1 0.9
Mx E 0.7 13
Mx N 0.9 15
Mx Z 1.3 13
(cont.)

1975
June 13 (cont.)
Sk iP 20 03 30.3
Um iP 20 03 15.1
Ud iP 20 03 46.5 C
ipP 20 03 56.4
De iP 20 04 04.3
Kurile Islands.
h = 35 km (Ud).
m = 5.9, M = 5.2 (Up,Ki).

" 13 Up iP 20 09 15.4
Ki iP 20 08 30.3
Ud iP 20 09 21.7
Kurile Islands (h = N).

" 13 Up iP 20 12 01.7
Ki iP 20 11 16.1
Um iP 20 11 36.8
Ud iP 20 12 07.6
De iP 20 12 26.5
Kurile Islands (h = N).

" 13 Up iP 20 29 29.8
Ki iP 20 28 42.8
Um iP 20 29 05.1
Ud iP 20 29 34.9
Kurile Islands (h = 20 km).

" 13 Up iP 20 32 00.9 C
micr sec
P Z' 0.1 1.0
Mx E 0.9 16
Mx N 0.7 14
Ki iP 20 31 14.4
micr sec
P Z' 0.1 1.0
Mx E 0.9 13
Mx N 1.0 16
Mx Z 1.4 17
Sk iP 20 31 50.5
Um iP 20 31 35.9 C
Ud iP 20 32 07.0
De iP 20 32 25.8
Kurile Islands (h = 40 km).
m = 5.9, M = 5.2 (Up,Ki).

" 13 Ud iP 21 20 37.3

" 13 Ud iP 22 41 03.5

" 13 Ud iP 22 46 55.1

" 13 Ud iP 23 03 54.9

" 13 Ki iP 23 23 08.7
Ud iP 23 24 00.2
Kurile Islands (h = N).

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

1975
June 14 Up iP 00 08 47.1
Ki iP 00 08 01.8
Um iP 00 08 22.3
Ud iP 00 08 53.0
Kurile Islands (h = N).

" 14 Up iP 00 10 03.8
Ki iP 00 09 17.7
Um iP 00 09 38.9
Ud iP 00 10 10.1
Kurile Islands.
Origin time = 23 58 59.

" 14 Up iP 00 11 10.3 C
micr sec
P Z' 0.1 0.8
Ki iP 00 10 24.5
micr sec
P Z' 0.1 1.0
Sk iP 00 11 00.7
Um iP 00 10 45.3 C
Ud iP 00 11 16.2 C
De iP 00 11 34.3
Kurile Islands (h = 20 km).
m = 5.9 (Up,Ki).

" 14 Up iP 00 15 20.6
Ki iP 00 14 35.5
Ud iP 00 15 25.8
Kurile Islands (h = N).

" 14 Up i(P) 01 33 35.4

" 14 Ud iP 01 52 53.1
Kurile Islands (h = N).

" 14 Up iP2 01 59 04.2
micr sec
P2 Z' 0.1 1.2
Ki iP1 01 58 10.1
micr sec
Mx E 0.6 13
Mx N 0.7 15
Um iP1 01 58 31.2
Ud iP1 01 59 02.5 C
iP2 01 59 10.1
De iP2 01 59 30.0
Kurile Islands (h = 20 km).

" 14 Up iP 02 07 37.2
Ki iP 02 06 51.3
Um iP 02 07 12.2 C
Ud iP 02 07 42.9 C
Kurile Islands (h = 15 km).

" 14 Up iP 02 25 39.7
(cont.)

1975
June 14 (cont.)
Ki iP 02 24 54.6
Um iP 02 25 17.0
Ud iP 02 25 44.9 C
Kurile Islands-Japan
(h = 10 km).

" 14 Ki eP 02 38 17
micr sec
Mx E 0.9 13
Mx N 0.7 15
Mx Z 0.8 15
Ud iP 02 38 28.7
Gulf of California (h = N).

" 14 Up iP 03 10 24.7
i 03 10 36.4
micr sec
P Z' 0.1 1.0
Mx E 2.2 19
Mx N 2.9 20
Mx Z 3.0 20
Ki iP 03 09 38.6
micr sec
P Z' 0.1 0.9
Mx E 2.5 15
Mx N 2.2 16
Mx Z 3.7 21
Sk iP 03 10 14.4
Um iP 03 09 59.7
Ud iP 03 10 30.7
De iP 03 10 48.3
Kurile Islands (h = 35 km).
m = 5.9, M = 5.6 (Up,Ki).

" 14 Up iP 03 12 27.5 C
micr sec
P Z' 0.1 1.0
Ki iP 03 11 41.3
micr sec
P Z' 0.1 1.0
Um iP 03 12 01.8
Ud iP 03 12 33.7
De eP 03 12 55
Kurile Islands (h = N).
m = 5.9 (Up,Ki).

" 14 Ud iP 03 17 10.8

" 14 Ud iP 03 52 08.1
Kurile Islands (h = N).

" 14 Ud iP 04 01 01.0

" 14 Up iP 04 03 28.8
Ki iP 04 02 44.7
(cont.)

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

1975
June 14 (cont.)

Um	iP		04 03 02.9	
Ud	iP		04 03 34.3	

Kurile Islands-Japan
(h = N).

" 14	Ud	iP		04 12 49.7
" 14	Up	iP		04 18 15.6
	Ki	iP		04 17 30.0
	Um	iP		04 17 50.7 C
	Ud	iP		04 18 21.4 C
	De	iP		04 18 39.0

Kurile Islands (h = 25 km).

" 14	Up	iPKP1		04 32 09.8
		iPKP2		04 32 13.4
				micr sec
		PKP1	Z'	0.2 1.0
	Ki	iPKP1		04 31 49.5
				micr sec
		PKP1	Z'	0.1 1.1
	Sk	iPKP1		04 32 03.4 C
		i		04 32 12.7
	Um	iPKP1		04 31 57.8
	Ud	iPKP1		04 32 11.1 C
		iPKP2		04 32 16.8
	De	iPKP1		04 32 20.1 C
		i		04 32 25.1

Kermadec Islands (h = 45 km).

" 14	Up	iP		04 46 47.3 C
		ipP		04 46 51.8
		i		04 46 58.9
				micr sec
		P	Z'	0.2 0.9
		Mx	E	1.0 17
	Ki	iP		04 46 01.6
		ipP		04 46 07.2
				micr sec
		P	Z'	0.1 1.0
	Sk	iP		04 46 37.6
	Um	iP		04 46 22.6 C
	Ud	iP		04 46 53.3 C
	De	iP		04 47 10.3

Kurile Islands.
h = 20 km (Up,Ki).
m = 6.0 (Up,Ki).

" 14	Sk	eP		04 52 32
	Ud	iP		04 52 47.6

Kurile Islands (h = N).

" 14	Up	iP		04 54 05.5
		i		04 54 15.8
	Ki	iP		04 53 19.4

(cont.)

1975
June 14 (cont.)

Um	iP		04 53 40.5	
Ud	iP		04 54 11.8	
De	iP		04 54 29.3	

Kurile Islands (h = N).

" 14	Ud	iP		04 57 26.1
" 14	Ud	iP		05 04 58.0

Kurile Islands (h = N).

" 14	Up	iP		05 14 06.6
		i		05 14 14.1
				micr sec
		P	Z'	0.1 1.3
	Ki	iP		05 13 20.4
				micr sec
		P	Z'	0.1 1.3
	Sk	iP		05 13 55.1
	Um	iP		05 13 41.0
	Ud	iP		05 14 12.0
	De	iP		05 14 30.1

Kurile Islands (h = 10 km).
m = 5.7 (Up,Ki).

" 14	Ud	iP		05 25 07.8
" 14	Ud	eP		05 32 25
" 14	Um	iP		05 44 35.4
	Ud	iP		05 45 06.5

Kurile Islands (h = N).

" 14	Up	iP		06 27 49.2
	Ki	iP		06 27 03.2
	Um	iP		06 27 23.9
	Ud	iP		06 27 54.5

Kurile Islands (h = 35 km).

" 14	Ud	iP		06 48 22.6

Kurile Islands (h = N).

" 14	Up	iP		08 02 29.2
	Ki	iP		08 01 44.2
	Um	iP		08 02 04.8
	Ud	iP		08 02 35.2
		i		08 02 45.4

Kurile Islands (h = N).

" 14	Up	iP		08 54 18.6 C
				micr sec
		P	Z'	0.3 1.4
		Mx	E	1.0 14
		Mx	N	1.2 14
		Mx	Z	2.0 15
	Ki	iP		08 53 33.3 C
		i		08 53 44.6

(cont.)

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

1975
June 14 (cont.)

Ki			micr	sec
	P	Z'	0.1	1.0
	Mx	E	1.8	15
	Mx	N	1.8	14
	Mx	Z	2.5	14
Sk	iP		08 54 10.0	
Um	iP		08 53 54.9	
Ud	iP		08 54 24.8 C	
	i		08 54 30.4	
De	iP		08 54 42.9	

Kurile Islands (h = 10 km).
m = 6.1, M = 5.5 (Up,Ki).

" 14

Up	iP		09 13 21.1 C	
	i		09 13 29.9	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		09 12 35.2	
			micr	sec
	P	Z'	0.1	1.0
Sk	iP		09 13 10.3	
Um	iP		09 12 55.7 C	
Ud	iP		09 13 27.1 C	
De	iP		09 13 44.1	

Kurile Islands (h = 15 km).
m = 6.0 (Up,Ki).

" 14 Ud iP 10 08 41.0
Kurile Islands (h = N).

" 14

Ki	iP		10 52 49.2	
Um	iP		10 53 09.3	
Ud	iP		10 53 40.2 C	

Kurile Islands.
Origin time = 10 42 29.

" 14

Up	iP		10 56 05.9	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		10 55 20.4	
Sk	iP		10 55 57.6	
Um	iP		10 55 40.4	
Ud	iP		10 56 12.1 C	
De	iP		10 56 29.6	

Kurile Islands (h = 30 km).

" 14 Ud iP 10 58 04.5

" 14

Um	iPKP	10 58 57.8
Ud	iPKP	10 58 49.7
	iPKKP	11 09 34.3

Chile-Argentina (h = 90 km).

" 14 Ud iP 11 01 30.3

" 14 Ud iP 13 36 32.8

1975
June 14 Ud iP 14 37 51.1

" 14 Ud iP 14 39 31.3
Kurile Islands (h = N).

" 14 Ud iP 15 43 21.7
Aegean Sea (h = N).

" 14

Up	iP		17 22 19.5 C	
	ipP		17 22 31.8	
			micr	sec
	P	Z'	0.2	0.9
	Mx	E	0.9	16
	Mx	N	0.8	15
	Mx	Z	1.2	15
Ki	iP		17 21 34.2 C	
	ipP		17 21 45.8	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	1.5	16
	Mx	N	1.2	16
	Mx	Z	1.9	15
Sk	iP		17 22 10.2	
Um	iP		17 21 55.1	
	ipP		17 21 06.8	
Ud	iP		17 22 25.6 C	
	ipP		17 22 38.2	
De	iP		17 22 44.0	
	ipP		17 22 54.9	

Kurile Islands.
h = 45 km (Up,Ki,Um,Ud,De).
m = 6.2, M = 5.3 (Up,Ki).

" 14

Um	iP	17 44 21.9
Ud	iP	17 44 52.7

Kurile Islands.
Origin time = 17 33 42.

" 14

Up	iP		17 48 17.7	
	i		17 48 27.9	
	iS		17 57 24	
			micr	sec
	P	Z'	0.1	1.0
	i	Z'	0.3	1.4
	Mx	E	1.5	20
	Mx	N	1.8	15
	Mx	Z	2.0	15
Ki	iP		17 47 31.6	
	i		17 47 46.6	
			micr	sec
	P	Z'	0.1	1.0
	i	Z'	0.1	1.1
	Mx	E	2.9	15
	Mx	N	2.2	15
	Mx	Z	2.7	15
Sk	iP		17 48 09.1	

(cont.)

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

1975
June 14 (cont.)

Um	iP		17 47 52.7		
	ipP		17 48 03.7		
Ud	iP		17 48 22.7		
	ipP		17 48 34.1		
De	iP		17 48 42.5		

Kurile Islands.
h = 40 km (Um,Ud).
m = 5.9, M = 5.5 (Up,Ki).

" 14

Um	iP		17 52 20.4	
Ud	iP		17 52 51.3	

Kurile Islands (h = N).

" 14

Um	iP		17 59 04.8	

" 14

Ki	iP		18 40 37.7	
			micr	sec
	P	Z'	0.1	1.0
Ud	iP		18 41 03.2	

Mindanao (h = 50 km).

" 14

Up	iP		18 49 04.6	C
	i		18 49 19.4	
	iS		18 58 07	
			micr	sec
	P	Z'	0.4	1.0
	Mx	E	9.8	15
	Mx	N	11	16
	Mx	Z	16	15
Ki	iP		18 48 19.0	
			micr	sec
	P	Z'	0.5	1.0
	Mx	E	21	16
	Mx	N	17	15
	Mx	Z	25	15
Sk	iP		18 48 54.9	
	ipP		18 49 05.3	
Um	iP		18 48 39.8	
	ipP		18 48 50.6	
	iS		18 57 19	
Ud	iP		18 49 10.9	C
	ipP		18 49 20.6	
	i		18 49 25.9	
De	iP		18 49 28.6	C

Kurile Islands.
h = 35 km (Sk,Um,Ud).
m = 6.5, M = 6.4 (Up,Ki).

" 14

Ud	iP		18 55 19.6	

" 14

Up	iP		18 59 35.9	
Um	iP		18 59 24.5	
Ud	iP		18 59 53.5	

" 14

Ud	iP		19 00 38.1	

1975
June 14

Up	iP		19 00 43.9	
			micr	sec
	P	Z'	0.1	0.8
	Mx	E	8.4	15
	Mx	N	9.6	14
	Mx	Z	13	14
Ki	iP		18 59 57.9	
			micr	sec
	P	Z'	0.2	0.9
	Mx	E	6.3	13
	Mx	N	5.3	14
	Mx	Z	3.9	12
Sk	eP		19 00 35	
Um	iP		19 00 18.2	
	i		19 00 30.1	
Ud	iP		19 00 49.5	C
	i		19 00 59.1	
De	iP		19 01 07.1	

Kurile Islands (h = 40 km).
m = 6.1, M = 6.2 (Up,Ki).

" 14

Up	iP		19 03 10.2	
	i		19 03 23.9	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		19 02 24.5	
			micr	sec
	P	Z'	0.1	1.0
Um	iP		19 02 46.0	
Ud	iP		19 03 16.0	

Kurile Islands.
m = 5.9 (Up,Ki).
Origin time = 18 52 07.

" 14

Up	iP		19 05 43.4	
Ki	iP		19 05 01.6	C
Sk	iP		19 05 35.9	
Um	iP		19 05 19.8	C
Ud	iP		19 05 50.2	C

Japan (h = 50 km).

" 14

Up	iP		19 12 12.0	
Um	iP		19 11 47.1	
Ud	iP		19 12 18.1	

Kurile Islands (h = N).

" 14

Up	iP		19 17 37.7	
Ud	iP		19 17 43.9	

Kurile Islands.
Origin time = 19 06 35.

" 14

Up	iP		19 25 07.2	C
			micr	sec
	P	Z'	0.2	1.2
	Mx	E	1.6	17
	Mx	N	1.7	16
	Mx	Z	1.5	16

(cont.)

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

1975
June 14 (cont.)

Ki	iP		19 24 21.1	C
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	2.4	17
	Mx	N	2.2	14
	Mx	Z	3.0	15
Sk	iP		19 24 57.7	
Um	iP		19 24 42.6	
Ud	iP		19 25 13.3	C
De	iP		19 25 31.1	

Kurile Islands (h = 25 km).
m = 6.1, M = 6.1 (Up,Ki).

" 14

Up	iP		19 49 48.3
Um	iP		19 49 23.7
Ud	iP		19 49 54.1

Kurile Islands.
Origin time = 19 38 45.

" 14

Ud	iP		20 14 03.5

" 14

Up	iP		20 31 35.1
Ki	iP		20 30 49.3
Um	iP		20 31 10.2
Ud	iP		20 31 41.3

Kurile Islands.
Origin time = 20 20 32.

" 14

Up	iP		20 35 04.0
Ud	iP		20 35 10.1

Kurile Islands.
Origin time = 20 24 01.

" 14

Up	iP		20 39 35.6
Ud	iP		20 39 41.8

Kurile Islands (h = N).

" 14

Up	iP		20 42 39.0	
Ki	iP		20 41 53.0	
			micr	sec
	P	Z'	0.1	1.0
Um	iP		20 42 14.4	
Ud	iP		20 42 44.9	
	i		20 43 05.2	

Kurile Islands (h = 25 km).

" 14

Up	iP		20 46 27.6	
	i		20 46 39.4	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		20 45 41.1	
			micr	sec
	P	Z'	0.2	1.1
Um	iP		20 46 02.7	C

(cont.)

1975
June 14 (cont.)

Ud	iP		20 46 33.5	C
De	iP		20 46 51.2	

Kurile Islands (h = 15 km).
m = 6.0 (Up,Ki).

" 14

Up	iP		20 58 53.8	
	ipP		20 59 05.7	
	i		20 59 17.8	
			micr	sec
	pP	Z'	0.1	0.9
	i	Z'	0.2	1.4
Ki	iP		20 57 52.6	
Sk	iP		20 58 21.0	
Um	iP		20 58 24.9	
	ipP		20 58 36.7	
Ud	iP		20 58 48.0	
	ipP		20 59 00.5	
De	iP		20 59 17.7	

Beaufort Sea.
h = 45 km (Up,Um,Ud).

" 14

Um	iP		21 11 00.0
Ud	iP		21 11 30.8

Kurile Islands (h = N).

" 14

Ki	ePKP		22 05 10
Ud	ePKP		22 04 50

South Sandwich Islands
(h = N).

" 14

Up	iP		22 25 06.2
Ki	iP		22 24 20.7
Um	iP		22 24 40.8
Ud	iP		22 25 12.1	C

Kurile Islands (h = 25 km).

" 14

Ud	iP		22 33 09.6

Kurile Islands (h = N).

" 14

Um	iP		22 44 18.5
Ud	iP		22 44 49.4

Kurile Islands (h = N).

" 14

Up	iP		23 48 04.7	
	iS		23 57 37	
			micr	sec
	P	Z'	2.3	1.4
	Mx	E	3.9	14
	Mx	N	4.2	15
	Mx	Z	5.8	15
Ki	iP		23 47 25.5	
			micr	sec
	P	Z'	1.1	1.7
	Mx	E	7.1	14
	Mx	N	10	15
	Mx	Z	25	16

(cont.)

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

1975
June 14 (cont.)

Sk	iP		23 47 58.3		D
Um	iP		23 48 43.0		D
	iS		23 56 56		
Ud	iP		23 48 11.7		D
De	iP		23 48 26.8		

Japan (h = 20 km).
m = 6.9, M = 6.1 (Up,Ki).

" 15

Up	iP1		00 30 36.0		
	iP2		00 30 37.8		
	i		00 31 14.4		
	iS		00 39 39.2		
			micr	sec	
	P1	Z'	0.1	1.0	
	P2	Z'	4.6	2.0	
	Mx	E	21	16	
	Mx	N	25	16	
	Mx	Z	40	18	
Ki	iP1		00 29 49.2		
			micr	sec	
	P1	Z'	1.1	1.3	
	Mx	E	45	18	
	Mx	N	36	16	
	Mx	Z	47	15	
Sk	iP2		00 30 27.3		
Um	iP1		00 30 09.9		C
	iP2		00 30 11.8		
	iS		00 38 46		
Ud	iP1		00 30 41.9		C
	iP2		00 30 44.0		
	iS		00 39 52.6		
De	iP1		00 30 59.5		C
	iP2		00 31 01.6		

Kurile Islands (h = 40 km).
m = 6.3, M = 6.7 (Up,Ki).
Double P, in average
P2 - P1 = 2.0 sec.

" 15

Up	iP		00 33 40.6		
			micr	sec	
	P	Z'	0.2	1.0	
Ki	iP		00 32 55.2		
			micr	sec	
	P	Z'	0.3	1.0	
Um	iP		00 33 15.3		
Ud	iP		00 33 46.7		
De	iP		00 34 04.5		

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

" 15

Um	iP		00 34 31.3		
Ud	iP		00 35 03.4		

Kurile Islands.
Origin time = 00 23 55.

1975
June 15

Up	iP		00 39 34.0		
Ki	iP		00 38 48.9		
Ud	iP		00 39 40.1		

Kurile Islands.
Origin time = 00 28 32.

" 15

Up	iP		00 40 41.3		
Ki	iP		00 39 56.0		
Um	iP		00 40 16.7		
Ud	iP		00 40 47.9		

Kurile Islands.
Origin time = 00 29 40.

" 15

Um	iP		00 42 33.9		
Ud	iP		00 43 05.9		

Kurile Islands.
Origin time = 00 31 58.

" 15

Ki	iP		01 13 50.4		
Um	iP		01 14 11.7		
Ud	iP		01 14 42.8		

Kurile Islands (h = N).

" 15

Ud	iP		01 26 54.0		

Kurile Islands (h = N).

" 15

Ki	iPKP		02 10 24.5		

South Sandwich Islands
(h = N).

" 15

Up	iP		02 20 21.6		
			micr	sec	
	P	Z'	0.8	1.8	
	Mx	E	1.4	18	
	Mx	N	1.0	19	
	Mx	Z	2.0	24	
Ki	iP		02 19 35.9		D
			micr	sec	
	P	Z'	0.4	1.5	
	Mx	E	1.5	18	
	Mx	N	2.0	15	
	Mx	Z	3.1	17	
Sk	iP		02 20 12.0		
Um	iP		02 19 56.3		D
Ud	iP		02 20 27.2		D
De	iP		02 20 43.4		

Japan (h = 10 km).
m = 6.5, M = 5.5 (Up,Ki).

" 15

Up	iP		02 27 10.4		
	ipP		02 27 22.6		
Ki	iP		02 26 23.9		
	ipP		02 26 36.1		
Um	iP		02 26 45.7		
Ud	iP		02 27 16.7		
	ipP		02 27 28.4		

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

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

1975 June	15	Up	iP		02 52 22.2	
		Um	iP		02 51 58.2	
		Ud	iP		02 52 28.5	
		Kurile Islands (h = N).				
"	15	Um	iP		03 40 36.3	
		Ud	iP		03 41 07.1	
		Kurile Islands.				
		Origin time = 03 29 59.				
"	15	Up			micr	sec
			Mx	E	2.5	19
			Mx	N	3.2	22
			Mx	Z	4.1	20
		Ki	iP		04 55 44.1	
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	3.3	20
			Mx	N	3.5	18
			Mx	Z	3.1	21
		Um	iP		04 55 52.9	
			iS		05 06 47	
		Ud	iP		04 56 14.6	
		West Caroline Islands				
		(h = 60 km).				
		M = 5.7 (Up,Ki).				
"	15	Up	iP		06 13 32.3	
		Ki	iP		06 12 46.5	
		Um	iP		06 13 07.2	
		Ud	iP		06 13 38.8	
		Kurile Islands (h = 30 km).				
"	15	Um	iP		06 27 14.2	
		Ud	iP		06 27 44.7	
		Kurile Islands (h = N).				
"	15	Up	iPKPl		07 26 05.7	C
		Ud	iPKPl		07 26 07.0	C
		De	iPKPl		07 26 18.3	
"	15	Up	iP		07 26 44.6	
			i		07 26 51.0	
		Ki	iP		07 25 59.1	
					micr	sec
			P	Z'	0.1	1.0
		Um	iP		07 26 20.4	
		Ud	iP		07 26 51.0	
		De	iP		07 27 08.5	
		Kurile Islands (h = 10 km).				
"	15	Up	iP		07 53 17.0	
		Ki	iP		07 52 32.3	
		Um	iP		07 52 52.4	
		Ud	iP		07 53 22.7	
		Kurile Islands (h = 35 km).				

1975 June	15	Up	iP		08 04 47.5	C
			ipP		08 05 09.3	
					micr	sec
			P	Z'	0.6	0.8
		Ki	iP		08 03 54.7	
			ipP		08 04 15.9	
		Sk	iP		08 04 27.0	
		Um	iP		08 04 20.4	C
			ipP		08 04 41.0	
		Ud	iP		08 04 48.2	C
		De	iP		08 04 10.3	
		Aleutian Islands.				
		h = 80 km (Up,Ki,Um).				
"	15	Up	iP		08 58 17.0	C
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		08 57 31.6	C
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	0.8	17
			Mx	N	0.7	16
		Sk	iP		08 58 07.7	
		Um	iP		08 57 52.0	
		Ud	iP		08 58 23.2	C
		De	iP		08 58 40.9	
		Kurile Islands (h = 25 km).				
		m = 5.9 (Up,Ki).				
"	15	Ud	iP		09 06 49.5	
"	15	Ud	iP		09 41 25.7	
		Kurile Islands (h = N).				
"	15	Up	iP		10 08 14.9	
		Ki	iP		10 07 29.1	
		Um	iP		10 07 49.2	
		Ud	iP		10 08 19.7	
		De	iP		10 08 35.4	
		Kurile Islands (h = N).				
"	15	Up	iP		10 57 43.6	C
			ipP		10 57 50.3	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		10 56 58.1	C
			ipP		10 57 04.7	
		Um	iP		10 57 18.8	
		Ud	iP		10 57 49.8	
			ipP		10 57 56.4	
		De	iP		10 58 07.2	
		Kurile Islands.				
		h = 25 km (Up,Ki,Ud).				
"	15	Ud	iP		11 09 13.3	
		Kurile Islands (h = N).				

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

1975 June	15	Ud	iP		12 31 05.5	
"	15	Ud	iP		14 06 10.4	
"	15	Ud	iP		14 07 14.2	
		Hindu Kush (h = 200 km).				
"	15	Ud	iP		15 28 23.4	
"	15	Ud	iP		17 56 42.6	
"	15	Ud	iP		18 12 25.9	
		Peru-Brazil (h = 180 km).				
"	15	Up	iP		18 13 05.9	
		Ki	iP		18 12 23.2	C
		Sk	e		18 13 04	
		Um	iP		18 12 41.6	C
		Ud	iP		18 13 12.2	
		De	iP		18 13 27.8	
		Japan (h = 55 km).				
"	15	Ud	iP		19 21 18.1	
"	15	Up	iP		20 35 24.1	
		Ki	iP		20 34 39.0	
			ipP		20 34 52.1	
		Um	iP		20 34 59.7	
			i		20 35 06.5	
			ipP		20 35 11.3	
		Ud	iP		20 35 29.8	
			ipP		20 35 42.5	
		De	epP		20 36 01	
		Japan.				
		h = 45 km (Ki,Um,Ud).				
"	15	Up	iP		20 45 42.5	
		Ki	iP		20 44 58.0	
		Um	iP		20 45 18.1	
		Ud	iP		20 45 49.0	
		Japan (h = 35 km).				
"	15	Ud	iP		21 22 55.7	
"	15	Um	iP		22 49 41.2	
		Ud	iP		22 50 14.8	
		Kurile Islands.				
		Origin time = 22 39 06.				
"	15	Up	iP		23 19 51.5	
			i		23 19 58.0	
			ipP		23 20 03.1	
					micr sec	
			P	Z'	0.1 0.7	
		Ki	iP		23 19 05.4	
		(cont.)				

1975 June	15	(cont.)				
		Ki			micr sec	
			P	Z'	0.1 1.0	
		Sk	iP		23 19 41.9	
		Um	iP		23 19 26.8	
		Ud	iP		23 19 57.4	
			i		23 20 03.0	
			ipP		23 20 09.6	
		De	iP		23 20 15.3	
		Kurile Islands.				
		h = 45 km (Up,Ud).				
		m = 5.9 (Up,Ki).				
"	15	Ud	iP		23 32 01.5	
"	15	Up	iP		23 41 51.1	C
			ipP		23 41 58.0	
			i		23 42 03.1	
					micr sec	
			P	Z'	0.1 0.8	
		Ki	iP		23 41 04.7	
			ipP		23 41 11.4	
					micr sec	
			P	Z'	0.1 1.0	
			Mx	N	0.8 17	
			Mx	Z	0.8 15	
		Sk	iP		23 41 40.8	
		Um	iP		23 41 25.7	
			ipP		23 41 32.3	
			i		23 41 38.3	
		Ud	iP		23 41 56.7	C
			ipP		23 42 03.0	
			i		23 42 09.0	
		De	iP		23 42 14.7	
			i		23 42 27.0	
		Kurile Islands.				
		h = 25 km (Up,Ki,Um,Ud).				
		m = 5.9 (Up,Ki).				
"	15	Ud	iP		23 52 59.1	
"	16	Um	iPKP		00 49 03.5	
		Ud	iPKP		00 49 13.6	
		De	iPKP		00 49 11.4	
		Tonga Islands (h = 160 km).				
"	16	Ud	iP		01 28 42.5	
"	16	Ud	iP		04 24 45.0	
		Kansu, China (h = N).				
"	16	Ki	iP		04 27 22.1	
		Sk	eP		04 27 37	
		Um	iP		04 27 20.7	
		Ud	iP		04 27 34.9	
		Java (h = 90 km).				

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

1975					
June	16	Up	i(Pgl)		15 10 48.5
			iSgl		15 11 11.4
			iRg		15 11 17.4
		Ud	iSgl		15 11 21.7
			i		15 11 23.5
		De	iSgl		15 11 35.1
			iRgl		15 11 49.0
		Östergötland, Sweden.			
		Near-surface event.			
"	16	Up	iP		15 13 18.4
		Ki	iP		15 14 25.6
		Sk	iP		15 13 57.1
		Ud	iP		15 13 26.4
"	16	Ud	iP		17 18 38.8
"	16	Ud	iP		17 33 55.4
"	16	Up	i(P)		21 16 55.9
		Ud	i(P)		21 16 43.6
"	16	Up	iP		21 20 05.4
		Ki	iP		21 19 19.8
		Um	iP		21 19 38.1
		Ud	iP		21 20 11.3
		Kurile Islands (h = 25 km).			
"	16	Ki	iP		22 30 08.5
		Ud	iP		22 30 59.9
		Kurile Islands.			
		Origin time = 22 19 49.			
"	16	Um	iP		22 37 41.6
"	16	Up	iP		22 50 26.2
			ipP		22 50 33.8
		Ki	iP		22 49 40.7 C
		Sk	iP		22 50 15.7
		Um	iP		22 50 01.3 C
		Ud	iP		22 50 32.2 C
			ipP		22 50 39.9
		De	iP		22 50 49.5
		Kurile Islands.			
		h = 30 km (Up,Ud).			
"	16	Up	ipPKP		22 54 10.3
				micr	sec
			Mx	E 7.2	26
			Mx	N 7.5	23
			Mx	Z 17	30
		Ki		micr	sec
			Mx	E 7.4	20
			Mx	N 7.5	20
			Mx	Z 14	28
		Um	iPKP		22 53 57.2
		(cont.)			

1975				
June	16	(cont.)		
		Um	iSKS	23 00 22
		De	iPKP	22 54 06.2
		Bismarck Sea (h = N).		
		M = 6.4 (Up,Ki).		
"	16	Ki	iP	23 07 04.2
		Um	iP	23 07 24.3
		Ud	iP	23 07 54.9
		Kurile Islands (h = N).		
"	16	Um	iP	23 57 58.9
		Ud	iP	23 58 29.6
		Kurile Islands.		
		Origin time = 23 47 19.		
"	17	Ud	iP	00 19 01.3
"	17	Um	iP	00 41 18.8
"	17	Ud	iP	01 11 28.9
"	17	Ud	iP	01 57 29.2
"	17	Ud	i(P)	02 45 22.1
"	17	Up	iP	03 36 01.0
		Ki	eP	03 35 43
		Um	iP	03 35 48.9
		Ud	iP	03 36 09.0
		Samar (h = N).		
"	17	Ki	iP	05 12 25.0
		Sk	iP	05 12 05.3
		Um	iP	05 12 26.5
			i	05 12 35.4
		Ud	iP	05 12 09.1
		Puerto Rico (h = 110 km).		
"	17	Up	iPKPl	09 00 17.5
		Ud	iPKPl	09 00 19.3
		De	iPKPl	09 00 30.0
"	17	Ki	iPKP	09 45 11.8
			i	09 45 18.4
		South Sandwich Islands (h = N).		
"	17	Ud	iP	10 38 22.7
"	17	Ud	i(P)	12 01 33.6
"	17	Up	i(P)	12 27 19.7
		Ud	i(P)	12 27 37.8
"	17	Ud	iP	13 08 30.2

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

1975 June	17	Ud	iP	13 34 36.3	
			i	13 34 42.2	
"	17	Up	iRg	14 39 55.9	
		Ud	iRg	14 40 38.0	
		South-central Sweden.			
		Near-surface event.			
"	17	Ud	i(P)	14 55 30.2	
"	17	Ud	iP	15 30 06.0	
		Japan (h = 80 km).			
"	17	Ki	eSgl	15 30 30	
		Sk	iSgl	15 30 45.7	
		Um	iSgl	15 28 59.9	
		Possibly Västerbotten,			
		Sweden.			
"	17	Up	iP	16 06 07.2	
		Ki	iP	16 05 26.8	C
		Sk	iP	16 06 00.4	
		Um	iP	16 05 44.9	C
			ipP	16 05 56.9	
		Ud	iP	16 06 14.1	C
			ipP	16 06 26.6	
		De	iP	16 06 29.7	
		Japan.			
		h = 45 km (Um,Ud).			
"	17	Ud	iP	17 24 22.2	
"	17	Ki	iSgl	19 45 23.5	
		Um	iSgl	19 46 59.1	
		Coast of north Norway,			
		68.6°N, 15.1°E.			
		Origin time = 19 44 19.			
		m = 4.2, M_L = 2.5 (Ki).			
		By combination with Tromsoe			
		reading.			
"	17	Ud	iP	19 58 52.7	
"	17	Ud	iP	20 05 38.6	
"	17	Up	iP	21 40 45.8	
		Ki	iP	21 40 04.1	C
		Sk	iP	21 40 38.4	
		Um	iP	21 40 12.6	C
			ipP	21 40 35.6	
		Ud	iP	21 40 52.6	
		De	i	21 41 13.5	
		Japan (h = 55 km).			
"	17	De	iP	22 24 08.6	

1975 June	17	Um	iP	23 40 33.5	
		Ud	iP	23 41 13.3	
		Japan (h = 40 km).			
"	18	Ud	iP	00 29 11.2	
"	18	Sk	eP	02 42 02	
		Um	iP	02 41 36.0	
		Ud	iP	02 41 45.9	
		Iran (h = 15 km).			
"	18	Up	iP	04 23 20.1	C
			ipP	04 23 50.9	
			iS	04 33 30	
				micr sec	
			P Z'	0.3 0.8	
		Ki	iP	04 23 02.6	C
				micr sec	
			P Z'	0.1 0.7	
		Sk	iP	04 23 25.2	C
		Um	iP	04 23 08.5	C
			ipP	04 23 39.9	
			iS	04 33 08	
		Ud	iP	04 23 29.2	C
			ipP	04 24 02.1	
		De	iP	04 23 34.7	
		Mindoro.			
		h = 130 km (Up,Um,Ud).			
		m = 5.9 (Up,Ki).			
"	18	Up	iP	05 55 13.2	C
			iPP	05 57 47.0	
			iS	06 04 20	
				micr sec	
			P Z'	0.1 1.2	
		Ki	iP	05 54 30.6	C
				micr sec	
			Mx E	2.7 18	
			Mx N	3.2 17	
			Mx Z	2.4 16	
		Sk	iP	05 55 05.4	
		Um	iP	05 54 48.5	C
			iS	06 03 34	
		Ud	iP	05 55 20.1	C
		De	iP	05 55 36.1	
		Japan (h = 50 km).			
"	18	Up	iP	08 41 09.8	C
		Ki	iP	08 40 15.4	C
		Sk	iP	08 40 42.2	C
		Um	iP	08 40 43.8	C
		Ud	iP	08 41 06.1	
		De	iP	08 41 30.0	C
		Kodiak Island (h = 15 km).			
"	18	Up	iP	09 28 47.6	C
		(cont.)			

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

1975
June 18 (cont.)

Up			micr	sec
	P	Z'	0.2	0.8
Ki	iP		09 28 12.2 C	
			micr	sec
	P	Z'	0.1	0.9
Sk	iP		09 28 43.1 C	
Um	iP		09 28 27.4 C	
	ipP		09 28 42.4	
Ud	iP		09 28 54.8 C	
	ipP		09 29 09.7	
De	iP		09 29 07.5	

Japan.
h = 55 km (Um,Ud).
m = 5.9 (Up,Ki).

" 18

Ud	iP	10 12 13.7

" 18

Ki	iPKP	12 31 07.1
Um	iPKP	12 31 13.3
Ud	i(PKP)	12 31 12.3
	iPKP	12 31 20.1
De	iPKPl	12 31 21.7

Fiji Islands (h = 560 km).

" 18

Up	iP		13 46 09.6	
	ipP		13 46 24.7	
	i		13 46 34.9	
			micr	sec
	i	Z'	0.1	1.2
Ki	iP		13 46 24.6	
	ipP		13 46 37.9	
	i		13 46 50.1	
			micr	sec
	pP	Z'	0.1	1.0
	i	Z'	0.1	1.0
Sk	eP		13 46 00	
	i		13 46 24.5	
Um	iP		13 45 44.6	
	ipP		13 45 57.4	
	i		13 46 10.2	
Ud	iP		13 46 15.7	
	ipP		13 46 28.0	
	i		13 46 41.3	
De	epP		13 46 44	

Japan.
h = 50 km (Up,Ki,Um,Ud).
m = 5.7 (Up,Ki).

" 18

Up	iSgl	11 39 10.4
Ud	iSgl	11 38 40.4
	i	11 38 44.3
	iRg	11 38 51.4
De	iSgl	11 38 59.9

(cont.)

1975
June 18 (cont.)

Västergötland, Sweden,
58.5°N, 13.5°E.
Origin time = 11 37 56.
m = 4.0, M_L = 2.1 (Up,Ud).
Probably explosion.

" 18

Up	iSgl	13 57 58.8
Sk	iSgl	13 57 52.1
Ud	iPgl	13 56 32.9
	iSgl	13 56 56.6
De	iSn	13 57 53.5

Southeast Norway,
60.1°N, 10.0°E.
Origin time = 13 56 01.
m = 4.0, M_L = 2.2(Up,Ud).
Checked with Kongsberg reading.

" 18

Up	iP	14 13 37.5
Ki	iP	14 14 23.1
Um	iP	14 14 03.4
Ud	iP	14 13 23.7
De	eP	14 13 04

North Atlantic Ocean
(h = 40 km).

" 18

Ud	i(P)	14 22 43.7

" 18

Sk	eSgl	16 13 05
Ud	i	16 12 44.1
	iSgl	16 12 57.1
	i	16 13 29.0

Possibly west coast of Norway.
Cf with Kongsberg reading.

" 18

Up	iPKP		16 51 12.7	
	iSKPl		16 54 16.3	
			micr	sec
	PKP	Z'	0.4	1.5
Ki	iPKP		16 50 58.7	
	iPKKP		17 00 58.7	
			micr	sec
	PKP	Z'	0.2	1.0
Sk	iPKP		16 51 10.5	
Um	iPKP		16 51 05.7	
	iSKPl		16 53 00.6	
Ud	iPKP		16 51 14.5	
	iSKPl		16 54 20.3	
De	i(PKP)		16 51 08.0	
	iPKP		16 51 20.8	
	iSKPl		16 54 31.4	

New Hebrides Islands
(h = 200 km).

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

1975				
June	18	Up	iP	17 44 35.2
		Ud	iP	17 44 44.4
		Luzon (h = 80 km).		
"	18	Um	ipP	18 46 43.6
		De	iP	18 45 54.7
			ipP	18 46 37.8
		Nicaragua.		
		h = 180 km (De).		
"	18	Ud	iP	19 05 27.4
"	18	Ki	iP	19 25 13.3
		Sk	iP	19 25 40.3
		De	iP	19 26 28.9
		Kodiak Island (h = 30 km).		
"	18	De	iP	23 26 51.3
"	18	Ki	eSgl	23 47 26
		Sk	eSgl	23 47 47
		Um	iPgl	23 46 10.0
			iSgl	23 46 23.8
			iRg	23 46 28.6
		Västerbotten, Sweden,		
		64.8°N, 20.3°E.		
		Origin time = 23 45 51.		
		Near-surface event.		
"	19	Ud	iP	01 46 38.6
"	19	Ud	iP	02 24 43.5
"	19	Ud	iP	03 00 05.6
"	19	Up	iP	03 52 34.9
		Ki	eP	03 51 49
		Um	iP	03 52 10.4
		Ud	iP	03 52 41.4 D
		Kurile Islands (h = 40 km).		
"	19	Up	iP	05 19 52.8
		Ki	iP	05 19 07.7
		Um	iP	05 19 29.1
		Ud	iP	05 19 58.9
		Kurile Islands (h = 45 km).		
"	19	Up	iP	08 38 12.7
		Ki	iP	08 37 27.5
		Sk	eP	08 38 05
		Ud	iP	08 38 18.2
		Kurile Islands (h = 35 km).		
"	19	Up	iP	09 03 18.6 C
			i	09 03 42.5
		(cont.)		

1975				
June	19	(cont.)		
		Ki	iP	09 02 32.9
		Sk	iP	09 03 09.4
		Um	iP	09 02 54.6
		Ud	iP	09 03 24.8 C
		Kurile Islands (h = 35 km).		
"	19	De	iPKPl	09 10 10.7
		Tonga Islands (h = N).		
"	19	Up	iP	10 15 26.0
			ipP	10 15 28.8
				micr sec
			pP Z'	0.2 0.8
			Mx N	1.4 10
			Mx Z	2.0 11
		Ki	iP	10 16 49.0
			ipP	10 16 52.8
				micr sec
			pP Z'	0.1 1.1
			Mx E	1.0 9
			Mx N	1.6 9
			Mx Z	1.4 9
		Sk	iP	10 16 08.2
			ipP	10 16 12.2
		Um	iP	10 16 11.5
			ipP	10 16 15.6
			iS	10 20 13
		Ud	iP	10 15 29.5
			ipP	10 15 32.6
		De	iP	10 14 44.4
		Italy.		
		h = 15 km (Up,Ki,Sk,Um,Ud).		
		m = 5.4 (Up,Ki).		
"	19	Um	iP	10 34 07.5
		Ud	eP	10 33 42
"	19	Ud	iP	12 48 47.5
"	19	Up	iP	13 11 47.7 C
			i	13 12 05.6
			i	13 12 11.2
				micr sec
			P Z'	0.2 0.8
		Ki	iP	13 11 13.3
			i	13 11 30.1
				micr sec
			P Z'	0.2 0.9
			Mx E	0.7 16
			Mx N	0.7 16
			Mx Z	1.1 15
		Sk	iP	13 11 21.4 C
		Um	iP	13 11 33.1 C
			i	13 11 50.9
		(cont.)		

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

1975
June 19 (cont.)

Ud	iP	13 11 40.1	C
	i	13 12 03.1	
De	iP	13 11 56.4	C

Nevada.
m = 6.3 (Up,Ki).
Underground explosion.

" 19	Ki	eP	15 23 38

Volcano Islands (h = N).

" 19	Sk	iPKPl	15 51 51.8
	Um	iPKPl	15 51 46.8
	Ud	iPKPl	15 52 00.4
	De	iPKPl	15 52 07.9

" 19	Up	iP	16 25 16.5
		ipP	16 25 35.1
	Ki	iP	16 25 08.4
		ipP	16 25 26.6
	Sk	iP	16 24 59.6
		ipP	16 25 17.8
	Um	iP	16 25 16.1
		ipP	16 25 33.9
	Ud	iP	16 25 06.6
	De	iP	16 25 13.2
		ipP	16 25 31.6

El Salvador.
h = 70 km (Up,Ki,Sk,Um,De).

" 19	Up	iP	17 48 36.5
	Ud	iP	17 48 42.8

" 19	Up	iP	22 45 36.6
	Ud	iP	22 45 42.5

" 19	Ud	iP	20 46 22.3

Crete (h = 50 km).

" 20	Ud	iPKPl	00 38 28.8
	De	iPKPl	00 38 39.8

Fiji Islands (h = 310 km).

" 20	Ud	iP	03 48 42.1

" 20	Ki	iP	07 47 05.0
	Ud	iP	07 47 39.0

South of Mariana Islands
(h = 35 km).

" 20	Up	iPKPl	08 01 28.0
	Ud	iPKPl	08 01 30.0
	De	iPKPl	08 01 40.8

Tonga-Kermadec Islands
(h = 500 km).

1975
June 20

Up	iP		08 54 48.2	
	iS		08 58 18.4	
	iLg2		09 00 31.7	
Ki	iP		08 53 01.3	
	iS		08 54 48.1	
	iLgl		08 55 28.7	
			micr	sec
	Lgl	Z'	0.3	1.0
	Mx	E	1.6	8
	Mx	N	0.7	10
	Mx	Z	0.7	9
Sk	iP		08 54 03.7	
	iLg2		08 58 47.1	
Um	iP		08 53 56.1	
	iS		08 56 39.2	
Ud	iP		08 54 45.1	
De	iP		08 55 25.1	
	i		08 55 27.7	
	iLg2		09 02 06.3	

Svalbard (h = 5 km).

" 20	Up	iPl	09 24 31.5
		iP2	09 24 34.3
	Ki	iPl	09 25 07.1
		iP2	09 25 09.7
	Sk	iP2	09 24 09.0
	Um	iP2	09 24 46.5
	Ud	iPl	09 24 46.7
		iP2	09 24 49.1
	De	iPl	09 24 30.7

Iran (h = 70 km).
In average, P2 - Pl = 2.6 sec.

" 20	Up	iSgl	10 29 05.7
	Sk	eSgl	10 28 15
	Ud	iSgl	10 28 02.5
	De	eSgl	10 29 09

West coast of Norway,
near Bergen.
By combination with Bergen
and Kongsberg readings.

" 20	Up	iP	13 16 27.2
		i	13 16 42.1
	Ki	iP	13 15 42.4
	Um	iP	13 16 03.0
	Ud	iP	13 16 33.5
		i	13 16 46.9

Japan (h = N).

" 20	Up	iP	13 58 48.8	
		iLg2	14 07 08.1	
			micr	sec
		Lg2 Z'	0.2	1.5
	Ki	iP	13 59 24.5	

(cont.)

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

1975
June 20 (cont.)

Ki	iSn		14 05 29.4		
			micr	sec	
	Mx	E	0.5	9	
	Mx	N	0.4	9	
	Mx	Z	0.6	10	
Sk	eP		13 59 26		
Um	iP		13 58 58.8		
	iSn		14 04 24.5		
	iLg2		14 07 38.7		
Ud	iP		13 59 06.3		
De	iP		13 58 53.2		

Caspian Sea (h = 35 km).

" 20	Up	iP	14 18 37.4		
		ipP	14 18 55.3		
	Ki	iP	14 19 06.1		
	Sk	ipP	14 19 29.5		
	Ud	iP	14 18 52.1		
		ipP	14 19 10.5		
	De	iP	14 18 39.8		
		ipP	14 18 56.7		

Iran.
h = 70 km (Up,Ud,De).

" 20	Up	iSgl	15 57 50.7		
" 20	Um	iP	15 59 20.4		
	Ud	iP	15 59 03.6		
" 20	Up	iPKPl	16 44 58.4		
			micr	sec	
		PKPl	Z' 0.1	0.8	
	Um	iPKPl	16 44 47.1		
	Ud	iPKPl	16 45 00.6	D	
	De	iPKPl	16 45 10.7	D	

Tonga-Kermadec Islands
(h = 600 km).

" 20	Ud	iP	20 35 21.8		
		i	20 35 38.3		
" 20	Up	iP	21 29 01.5		
	Ud	iP	21 28 49.6		

North Atlantic Ocean
(h = N).

" 21	Ud	iP	00 56 57.0		

Sumatra (h = N).

" 21	Ud	iP	04 18 49.3		

Turkey (h = 90 km).

" 21	Up	iP	10 00 45.6		
	Ud	iP	10 00 50.6		

1975
June 21

Ud	iP		11 10 44.1		
" 21 Ud	iP		12 30 17.0		

Kirgiz SSR (h = 55 km).

" 21	Up	iPKP	14 20 07.4		
	Ud	ePKP	14 20 10		
	De	iPKP	14 20 15.9		

Solomon Islands (h = 400 km).

" 21	Up	iP	16 07 08.0		
	Ud	iP	16 07 07.4		
		i	16 07 13.7		
" 21	Up	iP	16 25 05.7		
	Ki	eP	16 26 19		
	Ud	iP	16 25 05.6		

Turkey (h = N).

" 21	Ud	iPKPl	17 56 18.3		
	De	iPKPl	17 56 28.6		

Fiji Islands (h = 490 km).

" 21	Um	iP	21 05 13.3		
	Ud	iP	21 05 44.2		

Kurile Islands.
Origin time = 20 54 34.

" 21	Up	iP	21 10 14.8		
	Ud	iP	21 10 20.0		

Kurile Islands.
Origin time = 20 59 10.

" 21	Ki	iP	23 14 00.5		
	Um	iP	23 14 08.0		
	Ud	eP	23 14 36		
		i	23 15 21.8		
" 22	Ud	iP	00 17 54.5		
" 22	Ud	iPKP	00 37 02.2		

Chile (h = N).

" 22	Up	iP	02 01 44.6		
	Ki	iP	02 00 58.8		
	Um	iP	02 01 19.2		
	Ud	iP	02 01 50.2	C	

Kurile Islands (h = 40 km).

" 22	Um	iP	02 02 53.4		
	Ud	iP	02 03 24.8		

Kurile Islands.
Origin time = 01 52 15.

" 22	Up	iP	02 36 02.5		

(cont.)

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

1975
June 22 (cont.)

Up	i		02 36 03.5	
	i		02 36 20.5	
	iPP		02 39 04.6	
	iS		02 46 00	
			micr	sec
	P	Z'	0.4	1.0
	Mx	E	4.5	15
	Mx	N	8.7	17
	Mx	Z	5.9	17
Ki	iP		02 35 27.2	
	i		02 35 28.4	
	iPP		02 38 09.5	
			micr	sec
	P	Z'	0.3	1.0
	Mx	E	12	16
	Mx	N	14	16
	Mx	Z	5.8	16
Sk	iP		02 35 58.1	
	i		02 35 59.0	
	i		02 38 41.3	
	iPP		02 38 57.3	
Um	iP		02 35 43.3	
	i		02 35 43.8	
	iPP		02 38 32.2	
	iS		02 45 26	
Ud	iP		02 36 09.2	
	i		02 36 10.2	
	iPP		02 39 13.7	
De	iP		02 36 22.5	
	i		02 36 23.4	
	iPP		02 39 38.9	

Japan (h = N).
m = 6.3, M = 6.4 (Up,Ki).

" 22 Ud iP 04 31 42.1

" 22 Ud iP 04 32 01.8

" 22 Up iP 04 35 34.6 C
i 04 35 40.9

		micr	sec
P	Z'	0.1	0.5

Ki iP 04 34 42.3 C

		micr	sec
P	Z'	0.2	1.3

Sk iP 04 35 18.7 C
Um iP 04 35 06.8 C
ipP 04 35 42.6
Ud iP 04 35 38.9 C
De iP 04 35 59.2 C
iPP 04 38 29.6

Kamchatka.
h = 150 km (Um).
m = 5.8 (Up,Ki).

" 22 Ud iP 04 44 27.3

1975
June 22 Ki ipP 04 47 07.6
Sk iP 04 47 26.6
Um iP 04 47 11.7
Ud iP 04 47 38.1
Japan (h = N).

" 22 Up iPl 04 53 20.0
Ki iPl 04 52 46.2
Sk ePl 04 53 17
Um iP2 04 53 04.5
Ud iPl 04 53 28.3
iP2 04 53 31.4
Japan (h = N).

" 22 Um iP 05 02 40.8
Ud iP 05 03 03.1

" 22 Up iP 05 50 32.9
Sk ipP 05 50 40.3
Um iP 05 50 16.0
Ud iP 05 50 42.8
ipP 05 50 51.6
Japan.
h = 30 km (Ud).

" 22 Up iP 06 23 14.7

" 22 Ud iP 07 02 56.4

" 22 Ki iP 07 34 14.1
Sk iP 07 34 45.1
Um iP 07 34 28.9
Ud iP 07 34 56.0
Japan (h = 25 km).

" 22 Ud iP 09 17 26.8

" 22 Ki iPKP 12 01 17.5
Ud iPKP 12 01 37.6
Fiji Islands (h = 420 km).

" 22 Ud iP 16 40 51.7

" 22 Up iP 22 55 15.3
i 22 55 16.4
iS 23 04 20

		micr	sec
P	Z'	0.8	1.2
Mx	E	7.2	16
Mx	N	15	17
Mx	Z	20	16

Ki iP 22 54 31.3
i 22 54 32.7
iS 23 03 00

		micr	sec
P	Z'	0.5	1.3

(cont.)

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

1975
June 22 (cont.)

Ki			micr	sec	
	Mx	E	23	16	
	Mx	N	27	16	
	Mx	Z	35	16	
Sk	iP		22 55 06.5		
	i		22 55 07.9		
Um	iP		22 54 50.1		
	i		22 54 51.6		
	iS		23 03 40		
Ud	iP		22 55 21.2		
	i		22 55 22.4		
De	iP		22 55 39.2		
	i		22 55 40.3		

Kurile Islands (h = 20 km).
m = 6.6, M = 6.5 (Up,Ki).
Double P, in average 1.2 sec apart.

" 22	Ud	iP	23 08 03.1		
" 22	Up	iP	23 11 58.4		
		ipP	23 12 08.9		
			micr	sec	
		P	Z' 0.3	1.3	
		Mx	E 3.7	14	
		Mx	N 7.2	18	
		Mx	Z 6.5	14	
	Ki	iP	23 11 13.1		
		ipP	23 11 23.3		
			micr	sec	
		P	Z' 0.2	1.0	
		Mx	E 7.6	15	
		Mx	N 6.5	15	
		Mx	Z 9.0	15	
	Sk	iP	23 11 50.0		
	Um	iP	23 11 33.6		
		ipP	23 11 43.1		
	Ud	iP	23 12 04.1		
		ipP	23 12 14.8		
	De	iP	23 12 22.6		
		ipP	23 12 33.6		

Kurile Islands.
h = 40 km (Up,Ki,Um,Ud,De).
m = 6.2, M = 6.1 (Up,Ki).

" 22	Um	iP	23 17 04.9		
	Ud	iP	23 17 36.4		
		iP	23 18 13.7		

Kurile Islands.
Origin time = 23 06 25.

" 22	Ud	iP	23 26 55.5		
" 22	Ud	eP	23 28 42		
		i	23 28 59.0		

1975
June 22

Up	iP		23 47 00.0		
Ud	iP		23 47 07.3		

Kurile Islands.
Origin time = 23 35 56.

" 22	Up	iP		23 48 19.9	
		ipP		23 48 29.4	
				micr	sec
		pP	Z'	0.1	1.0
	Ki	iP		23 47 33.9	
		ipP		23 47 44.2	
				micr	sec
		pP	Z'	0.1	1.0
	Sk	iP		23 48 10.0	
		ipP		23 48 19.3	
	Um	iP		23 47 54.1	
		ipP		23 48 04.7	
	Ud	iP		23 48 25.2	
		ipP		23 48 35.4	
	De	ipP		23 48 43.5	

Kurile Islands.
h = 35 km (Up,Ki,Sk,Um,Ud).
m = 5.9 (Up,Ki).

" 22	Ki	iP		23 54 07.7	
	Um	iP		23 54 28.1	
	Ud	iP		23 54 57.6	
		i		23 55 09.9	
	De	eP		23 55 16	

Japan (h = 60 km).

" 23	Ud	iPKPl		00 21 04.4	
	De	iPKPl		00 21 15.3	

Tonga-Kermadec Islands (h = 370 km).

" 23	Up	iP		00 29 33.7	
		i		00 29 42.8	
	Ud	iP		00 29 42.7	
		i		00 29 50.8	

Mid-Indian Rise (h = N).

" 23	Up	iP		01 33 49.1	
	Ki	iP		01 33 03.3	
	Sk	iP		01 33 39.3	
	Um	iP		01 33 24.5	
	Ud	iP		01 33 55.2	
		ipP		01 34 06.7	
	De	iP		01 34 12.9	

Japan.
h = 45 km (Ud).

" 23	Up	iP		01 39 03.3	
		ipP		01 39 14.3	
	Ki	iP		01 38 18.8	

(cont.)

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

1975
June 23 (cont.)

	Ki	ipP		01 38 29.3	
	Sk	ipP		01 39 04.8	
	Um	iP		01 38 39.8	
		ipP		01 38 49.7	
	Ud	iP		01 39 09.6	
		ipP		01 39 20.3	
	De	iP		01 39 28.0	
		ipP		01 39 38.7	

Japan.
h = 40 km (Up,Ki,Um,Ud,De).

" 23	Ki	iP		01 53 42.9	
	Um	iP		01 54 08.0	
	Ud	iP		01 54 39.9	

Kamchatka (h = 40 km).

" 23	Um	iP		02 38 12.1	
	Ud	iP		02 38 56.2	

Kurile Islands.
Origin time = 02 27 45.

" 23	Ud	iP		05 46 30.0	
" 23	Ud	iP		05 53 24.3	
		i		05 53 35.5	
" 23	Ki	iP		07 19 32.4	
	Ud	iP		07 20 23.4	

Kurile Islands.
Origin time = 07 09 12.

" 23	Ud	iP		08 55 34.4	
" 23	Up	iP		09 24 47.0	C
		ipP		09 24 57.6	
		iS		09 33 50	
				micr sec	
		P	Z'	1.1 2.0	
		Mx	E	1.5 13	
		Mx	N	2.6 15	
		Mx	Z	5.4 15	
	Ki	iP		09 24 02.0	C
		ipP		09 24 13.9	
				micr sec	
		P	Z'	0.1 1.0	
		Mx	E	4.7 16	
		Mx	N	5.8 16	
		Mx	Z	7.3 16	
	Sk	iP		09 24 37.6	C
	Um	iP		09 24 22.1	C
		ipP		09 24 33.0	
		iS		09 33 08	
	Ud	iP		09 24 53.2	C
		i		09 25 03.8	
	De	iP		09 25 11.6	

(cont.)

1975
June 23 (cont.)
Kurile Islands.
h = 40 km (Up,Ki,Um,Ud).
m = 6.2, M = 5.8 (Up,Ki).

" 23	Up	iP		09 28 52.0	
	Ud	iP		09 28 57.0	

Kurile Islands.
Origin time = 09 17 46.

" 23	Up	iPKP		09 44 19.6	
	Ki	iPKP		09 44 03.4	
	Um	iPKP		09 44 10.7	
	Ud	i(PKP)		09 44 10.2	
		iPKP		09 44 21.3	
	De	i(PKP)		09 44 18.3	

Fiji Islands (h = 560 km).

" 23	Ud	i		09 56 11.1	

Mindoro (h = 55 km).

" 23	Up	iP		10 39 30.3	
	Ki	iP		10 39 22.8	
	Sk	iP		10 39 46.2	
	Um	iP		10 39 22.2	
	Ud	iP		10 39 43.8	
" 23	Up	iP		10 45 58.9	
	Sk	iP		10 46 39.5	
	Ud	iP		10 46 02.6	

Greece (h = N).

" 23	Ud	iP		11 57 00.6	
" 23	Up	iP		12 07 31.9	
		ipP		12 07 42.8	
				micr sec	
		P	Z'	0.1 1.2	
		pP	Z'	0.1 1.3	
	Ki	iP		12 06 46.8	
				micr sec	
		Mx	N	0.7 16	
		Mx	Z	1.0 17	
	Sk	iP		12 07 21.7	
	Um	iP		12 07 07.5	
		ipP		12 07 18.6	
	Ud	iP		12 07 37.9	
		ipP		12 07 48.9	
	De	iP		12 07 55.7	

Kurile Islands.
h = 40 km (Up,Um,Ud).

" 23	Ud	iP		12 22 11.3	

Kurile Islands (h = 50 km).

" 23	Ud	iP		12 32 50.6	

Kurile Islands (h = 70 km).

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

1975 June	23	Ud	iP	12 36 02.8	
"	23	Ud	iP	12 49 58.0	
"	23	Up	iP	12 56 29.4	
			ipP	12 56 40.9	
		Ki	iP	12 55 44.5	
			ipP	12 55 56.3	
		Sk	iP	12 56 20.8	
		Um	iP	12 56 04.9	
			ipP	12 56 16.5	
		Ud	iP	12 56 35.8	C
			ipP	12 56 47.1	
		De	iP	12 56 53.0	
		Kurile Islands.			
		h = 45 km (Up,Ki,Um,Ud).			
"	23	Up	iPn	13 20 00.6	
			iP	13 20 07.0	
			i	13 21 39.9	
			iS	13 22 03.8	
			iLg2	13 22 59.0	
		Ki	iP	13 21 40.5	
			i	13 21 43.8	
			i	13 21 55.4	
			i	13 25 12.8	
			i	13 26 22.6	
			iLg2	13 27 04.6	
				micr	sec
			P Z'	0.5	1.5
			Lg2 Z'	1.1	2.0
			Mx E	1.2	8
			Mx N	1.8	8
			Mx Z	1.7	7
		Sk	iPn	13 20 36.4	
			iSn	13 22 54.9	
		Um	iPn	13 20 44.2	
			iP	13 20 55.4	
			i	13 23 00.4	
			iSn	13 23 21.2	
			iS	13 23 40.2	
			i	13 24 27.4	
			iLg2	13 25 14.2	
		Ud	iPn	13 19 52.1	
			iP	13 19 58.1	
			i	13 21 26.0	
			iSn	13 21 38.4	
			i	13 22 00.1	
			iLg2	13 23 41.1	
		De	iPn	13 19 04.3	
			iP	13 19 12.5	
			iSn	13 20 19.4	
			iSg2	13 20 57.8	
		Germany (h = N).			
"	23	Ud	iP	13 37 48.2	
1975 June	23	Ud	iP	14 43 41.6	
		Japan (h = 80 km).			
"	23	Ud	iP	15 14 34.9	
"	23	Ud	iP	16 00 51.1	
		Mindanao (h = 70 km).			
"	23	Ud	iP	21 58 29.5	
		De	i	21 58 33.0	
		Afghanistan-USSR (h = 160 km).			
"	23	Up	iP	22 29 07.6	
		Ki	iP	22 28 23.0	
		Ud	iP	22 29 13.7	
			ipP	22 29 25.5	
		De	iP	22 29 31.5	
		Kurile Islands.			
		h = 45 km (Ud).			
"	24	Ud	iP	02 28 25.5	
"	24	Up	iP	03 49 42.0	
		Ud	iP	03 49 53.6	
		Greece (h = 90 km).			
"	24	Ud	iP	08 53 07.1	
"	24	Ud	iP	11 50 49.1	
"	24	Up	iP	11 51 37.0	
		Ud	iP	11 51 43.2	
		Japan (h = N).			
"	24	Ud	iP	12 32 42.5	
"	24	Up	iPKP1	12 35 11.8	
			iPKP2	12 35 15.7	
		Sk	iPKP1	12 35 05.3	
		Um	iPKP1	12 34 59.6	
		Ud	iPKP1	12 35 13.3	
			iPKP2	12 35 18.8	
		De	iPKP2	12 35 26.8	
		Kermadec Islands (h = 10 km).			
"	24	Up	iP	15 48 06.8	
			ipP	15 48 14.8	
		Ki	iP	15 48 04.1	
		Sk	iP	15 48 25.1	
		Um	iP	15 48 00.5	
			ipP	15 48 08.6	
		Ud	iP	15 48 21.3	
			ipP	15 48 30.0	
		De	iP	15 48 21.5	
		Nepal.			
		h = 30 km (Up,Um,Ud).			

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

1975 June	24	Ud	iP		18 29 22.4
		Kurile Islands (h = 45 km).			
"	24	Up	iP		19 03 34.3
		Ki	iP		19 02 49.5
		Um	iP		19 03 08.5
		Ud	iP		19 03 40.1
		Kurile Islands (h = 30 km).			
"	24	Ud	iP		19 15 26.4
"	24	Up	iPKP		21 19 51.6
		Um	iPKP		21 19 44.4
		Ud	iPKP		21 19 54.0
		New Hebrides Islands (h = 190 km).			
"	24	Um	iPKP		21 34 32.0
		Ud	iPKPl		21 34 37.4
		De	iPKPl		21 34 50.0
		Tonga Islands (h = 25 km).			
"	24	Ud	iP		23 20 56.4
		Kamchatka (h = N).			
"	24	Up	iP		23 40 36.9
			i		23 40 51.6
					micr sec
			P	Z'	0.1 1.0
			Mx	E	1.1 19
			Mx	N	2.5 20
		Ki	iP		23 40 12.8
					micr sec
			P	Z'	0.2 0.9
		Sk	iP		23 40 40.3
		Um	iP		23 40 21.8
			ipP		23 40 27.2
			i		23 40 36.2
		Ud	iP		23 40 45.8
			i		23 41 01.1
		De	iP		23 40 55.7
			i		23 41 11.2
		Formosa.			
		h = 15 km (Um).			
		m = 6.0 (Up,Ki).			
"	25	Ud	iP		01 15 21.6
		North Atlantic Ocean (h = N).			
"	25	Up	iP		05 09 14.5
		Ud	iP		05 09 20.6
		Japan (h = 50 km).			
"	25	Ud	iPKPl		06 03 17.3
		De	iPKPl		06 03 29.4

1975 June	25	Up	iP		10 20 07.4
			i(pP)		10 20 15.5
		Ki	iP		10 18 29.0
			iS		10 21 11.7
					micr sec
			P	Z'	0.1 0.5
		Sk	i(pP)		10 19 36.2
		Um	iP		10 19 18.0
			iS		10 22 44.8
		Ud	iP		10 20 06.4
		De	iP		10 20 34.2
			i(pP)		10 20 43.3
		Franz Josef Land (h = N).			
"	25	Ki	iP		10 29 14.0
		Ud	iP		10 29 37.1
"	25	Ud	i(P)		13 36 05.4
"	25	Up	iSgl		15 08 10.3
		Ud	i		15 07 05.8
			iSgl		15 07 10.9
"	25	Up	iP		16 25 27.6
			ipP		16 25 34.6
		Ki	iP		16 24 41.6
		Um	iP		16 25 02.4
		Ud	iP		16 25 34.1
			ipP		16 25 41.2
		De	iP		16 25 50.8
		Kurile Islands.			
		h = 25 km (Up,Ud).			
"	25	Up	iS		19 44 33
					micr sec
			Mx	E	2.5 19
			Mx	N	2.7 17
			Mx	Z	4.1 18
		Ki	eP		19 33 20
			i		19 33 39.8
					micr sec
			Mx	E	3.0 16
			Mx	N	3.6 16
			Mx	Z	4.3 16
		Um	iS		19 44 17
		Mexico (h = N).			
		M = 5.9 (Up,Ki).			
"	26	Ud	iP		04 39 36.1
"	26	Um	iP		06 57 52.8
		Guatemala (h = 80 km).			
"	26	Up	iP		07 42 55.8
			ipP		07 43 08.1
		Ki	iP		07 42 11.1
		(cont.)			

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

1975
June 26 (cont.)

Um	iP		07 42 31.8
Ud	iP		07 43 01.8
	ipP		07 43 14.4

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

" 26

Up	iP		08 10 23.1
Ki	iP		08 09 29.6
			micr sec
	P	Z'	0.1 1.0
Sk	eP		08 10 00
Um	iP		08 09 56.7
Ud	iP		08 10 22.0
De	iP		08 10 44.8
	i		08 11 00.3

Aleutian Islands
(h = 35 km).

" 26

Um	i(P)		08 17 59.4

" 26

Up	iP		08 19 10.0
Ki	iP		08 18 16.9
Sk	iP		08 18 53.5
Um	iP		08 18 42.3
Ud	iP		08 19 12.8
De	iP		08 19 35.4

Kamchatka (h = N).

" 26

Ud	iP		09 28 47.6
	ipP		09 29 00.2

Kurile Islands.
h = 45 km (Ud).

" 26

Ud	iP		09 33 52.5

" 26

Um	iP		09 40 23.6
Ud	iP		09 40 55.7
	ipP		09 41 08.4

Kurile Islands.
h = 45 km (Ud).

" 26

Ud	iP		09 58 21.2

" 26

Up	iP		10 03 27.4 D
	iS		10 12 36
			micr sec
	P	Z'	0.1 0.9
Ki	iP		10 02 53.4 D
	iS		10 11 34
			micr sec
	P	Z'	0.1 1.0
Sk	iP		10 03 24.1
Um	iP		10 03 07.9 D
	iS		10 12 00
Ud	iP		10 03 34.7 D
	iS		10 12 49.7

(cont.)

1975
June 26 (cont.)

De	iP		10 03 48.3 D

Japan (h = 390 km).
m = 5.5 (Up,Ki).

" 26

Up	iP		10 42 15.6 C
	i		10 42 28.3
	iS		10 51 27
			micr sec
	P	Z'	0.1 1.0
	Mx	E	1.4 18
	Mx	N	1.4 16
	Mx	Z	2.2 15
Ki	iP		10 41 30.4
	i		10 41 44.1
			micr sec
	P	Z'	0.1 1.0
	Mx	E	2.1 18
	Mx	N	1.5 15
	Mx	Z	3.0 19
Um	iP		10 41 50.9 C
	iS		10 50 36
Ud	iP		10 42 21.7 C
	i		10 42 34.7
De	iP		10 42 39.1

Kurile Islands (h = 10 km).
m = 5.9, M = 5.4 (Up,Ki).

" 26

Up	iP		11 28 44.4
Um	iP		11 28 19.4
Ud	iP		11 28 50.6

Kurile Islands.
Origin time = 11 17 39.

" 26

Up	iP		12 05 17.9
Ki	iP		12 04 23.8
Ud	iP		12 05 15.4

South of Alaska (h = 1 km).

" 26

Up	iP		12 41 48.1 C
			micr sec
	P	Z'	0.3 0.9
Ki	iP		12 41 13.8 C
	iPP		12 43 43.7
			micr sec
	P	Z'	0.3 1.0
	Mx	E	1.0 14
	Mx	N	1.0 14
	Mx	Z	1.2 14
Sk	iP		12 41 22.0 C
Um	iP		12 41 33.5 C
	iPP		12 44 16.5
Ud	iP		12 41 40.2 C
De	iP		12 41 56.7 C

Nevada.
m = 6.4 (Up,Ki).
Underground explosion.

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

1975 June	26	Ki	iSgl		13 02 50.9		
		Um	iSgl		13 01 16.9		
"	26	Up	iPl		13 18 09.0	C	
			ipP		13 18 23.0		
					micr	sec	
			Pl	Z'	0.1	1.1	
			Mx	E	1.0	17	
			Mx	N	0.9	17	
		Ki	iPl		13 17 23.0		
			iP2		13 17 26.7		
			ipP		13 17 38.4		
					micr	sec	
			Pl	Z'	0.1	1.0	
			P2	Z'	0.3	1.5	
			Mx	E	0.9	15	
			Mx	N	1.2	16	
			Mx	Z	1.5	16	
		Sk	iP2		13 18 03.5		
		Um	iPl		13 17 43.8		
			iP2		13 17 47.9		
			ipP		13 17 59.0		
		Ud	iPl		13 18 14.2		
			ipP		13 18 29.4		
		De	iP2		13 18 35.6		
			ipP		13 18 49.4		
		Japan.					
		h = 55 km (Up,Ki,Um,Ud,De).					
		m = 5.8, M = 5.3 (Up,Ki).					
		In average, P2 - P1 = 3.8 sec.					
"	26	Up	iP		15 37 16.3		
			ipP		15 37 34.4		
			i		15 37 46.0		
					micr	sec	
			pP	Z'	0.2	1.1	
		Ki	iP		15 36 51.6		
			ipP		15 37 10.3		
					micr	sec	
			pP	Z'	0.6	2.3	
		Sk	eP		15 37 21		
		Um	iP		15 37 00.6		
			ipP		15 37 18.0		
			i		15 37 30.5		
		Ud	iP		15 37 26.0		
			ipP		15 37 44.1		
		Formosa.					
		h = 70 km (Up,Ki,Um,Ud).					
		m = 6.0 (Up,Ki).					
"	26	Ud	iP		15 38 17.0		
		Kurile Islands (h = 50 km).					
"	26	Ud	iP		17 02 04.8		
		Afghanistan-USSR (h = 15 km).					
1975 June	26	Up	iP		23 54 05.6	D	
		Ki	iP		23 53 20.8		
		Um	iP		23 53 40.6		
		Ud	iP		23 54 11.9	D	
		Kurile Islands (h = 30 km).					
"	27	Ki	iP		09 06 56.5		
		Ud	iP		09 07 48.2		
		Kurile Islands (h = 25 km).					
"	27	Up	i(P)		11 07 40.4		
"	27	Ud	i		11 35 38.6		
			iRg		11 35 42.0		
		Regional near-surface event.					
"	27	Ki	iP		13 10 44.4		
"	27	Ud	iP		16 29 50.9		
"	27	Up	iP		19 09 54.2		
		Ki	iP		19 10 02.1		
					micr	sec	
			P	Z'	0.1	1.0	
		Sk	iP		19 10 19.2		
		Um	iP		19 09 52.2		
		Ud	iP		19 10 10.5		
			ipP		19 10 59.7		
		De	iP		19 10 05.8		
		Afghanistan-USSR.					
		h = 220 km (Ud).					
"	28	Ud	iPKPl		01 36 10.5		
			il		01 36 16.7		
		De	il		01 36 27.8		
		Tonga-Kermadec Islands (h = N).					
"	28	Ud	iP		02 19 49.1		
"	28	Ki	iP		03 01 10.7		
		Ud	iP		03 02 01.4		
		Kurile Islands (h = 45 km).					
"	28	Up	iP		04 33 52.8	C	
					micr	sec	
			P	Z'	0.1	0.6	
		Ki	iP		04 34 02.6	C	
					micr	sec	
			P	Z'	0.2	1.0	
		Sk	iP		04 34 18.7	C	
		Um	iP		04 33 52.0	C	
		Ud	iP		04 34 09.4	C	
		De	iP		04 34 05.6	C	
		Hindu Kush (h = 220 km).					
		m = 5.5 (Up,Ki).					

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

1975					
June	28	Up	iPKPl	04 37 00.4	
				micr	sec
			PKPl Z'	0.3	1.0
		Ud	iPKPl	04 37 01.7	
		De	iPKPl	04 37 11.7	
			i	04 37 16.1	
		Tonga-Kermadec Islands			
		(h = 210 km).			
"	28	Ud	iP	04 56 24.3	
"	28	Up	iP	06 17 50.8	
		Ki	iP	06 17 40.0	C
		Sk	iP	06 18 05.3	C
		Um	iP	06 17 41.0	
		Ud	iP	06 18 04.5	
		De	iP	06 18 08.8	
		India-China (h = N).			
"	28	Ud	iP	08 00 45.6	
"	28	Up	i	10 45 49.9	
			iSgl	10 45 53.2	
		Ki	iSgl	10 48 12.0	
		Sk	iPgl	10 44 21.5	
			iSgl	10 45 21.0	
		Um	i	10 46 51.6	
			iSgl	10 46 55.8	
		Ud	iPgl	10 44 01.4	
			iSgl	10 44 48.7	
		De	iSn	10 45 13.9	
			i	10 45 26.9	
			iSgl	10 45 36.3	
		Southwest Norway,			
		59.8°N, 6.5°E.			
		Origin time = 10 43 00.			
		m = 4.4, M_L = 3.1 (Up,Sk,			
		Um,Ud).			
		Felt.			
		By combination with Bergen			
		and Kongsberg readings.			
"	28	Ud	iP	14 00 33.3	
"	28	Ki	iP	16 38 36.8	
		Sk	iP	16 38 33.7	
		Um	iP	16 38 11.9	
		Ud	iP	16 38 12.4	
		De	iP	16 37 55.0	
		Iran (h = 60 km).			
"	28	Ud	iP	16 59 02.6	
"	28	Ki	iP	18 05 24.7	
		Um	iP	18 05 39.0	
		Ud	iP	18 06 06.5	
		Japan (h = 10 km).			

1975					
June	28	Ki	iP	18 21 26.9	
"	28	Up	iP	21 42 25.4	
			ipP	21 42 54.8	
		Ki	iP	21 42 19.7	C
		Sk	iP	21 42 40.7	
			ipP	21 43 10.5	
		Um	iP	21 42 17.9	C
			ipP	21 42 46.3	
		Ud	iP	21 42 38.3	C
			ipP	21 43 07.3	
		De	iP	21 42 40.0	
		Burma.			
		h = 120 km (Up,Sk,Um,Ud).			
"	28	Ki	iSgl	23 43 30.8	
		Sk	iSgl	23 43 30.3	
		Um	iSgl	23 44 02.3	
		Coast of Nordland, Norway,			
		66.6°N, 13.1°E.			
		Origin time = 23 41 57.			
		m = 4.2, M_L = 2.5 (Um).			
"	29	Ki	iP	00 32 04.2	
				micr	sec
			P Z'	0.1	1.2
		Sk	iP	00 31 40.2	
		Ud	eP	00 31 23	
"	29	Ud	iP	00 38 19.6	
"	29	Up	iPKP	00 49 00.0	
		Ki	iPKP	00 48 45.2	
				micr	sec
			PKP Z'	0.1	1.0
		Sk	iPKP	00 48 56.8	
		Um	iPKP	00 48 52.3	
		Ud	iPKP	00 49 01.6	
			iSKPl	00 52 07.1	
		De	iPKP	00 49 07.1	
			iSKPl	00 52 17.9	
		New Hebrides Islands			
		(h = 190 km).			
"	29	Up	iP	02 17 02.4	
		Um	iP	02 16 45.7	
		Ud	iP	02 17 14.9	
"	29	Um	iP	03 33 52.1	
		Ud	iP	03 34 13.6	
"	29	Ud	iP	06 31 39.4	
"	29	Up	iP	10 15 38.8	
			i	10 15 47.2	
		Ud	iP	10 15 47.5	

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

1975						
June	29	Up	iP		10 47 39.9	D
			ipP		10 49 34.3	
			iS		10 55 49.6	
			iP'P'		11 15 48.1	
			ipP'P'		11 18 09.1	
					micr	sec
			P	Z'	3.5	0.9
			Mx	E	75	28
			Mx	N	16	17
			Mx	Z	21	18
		Ki	iP		10 47 03.8	D
			ipP		10 48 55.9	
			iPP		10 49 28.3	
			ipPP		10 50 45.7	
			iS		10 54 42.6	
			i(P'P')		11 15 39.0	
			iP'P'		11 16 08.2	
					micr	sec
			P	Z'	9.5	1.1
			Mx	E	56	17
			Mx	N	44	18
			Mx	Z	26	18
		Um	iP		10 47 18.8	D
			ipP		10 49 12.7	
			iS		10 55 09.4	
			iP'P'		11 15 58.0	
		Ud	iP		10 47 48.2	D
			ipP		10 49 44.0	
			iS		10 56 04.9	
			iP'P'		11 15 45.6	
		De	iP		10 48 01.9	D
			ipP		10 49 58.3	
			iS		10 56 32.0	
			iP'P'		11 15 44.7	
		Sea of Japan.				
		h = 580 km (Up,Ki,Um,Ud,De).				
		m = 7.0, M = 6.9 (Up,Ki).				
		M uncorrected for focal depth.				
"	29	Ki	iP		12 33 30.2	
		Um	iP		12 33 51.1	
		Ud	iP		12 34 26.4	
		Eastern USSR (h = N).				
"	29	Ki	iP		13 25 24.6	
"	29	Ud	iP		14 56 27.8	
"	29	Ki	iP		15 10 10.8	
		Ud	iP		15 09 29.7	
		Red Sea (h = N).				
"	29	Ki	iP		15 10 43.7	
		Ud	iP		15 10 02.0	
"	29	Up	iP1		17 41 41.5	
		(cont.)				

1975				
June	29	(cont.)		
		Up	iP2	17 41 44.6
		Um	iP2	17 42 23.4
		Ud	iP1	17 41 49.4
		Greece (h = 40 km).		
"	29	Ud	iP	20 37 15.5
"	29	Ki	iP	21 54 52.4
		Ud	iP	21 54 16.2
		Red Sea (h = N).		
"	29	Ud	iP	22 01 58.3
"	30	Ud	iP	00 07 48.3
"	30	Up	iP	03 33 55.3 C
		Ki	iP	03 33 38.6
		Um	iP	03 33 40.0
		Ud	iP	03 34 11.6 C
		De	iP	03 34 18.8 C
		Eastern Kazakh SSR.		
		Underground explosion.		
"	30	Up	iP	09 02 01.9 D
			ipP	09 02 16.3
				micr sec
			P Z'	0.1 0.9
		Ki	iP	09 02 01.9 D
		Sk	iP	09 02 18.2
			ipP	09 02 32.8
		Um	iP	09 01 57.6 D
			ipP	09 02 11.6
		Ud	iP	09 02 14.1 D
			ipP	09 02 28.3
		De	iP	09 02 12.4
		Andaman Islands (h = 55 km).		
"	30	Up	iPKP1	10 52 23.5
		Sk	iPKP1	10 52 16.1
		Um	iPKP1	10 52 12.6
		Ud	iPKP1	10 52 25.4
		De	iPKP1	10 52 35.8
		Tonga-Kermadec Islands (h = 220 km).		
"	30	Ud	iP	11 18 23.6
"	30	Ud	iP	11 55 13.6
"	30	Um	iP	12 38 10.2
		Ud	iP	12 38 40.8
"	30	Up	iP	13 31 43.9
			iS	13 35 43.5
				micr sec
			P Z'	0.1 0.8
		(cont.)		

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

1975
June 30 (cont.)

Up			micr	sec
	Mx	E	7.4	10
	Mx	N	6.1	9
	Mx	Z	8.4	10
Ki	iP		13 33 00.4	
	i		13 33 02.6	
	iS		13 37 57	
			micr	sec
	P	Z'	0.2	1.8
	i	Z'	0.2	1.1
	Mx	E	7.2	12
	Mx	N	5.6	11
	Mx	Z	6.7	12
Sk	iP		13 32 25.8	
	i		13 32 27.8	
Um	iP		13 32 22.8	
	i		13 32 26.8	
	iS		13 36 52	
Ud	iP		13 31 50.7	
	i		13 31 53.0	
	iS		13 35 56.4	
De	iP		13 31 14.5	
	i		13 31 16.5	

Greece (h = 10 km).
m = 5.6, M = 5.6 (Up,Ki).

" 30 Sk iP 13 47 49.7
Ud iP 13 47 13.6
Greece.

" 30 Up eP 15 32 11
i 15 32 18.4
Sk iP 15 32 53.7
Um iP 15 32 52.8
Ud iP 15 32 19.6
Greece (h = 35 km).

" 30 Ud eP 15 38 31

" 30 Ud iP 17 06 05.6

" 30 Sk iP 17 07 00.9

" 30 Up iP 17 37 37.4
Ud iP 17 37 43.3
Greece (h = N).

" 30 Up iP 18 45 17.1
i 18 45 37.9
Sk iP 18 45 57.9
Um iP 18 45 55.8
Ud iP 18 45 25.7
Greece (h = 25 km).

" 30 Sk iP 18 55 14.6
(cont.)

1975
June 30 (cont.)

Um iP 18 55 23.7
Ud iP 18 55 34.2
Probably Wyoming, a foreshock to the following main event.

" 30 Up iP 19 05 11.7
iS 19 14 02

			micr	sec
	P	Z'	0.2	1.2
	Mx	E	2.4	18
	Mx	N	2.2	14
	Mx	Z	5.0	17
Ki	iP		19 04 34.6	
			micr	sec
	P	Z'	0.3	1.7
	Mx	E	4.5	15
	Mx	N	5.8	16
	Mx	Z	6.1	16
Sk	iP		19 04 42.6	
Um	iP		19 04 53.7	
	iS		19 13 38	
Ud	iP		19 05 02.5	
De	iP		19 05 20.5	

Wyoming (h = 5 km).
m = 6.2, M = 5.8 (Up,Ki).

" 30 Up iP 19 11 27.0
Ki iP 19 10 48.5
Sk eP 19 10 58
Um iP 19 11 09.4
Ud iP 19 11 16.1
Wyoming (h = 5 km).

" 30 Up i(P) 19 14 37.2

" 30 Up iPgl 19 34 39.9
iSgl 19 34 58.3
iRg 19 35 05.5
Ud iPgl 19 34 49.4
iSgl 19 35 14.7
i 19 35 16.8
iRg 19 35 25.5
Origin time = 19 34 15.
Near-surface event.

" 30 Um iP 20 04 42.7

" 30 Up i(P) 21 14 24.3
Ud i(P) 21 14 10.1

" 30 Sk iP 23 07 48.2
Um iP 23 07 44.3
Ud iP 23 07 15.6
Greece (h = 50 km).

" 30 Up iP 23 11 15.0
(cont.)

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

1975
June 30 (cont.)

Up	iS		23 21	44
			micr	sec
	Mx	E	1.4	18
	Mx	N	1.3	18
	Mx	Z	1.9	16
Ki	iP		23 10	57.8
			micr	sec
	Mx	E	1.7	13
	Mx	N	1.0	14
	Mx	Z	1.9	15
Sk	iP		23 10	55.0
Um	iP		23 11	07.9
	iS		23 21	37
Ud	iP		23 11	05.6
De	iP		23 11	16.7

Mexico (h = 25 km).
M = 5.6 (Up,Ki).

" 30

Sk	iP	23 58	32.1
Um	iP	23 58	29.8
Ud	iP	23 57	58.0

Greece (h = 55 km).

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February 25, 1977

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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 L Y 1 - 31, 1975

1975 July	1	Ki	eP	00 03 22
		Sk	iP	00 03 25.2
		Um	iP	00 03 38.1
"	1	Um	iP	02 31 20.7
"	1	Up	iP	03 32 22.0
			i	03 32 26.1
		Ki	iP	03 30 49.8
			i	03 30 54.9
		Sk	iP	03 31 36.0
		Um	iP	03 31 37.0
		Ud	iP	03 32 12.7 C
			ipP	03 32 20.3
		North of Svalbard (h = N).		
		Late arrivals compared to the NEIS solution.		
"	1	Ud	iP	05 10 06.2
"	1	Ud	i(P)	05 33 08.2
		South Atlantic Ocean (h = N).		
"	1	Up	iP	09 35 43.3
			ipP	09 36 08.1
		Ki	iP	09 35 16.2
		Sk	iP	09 35 44.5
			ipP	09 36 10.6
		Um	iP	09 35 25.0
			ipP	09 35 53.5
		Ud	iP	09 35 52.1
			ipP	09 36 17.4
		De	iP	09 35 59.8
		Formosa.		
		h = 100 km (Up,Sk,Um,Ud).		
"	1	Up	iP	10 25 25.5
		(cont.)		
1975 July	1	(cont.)		
		Ki	iP	10 25 06.7
		Sk	iP	10 25 06.9
		Um	iP	10 25 19.2
		Ud	iP	10 25 16.8
		Mexico (h = 230 km).		
"	1	Ki	iP	12 24 07.0
		Ud	iP	12 25 03.6
"	1	Ud	iP	18 25 52.2
		Nevada (h = 5 km).		
"	1	Up	iP	21 55 00.0
			i	21 55 24.5
		Um	i	21 55 25.3
		Ud	iP	21 55 12.3
		Carlsberg Ridge (h = N).		
"	2	Up	iP	01 08 31.7
		Sk	iP	01 09 12.0
		Um	iP	01 09 11.1
		Ud	iP	01 08 38.0
			i	01 08 41.5
		Greece (h = 15 km).		
"	2	Ud	iP	01 11 06.7
"	2	Up	iP	01 35 14.9
		Sk	iP	01 35 56.2
		Um	iP	01 35 54.7
		Ud	iP	01 35 24.6
		Greece (h = 35 km).		
"	2	Ud	iP	01 54 48.3
"	2	Sk	iP	02 25 15.1
		Ud	iP	02 24 39.9
		Greece (h = 60 km).		

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

1975 July	2	Ud	iP	03 35 00.6
"	2	Ud	iP	03 48 23.8
"	2	Up	iP	04 53 20.5
			i	04 53 23.6
		Sk	iP	04 54 03.2
		Um	iP	04 53 59.8
		Ud	iP	04 53 29.8
		Greece (h = 25 km).		
"	2	Up	iP	05 14 21.4
		Ud	iP	05 14 29.3
		Greece (h = 25 km).		
"	2	Um	iP	06 26 34.8
		Ud	iP	06 26 00.0
		Aleutian Islands (h = 70 km).		
"	2	Ud	eP	07 44 42
		Kamchatka (h = 25 km).		
"	2	Um	iP	10 56 11.6
		Ud	iP	10 55 59.8
		Panama-Costa Rica (h = 40 km).		
"	2	Up	iP	11 15 06.5
			ipP	11 15 13.3
		Ki	iP	11 15 09.7
		Sk	iP	11 15 28.8
		Um	iP	11 15 01.9
		Ud	iP	11 15 22.1
			ipP	11 15 28.5
		De	iP	11 15 20.5
		Kashmir-Tibet.		
		h = 25 km (Up,Ud).		
"	2	Up	iP	11 17 35.8
		Ryukyu Islands (h = 60 km).		
"	2	Up	iRg	12 34 36.4
		Ud	iRg	12 34 34.2
		Central Sweden.		
		Near-surface event.		
"	2	Up	iPKP	14 05 40.9
		Um	iPKP	14 05 25.3
			i	14 05 39.0
		Ud	iPKP	14 05 38.0
			i	14 05 50.2
"	2	Ud	iP	14 10 23.9
"	2	Ki	iP	14 51 20.3
		Um	ipP	14 51 17.1
		Ud	iP	14 51 32.0
		(cont.)		

1975 July	2	(cont.)		
		Ud	ipP	14 51 38.5
		De	iP	14 51 29.3
		Tadzhik SSR (h = 20 km).		
"	2	Up	iP	19 53 17.5
		Ki	iP	19 52 29.0
		Um	iP	19 52 51.7
		Ud	iP	19 53 22.1
		De	iP	19 53 41.4
		Kurile Islands (h = 60 km).		
"	2	Ud	iP	23 36 59.2
"	3	Up	iPKPl	01 13 50.4
			i	01 14 16.4
		Ud	iPKPl	01 13 51.6
			i	01 14 17.7
		De	iPKPl	01 14 05.1
			i	01 14 25.7
"	3	Up	iP	03 58 31.7
		Ki	iP	03 57 46.1
		Um	iP	03 58 06.8
		Ud	iP	03 58 38.0
		De	iP	03 58 55.0
		Kurile Islands (h = 30 km).		
"	3	Ki	iP	06 33 16.6
		Ud	iP	06 34 05.8
		De	iP	06 34 25.0
		Japan (h = N).		
"	3	Ud	iP	06 44 32.4
"	3	Ud	iP	09 47 05.5
		De	iP	09 47 02.2
		Hindu Kush (h = 110 km).		
"	3	Ud	iP	09 52 11.5
"	3	Up	iP	10 38 18.2
		Ud	iP	10 38 27.8
		Greece (h = 55 km).		
"	3	Ud	iP	11 30 10.7
"	3	Up	iP	18 56 03.0
		Ki	iP	18 55 32.9
		Ud	iP	18 56 10.8
		Ryukyu Islands (h = 120 km).		
"	3	Up	iP	21 17 16.8
		Sk	iP	21 17 57.7
		Ud	iP	21 17 25.1
		Greece (h = 15 km).		

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

1975 July 4 Up iP 00 29 35.5
Sk iP 00 30 17.1
Ud iP 00 29 43.5
Greece (h = N).

" 4 Up iP 03 40 30.2

" 4 Up micr sec
Mx Z 1.1 20
Ud ePKPl 11 44 47
i 11 45 07.2
De iPKPl 11 44 58.5
i 11 45 18.0
Tonga Islands (h = 15 km).

" 4 Ud iP 16 31 42.0

" 4 Ud iP 17 19 00.1

" 4 Up iP 20 54 02.4
iPP 20 58 26.1
micr sec
PP Z' 0.1 1.3
Ki iP 20 53 50.7 C
micr sec
P Z' 0.1 1.1
Sk iP 20 54 09.6
Um iP 20 53 53.7 C
iPP 20 58 02.8
Ud iP 20 54 10.8 C
iPP 20 58 36.3
De iP 20 54 14.9
Flores Island (h = 130 km).
m = 6.3 (Up,Ki).

" 5 Up iP 01 25 51.3
Ki iP 01 25 19.0
Um iP 01 25 33.1
Ud iP 01 25 59.1 C
Japan (h = 510 km).

" 5 Sk iP 01 31 10.3
Um iP 01 30 54.7
Ud iP 01 30 56.0
Chagos Archipelago (h = N).

" 5 Up iP 02 30 03.3
Ki iP 02 29 25.0
Sk iP 02 29 57.7
Um iP 02 29 41.9 C
i 02 30 27.8
Ud iP 02 30 10.3 C
De iP 02 30 25.3
Japan (h = 120 km).

" 5 Ud iP 07 35 46.0

" 5 Ud iP 09 26 38.8

1975 July 5 Up iPKPl 09 49 33.8
micr sec
PKPl Z' 0.1 1.2
Sk iPKPl 09 49 22.5
Um iPKPl 09 49 17.0
Ud iPKPl 09 49 29.3
iPKP2 09 49 37.0
De iPKPl 09 49 38.4
iPKP2 09 49 50.6
Kermadec Islands (h = 410 km).

" 5 Ud iP 10 25 36.4

" 5 Up iP 10 37 02.9
Ud iP 10 37 10.3
De iP 10 36 39.8
Mediterranean Sea (h = 70 km).

" 5 Ud iP 12 54 19.5

" 5 Ud iP 13 47 25.9

" 5 Ki eSgl 17 39 40
Sk eSgl 17 39 56
Um iPgl 17 38 08.7
iSgl 17 38 17.3
Ud iSgl 17 40 49.1
Västerbotten, Sweden,
64.5°N, 20.7°E.
Origin time = 17 37 57.
m = 4.1, M_L = 2.4 (Ki,Um,Ud).

" 5 Up iPKP 18 00 26.2
Ud iPKP 18 00 25.6
South Sandwich Islands
(h = N).

" 5 Ud iP 20 26 20.8

" 5 Up iPKPl 21 05 50.6
De iPKPl 21 06 02.2
Fiji Islands (h = 550 km).

" 6 Up iP 02 49 12.1
Ki iP 02 48 26.2
Um iP 02 48 46.8
Ud iP 02 49 17.7 C
Kurile Islands (h = N).

" 6 Up iP 02 52 07.6
Um iP 02 51 42.7
Ud iP 02 52 13.1
Kurile Islands (h = N).

" 6 Um iP 03 36 53.4

" 6 Ud iP 08 19 34.1

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

1975 July	6	Ud	iP	10 03 18.1	
		Japan (h = 500 km).			
"	6	Up	iP	10 48 12.2	
		Ki	iP	10 48 49.9	
		Um	iP	10 48 27.6	
		Ud	iP	10 48 23.8	C
		Gulf of Aden (h = N).			
"	6	Ud	iP	12 00 25.2	
"	6	Ud	iPKPl	14 36 10.1	
		De	iPKPl	14 36 21.3	
"	6	Up	i	21 19 02.9	
			i(PP)	21 22 27.1	
		Ki	iP	21 18 26.7	
		Um	iP	21 18 32.7	
		Ud	iP	21 18 51.2	
			i(PP)	21 22 42.8	
		De	i	21 19 17.6	
		Celebes (h = 90 km).			
		Parentheses denote early arrivals.			
"	7	Ud	iP	00 30 14.8	
			i	00 30 26.0	
		Komandorsky Islands (h = N).			
"	7	Up	iP	05 12 49.0	
		Ki	iP	05 12 09.6	
		Sk	iP	05 12 42.3	
		Um	iP	05 12 26.7	C
		Ud	iP	05 12 56.6	C
		De	iP	05 13 11.8	
		Japan (h = 40 km).			
"	7	Up	iPKPl	11 59 28.6	
		Ud	iPKPl	11 59 30.2	
		De	iPKPl	11 59 39.8	
"	7	Sk	iP	12 19 12.9	
		Ud	iP	12 19 12.0	
		De	iP	12 19 15.8	
"	7	Up	iP	12 28 27.6	
			i	12 29 02.9	
			iS	12 38 48	
				micr sec	
			Mx Z	1.2 22	
		Ki	iP	12 27 57.6	
				micr sec	
			P Z'	0.2 1.0	
			Mx N	1.2 21	
		Sk	iP	12 28 25.0	
		Um	iP	12 28 10.7	
		Ud	iP	12 28 33.7	
		(cont.)			

1975 July	7	(cont.)			
		Ud	i	12 28 40.8	
		De	iP	12 28 46.1	
		Volcano Islands (h = N).			
"	7	Up	iP	14 01 26.4	
"	7	Up	iPKPl	16 00 16.9	
		Ud	iPKPl	16 00 18.0	
		De	iPKPl	16 00 27.0	
"	7	Up	iP	18 01 47.9	
		Ki	iP	18 01 26.2	
		Um	iP	18 01 33.7	
			i	18 01 38.4	
		Ud	iP	18 01 58.4	
		Formosa (h = 25 km).			
"	7	Up	iP	19 40 52.3	C
			i	19 41 01.8	
			ipP	19 41 24.5	
			iS	19 50 56.3	
				micr sec	
			P Z'	0.1 0.7	
			Mx E	1.0 17	
			Mx N	1.5 21	
			Mx Z	1.1 17	
		Ki	iP	19 40 21.5	
			iS	19 49 57.4	
				micr sec	
			P Z'	0.1 0.7	
			Mx E	1.2 21	
			Mx N	1.4 20	
			Mx Z	1.4 20	
		Sk	iP	19 40 49.3	C
		Um	iP	19 40 34.4	C
			ipP	19 41 06.1	
			iS	19 50 23.2	
		Ud	iP	19 40 59.1	C
			iS	19 51 10.8	
		De	iP	19 41 11.1	C
			iS	19 51 33.6	
		Volcano Islands.			
		h = 120 km (Up,Um).			
		m = 5.7, M = 5.9 (Up,Ki).			
"	7	Up	iP	20 36 22.6	
		Sk	iP	20 36 16.0	
		Um	iP	20 36 00.0	
		Ud	iP	20 36 29.8	C
		De	iP	20 36 44.1	
		Japan (h = 35 km).			
"	8	Ud	iP	07 39 13.4	
"	8	Ud	iP	08 55 03.6	

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

1975 July	8	Up	iP		09 49 49.2	
			iPP		09 52 50.1	
			iS		10 00 06	
					micr	sec
			P	Z'	1.1	1.9
			Mx	E	24	20
			Mx	N	28	17
			Mx	Z	60	23
		Ki	iP		09 49 20.4	
			i		09 49 24.3	
			iS		09 59 16	
					micr	sec
			i	Z'	1.1	2.4
			Mx	E	59	23
			Mx	N	56	18
			Mx	Z	41	16
		Sk	iP		09 49 25.3	
			i		09 49 29.0	
		Um	iP		09 49 34.5	
			iPP		09 52 40.9	
			iS		09 59 44	
		Ud	iP		09 49 41.4	
			i		09 49 45.0	
			iPP		09 50 46.0	
		De	iP		09 49 54.8	
			i		09 49 57.6	
		Gulf of California (h = N).				
		m = 6.5, M = 6.9 (Up,Ki).				
		Double P, in average 3.5 sec apart. The second onset when interpreted as pP gives focal depth of 10 km.				
"	8	Ud	iPKP		11 04 56.4	
		De	iPKP1		11 05 02.5	
		Tonga Islands (h = 10 km).				
"	8	Up	iP		12 15 07.0	C
			i		12 15 31.6	
			iPP		12 17 32.7	
			iS		12 23 40.6	
			i		12 43 31.1	
			iP'P'		12 43 44.0	
					micr	sec
			P	Z'	1.2	0.7
			Mx	E	41	28
		Ki	iP		12 15 01.7	C
			iPP		12 17 27.7	
			iS		12 23 27.9	
			iP'P'		12 43 48.6	
					micr	sec
			P	Z'	8.0	2.0
			Mx	E	45	15
			Mx	N	110	21
			Mx	Z	52	16
		Sk	iP		12 15 22.4	
			iPP		12 17 53.7	
		(cont.)				

1975 July	8	(cont.)				
		Sk	i		12 18 54.1	
			iS		12 24 13.1	
			iP'P'		12 43 40.5	
		Um	iP		12 15 00.0	
			i		12 19 28.8	
			iS		12 23 20.3	
			iP'P'		12 43 43.0	
		Ud	iP		12 15 19.5	C
			iS		12 24 05.9	
			iP'P'		12 43 38.0	
		De	iP		12 15 20.3	
			iS		12 24 07.0	
			iP'P'		12 43 37.6	
		Burma (h = 160 km).				
		m = 7.0 (Up,Ki).				
"	8	De	iP		13 03 16.4	
"	8	Up	iP		15 00 26.8	
		Sk	iP		15 00 42.7	
		Um	iP		15 00 16.8	
		Ud	iP		15 00 40.5	
		Tibet (h = N).				
"	8	Up	i(P)		15 48 55.2	
		Ud	i(P)		15 49 05.4	
"	8	Up	iP		18 20 06.7	
			i		18 20 17.2	
			ipP		18 20 20.3	
					micr	sec
			pP	Z'	0.1	1.3
		Ki	iP		18 19 50.2	
		Sk	eP		18 20 13	
			ipP		18 20 25.5	
		Um	iP		18 19 56.5	
			ipP		18 20 08.8	
		Ud	iP		18 20 15.8	
			ipP		18 20 29.8	
		Mindoro.				
		h = 45 km (Up,Sk,Um,Ud).				
"	8	Up	eP		19 39 23	
"	8	Up	iP		19 47 16.6	
		Ki	iP		19 47 11.0	
		Sk	iP		19 47 31.8	
		Um	iP		19 47 09.6	C
		Ud	iP		19 47 29.1	
		Burma (h = 90 km).				
"	8	Up	iP		21 08 17.9	
			i		21 08 53.4	
		Ki	iP		21 07 24.0	
		Sk	iP		21 07 56.7	
			i		21 08 29.2	
		(cont.)				

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

1975 July 8 (cont.)

Um	iP		21 07 53.2	
Ud	iP		21 08 18.0	

Aleutian Islands (h = 55 km).

" 8 Up	iP		22 58 08.0	D
	i		22 58 14.9	
	ipP		22 58 24.4	
	iPP		23 01 04.5	
	iS		23 07 53.0	
			micr sec	
	P	Z'	0.4 0.9	
	i	Z'	1.8 1.6	
	Mx	E	3.6 21	
	Mx	N	4.7 19	
	Mx	Z	5.4 23	
Ki	iP		22 57 31.7	D
	i		22 57 37.5	
	iPP		23 00 05.3	
	iS		23 06 43	
	iP'P'		23 25 25.4	
			micr sec	
	P	Z'	0.3 0.9	
	i	Z'	0.5 1.4	
	Mx	E	6.6 18	
	Mx	N	5.3 16	
	Mx	Z	5.1 19	
Sk	iP		22 58 03.1	
	i		22 58 09.4	
	iPP		23 00 54.3	
	i		23 03 04.7	
Um	iP		22 57 47.8	D
	i		22 57 54.3	
	iPP		23 01 39.8	
	iS		23 07 14	
Ud	iP		22 58 15.3	D
	i		22 58 21.9	
	ipP		22 58 30.5	
De	iP		22 58 29.0	D
	i		22 58 35.3	
	i(PP)		23 01 16.6	
	i		23 01 49.5	

Japan.
h = 55 km (Up,Ud).
m = 6.5, M = 6.0 (Up,Ki).
Double P, in average
6.3 sec apart.

" 9 Sk	iP		01 18 12.8
Um	iP		01 18 31.6
Ud	iP		01 18 32.9
" 9 Up	iP		03 04 00.1
Sk	iP		03 03 41.1
Um	iP		03 03 46.0
Ud	iP		03 04 10.4

1975 July 9

Up	iP		04 26 27.0
Um	iP		04 26 08.6
Ud	iP		04 26 35.7

Ryukyu Islands (h = 55 km).
Late arrivals wrt the
NEIS solution.

" 9 De	iP		05 00 27.3	
" 9 Ud	iP		07 28 03.6	
" 9 Ud	iP		09 52 50.7	
" 9 Up	iP		11 41 02.4	
Ki	iP		11 40 57.2	
Sk	iP		11 41 18.1	C
Um	iP		11 40 55.7	C
Ud	iP		11 41 15.6	C
De	iP		11 41 17.3	

Burma (h = 180 km).

" 9 Up	iP		11 45 48.4	C
			micr sec	
	P	Z'	0.1 1.0	
	Mx	E	1.4 18	
	Mx	N	1.3 18	
	Mx	Z	1.4 15	
Ki	iP		11 45 02.1	
			micr sec	
	Mx	E	1.7 16	
	Mx	N	1.7 16	
	Mx	Z	2.8 16	
Sk	iP		11 45 38.4	C
Um	iP		11 45 23.6	C
	iS		11 54 08.0	
Ud	iP		11 45 54.6	C
De	iP		11 46 12.6	

Kurile Islands (h = 35 km).
M = 5.4 (Up,Ki).

" 9 Up	iP		13 07 09.5	C
	ipP		13 07 16.9	
			micr sec	
	P	Z'	0.2 1.0	
	Mx	E	1.2 13	
	Mx	N	0.9 13	
	Mx	Z	2.1 13	
Ki	iP		13 06 37.7	
			micr sec	
	Mx	E	0.7 12	
	Mx	N	1.1 13	
	Mx	Z	0.9 11	
Sk	iP		13 07 09.1	C
	ipP		13 07 18.0	
Um	iP		13 06 51.5	
	ipP		13 06 59.0	

(cont.)

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

1975 July 9 (cont.)

Ud	iP		13 07 17.8 C
	ipP		13 07 25.9
De	iP		13 07 28.2
	ipP		13 07 37.1

Ryukyu Islands.
h = 25 km (Up,Sk,Um,Ud,De).
M = 5.4 (Up,Ki).

" 9

Up	iP		14 06 38.1	
			micr	sec
	Mx	N	0.8	15
	Mx	Z	0.9	12
Ki	iP		14 06 23.6	
			micr	sec
	Mx	E	0.7	12
	Mx	N	0.8	14
	Mx	Z	0.6	12
Sk	iP		14 06 48.2	
Um	iP		14 06 27.3	
Ud	iP		14 06 50.8	
	i		14 06 52.9	
De	iP		14 06 53.5	

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

" 9 Ud iP 15 02 58.7
Turkey (h = 20 km).

" 9 Ud iP 15 07 19.0
i 15 07 29.4

" 9 Ud iP 17 29 11.6

" 9 Up iPKP 19 02 44.6
Ud iPKP 19 02 46.0

" 9 Ud iP 21 27 17.4

" 10 Up iP 01 13 25.3
Ud iP 01 13 32.2

" 10

Up	iP		05 42 21.4 C	
			micr	sec
	P	Z'	0.1	0.9
Ki	iP		05 41 46.8 C	
Sk	iP		05 42 17.7	
Um	iP		05 42 01.5 C	
	iS		05 50 48	
Ud	iP		05 42 29.0 C	

Japan (h = 370 km).

" 10

Up	iP	11 15 15.9
Ki	iP	11 15 59.7
Sk	iP	11 15 27.5
Um	iP	11 15 40.7
Ud	iP	11 15 09.3

Ascension Island (h = N).

1975 July 10

Ki	iP	11 26 52.0
Ud	iP	11 27 18.1

Mindanao (h = 80 km).

" 10 Ud iP 11 51 18.4

" 10 Sk iSgl 12 43 37.3
Ud iSgl 12 43 55.8

West coast of Norway, 61.3°N, 4.5°E.
Origin time = 12 41 30.
m = 4.3, M_L = 2.7 (Sk,Ud).
By combination with Bergen readings.

" 10

Up	iPn	15 36 50.8
	iPgl	15 36 58.1
	iSn	15 37 38.3
	iS*	15 37 50.9
Sk	iPn	15 37 50.6
	iSg2	15 40 19.8
Um	i	15 37 50.8
	iSgl	15 39 41.8
Ud	iPn	15 37 09.3
	iPgl	15 37 25.5
	i	15 38 21.5
	iSgl	15 38 36.5
De	iPn	15 36 46.1
	iPgl	15 36 55.0
	iSgl	15 37 48.9

Coast of Latvia, 56.2°N, 20.9°E.
Origin time = 15 35 48.
m = 4.4, M_L = 3.1 (Um,Ud,De).
Explosion?

" 10

Up	iPKPl	15 50 13.5
	i	15 50 21.2
Sk	ePKPl	15 50 10
Um	iPKPl	15 50 03.0
	i	15 50 14.1
Ud	iPKPl	15 50 15.5

" 10

Up	iSgl	16 43 14.1
Sk	iSgl	16 43 02.3
Ud	i	16 41 59.7
	iSgl	16 42 14.9

South Norway, 59.3°N, 6.9°E.
Origin time = 16 40 25.
m = 4.2, M_L = 2.6 (Sk,Ud).
By combination with Bergen and Kongsberg readings.

" 10 Sk iP 17 12 12.0
Central Mid-Atlantic Ocean (h = N).

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

1975						
July	10	Up	iP		18 42 22.9	
			i		18 42 26.5	
			iPP		18 46 14.0	
			iS		18 53 17	
					micr	sec
			i	Z'	0.5	0.9
			Mx	E	59	30
			Mx	N	70	23
		Ki	iP		18 42 05.0	
			i		18 42 09.2	
			ePP		18 45 46	
			iS		18 52 52	
					micr	sec
			P	Z'	0.1	0.7
			i	Z'	1.1	1.0
			Mx	E	51	22
			Mx	N	53	21
			Mx	Z	41	20
		Sk	iP		18 42 27.1	
			i		18 42 29.6	
		Um	iP		18 42 12.2	
			i		18 42 15.9	
			iS		18 52 52	
		Ud	iP		18 42 31.5	
			i		18 42 32.6	
			iS		18 53 34.2	
		De	iP		18 42 38.4	
			i		18 42 39.8	
			i		18 42 44.5	
			iPP		18 46 42.5	
		Mindanao (h = 90 km).				
		m = 7.0, M = 7.1 (Up,Ki).				
		Double P, smaller and				
		larger, average separation				
		= 2.7 sec.				
"	10	Ki	iP		18 59 36.9	
		Sk	iP		18 59 34.3	
		Ud	iP		18 59 20.6	
"	10	Ki	iP		19 01 49.4	
					micr	sec
			P	Z'	0.1	1.4
		Ud	iP		19 03 01.3	
"	10	Up	iP		19 23 29.6	
"	10	Ud	iP		19 47 36.6	
"	11	Up	iP		02 11 06.3	
		Ki	iP		02 10 21.0	
		Ud	iP		02 11 11.2	
			i		02 11 24.0	
		Kurile Islands (h = N).				
"	11	Ud	iP		03 31 15.7	

1975						
July	11	Up	iPKP		04 58 09.6	
		Sk	iPKP		04 58 02.6	
		Ud	iPKP		04 58 11.3	
		De	iPKP		04 58 20.5	
"	11	Up	iP		05 22 05.6	
		Ki	iP		05 21 40.4	
		Sk	iP		05 22 09.1	
		Um	iP		05 21 51.6	
		Ud	iP		05 22 14.9	
		De	iP		05 22 23.7	
		Formosa (h = 50 km).				
"	11	Up	iP		05 33 36.2	
			ipP		05 34 09.4	
					micr	sec
			P	Z'	0.1	1.1
		Ki	iP		05 33 43.7	
		Sk	iP		05 33 19.1	
		Um	iP		05 33 08.1	C
		Ud	iP		05 33 39.8	
			ipP		05 34 13.5	
		De	iP		05 34 01.3	
		Kamchatka.				
		h = 140 km (Up,Ud).				
"	11	Ud	iP		06 04 55.4	
"	11	Up	iP		07 24 11.1	
		Sk	iP		07 24 33.4	
		Ud	iP		07 24 01.9	
		De	iP		07 23 31.6	
		Algeria (h = N).				
		Late arrivals wrt the NEIS				
		solution.				
"	11	Up	iPKP		07 27 14.2	
			iPP		07 27 45.5	
					micr	sec
			Mx	E	1.9	20
			Mx	N	1.6	18
			Mx	Z	3.3	22
		Ki	iPP		07 27 23.1	
					micr	sec
			Mx	E	2.0	21
			Mx	N	2.7	21
			Mx	Z	5.1	23
		Sk	ePP		07 27 23	
		Easter Island (h = N).				
		M = 5.8 (Up,Ki).				
"	11	Ud	iP		09 08 47.8	
"	11	Sk	iP		10 52 23.7	
"	11	Ud	iP		13 44 43.5	

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

1975 July	11	Up	iPKP		19 13 15.3	
			ipPKP		19 13 40.8	
			iPP		19 14 51.2	
			iSKS		19 20 10	
					micr	sec
			Mx	E	2.8	28
			Mx	N	3.0	27
			Mx	Z	4.0	28
		Ki	iPKP		19 13 02.6	
			ipPKP		19 13 28.7	
					micr	sec
			Mx	E	2.4	21
			Mx	N	3.1	21
			Mx	Z	4.7	21
		Um	iPKP		19 13 09.9	
			ipPKP		19 13 34.7	
			i(PP)		19 14 51.2	
			iSKS		19 19 58	
		Ud	iPKP		19 13 17.7	
			ipPKP		19 13 44.5	
			i(PP)		19 15 26.7	
		De	iPKP		19 13 23.3	
			ipPKP		19 13 50.7	
			i		19 14 15.7	
			i(PP)		19 15 47.6	
		Solomon Islands.				
		h = 100 km (Up,Ki,Um,Ud,De).				
		M = 6.0 (Up,Ki).				
		Parentheses denote late arrivals.				
"	11	Ud	iP		21 55 41.7	
"	12	Up	iP		03 02 52.3	
		Ki	iP		03 02 19.0	
		Um	iP		03 02 25.9	
		Ud	iP		03 02 58.4	
		De	iP		03 03 08.6	
"	12	Up	iP		07 01 19.5	
			iSKS		07 11 44	
		Um	iSKS		07 11 53	
		Ud	iP		07 01 11.3	
			iPP		07 05 19.6	
		De	iP		07 01 08.0	
		Peru-Bolivia (h = 160 km).				
"	12	Up	iP		07 17 34.3	
		Ki	iP		07 17 22.8	
		Um	iP		07 17 24.9	
		Ud	iP		07 17 43.3	
		De	iP		07 17 47.5	
"	12	Up	iPKP1		09 47 41.5	
		Ud	iPKP1		09 47 42.4	
		De	iPKP1		09 47 52.6	
		Kermadec Islands (h = 500 km).				

1975 July	12	Up	iP		09 49 34.8	
		Ud	iP		09 49 38.2	
"	12	Ud	iP		11 15 47.4	
"	12	Ud	iP		11 25 09.9	
		De	iP		11 25 03.9	
"	12	Up	iP		11 30 34.7	
			i		11 31 12.1	
		Ud	i		11 32 08.1	
"	12	Ud	iP		12 34 03.9	
"	12	Up	iP		16 37 55.9	
		Ki	iP		16 37 06.6	
		Um	iP		16 37 29.5	
		Ud	iP		16 38 01.4	
		De	iP		16 38 20.7	
		Okhotsk Sea (h = 480 km).				
"	12	Up	i(PKP)		17 27 17.0	
			iPKP		17 27 18.4	
			iSKP1		17 30 28.0	
			iSKP2		17 30 30.6	
			ipSKP2		17 31 29.3	
		Ki	iPKP		17 27 03.6	
					micr	sec
			PKP	Z'	0.1	0.9
		Um	iPKP		17 27 10.2	
		Ud	iPKP		17 27 20.1	
			iSKP1		17 30 33.2	
			iSKP2		17 30 35.4	
			i		17 31 31.1	
			ipSKP2		17 31 34.6	
		De	iPKP		17 27 25.6	
			iSKP1		17 30 43.9	
			iSKP2		17 30 47.7	
			i		17 31 43.0	
			ipSKP2		17 31 45.9	
		New Hebrides Islands.				
		h = 130 km (Up,Ud,De).				
"	12	Up	ePKP		19 24 19	
			iPKP1		19 24 21.7	
			ipPKP1		19 24 37.5	
					micr	sec
			PKP1	Z'	0.2	0.8
			Mx	E	1.2	21
			Mx	N	1.5	21
			Mx	Z	1.3	23
		Ki	iPKP		19 24 00.8	
			i		19 24 03.5	
					micr	sec
			Mx	E	1.4	22
			Mx	N	1.4	20
			Mx	Z	2.3	22

(cont.)

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

1975
July 12 (cont.)

Um	iPKP	19 24 08.9
Ud	iPKP	19 24 20.4
	iPKPl	19 24 23.2
	ipPKPl	19 24 39.1
De	iPKP	19 24 26.9
	iPKPl	19 24 32.0
	ipPKPl	19 24 47.8

Kermadec Islands.
h = 50 km (Up,Ud,De).
M = 5.8 (Up,Ki).

" 12 De iP 20 48 22.6

" 12 Ud iP 22 17 25.0
Turkey (h = 70 km).

" 13 Ud iP 01 36 44.5

" 13 Ud iP 04 40 01.7
North Atlantic Ocean
(h = N).

" 13

Up	iP	04 41 07.8
	i	04 41 20.5
Um	iP	04 40 49.1
Ud	iP	04 41 15.7
De	iP	04 41 28.3

China Sea (h = 170 km).

" 13 Um iP 06 48 37.2
Ud iP 06 48 49.8

" 13 Ki iP 09 44 36.3
Ud iP 09 45 01.9
Mindanao (h = 40 km).

" 13

Ki	iP	13 07 30.6
	ipP	13 07 48.7
Ud	iP	13 08 00.0
	ipP	13 08 18.1

Mindanao.
h = 70 km (Ki,Ud).

" 13 Ki iP 21 16 35.6
Ud iP 21 16 01.7
North Atlantic Ocean
(h = N).

" 14 Ud iP 01 59 35.0
Greece (h = 35 km).

" 14 Ud iP 05 12 10.2

" 14 Ud iP 07 14 49.4
De iP 07 14 29.5
Turkey (h = 35 km).

1975
July 14 Um iP 12 09 24.2
Ud iP 12 09 43.8
Mariana Islands (h = 140 km).

" 14

Up	iSn	14 37 01.4
	iSgl	14 37 26.2
Um	iSgl	14 38 06.9
Ud	iSn	14 37 49.0
	iSgl	14 38 24.7
De	i	14 37 46.7
	iSgl	14 38 36.0

Esthonia, 58.2°N, 27.1°E.
Origin time = 14 34 47.
m = 4.4, M_L = 3.1 (Up,Um,Ud, De).

" 14

Up	iP		14 55 49.6	
	iPP		15 00 12.1	
			micr	sec
	PP	Z'	0.1	1.0
	Mx	E	1.2	20
	Mx	N	1.7	19
	Mx	Z	0.9	21
Ki	iP		14 55 30.3	
	ipP		14 55 36.1	
	iPP		14 59 39.4	
			micr	sec
	PP	Z'	0.1	1.5
	Mx	E	1.5	20
	Mx	N	1.1	20
	Mx	Z	1.9	18
Um	iP		14 55 36.4	
	ipP		14 55 43.8	
Ud	iP		14 55 57.5	
De	iPP		15 00 37.9	

New Guinea.
h = 20 km (Ki,Um).
m = 6.1, M = 5.6 (Up,Ki).

" 14 Ud iPKPl 19 53 24.4
De iPKPl 19 53 35.4

" 14 De i 20 22 32.8
New Ireland (h = 80 km).

" 15

Up		micr	sec
	Mx	E	4.0	23
	Mx	N	4.0	22
	Mx	Z	7.3	24
Ki		micr	sec
	Mx	E	2.5	16
	Mx	N	4.1	18
	Mx	Z	2.7	17

Mid-Indian Rise (h = N).
M = 6.1 (Up,Ki).

" 15 Ud iP 01 55 16.1
New Guinea (h = 20 km).

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

1975 July	15	Ud	iP		04 33 34.0	
"	15	Up	iP		07 24 12.1	
		Um	iP		07 23 48.0	
		Ud	iP		07 24 14.9	
		Japan (h = 40 km).				
"	15	Up	iP		16 06 44.7	
		Ki	iP		16 06 42.6	
					micr	sec
			P	Z'	0.1	1.5
			Mx	E	0.7	16
			Mx	N	0.9	18
			Mx	Z	1.3	19
		Um	iP		16 06 45.9	
		Ud	iP		16 06 36.0	
		Panama (h = N).				
"	15	Ki	iP		18 19 16.7	
		Ud	iP		18 20 06.6	
		Japan (h = N).				
"	15	Up	iPKP1		20 22 46.2	
			i		20 22 58.3	
		Um	iPKP		20 22 32.7	
			iPKP1		20 22 33.8	
		Ud	iPKP1		20 22 47.4	
			i		20 22 59.5	
		De	i		20 23 07.5	
		Kermadec Islands (h = 55 km).				
"	15	Up	iP		22 04 21.9	
			i		22 04 25.1	
			i		22 04 30.0	
			iS		22 08 21.4	
					micr	sec
			i	Z'	0.1	1.0
			i	Z'	0.3	1.3
			Mx	N	0.8	15
			Mx	Z	1.0	18
		Ki	iP		22 05 20.2	
					micr	sec
			Mx	E	0.8	14
			Mx	N	1.3	19
		Um	iP		22 04 47.9	
			iS		22 09 13.6	
		De	iP		22 04 10.9	
			i		22 04 22.0	
			i		22 04 31.9	
			iS		22 07 58.6	
		Turkey (h = 10 km).				
		M = 4.5 (Up,Ki).				
"	16	Um	iP		01 54 12.9	
		Ud	iP		01 54 41.2	
		Japan (h = 5 km).				

1975 July	16	Up	iP		03 35 40.3	
		Ki	iP		03 34 56.0	
		Um	iP		03 35 16.6	C
		Ud	iP		03 35 47.8	C
		De	iP		03 36 04.3	
		Kurile Islands (h = 70 km).				
"	16	Ki	iP		09 13 39.7	
"	16	Um	iP		09 53 22.3	
		Ud	iP		09 53 40.9	
		New Guinea (h = N).				
"	16	Um	iP		09 53 22.3	
		Ud	iP		09 53 51.8	
		Japan (h = 45 km).				
"	16	Up	iP		10 02 58.6	
		Ki	iP		10 02 18.3	
		Um	iP		10 02 35.7	
		Ud	iP		10 03 04.9	
		De	iP		10 03 19.7	
		Japan (h = 50 km).				
"	16	Um	iPKP1		15 53 59.0	
		Ud	iPKP1		15 54 10.9	
		Kermadec Islands (h = N).				
"	16	Up	iPKP1		18 37 26.6	
			iPKP2		18 37 31.7	
			i		18 37 42.4	
					micr	sec
			PKP1	Z'	0.3	1.5
			Mx	E	1.3	17
			Mx	N	2.4	22
			Mx	Z	2.6	21
		Ki	iPKP1		18 37 06.0	
					micr	sec
			Mx	E	1.2	18
			Mx	N	4.7	21
			Mx	Z	3.4	19
		Um	i(PKP)		18 37 13.7	
			iPKP1		18 37 15.2	
		Ud	iPKP1		18 37 27.8	
		De	iPKP1		18 37 36.6	
			iPKP2		18 37 48.5	
		Kermadec Islands (h = 45 km).				
		M = 6.2 (Up,Ki).				
"	16	Up	iPKP1		19 58 09.1	
			iPKP2		19 58 14.3	
			i		19 58 23.4	
					micr	sec
			PKP2	Z'	0.1	0.9
			i	Z'	0.1	0.8
		(cont.)				

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

1975
July 16 (cont.)

Up			micr	sec
	Mx	N	1.1	21
	Mx	Z	1.2	22
Ki	iPKPl		19 57 49.1	
			micr	sec
	Mx	E	1.1	20
	Mx	N	1.8	20
	Mx	Z	1.4	20
Um	i(PKP)		19 57 55.0	
	iPKPl		19 57 56.4	
Ud	iPKP		19 58 06.9	
	iPKPl		19 58 11.5	
De	iPKPl		19 58 21.1	

Kermadec Islands (h = 35 km).
M = 5.7 (Up,Ki).

" 16	Up	iPKPl	20 08 24.5	
		i	20 08 44.7	
	Um	iPKPl	20 08 16.4	C
	Ud	iPKPl	20 08 24.9	
		i	20 08 43.8	

Kermadec Islands (h = 45 km).

" 16	Um	iP	20 39 35.1	

Bonin Islands (h = 500 km).

" 16	Ud	iP	23 22 31.5	
" 17	Up	iP	02 48 17.5	
		i	02 48 32.3	
	Ki	iP	02 48 17.0	
		i	02 48 29.8	
			micr	sec
		P Z'	0.1	0.8
	Um	iP	02 48 14.3	
	Ud	iP	02 48 27.0	
		i	02 48 41.3	

Sumatra (h = 100 km).
The second phase, at Up and Ud, when interpreted as pP, gives a focal depth of 50 km.

" 17	Um	iP	07 08 01.6	
" 17	Ud	iP	11 48 25.7	

North Atlantic Ocean (h = N).

" 17	Ud	iP	12 27 07.2	
" 17	Ud	iP	13 17 36.6	
" 17	Up	iP	13 43 57.3	
	Ud	iP	13 44 11.8	

Kashmir-Tibet (h = 10 km).

1975
July 17

Um	iP	15 52 20.7		
Ud	eP	15 52 51		
" 17	Up	iPgl	16 47 59.3	
		iSgl	16 48 17.6	
		iRg	16 48 25.3	
	Ud	iPgl	16 48 09.0	
		i	16 48 35.1	
		iSgl	16 48 36.3	
		iRg	16 48 47.3	

Östergötland, Sweden, 58.5°N, 16.4°E.
Origin time = 16 47 34.
m = 4.0, M_L = 2.1 (Ud).
Near-surface event.

" 18	Um	iP	00 39 09.2	
	Ud	iP	00 39 45.6	
		i	00 39 53.5	
" 18	Up	iP	02 10 32.4	
	Ud	iP	02 10 35.8	
" 18	Up	iPKPl	03 02 05.5	
		iPKP2	03 02 12.1	
	Um	iPKPl	03 01 55.0	D
	Ud	iPKPl	03 02 06.8	
		iPKP2	03 02 15.2	
" 18	Ud	iP	04 06 13.3	
" 18	Ud	iP	04 37 31.5	
" 18	Um	iP	05 29 34.7	C
	Ud	iP	05 29 14.2	

Venezuela (h = 35 km).

" 18	Up	iPKP	07 43 45.6	
	Ud	iPKP	07 43 48.0	
" 18	Up	iP	09 38 12.6	
		i	09 38 15.2	
		iPP	09 39 57.5	
			micr	sec
		i Z'	0.1	1.3
		Mx N	0.6	11
	Ki	iP	09 38 31.4	
			micr	sec
		Mx N	1.0	19
	Um	iP	09 38 15.8	C
		i	09 38 18.4	
	Ud	iP	09 38 28.6	C
		i	09 38 31.0	
		iPP	09 40 18.4	

Afghanistan (h = 35 km).
Double P small and large (Up,Um,Ud), in average 2.5 sec apart.

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

1975
July 18 Ud iSgl 11 30 34.6
Off coast of southwest Norway, 57.5°N, 5.8°E.
Origin time = 11 28 06.
m = 4.2, M_L = 2.6 (Ud).
By combination with Bergen and Kongsberg readings.

" 18 Ud iP 14 11 16.5
Celebes (h = 80 km).

" 18 Up iPKP 19 01 28.9
Ud iPKP 19 01 30.2
Fiji Islands (h = 460 km).

" 18 Ud iP 22 00 41.2

" 18 Up iP 23 50 42.1
Ud iP 23 50 57.4
Iran-USSR (h = 20 km).

" 19 Up iP 01 41 05.4
Ki iP 01 40 46.7
Ud iP 01 41 11.3
ipP 01 42 42.4
Mindanao (h = 400 km).

" 19 Up iP 04 14 20.8 C
iPP 04 17 24.7
iS 04 24 23

		micr	sec
P	Z'	0.4	1.4
Mx	E	1.4	18
Mx	N	1.5	17
Mx	Z	1.6	20

Ki iP 04 13 47.7 C
iPP 04 16 30.5

		micr	sec
P	Z'	0.2	1.0
Mx	E	1.2	16
Mx	N	2.5	20
Mx	Z	2.4	20

Um iP 04 14 02.3 C
iS 04 23 41
Ud iP 04 14 28.2 C
i 04 14 33.3
iPP 04 17 32.3
Japan (h = 10 km).
m = 6.1, M = 5.6 (Up,Ki).

" 19 Up iP 06 19 34.7

		micr	sec
P	Z'	0.2	1.0
Mx	E	1.7	18
Mx	N	5.0	20
Mx	Z	2.9	21

(cont.)

1975
July 19 (cont.)
Ki iP 06 19 38.9

		micr	sec
P	Z'	0.1	1.0
Mx	E	1.6	15
Mx	N	4.3	14
Mx	Z	2.1	17

Um iP 06 19 31.5
iS 06 26 30
Ud iP 06 19 50.3
Tibet-India (h = 40 km).
m = 6.0, M = 5.6 (Up,Ki).

" 19 Ud iP 06 53 37.3

" 19 Ud iP 07 35 24.6
Kashmir-Tibet (h = N).

" 19 Ud iP 09 58 03.1

" 19 Ud iP 10 13 40.7

" 19 Ud iP 12 09 58.9

" 19 Up iP 17 25 16.2
Ki iP 17 25 13.2
Um iP 17 25 18.3 D
Ud iP 17 25 07.1
Panama-Costa Rica
(h = 55 km).

" 19 Um iP 17 37 12.6
i 17 37 22.0
Ud iP 17 37 01.7
Panama-Costa Rica
(h = 45 km).

" 19 Ki eP 19 34 12
Um iP 19 34 32.9
Ud iP 19 34 50.0
i 19 35 03.0

" 19 Um iP 22 28 28.5
Ud iP 22 28 24.7

" 19 Up iP 22 50 42.4

" 19 Ud iP 23 47 59.7

" 20 Up iP 00 01 31.8
i 00 01 35.5
Ki iP 00 01 27.3

		micr	sec
P	Z'	0.3	2.0

Um iP 00 01 33.2
Ud iP 00 01 21.8
De i 00 01 29.8
Panama-Costa Rica
(h = 50 km).

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

1975						
July	20	Um	iP		00 08 28.3	
		Ud	iP		00 09 09.4	
			i		00 09 17.0	
"	20	Up	iP		01 14 28.4	
			i		01 14 32.6	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		01 13 52.2	
			i		01 13 56.5	
		Um	iP		01 14 07.9	
			i		01 14 11.5	
			i		01 14 26.7	
		Ud	iP		01 14 35.8	
			i		01 14 39.8	
		De	iP		01 14 49.8	
			i		01 14 53.3	
		Japan (h = 80 km).				
		Double P, in average 3.9 sec apart.				
"	20	Ud	iP		05 23 27.9	
		De	iP		05 23 14.6	
"	20	Up	iPKPl		06 17 35.7	
			i		06 17 38.2	
			i		06 17 43.3	
					micr	sec
			i	Z'	0.2	1.1
		Ki	i(PKP)		06 17 15.4	
		Um	iPKPl		06 17 24.5	
			i		06 17 26.3	
		Ud	iPKP		06 17 33.6	
			iPKPl		06 17 37.9	
			i		06 17 40.1	
		De	iPKPl		06 17 45.5	
			i		06 17 48.4	
		Kermadec Islands (h = 100 km). Double PKPl, small and large, in average 2.4 sec apart.				
"	20	Up	iP		08 13 33.4 C	
			ipP		08 13 53.1	
			iS		08 22 22	
					micr	sec
			P	Z'	0.1	0.7
			Mx	E	0.8	14
			Mx	N	1.0	19
			Mx	Z	1.6	17
		Ki	iP		08 12 47.2	
					micr	sec
			P	Z'	0.2	1.0
			Mx	E	0.9	15
			Mx	N	1.2	14
			Mx	Z	1.1	15
		(cont.)				

1975						
July	20	(cont.)				
		Um	iP		08 13 08.2 C	
			iS		08 21 40	
		Ud	iP		08 13 39.4 C	
			i		08 13 40.9	
			ipP		08 14 00.0	
		De	iP		08 13 57.4 C	
		Kurile Islands. h = 80 km (Up,Ud). m = 6.1, M = 5.3 (Up,Ki).				
"	20	Ud	iP		08 41 41.9	
"	20	Ki	iPKPl		09 07 55.7	
		Um	iPKPl		09 07 55.1	
		Ud	iPKPl		09 07 59.4	
		Macquarie Island (h = N).				
"	20	Up	ePKPl		09 19 11	
		Ki	ePKPl		09 19 09	
		Um	ePKPl		09 19 06	
		Ud	iPKPl		09 19 08.9	
			e		09 19 30	
		Macquarie Island (h = N).				
"	20	Ud	iP		11 49 21.7	
			i		11 49 38.0	
"	20	Up	ePdiff		14 52 51	
			i		14 52 58.8	
			ePKP		14 56 21	
			i		14 56 25.1	
			i		14 56 45.1	
			iPP		14 57 52.4	
			iSKS		15 03 11	
			iPKKP		15 06 43.8	
			iX		15 06 46.8	
			i		15 07 04.6	
			iSKKP		15 10 46.2	
					micr	sec
			i	Z'	0.1	0.6
			PP	Z'	0.2	1.0
			i	Z'	1.3	1.6
			Mx	E	65	22
			Mx	N	74	21
			Mx	Z	122	20
		Ki	ePdiff		14 52 17	
			iPKP		14 56 06.6	
			i		14 56 11.5	
			i		14 56 33.8	
			iSKS		15 02 48	
			iPKKP		15 07 07.5	
			iX		15 07 10.1	
			iSKKP		15 11 12.8	
			i		15 14 8.9	
					micr	sec
			i	Z'	0.3	1.0
		(cont.)				

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

1975
July 20 (cont.)

Ki			micr	sec
	Mx	E	85	19
	Mx	N	116	20
	Mx	Z	116	18
Um	ePdiff		14 52 32	
	i		14 52 51.4	
	iPKP		14 56 14.0	
	i		14 56 17.3	
	i		14 56 38.3	
	iPKKP		15 06 55.0	
	iX		15 06 58.9	
	iSKKP		15 10 04.0	
Ud	ePdiff		14 52 51	
	iPKP		14 56 23.7	
	i		14 56 27.6	
	iPP		14 57 52.2	
	iPKKP		15 06 38.8	
	iX		15 06 41.2	
	iSKKP		15 10 38.0	
	e		15 14 04	
De	iPKP		14 56 28.4	
	i		14 56 31.9	
	iX		15 06 30.1	
	i		15 10 00.8	
	i		15 13 58.6	

Solomon Islands (h = 50 km).
M = 7.5 (Up,Ki).
Double PKP and PKKP small and large 3.9 sec and 3.0 sec apart, respectively. X denotes the secondary PKKP.

" 20 De iPKP 15 31 06.7
Solomon Islands (h = N).

" 20 De iPKP 15 43 05.0
i 15 43 19.2
Solomon Islands (h = N).

" 20 Up iP 15 50 09.1
i 15 50 28.5
micr sec
i Z' 0.1 1.3
Ki iP 15 49 45.2
Um iP 15 49 54.4
Ud iP 15 50 18.7
De iP 15 50 28.0
Formosa (h = 30 km).

" 20 De iPKP 15 51 18.6
i 15 51 26.6
Solomon Islands (h = N).

" 20 Up iPKP 15 54 27.5
i 15 54 30.5
Um iPKP 15 54 21.3
(cont.)

1975
July 20 (cont.)
Ud iPKP 15 54 31.9
De iPKP 15 54 35.2
Solomon Islands (h = 55 km).

" 20 Ud iPKP 15 58 24.4
De iPKP 15 58 29.9
Solomon Islands.
Origin time = 15 39 41.
Approximate origin times, based upon the same focal coordinates as for the earthquake at 14 37 40, July 20, are given for those Solomon Islands aftershocks, which have not been reported by NEIS.

" 20 Ud iPKP 16 27 19.1
Solomon Islands (h = N).

" 20 Up iPKP 16 32 45.3
Um iPKP 16 32 38.0
De iPKP 16 32 53.7
Solomon Islands (h = 30 km).

" 20 Up iPKP 17 29 37.6
i 17 29 47.5
Ki ePKP 17 29 27
Um iPKP 17 29 31.1
Ud iPKP 17 29 39.4
i 17 29 49.9
De iPKP 17 29 44.0
Solomon Islands (h = 25 km).

" 20 Um iPKP 17 35 01.3
Ud iPKP 17 35 09.8
De iPKP 17 35 15.9
Solomon Islands (h = 50 km).

" 20 Um iPKP 17 36 34.3
Ud ePKP 17 36 43
De iPKP 17 36 49.5
Solomon Islands.
Origin time = 17 18 01.

" 20 Ud iPKP 17 45 02.5
De iPKP 17 45 08.6
Solomon Islands (h = N).

" 20 De iPKP 17 48 22.6
Solomon Islands (h = N).

" 20 De iPKP 18 19 32.5
Solomon Islands (h = 35 km).

" 20 Up iPdiff 20 09 42.1
(cont.)

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

1975
July 20 (cont.)

Up	ePKP		20 13 11	
	i		20 13 17.9	
	iSKS		20 20 09	
	iPKKP		20 23 35.7	
			micr	sec
	i	Z'	0.1	1.0
	Mx	E	27	19
	Mx	N	70	22
	Mx	Z	85	22
Ki	ePdiff		20 09 07	
	i		20 09 14.7	
	iPKP		20 12 56.3	
	i		20 13 04.2	
	iPKKP		20 23 56.0	
			micr	sec
	i	Z'	0.2	1.5
	Mx	E	63	20
	Mx	N	113	21
	Mx	Z	94	20
Um	iPdiff		20 09 24.4	
	iPKP		20 13 03.7	
	i		20 13 11.1	
	iPKKP		20 23 48.1	
Ud	iPdiff		20 09 43.4	
	iPKP		20 13 12.6	
	i		20 13 20.5	
	iPP		20 14 39.3	
	iPKKP		20 23 30.2	
De	iPKP		20 13 18.8	
	i		20 13 26.2	
	iPKKP		20 23 21.3	

Solomon Islands (h = 45 km).
M = 7.4 (Up,Ki).
Double PKP, small and large in average 7.3 sec apart.

" 20

Um	iPKP	20 28 07.7
Ud	iPKP	20 28 17.1
De	iPKP	20 28 22.7

Solomon Islands (h = N).

" 20

Um	iPKP	20 30 14.0
Ud	i(PKP)	20 30 31.4
	iPKP	20 30 34.2
De	iPKP	20 30 28.7

Solomon Islands (h = N).

" 20

Ud	iP	20 38 28.1

" 20

Um	iPKP	20 57 27.9
Ud	iPKP	20 57 37.0
De	iPKP	20 57 42.8

Solomon Islands.
Origin time = 20 38 54.

" 20

Um	iP	20 58 55.6

(cont.)

1975
July 20 (cont.)

Ud	iP	20 59 14.0
De	iP	20 59 11.4

Afghanistan-USSR
(h = 110 km).

" 20

Ud	i	22 08 14.1
De	iPKP	22 08 04.7

Solomon Islands (h = 40 km).

" 20

Ud	iP	22 09 06.0
	i	22 09 12.6

South Atlantic Ocean
(h = N).

" 20

De	iP	22 46 49.4

" 20

Up	iPKP		23 24 00.3 C
	e(PP)		23 25 16
	i		23 26 29.9
	iPKKP		23 34 21.9
	i		23 34 26.0
	i		23 37 13.4
			micr sec
	PKP	Z'	0.1 0.5
	Mx	E	3.5 20
	Mx	N	3.4 19
	Mx	Z	12 20
Ki	iPKP		23 23 48.4
	iPKKP		23 34 42.6
			micr sec
	Mx	E	6.0 23
	Mx	N	7.7 22
	Mx	Z	5.8 22
Um	i(PKP)		23 23 49.0
	iPKP		23 23 53.7
	iPKKP		23 34 34.6
Ud	iPKP		23 24 02.5
	iPP		23 25 21.8
	i		23 29 44.8
	iPKKP		23 34 16.4
De	iPKP		23 24 07.7 C
	iPKKP		23 34 08.7

Solomon Islands (h = 50 km).
M = 6.2 (Up,Ki).

" 20

Um	iPKP	23 27 27.2
De	iPKP	23 27 41.7

Solomon Islands.
Origin time = 23 08 53.

" 20

Up	iPKP	23 46 37.4
Um	iPKP	23 46 30.7 C
Ud	iPKP	23 46 40.0
De	iPKP	23 46 45.6 C

Solomon Islands (h = 5 km).

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

1975
July 21 Um i 00 05 32.7
De iPKP 00 05 37.1
Solomon Islands (h = 40 km).

" 21 Up i 00 22 36.7
iPP 00 26 49.6
micr sec
PP Z' 0.1 1.5
Mx E 1.3 17
Mx N 2.0 19
Mx Z 2.9 18
Ki iP 00 22 12.5
i 00 25 31.6
micr sec
P Z' 0.1 1.0
Mx E 4.3 19
Mx N 3.3 23
Mx Z 3.8 19
Um iP 00 22 16.6
iPP 00 26 29.9
Ud iP 00 22 34.4
i 00 25 59.4
iPP 00 26 58.4
De iP 00 22 39.5
iPP 00 27 06.7
Banda Sea (h = N).
M = 5.9 (Up,Ki).

" 21 Up ePKP 01 14 36.8
Um iPKP 01 14 31.5
Ud iPKP 01 14 41.1
De iPKP 01 14 46.1
Solomon Islands (h = 60 km).

" 21 Um iPKP 01 24 13.9
Ud iPKP 01 24 23.8
De iPKP 01 24 28.1
Solomon Islands.
Origin time = 01 05 44.

" 21 Up ePKP 02 22 40
i 02 22 42.3
i 02 22 55.1
iPP 02 23 58.2
iPKKP 02 33 01.9
micr sec
Mx E 6.9 22
Mx N 8.2 25
Mx Z 12 26
Ki ePKP 02 22 29
i 02 22 30.8
iPKKP 02 33 22.9
micr sec
Mx E 7.3 19
Mx N 7.5 20
Mx Z 9.6 18
Um iPKP 02 22 34.6
(cont.)

1975
July 21 (cont.)
Um i 02 22 36.3
iPKKP 02 33 10.1
Ud iPKP 02 22 42.5
i 02 22 45.8
iPP 02 24 07.4
iPKKP 02 32 57.0
De iPKP 02 22 47.6
i 02 22 50.2
iPP 02 24 25.4
iPKKP 02 32 48.2
Solomon Islands (h = 45 km).
M = 6.4 (Up,Ki).
Double PKP, small and large, in average 2.4 sec apart.

" 21 Up iPKP 02 49 13.1
i 02 49 23.8
Um iPKP 02 49 06.8
i 02 49 17.4
Ud iPKP 02 49 15.4
i 02 49 26.2
De iPKP 02 49 21.2
i 02 49 31.4
Solomon Islands (h = N).
Double PKP, in average 10.4 sec apart. The second onset, when interpreted as pPKP, gives a focal depth of 30 km.

" 21 Ki iP 02 53 29.3
Um iP 02 53 41.1

" 21 Up iPKP 02 57 38.2 C
i 02 58 15.0
iPKKP 03 07 57.3
micr sec
PKP Z' 0.1 0.9
Mx E 7.7 21
Mx N 15 23
Mx Z 17 19
Ki iPKP 02 57 26.1 C
iPP 02 58 13.7
iPKKP 03 08 18.4
iSKKP 03 11 13.1
micr sec
PKP Z' 0.2 1.2
PP Z' 0.2 1.5
Mx E 19 22
Mx N 32 21
Mx Z 28 20
Um iPKP 02 57 31.6
iPKKP 03 08 05.9
iSKKP 03 11 21.2
Ud iPKP 02 57 40.9 C
iPP 02 59 03.6
iPKKP 03 07 52.6
i 03 11 28.2
De iPKP 02 57 46.2 C
(cont.)

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

1975
July 21 (cont.)
De iPKKP 03 07 43.4
Solomon Islands (h = 100 km).
M = 6.8 (Up,Ki).

" 21 De iPKP 03 36 17.7
i 03 36 27.5
Solomon Islands (h = 60 km).

" 21 Um iP 04 22 08.0

" 21 Up iPKP 04 28 38.7
i 04 28 50.0
Um iPKP 04 28 33.5
i 04 28 46.1
Ud iPKP 04 28 41.5
i 04 28 53.3
De iPKP 04 28 46.2
i 04 28 58.2
Solomon Islands (h = N).
Double PKP, in average 11.8 sec apart. The second onset, when interpreted as pPKP, gives a focal depth of 35 km.

" 21 Up iPKP 04 39 51.0
i 04 39 59.2
Um iPKP 04 39 44.8
Ud iPKP 04 39 53.0
i 04 40 03.1
De iPKP 04 39 57.5
i 04 40 07.6
Solomon Islands (h = 30 km).

" 21 Ud iPKP 04 42 37.4
De iPKP 04 42 41.5
Solomon Islands.
Origin time = 04 23 58.

" 21 Ud iP 05 19 41.6

" 21 Um iPKP 06 53 50.7
Ud iPKP 06 53 58.9
De iPKP 06 54 04.7
Solomon Islands (h = 45 km).

" 21 De iPKP 07 15 03.4
Solomon Islands (h = 55 km).

" 21 Up iP 07 35 17.4
Ki eP 07 35 21
Um iP 07 35 13.7
Ud iP 07 35 32.1
Kashmir-Tibet (h = N).

" 21 Ud iP 10 53 37.9

1975
July 21 De iPKP 11 10 49.2
Solomon Islands (h = 40 km).

" 21 Up iP 13 36 54.6
iS 13 44 16
micr sec
Mx E 1.1 19
Mx N 1.6 22
Mx Z 1.3 19
Ki eP 13 37 32
micr sec
Mx E 0.9 15
Mx N 1.4 14
Mx Z 1.2 16
Sk iP 13 37 26.4
Um iP 13 37 10.3
i 13 37 15.0
ipP 13 37 20.5
iS 13 44 49
Ud iP 13 37 06.1
ipP 13 37 15.4
De iP 13 36 47.6
Gulf of Aden.
h = 35 km (Um,Ud).
M = 5.2 (Up,Ki).

" 21 De iPKP 13 53 18.8
Solomon Islands (h = 50 km).

" 21 De iPKP 20 41 41.1
New Guinea (h = 60 km).

" 21 Up iPKP 20 59 19.0
iPKPl 20 59 24.4
Sk iPKPl 20 59 12.8
Um iPKP 20 59 08.2 C
iPKPl 20 59 11.5
Ud iPKP 20 59 20.4
iPKPl 20 59 26.9
De iPKP 20 59 27.0
iPKPl 20 59 37.5
South of Kermadec Islands.
(h = 440 km).

" 21 Ud iP 21 19 05.2

" 21 Ud iP 23 55 41.3
De iP 23 55 15.2

" 22 De iPKP 00 02 11.4
Solomon Islands (h = 35 km).

" 22 Up iPKP 03 31 38.8
Ud iPKP 03 31 40.7
De iPKP 03 31 44.8
Solomon Islands (h = 45 km).

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

1975 July	22	Up	iPKP	05 08 56.7	
		Ki	iPKP	05 08 45.6	
		Sk	iPKP	05 08 55.9	
		Um	iPKP	05 08 50.6	
		Ud	iPKP	05 08 59.1	
		De	iPKP	05 09 04.7	
		Solomon Islands (h = 70 km).			
"	22	Up	iP	05 19 19.1	
		Ki	iP	05 19 40.1	
		Sk	iP	05 19 27.0	
		Ud	iP	05 19 14.5	
		De	iP	05 19 07.4	
"	22	Up	iP	05 35 21.5	
		Ki	eP	05 35 06	
			i	05 35 24.5	
		Sk	iP	05 35 04.3	
		Ud	iP	05 35 15.9	
		De	iP	05 35 22.8	
		Mexico (h = 100 km).			
"	22	Ud	iP	09 36 52.6	
"	22	Ud	iP	09 39 38.8	
"	22	Ud	iP	09 50 46.1	
"	22	Ud	iP	09 53 23.1	C
			i	09 53 25.9	
		De	iP	09 53 14.7	
		North Atlantic Ocean (h = N).			
"	22	Ud	iP	10 49 21.6	
"	22	Ud	iPKP1	12 32 09.3	
		De	iPKP1	12 32 21.1	
		Fiji Islands (h = 570 km).			
"	22	Ud	iP	13 16 52.4	
"	22	Up	iPKP	13 50 20.2	
		Ki	iPKP	13 50 08.8	
		Sk	iPKP	13 50 19.9	
		Um	iPKP	13 50 14.6	
		Ud	iPKP	13 50 23.8	
		De	iPKP	13 50 29.1	
		Solomon Islands (h = 70 km).			
"	22	Up	iPKP	19 38 58.3	
			iPP	19 39 05.4	
				micr	sec
			Mx	E 3.0	22
			Mx	N 2.2	18
			Mx	Z 4.4	23
		(cont.)			

1975 July	22	(cont.)			
		Ki	iPKP	19 38 44.7	
				micr	sec
			Mx	E 2.1	18
			Mx	N 6.7	20
			Mx	Z 6.6	20
		Sk	iPKP	19 38 57.4	
			iPP	19 40 13.6	
		Um	iPKP	19 38 51.2	C
		Ud	iPKP	19 39 00.5	C
			iPP	19 40 26.8	
		De	iPKP	19 39 06.0	C
		Solomon Islands (h = 35 km).			
		M = 6.1 (Up,Ki).			
"	22	Um	iPKP	22 45 18.5	
		Solomon Islands (h = 70 km).			
"	23	Up	iPKP1	01 05 08.0	
		Sk	ePKP1	01 05 09	
		Um	iPKP1	01 05 00.5	
			i	01 05 08.5	
		Ud	iPKP1	01 05 12.3	
		South of Kermadec (h = 110 km).			
"	23	Ud	iP	02 44 19.1	
		North Atlantic Ocean (h = N).			
"	23	Up	iP	03 13 28.8	C
			i	03 14 41.3	
				micr	sec
			P	Z' 0.1	0.9
			Mx	E 1.0	18
			Mx	N 3.6	22
			Mx	Z 1.0	19
		Ki	iP	03 13 19.6	C
				micr	sec
			P	Z' 0.1	1.0
			Mx	E 1.0	19
			Mx	N 1.8	17
			Mx	Z 1.3	19
		Sk	iP	03 13 43.3	C
		Um	iP	03 13 19.8	C
		Ud	iP	03 13 42.0	C
		De	iP	03 13 45.2	
		Burma (h = N).			
		m = 5.9, M = 5.4 (Up,Ki).			
"	23	Up	iPKP2	10 45 05.4	
			i	10 45 18.5	
		Sk	iPKP1	10 44 52.4	
		Um	iPKP1	10 44 47.8	
		Ud	iPKP1	10 44 59.9	
		South of Kermadec Islands (h = N).			
"	23	Ud	iP	18 21 20.5	
		Hindu Kush (h = 230 km).			

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

1975 July	23	Um	iP		20 33 41.5
"	23	Up	iP		23 57 04.5
		Um	iP		23 56 54.1
		Ud	iP		23 57 05.9
"	24	De	iPKP		00 21 21.9
		Solomon Islands (h = 55 km).			
"	24	Up			micr sec
			Mx	E	1.1 19
			Mx	N	0.9 17
			Mx	Z	2.6 19
		Ki			micr sec
			Mx	E	1.3 19
			Mx	N	1.1 17
			Mx	Z	1.5 18
		Solomon Islands (h = 40 km).			
		M = 5.7 (Up,Ki).			
"	24	Ud	iP		05 58 10.3
		Aleutian Islands (h = N).			
"	24	Up	i		09 24 35.1
		Ud	iPKP		09 24 28.1
			i		09 24 39.6
		De	i		09 24 44.4
"	24	Up	iPKPl		19 20 04.3
			iSKPl		19 22 53.3
					micr sec
			SKPl	Z'	0.1 0.9
		Ki	ePKP		19 19 47
			iSKPl		19 22 31.2
					micr sec
			SKPl	Z'	0.1 1.0
		Sk	iPKPl		19 19 58.4
			iSKPl		19 22 46.2
		Um	iPKPl		19 19 51.8
			i		19 22 42.1
		Ud	iPKPl		19 20 06.0
			i		19 20 14.0
			iSKPl		19 22 54.6
		De	iPKPl		19 20 17.0
			iPKP2		19 20 18.6
			iSKPl		19 23 03.3
		Tonga-Kermadec Islands (h = 580 km).			
"	24	Ki	iP		22 17 39.8
		Ud	iP		22 18 31.7
			i		22 18 41.1
"	25	Up	iP		00 46 38.0
"	25	Ud	iP		04 24 40.4
		Oregon (h = N).			

1975 July	25	Ki	iP		06 12 02.1
		Ryukyu Islands (h = 40 km).			
"	25	Up	iP		10 51 07.6 C
			iX		10 51 22.3
			iS		10 59 42
			iP'P'		11 19 47.0
					micr sec
			P	Z'	0.6 1.4
			Mx	E	1.5 25
			Mx	N	2.4 26
			Mx	Z	2.4 25
		Ki	iP		10 50 12.7
			i		10 50 24.2
			iX		10 50 28.6
			iP'P'		11 20 07.4
					micr sec
			P	Z'	0.4 1.1
			X	Z'	0.7 1.5
			Mx	E	1.4 22
			Mx	N	2.2 22
			Mx	Z	2.6 23
		Sk	iP		10 50 41.7
			i		10 50 51.3
			iX		10 50 57.0
		Um	iP		10 50 40.4 C
			iX		10 50 56.4
			iS		10 58 58
			iP'P'		11 19 56.4
		Ud	iP		10 51 04.5 C
			iX		10 51 20.7
		De	iP		10 51 28.3
			iX		10 51 44.0
		Alaska (h = 15 km).			
		m = 6.5, M = 5.3 (Up,Ki).			
		Double P, in average 15.8 sec apart. The second phase, X, when interpreted as pP, gives a focal depth of 60 km.			
"	25	Up	iP		15 53 39.0
		Ki	iP		15 53 08.0
		Sk	iP		15 53 35.9
		Um	iP		15 53 20.8
		Volcano Islands (h = 390 km).			
"	25	Up	iPKPl		19 06 25.0
			i		19 06 29.6
		Sk	iPKPl		19 06 16.3
		Um	i(PKP)		19 06 09.5
			iPKPl		19 06 11.7
		Ud	i(PKP)		19 06 18.5
			iPKPl		19 06 24.1
		De	iPKPl		19 06 34.9
		Kermadec Islands (h = 45 km).			

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

1975 July	25	Up	iP		19 21 58.2		
			ipP		19 22 09.0		
			iS		19 26 00.8		
					micr	sec	
			pP	Z'	0.1	1.1	
			Mx	E	0.8	11	
			Mx	N	0.8	9	
			Mx	Z	1.4	12	
		Ki	iP		19 23 12.7		
			ipP		19 33 23.2		
					micr	sec	
			P	Z'	0.1	1.3	
			Mx	E	0.6	11	
			Mx	N	0.7	9	
			Mx	Z	0.9	10	
		Sk	iP		19 22 39.8		
			i		19 22 44.7		
		Um	iP		19 22 36.3		
			iS		19 27 14		
		Ud	iP		19 22 04.0		
			ipP		19 22 13.2		
		De	iP		19 21 29.4		
			ipP		19 21 38.9		
		Greece.					
		h = 40 km (Up,Ki,Ud,De).					
		m = 5.3, M = 4.6 (Up,Ki).					
"	25	Sk	iP		20 01 12.5		
		Um	iP		20 00 52.5		
		Ud	iP		20 01 27.7		
		Kurile Islands (h = 180 km).					
"	25	Up	iP		20 24 05.8		
		Ki	iP		20 23 48.7		
		Um	iP		20 23 55.4		
		Ud	iP		20 24 14.9 C		
		Mindanao (h = 120 km).					
"	25	Up	iP		22 58 49.3		
					micr	sec	
			P	Z'	0.1	1.3	
		Ki	iP		22 58 03.4		
		Sk	iP		22 58 39.5		
		Um	iP		22 58 25.0		
			i		22 58 36.8		
		Ud	iP		22 58 55.1		
			i		22 59 07.5		
		Japan.					
		h = 40 km (Um,Ud).					
"	25	Ki	iPn		23 30 30.3		
			iS*		23 31 43.6		
		Northwest USSR,					
		68.9°N, 33.6°E.					
		Origin time = 23 29 16.					
		Explosion?					
		Solution from Helsinki					
		regional bulletin.					

1975 July	26	Up	iP	02 50 17.8
		Sk	iP	02 51 01.3
		Ud	iP	02 50 25.5
		Greece (h = 50 km).		
"	26	Ud	iP	04 37 55.4
"	26	Up	iP	06 28 07.0
		Um	iP	06 27 46.9
		Ud	iP	06 28 04.2
"	26	Ki	iP	07 26 12.6
		Ud	iP	07 25 28.3
		North Atlantic Ocean		
		(h = N).		
"	26	Um	iP	12 20 02.8
		Ud	iP	12 20 39.1
"	26	De	iPKP	13 38 33.6
		Solomon Islands (h = N).		
"	26	Ud	iP	15 51 39.9
		Afghanistan-USSR (h = N).		
"	26	Up	iP	16 48 31.1
"	26	Um	iPKP	17 49 08.8
		Solomon Islands (h = 40 km).		
"	27	Ki	iP	01 00 40.9 C
		Um	iP	01 00 14.4
		Ud	iP	01 00 12.2
		De	iP	00 59 52.7
		Iran-Iraq (h = N).		
"	27	Ud	iP	04 07 21.6
"	27	Um	iP	04 26 49.4 C
		Ud	iP	04 27 00.3 C
			i	04 27 07.2
		Oregon (h = 30 km).		
"	27	Um	iPKP	05 58 50.4
		Ud	iPKP	05 59 03.7
"	27	Um	iP	06 37 42.1
"	27	Ki	iP	17 27 21.7
			i	17 27 54.5
		Um	iP	17 27 35.2
			i	17 28 07.7
		Ud	iP	17 28 03.2
		Japan (h = 140 km).		
"	27	Up	i	20 35 45.4
		Sk	iPKP	20 35 20.6
		(cont.)		

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

1975
July 27 (cont.)

Um	iPKP		20 35 15.0	C
Ud	iPKP		20 35 28.2	
	i		20 35 34.3	

" 27

Um	iP		20 53 37.3	
Ud	iP		20 54 04.9	

Japan (h = 70 km).

" 27

Ud	iP		23 15 25.6	

" 28

Up	iPKPl		00 40 26.0	
Sk	iPKPl		00 40 21.5	
Um	iPKPl		00 40 16.0	
Ud	iPKPl		00 40 28.1	

" 28

Up	iP		03 13 07.7	
Ki	iP		03 12 54.7	
			micr	sec
	P	Z'	0.1	1.4
Um	iP		03 13 00.1	
Ud	iP		03 13 17.1	

Molucca Sea (h = 150 km).

" 28

Ud	iP		04 27 37.0	

" 28

Up	iPKPl		05 18 11.2	
Ud	iPKPl		05 18 13.2	

" 28

Up	iPKPl		05 26 43.8	
Ud	iPKPl		05 26 45.2	
De	iPKPl		05 26 55.5	

Fiji Islands (h = 610 km).

" 28

Ud	iP		07 24 14.6	

" 28

Um	iP		08 04 36.9	

" 28

Up	iSKS		09 10 30	
			micr	sec
	Mx	E	1.4	18
	Mx	N	1.3	18
	Mx	Z	3.1	19
Ki	iPKP		09 03 26.7	
			micr	sec
	Mx	E	1.1	17
	Mx	N	1.1	17
	Mx	Z	1.1	18
Sk	ePKP		09 03 38	
Um	iPKP		09 03 32.0	
	i		09 03 47.2	
	iSKS		09 10 23	
Ud	iPKP		09 03 41.3	
	i		09 03 56.0	
De	iPKP		09 03 46.6	
	i		09 04 01.6	

Solomon Islands (h = 40 km).
M = 5.7 (Up,Ki).

1975
July 28

Um	iPKP		09 05 26.9	
	i		09 05 38.9	
De	iPKP		09 05 40.8	
	i		09 05 52.6	

Solomon Islands.

" 28

Um	eP		09 19 07	
Ud	iP		09 18 23.7	
De	iP		09 17 55.1	

Spain (h = N).

" 28

Up	iP		11 09 48.0	
Ki	iP		11 10 53.6	
Sk	iP		11 10 26.9	
Ud	iP		11 09 55.9	
De	iP		11 09 25.0	

Dodecanese Islands (h = N).

" 28

Um	iP		11 40 16.9	

" 28

Up	iP		12 39 31.8	
	i		12 39 34.4	
	i		12 39 45.1	
	iPP		12 41 00.8	
			micr	sec
	i	Z'	0.1	1.0
	Mx	E	1.4	15
	Mx	N	1.0	14
	Mx	Z	1.5	16
Ki	iP		12 39 36.0	
	i		12 39 38.2	
	iPP		12 41 06.1	
			micr	sec
	i	Z'	0.1	0.9
	Mx	E	1.4	9
	Mx	N	1.3	8
	Mx	Z	1.4	9
Sk	iP		12 39 56.5	
	iPP		12 41 35.8	
Um	iP		12 39 27.6	
	i		12 39 30.0	
	iPP		12 40 57.8	
Ud	iP		12 39 48.0	
	i		12 39 50.8	
	iPP		12 41 27.1	
De	iP		12 39 46.4	
	i		12 39 49.7	

Kirgiz SSR (h = 45 km).
m = 5.5 (Up,Ki).
Double P, in average 2.7 sec apart.

" 28

Ki	iP		13 09 50.8	

" 28

Ud	iP		14 55 00.1	

Gulf of California (h = N).

" 28

Ki	iP		15 07 56.0	

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

1975 July	28	Ki	iP		15 38 25.3
			i		15 38 32.6
		Sk	iP		15 38 27.7
		Um	iP		15 38 39.7 C
		Ud	iP		15 38 40.7
		De	iP		15 38 53.0
		Gulf of California (h = N).			
"	28	Um	iP		17 04 15.2
		Ud	i		17 04 20.8
		Gulf of California (h = N).			
"	28	Um	iPKP		21 43 47.3
		Solomon Islands (h = 35 km).			
"	29	Ud	iP		00 06 38.8
		Flores Sea (h = 640 km).			
"	29	Up	iP		01 59 44.4
		Ki	iP		01 58 59.9
		Sk	eP		01 59 12
		Um	iP		01 59 22.5
			i		01 59 29.0
		Ud	iP		01 59 33.8
		Oregon (h = N).			
"	29	Ud	iP		02 43 35.3
		De	iP		02 43 03.7
		Greece.			
"	29	Up	iP		02 49 32.6 D
			i		02 49 36.8
			iPP		02 51 26.0
			iS		02 56 24
					micr sec
			P	Z'	0.4 1.4
			Mx	E	1.2 13
			Mx	N	4.2 16
			Mx	Z	2.4 13
		Ki	iP		02 49 35.6 D
			i		02 49 39.5
					micr sec
			P	Z'	0.3 1.4
			Mx	E	1.6 11
			Mx	N	4.0 13
			Mx	Z	0.9 7
		Sk	iP		02 49 54.8 D
			i		02 49 58.7
		Um	iP		02 49 28.3 D
			iS		02 56 25
		Ud	iP		02 49 48.0 D
		De	iP		02 49 46.5 D
		Kashmir-Tibet (h = 50 km).			
		m = 5.6, M = 6.2 (Up,Ki).			
"	29	Ki	iP		02 58 34.3

1975 July	29	Ki	iP		10 37 06.1
		Ud	iP		10 36 07.6
		De	iP		10 35 37.0
		Dodecanese Islands (h = 70 km).			
"	29	Up	iP		13 33 48.9
			ipP		13 33 56.7
		Ki	iP		13 34 13.3
			ipP		13 34 11.5
					micr sec
			Mx	E	1.2 16
			Mx	N	1.1 15
			Mx	Z	1.5 16
		Sk	iP		13 34 19.0
			ipP		13 34 27.1
		Um	iP		13 33 55.9
			ipP		13 34 04.0
			iPP		13 35 49.0
			i		13 36 05.4
		Ud	iP		13 34 03.1
			ipP		13 34 11.5
		De	iP		13 33 52.2
			ipP		13 34 00.1
		Pakistan.			
		h = 30 km (Up,Ki,Sk,Um,Ud,De).			
"	29	Up	iP		14 11 19.7
		Ki	eP		14 10 32
		Sk	eP		14 11 10
		Um	iP		14 10 54.3
		Ud	iP		14 11 25.0
		De	iP		14 11 42.8
		Kurile Islands (h = 80 km).			
"	29	Up	iP		15 12 37.2
					micr sec
			Mx	E	1.0 13
			Mx	N	0.8 12
			Mx	Z	1.1 12
		Ki	eP		15 13 42
			i		15 13 48.6
					micr sec
			Mx	E	1.2 16
			Mx	N	0.6 10
			Mx	Z	0.6 9
		Sk	eP		15 13 15
		Um	eP		15 13 10
		Ud	iP		15 12 42.9
			i		15 12 52.4
		De	iP		15 12 10.3
			i		15 12 17.1
		Crete (h = 45 km).			
		M = 4.7 (Up,Ki).			
"	29	Ud	iP		17 39 40.9
"	29	Ud	iP		19 35 50.6

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

1975 July	29	Sk	iP		20 18 47.4
		Um	iP		20 18 43.7
		Ud	iP		20 18 08.1
		Albania (h = 55 km).			
"	29	Up	iP		21 24 28.8
		Ki	eP		21 25 14
		Sk	iP		21 24 39.9
		Um	iP		21 24 53.2
			i		21 24 57.5
		Ud	iP		21 24 22.4
			i		21 24 26.3
		Ascension Island (h = N).			
"	29	Up	iP2		22 25 28.7
		Sk	iP2		22 26 11.8
		Um	iP1		22 26 02.8
			iP2		22 26 07.3
		Ud	iP1		22 25 25.7
			iP2		22 25 32.7
		De	eP2		21 24 56
		Albania (h = 50 km).			
"	30	Up	iPKP1		06 55 10.1
		Ud	iPKP1		06 55 11.7
"	30	Ki	iP		07 01 25.7
		Halmahera (h = N).			
"	30	Up	iP		09 31 33.1
			i(PP)		09 35 01.3
			iPP		09 35 51.7
			iSKS		09 42 10
					micr sec
			Mx	E	5.4 27
			Mx	N	11 26
			Mx	Z	6.9 26
		Ki	iP		09 31 18.6
			iSKS		09 41 59
					micr sec
			P	Z'	0.1 1.3
			Mx	E	2.4 18
			Mx	N	16 24
			Mx	Z	1.9 20
		Sk	eP		09 31 40
			iPP		09 35 43.1
			e		09 39 13
		Um	iP		09 31 21.0
			iPP		09 35 39.5
			iSKS		09 42 01
		Ud	iP		09 31 37.6
			i(PP)		09 35 03.5
			iPP		09 36 11.9
		De	iP		09 31 50.8
			i(PP)		09 35 49.5
		Timor (h = 15 km).			
		M = 6.4 (Up,Ki).			

1975 July	30	Up	iPP		09 39 20.8
		Ki	iP		09 34 45.3
		Sk	ePP		09 39 13
		Ud	iPP		09 39 38.0
		Timor (h = N).			
"	30	Up	iPP		10 42 19.1
		Ki	iP		10 37 43.1
		Sk	iPP		10 42 10.1
		Ud	iP		10 38 03.3
			iPP		10 42 36.9
		De	iP		10 38 07.2
			iPP		10 42 11.4
		Timor (h = 20 km).			
"	30	Up	iPKP2		15 32 03.7
		Sk	iPKP1		15 31 53.8
		Um	iPKP1		15 31 47.4
		Ud	iPKP1		15 31 59.4
		De	iPKP1		15 32 09.4
"	30	Up	iP1		16 30 17.3
			iP2		16 30 19.3
			iS		16 34 25
					micr sec
			P2	Z'	0.1 1.5
			Mx	E	0.9 10
			Mx	N	0.9 9
			Mx	Z	1.1 10
		Ki	eP1		16 31 19
					micr sec
			Mx	E	1.0 9
			Mx	N	0.9 11
			Mx	Z	0.9 11
		Sk	iP2		16 31 01.3
		Um	iP1		16 30 45.8
			iP2		16 30 47.4
			iS		16 35 27
		Ud	iP1		16 30 30.8
			iP2		16 30 32.3
			i		16 30 36.8
		De	iP1		16 29 58.6
		Turkey (h = 20 km).			
		In average, P2 - P1 = 1.8 sec.			
"	30	Um	i(SKP1)		20 18 09.5
		De	iPKP1		20 15 40.6
"	30	Up	iP		22 52 40.9
		Um	iP		22 52 29.2
		Ud	iP		22 52 50.0
		Mindoro (h = 60 km).			
"	31	Um	iP		02 37 43.8
		Sea of Japan (h = 35 km).			
"	31	Um	iPKP		03 53 18.4
		De	iPKP		03 53 32.2

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

1975					
July	31	Ud	i		05 16 45.0
		De	iP		05 16 02.3
"	31	Ud	iP		07 33 54.9
		De	iP		07 33 19.1
		Crete (h = 45 km).			
"	31	Up	iP1		11 14 35.5
			iP2		11 14 38.5
			iPP		11 16 02.7
			i		11 16 23.9
					micr sec
			P2	Z'	0.1 1.0
			Mx	E	1.0 13
			Mx	N	0.5 10
			Mx	Z	0.7 11
		Ki	iP1		11 14 37.5
					micr sec
			Mx	E	0.8 8
			Mx	N	1.3 13
			Mx	Z	0.9 8
		Sk	iP2		11 15 00.1
		Um	iP1		11 14 31.6
			i		11 15 46.0
		Ud	iP1		11 14 48.6
			iP2		11 14 52.3
			i		11 14 55.1
		De	iP2		11 14 49.9
		Tadzhik SSR (h = 40 km).			
		M = 5.0 (Up,Ki).			
"	31	Up	iP		15 31 34.3
					micr sec
			Mx	E	1.6 27
			Mx	N	2.2 24
			Mx	Z	2.3 27
		Ki	iP		15 31 26.7
					micr sec
			Mx	E	2.0 21
			Mx	Z	2.1 19
		Ud	iP		15 31 43.5
			iPP		15 36 09.3
		Sumbawa Island (h = 50 km).			
		M = 5.6 (Up,Ki).			
"	31	Up	ePKP		16 43 10
					micr sec
			Mx	E	1.1 19
			Mx	N	1.1 20
			Mx	Z	1.2 22
		Ki	iP		16 38 55.1
			iPKP		16 42 59.2
					micr sec
			Mx	E	1.2 18
			Mx	N	1.3 19
			Mx	Z	1.7 19
		(cont.)			

1975				
July	31	(cont.)		
		Sk	ePKP	16 43 08
		Um	iP	16 39 07.4
			iPKP	16 43 03.9
		Ud	iPKP	16 43 12.1
		De	iPKP	16 43 18.0
			i	16 43 22.5
		New Britain (h = 55 km).		
		M = 5.7 (Up,Ki).		
"	31	Up	iPKP	16 45 05.9
		Ki	ePKP	16 44 54
		Sk	ePKP	16 45 03
		Um	iPKP	16 45 01.9
		Ud	ePKP	16 45 08.1
		De	iPKP	16 45 13.2
			i	16 45 17.9
		New Britain (h = 40 km).		
"	31	Ki	iPKP	21 46 40.9
		Ud	iPKP	21 46 24.3
		South Sandwich Islands (h = 150 km).		

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SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, UMEÅ, UDDEHOLM and DELARY

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

AUGUST 1 - 31, 1975

1975 Aug.	1	Ki	iP		02 24 06.7
		Ud	eP		02 25 07
		Kamchatka (h = 15 km).			
"	1	Ud	iP		04 04 58.4
		Kurile Islands (h = N).			
"	1	Up	iP		04 09 07.3
		Ki	iP		04 08 22.4
		Um	iP		04 08 42.8
		Ud	iP		04 09 13.7
"	1	Ud	iP		10 31 49.1
"	1	Ud	iP		14 15 15.0
			ipP		14 15 21.5
		Vancouver Island.			
		h = 20 km (Ud).			
"	1	Up	iP		14 54 10.6
					micr sec
			P	Z'	0.1 1.0
		Ki	iP		14 53 42.8
		Sk	iP		14 54 08.0
		Um	iP		14 53 55.7
		Ud	iP		14 54 17.2
		De	eP		14 54 26
		Mariana Islands (h = 190 km).			
"	1	De	i(P)		16 07 50.5
"	1	Up	iP		16 39 01.3
		Ki	eP		16 38 26
		Sk	iP		16 38 36.1
		Um	iP		16 38 47.0
		Ud	iP		16 38 55.5
		California (h = 5 km).			

1975 Aug.	1	Up	iP		17 13 51.4 C
		Ki	iP		17 12 58.8 C
					micr sec
			P	Z'	0.1 0.7
		Sk	iP		17 13 35.2
		Um	iP		17 13 23.4 C
		Ud	iP		17 13 55.0 C
		De	iP		17 14 16.3
		Kamchatka (h = N).			
"	1	Ud	iP		20 31 40.6
		California (h = 10 km).			
"	1	Up	iP		20 31 56.7
			i		20 31 59.5
			iS		20 41 38
					micr sec
			P	Z'	0.4 1.0
			Mx	E	1.8 16
			Mx	N	3.2 20
			Mx	Z	4.1 20
		Ki	iP		20 31 19.8
			iS		20 40 28
			iP'P'		20 59 27.7
					micr sec
			P	Z'	0.5 1.6
			Mx	E	2.2 14
			Mx	N	2.9 16
			Mx	Z	2.8 16
		Sk	iP		20 31 30.5
		Um	iP		20 31 40.8
			iS		20 41 06
		Ud	iP		20 31 49.0
		De	iP		20 32 07.3
		California (h = 15 km).			
		m = 6.4, M = 5.7 (Up,Ki).			

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

1975					
Aug.	1	Ki	eP	20 36 03	
		Ud	iP	20 36 31.9	
		California.			
		Origin time = 20 24 56.			
"	1	Ki	eP	20 40 49	
		Ud	iP	20 41 18.1	
		California.			
		Origin time = 20 29 42.			
"	1	Um	iP	23 33 39.6	
"	1	Ki	iPKP	23 43 19.5	
		Tonga Islands (h = 80 km).			
"	2	Um	iP	01 17 25.9	
		Ud	iP	01 17 51.8	
"	2	Up	iPKPl	02 03 35.0	
		Ki	iPKP	02 03 27.4	
		Sk	i(PKP)	02 03 28.3	
		Um	i(PKP)	02 03 23.5	
			i(PKP)	02 03 29.2	
			iPKP	02 03 35.3	
		Ud	iPKPl	02 03 36.9	
		De	iPKPl	02 03 47.8	
		Tonga-Kermadec Islands (h = 580 km).			
"	2	Ki	iP	05 37 15.5	
		Um	iP	05 37 19.5	
		Ud	iP	05 37 38.2	
		Banda Sea (h = N).			
"	2	Up	iP	09 25 31.1	
		Sk	iP	09 25 42.6	
		Um	iP	09 25 16.3	
		Kansu, China (h = N).			
"	2	Up	iP	10 29 08.8	D
			ipP	10 29 21.3	
			iS	10 38 01.8	
			iP'P'	10 57 30.1	
			i	10 57 48.6	
				micr sec	
			P Z'	0.6 1.0	
			pP Z'	1.7 1.4	
			Mx E	13 30	
			Mx N	12 24	
			Mx Z	11 20	
		Ki	iP	10 28 15.1	D
			ipP	10 28 28.2	
			iS	10 36 21.7	
			iP'P'	10 57 42.2	
		(cont.)			

1975					
Aug.	2	(cont.)			
		Ki	i	10 57 55.4	
				micr sec	
			P Z'	4.1 1.4	
			pP Z'	3.4 1.3	
			Mx E	19 24	
			Mx N	9.3 19	
			Mx Z	7.9 17	
		Sk	iP	10 28 44.0	D
			iS	10 37 18.7	
		Um	iP	10 28 42.7	D
			ipP	10 28 55.6	
			iS	10 37 14.4	
			iP'P'	10 57 39.4	
		Ud	iP	10 29 06.7	D
			ipP	10 29 18.6	
			iS	10 38 01.2	
			iP'P'	10 57 37.3	
			i	10 57 49.6	
		De	iP	10 29 29.8	D
			ipP	10 29 42.5	
			iS	10 38 45.5	
			iP'P'	10 57 36.4	
		South of Alaska.			
		h = 45 km (Up,Ki,Um,Ud,De).			
		m = 7.0, M = 6.3 (Up,Ki).			
		Multiple P'P' phases.			
"	2	Ki	iPn	12 32 03.9	
			iSn	12 32 32.1	
		Um	iSgl	12 33 38.6	
		Origin time = 12 31 28.			
"	2	Ki	iP	12 52 28.6	
		Um	iP	12 52 56.8	
		Ud	iP	12 53 20.0	
"	2	Up	iP	15 12 04.4	
		Ki	iP	15 11 10.2	
		Sk	iP	15 11 37.5	
		Um	iP	15 11 38.7	
		Ud	iP	15 12 00.7	
		Kodiak Island (h = N).			
"	2	Up	iP	16 34 18.1	
		Ki	iP	16 34 36.0	
		Um	iP	16 34 12.7	
		Ud	iP	16 34 18.8	
			i	16 34 43.2	
		It is likely that these recorded phases belong to two events from two different foci.			

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

1975 Aug.	2	Um	iP		17 27 33.0	
			i		17 27 38.4	
		Gulf of California (h = N).				
"	2	Up	iP		17 36 14.0	
		Ud	iP		17 36 06.3	
		California (h = 5 km).				
"	2	Ud	iP		17 55 02.2	
		California (h = 5 km).				
"	2	Up	iPKPl		18 03 45.5	
		Ud	iPKPl		18 03 46.6	
"	2	Up	iP		20 34 01.0	
					micr	sec
			P	Z'	0.1	1.1
		Ki	iP		20 33 24.0	
					micr	sec
			P	Z'	0.1	1.3
		Sk	iP		20 33 35.0	
		Um	iP		20 33 44.8	
		Ud	iP		20 33 53.4	
		De	eP		20 34 11	
		California (h = 5 km).				
		m = 5.8 (Up,Ki).				
"	2	Ud	iP		20 47 25.9	
		California (h = 5 km).				
"	2	Up	iP		21 10 48.8 D	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		21 10 11.4 D	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		21 10 22.2 D	
		Um	iP		21 10 32.1 D	
		Ud	iP		21 10 41.3 D	
		De	iP		21 10 58.6 D	
		California (h = 5 km).				
		m = 5.9 (Up,Ki).				
"	2	Up	iP		21 51 47.1	
		Ud	iP		21 51 38.7	
		California (h = 5 km).				
"	2	Ki	iP		23 04 55.7	
			i		23 05 07.0	
		Um	i		23 04 43.7	
"	3	Up	i(P)		00 24 14.9	

1975 Aug.	3	Up	iP		01 14 50.0	
		Ki	eP		01 14 13	
		Um	iP		01 14 33.1	
		Ud	iP		01 14 41.9	
		California (h = 10 km).				
"	3	Ud	iP		02 58 45.8	
		California (h = 5 km).				
"	3	Up	iP2		06 47 20.4	
		Ki	eP2		06 46 41	
		Um	iP2		06 47 05.0	
		Ud	iPl		06 47 08.3	
			iP2		06 47 11.3	
		California (h = 5 km).				
"	3	Um	iP		06 48 36.5	
		Ud	iP		06 49 07.1	
"	3	Up	iP		07 27 50.0	
"	3	Ud	iP		07 36 05.3	
"	3	Um	iP		07 54 07.3	
"	3	Up	iP		10 46 03.3	
					micr	sec
			Mx	Z	0.8	20
		Ki	iP		10 46 09.1	
		Sk	eP		10 45 48	
		Um	iP		10 46 08.8	
			i		10 46 22.2	
		Ud	iP		10 45 50.2	
		De	iP		10 45 58.0	
		Leeward Islands (h = 35 km).				
"	3	Up	i(P)		11 04 48.5	
"	3	Ud	eP		12 09 02	
		Greece (h = 15 km).				
"	3	Up	iSKS		12 24 13	
			iS		12 25 20	
			i		12 27 01	
					micr	sec
			Mx	E	1.4	19
			Mx	N	1.2	17
			Mx	Z	4.6	18
		Ki			micr	sec
			Mx	E	2.5	23
			Mx	N	2.1	20
			Mx	Z	2.9	29

(cont.)

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

1975
Aug. 3 (cont.)

Um	iSKS	12 24 15	
	iS	12 25 36	
	i	12 27 18	

Peru (h = 15 km).
M = 5.8 (Up,Ki).

" 3	Up	iPKP2	13 51 23.5	
	Ki	iPKP1	13 51 17.2	
		iPKP2	13 51 22.8	
	Um	iPKP2	13 51 21.9	
	Ud	iPKP2	13 51 29.8	

West of Macquarie Island
(h = N).

" 3	De	iP	17 09 33.8	
" 3	Ud	iPKP1	21 18 11.4	
	De	iPKP1	21 18 23.2	
" 4	Up	iP	08 31 26.3	
	Ki	iP	08 31 28.4	C
			micr sec	
		P Z'	0.1 1.0	
	Sk	iP	08 31 50.0	
	Um	iP	08 31 20.8	C
	Ud	iP	08 31 42.9	C
	De	iP	08 31 42.0	C

Sinkiang, China (h = 60 km).

" 4	Up	i(P)	12 04 48.9	C
" 4	Ud	iP	12 30 12.4	
" 4	Up	iP	17 46 48.5	
	Ki	iP	17 46 36.9	
	Um	iP	17 46 38.3	
	Ud	iP	17 46 56.7	

Celebes Sea (h = 610 km).

" 4	Up	iP	19 10 48.6	
	Ki	i	19 10 26.5	
	Ud	iP	19 10 54.0	

Kurile Islands (h = N).

" 4	Ud	iP	22 13 22.0	
		i	22 13 32.1	
" 4	Up	iP	23 31 48.5	
		i	23 32 03.9	
	Ki	iP	23 31 16.9	C
		i	23 31 31.1	

(cont.)

1975
Aug. 4 (cont.)

Ki		micr	sec
	i Z'	0.1	1.0
Sk	iP	23 31 44.3	
Um	iP	23 31 30.0	C
Ud	iP	23 31 54.4	
	i	23 32 09.4	
De	iP	23 32 05.9	

Volcano Islands (h = 90 km).

" 5	Um	iPKP	03 13 12.9	
	De	iPKP	03 13 26.6	

Solomon Islands (h = 55 km).

" 5	Up	iPKP1	03 56 47.7	
	Um	iPKP1	03 56 35.8	
		i	03 56 37.8	
	Ud	iPKP1	03 56 48.3	
	De	iPKP1	03 56 58.2	
" 5	De	iPKP	04 58 23.6	

New Britain (h = 140 km).

" 5	Um	iP	12 00 12.6	

Halmahera (h = 110 km).

" 5	Ud	iP	13 45 34.6	
" 5	Up	iRg	14 45 29.5	
" 5	De	iPKP	20 08 28.0	

Solomon Islands (h = 60 km).

" 5	Sk	eP	20 39 42	
	Ud	iP	20 39 43.1	
" 6	Up	iP	01 00 40.8	
			micr sec	
		Mx E	0.7 13	
		Mx N	0.7 13	
		Mx Z	0.9 13	
	Ki	eP	01 01 30	
	Sk	eP	01 01 24	
	Um	iP	01 00 53.5	
	Ud	iP	01 00 57.8	
	De	i	01 01 17.2	

Caucasus (h = 20 km).

" 6	Up	iP	04 02 13.4	
			micr sec	
		P Z'	0.1 1.1	
	Ki	iP	04 01 36.2	
	Sk	iP	04 01 46.1	

(cont.)

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

1975
Aug. 6 (cont.)

Um	iP		04 01 56.2	
Ud	iP		04 02 04.7	
De	iP		04 02 22.7	

California (h = 5 km).

" 6

Ki	iPKP		17 32 11.9	
Um	iPKP		17 32 18.7	
De	iPKP		17 32 34.6	

New Hebrides Islands
(h = 140 km).

" 6

Up	iP		18 09 51.6	
	iS		18 16 31	
			micr	sec
	P	Z'	0.1	0.9
	Mx	E	0.9	12
	Mx	N	1.0	14
	Mx	Z	1.4	15
Ki	iP		18 10 14.2	
			micr	sec
	P	Z'	0.5	1.9
	Mx	E	0.5	12
Sk	iP		18 09 39.3	
Um	iP		18 10 06.9	
	i		18 10 32.2	
	iS		18 16 56	
Ud	iP		18 09 36.5	
De	iP		18 09 32.3	
	i		18 09 59.6	

North Atlantic Ocean
(h = N).
m = 5.9, M = 4.8 (Up,Ki).

" 6

Up	iP		19 02 09.5	
Ud	eP		19 01 52	

North Atlantic Ocean
(h = N).

" 6

Sk	ePKP1		19 39 50	
Um	iPKP1		19 39 42.8	
Ud	iPKP1		19 39 55.2	
De	iPKP2		19 40 13.2	

" 6

Ud	i(P)		19 49 49.1	

" 6

Up	iPKP1		20 33 25.5	
Sk	ePKP		20 33 21	
Um	iPKP		20 33 20	
Ud	iPKP1		20 33 27.5	
De	iPKP1		20 33 39.3	D

Fiji Islands (h = 650 km).

1975
Aug. 6

Up	iP		21 08 00.3	
Ud	iP		21 08 16.8	
De	iP		21 08 13.8	

Afghanistan-USSR (h = 230 km)

" 6

Up	iP		21 48 02.6	D
			micr	sec
	P	Z'	0.8	0.9
Ki	iP		21 47 19.4	D
			micr	sec
	P	Z'	0.8	0.8
Sk	iP		21 47 54.7	D
Um	iP		21 47 38.3	D
Ud	iP		21 48 09.8	D
De	iP		21 48 26.8	D
	iPcP		21 48 48.1	

Sea of Japan (h = 230 km).
m = 6.4 (Up,Ki).

" 6

Up	e(PP)		22 43 10	
	iPP		22 43 42.0	
			micr	sec
	Mx	E	3.1	20
	Mx	N	7.5	20
	Mx	Z	5.7	22
Ki	i		22 43 06.9	
			micr	sec
	Mx	E	3.5	17
	Mx	N	5.5	18
	Mx	Z	4.6	18
Sk	iPP		22 43 33.2	
Um	iPP		22 43 17.4	
Ud	i(PP)		22 43 30.1	
	iPP		22 43 46.2	
De	iPP		22 44 02.5	

Admiralty Islands (h = N).
M = 6.2 (Up,Ki).

" 7

Up	iP		01 05 43.8	
Sk	eP		01 06 26	
Ud	iP		01 05 53.4	
De	iP		01 05 14.2	

Greece (h = N).

" 7

De	iPKP1		01 14 25.9	

Fiji Islands (h = 530 km).

" 7

De	iPKP		03 29 15.1	

Solomon Islands (h = 55 km).

" 7

Up	iP		04 03 53.0	
	iPn		04 04 54.6	

(cont.)

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

1975
Aug. 7 (cont.)

Up	iPP		04 05 11.1	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		04 03 37.2	C
			micr	sec
	P	Z'	0.1	0.6
Sk	iP		04 04 08.4	C
	iPn		04 05 25.7	
Um	iP		04 03 37.9	C
Ud	iP		04 04 09.2	C
De	iP		04 04 16.2	C
	iPP		04 05 42.3	

Kazakh SSR.
m = 5.7 (Up,Ki).
Underground explosion.

" 7

Ki	eSn		07 43 30	
	i		07 43 50.5	
Um	iSgl		07 44 19.9	

White Sea region,
65.2°N, 38.2°E.
Origin time = 07 40 14.
m = 4.8, M_L = 3.8 (Um).
Solution from Helsinki
regional bulletin.

" 7

Ud	iP		13 28 03.1	

" 7

Up	iPKP		13 37 08.0	
Um	iPKP		13 37 04.1	
Ud	iPKP		13 37 09.6	
De	ePKP		13 37 20	

" 7

Ki	eP		13 42 17	
Sk	i		13 47 07.6	
De	ePP		13 47 01	

West Irian (h = 70 km).

" 7

Up	iP		15 35 59.7	
Ki	iP		15 37 01.7	D
	ipP		15 37 24.3	
			micr	sec
	P	Z'	0.1	0.8
Sk	iP		15 36 15.1	
Um	iP		15 36 34.0	D
	ipP		15 36 56.6	
	i		15 37 18.5	
Ud	iP		15 35 50.0	D
	ipP		15 36 12.3	
De	iP		15 35 25.3	D
	i		15 35 26.8	

(cont.)

1975
Aug. 7 (cont.)

De	ipP		15 35 46.4	

Strait of Gibraltar.
h = 100 km (Ki,Um,Ud,De).

" 7

Ud	iSgl		17 21 00.9	

Southwest Norway.
Origin time = 17 19 11.
By combination with Bergen
readings.

" 7

Up	iPKPl		18 14 17.9	
Ud	iPKPl		18 14 19.9	

" 7

Up	iP		18 22 58.2	C
Um	iP		18 22 37.9	C
Ud	iP		18 23 06.6	C
De	eP		18 23 20	

" 7

Ki	i(P)		20 08 45.3	

" 7

Ud	iP		20 10 18.1	
De	iP		20 10 57.0	

" 7

Up	iPKPl		20 30 29.3	
	iSKPl		20 33 14.0	
	iSKKP		20 41 43.3	
			micr	sec
	PKPl	Z'	0.1	1.3
	SKPl	Z'	0.1	1.4
Ki	iPKP		20 30 19.3	
	iSKPl		20 32 51.7	
			micr	sec
	PKP	Z'	0.1	1.0
	SKPl	Z'	0.1	1.3
Sk	i(PKP)		20 30 23.7	
	iPKP		20 30 30.3	
	iSKPl		20 33 07.9	
Um	i(PKP)		20 30 16.7	
	i(PKP)		20 30 23.2	
	iPKP		20 30 26.4	
	iSKPl		20 33 02.9	
Ud	iPKPl		20 30 30.8	
	iSKPl		20 33 15.8	
	iSKKP		20 41 40.9	
De	iPKPl		20 30 41.4	
	ipPKPl		20 33 09.5	
	iSKPl		20 33 24.3	

Tonga-Kermadec Islands.
h = 650 km (De).

" 7

Ud	iP		20 49 49.2	

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

1975				
Aug.	7	Up	iP	22 51 45.0
		Ki	iP	22 52 34.3
		Sk	iP	22 52 19.9
		Um	iP	22 52 08.1
		Ud	iP	22 51 55.2
		De	iP	22 51 31.9
		Ethiopia (h = 35 km).		
"	8	Ud	ePKP	00 58 12
		De	iPKP	00 58 17.9
		Solomon Islands (h = N).		
"	8	Um	iP	01 14 50.4
		Ud	iP	01 14 21.4
"	8	Ud	iP	02 18 33.9
		Iran (h = 45 km).		
"	8	De	iPKP	03 13 43.1
		New Ireland (h = 40 km).		
"	8	Ki	eP	03 15 30
		Ud	iP	03 15 54.1
		Mindanao (h = 35 km).		
"	8	Sk	iPKP	04 59 17.1
		Um	iPKP	04 59 12.8
		Ud	ePKP	04 59 21
		De	ePKP	04 59 28
		New Hebrides Islands (h = 60 km).		
"	8	Ud	eP	06 42 51
		De	eP	06 43 02
"	8	Up	iP	07 12 33.7
			i	07 12 35.7
		Ki	eP	07 11 57
		Sk	iP	07 12 07.4
		Um	iP	07 12 17.7
		Ud	iP	07 12 25.7
		De	iP	07 12 43.3
		California (h = 10 km).		
"	8	Up	iPKP2	07 29 11.1
		Sk	iPKP1	07 29 03.7
		Ud	iPKP1	07 29 08.3
		De	iPKP1	07 29 19.8
"	8	Sk	iP	08 25 40.0
		Ud	eP	08 25 06
		De	eP	08 24 35
		Greece (h = 70 km).		

1975				
Aug.	8	Ud	eP	10 07 06
"	8	Ki	iP	11 52 37.1
		Sk	iP	11 53 07.8
		Um	iP	11 53 08.5
		Ud	iP	11 53 35.1
		De	iP	11 54 00.4
		Alaska (h = N).		
"	8	Sk	eP	12 49 28
		De	iP	12 49 39.8
"	8	Ud	iPKP1	13 02 51.2
		De	iPKP1	13 03 02.9 D
		Tonga-Kermadec Islands (h = 240 km).		
"	8	Up	eP	14 43 32
		Ki	iP	14 42 36.2
		Sk	eP	14 43 04
		Um	iP	14 43 02.8
		Ud	iP	14 43 26.9
		De	iP	14 43 49.9
"	8	Ud	iPKP1	14 50 26.4
		De	iPKP1	14 50 37.1
		Tonga-Kermadec Islands (h = 520 km).		
"	8	Um	iP	14 53 07.7
"	8	Ud	ePKP	16 53 08
		De	iPKP	16 53 13.2
			i	16 53 24.7
		Solomon Islands (h = 60 km).		
"	8	Up	iP	17 19 40.4
			iS	17 29 30
				micr sec
			Mx E	1.7 22
			Mx N	2.6 21
			Mx Z	1.4 13
		Ki	iP	17 19 16.9
				micr sec
			Mx E	1.6 14
			Mx N	1.3 15
			Mx Z	1.5 13
		Sk	iP	17 19 46.1
		Um	iP	17 19 25.3
			iS	17 29 02
		Ud	iP	17 19 49.2
		De	eP	17 19 58
		Formosa (h = 15 km).		
		M = 5.6 (Up,Ki).		

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

1975 Aug.	8	Up	iP		18 18 01.9
		Ki	iP		18 17 23.4
		Sk	eP		18 17 56
		Um	iP		18 17 40.1
		Ud	iP		18 18 09.2
		De	iP		18 18 23.7
		Japan (h = 50 km).			
"	8	Ud	eP		18 35 12
		Carlsberg Ridge (h = N).			
"	8	Up	eP		20 24 11
		Ki	iP		20 23 34.0
		Sk	eP		20 24 05
		Um	iP		20 23 52.4
		Ud	iP		20 24 17.6
		De	eP		20 24 30
		Japan (h = N).			
"	8	Up	iPcP		21 18 10.1
		Ki	iP		21 17 39.2
		Sk	iPcP		21 18 00.3
		Um	iPcP		21 17 52.8
		Ud	iP		21 17 34.6
			iPcP		21 18 12.5
		De	iPcP		21 18 25.7
		Kamchatka (h = 70 km).			
"	8	Sk	ePKP		22 01 41
		Um	iPKP		22 01 35.9
		Ud	ePKP		22 01 45
		De	iPKP		22 01 50.8
		Solomon Islands (h = 70 km).			
"	9	Up	ePKP		06 54 34
		Ki	iPKP		06 54 21.0
		Sk	iPKP		06 54 30.5
		Um	iPKP		06 54 27.6
		Ud	iPKP		06 54 36.1
		De	i(PKP)		06 54 35.1
			iPKP		06 54 41.7
		Loyalty Islands (h = 5 km).			
"	9	Up	iP		07 48 16.0
			i		07 48 25.4
					micr sec
			Mx	E	1.9 20
			Mx	N	2.5 23
			Mx	Z	3.1 18
		Ki	iP		07 47 57.3
					micr sec
			Mx	E	1.4 17
			Mx	N	1.2 18
		(cont.)			

1975 Aug.	9	(cont.)			
		Ki			micr sec
			Mx	Z	1.7 17
		Sk	iP		07 48 19.7
		Um	iP		07 48 03.7
			iS		07 58 32
		Ud	iP		07 48 23.9
		De	iP		07 48 30.0
		Mindanao (h = 50 km).			
		M = 5.6 (Up,Ki).			
"	9	Ud	iP		11 09 57.0
"	9	Ki	eP		18 10 42
		Ud	iP		18 11 09.3
"	9	Ud	eP		22 06 57
"	9	Um	eP		22 36 38
"	9	Um	iP		23 03 23.6
"	10	Sk	ePKP1		00 11 13
		Um	iPKP1		00 11 07.9
		Ud	iPKP2		00 11 33.0
"	10	Up	iP		00 20 28.5
		Ki	iP		00 20 30.9
		Sk	iP		00 20 16.0
		Um	iP		00 20 32.1
		Ud	iP		00 20 19.0
		De	iP		00 20 21.2
		Colombia (h = 50 km).			
"	10	Ud	iPKP1		00 40 03.8
		De	iPKP1		00 40 14.8
"	10	De	iP		03 23 35.1
"	10	Up	iP		03 23 43.3
					micr sec
			P	Z'	0.1 1.4
		Ki	iP		03 22 50.0
		Sk	iP		03 23 23.9
		Um	iP		03 23 16.0
		Ud	iP		03 23 44.7
		De	iP		03 24 05.9
		Aleutian Islands (h = 15 km).			
"	10	Ki	eP		03 39 31
		Um	iP		03 39 19.5
		Ud	iP		03 39 38.1
		De	iP		03 39 35.3
		Afghanistan-USSR (h = 20 km).			

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

1975					
Aug.	10	De	ePKP		03 47 27
		Solomon Islands (h = 55 km).			
"	10	Sk	ePKP		04 29 23
		Um	iPKP		04 29 17.8
		Ud	ePKP		04 29 26
		De	iPKP		04 29 32.3
			i		04 29 42.5
		Solomon Islands (h = 35 km).			
"	10	De	iPKP		04 32 06.9
		Solomon Islands (h = 25 km).			
"	10	Ud	iPKP1		04 53 24.6
		De	iPKP1		04 53 36.1
"	10	Ud	iPKP1		07 13 42.4
		De	iPKP1		07 13 53.7
		Tonga-Kermadec Islands (h = 470 km).			
"	10	Up	ipP		10 40 31.0
			i(PP)		10 42 37.1
			iPP		10 44 01.8
			iSKS		10 49 58
			i		10 50 48
			iPKKP		10 55 23.3
			iP'P'		11 03 25.2
					micr sec
			pP	Z'	0.3 2.1
			PP	Z'	0.2 1.2
			Mx	E	1.4 18
			Mx	N	1.1 21
			Mx	Z	2.3 19
		Ki	i(PP)		10 43 54.6
			iPP		10 44 27.1
			iSKS		10 50 13
			i		10 51 09
			iPKKP		10 54 58.5
			iPKKP		10 55 09.7
					micr sec
			PP	Z'	0.5 1.9
			Mx	E	1.4 17
			Mx	N	2.0 18
			Mx	Z	1.9 18
		Sk	iP		10 39 33.5
			ipP		10 40 27.4
			i(PP)		10 42 29.4
			iPP		10 43 55.9
			iPKKP		10 55 12.5
			iPKKP		10 55 29.5
			iP'P'		11 03 33.6
		(cont.)			

1975					
Aug.	10	(cont.)			
		Um	i(PP)		10 43 52.5
			iPP		10 44 20.6
			iSKS		10 50 09
			i		10 51 02
			iPKKP		10 55 01.4
			iPKKP		10 55 14.0
			iP'P'		11 03 26.5
		Ud	iP		10 39 30.1
			ipP		10 40 24.0
			i(PP)		10 42 38.7
			iPP		10 43 48.2
			iPKKP		10 55 32.0
		De	iP		10 39 25.8
			ipP		10 40 18.6
			i(PP)		10 42 47.7
			iPP		10 43 41.6
			iPKKP		10 55 37.4
			iP'P'		11 03 37.7
		Argentina. h = 210 km (Sk,Ud,De). m = 6.3, M = 5.7 (Up,Ki). (PP) denote early PP arrivals. Extremely clear PKKP phases.			
"	10	Sk	iP		11 22 13.4
"	10	Ki	iP		16 11 08.7
		Sk	eP		16 11 26
		Um	iP		16 11 09.2
		Ud	iP		16 11 23.3
		South of Java (h = 45 km).			
"	10	Up	iP		17 41 50.9
			i		17 41 57.3
					micr sec
			P	Z'	0.1 1.1
			Mx	N	1.1 20
			Mx	Z	1.6 28
		Ki	iP		17 41 34.1
			i		17 41 38.0
					micr sec
			P	Z'	0.1 1.0
			Mx	E	1.1 20
			Mx	N	1.0 19
			Mx	Z	1.3 19
		Sk	iP		17 41 55.0
		Um	iP		17 41 39.4
			i		17 41 43.5
			iS		17 52 32
		Ud	iP		17 41 58.9
			i		17 42 03.8
		(cont.)			

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

1975
Aug. 10 (cont.)

De	iP	17 42 05.2	
	i	17 42 10.5	

Philippine Islands
(h = 110 km).
m = 6.1, M = 5.4 (Up,Ki).
Double P, in average
4.9 sec apart.

" 10	Ud	iP	20 55 30.6
" 10	Up	iP	21 00 22.9
	Ki	iP	21 01 35.7
	Sk	iP	21 00 57.1
	Um	iP	21 01 00.9
	Ud	iP	21 00 23.5
	De	iP	20 59 46.3

Sicily (h = 210 km).

" 10	Up	iPKP	22 59 06.4
	Ki	ePKP	22 58 51
	Sk	ePKP	22 59 00
	Um	iPKP	22 58 50.0
	Ud	iPKP	22 59 06.3
	De	ePKP	22 59 14
" 11	Ud	iP	00 18 32.6

Caspian Sea (h = N).

" 11	Up	iPKPl	02 50 33.9
	Ud	iPKPl	02 50 35.8
	De	iPKPl	02 50 46.7
" 11	Ud	iP	02 57 58.0
" 11	Ki	iPKP	16 40 45.4

New Hebrides Islands
(h = 190 km).

" 11	Up	iPgl	18 30 30.9
		iSn	18 31 27.6
		i	18 31 49.6
		iSgl	18 32 09.2
		i	18 32 14.6
	Ki	iPgl	18 28 25.5 C
		iSgl	18 28 36.6
	Sk	iPn	18 29 33.8
		iPgl	18 29 51.7
		iSn	18 30 37.4
		iSgl	18 31 08.2
	Um	iPn	18 29 07.5
		iPgl	18 29 15.4

(cont.)

1975
Aug. 11 (cont.)

Um	iSn	18 29 49.8
	iS*	18 30 03.9
	iSgl	18 30 05.3
Ud	iSn	18 31 38.7
	iSgl	18 32 24.2
De	iSn	18 33 00.3
	iSgl	18 34 06.9

Swedish Lapland,
67.5°N, 22.5°E.
Origin time = 18 28 09.
m = 4.7, M_L = 3.6 (Up,Sk,Um,
Ud,De).
Felt.

" 11	De	iP	20 49 26.0
" 11	Ud	iPKPl	21 06 50.9
	De	iPKPl	21 07 00.7
" 12	Ud	iPKP	01 31 00.7
	De	iPKP	01 31 09.4

Tonga Islands (h = 200 km).

" 12	Ki	eP	02 22 22
	Um	iP	02 22 35.7

Japan (h = 80 km).

" 12	Ud	iP	03 37 29.7

Japan (h = N).

" 12	Up	iP	09 02 49.2
	Ki	iP	09 02 15.1
			micr sec
		P Z'	0.1 1.0
	Sk	iP	09 02 45.5
	Um	iP	09 02 29.6
	Ud	iP	09 02 56.5
	De	iP	09 03 10.0

Japan (h = 390 km).

" 12	Ud	eP	09 05 25
" 12	Ki	ipP	10 41 55.2
	Sk	e(pP)	10 42 15
	Ud	iP	10 42 02.0
	De	eP	10 42 02

Kirgiz SSR (h = 35 km).

" 12	Ud	iP	13 04 27.5

Kurile Islands (h = 140 km).

" 12	Up	iP	14 32 10.4

(cont.)

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

1975
Aug. 12 (cont.)

Up	iS		14 41 19.1	
			micr	sec
	P	Z'	0.6	0.8
	Mx	E	7.7	17
	Mx	N	5.4	18
	Mx	Z	6.0	21
Ki	iP		14 31 36.6	
	iS		14 40 22.9	
			micr	sec
	P	Z'	0.7	0.8
	Mx	E	5.4	17
	Mx	N	7.7	19
	Mx	Z	5.3	18
Sk	iP		14 32 07.0	
	ipP		14 33 46.2	
Um	iP		14 31 50.9	
	ipP		14 33 31.0	
	iS		14 40 44.5	
Ud	iP		14 32 18.1	
	ipP		14 34 00.1	
	iS		14 41 38.3	
De	iP		14 32 29.8	
	iS		14 42 02.1	

Japan.
h = 460 km (Sk,Um,Ud).
m = 6.2, M = 6.1 (Up,Ki).

" 12

Up	iP		15 07 39.7	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		15 06 37.4	
			micr	sec
	P	Z'	0.1	0.8
Sk	iP		15 07 22.9	
Um	iP		15 07 06.3	
Ud	iP		15 07 45.9	
De	iP		15 08 12.0	

Siberia (h = N).
m = 5.7 (Up,Ki).

" 12 Ud iP 16 11 32.2
Turkey (h = 110 km).

" 12

Up	iSgl	16 57 43.3
Sk	e	16 56 33
	iSgl	16 56 47.6
Ud	iPn	16 55 29.7
	iSgl	16 56 41.3
De	iSgl	16 57 40.7

West coast of Norway,
60.7°N, 4.9°E.
(cont.)

1975
Aug. 12 (cont.)
Origin time = 16 54 27.
m = 4.3, M_L = 2.7 (Ud).
By combination with Bergen and Kongsberg readings.

" 12

Ki	iP	23 30 09.5
Um	iP	23 30 36.1
Ud	iP	23 31 01.6

Aleutian Islands (h = 170 km).

" 13

Ud	iPKPl	01 01 46.5
De	iPKPl	01 01 58.2

Tonga Islands (h = 110 km).

" 13

Ki	ipP	05 18 48.3
Um	iP	05 18 45.0
	ipP	05 18 51.6

Dominican Republic.
h = 20 km (Um).

" 13

Up	iP	06 19 57.6
Ki	iP	06 19 25.5
Um	iP	06 19 38.4
Ud	iP	06 20 00.7

Mariana Islands (h = 40 km).

" 13

Up	ipP		10 11 01.0	
			micr	sec
	Mx	Z	0.9	22
Ki	eP		10 10 23	
	ipP		10 10 33.4	
			micr	sec
	Mx	E	0.5	12
	Mx	N	0.8	14
	Mx	Z	0.8	15
Sk	eP		10 10 01	
Um	iP		10 10 42.6	
Ud	ipP		10 10 36.3	

Iceland (h = N).

" 13 Ud iP 10 31 58.0
Tadzhik SSR (h = 5 km).

" 13

Up	iP	14 04 01.4
Ki	iP	14 03 15.8
Um	iP	14 03 36.7
Ud	iP	14 04 07.4

Kurile Islands (h = N).

" 13

Um	iP	19 06 50.7
Ud	iP	19 07 12.9

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

1975 Aug.	13	Um	iP	21 02 10.3
		Ud	iP	21 02 37.2
"	13	Ud	iP	21 18 37.2
"	13	Um	i(P)	22 19 29.1
"	13	Up	iP	23 19 56.4
			ipP	23 20 59.3
		Ki	iP	23 19 48.0
			ipP	23 20 49.0
		Sk	iP	23 19 39.0
			ipP	23 20 39.7
		Um	iP	23 19 54.6
			ipP	23 20 54.3
		Ud	iP	23 19 46.9
			ipP	23 20 49.4
		De	eP	23 19 56
		Guatemala.		
		h = 260 km (Up,Ki,Sk,Um,Ud).		
"	14	Ud	iP	02 38 43.7
"	14	Ud	iP	02 41 42.6
		Sea of Japan (h = 260 km).		
"	14	Up	iP	04 00 30.1
		Sk	iP	04 01 07.7
		Um	iP	04 01 06.2
		Ud	iP	04 00 36.9
"	14	Ud	iPKP1	04 07 55.0
		De	iPKP1	04 08 06.4
"	14	Ud	iP	11 49 15.1
"	14	Up	iP	13 53 48.5
		Ki	iP	13 54 13.5
		Sk	iP	13 54 24.8
		Ud	iP	13 54 11.5
		De	iP	13 54 02.2
"	14	Up	iPKP1	15 11 24.4
		Ki	iPKP	15 11 13.0
		Sk	e(PKP)	15 11 16
			iSKP1	15 14 04.5
		Um	iPKP	15 11 17.5
			iSKP1	15 14 00.1
		Ud	iPKP1	15 11 25.4
			iSKP1	15 14 13.5
		De	iPKP1	15 11 36.0 D
			iSKP1	15 14 22.1
		Fiji Islands (h = 610 km).		

1975 Aug.	14	Ki	iP	15 25 27.6
		Sk	iP	15 25 46.7
		Um	iP	15 25 20.3
		Ud	iP	15 25 38.3
		Tibet-India (h = 60 km).		
"	14	Up	iPKP2	17 28 41.0
				micr sec
			PKP2 Z'	0.1 0.8
		Ki	iPKP1	17 28 07.9
			ipPKP1	17 28 26.7
		Sk	iPKP1	17 28 20.3
		Um	iPKP1	17 28 15.0 C
			iPKP2	17 28 24.3
			ipPKP1	17 28 34.9
		Ud	iPKP2	17 28 45.3
		De	iPKP2	17 28 57.0
		North Island, New Zealand.		
		h = 70 km (Ki,Um).		
"	14	Up	iPKP	18 03 00.2
		Ki	iPKP	18 02 50.3
		Sk	iPKP	18 03 00.4
		Um	iPKP	18 02 54.7
		Ud	iPKP	18 03 03.2
		De	iPKP	18 03 08.3
		New Guinea (h = 45 km).		
"	14	Up	iP	18 20 50.9 C
			ipP	18 21 05.8
			i	18 21 09.5
				micr sec
			P Z'	0.3 1.4
			pP Z'	0.3 1.4
		Ki	iP	18 20 11.4 C
			i	18 20 30.3
				micr sec
			P Z'	0.2 1.4
			i Z'	0.1 0.9
		Sk	iP	18 20 44.6 C
			ipP	18 20 59.6
			i	18 21 03.5
		Um	iP	18 20 28.5 C
			ipP	18 20 42.9
			i	18 20 46.9
			iS	18 29 28
		Ud	iP	18 20 57.9 C
			ipP	18 21 12.9
			i	18 21 15.6
		De	iP	18 21 12.7 C
			ipP	18 21 28.2
		Japan.		
		h = 50 km (Up,Sk,Um,Ud,De).		
		m = 6.0 (Up,Ki).		

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

1975 Aug.	15	Sk	eP	03 44 04	
		Ud	iP	03 43 27.9	
"	15	Up	iP	03 52 38.8	
		Ki	iP	03 51 44.4	
		Sk	iP	03 52 21.2	
		Um	iP	03 52 10.2	
		Ud	iP	03 52 42.0	
		De	iP	03 53 04.7	
		Kamchatka (h = N).			
"	15	Up	iP	07 38 48.6	D
			i	07 38 59.0	
			iPP	07 41 17.4	
			iS	07 47 19.1	
				micr sec	
			P Z'	0.6 1.3	
			i Z'	3.5 1.6	
			Mx E	14 16	
			Mx N	22 19	
			Mx Z	29 20	
		Ki	iP	07 37 53.2	D
			i	07 38 05.1	
			iS	07 45 34	
				micr sec	
			P Z'	0.3 1.1	
			i Z'	4.9 2.4	
			Mx E	9.6 17	
			Mx N	25 18	
			Mx Z	26 22	
		Sk	iP	07 38 29.4	D
			i	07 38 41.4	
		Um	iP	07 38 19.5	
			i	07 38 31.3	
			iS	07 46 25	
		Ud	iP	07 38 51.0	D
			i	07 39 02.8	
		De	iP	07 39 13.2	D
			i	07 39 25.4	
		Komandorsky Islands (h = 5 km).			
		m = 7.2, M = 6.4 (Up,Ki).			
		Double P, in average			
		11.4 sec apart.			
"	15	Ki	iP	08 57 20.1	
		Ud	iP	08 58 20.5	
		Komandorsky Islands			
		(h = 40 km).			
"	15	Ud	iP	16 15 20.2	
"	16	Up	iP	01 07 09.5	
		(cont.)			

1975 Aug.	16	(cont.)			
		Up		micr sec	
			P Z'	0.1 0.9	
		Ki	iP	01 07 13.9	D
		Sk	iP	01 06 58.8	D
		Um	iP	01 07 14.3	D
		Ud	iP	01 07 00.7	D
		De	iP	01 07 01.0	D
			ipP	01 07 33.2	
		Peru.			
		h = 120 km (De).			
"	16	Ki	iP	02 54 26.8	
		Sk	iP	02 54 59.4	
		Um	iP	02 54 42.2	
		Ud	iP	02 55 10.4	
		Japan (h = 230 km).			
"	16	Sk	eP	04 24 23	
		Ud	iP	04 24 28.8	
		Venezuela (h = 40 km).			
"	16	Ud	iP	05 59 45.5	
		California (h = 10 km).			
"	16	Ki	iP	06 39 25.4	
		Ud	iP	06 39 48.7	
		Celebes Sea (h = 440 km).			
"	16	Up	iPKPl	07 42 26.9	
		Ki	i(PKP)	07 42 07.9	
			iPKP	07 42 19.5	
				micr sec	
			PKP Z'	0.1 0.5	
		Sk	i(PKP)	07 42 19.8	
			iPKP	07 42 29.9	
		Um	i(PKP)	07 42 14.9	
			i(PKP)	07 42 21.4	
			iPKP	07 42 26.0	
		Ud	iPKPl	07 42 28.8	
		De	iPKPl	07 42 40.4	
		Fiji Islands (h = 630 km).			
"	16	Up	iPKPl	21 45 15.2	
		Ki	iPKPl	21 44 54.0	
		Sk	iPKPl	21 45 08.5	
		Um	iPKPl	21 45 03.8	
		Ud	iPKPl	21 45 16.7	
		South of Kermadec Islands			
		(h = N).			
"	16	Ki	iP	22 30 47.8	
		Ud	iP	22 30 30.8	

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

1975					
Aug.	17	Up	iPKP		01 48 25.9
			iSKP1		01 51 43.5
		Ki	iPKP		01 48 11.7
		Sk	iPKP		01 48 23.6
		Um	iPKP		01 48 18.4
		Ud	iPKP		01 48 28.3
			iSKP1		01 51 46.9
		De	iPKP		01 48 34.9
		New Hebrides Islands (h = 90 km).			
"	17	Up	i(PKP)		03 48 59.7
		Ki	iPKP		03 48 56.7
			i		03 49 20.8
		Sk	ePKP		03 49 10
		Um	iPKP		03 49 04.1
		Ud	iPKP		03 49 13.7
		De	i(PKP)		03 49 10.4
			iPKP		03 49 22.6
		Tonga Islands (h = 270 km).			
"	17	Ki	iP		04 36 43.0
		Ud	iP		04 37 07.1
"	17	Up	iPKP1		06 32 36.2
					micr sec
			PKP1	Z'	0.1 1.0
		Ki	iPKP1		06 32 15.2
		Sk	iPKP1		06 32 30.1
		Um	iPKP1		06 32 25.1
			i		06 32 41.8
		De	iPKP1		06 32 46.0
		South of Kermadec Islands (h = N).			
"	17	Ud	iPKP1		07 41 41.7
		De	iPKP1		07 41 53.2
		Tonga-Kermadec Islands (h = 600 km).			
"	17	Sk	iP		09 02 06.8
		Albania (h = N).			
"	17	Um	iP		13 00 55.1
		Ud	iP		13 01 04.8
"	18	Sk	epP		03 25 16
		Um	ipP		03 25 08.3
		Ud	iP		03 24 40.3
		Turkey (h = 35 km).			
"	18	Sk	eP		05 48 09
		Um	iP		05 48 07.8

1975					
Aug.	18	Ki	eP		06 26 30
		Um	iP		06 26 37.1
		Luzon (h = N).			
"	18	De	iPKP		13 08 17.6
		New Britain (h = 55 km).			
"	18	Up	iPKP1		14 51 20.2
			iPKP2		14 51 36.7
		Ki	iPKP1		14 51 03.8
					micr sec
			PKP1	Z'	0.1 0.9
		Sk	iPKP1		14 51 17.1
		Um	iPKP1		14 51 11.5
		Ud	iPKP2		14 51 42.5
		North Island, New Zealand (h = 150 km).			
"	18	Up	iP		15 07 06.3
			ipP		15 07 14.3
					micr sec
			pP	Z'	0.1 1.1
		Ki	iP		15 06 11.5
			ipP		15 06 19.7
					micr sec
			P	Z'	0.1 1.0
			pP	Z'	0.1 1.0
		Sk	iP		15 06 37.9
			ipP		15 06 46.1
		Um	iP		15 06 39.7
			ipP		15 06 47.7
		Ud	iP		15 07 02.1
			ipP		15 07 10.0
		De	iP		15 07 26.2
			ipP		15 07 34.4
		Gulf of Alaska. h = 25 km (Up,Ki,Sk,Um,Ud, De). m = 5.8 (Up,Ki).			
"	18	Up	iP		15 31 44.1
		Ki	iP		15 31 30.3
		Sk	iP		15 31 56.3
		Um	iP		15 31 33.3
		Ud	iP		15 31 56.7
		China-Vietnam (h = N).			
"	19	Ki	iP		00 03 52.0
		Sk	eP		00 04 05
		Um	iP		00 03 48.8
		Ud	iP		00 04 01.1
		Sumatra (h = 70 km).			

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

1975 Aug.	19	Up	iPKPl		04 06 06.3
		Ud	iPKPl		04 06 08.4
		De	iPKPl		04 06 19.1
"	19	Up	iPKPl		04 54 47.0
		Ud	iPKPl		04 54 49.3
"	19	Ki	iP		09 48 25.3
		Sk	iP		09 48 43.2
		Um	iP		09 48 13.1
		Ud	iP		09 48 33.9
		De	iP		09 48 31.5
		Afghanistan-USSR (h = 110 km).			
"	19	Up	iX		10 46 28.1
		Sk	ePKPl		10 46 11
		Um	iPKPl		10 46 05.9
			iX		10 46 19.2
		Ud	iPKPl		10 46 17.3
			iX		10 46 31.5
"	19	Up	iPKPl		10 48 58.1
			iPKP2		10 49 05.7
					micr sec
			Mx	Z	0.9 21
		Ki	ePKPl		10 48 41
					micr sec
			Mx	N	0.9 18
			Mx	Z	0.9 20
		Sk	iPKPl		10 48 52.2
			ipPKPl		10 49 05.7
		Um	iPKPl		10 48 47.7
			ipPKPl		10 48 59.4
		Ud	iPKPl		10 48 59.6
			ipPKPl		10 49 12.4
		De	iPKP2		10 49 21.3
		South of Kermadec Islands.			
		h = 45 km (Sk,Um,Ud).			
"	19	Um	iPKPl		11 02 05.0
		Ud	iPKPl		11 02 16.7
"	19	Up	i		11 14 48.5
		Sk	ePKPl		11 14 30
		Um	iPKPl		11 14 24.9
			iX		11 14 38.6
		Ud	iPKPl		11 14 36.8
			iX		11 14 50.4
"	19	Um	iP		12 52 36.8
"	19	Up	iP		13 22 18.8
		(cont.)			

1975 Aug.	19	(cont.)			
		Sk	eP		13 22 45
		Um	iP		13 22 17.1
		Ud	iP		13 22 35.3
		De	iP		13 22 31.4
		Hindu Kush (h = 180 km).			
"	19	Sk	eSgl		14 49 03
		Ud	iPgl		14 47 29.1 C
			iSgl		14 47 46.3
		De	eSgl		14 49 06
		Southeast Norway,			
		59.9°N, 11.0°E.			
		Origin time = 14 47 06.			
		m = 4.1, M_L = 2.3 (Ud).			
"	19	Up	iP		15 09 46.4
			i		15 09 47.8
			iSKS		15 20 04
			iS		15 20 18
					micr sec
			P	Z'	0.2 0.8
			Mx	Z	2.6 30
		Ki	iP		15 09 34.4
			i		15 09 35.7
			iS		15 19 58
					micr sec
			P	Z'	0.5 0.8
			Mx	E	1.1 24
			Mx	N	0.7 20
			Mx	Z	0.9 20
		Sk	iP		15 09 28.0
			i		15 09 29.0
		Um	iP		15 09 43.4
			i		15 09 44.6
			iSKS		15 20 01
			iS		15 20 14
		Ud	iP		15 09 36.7
			i		15 09 37.9
		De	iP		15 09 44.6
			i		15 09 46.0
		Mexico (h = 90 km).			
		m = 6.3 (Up,Ki).			
		Double P, in average			
		1.2 sec apart.			
"	19	Up	i(P)		20 11 43.6
"	19	Sk	eP		20 31 38
		Um	iP		20 31 48.8
		Mexico (h = 90 km).			
"	20	Up	i(P)		00 49 46.5

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

1975					
Aug.	20	Ki	iP		01 45 27.1
		Um	iP		01 45 54.6
		Ud	iP		01 46 19.0
		Aleutian Islands (h = N).			
"	20	Ud	iP		02 16 39.9
		Queen Charlotte Islands (h = N).			
"	20	Up	iPKPl		05 35 50.6
		Ki	i(PKP)		05 35 39.8
		Sk	ePKP		05 35 44
		Um	i(PKP)		05 35 39.0
			iPKP		05 35 51.9
		Ud	iPKPl		05 35 52.7
		Fiji Islands (h = 630 km).			
"	20	Um	iP		06 00 51.0
			i		06 01 05.8
		Ud	iP		06 01 03.2
			i		06 01 17.2
"	20	Ud	iP		06 26 34.8
"	20	Ud	iP		06 33 06.5
"	20	Um	iPKPl		13 11 27.7
		Ud	iPKPl		13 11 40.5
"	20	Ud	iP		15 26 17.7
"	20	Ki	iP		16 27 46.4
		Um	iP		16 28 05.8
		Ud	iP		16 28 36.7
		Japan (h = 60 km).			
"	20	Ud	iP		19 56 44.0
"	20	Up	i(PKP)		20 37 04.9
			iPKP		20 37 06.4
			iSKPl		20 39 57.2
					micr sec
			PKP	Z'	0.1 0.9
			SKPl	Z'	0.1 0.9
		Ki	i(PKP)		20 36 45.4
			iPKP		20 36 58.2
			iSKPl		20 39 32.6
					micr sec
			PKP	Z'	0.1 1.1
			SKPl	Z'	0.2 1.4
		Sk	i(PKP)		20 36 56.8
			iPKP		20 37 07.8
		(cont.)			

1975					
Aug.	20	(cont.)			
		Sk	iSKPl		20 39 49.4
		Um	i(PKP)		20 36 58.9
			iPKP		20 37 05.1
			iSKPl		20 39 44.3
		Ud	i(PKP)		20 37 06.5
			iPKP		20 37 08.3
			iSKPl		20 39 58.7
		De	iPKPl		20 37 17.6 D
			i		20 40 01.3
			iSKPl		20 40 08.0
		Fiji Islands (h = 560 km).			
"	21	Sk	iPKPl		06 14 35.8
		Um	iPKPl		06 14 29.4
		Ud	iPKPl		06 14 41.6
		De	iPKPl		06 14 49.0
		Kermadec Islands (h = N).			
"	21	Ki	ePKP		07 06 09
		Ud	iPKP		07 06 27.4
		Solomon Islands (h = 430 km).			
"	21	Up	iP		07 35 18.1
					micr sec
			P	Z'	0.1 0.9
		Ki	iP		07 34 25.0
		Sk	iP		07 34 57.8
		Um	iP		07 34 51.1
		Ud	iP		07 35 19.2
		De	iP		07 35 40.5
		Aleutian Islands (h = 35 km).			
"	21	Ud	ePKPl		08 56 18
		De	iPKPl		08 56 19.6
		Fiji Islands (h = 550 km).			
"	21	Sk	iPKPl		09 00 20.0
		Um	iPKPl		09 00 15.4
		Ud	iPKPl		09 00 27.4
"	21	Up			micr sec
			Mx	N	1.7 23
			Mx	Z	1.9 23
		Ki			micr sec
			Mx	E	1.8 20
			Mx	N	1.7 22
			Mx	Z	2.6 23
		Sk	iPKP		10 05 21.5
		De	iPKP		10 05 31.6
		Solomon Islands (h = 50 km).			

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

1975					
Aug.	21	Ki	iP		13 53 01.4
		Sk	eP		13 53 37
		Ud	iP		13 53 54.2
		Kurile Islands (h = 210 km).			
"	21	Up	iP		15 33 45.2
		Sk	iP		15 34 28.2
		Ud	iP		15 33 52.5
		Albania (h = 40 km).			
"	21	Ud	iP		20 51 43.3
"	21	Up	iP		21 50 10.0
		Ki	iP		21 49 52.7
		Ud	iP		21 50 19.3
		Samar (h = 110 km).			
"	21	Up	ipP		22 29 37.8
		Ki	iP		22 28 22.8
		Um	ipP		22 29 09.8
		Ud	iP		22 29 16.7
		De	iP		22 29 40.4
			ipP		22 29 58.2
		Alaska.			
		h = 70 km (De).			
"	22	Up	iP		01 11 09.5 D
					micr sec
			P	Z'	0.2 0.9
		Ki	iP		01 10 37.8 D
					micr sec
			P	Z'	0.2 0.9
		Sk	iP		01 11 06.3 D
		Um	iP		01 10 51.4 D
		Ud	iP		01 11 16.1 D
		Bonin Islands (h = 460 km).			
		m = 5.7 (Up,Ki).			
"	22	Um	iP		04 31 46.6
"	22	Up	iP		06 01 13.1
		Ki	iP		06 00 18.9
		Ud	iP		06 01 16.2
		Kamchatka (h = 30 km).			
"	22	Ki	eP		06 20 49
		Ud	iP		06 20 26.7
		Iran (h = 80 km).			
"	22	Up	iP		07 54 25.6
		Ud	iP		07 54 42.9
		Afghanistan-USSR (h = 130 km).			

1975					
Aug.	22	Up	iP		19 47 33.4
			ipP		19 49 07.9
					micr sec
			pP	Z'	0.2 1.3
		Ki	iP		19 46 59.2
			ipP		19 48 29.0
		Um	iP		19 47 13.7
			ipP		19 48 47.5
		Ud	iP		19 47 40.0
			ipP		19 49 15.9
		De	iP		19 47 53.5
			ipP		19 49 28.3
		Japan.			
		h = 430 km (Up,Ki,Um,Ud,De)			
"	22	Ud	iP		20 00 25.1
		South Atlantic Ocean (h = N).			
"	22	Um	iP		21 47 19.9
		Ud	iP		21 47 48.0
"	22	Up	iP		23 00 32.0
		Um	iP		23 00 16.3
		Ud	iP		23 00 43.2
		Formosa (h = 60 km).			
"	22	Up	iP		23 21 02.6
			iS		23 31 36
					micr sec
			Mx	E	1.1 19
			Mx	N	1.1 20
			Mx	Z	1.7 21
		Ki	iP		23 20 50.8
					micr sec
			P	Z'	0.2 2.0
			Mx	E	1.2 18
			Mx	N	0.9 18
			Mx	Z	1.7 19
		Um	iP		23 20 59.4
			i		23 21 50.9
			iS		23 31 31
		Ud	iP		23 20 53.9
		De	iP		23 21 00.7
		Mexico (h = 40 km).			
		M = 5.4 (Up,Ki).			
"	23	Ud	iP		00 55 53.0
"	23	Ud	iP		02 54 18.7
"	23	Up	iP		04 20 11.9
			i		04 24 54.1
		(cont.)			

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

1975
Aug. 23 (cont.)

Up	i		04 25 23.3	
	iS		04 32 06	
Ki	iP		04 19 52.1	
			micr	sec
	P	Z'	0.1	1.0
	Mx	E	1.8	20
	Mx	N	1.5	18
	Mx	Z	2.6	21
Um	iP		04 20 00.0	
	iPP		04 24 21.8	
	iS		04 31 42	
Ud	iP		04 20 19.2	
	iPP		04 24 55.1	

New Guinea (h = 55 km).

" 23

Um	iP		07 10 08.0	
Ud	iP		07 10 34.9	

" 23

Up	iP		09 04 24.4	
	iS		09 08 02	
			micr	sec
	P	Z'	1.6	0.6
	Mx	E	11	9
	Mx	N	16	8
	Mx	Z	18	8
Ki	iP		09 02 54.5	C
	iSn		09 05 07	
			micr	sec
	P	Z'	7.4	0.6
	Mx	E	11	9
	Mx	N	15	6
	Mx	Z	11	6
Um	iP		09 03 31.9	C
Ud	iP		09 04 34.9	C
De	iP		09 05 07.7	C

Novaya Zemlya.
Origin time = 09 00 00.
m = 7.3 (Up,Ki).
Underground explosion.

" 23

Ud	iP		12 16 39.0	

" 23

Up	iP		13 05 38.5	
Ud	iP		13 05 55.1	

" 23

Ki	iPKP		13 12 33.5	
Um	iPKP		13 12 39.3	
Ud	iPKP		13 12 48.5	

Santa Cruz Islands
(h = 220 km).

" 23

Up	iP		14 01 29.0	C

(cont.)

1975
Aug. 23 (cont.)

Up	ipP		14 02 03.8	
	i		14 05 59.0	
	iS		14 09 42	
			micr	sec
	P	Z'	0.9	1.6
Ki	iP		14 00 34.1	C
	iPcP		14 01 37.8	
	i		14 05 25.3	
	iS		14 07 59	
			micr	sec
	P	Z'	0.1	0.9
	Mx	E	1.5	18
	Mx	N	1.1	11
	Mx	Z	0.8	12
Um	iP		14 00 59.8	C
	iPcP		14 01 52.0	
	i		14 05 41.0	
	iS		14 08 41	
Ud	iP		14 01 31.8	C
	iPcP		14 02 10.1	
De	iP		14 01 54.2	C
	iPcP		14 02 23.9	

Kamchatka.
h = 150 km (Up).
m = 6.0 (Up,Ki).

" 23

Up	iP		15 19 35.6	C
	iPP		15 23 07.9	
	iS		15 30 12	
			micr	sec
	P	Z'	0.9	1.6
	Mx	E	1.8	23
	Mx	N	3.8	21
	Mx	Z	5.0	24
Ki	iP		15 19 17.3	
	iPP		15 22 44.5	
	iS		15 29 52	
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	3.6	18
	Mx	N	3.9	21
	Mx	Z	3.4	17
Um	iP		15 19 23.6	
	iS		15 29 59	
Ud	iP		15 19 43.9	C
	iPP		15 23 21.6	
De	iP		15 19 51.0	

Leyte (h = 40 km).
m = 6.6, M = 5.9 (Up,Ki).

" 23

Up	eP		17 47 11	
Um	iP		17 47 49.2	

(cont.)

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

1975
Aug. 23 (cont.)

Ud	iP	17 47 12.1	
De	iP	17 46 35.3	

Italy (h = 270 km).

" 23	Ud	iP	19 40 54.0	
" 23	Um	iPKPl	19 52 08.2	
	Ud	iPKPl	19 52 20.1	
" 23	Up	iPKPl	19 56 45.6	
			micr sec	
		PKPl Z'	0.1 0.7	
	Ki	iPKP	19 56 34.0	
	Um	i(PKP)	19 56 33.7	
		iPKP	19 56 40.5	
		iSKPl	19 59 31.3	
	Ud	iPKPl	19 56 49.0	D
	De	iPKPl	19 56 59.2	

Tonga-Kermadec Islands
(h = 490 km).

" 23	Up	iP	21 44 27.5	
	Ki	iP	21 45 15.7	
	Um	iP	21 44 49.4	
	Ud	iP	21 44 36.3	

Ethiopia (h = N).

" 24	Up	iP	01 16 50.5	C
			micr sec	
		P Z'	0.1 0.9	
	Ki	iP	01 16 59.3	
	Ud	iP	01 16 39.6	C
		ipP	01 17 05.4	
	De	iP	01 16 38.2	C

Venezuela.
h = 110 km (Ud).

" 24	Ud	iP	01 19 44.6

Japan (h = 60 km).

" 24	Ud	iP	04 03 33.5
" 24	Ud	iP	05 33 59.3
" 24	Ki	iP	06 05 40.9

Mariana Islands (h = 10 km).

" 24	Up	iP	07 12 35.5
	Ki	iP	07 12 43.9
	Um	iP	07 12 33.5
	Ud	iP	07 12 51.8

Afghanistan-USSR (h = 220 km).

1975
Aug. 24

Up	iPKPl	14 08 06.5	
Ud	iPKPl	14 08 07.7	
De	iPKPl	14 08 18.7	

Tonga-Kermadec Islands
(h = 110 km).

" 24	Ud	iPKP	14 54 23.8

Solomon Islands (h = 45 km).

" 24	Ki	iP	15 56 24.4
	Ud	iP	15 55 22.4
" 24	Up	iP	16 15 57.2 C
		ipP	16 16 05.0
			micr sec
		P Z'	0.1 0.9
	Ki	iP	16 15 03.0 C
			micr sec
		P Z'	0.1 0.8
	Um	iP	16 15 29.3 C
		ipP	16 15 37.2
	Ud	iP	16 15 59.4 C
		ipP	16 16 06.7
	De	iP	16 16 21.6

Aleutian Islands.
h = 25 km (Up,Um,Ud).
m = 6.0 (Up,Ki).

" 24	Ki	iP	17 58 50.1
	Ud	iP	17 59 39.5
" 24	Up	i(P)	18 29 01.3
" 24	Up	iP	20 55 37.2
	Ki	iP	20 54 51.4
	Um	iP	20 55 12.6
	Ud	iP	20 55 43.1

Kurile Islands (h = N).

" 25	Up	iPKPl	00 38 48.1
	Ud	iPKPl	00 38 49.6
	De	iPKPl	00 39 02.8
" 25	Um	iPKPl	03 14 14.4
	Ud	iPKPl	03 14 27.0
" 25	Ud	iP	03 58 58.9

Sinkiang, China (h = 70 km).

" 25	Up	iP	04 09 59.7
		i	04 10 54.3
		iS	04 20 37

(cont.)

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

1975
Aug. 25 (cont.)

Up			micr	sec
	P	Z'	0.1	1.1
Ki	iP		04 10 00.3	
	i		04 10 53.6	
			micr	sec
	P	Z'	0.1	1.0
Um	iP		04 10 03.3	
	iS		04 20 42	
Ud	iP		04 09 50.2	
	i		04 10 44.5	
De	iP		04 09 52.8	
	i		04 10 47.0	

Colombia (h = 45 km).
m = 6.0 (Up,Ki).
If the second phase is interpreted as pP, the focal depth will be 230 km.

" 25 De iPKP 08 30 11.6
Solomon Islands (h = 70 km).

" 25

Up	iP	10 54 04.1
Um	iP	10 54 02.8
Ud	iP	10 54 20.7
De	eP	10 54 16

Hindu Kush (h = 30 km).

" 25

Up	iRg	12 05 35.2
Ud	iRg	12 05 52.2

South-central Sweden.
Near-surface event.

" 25

Up	iP	14 40 51.4
Ki	iP	14 39 57.8
Um	iP	14 40 24.1
Ud	iP	14 40 52.6
De	iP	14 40 14.0

Aleutian Islands (h = 35 km).

" 25 Um iP 17 32 31.6

" 25

Up	i(PP)		22 00 16.5	
	iPP		22 00 23.8	
	iSKS		22 06 32	
	iS		22 07 44	
			micr	sec
	PP	Z'	0.4	2.0
Ki	iPP		22 00 45.0	
	iPKKP		22 11 53.0	
			micr	sec
	PP	Z'	0.1	2.1
Um	i(PP)		21 59 41.1	

(cont.)

1975
Aug. 25 (cont.)

Um	iPP	22 00 39.6
	iSKS	22 06 43
	iS	22 08 02
Ud	iP	21 56 04.6
	iPP	22 00 10.2
	i	22 01 05.1
De	iP	21 56 02.9
	iPP	22 00 02.0
	i	22 00 44.5

Chile (h = 120 km).
m = 6.1 (Up,Ki).

" 26

Ki	iPKP1	00 40 15.5	
Um	iPKP1	00 40 23.7	C

New Zealand (h = 40 km).

" 26 Ud eP 03 08 40
Greece (h = 5 km).

" 26

Up	iP		05 21 51.5	C
	i		05 22 02.2	
	i		05 22 21.3	
	iPP		05 24 26.1	
			micr	sec
	P	Z'	0.1	1.1
	Mx	E	1.2	20
	Mx	N	1.1	20
	Mx	Z	1.1	20
Ki	iP		05 21 08.5	C
	ipP		05 21 23.2	
	iPP		05 23 27.7	
			micr	sec
	P	Z'	0.1	1.0
	Mx	E	1.8	20
	Mx	N	1.6	19
	Mx	Z	1.9	18
Um	iP		05 21 27.5	C
	iPP		05 23 49.6	
Ud	iP		05 21 58.2	C
De	iP		05 22 14.5	
	iPP		05 24 56.2	

Japan.
m = 5.8, M = 5.3 (Up,Ki).
h = 55 km (Ki).

" 26

Up			micr	sec
	Mx	N	1.1	20
	Mx	Z	1.1	21
Ki	ePKP		11 26 03	
			micr	sec
	Mx	N	1.4	20

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

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

1975				
Aug.	26	Up	iPKPl	12 38 48.4
			i	12 39 39.9
		Ki	i(PKP)	12 38 30.4
			iPKP	12 38 37.8
			iSKPl	12 41 59.4
		Um	i(PKP)	12 38 37.3
			iPKP	12 38 47.1
			iSKPl	12 42 10.5
		Ud	iPKPl	12 38 49.4
		De	iPKPl	12 39 00.7 D
			ipPKPl	12 39 32.4
		Tonga-Kermadec Islands.		
		h = 110 km (De).		
"	26	Ud	iP	14 08 39.6
"	26	Ud	i(P)	14 48 08.2
"	26	Ud	iRg	15 32 56.9
		De	iSgl	15 32 56.0
		Regional near-surface event.		
"	26	Ud	iP	18 34 12.6
"	26	Up	ipP	20 19 02.2
		Ki	iP	20 18 35.1
			i	20 18 43.3
		Um	iP	20 18 45.2
			i	20 18 49.6
		Ud	iP	20 18 38.0
			i	20 18 42.5
			i	20 18 48.1
		Mexico (h = 50 km).		
"	27	Up	iPKPl	02 54 24.8
			i	02 54 44.3
		Ki	iSKPl	02 56 56.8
		Um	i(PKP)	02 54 10.5
			iSKPl	02 57 07.9
		Ud	iPKPl	02 54 27.7 D
			i	02 54 44.0
			iSKPl	02 57 20.3
		De	iPKPl	02 54 38.3 D
		Tonga-Kermadec Islands		
		(h = 540 km).		
"	27	Up	eP	07 48 48
		Ki	iP	07 48 47.9
		Um	iP	07 48 42.7
		Ud	iP	07 49 04.2
		De	iP	07 49 03.7
		Tibet (h = 15 km).		

1975				
Aug.	27	Up	iPKPl	09 36 49.5
		Ud	iPKPl	09 36 51.7
		De	ePKPl	09 37 02
"	27	Um	iPKPl	10 36 50.8
		Ud	iPKPl	10 37 03.1
"	27	Ud	iPKPl	12 48 13.8
		De	iPKPl	12 48 23.8
		Fiji Islands (h = 270 km).		
"	27	Ud	iPKPl	13 06 34.5
		De	iPKPl	13 06 46.2
"	27	Up	iSgl	16 51 35.3
		Ud	iSgl	16 50 36.2
		Southern Norway.		
		By combination with		
		Kongsberg readings.		
"	27	Up	iP	17 07 16.5 C
			ipP	17 07 27.4
		Ki	iP	17 07 49.7
			ipP	17 07 59.0
		Um	iP	17 07 27.9 C
			i	17 07 35.6
		Ud	iP	17 07 31.1
		De	iP	17 07 16.4
		Iran.		
		h = 40 km (Up,Ki).		
"	27	Um	iP	17 21 54.7
		Ud	iP	17 22 24.9
		Japan (h = 15 km).		
"	27	Up	iP	19 00 37.8
		Ud	iP	19 00 54.4
		Afghanistan-USSR (h = 110 km).		
"	27	Ud	iP	23 47 59.3
"	28	Up	iP	02 23 24.5
			ipP	02 23 36.0
		Ki	eP	02 22 56
		Um	ipP	02 23 20.1
		Ud	iP	02 23 30.1
		Mariana Islands.		
		h = 45 km (Up).		
"	28	Up	iP	14 15 26.9
		Ki	iP	14 14 53.8
		Ud	iP	14 15 40.6
		China (h = 80 km).		

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

1975
Aug. 28 Ud iP 16 03 53.7
Aegean Sea (h = N).

" 28 Ki iSgl 17 23 42.6
Um iPgl 17 21 45.3
i 17 21 48.7
iSgl 17 21 50.4
Gulf of Bothnia,
63.8°N, 21.2°E.
Origin time = 17 21 39.
M_L = 1.7 (Um).
By combination with Finnish
station readings.

" 28 Up iPKP2 21 16 59.7
Um iPKP1 21 16 34.7
i 21 16 50.1
Ud iPKP1 21 16 47.2

" 28 Ud iP 22 38 17.3

" 29 Ki iPgl 02 55 47.5
iS* 02 56 20.2
iSgl 02 56 21.5
micr sec
Sgl Z' 0.056 0.4
Um iSn 02 56 47.3
iS* 02 57 03.3
iSgl 02 57 05.1
Nordland, Norway,
near 67°N, 14 1/2°E.
Origin time = 02 55 04.
m = 4.3, M_L = 2.8 (Ki,Um).

" 29 Ud i(P) 03 58 10.9

" 29 Ki i 04 43 38.5
iSgl 04 43 42.0
Um iSgl 04 43 42.7
Sweden-Finland border
region, 65.8°N, 24.4°E.
Origin time = 04 42 24.
m = 4.2, M_L = 2.5 (Ki,Um).
Felt.
Solution from Helsinki
regional bulletin.

" 29 Um iP 06 01 05.6

" 29 Um iP 06 02 06.3

" 29 Up iSKP1 07 25 51.1 D
(cont.)

1975
Aug. 29 (cont.)
Up micr sec
SKP1 Z' 0.1 0.9
Ki iPKP 07 22 30.2
micr sec
PKP Z' 0.1 1.0
Um iPKP 07 22 36.5
Ud iPKP 07 22 45.1
i 07 25 08.2
iSKP1 07 25 53.6
De i(PKP) 07 22 38.3
iPKP 07 22 52.7
iSKP1 07 26 03.7
New Hebrides Islands
(h = 190 km).

" 29 De eP 08 39 24

" 29 Ud iP 09 18 21.4
De iP 09 18 11.3

" 29 De i(P) 10 26 59.6

" 29 Up iP 10 27 29.8
iS 10 36 44
micr sec
Mx E 1.4 18
Mx N 2.1 20
Mx Z 1.9 20
Ki micr sec
Mx E 3.0 17
Mx N 3.2 18
Mx Z 3.8 17
Um iP 10 27 06.2
iS 10 35 57
Ud iP 10 27 36.5
i 10 27 51.1
De iP 10 27 51.5
Japan (h = 30 km).
M = 5.6 (Up,Ki).

" 29 Up iPKP 11 19 06.9
iSKP1 11 22 14.6
micr sec
SKP1 Z' 0.1 1.2
Ki iPKP 11 18 53.0
Um iPKP 11 18 59.4
Ud iPKP 11 19 08.8
iSKP1 11 22 16.8
De i(PKP) 11 19 02.0
iPKP 11 19 15.9
iSKP1 11 22 27.1
New Hebrides Islands
(h = 200 km).

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

1975				
Aug.	29	Ud	iP	12 08 21.2
		De	eP	12 08 25
"	29	De	iP	15 28 07.3
"	29	Ud	iP	17 11 16.3
		Japan (h = 25 km).		
"	29	Up	iP	20 51 41.1
			i	20 51 48.4
				micr sec
			P Z'	0.1 0.9
		Ki	iP	20 51 41.5
			i	20 51 49.3
		Sk	i(pP)	20 52 03.1
		Um	iP	20 51 37.9
			i	20 51 45.3
		Ud	iP	20 51 53.7
			i	20 52 00.2
			iPP	20 54 43.5
		De	iP	20 51 51.2
			i	20 51 58.2
		Nicobar Islands (h = N).		
"	30	Um	iP	06 24 19.3
"	30	Ki	iP	06 46 52.9
			i	06 46 53.9
		Sk	iP	06 47 38.4
		Ud	iP	06 48 07.1
			ipP	06 48 16.1
		De	iP	06 48 36.5
			ipP	06 48 45.3
		Severnaya Zemlya. h = 30 km (Ud,De).		
"	30	Up	i(P)	15 22 25.4
"	30	Up	iP	17 10 56.0
		Ud	iP	17 11 07.5
		Turkey (h = 10 km).		
"	30	Ud	eP	17 13 53
"	30	Sk	eP	18 55 26
		Ud	iP	18 55 28.6
"	30	Ud	iP	18 59 07.7
		Turkey (h = 45 km).		
"	30	Ud	iPKPl	20 35 23.6
		De	iPKPl	20 35 35.1
		Fiji Islands (h = 520 km).		

1975				
Aug.	31	Ud	eP	00 16 14
"	31	Up	iP	05 35 52.4
"	31	Up	iPKPl	07 36 47.1
		Um	i(PKP)	07 36 26.0
			i(PKPl)	07 36 38.0
		De	iPKPl	07 37 00.1
		Tonga-Kermadec Islands (h = 320 km).		
"	31	Up	iP	07 45 01.3
"	31	Up	iPKPl	09 39 18.7
			iPKP2	09 39 21.8
		Sk	iPKP2	09 39 11.6
		Um	iPKPl	09 39 06.4 D
		Ud	iPKPl	09 39 20.3 D
			iPKP2	09 39 24.8
		De	iPKPl	09 39 28.1
			iPKP2	09 39 38.3
"	31	Up	iP	12 12 36.7
		Ki	iP	12 11 42.1
			i	12 11 50.2
				micr sec
			P Z'	0.1 1.0
		Sk	iP	12 12 08.4
		Um	iP	12 12 10.7
			i	12 12 18.9
		Ud	iP	12 12 33.8
		De	iP	12 12 56.8
		Kodiak Island (h = 10 km).		
"	31	Up	iP	12 31 48.6
		Sk	iP	12 31 29.1
		Um	iP	12 31 48.4
		Ud	iP	12 31 36.7
		South of Panama (h = N).		
"	31	Um	iP	22 52 00.9
		Ud	iP	22 52 32.1
		Kurile Islands (h = 55 km).		
"	31	Ud	iP	23 54 17.5
		De	ipP	23 53 44.9
		Bulgaria (h = N).		

Ota Kulhánek
Klaus Meyer
Rutger Wahlström

April 26, 1977

SEISMOLOGISKA INSTITUTIONEN
BOX 517
751 20 UPPSALA

SEISMOLOGICAL INSTITUTE
BOX 517
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SWEDEN

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

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

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

S E P T E M B E R 1 - 30, 1975

1975				
Sep.	1	Um	iP	12 31 39.2
			i	12 32 08.9
"	1	Ud	iP	16 37 28.7
			i	16 37 40.0
"	1	Ud	iP1	17 01 49.3
			iP2	17 01 54.3
		De	iP2	17 01 38.6
		Iran (h = 50 km).		
"	1	Up	iP	22 03 24.4
		Ki	iP	22 03 21.3
		Sk	iP	22 03 09.5
		Um	iP	22 03 25.9
		Ud	iP	22 03 15.0
		De	iP	22 03 19.0
		Costa Rica (h = 30 km).		
"	1	Ki	iP	22 45 46.4
"	1	Up	iP1	22 53 15.2
		Ki	iP2	22 53 07.4
		Sk	iP1	22 53 29.8
		Um	iP1	22 53 02.3
			iP2	22 53 07.9
		De	iP2	22 53 42.4
		Sinkiang, China (h = N).		
"	1	Up	iP2	23 22 33.2
			iPP	23 23 39.3
		Ki	iP2	23 23 14.0
		Sk	iP1	23 23 09.4
		Um	iP1	23 22 46.4
			iP2	23 22 48.6
		Ud	iP1	23 22 45.6
			iP2	23 22 49.2
		De	iP1	23 22 29.5
			iP2	23 22 32.5
		Iran (h = 15 km).		
		(cont.)		

1975
Sep. 1 (cont.)
In average, P2 - P1 = 2.9 sec.

"	2	De	iPKP	08 31 17.2
		Solomon Islands (h = 35 km).		
"	2	Ud	iPKP	09 03 57.5
		Chile-Argentina (h = N).		
"	2	Ki	eP	10 25 31
		Um	iP	10 25 36.2
		Ud	iP	10 25 55.7
		Molucca Passage (h = 40 km).		
"	2	Up	iP1	10 28 38.9
		Ki	iP2	10 28 07.2
		Sk	iP2	10 28 39.2
		Um	iP1	10 28 19.5
			iP2	10 28 21.9
		Ud	iP1	10 28 45.3
		De	iP1	10 28 59.7
		Japan (h = 25 km).		
"	2	Up	iP	10 35 25.9
			ipP	10 35 34.1
				micr sec
			pP Z'	0.1 1.0
			Mx E	2.7 23
			Mx N	3.2 15
			Mx Z	2.1 16
		Ki	iP	10 34 51.1
			ipP	10 34 59.3
				micr sec
			pP Z'	0.1 1.2
			Mx E	2.7 15
			Mx N	2.3 12
			Mx Z	2.2 13
		Sk	iP	10 35 21.7
			ipP	10 35 30.8
		(cont.)		

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

1975
Sep. 2 (cont.)

Um	iP		10 35 05.2
	ipP		10 35 13.1
Ud	iP		10 35 32.3
	ipP		10 35 41.5
De	iP		10 35 46.5
	ipP		10 35 53.9

Japan.
h = 30 km (Up,Ki,Sk,Um,Ud, De).
m = 5.8, M = 5.8 (Up,Ki).

" 2

Up	iP		10 38 00.7
Sk	iP		10 37 57.3
Um	iP		10 37 40.9
Ud	iP		10 38 07.5
De	iP		10 38 20.3

Japan, from the same focal area as the preceding event.
Origin time = 10 26 00.

" 2

Up	eP		10 56 42
	i		10 56 44.9
Ki	eP		10 56 05
Um	iP		10 56 18.5
	i		10 56 22.3
Ud	iP		10 56 45.9
	i		10 56 46.5
De	eP		10 56 59

Japan (h = 25 km).

" 2

Up	iP		11 09 47.8
		micr	sec
	P	Z' 0.2	1.3
	Mx	E 0.9	12
	Mx	N 1.1	13
Ki	iP		11 09 13.3
		micr	sec
	P	Z' 0.1	0.9
	Mx	E 1.2	16
	Mx	N 2.0	18
	Mx	Z 2.4	17
Sk	iP		11 09 44.3
Um	iP		11 09 27.4
	i		11 09 29.0
Ud	iP		11 09 55.2
De	iP		11 10 08.2

Japan (h = 40 km).
m = 5.9, M = 5.5 (Up,Ki).

" 2

Up		micr	sec
	Mx	E 1.5	16
	Mx	N 2.0	14

(cont.)

1975
Sep. 2 (cont.)

Ki		micr	sec
	Mx	E 1.0	16
	Mx	N 1.7	16
	Mx	Z 1.4	17
Ud	eP		12 21 21

Yellow Sea (h = N).
M = 5.5 (Up,Ki).

" 2

Up	i(P)		14 08 22.3

" 2

Up	iP		15 46 03.4
	ipP		15 46 22.6
	i(PP)		15 50 03.3
	iSKS		15 56 36
		micr	sec
	pP	Z' 0.1	0.9
	Mx	N 2.7	29
	Mx	Z 2.1	30
Ki	iP		15 45 52.5
	ipP		15 46 12.1
		micr	sec
	pP	Z' 0.2	1.5
	Mx	E 2.6	29
	Mx	N 3.4	27
	Mx	Z 31	28
Sk	i(PP)		15 50 15.4
Um	ipP		15 46 14.5 C
	iPP		15 50 18.7
	iSKS		15 56 31
Ud	iP		15 46 12.5
	ipP		15 46 31.4
De	ipP		15 46 34.1
	i(PP)		15 50 22.2

Sawu Sea.
h = 70 km (Up,Ki,Ud).
m = 6.7, M = 5.7 (Up,Ki).
M uncorrected for focal depth.

" 2

Um	iPgl		16 42 48.4
	iSgl		16 42 52.0

" 2

Sk	iP		19 40 55.7
Ud	iP		19 40 22.4
De	eP		19 39 46

Greece (h = N).

" 2

Up	iP		19 49 55.2
Um	iP		19 49 34.8
Ud	iP		19 50 02.5
De	eP		19 50 17

Japan (h = 20 km).

" 2

Ud	iP		22 12 19.9

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

1975 Sep.	3	Ud	i(P)		01 23 27.3	
"	3	Ud	iP		01 33 15.0	
		Canada (h = 25 km).				
"	3	Ud	iP		11 22 55.6	
"	3	Ud	iP		14 14 32.3	
"	3	Up	iP		18 53 49.2	
		Ud	iP		18 54 06.4	
"	3	Up	iP		19 55 07.4	
			iS		19 59 26	
					micr	sec
			P	Z'	0.1	1.3
			Mx	E	1.0	13
			Mx	N	1.1	13
		Ki	iP		19 55 03.5	
			iS		19 59 24	
					micr	sec
			P	Z'	0.1	1.1
			Mx	E	2.2	13
			Mx	N	1.6	13
			Mx	Z	2.2	13
		Sk	iP		19 54 36.6	
		Um	iP		19 55 08.2	
			iS		19 59 27	
		Ud	iP		19 54 47.5	
		De	iP		19 55 05.3	
		North Atlantic Ocean (h = N).				
		m = 5.3, M = 4.8 (Up,Ki).				
"	3	Up	iP		22 01 06.6	
		Ki	iP		22 00 55.0	
		Sk	iP		22 01 19.7	
		Ud	iP		22 01 19.0	
		China (h = 25 km).				
"	3	Ud	iP		23 36 34.1	
"	4	Up	iP		13 07 25.6	
		Ki	iP		13 07 22.8	
					micr	sec
			P	Z'	0.1	1.3
		Sk	eP		13 06 52	
		Um	iP		13 07 25.7	
		Ud	iP		13 07 03.4	
			i		13 07 17.1	
		North Atlantic Ocean (h = N).				
"	4	Um	iPKP		15 41 34.2	
		Santa Cruz Islands (h = 120 km).				

1975 Sep.	4	Up	iP		16 00 16.5	
		Ki	iP		15 59 32.1	
		Um	iP		15 59 52.8	
		Ud	iP		16 00 23.9	
		Kurile Islands (h = 35 km).				
"	4	Ud	iP		17 31 54.5	
		Kurile Islands (h = 40 km).				
"	4	Up	iP1		23 37 01.3	C
		Ki	iP2		23 37 39.1	
		Um	iP		23 37 12.2	
		Ud	iP1		23 37 16.0	
		De	iP1		23 37 01.5	
			iP2		23 37 07.0	
		Iran (h = N).				
"	4	Up	iPKP1		23 59 25.9	
					micr	sec
			PKP1	Z'	0.1	0.9
		Ki	i(PKP)		23 59 11.3	
			iPKP		23 59 16.0	
		Sk	i(PKP)		23 59 18.9	
			iPKP		23 59 28.0	
		Um	i(PKP)		23 59 13.6	
			iPKP		23 59 22.9	
			iSKP1		00 02 07.5	
		Ud	iPKP1		23 59 27.6	
			i		23 59 28.4	
		De	iPKP1		23 59 38.0	
			i		23 59 39.2	
			ipPKP1		00 01 40.4	
		Tonga-Kermadec Islands.				
		h = 520 km (De).				
"	5	Up	iP		00 42 49.6	
			i		00 43 05.4	
			ipP		00 43 17.1	
		Ki	ipP		00 44 38.7	
		Um	iP		00 43 31.3	
		Ud	iP		00 43 06.6	
		De	iP		00 42 26.6	
		Rumania.				
		h = 150 km (Up).				
"	5	Ki	iP		03 57 29.8	
		Ud	iP		03 57 12.0	
		Iran (h = N).				
"	5	Up	iP		04 44 16.1	
		Um	iP		04 43 58.9	
		Ud	iP		04 44 23.7	

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

1975 Sep.	5	Up	iPKP2		07 07 38.2	
					micr	sec
			PKP2	Z'	0.1	0.8
		Ki	iPKP1		07 07 07.9	
			i		07 07 17.8	
					micr	sec
			PKP1	Z'	0.2	1.5
			i	Z'	0.4	1.8
		Sk	iPKP1		07 07 22.1	
			i		07 07 37.1	
		Um	iPKP1		07 07 17.3	
			i		07 07 30.1	
		Ud	iPKP1		07 07 28.2	
			iPKP2		07 07 41.8	
		North Island, New Zealand (h = N).				
"	5	Um	iP		07 17 44.7	
"	5	Sk	iP		11 02 21.5	
			i		11 02 28.9	
		Ud	i		11 05 36.3	
"	5	Up	iP		12 13 57.7	
		Ki	iP		12 13 32.0	
		Ud	iP		12 14 07.2	
"	5	Up	iSgl		13 32 46.7	
		Sk	iSgl		13 32 50.0	
		Ud	i		13 31 46.8	
			iSgl		13 31 51.0	
		De	iSgl		13 32 11.0	
		Southwest Norway, 58.4°N, 6.6°E.				
		Origin time = 13 29 46.				
		m = 4.4, M_L = 2.9 (Ud).				
		By combination with Bergen and Kongsberg readings.				
"	5	De	iPKP		23 00 18.2	
		Solomon Islands (h = 35 km).				
"	6	Ud	iP		00 00 38.5	
"	6	Up	iP		00 45 50.2	
		Ud	iP		00 45 43.4	
"	6	Up	iP		02 06 04.5	
		Ud	iP		02 06 17.0	
"	6	Up	iP		04 53 46.4	C
			i		04 53 51.2	
		(cont.)				

1975 Sep.	6	(cont.)				
		Up			micr	sec
			P	Z'	0.1	0.8
		Ki	iP		04 53 47.9	C
		Sk	iP		04 54 07.2	
			i		04 54 12.1	
		Um	iP		04 53 41.9	
			i		04 53 46.7	
		Ud	iP		04 54 01.5	C
			i		04 54 06.5	
		De	iP		04 53 59.6	
		Nepal (h = N).				
"	6	Um	iP		08 37 51.2	
		Arabian Sea (h = N).				
"	6	Up	iP		09 25 41.3	C
			iS		09 30 16	
					micr	sec
			P	Z'	2.9	1.8
			Mx	E	33	12
			Mx	N	67	12
			Mx	Z	81	16
		Ki	iP		09 26 32.0	C
			i		09 26 34.7	
			iS		09 31 46	
					micr	sec
			P	Z'	0.3	0.8
			i	Z'	1.2	1.0
			Mx	E	61	11
			Mx	N	78	13
			Mx	Z	61	12
		Sk	iP		09 26 20.9	
			i		09 26 23.3	
		Um	iP		09 26 01.9	C
			i		09 26 04.4	
			iS		09 30 43	
		Ud	iP		09 25 57.0	C
			i		09 25 59.2	
		De	iP		09 25 36.4	
		Turkey (h = 25 km).				
		m = 6.7, M = 6.6 (Up,Ki).				
"	6	Ud	iPKP1		09 53 52.2	C
		De	iPKP1		09 54 03.4	
		Tonga-Kermadec Islands (h = 630 km).				
"	6	Up	iP		10 00 45.9	
"	6	Ki	iP		10 17 09.9	
		De	iP		10 16 14.5	
"	6	Up	iP		10 18 37.8	
		(cont.)				

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

1975
Sep. 6 (cont.)

Up	i		10 18 45.5		
			micr	sec	
	P	Z'	0.1	1.0	
Ki	iP		10 19 28.0		C
			micr	sec	
	P	Z'	0.1	1.0	
Um	iP		10 18 57.9		
Ud	iP		10 18 52.9		
De	iP		10 18 32.5		
	i		10 18 37.8		

Turkey (h = N).
m = 5.6 (Up,Ki).

" 6

Up	iP		10 57 46.8		
	i		10 58 02.5		
			micr	sec	
	P	Z'	0.1	0.9	
Ki	iP		10 58 35.0		
	i		10 58 37.3		
			micr	sec	
	P	Z'	0.3	1.0	
Sk	iP		10 58 27.1		
Um	iP		10 58 07.1		
Ud	iP		10 57 59.9		
	i		10 58 03.2		
De	iP		10 57 39.5		
	i		10 57 42.0		

Turkey (h = N).
m = 5.8 (Up,Ki).

" 6

Up	iP		12 16 17.7		
	i		12 16 28.4		
	iS		12 21 04		
			micr	sec	
	i	Z'	0.1	1.0	
	Mx	E	1.2	13	
	Mx	N	2.0	16	
	Mx	Z	1.8	17	
Ki	iP		12 17 07.4		
	i		12 17 17.3		
			micr	sec	
	P	Z'	0.2	1.5	
	Mx	E	1.7	10	
	Mx	N	2.1	12	
	Mx	Z	2.0	12	
Sk	i		12 17 02.0		
Um	iP		12 16 38.8		
Ud	iP		12 16 31.7		
	i		12 16 51.5		
De	iP		12 16 12.6		

Turkey (h = N).
m = 5.6, M = 5.0 (Up,Ki).

1975
Sep. 6

Up	iP		12 29 32.7	
	i		12 29 45.9	
Ki	iP		12 30 20.9	
Um	iP		12 29 53.3	
Ud	iP		12 29 45.8	
De	iP		12 29 26.7	

Turkey (h = N).

" 6

Up	iPgl		12 58 02.6	
	iSgl		12 58 07.4	
	iRg		12 58 09.2	
	i		12 58 17.5	
	i		12 58 18.9	
Ud	iPgl		12 58 33.5	
	iSgl		12 59 01.7	
	iRg		12 59 12.7	

Explosion (12 ton) at
Dannemora mine, Uppland,
Sweden, 60.1°N, 17.5°E.
Origin time = 12 57 55.
m = 4.3, M_L = 2.7 (Up,Ud).

" 6

Ud	iP		17 11 41.9	

Nevada.
Underground explosion.

" 6

Up	iP		18 15 28.7		
Ki	iP		18 14 34.6		C
			micr	sec	
	P	Z'	0.2	1.5	
Sk	iP		18 15 01.5		
Um	iP		18 15 03.0		C
Ud	iP		18 15 25.2		
De	iP		18 15 49.3		

Kodiak Islands (h = N).

" 6

Ki	iP		20 44 38.4
Um	iP		20 45 06.9
Ud	iP		20 45 29.5

Kodiak Islands (h = N).

" 6

Ki	iP		22 49 10.3
Ud	eP		22 48 37
De	iP		22 48 16.3

Turkey (h = 35 km).

" 7

Up	iP		11 51 12.0
Ki	iP		11 50 29.5
Sk	iP		11 51 04.8
Um	iP		11 50 48.0
Ud	iP		11 51 18.9
	i		11 51 19.7
De	iP		11 51 36.4

Sea of Japan (h = 200 km).

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

1975				
Sep.	7	Up	iP	14 31 18.8
"	7	Up	iP	14 53 30.5
		Ki	iP	14 53 11.3
			i	14 53 23.1
		Um	iP	14 53 17.8
			i	14 53 29.5
		Ud	iP	14 53 37.7
		Samar (h = 70 km).		
"	7	Ud	iP	16 26 19.7
		De	iP	16 25 26.1
		Yugoslavia (h = N).		
"	8	Ud	iPKPl	07 00 11.0
		De	iPKPl	07 00 22.7
		Fiji Islands (h = 620 km).		
"	8	Up	iP	09 39 48.0
		Ki	iP	09 39 06.7
		Sk	iP	09 39 41.3
		Um	iP	09 39 25.2
		Ud	iP	09 39 56.1
		De	iP	09 40 11.8
		Japan (h = 130 km).		
"	8	Up	iP	22 10 46.2
		Ud	iP	22 10 51.4
		De	iP	22 10 16.7
		Greece (h = 50 km).		
"	8	Up	iP	22 15 28.0
			i	22 15 31.0
		Ki	iP	22 15 24.5
		Sk	iP	22 15 47.7
		Um	iP	22 15 21.9
		Ud	iP	22 15 42.7
			i	22 15 45.9
		De	iP	22 15 43.5
		Tibet (h = 20 km).		
"	9	Up	iP	02 55 21.3
		Um	iP	02 55 04.4
		Ud	iP	02 55 14.0
		California (h = 25 km).		
"	9	Up	iP2	06 07 43.8
		Ki	iP1	06 06 58.3
		Sk	eP1	06 07 33
		Um	iP1	06 07 17.6
		Ud	iP1	06 07 47.3
			iP2	06 07 51.6
			ipP1	06 07 59.7
		Japan.		
		h = 45 km (Ud).		

1975						
Sep.	9	Up	iP		14 21 07.6	
					micr	sec
			P	Z'	0.1	1.1
		Ud	iP		14 21 25.8	
"	9	Ud	ipP		16 00 23.2	
		Colombia (h = 160 km).				
"	9	Up	iP		18 40 24.3	
			i		18 40 30.9	
					micr	sec
			P	Z'	0.1	1.2
			Mx	E	1.8	14
			Mx	N	1.6	9
			Mx	Z	5.8	15
		Ki	iP		18 40 19.9	
					micr	sec
			P	Z'	0.1	1.0
			Mx	E	9.3	16
			Mx	N	4.5	14
			Mx	Z	10	15
		Sk	iP		18 40 44.3	
		Um	iP		18 40 15.9	
			iS		18 46 32	
		Ud	iP		18 40 40.2	
		De	iP		18 40 42.1	
		Sinkiang, China (h = N).				
		m = 5.5, M = 5.5 (Up,Ki).				
"	9	Up	iP		22 56 57.2	
		Ud	iP		22 56 42.9	
		De	ipP		22 56 36.5	
		North Atlantic Ocean (h = N).				
"	9	Ki	iPKP		23 39 52.8	
		Sk	iPKP		23 40 04.6	
		Ud	iPKP		23 40 08.1	
		New Hebrides Islands (h = 40 km).				
"	10	Ud	iP		00 48 07.6	
"	10	Ud	iPKPl		02 24 44.8	
		De	iPKPl		02 24 56.7	
"	10	Ki	iPKP		08 20 58.8	
		Sk	iPKP		08 21 09.5	
		Um	iPKP		08 21 04.8	
		Ud	iPKP		08 21 14.7	
		De	iPKP		08 21 22.2	
		Santa Cruz Islands (h = 110 km).				
"	10	Ki	iP		09 37 25.7	
		Sk	iP		09 38 01.8	

(cont.)

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

1975 Sep.	10	(cont.)				
		Um	iP		09 37 45.1	
			i		09 37 53.5	
		Ud	iP		09 38 15.5	
			i		09 38 23.8	
		Japan (h = 45 km).				
"	10	Up	iPKPl		11 03 53.7	
			ipPKPl		11 04 05.4	
					micr	sec
			PKPl	Z'	0.1	0.8
			pPKPl	Z'	0.1	0.8
		Ki	ePKP		11 03 43	
		Sk	iPKPl		11 03 47.5	
		Ud	iPKPl		11 03 54.5	
			ipPKPl		11 04 06.6	
		De	iPKPl		11 04 07.0	
			ipPKPl		11 04 18.5	
		Tonga-Kermadec Islands.				
		h = 40 km (Up,Ud,De).				
"	10	Up	i(P)		14 31 05.8	
"	10	Ud	iP		14 34 03.5	
"	10	Ki	iP		16 58 02.9	
		Ud	iP		16 58 27.9	
		Mindanao (h = 210 km).				
"	10	Ud	iPKPl		21 15 39.9	
		De	iPKPl		21 15 51.3	
"	10	Ud	iPKPl		22 53 26.5	
		De	iPKPl		22 53 38.6	
"	11	Ud	iPKPl		08 26 38.9	
			i		08 26 50.7	
		De	iPKPl		08 26 51.0	
"	11	Up	i(P)		14 22 09.4	
"	11	Up	i(P)		14 46 08.4	
			i		14 46 09.9	
"	11	Um	i(P)		15 44 21.8	
"	11	Um	iP		17 42 20.5	
"	11	Sk	eP		17 45 14	
		Um	iP		17 45 25.5	
"	11	Um	iP		18 58 05.8	
"	11	Up	iPKPl		19 58 39.9	
			i		19 58 54.2	
		De	iPKPl		19 58 54.4	
			i		19 59 10.5	

1975 Sep.	11	Up	iPP		22 17 34.6	
			iSKS		22 24 18	
					micr	sec
			PP	Z'	1.0	2.1
			Mx	E	5.1	22
			Mx	N	5.0	23
			Mx	Z	13	23
		Ki	iP2		22 13 20.0	C
			iPP		22 17 12.3	
					micr	sec
			P2	Z'	1.8	2.7
			PP	Z'	1.7	2.5
			Mx	E	4.5	22
			Mx	N	6.0	22
			Mx	Z	5.8	22
		Sk	iPl		22 13 14.5	
			iP2		22 13 16.9	
			i(PP)		22 16 55.3	
			iPP		22 17 07.9	
		Um	iPl		22 13 26.7	
			iP2		22 13 29.7	
			i(PP)		22 17 18.2	
			iPP		22 17 31.1	
			iSKS		22 24 14	
		De	iPl		22 13 34.5	
			iPP		22 17 41.2	
		Mexico (h = N).				
		m = 7.0, M = 6.1 (Up,Ki).				
"	12	Up	iP		00 46 59.7	
		Ki	iP		00 47 45.4	
		Um	iP		00 47 17.7	
		De	iP		00 46 52.9	
		Turkey (h = N).				
"	12	Um	iP		02 57 18.6	
"	12	Um	iP		03 07 44.6	
"	12	Up	i(P)		11 28 27.1	
"	12	Ud	iP		12 32 04.1	
			i		12 32 17.3	
"	12	Up	iP		13 15 27.9	
			i		13 15 37.3	
			iS		13 19 42.9	
					micr	sec
			P	Z'	0.3	1.2
			Mx	E	3.4	13
			Mx	N	3.4	14
			Mx	Z	6.1	17
		Ki	iP		13 16 43.1	
					micr	sec
			P	Z'	0.2	1.5
			Mx	E	4.4	16
		(cont.)				

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

1975
Sep. 12 (cont.)

Ki			micr	sec
	Mx	N	1.8	10
	Mx	Z	1.9	10
Sk	iP		13 16 06.9	
Um	iP		13 16 04.2	
	i		13 16 12.4	
	iS		13 20 43	
Ud	iP		13 15 33.8	
	i		13 15 44.1	
	iS		13 20 07.4	
De	iP		13 15 00.7	

Greece (h = 45 km).
m = 5.7, M = 5.2 (Up,Ki).

" 12

Sk	eP	14 38 46
	e	14 39 25
Ud	iP	14 38 31.2

" 12

Up	iSgl	15 03 12.2
Ud	iSgl	15 03 29.3
De	iPn	15 01 24.3
	iSgl	15 02 26.9

Off coast of Lithuania.
Explosion?

" 12

Up	eP	15 39 00
	iS	15 47 23
Ki	iP	15 38 08.4
Um	iP	15 38 31.8
	iS	15 46 28
Ud	iP	15 39 04.5
	ipP	15 39 24.7
	iPcP	15 39 36.7
De	eP	15 39 26

Kamchatka.
h = 80 km (Ud).

" 12 Ud iP 22 11 07.1
Mongolia (h = N).

" 13 Ud iP 00 21 14.6

" 13

Ki	iP		02 50 21.6	
Ud	iP		02 50 43.8	

California (h = N).

" 13 Ud iP 04 16 49.0

" 13

Up	iPKP1		06 54 41.3	
	iPKP2		06 54 47.7	
			micr	sec
	PKP2	Z'	0.1	0.9
Ki	iPKP1		06 54 20.3	
Sk	iPKP1		06 54 34.9	
Um	iPKP1		06 54 29.6	

(cont.)

1975
Sep. 13 (cont.)

Um	ipPKP1	06 54 39.7
Ud	iPKP1	06 54 42.6
	i	06 54 55.3

South of Kermadec Islands.
h = 35 km (Um).

" 13

Up	iPKP	11 32 46.8
	i	11 32 48.7
Ki	iPKP	11 32 40.3
	iSKP1	11 35 11.1
Sk	i(PKP)	11 32 40.0
	iSKP1	11 35 28.1
Um	i(PKP)	11 32 34.2
	iPKP	11 32 47.8
	iSKP1	11 35 23.7
Ud	iPKP	11 32 48.4
	iSKP1	11 35 37.4
De	iPKP1	11 33 00.0
	i	11 33 00.8

Fiji Islands (h = 620 km).

" 13 Ud iP 11 36 55.5

" 13 Ki iP 13 42 05.6
California (h = N).

" 13

Up	iP		14 35 24.2	
	i		14 35 29.1	
			micr	sec
	P	Z'	0.1	0.8
	i	Z'	0.1	0.9
Ki	iP		14 36 38.2	C
Sk	iP		14 36 05.1	C
Um	iP		14 36 01.5	
Ud	iP		14 35 30.7	
	i		14 35 35.6	
De	iP		14 34 56.1	
	i		14 35 01.4	

Greece (h = 25 km).

" 13

Up	iP		16 16 50.4	C
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		16 15 56.7	
Sk	iP		16 16 34.3	
Ud	iP		16 16 54.2	
De	iP		16 17 16.8	

Kamchatka (h = 40 km).

" 13

Ki	iP	21 32 27.9
Ud	iP	21 32 54.3

California (h = 15 km).

" 13

Up	iPKP1	22 51 28.3
Ud	iPKP1	22 51 31.5

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

1975 Sep.	14	Um	iPKP1		02 02 11.4	
		Ud	iPKP1		02 02 23.3	
"	14	Ud	iP		05 40 57.2	
		Afghanistan-USSR (h = 100 km).				
"	14	Ki	iP		07 22 03.5	
		Sk	iP		07 22 26.2	
		Um	iP		07 22 08.4	
		Ud	iP		07 22 27.6	
		Molucca Passage (h = 70 km).				
"	15	Ud	iP		01 35 07.5	
		Japan (h = 90 km).				
"	15	Ud	iPKP1		02 11 12.1	
		De	iPKP1		02 11 24.0	
"	15	Ud	iP		02 26 48.6	
		Luzon (h = 55 km).				
"	15	Ud	iP		03 37 32.2	
"	15	Ud	iP		15 08 28.6	
		Philippine Islands (h = 35 km).				
"	15	Um	iX		17 07 03.9	
		Ud	i(PKP)		17 06 54.7	
			iX		17 07 07.1	
		De	iPKP1		17 07 04.6	
			i		17 07 15.9	
		Tonga Islands (h = 30 km).				
"	15	Ud	iP		18 45 32.5	
		De	iP		18 44 59.2	
		Turkey (h = 15 km).				
"	15	Ki	iP		22 25 33.7	
		Um	iP		22 25 37.5	
		Ud	iP		22 25 55.1	
		Celebes (h = 200 km).				
"	16	Up	iPKP2		00 21 20.3	
					micr	sec
			PKP2	Z'	0.1	1.2
		Ki	iPKP1		00 20 41.2	
					micr	sec
			PKP1	Z'	0.3	1.3
		Um	iPKP1		00 20 47.4	
		Ud	iPKP2		00 21 22.5	
		De	iPKP2		00 21 30.7	
		South Island, New Zealand (h = 30 km).				
"	16	Sk	eP		00 32 34	
		(cont.)				
1975 Sep.	16	(cont.)				
		Um	iP		00 32 31.5	
			i		00 32 36.3	
		Ud	iP		00 31 53.7	
			i		00 31 58.1	
		Albania (h = 70 km).				
"	16	Ud	iP		03 03 09.3	
"	16	Ud	iP		04 29 09.4	
		Kashmir-India (h = 45 km).				
"	16	Up	iP		05 10 31.2	
			i		05 10 47.1	
					micr	sec
			P	Z'	0.1	1.0
			i	Z'	0.3	1.5
			Mx	E	2.8	8
			Mx	N	1.5	7
		Ki	iP		05 11 53.5	
			i		05 12 09.6	
					micr	sec
			i	Z'	0.1	1.5
			Mx	E	3.3	11
			Mx	N	1.6	9
		Sk	iP		05 11 15.3	
		Um	iP		05 11 14.4	
			ipP		05 11 19.3	
			iS		05 15 27	
		Ud	iP		05 10 38.2	
		De	iP		05 09 55.2	
			i		05 10 07.1	
		Albania.				
		h = 20 km (Um).				
		m = 5.3 (Up,Ki).				
"	16	Ud	eP		07 23 02	
		Japan (h = 35 km).				
"	16	Up	iP		11 20 42.8 D	
					micr	sec
			P	Z'	0.2	1.0
		Ki	iP		11 20 11.5 D	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		11 20 39.2	
		Um	iP		11 20 25.0 D	
		Ud	iP		11 20 50.0 D	
		De	iP		11 21 00.7	
		Bonin Islands (h = 370 km).				
		m = 5.6 (Up,Ki).				
"	16	De	iPKP1		12 11 11.6	
		Fiji Islands (h = 520 km).				

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

1975 Sep.	16	Ki	iP		12 57 35.6
		De	iP		12 56 39.6
		Turkey (h = 15 km).			
"	16	Up	iPKP1		17 10 08.5
		Ud	iPKP1		17 10 10.4
		De	iPKP1		17 10 21.6
"	16	Um	iP		17 24 01.6
		Ud	iP		17 24 31.6
"	16	Sk	e		18 50 56
		Um	iP1		18 50 43.4
			iP2		18 50 47.0
			i		18 50 54.4
		Ud	iP2		18 50 09.5
		Albania (h = 50 km).			
"	16	Ud	iP		18 59 21.1
		Albania (h = N).			
"	17	Ki	iP		01 59 18.0
		Mariana Islands (h = 310 km).			
"	17	Up	iP		03 10 47.3
			i		03 10 50.8
			ipP		03 11 08.4
					micr sec
			pP	Z'	0.1 1.0
		Ki	iP		03 10 41.6
		Sk	ipP		03 11 25.5
		Um	iP		03 10 39.9
			i		03 10 42.9
			ipP		03 11 02.3
		Ud	iP		03 11 00.1
			i		03 11 03.6
		De	iP		03 11 01.5
		Burma.			
		h = 90 km (Up,Um).			
"	17	Up	iP		03 56 00.8
		Ki	iP		03 56 07.9
		Um	iP		03 55 58.2
		Ud	iP		03 56 17.6
		Afghanistan-USSR (h = 140 km).			
"	17	Ki	iP		09 19 03.6
		De	iP		09 18 09.2
"	17	Um	i(P)		11 13 00.8
"	17	Ki	iP		11 27 43.4
		Ud	iP		11 27 08.1
		Turkey (h = 45 km).			
"	17	Up	iP		14 54 05.4 C

1975 Sep.	17	Ud	iP		17 02 33.4
"	17	Ki	iP		18 33 17.6
		Ud	iP		18 33 43.0
		Mindanao (h = 70 km).			
"	17	Up	iP		23 09 14.6
			i		23 09 19.6
			i		23 09 36.7
			iS		23 13 29.3
					micr sec
			P	Z'	0.1 1.7
			Mx	E	1.4 15
			Mx	N	1.2 14
		Ki	iP		23 10 27.2
					micr sec
			Mx	E	1.2 11
		Sk	iP		23 09 55.4
			i		23 09 58.7
		Um	iP		23 09 54.7
			i		23 09 59.7
		Ud	iP		23 09 21.9
			i		23 09 26.0
		De	iP		23 08 47.2
			i		23 08 51.1
		Greece (h = 35 km).			
		M = 4.8 (Up,Ki).			
"	17	Up	iP		23 49 10.0
					micr sec
			P	Z'	0.1 1.1
		Ki	i		23 50 32.2
		Sk	iP		23 49 50.3
			i		23 49 57.0
		Um	iP		23 49 49.9
		Ud	iP		23 49 16.9
			i		23 49 20.9
		De	iP		23 48 40.6
		Greece (h = 45 km).			
"	18	Um	iPKP1		01 37 11.7
			iPKP2		01 37 20.7
		Ud	iPKP2		01 37 41.2
		North Island, New Zealand (h = 200 km).			
"	18	Ki	iP		05 07 22.4
					micr sec
			P	Z'	0.6 2.0
		Sk	iP		05 08 10.1
			ipP		05 08 17.1
		Um	iP		05 08 11.2
			ipP		05 08 20.2
		North of Svalbard.			
		h = 35 km (Sk,Um).			

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

1975 Sep.	18	Ud	eP	11 55 33	
		Afghanistan-USSR (h = 40 km).			
"	18	Up	i	12 48 23.7	
		Ud	iPgl	12 46 56.5	
			i	12 47 18.6	
			iRg	12 47 26.8	
		Southeast Norway.			
		Near-surface event.			
		Cf with the following event.			
"	18	Up	iSgl	13 48 37.1	
		Sk	iSgl	13 48 15.1	
		Um	iSgl	13 49 33.3	
		Ud	iPgl	13 47 14.4	
			iSgl	13 47 34.3	
			i	13 47 36.7	
			iRg	13 47 43.9	
		De	iSgl	13 49 12.9	
		Southeast Norway,			
		60.8°N, 10.8°E.			
		Origin time = 13 46 48.			
		m = 4.2, M_L = 2.6 (Up,Um,Ud).			
		Near-surface event.			
"	18	Ud	iP	16 52 25.3 D	
"	18	Up	iPKPl	18 38 25.9	
			i	18 38 39.3	
		Ud	iPKPl	18 38 27.7	
			i	18 38 40.9	
		Tonga-Kermadec Islands			
		(h = 40 km).			
"	18	Up	iPKPl	18 49 21.8	
		Ud	iPKPl	18 49 23.4 C	
			i	18 49 35.9	
		De	iPKPl	18 49 34.3	
			i	18 49 47.3	
"	18	Up	iPKPl	19 03 10.6	
		Ud	iPKP	19 03 11.8	
			i	19 03 24.9	
		Tonga-Kermadec Islands			
		(h = N).			
"	18	Ud	iP	23 03 32.0	
"	18	Up	iP	23 12 58.6	
			i	23 13 04.5	
		Ki	iP	23 12 50.9	
		Um	iP	23 12 50.3	
		Ud	iP	23 13 10.8	
		Burma (h = N).			

1975 Sep.	19	Up	iP		02 54 02.9	
			i		02 54 09.6	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		02 53 09.3	
		Sk	iP		02 53 46.5	
		Um	iP		02 53 32.7	
		Ud	iP		02 54 06.1	
		De	iP		02 54 28.2	
		Kamchatka (h = 40 km).				
"	19	Up	iP		03 26 01.8 C	
			i		03 26 03.8	
					micr	sec
			P	Z'	0.1	0.9
		Ki	iP		03 25 13.7	
					micr	sec
			P	Z'	0.1	0.5
		Um	iP		03 26 36.2	
		Ud	iP		03 26 07.6 C	
			i		03 26 09.3	
		De	iP		03 26 26.1	
		Kurile Islands (h = 120 km).				
		m = 5.9 (Up,Ki).				
"	19	Up			micr	sec
			Mx	E	5.1	28
			Mx	N	7.2	21
			Mx	Z	12	29
		Ki			micr	sec
			Mx	E	8.1	22
			Mx	N	6.4	19
			Mx	Z	11	18
		Um	iSKS		04 02 18	
		Ud	iPP		03 56 09.7	
		South Indian Ocean (h = N).				
		M = 6.3 (Up,Ki).				
"	19	De	iP		12 05 52.5	
		Turkey (h = 90 km).				
"	19	Ud	iP		13 54 10.7	
		De	iP		13 53 55.9	
		Iran (h = 60 km).				
"	19	Up	iP		14 25 42.9	
"	19	Ud	iP		15 28 24.5	
"	19	Up	iP		18 05 37.7	
			i		18 05 46.4	
			iS		18 14 39	
					micr	sec
			P	Z'	0.3	1.0

(cont.)

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

1975
Sep. 19 (cont.)

Up			micr	sec
	Mx	E	6.0	22
	Mx	N	11	22
	Mx	Z	11	23
Ki	iP		18 04 54.9	
			micr	sec
	P	Z'	0.3	1.0
	Mx	E	14	24
	Mx	N	11	18
	Mx	Z	9.2	17
Sk	iP		18 05 30.4	
Um	iP		18 05 14.1	
	iS		18 13 52	
Ud	iP		18 05 44.5	
	i		18 05 54.0	
De	iP		18 06 01.9	

Japan (h = 45 km).
m = 6.3, M = 6.2 (Up,Ki).

" 19

Up	iP	21 55 20.7
Um	iP	21 55 22.8
Ud	iP	21 55 00.3

North Atlantic Ocean (h = N).

" 19

Ud	iPKPl	23 17 01.1
De	iPKPl	23 17 11.6

" 19

De	iPKP	23 34 23.0
	i	23 34 36.0

Solomon Islands (h = 45 km).

" 20

Up	iP		05 27 45.3	
			micr	sec
	P	Z'	0.1	0.8
Ki	iP		05 28 52.4	
			micr	sec
	P	Z'	0.1	0.5
Sk	iP		05 28 24.0	
Um	iP		05 28 17.1	
Ud	iP		05 27 53.0	
De	iP		05 27 21.1	

Crete (h = 70 km).
m = 5.6 (Up,Ki).

" 20

Up	iP	05 45 42.8
Ki	iP	05 46 44.2
Um	iP	05 46 09.7
Ud	iP	05 45 54.0
De	eP	05 45 23

Turkey (h = N).

" 20

Ud	iP	06 14 36.0

Caucasus (h = 60 km).

1975
Sep. 20

Up	iP		06 23 43.3	
			micr	sec
	P	Z'	0.1	1.2
Ki	iP		06 24 04.6	
			micr	sec
	P	Z'	0.2	1.5
Um	iP		06 23 51.4	
Ud	iP		06 23 53.8	
De	ipP		06 23 50.0	

Chagos Archipelago (h = N).
m = 5.8 (Up,Ki).

" 20

Ud	iPKPl	13 36 42.0
De	ePKPl	13 36 54

Tonga-Kermadec Islands
(h = 390 km).

" 20

Up	iP	15 58 57.2
Ki	iP	15 59 44.7 D
Ud	iP	15 59 11.3
	i	15 59 29.6
De	iP	15 58 49.6

Turkey (h = N).

" 20

Up	eP	21 53 04
Sk	eP	21 53 50
Ud	iP	21 53 10.7
De	i(pP)	21 52 33.3

Greece (h = 15 km).

" 21

Ki	iP	06 26 20.8
Ud	iP	06 26 28.5
De	iP	06 26 26.1

Hindu Kush (h = 200 km).

" 21

Up	iS		13 36 18	
			micr	sec
	Mx	E	1.6	21
	Mx	N	2.0	22
	Mx	Z	4.4	19
Ki	iP		13 25 37.2	
			micr	sec
	P	Z'	1.3	3.1
	Mx	E	2.7	15
	Mx	N	2.6	14
	Mx	Z	4.1	22
Sk	iP		13 25 30.8	
Um	iS		13 36 18	
Ud	iP		13 25 38.9	

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

" 21

Up	iP	14 23 36.2
	iPP	14 24 56.7

(cont.)

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

1975
Sep. 21 (cont.)

Up			micr	sec
	P	Z'	0.2	1.0
	Mx	E	2.3	20
	Mx	N	3.2	20
Ki	iP		14 24	14.0
	iPP		14 25	45.0
			micr	sec
	P	Z'	0.2	1.0
	Mx	E	2.7	16
	Mx	N	2.6	17
Sk	iP		14 24	11.2
Um	iP		14 23	49.4
	iPP		14 25	27.1
Ud	iP		14 23	50.6
	i		14 23	54.5
De	iP		14 23	34.6

Iran (h = N).
m = 5.9, M = 5.3 (Up,Ki).

" 21	Um	iP	16 07	59.9
	Ud	iP	16 07	52.3
	De	ipP	16 08	24.3

Guatemala (h = 100 km).

" 21	Ki	iP	20 12	28.1
	Ud	i	20 12	27.8

Turkey (h = N).

" 22	Up	iP	00 50	17.3
		iS	00 54	35.1
			micr	sec
	P	Z'	0.1	0.8
	Mx	E	2.5	12
	Mx	N	1.3	8
	Mx	Z	2.2	8
Ki	iP		00 51	24.0
	i		00 57	46.8
			micr	sec
	P	Z'	0.3	0.9
	Mx	E	3.4	11
	Mx	N	1.7	10
Sk	iP		00 50	56.1
Um	iP		00 50	48.6
Ud	iP		00 50	25.3
De	iP		00 49	53.1

Crete (h = 60 km).
m = 5.8, M = 5.2 (Up,Ki).

" 22	Up	ipP	13 01	02.3
			micr	sec
	pP	Z'	0.1	1.2
Ki	iP		13 01	55.3
Um	iP		13 01	22.1
Ud	ipP		13 01	15.8
De	iP		13 00	39.4

Turkey (h = N).

1975
Sep. 22

Um	iP		16 36	25.3
Ud	iP		16 36	13.2
	i		16 36	24.8

Turkey (h = 20 km).

" 22	Up	iP	23 07	42.4
	Ki	eP	23 08	22
	Um	iP	23 07	57.9
		i	23 08	09.1
	Ud	iP	23 07	58.9

Iran (h = N).

" 23	De	i(P)	10 26	43.7
" 23	Ud	iPKP	10 27	00.0

Fiji Islands (h = 530 km).

" 23	Up	i(P)	15 45	11.0
			micr	sec
	(P)	Z'	0.1	0.9
	Ud	i(P)	15 45	29.4
" 23	Um	iP	18 15	17.8
	Ud	iP	18 15	01.6
" 23	Up	iP	21 39	13.7
		i	21 39	40.8
	Um	iP	21 39	50.3
	Ud	iP	21 39	21.8
	De	iP	21 38	51.0

Dodecanese Islands
(h = 170 km).

" 24	Up	iP	01 06	56.9
		i	01 07	19.3
		iS	01 16	51
			micr	sec
	P	Z'	0.5	1.2
	Mx	N	2.4	15
	Ki	iP	01 06	20.6 D
			micr	sec
	P	Z'	0.4	1.5
	Mx	E	2.4	14
	Mx	N	1.4	14
	Mx	Z	3.8	15
	Um	iP	01 06	36.4 D
		iS	01 16	11
	Ud	iP	01 07	03.9
	De	iP	01 07	16.9

Japan (h = 50 km).
m = 6.1, M = 5.7 (Up,Ki).

" 24	Up		micr	sec
	Mx	E	2.5	19
	Mx	N	4.1	19
	Mx	Z	1.5	19

(cont.)

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

1975
Sep. 24 (cont.)

Ki			micr	sec
	Mx	E	4.2	18
	Mx	N	3.7	17
	Mx	Z	5.7	18
Ud	iPKPl		02 07 07.6	
De	iPKPl		02 07 19.6	

Tonga Islands (h = N).
M = 6.3 (Up,Ki).

" 24	Ki	iP	07 16 05.7
	Um	iP	07 16 22.4
	Ud	iP	07 16 49.8

Japan (h = N).

" 24	Up	iP	11 14 46.5 C	
		iS	11 24 28	
			micr	sec
		P Z'	0.1	1.0
		Mx E	3.0	16
		Mx N	5.6	22
		Mx Z	6.9	26
	Ki	iP	11 15 27.6 C	
		i	11 15 39.3	
			micr	sec
		i Z'	0.2	1.4
		Mx E	3.7	16
		Mx N	5.0	16
		Mx Z	6.7	16
	Um	iP	11 15 08.2	
		iS	11 25 09	
	Ud	iP	11 14 41.9	
	De	iP	11 14 23.8	

South Atlantic Ocean (h = N).
m = 5.9, M = 6.0 (Up,Ki).

" 24	Ki	iP	15 47 34.1
	Um	iP	15 47 05.4
	Ud	iP	15 47 00.5
		i	15 47 13.4
	De	iP	15 46 39.0

Turkey (h = N).

" 24	Ud	iSgl	17 24 17.2
		i	17 24 18.6
		iRg	17 24 29.4

Regional near-surface event.

" 24	Up	iP	17 32 07.2	
		iS	17 42 36	
			micr	sec
		Mx E	3.8	18
		Mx N	7.1	16
		Mx Z	10	18
	Ki	iP	17 31 45.5	

(cont.)

1975
Sep. 24 (cont.)

Ki			micr	sec
	P	Z'	0.2	1.5
	Mx	E	9.4	15
	Mx	N	10.0	17
	Mx	Z	14	18
Um	iP		17 31 58.8	
	i		17 32 04.6	
	iS		17 42 17	
Ud	iP		17 32 00.5	
De	iP		17 32 13.5	

Gulf of California (h = N).
M = 6.3 (Up,Ki).

" 24	Up	Mx	22 17	
			micr	sec
		Mx E	3.1	14
		Mx N	2.5	13
		Mx Z	4.8	15
	Ki	Mx	22 09	
			micr	sec
		Mx E	2.7	18
		Mx N	4.5	19

Ryukyu Islands (h = N).
M = 5.9 (Up,Ki).

" 24	Up		micr	sec
		Mx E	1.8	11
		Mx N	2.3	16
		Mx Z	3.8	12
	Ki		micr	sec
		Mx E	1.2	14
		Mx N	2.0	15
		Mx Z	1.9	18
	Ud	iP	22 56 54.1	

Ryukyu Islands (h = 25 km).
M = 5.7 (Up,Ki).

" 25	Up	i(P)	04 36 37.2
" 25	Ud	iP	05 35 55.7
" 25	De	iPKPl	14 08 49.8

Fiji Islands (h = 630 km).

" 25	Up	i(P)	14 17 07.5
" 25	Ki	iP	14 37 11.2
	Um	iP	11 37 21.4
	Ud	iP	14 37 55.2
	De	iP	14 38 08.0

USSR-Mongolia (h = N).

" 25	De	iPKP	18 29 03.7

Solomon Islands (h = 60 km).

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

1975					
Sep.	26	Up	iSgl		00 50 59.1
		Um	iSgl		00 51 13.1
		Ud	iSgl		00 50 01.9
			i		00 50 06.8
		De	iSgl		00 51 35.2
		Off coast of west Norway, 62.7°N, 5.0°E.			
		Origin time = 00 47 38.			
		m = 4.3, M_L = 2.7 (Up,Ud).			
		By combination with Bergen and Kongsberg readings.			
"	26	Ud	iPKPl		04 37 12.9
		De	iPKPl		04 37 22.6
		Tonga-Kermadec Islands (h = 550 km).			
"	26	Um	iP		21 15 04.0
"	26	Ki	iP		22 02 18.8
				micr	sec
			P	Z' 0.3	1.9
		Panama (h = N).			
"	27	Ud	iP		22 46 13.9
		California (h = 10 km).			
"	28	Up	iPKPl		09 32 29.5
				micr	sec
			PKPl	Z' 0.1	1.0
		Ud	iPKPl		09 32 32.6
		De	iPKPl		09 32 43.1
		Tonga-Kermadec Islands (h = 500 km).			
"	28	Ud	iP		15 42 00.9
"	28	Ki	iP		20 29 09.5
		Um	iP		20 29 32.5
		Ud	iP		20 30 03.8
		Kurile Islands (h = 100 km).			
"	28	Ud	iSgl		23 46 27.7
		Off coast of west Norway, 61.6°N, 4.4°E.			
		Origin time = 23 44 03.			
		By combination with Bergen and Kongsberg readings.			
"	29	Um	iPKP		06 10 21.5
		Ud	iPKPl		06 10 30.0
			i		06 10 42.5
		Tonga-Kermadec Islands (h = N).			
"	29	Ud	iP		06 52 23.8
		Ascension Island (h = N).			

1975					
Sep.	29	Ud	iP		08 17 06.0
			i		08 17 18.2
"	29	Up	iP		11 06 15.6
		Ki	iP		11 05 17.3 D
			i		11 05 31.6
				micr	sec
			P	Z' 0.1	0.9
			i	Z' 0.1	0.9
		Sk	i		11 06 27.3
		Um	iP		11 05 42.0
		Ud	i		11 06 59.9
		De	iP		11 06 48.3
		Siberia (h = 0 km).			
"	29	Up	i(P)		12 03 50.0
"	29	Ki	iPl		12 21 47.7 C
				micr	sec
			Pl	Z' 0.1	0.6
		Sk	eP2		12 22 10
		Um	iP2		12 21 42.1
		Ud	iPl		12 22 01.9
			iP2		12 22 04.0
		De	iPl		12 22 00.7
			iP2		12 22 02.6
			i		12 22 11.2
		Tadzhik-Sinkiang (h = 55 km).			
"	29	Up	iP		13 53 46.2
				micr	sec
			P	Z' 0.2	0.9
		Ki	iP		13 53 37.6
			i		13 53 40.7
				micr	sec
			P	Z' 0.6	2.1
		Sk	iP		13 54 00.7
			i		13 54 04.1
		Um	iP		13 53 37.6
		Ud	iP		13 53 57.5
			i		13 54 00.7
		De	iP		13 53 58.6
		Burma (h = 60 km).			
		m = 6.1 (Up,Ki).			
"	29	Up	iP		14 50 02.8
			i(PP)		14 53 02.3
			iPP		14 54 11.1
			iSKS		15 00 38
				micr	sec
			P	Z' 0.1	1.0
			PP	Z' 0.1	1.1
			Mx	E 7.8	26
			Mx	N 14	29
			Mx	Z 19	25
		Ki*	iP		14 49 46.9
		(cont.)			

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

1975
Sep. 29 (cont.)

Ki			micr	sec	
	P	Z'	0.3	1.5	
	Mx	E	13	18	
	Mx	N	11	19	
	Mx	Z	14	20	
Sk	iP		14 50 08.5		
	i		14 54 24.8		
Um	iP		14 49 50.5		
	iSKS		15 00 23		
Ud	iP		14 50 08.9		
De	iP		14 50 16.5		

Molucca Sea (h = 25 km).
m = 6.6, M = 6.5 (Up,Ki).

" 29

Up	iP		15 19 01.0		
Ki	iP		15 18 43.8		
			micr	sec	
	P	Z'	0.2	1.3	
Um	iP		15 18 46.7		
Ud	iP		15 19 08.5		C

Talaud Islands (h = 70 km).

" 29

Up	iPKPl		18 43 20.3		
Ud	iPKPl		18 43 22.1		
	i		18 43 34.3		
De	iPKPl		18 43 32.7		

Tonga-Kermadec Islands
(h = 80 km).

" 29

Up	iPKPl		19 08 34.2		
	i		19 08 36.3		
	i		19 08 48.6		
	i		19 08 59.8		
			micr	sec	
	PKPl	Z'	0.1	1.0	
	i	Z'	0.1	1.0	
Um	iPKPl		19 08 23.4		
Ud	iPKPl		19 08 35.4		
	i		19 08 38.4		
	i		19 08 50.4		
	i		19 09 01.9		
De	iPKPl		19 08 46.6		
	i		19 08 49.3		
	i		19 09 00.7		
	i		19 09 10.8		

Tonga-Kermadec Islands
(h = N).
Multiple event.

" 30

Ki	iP		02 30 23.5		

" 30

Up	iP		04 04 28.2		
			micr	sec	
	P	Z'	0.2	1.4	

(cont.)

1975
Sep. 30 (cont.)

Ki	iP		04 04 33.7		
Sk	iP		04 04 19.1		
Ud	iP		04 04 19.3		
	ipP		04 04 53.9		
De	iP		04 04 17.9		
	ipP		04 04 51.5		

Peru.
h = 140 km (Ud,De).

" 30

Up	eP		04 09 55		
Ud	iP		04 10 04.9		

Formosa (h = 210 km).

" 30

Ud	iP		06 01 04.9		

" 30

Ud	iP		07 54 49.3		

Tyrrhenian Sea (h = 330 km).

" 30

Sk	eP		13 40 36		
Ud	iP		13 40 18.3		

" 30

Up	i(P)		14 46 31.8		

" 30

Um	iP		15 47 55.5		
Ud	iP		15 47 48.6		
	i		15 48 07.8		

Guatemala (h = 110 km).

" 30

Ud	iP		16 23 23.1		

Molucca Sea (h = 60 km).

" 30

Up	iP		18 30 53.8		
	iPP		18 34 29.6		
			micr	sec	
	P	Z'	0.1	1.1	
	Mx	E	2.8	24	
	Mx	N	4.6	23	
	Mx	Z	5.7	21	
Ki	iP		18 30 54.0		C
			micr	sec	
	P	Z'	0.1	0.8	
	Mx	E	4.4	17	
	Mx	N	5.8	18	
	Mx	Z	6.6	20	
Sk	iP		18 31 07.5		
Um	iP		18 30 51.5		
	iS		18 41 47		
Ud	iP		18 31 02.9		
De	iP		18 31 02.5		

Sumatra (h = N).
m = 6.1, M = 6.0 (Up,Ki).

" 30

Ud	iP		22 11 29.6		

June 7, 1977

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BOX 517
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SWEDEN

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

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

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

O C T O B E R 1 - 31, 1975

1975 Oct.	1	Up	iP		03 43 01.8	
			i		03 43 03.9	
			ipP		03 43 14.9	
			i		03 46 20.0	
			iPP		03 46 44.5	
			iSKS		03 53 33	
					micr	sec
			P	Z'	0.4	1.3
			PP	Z'	1.3	1.8
			Mx	E	23	19
			Mx	N	60	22
			Mx	Z	55	19
		Ki	iP		03 43 02.2	
			i		03 43 03.7	
			iPP		03 46 45.5	
			iSKS		03 53 27	
			iS		03 53 56.3	
					micr	sec
			P	Z'	1.2	1.5
			PP	Z'	0.5	1.6
			Mx	E	52	19
			Mx	N	42	17
			Mx	Z	60	19
		Sk	iP		03 43 17.1	
			i		03 43 18.3	
			ipP		03 43 28.6	
			iPP		03 47 06.6	
		Um	iP		03 43 01.2	
			i		03 43 02.3	
			iPP		03 46 34.9	
			iS		03 54 07.4	
		Ud	iP		03 43 12.5	
			i		03 43 14.0	
			i		03 46 36.6	
		De	iP		03 43 10.5	
			i		03 43 13.3	
			iPP		03 46 56.5	

Sumatra.
h = 35 km (Up,Sk).
m = 6.9, M = 7.1 (Up,Ki).

1975 Oct.	1	Up	iP		04 26 32.0	
			ipP		04 26 41.6	
			iPP		04 30 15.2	
					micr	sec
			P	Z'	0.4	1.5
			PP	Z'	0.2	1.3
		Ki	iP		04 26 31.5	
			i		04 26 32.4	
			i		04 30 10.6	
					micr	sec
			P	Z'	0.7	1.3
			i	Z'	0.9	2.4
		Sk	iP		04 26 45.8	
		Um	iP		04 26 29.6	
			iPP		04 30 03.8	
		Ud	iP		04 26 40.8	
			i		04 26 41.9	
			ipP		04 26 51.4	
			i		04 30 16.7	
		De	iP		04 26 40.2	
			ipP		04 26 50.4	

Sumatra.
h = 35 km (Up,Ud,De).
m = 6.8 (Up,Ki).

"	1	Up	iP		04 28 16.3	
			iPP		04 31 59.2	
					micr	sec
			P	Z'	0.1	0.9
			PP	Z'	0.2	1.5
		Ki	iP		04 28 16.2	
					micr	sec
			P	Z'	0.1	1.2
		Sk	iP		04 28 29.6	
			i		04 28 30.7	
			ipP		04 28 39.9	
		Um	iP		04 28 13.3	
		Ud	iP		04 28 26.1	
			iPP		04 32 10.9	
		De	iP		04 28 23.9	

(cont.)

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

1975					
Oct.	1	(cont.)			
		De	i	04 28 26.1	
			ipP	04 28 36.5	
		Sumatra.			
		h = 35 km (Sk,De).			
		m = 6.2 (Up,Ki).			
"	1	Ud	iP	06 50 16.5	
"	1	Ud	iP	06 59 56.2	
		North Atlantic Ocean (h = N).			
"	1	Ki	iP	13 31 42.2	
		Um	iP	13 31 32.2	
		Ud	iP	13 31 50.5	
		Hindu Kush (h = 130 km).			
"	1	Up	iPKP1	18 19 32.8	
			i	18 19 43.9	
		Um	iSKP1	18 22 09.6	
		Ud	iPKP1	18 19 35.8	
			ipPKP1	18 21 37.3	
		De	iPKP1	18 19 45.3	
		Tonga-Kermadec Islands.			
		h = 520 km (Ud).			
"	2	Um	iPKP1	02 09 59.0	
		Ud	iPKP1	02 10 10.7	
"	2	Ud	iPKP1	10 07 07.6	
		De	iPKP1	10 07 18.5	
"	2	Up	iP	11 17 43.4	C
			ipP	11 18 03.9	
			iS	11 26 41.1	
				micr sec	
			P Z'	0.3 0.7	
		Ki	iP	11 16 58.8	C
				micr sec	
			P Z'	0.5 1.0	
		Sk	iP	11 17 34.2	C
		Um	iP	11 17 19.3	C
		Ud	iP	11 17 50.1	C
		De	iP	11 18 07.3	C
			ipP	11 18 29.0	
		Japan.			
		h = 80 km (Up,De).			
		m = 6.4 (Up,Ki).			
"	2	Ud	iP	13 30 23.6	
		Japan (h = 110 km).			
"	2	Ud	iP	14 23 25.5	
			i	14 23 35.8	

1975					
Oct.	2	Ud	iP	15 14 08.7	
"	2	Up	iP	15 56 58.2	
		Sk	iP	15 57 42.8	
		Um	iP	15 57 41.7	
		Ud	iP	15 57 04.3	
			i	15 57 08.8	
		De	iP	15 56 27.5	
		Greece-Albania (h = 15 km).			
"	2	Up	iP	16 04 13.3	
		Sk	eP	16 04 56	
			i	16 05 02.8	
		Um	iP	16 04 54.5	
		Ud	iP	16 04 19.0	
			i	16 04 22.3	
		De	iP	16 03 41.5	
		Greece-Albania (h = 40 km).			
"	2	Ud	i(PKP)	18 58 53.8	
			iPKP	18 59 03.1	
		De	iPKP1	18 59 03.4	
		Fiji Islands (h = 620 km).			
"	2	Ud	iP	19 41 34.8	
		De	iP	19 41 31.5	
		Tadzhik SSR (h = 25 km).			
"	2	Um	iPKP1	20 49 15.1	
		Ud	iPKP1	20 49 27.0	
			iPKP2	20 49 35.6	
"	2	Up	iPKP1	21 44 08.6	
		Um	iPKP1	21 43 58.8	
"	3	Up	iPKP	02 44 36.8	
		De	iPKP	02 44 45.5	
		Fiji Islands (h = 390 km).			
"	3	Ud	iP	02 47 14.8	
"	3	Ud	iP	05 20 24.4	
"	3	Up	iP	05 22 30.2	C
			i	05 22 31.9	
			iPP	05 24 11.9	
			iS	05 28 57	
				micr sec	
			P Z'	0.7 1.3	
			PP Z'	3.1 2.3	
			Mx E	93 15	
			Mx N	104 15	
			Mx Z	179 15	
		(cont.)			

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

1975
Oct. 3 (cont.)

Ki	iP		05 22 48.7		C
	i		05 22 50.4		
	iPP		05 24 39.2		
	iS		05 29 34		
			micr	sec	
	P	Z'	0.5	1.1	
	PP	Z'	1.2	2.4	
	Mx	E	96	12	
	Mx	N	76	13	
	Mx	Z	112	12	
Sk	iP		05 22 59.1		C
	i		05 23 00.6		
Um	iP		05 22 34.1		C
	i		05 22 35.6		
	iS		05 29 04		
Ud	iP		05 22 45.9		C
	i		05 22 47.8		
De	iP		05 22 38.2		
	i		05 22 39.4		
	iPP		05 24 23.4		

Pakistan (h = 10 km).
m = 6.3, M = 7.0 (Up,Ki).

" 3	Ki	iP		09 29 48.6	
	Ud	iP		09 30 32.1	
" 3	Up	iP		10 04 18.3	C
				micr	sec
		P	Z'	0.1	0.9
	Ki	iP		10 03 24.5	C
	Um	iP		10 03 50.8	C
	Ud	iP		10 04 19.9	C
		i		10 04 28.9	
	De	iP		10 04 41.6	C

Aleutian Islands (h = 15 km).

" 3	Up	i(P)		12 20 29.4	
	Ud	i(P)		12 20 48.7	
" 3	Up	iP		13 24 07.5	
	Ki	iP		13 23 55.1	
	Sk	iP		13 24 14.7	
	Ud	iP		13 24 14.4	
	De	iP		13 24 19.4	

Flores Sea (h = 240 km).

" 3	Up	iP		13 27 02.5	
	Sk	iP		13 27 31.2	
	Um	iP		13 27 05.6	
	Ud	iP		13 27 17.4	
	De	iP		13 27 10.6	
" 3	Up	iP		13 28 28.7	
	Ud	iP		13 28 47.7	
	De	iP		13 28 28.2	

1975
Oct. 3

Up	iP		13 50 48.0		
Ki	iP		13 50 47.0		
			micr	sec	
	P	Z'	0.1	0.7	
Sk	iP		13 51 01.1		
Um	iP		13 50 45.0		
Ud	iP		13 50 57.7		
De	iP		13 50 56.4		

Sumatra (h = N).

" 3	Up	iPKP		14 35 06.6	
	Ki	iPKP		14 34 54.5	
	Sk	iPKP		14 35 05.1	
	Um	iPKP		14 35 00.2	
	Ud	iPKP		14 35 09.9	
	De	iPKP		14 35 15.4	

Solomon Islands (h = 55 km).

" 3	Up	iP		15 03 45.9	
	Ki	iP		15 04 35.5	
				micr	sec
		P	Z'	0.1	1.0
	Um	iP		15 04 05.0	
		i		15 04 39.6	
	Ud	iP		15 04 01.2	
		i		15 04 31.1	
	De	iP		15 03 39.1	

Turkey (h = N).

" 3	Up	iP		17 39 38.3	D
		i		17 39 41.4	
		iPP		17 41 23.5	
		iS		17 46 10	
				micr	sec
		P	Z'	0.1	1.0
		i	Z'	0.6	1.2
		PP	Z'	1.9	2.0
		Mx	E	36	16
		Mx	N	44	15
		Mx	Z	67	15
	Ki	iP		17 39 56.7	D
		i		17 40 00.0	
		iPP		17 41 49.9	
				micr	sec
		P	Z'	0.3	1.3
		PP	Z'	1.2	2.5
		Mx	E	38	12
		Mx	N	45	11
		Mx	Z	50	12
	Sk	iP		17 40 07.3	D
		i		17 40 10.2	
	Um	iP		17 39 42.5	D
		i		17 39 45.3	
		iPP		17 41 27.9	
		iS		17 46 09	

(cont.)

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

1975
Oct. 3 (cont.)

Ud	iP	17 39 54.7	D
	i	17 39 57.7	
	i	17 42 42.8	
De	iP	17 39 47.1	D
	i	17 39 49.2	
	iPP	17 41 27.6	

Pakistan (h = N).
m = 6.2, M = 6.7 (Up,Ki).

" 3

Up	iP	18 03 06.5
Ki	i	18 03 30.1
Um	iP	18 03 11.1
Ud	iP	18 03 23.2
De	iP	18 03 16.3

Pakistan (h = N).

" 3

Up	iSn	18 04 42.9
	iS*	18 05 12.2
Ki	iSgl	18 05 53.7
Sk	i	18 03 00.6
	iSn	18 03 15.8
Um	iSn	18 04 34.5
	iSgl	18 05 07.7
Ud	iPn	18 02 59.2
	iSn	18 04 02.2
	iSgl	18 04 26.0
De	iSn	18 05 08.2

Off coast of west Norway, near 68 1/4°N, 4 1/2°E.
Origin time = 18 01 35.
m = 4.7, M_L = 3.7 (Um,Ud).
By combination with Bergen and Kongsberg readings.

" 3

Up	iP		18 38 03.4	D
			micr	sec
	P	Z'	0.4	1.5
Ki	iP		18 37 46.3	D
			micr	sec
	P	Z'	1.2	2.7
Sk	iP		18 37 12.2	
	iS		18 39 42.8	
Um	iP		18 37 57.4	D
Ud	iP		18 37 38.7	
De	iP		18 38 06.6	

Iceland (h = N).
m = 5.6 (Up,Ki).

" 3

Up	iP	19 16 12.7
Ki	eP	19 16 29
Sk	iP	19 16 41.3
Um	iP	19 16 16.9
Ud	iP	19 16 29.5

(cont.)

1975
Oct. 3 (cont.)

De	iP	19 16 20.9

Pakistan (h = 25 km).

" 4

Up	iP		00 29 37.7	
Ki	iP		00 29 37.6	
			micr	sec
	P	Z'	0.1	1.0
Um	iP		00 29 34.8	
Ud	iP		00 29 47.3	
De	iP		00 29 45.8	

Sumatra (h = N).

" 4

Ud	iP	03 47 38.0

" 4

Up	iPKPl	03 54 19.0
	i	03 54 30.7
Ki	iPKPl	03 54 00.9
Sk	iPKPl	03 54 14.5
Um	iPKPl	03 54 10.3
Ud	iPKPl	03 54 21.1

" 4

Up	iP	05 00 07.9
Sk	eP	05 00 51
Ud	iP	05 00 17.9

" 4

Up	iP	06 07 50.0
Sk	iP	06 08 18.9
Ud	iP	06 08 04.7

Pakistan (h = 15 km).

" 4

Up	iP	20 26 41.9
Ki	iP	20 26 04.1
Um	iP	20 26 20.7
Ud	iP	20 26 49.0

Japan (h = 20 km).

" 4

Up	iP	21 40 57.6
	i	21 41 07.8
Sk	iP	21 40 43.1
Um	iP	21 40 59.9
Ud	iP	21 40 48.0

Panama (h = N).

" 4

Up	iP		23 25 23.4	
	iS		23 36 08	
			micr	sec
	Mx	E	3.1	20
	Mx	N	4.8	22
	Mx	Z	7.7	25
Ki	i		23 25 35.2	
			micr	sec
	i	Z'	0.3	1.8
	Mx	E	6.0	25
	Mx	N	2.5	20
	Mx	Z	4.1	22

(cont.)

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

1975
Oct. 4 (cont.)

Sk	iP	23 25 06.7	
	i	23 25 13.5	
Um	iP	23 25 25.1	
	iS	23 36 13	
Ud	iP	23 25 12.7	
De	iP	23 25 15.0	

Panama (h = N).
M = 6.0 (Up,Ki).

" 5

Ud	iP	01 12 31.2	

" 5

Sk	ePKP	01 49 33	
Um	iPKP	01 49 26.2	
Ud	iPKP	01 49 34.0	
De	iPKP	01 49 40.1	

Solomon Islands (h = 45 km).

" 5

Up	iP	04 33 46.5	
Ki	iP	04 33 37.1	
Ud	iP	04 34 09.9	

" 5

Up	iP	05 44 09.0	
Ki	iP	05 43 33.5	
Um	iP	05 43 49.0	
Ud	iP	05 44 16.8	

" 5

Up	iP	12 58 05.6	C
Ki	iP	12 57 46.4	
Ud	iP	12 58 14.8	C

Luzon (h = N).

" 5

Ud	iP	14 45 08.2	

Sea of Japan (h = 250 km).

" 5

Up	iP	15 44 24.4		
Ki	iP	15 44 07.6		D
		micr	sec	
	P	Z' 0.1	1.2	
	Mx	E 2.9	21	
	Mx	N 2.8	23	
	Mx	Z 3.0	19	
Ud	iP	15 44 33.3		D

Philippine Islands (h = 70 km).

" 6

Up	iP	05 37 11.6	
Um	iP	05 36 50.9	D
Ud	iP	05 37 18.9	
De	eP	05 37 32	

Japan (h = 20 km).

" 6

Up	iPKP1	10 10 52.0		C
		micr	sec	
	PKP1	Z' 0.5	0.8	
Ki	i(PKP)	10 10 33.2		

(cont.)

1975
Oct. 6 (cont.)

Ki	iPKP	10 10 40.8		
	iSKP1	10 13 26.0		
		micr	sec	
	PKP	Z' 0.1	1.1	
Sk	iPKP	10 10 49.1		
Um	i(PKP)	10 10 38.7		
	iSKP1	10 13 36.6		
Ud	iPKP1	10 10 53.8		C
De	iPKP	10 11 01.1		
	iPKP1	10 11 03.8		

Tonga-Kermadec Islands
(h = 490 km).

" 6

Ki	iP	12 49 45.4	
Um	iP	12 49 34.8	
Ud	iP	12 49 53.5	
De	iP	12 49 49.6	

Afghanistan-USSR (h = 230 km).

" 6

Um	iP	12 59 47.8	
Ud	iP	13 00 00.4	

Pakistan (h = 25 km).

" 6

Ki	iP	14 05 37.6	
Sk	iP	14 06 04.8	
Ud	iP	14 06 09.5	
	i	14 06 22.3	

Luzon (h = 30 km).

" 6

Ki	iP	21 34 35.3	
Ud	iP	21 33 33.4	
De	iP	21 33 03.8	

Crete (h = 40 km).

" 6

Up	iP	22 29 59.9		
		micr	sec	
	Mx	E 3.7	11	
	Mx	N 9.7	15	
Ki	iP	22 29 54.5		
Sk	iP	22 29 33.6		
	i	22 29 43.3		
Um	iP	22 30 00.1		
Ud	iP	22 29 42.4		

North Atlantic Ocean (h = N).

" 6

Up	iPKP	22 43 15.1		
	iPP	22 45 17.7		
	iSKP1	22 46 38.9		
	i(SKKP)	22 56 01.9		
		micr	sec	
	PKP	Z' 0.2	1.2	
	Mx	E 35	23	
	Mx	N 82	22	
	Mx	Z 126	21	

(cont.)

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

1975
Oct. 6 (cont.)

Ki	iPKP		22 43 01.9	
	iPKKP		22 53 08.2	
			micr	sec
	PKP	Z'	0.2	1.0
	Mx	E	43	21
	Mx	N	61	22
	Mx	Z	32	20
Sk	iPKP		22 43 12.1	
	ipPKP		22 43 29.7	
Um	iPKP		22 43 07.4	
	ipPKP		22 43 24.6	
	iPKKP		22 52 57.5	
	i		22 55 41.9	
	i(SKKP)		22 56 14.4	
Ud	iPKP		22 43 17.9	
	ipPKP		22 43 34.7	
	iSKP1		22 46 37.5	
	iSKKP		22 56 30.7	
De	iPKP		22 43 24.8	
	i		22 46 03.1	
	iSKP1		22 46 50.6	

Santa Cruz Islands.
h = 60 km (Sk,Um,Ud).
M = 7.3 (Up,Ki).
The (SKKP) phases recorded at Up and Um arrive about 30 s too early to be interpreted as SKKP.

" 7 Um iP 00 56 29.5

" 7 Ki iP 05 06 13.5
Turkey (h = 50 km).

" 7

Ki	iP		05 10 15.4	C
	i		05 10 35.3	
			micr	sec
	i	Z'	0.1	1.1
Um	iP		05 10 12.9	
	i		05 10 28.3	
Ud	iP		05 10 24.5	
	i		05 10 35.2	

Sumatra (h = N).

" 7

Up	iSKP1		07 00 09.3	
Ki	iPKP		06 56 40.4	
			micr	sec
	PKP	Z'	0.1	0.5
Sk	ePKP		06 56 52	
Um	iPKP		06 56 46.9	
Ud	iPKP		06 56 56.1	
De	iPKP		06 57 03.3	

New Hebrides Islands
(h = 120 km).

1975
Oct. 7

Up	iSKP1		07 02 48.9	
Um	iPKP		06 59 28.2	
Ud	iPKP		06 59 38.1	

" 7

Up	iP		08 39 07.0	C
	ipP		08 39 15.6	
	iS		08 48 18	
			micr	sec
	P	Z'	0.2	1.0
	pP	Z'	1.7	1.6
	Mx	E	16	19
	Mx	N	25	21
	Mx	Z	63	19
Ki	iP		08 39 44.7	C
	ipP		08 39 53.6	
			micr	sec
	P	Z'	1.2	2.0
	pP	Z'	2.4	2.0
	Mx	E	18	19
	Mx	N	29	17
	Mx	Z	21	18
Sk	iP		08 39 11.6	C
	ipP		08 39 20.6	
Um	iP		08 39 28.8	C
	ipP		08 39 37.6	
	iS		08 48 49	
Ud	iP		08 38 58.8	C
	ipP		08 39 07.6	
De	iP		08 38 43.0	C
	ipP		08 38 52.0	

Atlantic Ocean.
h = 30 km (Up,Ki,Sk,Um,Ud, De).
m = 6.8, M = 6.6 (Up,Ki).

" 7 Up iP 13 05 46.6
Ud iP 13 05 39.9

" 7

Up	iP		13 29 43.0	C
	ipP		13 29 52.1	
			micr	sec
	P	Z'	0.4	1.5
	pP	Z'	0.1	0.8
Ki	iP		13 30 20.9	C
	ipP		13 30 30.4	
			micr	sec
	P	Z'	0.2	1.4
	pP	Z'	0.2	1.2
Sk	iP		13 29 48.4	C
Um	iP		13 30 05.3	C
	ipP		13 30 14.3	
Ud	iP		13 29 34.4	C
	ipP		13 29 43.0	
De	iP		13 29 19.5	C

(cont.)

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

1975
Oct. 7 (cont.)

De	ipP		13 29 28.4	

Atlantic Ocean.
h = 30 km (Up,Ki,Um,Ud,De).
m = 6.1 (Up,Ki).

" 7	De	iP		18 35 36.5
" 7	Up	iPKPl		23 37 20.5
			micr	sec
		PKPl	Z' 0.1	0.7
	Ki	e(PKP)		23 36 57
		ePKP		23 37 03
	Sk	iPKPl		23 37 13.4
	Um	iPKPl		23 37 07.1
	Ud	iPKPl		23 37 22.2
	De	iPKPl		23 37 31.5 D
		iPKP2		23 37 41.1

Kermadec Islands (h = 220 km).

" 8	Um	iP		02 21 18.5
	Ud	i(pP)		02 22 06.0

Japan (h = 70 km).

" 8	Up	iP		08 23 29.4
		ipP		08 23 40.1
			micr	sec
		Mx	E 1.2	20
		Mx	N 1.6	18
	Ki	iP		08 24 00.3
			micr	sec
		P	Z' 0.1	0.7
		Mx	E 3.6	14
		Mx	N 2.5	13
		Mx	Z 2.1	11
	Sk	iP		08 24 02.5
		ipP		08 24 12.5
	Um	iP		08 23 41.6
		iS		08 30 22
	Ud	iP		08 23 42.3
		ipP		08 23 51.0
	De	iP		08 23 27.5
		ipP		08 23 37.5

Iran.
h = 35 km (Up,Sk,Ud,De).
M = 5.3 (Up,Ki).

" 8	Up	iP		10 40 01.4
		ipP		10 40 11.4
		iS		10 50 20
			micr	sec
		pP	Z' 0.1	1.0
		Mx	E 1.4	15
		Mx	N 1.5	14
		Mx	Z 2.0	19
	Ki	iP		10 39 44.1

(cont.)

1975
Oct. 8 (cont.)

Ki			micr	sec
	Mx	E	2.8	14
	Mx	N	1.8	14
	Mx	Z	3.8	15
Sk	iP			10 40 07.2
Um	iP			10 39 50.7
	iS			10 49 56
Ud	iP			10 40 10.5
	ipP			10 40 19.9
De	ipP			10 40 26.7

Mindoro.
h = 35 km (Up,Ud).
M = 5.7 (Up,Ki).

" 8	Up	iPgl		18 22 00.0
		iSgl		18 22 26.8
		i		18 22 29.4
	Sk	iPgl		18 22 20.7
		iSn		18 22 55.7
		iSgl		18 23 02.5
	Um	iPgl		18 22 02.0
		iSgl		18 22 31.2
	Ud	iPgl		18 22 10.4
		iSgl		18 22 45.5

Gulf of Bothnia, off coast of Hälsingland, Sweden, 61.9°N, 17.6°E.
Origin time = 18 21 23.
m = 4.0, M_L = 2.1 (Sk,Um, De).

" 8	Up	iP		21 59 07.9
	Ki	iP		21 58 34.8
	Sk	iP		21 59 06.6
	Um	iP		21 58 48.7
	Ud	iP		21 59 16.7
	De	iP		21 59 29.3

Japan (h = 160 km).

" 9	Um	iP		08 41 18.7
" 9	Up	iP		10 28 49.0 C
			micr	sec
		P	Z' 0.1	0.9
	Ki	iP		10 28 08.2
			micr	sec
		P	Z' 0.1	1.0
	Sk	iP		10 28 42.9
	Um	iP		10 28 26.5 C
		ipP		10 28 39.0
	Ud	iP		10 28 56.2 C
		ipP		10 29 08.5
	De	iP		10 29 11.3

Japan.
h = 45 km (Um,Ud).
m = 5.8 (Up,Ki).

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

1975 Oct.	9	Ud	iRg	14 00 53.9		
		Regional near-surface event.				
"	9	Ki	iP	21 23 28.1		
		Pakistan (h = 40 km).				
"	10	Up	iPKPl	06 08 34.3		
		Ki	iPKP	06 08 26.7		
		Ud	iPKPl	06 08 36.1		
		De	iPKPl	06 08 47.5	C	
		Tonga-Kermadec Islands				
		(h = 580 km).				
"	10	Up	iPgl	07 38 02.8		
			iSgl	07 38 12.1		
			iRg	07 38 17.7		
		Ud	i	07 38 29.4		
			iSgl	07 38 33.6		
		South-central Sweden.				
		Origin time = 07 37 50.				
		Near-surface event.				
"	10	Up	i(P)	11 23 20.6		
"	10	Ud	iP	11 26 56.5		
"	10	Ud	i(P)	14 39 21.2		
"	10	Sk	eP	20 06 11		
		Um	iP	20 06 08.3		
		New Hebrides Islands				
		(h = 120 km).				
"	11	Um	iP	02 33 06.8		
		Ud	iP	02 33 37.9		
		Kurile Islands (h = 60 km).				
"	11	Up	iP	03 37 14.5		
		Ki	iP	03 36 27.1		
		Um	iP	03 36 50.2		
		Ud	iP	03 37 20.3		
		Kurile Islands (h = N).				
"	11	Up	Mx	08 34		
				micr	sec	
			Mx	E	2.1	22
			Mx	N	2.5	20
			Mx	Z	4.2	25
		Ki	Mx	08 29		
				micr	sec	
			Mx	E	1.8	22
			Mx	N	3.0	22
		Bismark Sea (h = N).				
		M = 5.9 (Up,Ki).				

1975 Oct.	11	Sk	iPKP	11 42 56.2		
		Um	iPKP	11 42 51.6		
		Ud	iPKP	11 43 01.1		
		New Hebrides Islands				
		(h = 40 km).				
"	11	Up	i	14 53 09.2		
		Ki	i	14 53 51.0		
		Sk	iP	14 53 39.5		
		Um	iP	14 53 51.7		
			i	14 54 01.2		
		Ud	iP	14 53 48.0		
			i	14 54 07.2		
		De	iP	14 54 00.8		
			i	14 54 09.5		
		Mexico (h = 60 km).				
"	11	Up	iPKPl	14 54 47.5	C	
			ipPKPl	14 54 51.2		
			iPP	14 57 52.9		
				micr	sec	
			PKPl	Z'	7.7	1.7
			pPKPl	Z'	6.6	1.1
			Mx	E	64	24
			Mx	N	183	22
			Mx	Z	221	22
		Ki	i(PKP)	14 54 25.8		
			iPKP	14 54 32.9		
			iPP	14 57 09.5		
				micr	sec	
			(PKP)	Z'	0.1	1.4
			PKP	Z'	1.2	1.4
			Mx	E	87	21
			Mx	N	200	21
			Mx	Z	183	22
		Sk	iPKPl	14 54 39.8		
			i	14 54 48.2		
			iPP	14 57 43.4		
		Um	iPKPl	14 54 36.5		
			ipPKPl	14 54 40.0		
		Ud	iPKPl	14 54 49.2	C	
			ipPKPl	14 54 52.8		
			iPP	14 57 59.7		
		De	iPKPl	14 54 57.0	C	
			ipPKPl	14 55 00.1		
			iPP	14 58 23.8		
		Tonga-Kermadec Islands.				
		h = 10 km (Up,Um,Ud,De).				
		M = 7.8 (Up,Ki).				
"	11	Up	iPKPl	15 14 26.9	C	
				micr	sec	
			PKPl	Z'	0.1	0.7

(cont.)

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

1975
Oct. 11 (cont.)

Ki	iPKP	15 14 15.5
Sk	iPKP1	15 14 21.3
Um	ePKP1	15 14 15
Ud	iPKP1	15 14 28.3
De	iPKP1	15 14 38.1
	i	15 14 39.8

Tonga-Kermadec Islands
(h = N).

" 11	Ki	iP	15 18 07.7
	Um	iP	15 18 19.8
	Ud	iP	15 18 20.3
		i	15 18 32.7
" 11	Up	iP	15 31 10.0
	Um	iP	15 30 40.9
	Ud	iP	15 31 12.1
" 11	Ki	iP	16 06 52.0
	Sk	ipP	16 07 18.4
	Um	iP	16 06 49.0
		ipP	16 07 02.4
	Ud	ipP	16 07 13.0

Sumatra.
h = 45 km (Um).

" 11	Um	iP	16 24 34.4
	Ud	iP	16 25 05.3
		i	16 25 15.1
" 11	Up	iPKP1	16 38 59.3
	Ud	iPKP1	16 39 00.6
" 11	Up	iPP	18 20 16.8

		micr	sec
	Mx E	4.2	20
	Mx N	6.8	20
	Mx Z	7.7	21
Ki		micr	sec
	Mx E	6.0	18
	Mx N	7.4	21
	Mx Z	8.8	18

Sk	iPP	18 20 15.0
Ud	iPP	18 20 24.7
De	iPP	18 20 42.1

Bismarck Sea (h = N).
M = 6.3 (Up,Ki).

" 11	Ki	iP	18 37 35.7
	Ud	iP	18 38 20.2
" 12	Up	iPKP1	03 02 58.7
	Ud	iPKP1	03 03 00.9
	De	iPKP1	03 03 10.9

1975
Oct. 12

Up	iP	08 28 06.9
Ki	iP	08 29 21.0
Um	iP	08 28 39.8
Ud	iP	08 28 14.4
	i	08 28 19.0
	i	08 28 25.6
De	iP	08 27 38.8

Greece (h = 25 km).

" 12	Ki	iP	11 35 59.6
		iS	11 37 08.3
		iTSgl	11 41 08.3
	Sk	iP	11 36 35.5
		iS	11 38 16.7
	Um	iP	11 36 49.1
		iS	11 38 34.2
	Ud	iP	11 37 22.6
		i	11 37 34.7
	De	iP	11 38 13.5

Norwegian Sea,
near 72°N, 7°E.
Origin time = 11 34 30.

" 12	Up	iP	13 37 11.2
" 12	Up	iPKP1	16 21 35.8

		micr	sec
	PKP1 Z'	0.1	0.9

Sk	iPKP1	16 21 27.9
Um	iPKP1	16 21 23.9
Ud	iPKP1	16 21 37.8
	ipPKP1	16 22 53.3
	i	16 23 20.6
De	iPKP1	16 21 46.5
	iPKP2	16 21 53.6

Kermadec Islands.
h = 300 km (Ud).

" 13	Ud	iP	02 29 39.3
" 13	Um	iP	03 56 17.8
" 13	Ud	iP	06 45 20.5
" 13	Up	iP	12 02 45.7
	Um	iP	12 02 21.8
		ipP	12 02 30.8
	Ud	ipP	12 03 02.8

Kurile Islands.
h = 30 km (Um).

" 13	Ud	iP	12 08 30.1
		ipP	12 08 41.3

Atlantic Ocean.
h = 40 km (Ud).

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

1975					
Oct.	13	Ki	iPgl	12 29 11.8	
			iSgl	12 29 26.7	
		Um	iSgl	12 30 56.1	
		Swedish Lapland.			
		Origin time = 12 28 51.			
"	13	Up	i(P)	14 06 02.4	
"	13	Up	iPKP1	14 31 11.9	
		Ud	iPKP1	14 31 14.4	D
		De	iPKP1	14 31 25.2	D
"	13	Up	ipP	16 23 45.9	
		Ki	ipP	16 23 47.3	
		Ud	ipP	16 23 57.8	
		Andaman Islands (h = N).			
"	13	Up	i(P)	16 51 46.1	
"	13	Up	iPKP1	21 10 48.7	
		Ud	iPKP1	21 10 51.0	
		De	iPKP1	21 11 01.7	
			ipPKP1	21 11 13.4	
		Tonga-Kermadec Islands.			
		h = 35 km (De).			
"	13	Up	iPKP1	22 32 06.6	
		Ud	iPKP1	22 32 08.5	
		De	iPKP1	22 32 19.4	
		Tonga-Kermadec Islands			
		(h = N).			
"	13	Ud	iP	23 49 23.0	
"	14	Ud	iP	00 58 28.6	
		Tadzhik-Sinkiang.			
"	14	Up	ePKP1	03 20 17	
			iPKP2	03 20 20.4	
			i	03 20 24.5	
			i	03 20 28.3	
			i	03 21 11.2	
				micr sec	
			PKP2 Z'	0.1 1.4	
		Sk	iPKP1	03 20 10.9	
			i	03 20 17.7	
			i	03 20 22.3	
		Um	iPKP1	03 20 05.1	
			i	03 20 17.2	
		Ud	iPKP1	03 20 18.7	
			iPKP2	03 20 22.8	
			i	03 20 30.8	
			i	03 21 11.0	
		De	iPKP2	03 20 39.6	
		(cont.)			

1975					
Oct.	14	(cont.)			
		Kermadec Islands (h = 110 km).			
		The unidentified phases may			
		belong to one or two other			
		events in the same focal area			
		occurring some seconds later.			
"	14	Up	i	06 46 30.7	
		Ud	iPKP1	06 46 21.9	
			i	06 46 31.9	
		De	iPKP1	06 46 30.8	
"	14	Up	iPKP1	09 29 33.8	
			ipPKP1	09 29 44.0	
				micr sec	
			pPKP1 Z'	0.1 1.1	
		Ud	iPKP1	09 29 35.3	
			ipPKP1	09 29 45.6	
		Tonga-Kermadec Islands.			
		h = 30 km (Up,Ud).			
"	14	Um	iP	09 32 22.0	
"	14	Ki	iSKS	15 17 12.3	
		Um	iSKS	15 17 15.4	
		Banda Sea (h =170 km).			
"	14	Ud	iPKP1	19 31 25.4	
		De	iPKP2	19 31 39.4	
		Tonga-Kermadec Islands			
		(h = 110 km).			
"	15	Um	iP	08 26 35.6	
		Ud	iP	08 26 37.5	
		Gulf of California (h = N).			
"	15	Up	iP	15 04 05.5	
		Ki	iP	15 03 33.4	D
		Sk	iP	15 04 04.7	
		Um	iP	15 03 46.7	D
		Ud	iP	15 04 13.7	D
		De	iP	15 04 26.2	
		Ryukyu Islands (h = 10 km).			
"	16	Ud	iP	03 07 08.3	
"	16	Ki	i(P)	03 23 05.7	
"	16	Up	iP	03 25 35.0	
			ipP	03 25 46.7	
		Ki	iP	03 24 52.0	
		Um	iP	03 25 10.0	
			ipP	03 25 23.0	
		Ud	iP	03 25 41.0	
		(cont.)			

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

1975
Oct. 16 (cont.)

Ud	ipP		03 25 52.9	

Kurile Islands.
h = 40 km (Up,Um,Ud).

" 16	Up	ePKPl	03 57 09	
		ipPKPl	03 57 19.5	
			micr	sec
		pPKPl	Z' 0.1	1.0
	Um	ipPKP	03 57 13.0	
	Ud	iPKPl	03 57 12.7	
	De	iPKPl	03 57 23.7	

Tonga-Kermadec Islands
(h = N).

" 16	Ud	iPKPl	07 48 41.4	

Tonga-Kermadec Islands
(h = 30 km).

" 16	Ud	iP	15 07 51.8	
" 16	Ud	iP	16 57 02.1	
		i	16 57 12.9	
" 16	Um	iP	17 51 13.4	
	Ud	i	17 50 47.8	

Greece (h = 70 km).

" 16	Ki	i	19 34 20.3	
		i	19 34 29.5	
	Um	iP	19 34 32.0	C
		i	19 34 44.8	
	Ud	i	19 35 11.3	

Japan (h = 30 km).

" 16	Um	iP	23 15 15.5	
	Ud	iP	23 15 42.2	
" 17	Ud	iP	01 16 53.6	
		ipP	01 17 15.9	

Afghanistan-USSR.
h = 100 km (Ud).

" 17	Up	iPKPl	02 17 53.2	
			micr	sec
		PKPl	Z' 0.1	1.0
	Ki	iPKP	02 17 43.5	
	Um	iPKP	02 17 50.4	
	Ud	iPKPl	02 17 55.3	
	De	iPKPl	02 18 06.1	

Tonga-Kermadec Islands
(h = 540 km).

" 17	Up	eP	03 45 57	
		iPP	03 50 26.1	
		iSKS	03 57 12	

(cont.)

1975
Oct. 17 (cont.)

Up			micr	sec
	PP	Z'	0.3	1.5
	Mx	E	1.0	17
	Mx	N	1.1	20
	Mx	Z	1.8	19
Ki	iP		03 45 41.4	
	i(PP)		03 48 57.1	
	i(PP)		03 49 17.4	
	i(PP)		03 49 33.3	
	i(PP)		03 49 54.5	
	iPP		03 49 59.3	
	iPKKP		04 01 33.1	
			micr	sec
	PP	Z'	0.3	1.5
	Mx	E	1.7	16
	Mx	N	2.2	22
	Mx	Z	2.6	21
Um	iP		03 45 46.1	
	i		03 46 17.3	
	iPP		03 50 02.3	
	iSKS		03 56 58	
	i		04 01 18.6	
	iPKKP		04 01 29.4	
Ud	iP		03 46 04.3	
	i(PP)		03 49 14.8	
	i(PP)		03 49 54.6	
	i(PP)		03 50 26.8	
	iPP		03 50 39.5	
	iPKKP		04 01 18.1	
	i		04 01 31.1	
De	iP		03 46 08.6	
	i(PP)		03 50 11.9	
	i(PP)		03 50 29.7	
	iPP		03 50 43.5	
	i		04 01 28.4	

Banda Sea (h = 110 km).
m = 6.7, M = 5.7 (Up,Ki).
M uncorrected for focal depth.
The non-interpreted phases at 04 01 at Um, Ud and De are multiple PKKP phases.

" 17	Ud	iP	05 23 37.6	

Greece (h = 90 km).

" 17	Up	iPKPl	10 22 13.1	
	Ud	iPKPl	10 22 14.7	
	De	iPKPl	10 22 24.2	
" 17	Up	eP	14 16 55	
	Ki	iP	14 16 38.9	
			micr	sec
		P	Z' 0.1	0.7
	Um	iP	14 16 44.0	
		ipP	14 16 52.4	

(cont.)

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

1975
Oct. 17 (cont.)

Ud	iP		14 17 04.0
	i		14 17 07.0
	ipP		14 17 12.6

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

" 17 Up	iPKPl		15 49 42.0
Ud	iPKPl		15 49 44.4
De	iPKPl		15 49 54.6

Tonga-Kermadec Islands
(h = 510 km).

" 17 Up	ePKPl		16 31 15
Um	iPKP		16 31 16.3
Ud	iPKPl		16 31 18.2
	i		16 31 26.7
De	iPKPl		16 31 26.6

Tonga Islands (h = 270 km).

" 17 Up	iP		18 09 14.3	
	ipP		18 09 29.6	
			micr	sec
	P	Z'	0.1	0.9
	pP	Z'	0.1	1.0
Ki	iP		18 08 30.7	
			micr	sec
	P	Z'	0.1	1.2
Um	iP		18 08 50.5	
	ipP		18 09 05.3	
Ud	iP		18 09 21.0	
	ipP		18 09 36.5	
De	iP		18 09 38.5	

Japan.
h = 55 km (Up,Um,Ud).
m = 5.7 (Up,Ki).

" 17 Up	iP		19 49 34.3	
	i		19 49 38.7	
	ipP		19 49 43.8	
	iS		19 58 00	
			micr	sec
	P	Z'	0.1	1.2
	pP	Z'	0.2	1.0
	Mx	E	1.3	22
	Mx	N	2.3	25
	Mx	Z	3.7	36
Ki	iP		19 48 40.2	
	ipP		19 48 49.4	
			micr	sec
	pP	Z'	0.2	0.9
Um	iP		19 49 08.2	
	ipP		19 49 17.9	
	iS		19 57 12	

(cont.)

1975
Oct. 17 (cont.)

Ud	iP		19 49 30.7
	i		19 49 35.2
	ipP		19 49 40.1
De	iP		19 49 54.3
	i		19 49 58.2
	ipP		19 50 03.9

Gulf of Alaska.
h = 35 km (Up,Ki,Um,Ud,De).
m = 6.2 (Up,Ki).
Double P, in average 4.6 sec apart.

" 17 Ud	iP		23 04 31.2

Kamchatka (h = 70 km).

" 17 Ud	eP		23 44 48
" 18 Ud	iPKP		01 11 17.6
	i		01 11 24.8
De	iPKP		01 11 25.3
" 18 Ud	iP		04 57 21.1
" 18 Up	iP		09 04 07.3 C
			micr sec
	P	Z'	5.4 3.2
	Mx	E	12 2
	Mx	N	12 2
	Mx	Z	17 2
Ki	iP		09 02 46.2 C
			micr sec
	P	Z'	1.7 2.0
	Mx	E	32 8
	Mx	N	27 6
	Mx	Z	33 6
Um	iP		09 03 17.5 C
Ud	iP		09 04 21.0 C
De	iP		09 04 53.1 C

Novaya Zemlya.
m = 6.5 (Up,Ki).
Underground explosion.

" 18 Ud	iP		16 26 16.3
" 18 Ud	iP		19 31 32.8
" 18 Ud	iP		19 44 32.8
" 18 Ud	iP		21 04 39.1
" 18 Ud	iP		23 55 14.4
" 19 Um	iP		06 48 48.4 C

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

1975					
Oct.	19	Um	iP		12 40 23.0 C
		Ud	iP		12 40 47.9 C
		Volcano Islands (h = 110 km).			
"	19	Up	iP		14 32 26.2
		Ki	iP		14 32 25.9
		Ud	iP		14 32 34.2
		Sumatra (h = 40 km).			
"	19	Up	iPKPl		14 47 42.8
		Ud	iPKPl		14 47 44.8
		De	iPKPl		14 47 56.3
		Tonga-Kermadec Islands (h = 45 km).			
"	19	Up	iP		15 02 06.5 C
			i		15 03 34.6
			i		15 04 20.1
			iPP		15 05 37.8
					micr sec
			P	Z'	0.1 1.2
		Ki	iP		15 01 39.0 C
					micr sec
			P	Z'	0.3 1.1
		Sk	iP		15 02 04.8 C
			iPP		15 05 31.2
		Um	iP		15 01 51.1 C
			ipP		15 03 08.6
			i		15 04 11.8
		Ud	iP		15 02 14.1 C
			ipP		15 03 33.2
			iPP		15 05 47.6
		De	iP		15 02 25.5 C
		Mariana Islands.			
		h = 340 km (Um,Ud).			
		m = 5.8 (Up,Ki).			
"	19	Up	iSgl		19 13 02.9
		Ki	iSgl		19 11 00.1
		Sk	i		19 10 57.7
			iSgl		19 11 03.0
		Um	iSgl		19 11 30.2
		Ud	iSgl		19 12 48.5
		Coast of Nordland, Norway, 66.6°N, 13.5°E.			
		Origin time = 19 09 29.			
		m = 4.3, M_L = 2.7 (Up,Ki,Sk, Um,Ud).			
"	19	Up	iP		20 44 04.3
		Um	iP		20 43 43.8
		Ud	iP		20 44 11.6
			i		20 44 28.2
		Japan (h = 35 km).			

1975					
Oct.	19	Up	iPKPl		21 43 23.0
		Ud	iPKPl		21 43 24.8
"	19	Ud	eP		23 13 58
		South of Panama (h = N).			
"	20	Up	eP		01 49 02
		Ud	iP		01 49 13.0
"	20	Ud	iP		02 20 13.2
			i		02 20 25.4
"	20	Up	eP		02 59 19
		Um	iP		02 59 35.1
		Ud	iP		02 59 37.3
		Caucasus (h = N).			
"	20	Up	iP		03 25 35.2
			ipP		03 25 42.2
			i		03 25 52.5
			iPP		03 26 08.4
			iSn		03 30 28.5
					micr sec
			pP	Z'	0.1 0.8
		Ki	iP		03 26 02.5
			ipP		03 26 10.7
			i		03 26 38.1
			iPP		03 26 56.6
			i		03 32 44.1
		Sk	iP		03 26 09.0
			ipP		03 26 15.8
			i		03 26 29.8
			iPP		03 27 04.5
		Um	iP		03 25 44.2
			ipP		03 25 52.0
			i		03 26 15.7
			iSn		03 31 04.1
		Ud	iP		03 25 50.2
			ipP		03 25 57.8
			i		03 26 12.7
			iPP		03 26 35.6
			iSn		03 31 16.2
		De	ipP		03 25 44.5
			i		03 25 58.0
			i		03 26 24.4
		Caucasus (h = N).			
"	20	Um	iP		08 02 12.7
		Ud	iP		08 02 16.2
			i		08 02 25.7
		Caucasus (h = 160 km).			
"	20	Um	iP		11 40 40.1
			i		11 40 48.7

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

1975 Oct.	20	Up	iSgl		16 12 02.3	
		Ki	iPgl		16 09 25.0	
			iSgl		16 10 06.0	
		Sk	iPgl		16 09 21.0	
			iSgl		16 10 00.2	
		Um	iPgl		16 09 40.2	
			iSgl		16 10 33.1	
		Ud	i		16 11 38.3	
			iSgl		16 11 48.4	
		Coast of Nordland, Norway, 66.5°N, 13.2°E. Origin time = 16 08 29. m = 4.4, M_L = 3.1 (Ki,Sk,Um, Ud).				
"	20	Ud	iP		16 16 47.1	
"	20	Ud	eP		16 20 52	
"	20	Up			micr	sec
			Mx	E	2.7	20
			Mx	N	3.8	21
			Mx	Z	7.5	22
		Ki			micr	sec
			Mx	E	2.9	21
			Mx	N	8.6	21
			Mx	Z	12	21
		Um	iPKP		22 44 38.7	
		Fiji Islands (h = N). M = 6.3 (Up,Ki).				
"	21	Up	iP		07 21 19.5	
		Ki	iP		07 21 14.3	
		Sk	iP		07 21 35.4	
		Um	iP		07 21 12.7	
		Ud	iP		07 21 33.0	
		De	iP		07 21 33.8	
		Burma-India (h = N).				
"	21	Ud	iP		08 44 41.3	
		Japan (h = 70 km).				
"	21	Up	iPKPl		08 56 17.2	
		Ki	iSKPl		08 59 36.6	
		Sk	iPKPl		08 56 12.4	
		Um	iPKPl		08 56 07.1	
		Ud	iPKPl		08 56 20.0	
			iPKP2		08 56 29.1	
		South of Kermadec Islands (h = N).				
"	21	Up	i		09 02 23.6	
		Sk	iP		09 02 32.8	
		Ud	iP		09 02 31.4	
		Burma-China (h = N).				

1975 Oct.	21	Up	iP		12 04 25.4	C
					micr	sec
			P	Z'	1.9	0.9
			Mx	E	9.9	3
			Mx	N	6.0	2
			Mx	Z	4.0	2
		Ki	iP		12 02 55.0	C
					micr	sec
			P	Z'	4.3	0.9
			Mx	E	15	6
			Mx	N	14	7
			Mx	Z	14	5
		Sk	iP		12 04 04.4	C
		Um	iP		12 03 32.6	C
		Ud	iP		12 04 35.8	C
		De	iP		12 05 08.1	C
		Novaya Zemlya. m = 6.8 (Up,Ki). Underground explosion.				
"	21	Um	iP		12 39 12.4	
		Ud	iP		12 39 50.9	
"	21	Ud	iPKPl		12 42 42.2	
		Tonga Islands (h = 25 km).				
"	21	Up	iP		17 25 06.7	
			i		17 25 09.7	
			i		17 25 19.9	
			i		17 25 35.9	
			iPP		17 28 35.3	
			iS		17 35 43	
					micr	sec
			P	Z'	0.2	1.6
			i	Z'	0.2	1.4
			Mx	E	8.4	20
			Mx	N	16	17
			Mx	Z	18	20
		Ki	iP		17 24 48.2	
			i		17 24 55.3	
					micr	sec
			P	Z'	0.4	1.5
			Mx	E	11	14
			Mx	N	16	15
			Mx	Z	12	14
		Sk	i		17 25 19.0	
		Um	iP		17 24 54.4	
			iS		17 35 17	
		Ud	iP		17 25 13.9	
			iPP		17 28 48.6	
		Panay (h = N). m = 6.2, M = 6.6 (Up,Ki).				
"	21	Up	iPKPl		20 38 03.5	
		Ud	iPKPl		20 38 04.9	

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

1975 Oct.	21	Up	iPKP		20 48 13.8	C
			ipPKP		20 48 31.9	
					micr sec	
			PKP	Z'	0.1 1.0	
		Ki	iPKP		20 48 00.5	C
			ipPKP		20 48 18.9	
		Sk	iPKP		20 48 11.5	C
			ipPKP		20 48 28.7	
		Um	iPKP		20 48 06.2	
			i		20 48 17.5	
			i		20 48 20.7	
		Ud	iPKP		20 48 16.7	
			i		20 48 31.5	
		De	iPKP		20 48 22.9	
			ipPKP		20 48 40.8	

Santa Cruz Islands.
h = 60 km (Up,Ki,Sk,De).

"	21	Up	iP		22 35 51.9	
			i		22 36 13.1	
					micr sec	
			Mx	E	0.8 14	
			Mx	N	2.6 18	
		Ki	iP		22 35 35.8	
			ipP		22 35 46.4	
					micr sec	
			Mx	N	2.6 16	
		Sk	i		22 36 20.3	
		Um	iP		22 35 41.5	
			ipP		22 35 51.9	
		Ud	iP		22 36 01.1	

Panay.
h = 35 km (Ki,Um).
The P-onsets are about 4 sec late when compared with the USNOS source parameters.

"	21	Up	i		23 05 19.5	
		Ki	iP		23 06 43.6	
			i		23 06 48.3	
		Sk	iP		23 06 01.3	
			i		23 06 05.4	
		Um	iP		23 06 02.6	
			i		23 06 07.0	
		Ud	i		23 05 22.9	

Yugoslavia (h = N).

"	21	Up	iP		23 19 05.1	
			i		23 19 10.0	
			i		23 19 37.9	
			iPP		23 22 44.6	
			iS		23 29 40	
					micr sec	
			P	Z'	0.1 1.5	
			i	Z'	0.6 2.1	
			i	Z'	0.4 1.8	

(cont.)

1975 Oct.	21	(cont.)				
		Up			micr sec	
			Mx	E	9.6 20	
			Mx	N	19 19	
			Mx	Z	18 18	
		Ki	iP		23 18 48.2	
			i		23 18 52.3	
			iS		23 29 10	
					micr sec	
			P	Z'	0.3 1.5	
			i	Z'	0.4 1.5	
			Mx	E	14 14	
			Mx	N	20 16	
			Mx	Z	15 14	
		Sk	i		23 19 17.3	
			i		23 19 33.9	
		Um	iP		23 18 53.0	
			iS		23 29 18	
		Ud	iP		23 19 13.0	
			i		23 19 19.0	
		De	iP		23 19 18.9	
			i		23 19 47.1	

Panay (h = N).
m = 6.4, M = 6.6 (Up,Ki).

"	22	Up	iP		04 31 24.6	
"	22	Ud	iP		04 48 48.2	
			i		04 48 52.3	

Iran (h = 100 km).

"	22	Up	iP		05 20 34.6	C
		Ki	iP		05 19 46.7	C
					micr sec	
			P	Z'	0.1 0.9	
		Sk	iP		05 20 22.8	
		Um	iP		05 20 08.6	C
		Ud	iP		05 20 40.2	C
			iPcP		05 21 06.0	
		De	iP		05 20 58.8	

Kurile Islands (h = 430 km).

"	22	Ki	iP		09 57 24.5	
		Sk	iP		09 57 10.0	
			i		09 57 42.4	
		Um	iP		09 56 26.6	
			i		09 58 01.4	
		Ud	iP		09 57 13.7	
		De	eP		09 57 19	

Colombia (h = 25 km).

"	22	Up	iPKP		11 57 31.6	
			iPKKP		12 07 33.9	
		Ki	iPKP		11 57 47.4	
		Um	iPKP		11 57 40.2	
		Ud	iPKP		11 57 30.8	

(cont.)

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

1975
Oct. 22 (cont.)
Ud iPKKP 12 07 37.7
South Sandwich Islands
(h = 100 km).

" 22 Ki iP 12 44 01.0

" 22 Up iP 12 53 04.2
Ud iP 12 53 28.1

" 22 Ud eP 14 41 22
Japan (h = 290 km).

" 22 Ud iP 14 50 37.4

" 22 Ud iP 15 02 28.1
Hindu Kush (h = 45 km).

" 22 Up iP 15 36 49.0
Ud iP 15 36 58.3

" 22 Up iP 16 12 29.7
iS 16 23 06

		micr	sec
P	Z'	0.1	1.4
Mx	E	5.4	20
Mx	N	8.2	16
Mx	Z	6.8	17

Ki iP 16 12 13.3

		micr	sec
P	Z'	0.2	1.4
Mx	E	5.8	15
Mx	N	11	17
Mx	Z	8.9	16

Sk eP 16 12 37
i 16 13 03.4
Um iP 16 12 19.4
Ud iP 16 12 38.7
Panay (h = N).
m = 6.0, M = 6.3 (Up,Ki).

" 22 Ud iP 17 53 59.4
Ionian Sea (h = N).

" 22 Um i(P) 18 33 01.6

" 22 Up iP 19 33 14.3
Ud iP 19 33 14.8
Aleutian Islands (h = N).

" 22 Up iPKP1 20 02 13.4
Sk iPKP1 20 02 05.8
Ud iPKP1 20 02 15.0

1975
Oct. 22 Up iP 21 14 43.2
i 21 14 47.0
Ki iP 21 14 16.4
i 21 14 20.5
Sk eP 21 14 52
Um iP 21 14 24.1
i 21 14 28.3
Ud iP 21 14 57.5
i 21 15 00.8
De iP 21 15 06.8
i 21 15 10.2
Mongolia (h = N).
Double P, in average 3.8 sec apart.

" 22 De iPKP1 23 26 23.8
Fiji Islands (h = 490 km).

" 23 Up iP 01 32 38.8
Sk iP 01 32 19.7
Um iP 01 32 35.6
Ud iP 01 32 29.6
De iP 01 32 37.5
Mexico (h = N).

" 23 Ud iPKP 05 09 57.1
Samoa Islands (h = 40 km).

" 23 Up iP 09 01 34.0
Um iP 09 01 26.7
Ud iP 09 01 47.2

" 23 Up iP 12 58 55.9
Ki iP 12 58 02.5

" 23 Sk iPgl 13 27 37.8
iSgl 13 27 44.1

" 23 Up iSgl 14 54 18.0
i 14 54 26.2
Ud iPgl 14 53 17.3
iSgl 14 53 34.0
iSn 14 53 37.6
iRg 14 53 45.2
De iSgl 14 54 08.5
Lake Vener, Sweden,
58.8°N, 12.6°E.
Origin time = 14 52 55.
m = 4.0, M_L = 2.1 (Up,Ud,De).
Near-surface event.

" 23 Up iP 15 22 01.0
Sk iP 15 21 43.2
Ud iP 15 21 52.6
De iP 15 21 59.4
Mexico (h = N).

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

1975 Oct.	23	Ud	iP	16 15 30.1
"	23	Up	iP	16 48 21.0
			i	16 48 44.5
		Ki	iP	16 48 29.1
		Um	iP	16 48 19.5
		Ud	iP	16 48 37.7
		De	iP	16 48 35.0
		Afghanistan-USSR (h = 230 km).		
"	23	Up	ipP	20 25 51.2
		Ki	iP	20 25 43.9
			ipP	20 25 52.5
				micr sec
			P Z'	0.1 1.0
		Sk	eP	20 25 57
			i	20 26 14.0
		Um	iP	20 25 41.1
		Ud	iP	20 25 53.0
			ipP	20 26 02.1
		De	ipP	20 25 59.4
		Sumatra.		
		h = 30 km (Ki,Ud).		
"	23	Um	iPKP	23 36 42.1
		Ud	iPKP	23 36 51.1
		De	iPKP	23 36 56.3
		Solomon Islands (h = 50 km).		
"	24	Up	iP	07 07 03.0
		Ud	iP	07 07 20.3
			i	07 07 26.5
		De	iP	07 07 26.1
		Sinkiang, China (h = N).		
"	24	Ud	eP	11 20 34
		Tadzhik SSR (h = N).		
"	24	Up	iP	13 42 58.8
			ipP	13 43 24.6
		Ki	ipP	13 43 32.9
		Ud	iP	13 43 15.6
			i	13 43 32.3
			ipP	13 43 42.1
		De	iP	13 43 11.5
			i	13 43 18.4
			ipP	13 43 38.2
		Afghanistan-USSR.		
		h = 120 km (Up,Ud,De).		
"	24	Up	iP	17 23 14.8
		Sk	iP	17 22 48.0
		Um	iP	17 22 59.8
		Ud	iP	17 23 06.5
		De	iP	17 23 24.4
		Nevada.		
		Underground explosion.		
1975 Oct.	24	Up	iP	17 53 56.0
		Ud	iP	17 54 10.6
		De	iP	17 54 09.3
		Nepal-India (h = N).		
"	24	Up	iPKP	20 25 22.5
		Ud	i(PKP)	20 25 18.3
			i	20 25 27.5
		De	ePKP	20 25 30
			i	20 25 35.0
		Fiji Islands (h = N).		
"	24	Um	iP	22 10 09.4
"	24	Um	iP	23 18 15.2 C
			iPcP	23 18 31.2
		Ud	iP	23 18 43.1
		Japan (h = N).		
"	25	Up	iP	00 39 20.8 C
		Ki	iP	00 39 30.1
		Sk	iP	00 39 46.5
		Um	iP	00 39 19.3 C
		Ud	iP	00 39 37.5 C
		De	iP	00 39 34.1
		Afghanistan-USSR (h = 80 km).		
"	25	Ud	iP	05 44 35.9
		Dodecanese Islands (h = N).		
"	25	Up	iP	07 30 17.7
		Sk	iP	07 30 56.8
		Um	i	07 31 02.2
		Ud	iP	07 30 23.4
		De	iP	07 29 47.9
		Greece (h = 100 km).		
"	25	Up	iP	11 06 49.7
		Um	iP	11 06 26.1
			ipP	11 06 43.2
		Ud	iP	11 06 57.1
			ipP	11 07 13.7
		De	iP	11 07 12.7
		Japan.		
		h = 60 km (Um,Ud).		
"	25	Ki	iP	11 18 46.8
		Ud	eP	11 18 58
		Tadzhik SSR (h = 5 km).		
"	25	Ud	iPKP1	13 31 17.5
		De	iPKP1	13 31 28.1
"	25	Up	iP	14 31 59.1
			iPcP	14 32 14.8
		Ki	iP	14 31 24.8

(cont.)

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

1975
Oct. 25 (cont.)

Ki	ipP		14 32 42.7		
			micr	sec	
	pP	Z'	0.1	1.1	
Sk	iP		14 31 55.6		
	ipP		14 33 15.2		
Um	iP		14 31 39.4		
	i		14 31 44.9		
	iPcP		14 31 58.3		
	ipP		14 32 57.2		
Ud	iP		14 32 07.1		
	ipP		14 32 26.4		
De	iP		14 32 20.0		

Japan.
h = 350 km (Ki,Sk,Um,Ud).

" 25	Ki	iP		15 35 49.7	
	Ud	iP		15 35 36.2	

" 25	Ud	iP		20 11 38.0	

Afghanistan-USSR (h = N).

" 25	Ud	iP		22 35 28.1	

" 26	Up	iP		07 10 04.4	
				micr	sec
		P	Z'	0.6	1.9
	Ki	iP		07 11 03.7	
	Um	iP		07 10 28.9	
	Ud	iP		07 10 17.8	
		i		07 10 20.6	
	De	eP		07 09 54	

Turkey (h = N).

" 26	Up	iP1		10 54 43.6	
		iP2		10 54 45.1	
		iP3		10 54 47.8	
		ipP		10 54 58.4	
		iS		11 05 41	
				micr	sec
		P1	Z'	0.1	0.8
		P3	Z'	0.2	0.9
		Mx	E	6.7	23
		Mx	N	4.0	22
		Mx	Z	9.5	28
	Ki	iP1		10 54 26.7	
		iP2		10 54 28.5	
		iP3		10 54 31.3	
				micr	sec
		P1	Z'	0.3	1.1
		P3	Z'	0.4	0.8
		Mx	E	9.2	20
		Mx	N	7.1	20
	Sk	iP1		10 54 47.5	
	Um	iP2		10 54 33.6	
		iP3		10 54 36.6	

(cont.)

1975
Oct. 26 (cont.)

	Um	iS		11 05 24	
	Ud	iP1		10 54 51.2	
		iP2		10 54 53.2	
		iP3		10 54 56.4	
	De	iP2		10 54 00.1	
		ipP		10 54 12.7	

Mindanao (h = 50 km).
m = 6.4, M = 6.2 (Up,Ki).
Multiple P-phases.
In average P2 - P1 = 2 sec, P3 - P1 = 5 sec.

" 26	Up	iP		14 34 07.1	
	Ki	eP		14 33 20	
	Um	iP		14 33 41.6	D
	Ud	iP		14 34 12.8	D

Kurile Islands (h = N).

" 26	Up	i		18 05 52.1	
		iRg		18 05 55.9	
	Ud	iSgl		18 05 26.6	
		iRg		18 05 30.4	

Central Sweden.
Near-surface event.

" 26	Up	iP		23 03 02.9	

" 27	Up	iP		01 08 25.1	
	Sk	iP		01 08 38.5	
	Um	i		01 08 33.1	
	Ud	iP		01 08 39.6	
	De	iP		01 08 45.2	

Sinkiang, China (h = N).

" 27	Ud	iP		02 27 56.5	

Greece (h = 70 km).

" 27	Up	iP		14 35 19.2	
				micr	sec
		P	Z'	0.2	1.5
	Ki	i		14 35 22.4	
	Sk	i		14 35 49.6	
	Ud	iP		14 35 36.0	
		i		14 35 40.1	
	De	iP		14 35 35.5	

Sinkiang, China (h = N).

" 27	Up	iP1		18 39 51.3	
		iP2		18 39 56.5	
		i		18 40 06.3	
		iS		18 51 00	
				micr	sec
		P2	Z'	0.1	1.0
		i	Z'	0.1	1.0

(cont.)

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

1975
Oct. 27 (cont.)

Up			micr	sec
	Mx	E	4.2	20
	Mx	N	4.1	19
	Mx	Z	5.4	20
Ki	iP1		18 39	34.1
	iP2		18 39	40.1
			micr	sec
	P1	Z'	0.2	1.5
	P2	Z'	0.2	1.0
	Mx	N	7.4	17
Sk	iP2		18 40	01.2
Um	iP1		18 39	40.0
	iP2		18 39	46.1
	iS		18 50	33
Ud	iP1		18 40	00.0
	iP2		18 40	06.4
De	iP1		18 40	06.5

Mindanao (h = N).
m = 6.3, M = 6.1 (Up,Ki).
Double P-phases, in average 6 sec apart.

" 27 Up iP 23 29 56.5

			micr	sec
	P	Z'	0.1	1.0
Ki	iP		23 29	43.8
Sk	iP		23 30	08.4
Ud	iP		23 30	08.3

Burma-China (h = N).

" 28 Ud iP 02 40 43.4
Crete (h = 60 km).

" 28 Ud iP 02 48 47.5
ipP 02 49 02.9
De iP 02 48 14.8
Crete.
h = 70 km (Ud).

" 28 Ki i 03 00 40.2
Ud iP 03 01 00.9
Mindanao (h = N).

" 28 Up iP2 05 52 32.7
Ki iP1 05 52 28.6
Um iP2 05 52 26.7
Ud iP1 05 52 40.1
iP2 05 52 44.4
De iP2 05 52 42.2
Nicobar Islands (h = N).

" 28 Up iSKS 07 19 16
(cont.)

1975
Oct. 28 (cont.)

Up			micr	sec
	Mx	E	5.8	19
	Mx	Z	35	23
Ki			micr	sec
	Mx	E	9.4	23
	Mx	N	6.7	20
	Mx	Z	24	22
Ud	iPP		07 13	06.7

Chile (h = 40 km).
M = 6.3 (Up,Ki).

" 28 Ud iP 10 25 59.0
Oregon (h = N).

" 28 Um i(P) 11 10 46.9

" 28 Up iP 14 41 47.9 C
i 14 42 12.5
iPP 14 44 30.2

			micr	sec
	P	Z'	0.4	1.0
Ki	iP		14 41	13.6 C
	iPP		14 44	41.5
			micr	sec
	P	Z'	0.4	1.0
Sk	iP		14 41	21.7 C
	iPP		14 41	41.0
Um	iP		14 41	33.3 C
	i		14 41	52.9
	iPP		14 44	12.0
Ud	iP		14 41	40.2 C
	iPP		14 44	16.2
De	iP		14 41	56.8 C

Nevada.
m = 6.5 (Up,Ki).
Underground explosion.
PP-phases arrive 10-15 sec early when compared with Jeffreys-Bullen tables.

" 28 Up iPKP1 17 17 40.5
Ud iPKP1 17 17 42.4

" 28 Um iP 20 16 27.9
Japan (h = 25 km).

" 29 Up iP 04 53 55.2 C
iPP 04 55 13.5

			micr	sec
	P	Z'	0.9	0.9
Ki	iP		04 53	38.6 C

(cont.)

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

1975
Oct. 29 (cont.)

Ki			micr	sec
	P	Z'	0.8	0.9
Sk	iP		04 54 10.3 C	
	iPP		04 55 33.2	
Um	iP		04 53 40.1 C	
Ud	iP		04 54 11.8 C	
De	iP		04 54 18.7 C	
	iPP		04 55 44.3	

Kazakh SSR.
m = 6.7 (Up,Ki).
Underground explosion.

" 29 Ki i 05 06 49.4
Sk i 05 06 45.9
Mexico (h = 35 km).

" 29 Ud iPKP1 06 10 32.4
Tonga Islands (h = 50 km).

" 29 Ki iSgl 07 47 30.3
Um iSgl 07 46 11.3
Västerbotten, Sweden,
64.6°N, 20.9°E.
Origin time = 07 45 46.
m = 4.0, M_L = 2.1 (Um).
By combination with Finnish station readings.

" 29 Ud iP 13 37 27.7

" 29 Ud iP 22 49 27.0

" 30 Up iP 01 52 30.0 C
i 01 52 32.0
ipP 01 52 44.3
iS 02 01 29

			micr	sec
	P	Z'	0.3	1.1
	i	Z'	0.6	1.0
	Mx	E	6.2	26
	Mx	N	9.6	23
	Mx	Z	14	25
Ki	iP		01 51 47.0 C	
	i		01 51 48.8	
	ipP		01 52 02.9	

			micr	sec
	P	Z'	0.4	1.0
	Mx	E	8.8	18
	Mx	N	10	23
	Mx	Z	11	18
Sk	iP		01 52 22.2 C	
	ipP		01 52 37.6	
Um	iP		01 52 06.5 C	
	i		01 52 08.2	

(cont.)

1975
Oct. 30 (cont.)

Um	ipP	01 52 20.3
	iS	02 00 45
Ud	iP	01 52 37.3 C
	i	01 52 39.2
	ipP	01 52 52.6
De	iP	01 52 53.8 C
	i	01 52 55.6
	i	01 53 00.3
	ipP	01 53 09.4

Japan.
h = 55 km (Up,Ki,Sk,Um,Ud, De).
m = 6.5, M = 6.1 (Up,Ki).
Double P, in average 1.8 sec apart. The resp. later onsets show larger amplitudes. pP onsets are related to first P onsets for the focal depth calculation.

" 30 Ki i 03 36 02.3
Ud iP 03 36 18.1
i 03 36 28.8
Mindanao (h = 140 km).

" 30 Ud iP 08 26 07.5

" 30 De ePKP1 10 24 15
Loyalty Islands (h = 20 km).

" 30 Up iP 12 26 44.2 C
iS 12 37 27

			micr	sec
	P	Z'	0.1	1.1
	Mx	E	1.4	19
	Mx	N	2.5	16
	Mx	Z	1.8	22
Ki	iP		12 26 25.3 C	
	i		12 26 43.2	

			micr	sec
	P	Z'	0.2	1.0
	Mx	E	1.6	15
	Mx	N	3.5	18
Sk	iP		12 26 47.7 C	
Um	iP		12 26 32.4 C	
	iS		12 37 03	
Ud	iP		12 26 52.6 C	
	i		12 26 57.9	
	i		12 27 06.7	
De	iP		12 27 00.1	

Philippine Islands
(h = 55 km).
m = 6.0, M = 5.8 (Up,Ki).

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

1975
Oct. 30 Up iP 12 42 41.7
micr sec
P Z' 0.1 0.8
Ud iP 12 42 41.8
Aleutian Islands (h = 50 km).

" 30 Up iP 12 47 08.4
micr sec
P Z' 0.1 0.8
Ki iP 12 46 13.7
Sk eP 12 46 49
Um iP 12 46 42.8
Ud iP 12 47 08.7
De iP 12 47 30.9
Aleutian Islands (h = 50 km).

" 30 Ki iP 14 29 19.4
Kashmir-India (h = 110 km).

" 30 Ki iP 14 45 12.6
Ud iP 14 45 22.7
Kashmir-India (h = N).

" 30 Ud iP 14 54 39.8
Greece-Albania (h = N).

" 30 Ud i(P) 19 24 37.1

" 30 Up iP 22 48 07.3
Ki iP 22 47 14.7
Um iP 22 47 39.7
Ud iP 22 48 10.8
Kamchatka (h = 45 km).

" 31 Ud i 02 53 15.0
Philippine Islands
(h = 60 km).

" 31 Up iP 03 05 01.7 C
micr sec
P Z' 0.1 0.9
Ki iP 03 04 40.1
Um iP 03 04 47.5 C
i 03 04 50.8
Ud iP 03 05 10.8 C
De iP 03 05 20.2
Philippine Islands
(h = 10 km).

" 31 Ud i 05 39 04.8
Afghanistan-USSR (h = 25 km).

" 31 Up iPKPl 07 20 00.1
Ud iPKPl 07 20 02.4
(cont.)

1975
Oct. 31 (cont.)
De iPKPl 07 20 12.1
Tonga-Kermadec Islands
(h = 600 km).
Onsets are about 8 sec late compared to the Jeffreys-Bullen tables.

" 31 Up iP 08 40 48.8
i 08 40 54.0
iPP 08 44 25.1
iS 08 51 35.3
micr sec
P Z' 0.3 1.0
i Z' 5.8 1.6
Mx E 197 17
Mx N 268 16
Mx Z 240 16
Ki iP 08 40 29.6
i 08 40 35.3
iPKKP 08 58 43.8
micr sec
P Z' 1.1 1.6
i Z' 4.6 1.3
Mx E 205 18
Mx N 312 17
Mx Z 294 17
Sk iP 08 40 52.4
i 08 40 57.3
iPKKP 08 58 32.2
Um iP 08 40 36.2
i 08 40 42.1
iS 08 51 15
Ud iP 08 40 55.6
i 08 41 02.4
iPKKP 08 58 28.3
De iP 08 41 03.9
i 08 41 09.2
iPKKP 08 58 28.3
Philippine Islands
(h = 50 km).
m = 7.4, M = 7.8 (Up,Ki).

" 31 Up iP 09 09 22.2
Ki iP 09 09 01.4
micr sec
P Z' 0.1 1.0
Ud iP 09 09 27.6

" 31 Ki iP 09 51 29.6
Philippine Islands
(h = N).

" 31 Ud iP 10 23 12.9
Philippine Islands
(h = 80 km).

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

1975
Oct. 31 Up iP 10 38 16.1
Ki iP 10 37 55.4
micr sec
P Z' 0.2 1.5
Ud iP 10 38 23.6
Philippine Islands
(h = 5 km).

" 31 Ki iP 10 46 47.2
Philippine Islands
(h = N).

" 31 Up iP 11 23 05.8
ipP 11 23 23.2
Ki iP 11 22 46.4
ipP 11 23 03.8
Ud iP 11 23 14.0
ipP 11 23 31.3
Philippine Islands.
h = 60 km (Up,Ki,Ud).

" 31 Ud iP 11 39 03.7

" 31 Up iP 11 40 42.0
Ki iP 11 40 21.4
Ud iP 11 40 49.5
Philippine Islands
(h = 25 km).

" 31 Up iP 12 56 30.9
i 12 56 48.3
Ki iP 12 57 00.2
Sk iP 12 57 05.1
Um iP 12 56 34.8
Ud iP 12 56 53.0
De iP 12 56 47.4

" 31 Up i(P) 13 29 50.5
Ud i(P) 13 29 39.4
i 13 30 06.0

" 31 Ki eP 14 29 41
Ud iP 14 30 08.4
Philippine Islands
(h = N).

" 31 Ki iP 14 35 35.9
Ud iP 14 36 03.9
i 14 36 16.2
Philippine Islands
(h = 80 km).

" 31 Up iP 14 49 47.5
micr sec
P Z' 0.1 1.2

1975
Oct. 31 Up iPKPl 16 21 17.2
Ki iSKPl 16 23 46.1
Um iSKPl 16 23 57.2
Ud iPKPl 16 21 18.9
iSKPl 16 24 10.0
De iPKPl 16 21 29.7
Tonga-Kermadec Islands
(h = 520 km).

" 31 Up iP 16 53 38.2
Ki iP 16 53 18.6
Ud iP 16 53 46.3
Samar (h = 110 km).

" 31 Ki iP 18 07 36.5
Philippine Islands
(h = N).

" 31 Ki iP 18 54 46.6
Philippine Islands
(h = N).

" 31 Up i(P) 19 37 10.2

" 31 Up iP 20 23 58.6
micr sec
P Z' 0.1 1.0
Ki iP 20 23 40.2
Ud iP 20 24 04.9
Samar (h = 40 km).

" 31 Ki iP 22 21 16.8
Philippine Islands
(h = 140 km).

" 31 Up iP 23 33 09.0
ipP 23 33 17.5
micr sec
pP Z' 0.1 1.1
Ki iP 23 32 50.5
ipP 23 32 59.8
micr sec
pP Z' 0.1 1.0
Ud iP 23 33 17.1
ipP 23 33 25.6
Samar.
h = 30 km (Up,Ki,Ud).
m = 5.9 (Up,Ki).

" 31 Ki iP 23 35 58.3
Ud eP 23 36 24

" 31 Ki i(pP) 23 46 50.8
Ud i(pP) 23 47 18.9
Samar (h = N).

June 7, 1977 Ota Kulhánek, Klaus Meyer, Rutger Wahlström

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SWEDEN

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

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

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

N O V E M B E R 1 - 30, 1975

1975 Nov.	1	Ki	iP		00 10 12.1	
		Ud	iP		00 11 04.1	
"	1	Up	iP		00 56 22.7	
		Ki	iP		00 56 03.6	
		Ud	iP		00 56 30.7	
		Philippine Islands (h = N).				
"	1	Up	iP		00 59 13.2	C
			i		00 59 26.2	
					micr	sec
			P	Z'	0.5	1.2
			i	Z'	0.5	1.4
"	1	Ki	iP		00 58 19.3	C
			i		00 58 20.9	
			i		00 58 25.7	
					micr	sec
			P	Z'	0.3	1.1
			i	Z'	0.4	1.4
		Sk	iP		00 58 49.4	C
			i		00 59 00.5	
		Um	iP		00 58 46.6	
			i		00 58 47.7	
			ipP		00 58 54.6	
		Ud	iP		00 59 12.0	C
			i		00 59 13.5	
			ipP		00 59 19.4	
		De	iP		00 59 34.9	
			ipP		00 59 42.8	
		Unimak Island.				
		h = 25 km (Um,Ud,De).				
		m = 6.4 (Up,Ki).				
"	1	Up	iP		01 30 44.8	
			i		01 30 50.9	
			i		01 31 16.6	
			i(PP)		01 33 55.0	
		(cont.)				

1975 Nov.	1	(cont.)				
		Up	iSKS		01 41 06.8	
					micr	sec
			P	Z'	0.6	2.0
			(PP)	Z'	0.8	2.0
		Ki	iP		01 30 17.4	
			ipP		01 30 44.8	
			iSKS		01 40 34.7	
					micr	sec
			P	Z'	0.6	2.0
		Sk	iP		01 30 44.5	
			i		01 30 47.5	
			ipP		01 31 11.1	
			iPP		01 34 31.5	
			iSKS		01 41 06.1	
		Um	iP		01 30 30.2	
			ipP		01 30 57.5	
			iSKS		01 40 47.2	
		Ud	iP		01 30 51.3	
			i		01 30 53.3	
			ipP		01 31 19.0	
			i(PP)		01 34 03.8	
			iSKS		01 41 13.3	
		De	iP		01 31 04.5	
			i		01 31 07.0	
			ipP		01 31 31.3	
			i		01 34 56.2	
			i		01 35 28.8	
			iSKS		01 41 24.7	
		Mariana Islands.				
		h = 110 km (Ki,Sk,Um,Ud,De).				
		m = 6.6 (Up,Ki).				
"	1	Up	il		01 53 10.1	
		Ki	iP		01 52 39.7	
			il		01 52 50.5	
		Ud	iP		01 53 09.2	
		Samar (h = 15 km).				

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

1975 Nov.	1	Ki	iP		02 37 25.5
		Sk	iP		02 37 48.9
		Ud	iP		02 38 18.0
"	1	Ki	iP		05 29 09.6
		Ud	iP		05 29 36.2
		Samar (h = N).			
"	1	Up	ipP		06 08 35.7
		Ki	iP		06 08 03.7
		Ud	iP		06 08 32.2
			ipP		06 08 43.5
		Samar.			
		h = 40 km (Ud).			
"	1	Up	iP		06 18 51.5
		Ki	iP		06 18 32.4
			i		06 18 34.6
			i		06 18 43.6
					micr sec
			P	Z'	0.2 1.5
		Ud	iP		06 18 58.4
			i		06 19 00.3
			i		06 19 07.0
		Samar (h = 40 km).			
"	1	Up	i(PKP)		06 33 19.1
			iPKP		06 33 30.8
			i		06 35 23.8
			i(SKP)		06 36 14.5
			iSKP1		06 36 24.1
			i		06 36 33.0
			iSKKP		06 45 24.2
			i		06 45 39.3
					micr sec
			(PKP)	Z'	0.1 0.8
			i	Z'	0.1 1.1
			(SKP)	Z'	0.3 1.7
			SKP1	Z'	0.2 1.1
			i	Z'	2.8 2.2
			SKKP	Z'	0.9 1.3
			i	Z'	1.1 1.3
		Ki	i(PKP)		06 33 00.6
			iPKP		06 33 14.5
			iSKP1		06 35 58.4
			i		06 36 17.4
			iSKKP		06 46 01.1
			i		06 46 15.1
					micr sec
			PKP	Z'	0.1 0.6
			SKP1	Z'	6.5 2.5
			i	Z'	0.4 2.0
			SKKP	Z'	0.8 2.0
			i	Z'	1.1 1.9
		Sk	i(PKP)		06 33 13.8
		(cont.)			

1975 Nov.	1	(cont.)			
		Sk	iPKP		06 33 26.0
			i(SKP)		06 36 04.3
			iSKP1		06 36 16.5
			iSKKP		06 45 43.4
		Um	i(PKP)		06 33 10.9
			i		06 33 18.9
			iPKP		06 33 23.1
			iSKP1		06 36 10.3
			iSKKP		06 45 45.6
		Ud	i(PKP)		06 33 18.6
			iPKP1		06 33 22.0
			iPKP		06 33 31.5
			iSKP1		06 36 25.2
			i		06 36 34.1
		De	i(PKP)		06 33 30.2
			iPKP1		06 33 32.5
			iSKP1		06 36 34.8
		Fiji Islands (h = 420 km).			
		Double SKKP, 15 sec apart,			
		at Up and Ki.			
"	1	Ki	eP		09 46 10
		Sk	iP		09 45 43.5
		Ud	iP		09 45 16.8
		Turkey (h = 70 km).			
"	1	Ki	iP		11 29 02.0
		Ud	iP		11 29 31.3
		Philippine Islands (h = N).			
"	1	Up	iP		14 10 41.4
		Ki	iP		14 10 21.6
					micr sec
			P	Z'	0.1 1.0
		Um	iP		14 10 28.7
		Ud	iP		14 10 49.3
		De	iP		14 10 56.7
		Samar (h = 50 km).			
"	1	Ud	iP		14 47 36.9
"	1	Up	iP		15 06 38.4
		Ki	iP		15 06 18.2
			ipP		15 06 30.0
		Ud	iP		15 06 44.8
		Samar.			
		h = 40 km (Ki).			
"	1	Ud	iP		16 26 17.7
		Samar (h = N).			
"	1	Ud	i(P)		16 35 01.6
"	1	Up	iP		18 09 42.5
		(cont.)			

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

1975
Nov. 1 (cont.)

Ki	iP		18 10 16.3
Ud	iP		18 09 58.4

Iran (h = N).

" 1

Up	iPKPl		18 59 37.7	
			micr	sec
	PKPl	Z'	0.1	1.3
Ki	iPKP		18 59 34.7	
Sk	iPKP		18 59 44.8	
Um	iPKP		18 59 43.3	
Ud	iPKPl		18 59 39.8	
De	iPKPl		18 59 49.9	

Tonga Islands (h = N).

" 1 Ud iP 20 38 36.7

" 1

Ki	iP	22 48 47.2
Ud	iP	22 49 16.5

Philippine Islands (h = N).

" 1 Ud iP 23 27 28.7

" 2

Up	iP	00 13 11.4
Um	iP	00 12 51.7
Ud	iP	00 13 18.4

" 2

Um	iP	01 15 56.0
Ud	iP	01 16 15.0

Afghanistan-USSR (h = 20 km).

" 2

Up	iP		02 52 31.8	
	i		02 52 42.7	
Ki	iP		02 52 12.6	
			micr	sec
	P	Z'	0.1	1.0
Sk	iP		02 52 35.7	
Um	iP		02 52 18.3	
Ud	iP		02 52 40.2	

Philippine Islands
(h = 50 km).

" 2 De iP 06 40 28.0

" 2

Up	iPKPl	06 52 23.3
Ud	iPKPl	06 52 25.5
De	iPKPl	06 52 35.2

Fiji Islands (h = 600 km).

" 2 Ki iP 09 49 38.8

" 2

Ki	iP		10 40 50.3	
			micr	sec
	P	Z'	0.1	1.4
Ud	iP		10 41 08.2	

Iceland (h = N).

1975
Nov. 2

Ki	iP		10 47 52.3	
			micr	sec
	P	Z'	0.1	1.3
	Mx	E	0.7	15
	Mx	N	0.7	15
	Mx	Z	0.8	15
Um	iP		10 48 10.6	
Ud	iP		10 48 10.7	

Iceland (h = N).

" 2

Up	iP	11 33 34.5
Ki	iP	11 33 13.9
Ud	iP	11 33 41.8
De	eP	11 33 48

Philippine Islands (h = N).

" 2 Ud iP 11 52 13.0

" 2

Up	iPgl	13 24 29.0
	i	13 24 50.8
Ud	iPgl	13 24 16.5
	iRg	13 24 28.8

Ställberg, Sweden,
60.0°N, 14.9°E.
Origin time = 13 24 06.
Rockburst.

" 2

Up	iPgl	13 24 35.3
	iSgl	13 24 52.7
	iX	13 24 56.1
	iRg	13 25 00.1
Sk	iSgl	13 26 10.4
	i	13 26 22.3
Um	iSgl	13 26 30.6
Ud	iPgl	13 24 23.0
	iSgl	13 24 31.5
	iRg	13 24 35.1
De	iSgl	13 26 04.2

Ställberg, Sweden.
Origin time = 13 24 13.
m = 3.9, M_L = 2.0 (Up,Um,Ud).
Rockburst.
Felt.

" 2

Up	iPgl	13 24 38.4
	i	13 24 59.7
Ud	iPgl	13 24 25.8

Ställberg, Sweden.
Origin time = 13 24 15.
Rockburst.

" 2

Ud	i(pP)	14 42 41.0
De	iP	14 42 43.8

Alaska (h = 110 km).

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

1975 Nov.	2	Up	iP	14 53 19.0	
		Ki	iP	14 52 32.6	
		Um	iP	14 53 00.5	
		Ud	iP	14 53 20.9	
			i	14 53 25.6	
		De	iP	14 53 48.7	
"	2	Up	iP	16 20 25.3	
		Um	iP	16 20 09.5	
		Ud	iP	16 20 39.1	
"	2	Ud	iP	18 05 16.4	
"	2	Up	iP	22 42 02.5	
		Ud	iP	22 42 16.5	
"	2	Ud	iP	23 00 39.5	
"	3	Ki	iP	10 48 43.9	
		Ud	iP	10 49 11.4	
			i	10 49 14.5	
		Philippine Islands (h = N).			
"	3	Ud	iP	12 59 38.8	
"	4	De	iPn	08 31 52.0	
		Germany (h = 25 km).			
"	4	Up	iP	09 53 24.0	
		Ki	iP	09 52 37.4	
		Sk	iP	09 53 13.4	
		Ud	iP	09 53 29.6	
"	4	Up	iP	12 16 26.7	C
				micr sec	
			P Z'	0.3 1.2	
		Ki	iP	12 15 32.6	C
				micr sec	
			P Z'	0.3 1.0	
		Sk	iP	12 16 08.2	
		Um	iP	12 15 58.4	
		Ud	iP	12 16 29.3	C
			ipP	12 16 38.0	
			i	12 17 00.9	
		De	iP	12 16 51.5	C
			i	12 17 11.8	
		Komandorsky Islands.			
		h = 30 km (Ud).			
		m = 6.3 (Up,Ki).			
"	4	Up	eP	17 00 46	
		Ki	eP	17 00 26	
		Philippine Islands (h = 40 km).			
1975 Nov.	4	Up	iP	19 38 18.1	
		Um	iP	19 38 10.5	
		Ud	iP	19 38 31.3	
		De	iP	19 38 33.1	
"	4	Up	iP	23 47 30.2	
		Ki	iP	23 46 55.4	C
		Sk	iP	23 47 28.1	C
		Um	iP	23 47 10.3	C
		Ud	iP	23 47 37.7	C
		De	eP	23 47 54	
		Japan (h = 390 km).			
"	5	Up	iP	00 44 39.1	
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	00 44 42.7	
		Sk	iP	00 45 01.0	
		Um	iP	00 44 34.7	
		Ud	iP	00 44 54.3	
		Kashmir-Tibet (h = 30 km).			
"	5	Up	iP	02 11 35.3	C
				micr sec	
			P Z'	0.1 1.0	
		Ki	iP	02 11 36.6	C
			ipP	02 11 43.0	
				micr sec	
			P Z'	0.2 1.0	
		Sk	iP	02 11 22.4	C
			ipP	02 11 28.7	
		Um	iP	02 11 39.4	C
			ipP	02 11 45.4	
		Ud	iP	02 11 25.7	C
			ipP	02 11 31.9	
		De	iP	02 11 27.5	
			ipP	02 11 33.3	
		Colombia.			
		h = 20 km (Ki,Sk,Um,Ud,De).			
		m = 6.2 (Up,Ki).			
"	5	Up	iP	05 28 21.2	
				micr sec	
			P Z'	0.1 1.0	
		Ki	i(pP)	05 29 03.3	
				micr sec	
			(pP) Z'	0.1 1.4	
		Ud	iP	05 28 12.1	
		De	iP	05 27 56.9	
		Central Atlantic Ocean (h = N).			
		m = 5.9 (Up,Ki).			
"	5	Up	iP	07 51 06.3	
		Ud	iP	07 51 07.4	
		De	iP	07 50 30.1	
		Sicily (h = 140 km).			

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

1975						
Nov.	5	Ki	iP		09 54 03.3	
		Ud	iP		09 54 30.6	
		Molucca Passage (h = N).				
"	5	Up	iP		10 48 36.6	
		Ki	eP		10 48 38	
		Ud	iP		10 48 49.3	
"	5	Up	iP		10 51 56.9	
			i		10 51 58.2	
			ipP		10 52 05.1	
					micr sec	
			P	Z'	0.1 0.9	
			pP	Z'	0.2 1.1	
		Ki	iP		10 51 59.4	
			ipP		10 52 06.4	
					micr sec	
			pP	Z'	0.1 1.0	
		Sk	ipP		10 52 22.4	
		Um	iP		10 51 54.5	
			i		10 51 55.5	
			ipP		10 52 01.9	
		Ud	iP		10 52 08.4	
			i		10 52 09.6	
			ipP		10 52 16.6	
		De	iP		10 52 05.9	
			i		10 52 07.6	
		Nicobar Islands.				
		h = 25 km (Up,Um,Ud).				
		m = 6.0 (Up,Ki).				
"	5	Up	iP		11 38 57.6	
			i		10 39 00.6	
					micr sec	
			P	Z'	0.1 0.9	
		Ki	i		11 39 01.2	
		Um	i		11 39 00.0	
		Ud	iP		11 39 09.1	
		De	iP		11 39 06.1	
		Nicobar Islands (h = 20 km).				
"	5	Ud	iP		11 41 12.4	
"	5	Ud	iP		17 07 16.9	
		South Atlantic Ocean				
		(h = N).				
"	6	Ki	iP		00 20 34.8	
		Um	iP		00 20 26.9	
		Ud	iP		00 20 44.7	
			i		00 21 03.4	
		India (h = N).				
"	6	Up	iP		01 17 31.2	C
		(cont.)				

1975						
Nov.	6	(cont.)				
		Up			micr sec	
			P	Z'	0.4 1.0	
		Ki	iP		01 16 38.0	C
			ipP		01 16 47.4	
					micr sec	
			P	Z'	0.2 1.0	
		Sk	iP		01 17 11.3	C
		Um	iP		01 17 03.9	C
			ipP		01 17 14.1	
		Ud	iP		01 17 32.6	C
			ipP		01 17 42.3	
		De	iP		01 17 54.5	C
		Aleutian Islands.				
		h = 35 km (Ki,Um,Ud).				
		m = 6.4 (Up,Ki).				
"	6	Ud	iP		04 16 26.9	
			i		04 17 35.1	
		Iran (h = 5 km).				
"	6	Ud	iP		08 07 40.1	
		De	iP		08 07 58.1	
		Kurile Islands (h = N).				
"	6	Up	iP		10 01 47.9	
			ipP		10 01 54.9	
					micr sec	
			pP	Z'	0.1 1.0	
		Um	ipP		10 01 52.3	
		Ud	iP		10 01 59.6	
			ipP		10 02 06.6	
		De	iP		10 01 56.7	
		Nicobar Islands.				
		h = 35 km (Up,Ud).				
"	6	Up	iP		10 23 28.0	
		Ki	iP		10 24 01.1	
		Um	i		10 23 42.4	
		Ud	iP		10 23 43.0	
		De	iP		10 23 28.7	
		Iran (h = 40 km).				
"	6	Up	iP		12 49 05.9	D
			iS		12 59 41	
					micr sec	
			P	Z'	0.4 1.3	
			Mx	E	1.7 18	
			Mx	N	1.5 17	
			Mx	Z	3.8 23	
		Ki	iP		12 48 46.6	D
					micr sec	
			P	Z'	0.8 1.4	
			Mx	N	1.3 17	
		(cont.)				

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

1975
Nov. 6 (cont.)

Sk	iP	12 49 09.4 D
Um	iP	12 48 53.4 D
	iS	12 59 22
Ud	iP	12 49 14.2 D
De	iP	12 49 21.1 D
	i	12 49 44.1

Philippine Islands (h = 10 km).
m = 6.7, M = 5.5 (Up,Ki).

" 6 Ud iP 22 04 07.4

" 7

Up	iP	05 52 07.7
	i	05 52 11.7
Ki	iP	05 51 53.5
Sk	iP	05 52 21.3
	i	05 52 24.9
Um	iP	05 51 55.7
	i	05 51 59.2
Ud	iP	05 52 21.7
De	iP	05 52 26.4
	i	05 52 31.8

Tsinghai, China (h = N).

" 7 Ud iP 07 05 00.0
Aleutian Islands (h = N).

" 7

Ki	eP	09 38 01
Ud	eP	09 38 11

Sumatra (h = 130 km).

" 7

Sk	eSgl	11 28 13
Ud	iSgl	11 27 21.8

Southern Norway,
59.1°N, 6.8°E.
Origin time = 11 25 30.
m = 4.0, M_L = 2.1 (Ud).
By combination with Bergen and Kongsberg readings.

" 8

Up	iP	05 20 03.5
Ud	iP	05 20 10.1

" 8

Up	iP	06 53 02.6
Um	iP	06 52 46.7

" 8

Up	iPKP		11 19 17.2	
	i		11 19 52.8	
			micr	sec
	PKP	Z'	0.1	1.0
Ki	iPKP		11 19 03.3	
			micr	sec
	PKP	Z'	0.1	0.9

(cont.)

1975
Nov. 8 (cont.)

Sk	iPKP	11 19 14.3
Um	iPKP	11 19 09.7
Ud	iPKP	11 19 19.4
	i	11 19 28.8
De	iPKP	11 19 25.5

Santa Cruz Islands
(h = 80 km).

" 8

Ud	iPgl	12 25 36.2
	iSgl	12 25 49.3
	iRg	12 25 54.8

Origin time = 12 25 18.
Regional near-surface event.

" 8 De iPKPl 12 43 03.3
Fiji Islands (h = 570 km).

" 8

Up	iP		15 06 39.3	
	i		15 06 42.6	
	i		15 07 05.9	
			micr	sec
	P	Z'	0.2	1.4
	i	Z'	0.2	1.3
Ki	iP		15 06 21.0	
	il		15 06 28.1	
	i		15 06 46.2	
			micr	sec
	P	Z'	0.2	1.4
	il	Z'	0.3	1.4
	i	Z'	0.4	1.3
Sk	iP		15 06 47.0	
	i		15 07 17.4	
Um	il		15 06 34.0	
Ud	iP		15 06 46.0	
	il		15 06 53.5	
	i		15 07 07.4	
De	iP		15 06 52.8	
	il		15 06 59.1	
	i		15 07 15.3	

Mindanao (h = 100 km).
m = 6.3 (Up,Ki).

" 8 Ud iP 18 20 00.6

" 8

Ud	iP	21 02 46.7
	i	21 03 01.4

Oregon (h = 35 km).

" 8

Ud	iP	21 34 19.0
	ipP	21 34 25.7

Oregon.
h = 25 km (Ud).

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

1975 Nov.	8	Ud	iP	21 54 32.0	
			ipP	21 54 39.6	
		Oregon.			
		h = 25 km (Ud).			
"	9	Ud	iPKPl	07 03 27.5	
		De	iPKPl	07 03 37.5	
"	9	Up	iP	10 34 07.6	
		Ki	iP	10 33 42.8	
		Ud	iP	10 34 10.7	
"	9	Up	iP	13 52 06.2	
		Ud	iP	13 52 14.7	
		Mindoro (h = 190 km).			
"	9	Up	iP	14 14 02.5	
"	9	Up	iP	15 07 39.8	
		Philippine Islands (h = 35 km).			
"	9	Sk	eP	15 20 30	
		Ud	iP	15 19 57.6	
		Crete.			
"	9	Up	iP	15 41 59.3	
"	9	Ki	iP	17 52 55.1	
				micr sec	
			P Z'	0.1 0.9	
		Sk	iP	17 53 31.1	
		Um	iP	17 53 05.9	
		Ud	iP	17 53 38.9	
		De	iP	17 53 51.4	
		Mongolia (h = N).			
"	9	Up	iP	18 08 30.1	
			i	18 08 42.4	
		Ki	iP	18 08 00.4	
				micr sec	
			P Z'	0.1 1.2	
		Um	eP	18 08 16	
			i	18 08 29.6	
		Ud	eP	18 08 37	
			i	18 08 49.5	
		De	i	18 08 57.8	
		Mariana Islands (h = 80 km).			
"	9	Up	i	19 02 50.0	
		Ki	iP	19 01 46.0	
		Ud	iP	19 02 43.9	
		Kamchatka (h = 45 km).			
"	9	Ki	iP	19 18 28.9	
"	9	Up	iP	20 47 30.9	D
		(cont.)			
1975 Nov.	9	(cont.)			
		Up	i1	20 47 37.7	
			i2	20 47 45.3	
			i(PP)	20 50 48.0	
			iS	20 58 05.0	
				micr sec	
			P Z'	0.4 1.2	
			i1 Z'	0.2 0.8	
			i2 Z'	0.2 0.8	
			Mx E	3.9 17	
			Mx N	4.2 16	
			Mx Z	8.5 16	
		Ki	iP	20 47 11.7	D
			i1	20 47 17.7	
			i2	20 47 27.2	
				micr sec	
			P Z'	0.7 1.5	
			i1 Z'	0.5 1.3	
			i2 Z'	0.5 1.3	
			Mx E	2.5 16	
			Mx N	7.2 16	
			Mx Z	3.4 17	
		Sk	i2	20 47 49.6	
		Um	iP	20 47 18.5	D
			i2	20 47 34.2	
			iS	20 57 52	
		Ud	iP	20 47 39.2	D
			i1	20 47 45.1	
			i2	20 47 55.7	
			i	20 50 18.2	
			i	20 50 47.5	
			i(PP)	20 51 03.1	
		De	iP	20 47 46.3	D
			i2	20 47 59.9	
			i(PP)	20 51 06.6	
		Philippine Islands (h = N).			
		m = 6.5, M = 6.1 (Up,Ki).			
		i1 phases interpreted as pP give h = 20 km (Up,Ki,Ud), while i2 phases interpreted as pP give h = 55 km (Up,Ki,Um, Ud,De).			
"	9	Up	iP	22 13 10.2	
			ipP	22 13 19.3	
		Ud	iP	22 13 18.4	
			ipP	22 13 27.6	
		Philippine Islands.			
		h = 30 km (Up,Ud).			
"	9	Sk	iP	23 59 12.8	
		Ud	iP	23 59 05.6	
		Tadzhik-Sinkiang (h = 140 km).			
"	10	Up	iP	00 16 09.0	
		Ud	iP	00 16 16.9	
		Philippine Islands (h = N).			

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

1975
Nov. 10 Up iP 00 19 40.6
Ud iP 00 19 47.4
Philippine Islands (h = N).

" 10 Up ipP 04 51 08.2
Ud iP 04 51 03.0
ipP 04 51 14.6
Kurile Islands.
h = 40 km (Ud).

" 10 Up iP 08 44 24.3
Ud iP 08 44 29.8
ipP 08 44 41.8
Kurile Islands.
h = 40 km (Ud).

" 10 Up iSgl 10 42 53.6
Ud iPgl 10 42 04.6
iSgl 10 42 23.3
De iSgl 10 42 42.7
Västergötland, Sweden,
58.5°N, 13.5°E.
Origin time = 10 41 39.
m = 4.1, M_L = 2.3 (Ud).
Explosion?

" 10 Ud iSgl 14 00 20.9
Southwest Norway,
59.9°N, 6.2°E.
Origin time = 13 58 21.
m = 4.3, M_L = 2.7 (Ud).
By combination with Bergen
and Kongsberg readings.

" 10 Up iP 21 58 10.5
Ud iP 21 58 18.3
Philippine Islands (h = N).

" 11 Ki ipP 04 01 33.0
Ud iP 04 01 39.7
ipP 04 01 48.0
De ipP 04 01 47.0
Kirgiz, SSR.
h = 30 km (Ud).

" 11 Up iP 04 35 39.0 D
iPcP 04 36 07.8
ipP 04 36 58.2
micr sec
P Z' 0.3 0.9
pP Z' 0.4 1.3
Ki iP 04 34 53.0 D
ipP 04 36 10.9
(cont.)

1975
Nov. 11 (cont.)
Ki micr sec
P Z' 0.2 1.0
pP Z' 0.2 1.3
Sk iP 04 35 28.9 D
ipP 04 36 47.8
Um iP 04 35 13.7 D
ipP 04 36 32.2
Ud iP 04 35 45.1 D
ipP 04 37 05.0
De iP 04 36 03.1 D
ipP 04 37 24.6
Sea of Okhotsk.
m = 5.8 (Up,Ki).
h = 370 km (Up,Ki,Sk,Um,Ud,
De).

" 11 Up iP 05 01 28.1
Sk iP 05 01 39.4

" 11 Ud iP 06 50 15.7
Hindu Kush (h = 210 km).

" 11 Up iP 07 33 21.2
Ki iP 07 32 39.2
Ud iP 07 33 27.7
Japan (h = 70 km).

" 11 Up iP 07 33 49.9
Ki iP 07 33 06.7
Um iP 07 33 25.2
Ud iP 07 33 56.4
Japan.

" 11 Up iP 08 48 58.5
Ud iP 08 48 59.5
Aleutian Islands (h = 60 km).

" 11 Up iP 09 05 25.8 C
ipP 09 05 36.9
micr sec
P Z' 0.1 0.8
Ki iP 09 04 42.6
micr sec
P Z' 0.1 1.0
Sk iP 09 05 16.7 C
ipP 09 05 28.3
Um iP 09 05 01.5 C
ipP 09 05 12.3
Ud iP 09 05 32.1 C
ipP 09 05 43.1
De iP 09 05 48.7
Japan.
h = 40 km (Up,Sk,Um,Ud).
m = 5.9 (Up,Ki).

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

1975

Nov.	11	Up	iP		09 07 39.6	C
			ipP		09 07 54.6	
					micr sec	
			P	Z'	0.2 1.1	
			pP	Z'	0.2 1.3	
			Mx	E	2.4 24	
			Mx	N	2.2 24	
		Ki	iP		09 06 56.1	C
					micr sec	
			P	Z'	0.1 1.0	
			Mx	E	6.1 21	
			Mx	N	4.3 20	
		Sk	iP		09 07 31.1	C
			ipP		09 08 46.9	
		Um	iP		09 07 15.4	C
		Ud	iP		09 07 46.0	C
			ipP		09 08 01.8	
		De	iP		09 08 03.2	

Japan.
h = 60 km (Up,Sk,Ud).
m = 6.3, M = 5.7 (Up,Ki).

"	11	Up	iP	09 24 56.7
		Ud	iP	09 24 42.8
"	11	Up	iSgl	11 26 27.0
		Ud	iSgl	11 25 57.1
			i	11 26 00.0
		De	iSgl	11 26 16.5

Västergötland, Sweden,
58.5°N, 13.5°E.
Origin time = 11 26 23.
m = 4.1, M_L = 2.3 (Ud).
Explosion?

"	11	Ud	iP	11 29 36.4
		De	iP	11 29 32.1
"	11	Ki	iP	14 14 53.7

Talaud Islands (h = 35 km).

"	11	Up	iP	16 02 44.0
		Ud	iP	16 02 55.0

Carlsberg Ridge (h = N).

"	11	Ud	iP	18 38 06.1
"	11	Ud	i(P)	20 57 06.6
"	11	Ki	iP	23 18 33.5
			i	23 18 51.7
"	12	Up	iPn	00 07 46.6 D
			i	00 07 53.8
			iSn	00 08 50.7

(cont.)

1975

Nov.	12	(cont.)		
		Up	i	00 08 54.0
			i	00 09 07.4
			iSgl	00 09 19.2
			iSg2	00 09 28.9
			i	00 09 37.1
		Ki	iLg2	00 12 51.1
		Sk	i	00 08 38.0
			i	00 09 29.1
			i	00 09 40.7
			iSg2	00 09 56.9
			i	00 10 04.4
		Um	iPn	00 08 29.4
			iSn	00 10 06.4
			i	00 10 23.8
			i	00 10 40.1
			iSgl	00 10 57.3
			iSg2	00 11 12.7
		Ud	i(Pn)	00 07 23.2
			iPn	00 07 23.7
			iPgl	00 07 30.6
			i	00 07 42.9
			iSn	00 08 12.6
			iSgl	00 08 27.3
			i	00 08 43.4
		De	iPn	00 07 13.4
			iPgl	00 07 20.0
			iSn	00 07 52.1

Skagerrak, near 57°N, 8°E.
Origin time = 00 06 20.
m = 4.6, M_L = 3.4 (Up,Um,Ud).

"	12	Ud	iP	02 08 15.6
"	12	Ud	eP	07 01 36

Talaud Islands (h = 45 km).

"	12	Up	iP	09 09 01.3
			ipP	09 09 19.2
			iS	09 13 33
			iLgl	09 16 13.1
				micr sec
			P Z'	0.2 1.2
			Mx E	2.4 21
			Mx N	1.1 21
			Mx Z	4.1 20
		Ki	iP	09 10 08.3
			ipP	09 10 27.3
				micr sec
			P Z'	0.1 0.8
		Sk	iP	09 09 42.7
			i	09 10 13.4
		Um	iP	09 09 33.1
			ipP	09 09 49.4
		Ud	iP	09 09 11.7

(cont.)

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

1975
Nov. 12 (cont.)

Ud	ipP		09 09 28.9
	i		09 11 25.1
	i		09 14 33.7
De	iP		09 08 39.7
	ipP		09 08 57.0
	iS		09 12 45.5

Dodecanese Islands.
h = 80 km (Up,Ki,Um,Ud,De).
m = 5.6 (Up,Ki).

" 12

Ud	iPKPl		10 44 48.2
De	iPKPl		10 44 59.1

" 12

Up	iPKPl		17 45 02.6
Ud	iPKPl		17 45 04.7
De	iPKPl		17 45 15.0

" 12

Up	iP		17 54 30.0
			micr sec
	Mx	Z	0.7 14
Ki	iP		17 53 15.1
	i		17 53 24.5
			micr sec
	P	Z'	0.1 1.0
	i	Z'	0.1 1.0
	Mx	E	2.0 14
	Mx	N	1.0 14
	Mx	Z	2.9 14
Sk	iP		17 53 29.9
	iS		17 55 19.8
Um	iP		17 53 54.8
Ud	iP		17 54 16.1
	i		17 54 20.1

Jan Mayen Island,
near 71 3/4°N, 2°W.
Origin time = 17 51 08.

" 12

Up	iP		17 57 34.1
	i		17 57 43.4
Ki	iP		17 56 19.0
	i		17 56 28.2
Sk	iP		17 56 34.4
	i		17 56 39.4
	iS		17 58 22.3
Um	iP		17 56 58.8
Ud	iP		17 57 22.5
	i		17 57 34.4

Jan Mayen Island, same focal area as the preceding event.
Origin time = 17 54 13.

" 12

Ki	iP		18 10 29.9
			micr sec
	P	Z'	0.1 1.0

Talaud Islands (h = 70 km).

1975
Nov. 12

Up	iP		21 15 26.6
Ki	iP		21 15 13.8
Sk	iP		21 15 33.6
Um	iP		21 15 17.7
Ud	iP		21 15 35.6
De	iP		21 15 38.2

Celebes (h = 170 km).

" 12

Up			micr sec
	Mx	Z	1.4 20
Ki	iP		22 03 35.0
	i		22 03 40.1
			micr sec
	P	Z'	0.3 1.7
	Mx	E	2.4 13
	Mx	N	0.9 13
	Mx	Z	1.6 15
Sk	iP		22 03 50.3
	iS		22 05 35.5
Um	iP		22 04 13.7
Ud	iP		22 04 37.3
	i		22 04 49.6

Jan Mayen Island,
near 71 1/2°N, 1°W.
Origin time = 22 01 35.

" 12

Ki	iP		22 08 19.4
Sk	iP		22 08 34.8
	iS		22 10 19.0
Um	iP		22 08 58.2
Ud	iP		22 09 21.6

Jan Mayen Island, same focal area as the preceding event.
Origin time = 22 06 20.

" 12

Ki	eP		22 12 40
	i		22 13 15.3
Sk	iP		22 12 56.3
	iS		22 14 43.2
Um	iP		22 13 20.0
	i		22 13 35.6
Ud	iP		22 13 43.3

Jan Mayen Island, same focal area as the event 22 01 this day.
Origin time = 22 10 38.

" 12

Up	eP		22 19 28
Ki	iP		22 18 14.5
Sk	iP		22 18 29.3
	iS		22 20 14.0
Um	iP		22 18 52.9
Ud	iP		22 19 16.7

Jan Mayen Island, same focal area as the event 22 01 this day.
Origin time = 22 17 14.

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

1975 Nov.	12	Up	iP		22 22 14.6	
		Ki	iP		22 21 04.0	
		Sk	iP		22 21 19.6	
			iS		22 23 07.0	
		Um	iP		22 21 42.9	
		Ud	iP		22 22 05.8	
		Jan Mayen Island, same focal area as the event 22 01 this day.				
		Origin time = 22 19 02.				
"	12	Up	iP		23 41 51.2	
			i		23 45 07.1	
					micr	sec
			P	Z'	0.1	1.4
			Mx	E	1.8	19
			Mx	N	2.0	19
			Mx	Z	4.1	20
		Ki	iP		23 40 36.7	
			i		23 40 46.0	
			iS		23 42 10.3	
					micr	sec
			P	Z'	0.3	1.5
			i	Z'	0.7	1.7
			Mx	E	3.0	14
			Mx	N	4.8	15
			Mx	Z	5.4	14
		Sk	iP		23 40 52.0	
			iS		23 42 34.2	
		Um	iP		23 41 14.4	
			iS		23 43 15.8	
		Ud	iP		23 41 38.4	
			i		23 44 26.6	
		De	iP		23 42 22.1	
		Jan Mayen Island, near 71 1/4°N, 1°W.				
		Origin time = 23 38 39.				
"	13	Up	iP		00 50 33.1	
		Ki	iP		00 49 18.6	
			iS		00 50 51.3	
		Sk	iP		00 49 33.7	
			iS		00 51 18.6	
		Um	iP		00 49 56.8	
			iS		00 51 55.3	
		Ud	iP		00 50 20.5	
			e		00 52 44	
		Jan Mayen Island, near 71 1/2°N, 1°W.				
		Origin time = 00 47 19.				
"	13	Up	iP		01 02 12.4	
		Ud	iP		01 02 27.3	
		Iran (h = 15 km).				

1975 Nov.	13	Up	iP		03 04 45.9	C
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		03 03 51.8	C
					micr	sec
			P	Z'	0.1	0.9
		Sk	eP		03 04 21	
		Um	iP		03 04 19.3	C
		Ud	iP		03 04 44.3	C
		De	iP		03 05 07.3	C
		Alaska (h = N).				
		m = 6.0 (Up,Ki).				
"	13	Up	iP		03 13 02.2	
			ipP		03 13 12.0	
			iS		03 17 37.9	
					micr	sec
			P	Z'	0.1	0.9
			Mx	E	1.1	19
			Mx	Z	1.2	18
		Ki	iP		03 14 11.6	
			ipP		03 14 21.2	
					micr	sec
			P	Z'	0.2	1.0
		Sk	iP		03 13 40.0	
			ipP		03 13 50.1	
		Um	iP		03 13 36.4	
			i		03 13 47.8	
			i		03 20 17.3	
		Ud	iP		03 13 08.1	
			i		03 13 11.0	
			i		03 18 02.3	
		De	iP		03 12 36.3	
		Mediterranean Sea.				
		h = 35 km (Up,Ki,Sk).				
		m = 5.7 (Up,Ki).				
"	13	Ud	iP		03 21 56.9	
"	13	Ud	iP		04 58 47.9	
		Talaud Islands (h = 70 km).				
"	13	Ud	iP		10 29 01.6	
		Talaud Islands (h = 60 km).				
"	13	Up	iP		14 44 22.6	
		Ud	iP		14 44 36.8	
		Tibet (h = 20 km).				
"	13	Up	iP		15 59 21.6	
			epP		15 59 37	
		Ki	iP		15 58 30.9	
		Sk	i		15 59 28.4	
		Ud	epP		15 59 40	
		Kurile Islands (h = 70 km).				

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

1975						
Nov.	13	Up	iP2		16 36 46.2	
			i		16 37 03.3	
					micr	sec
			i	Z'	0.1	0.9
			Mx	E	1.0	17
			Mx	Z	2.1	16
		Ki	iP2		16 36 21.1	
					micr	sec
			P2	Z'	0.1	1.3
			Mx	E	1.0	14
		Um	i		16 36 35.3	
		Ud	iP1		16 36 53.9	
			iP2		16 36 55.9	
			i		16 37 12.4	
		Formosa (h = 70 km).				
		m = 5.7, M = 5.2 (Up,Ki).				
"	13	Up	iP		18 02 04.2	
"	13	Up	iP		19 01 59.2	
			i		19 02 10.0	
		Ud	iP		19 02 02.0	
"	13	Up	iP		19 22 20.0	
			ipP		19 22 26.6	
		Ki	eP		19 22 54	
		Sk	eP		19 22 50	
			ipP		19 22 56.9	
			i		19 23 12.2	
		Um	iP		19 22 33.3	
			ipP		19 22 39.5	
		Ud	iP		19 22 31.7	
		Carlsberg Ridge.				
		h = 20 km (Up,Um).				
"	13	Up	iP		21 24 24.6	
		Ud	iP		21 24 37.1	
		Tadzhik SSR.				
"	13	Ud	iP		21 48 49.6	
"	13	Ud	iP		21 52 33.3	
"	13	Up	iP		23 35 30.4	
		Ud	iP		23 35 36.4	
		Ionian Sea (h = N).				
"	13	Up	iP		23 37 06.7	
		Ud	iP		23 37 05.6	
		Aleutian Islands (h = 35 km).				
"	14	Ud	iP		01 45 51.8	
"	14	Up	iP		04 09 27.3	
		(cont.)				

1975						
Nov.	14	(cont.)				
		Ki	iP		04 08 53.9	
		Um	iP		04 09 08.7	
		Ud	iP		04 09 33.8	
"	14	Ud	eP		04 11 30	
"	14	Up	iP		09 41 29.5	
			ipP		09 41 38.7	
					micr	sec
			P	Z'	0.1	1.0
			pP	Z'	0.1	1.0
		Ki	iP		09 40 50.4	
			ipP		09 40 59.1	
		Sk	iP		09 41 02.9	
			ipP		09 41 12.9	
		Um	iP		09 41 11.6	
			ipP		09 41 21.4	
		Ud	iP		09 41 22.3	
			ipP		09 41 31.9	
		California.				
		h = 30 km (Up,Ki,Sk,Um,Ud).				
"	14	De	iPKP1		09 56 46.8	
		Fiji Islands (h = 590 km).				
"	14	Ud	iP		10 42 58.7	
		Kurile Islands (h = 60 km).				
"	14	Ud	iP		12 37 04.4	
"	14	Ki	iP		12 38 23.4	
		De	iP		12 37 26.9	
		Turkey (h = 40 km).				
"	14	Up	i(S*)		12 38 44.9	
			iSgl		12 38 50.4	
		Ud	i		12 38 11.7	
			iSgl		12 38 22.8	
			i		12 38 28.5	
		De	iPgl		12 37 21.7	
			iSgl		12 37 40.7	
			iRg		12 37 48.2	
		Halland-Västergötland, Sweden,				
		57.4°N, 12.3°E.				
		Origin time = 12 36 58.				
		m = 4.0, M_L = 2.1 (Ud,De).				
		Near-surface event.				
"	14	Ki	iPKP		14 16 13.3	
		South Sandwich Islands				
		(h = 130 km).				
"	14	Ud	iP		16 53 19.6	
		Pakistan (h = 35 km).				

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

1975
Nov. 14 Up iPKP1 20 31 34.1
Sk iPKP1 20 31 28.5
Um iPKP1 20 31 24.1
Ud i 20 31 35.0
iPKP1 20 31 36.3
De iPKP1 20 31 44.5

" 15 Um iP 03 46 31.0
Ud iP 03 46 38.7
California (h = 5 km).

" 15 Up iP 04 55 48.1
Ud iP 04 55 57.1
Philippine Islands (h = N).

" 15 Ud iP 06 13 47.8
Talaud Islands (h = 90 km).

" 15 Up iP 06 50 47.2
Ki iP 06 51 33.9
micr sec
P Z' 0.2 1.5
Ud iP 06 51 00.4
De iP 06 50 39.7
Turkey (h = N).

" 15 Um iP 07 00 23.6

" 15 Ud iP 07 56 59.3

" 15 Ki ePKP2 08 39 44
i 08 40 37.2
Um iPKP2 08 39 39.1
Ud iPKP2 08 39 48.8
West of Macquarie Island
(h = N).

" 15 Up iP 15 41 19.5
ipP 15 41 30.0
iS 15 51 52
micr sec
P Z' 0.1 0.9
pP Z' 0.1 1.1
Mx E 1.9 20
Mx Z 4.7 23
Ki iP 15 41 03.1
ipP 15 41 11.8
micr sec
P Z' 0.9 2.3
Mx E 3.0 16
Sk iP 15 41 00.9
ipP 15 41 10.8
Um iP 15 41 13.1
ipP 15 41 22.7
iS 15 51 52
Ud iP 15 41 10.4
(cont.)

1975
Nov. 15 (cont.)
Ud ipP 15 41 20.3
De iP 15 41 19.6
ipP 15 41 29.4
Mexico.
h = 35 km (Up,Ki,Sk,Um,Ud,
De).
m = 6.3, M = 5.8 (Up,Ki).

" 15 Ki eP 18 26 45
Ud eP 18 26 29
i 18 26 37.7
Iran (h = 45 km).

" 15 Ud iP 18 34 12.2
i 18 34 16.9
Iran (h = 40 km).

" 15 Ud iP 19 09 59.9
Molucca Passage (h = N).

" 15 Ud iP 20 31 48.8
Philippine Islands (h = N).

" 15 Up iP 20 52 15.6 D
iS 21 03 00
micr sec
P Z' 0.2 0.7
Mx E 5.4 19
Mx N 12 16
Mx Z 8.5 18
Ki iP 20 51 56.6 D
micr sec
P Z' 1.0 1.4
Mx E 11 17
Mx N 17 16
Sk iP 20 52 18.3
Um iP 20 52 03.0
iS 21 02 40.0
Ud iP 20 52 23.6 D
De iP 20 52 30.7 D
Samar (h = 10 km).
m = 6.2, M = 6.5 (Up,Ki).

" 15 Ki iP 22 55 55.0
i 22 56 01.5
i 22 57 23.3

" 15 Ud iP 23 47 17.0
Iran (h = 45 km).

" 16 Um iPKP1 00 48 59.8
Ud iPKP1 00 49 14.3

" 16 Up i 13 08 17.7
Ki iP 13 09 37.1
(cont.)

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

1975
Nov. 16 (cont.)

Sk	iP	13 08 49.5
	i	13 09 06.2
Um	iP	13 08 58.6
	i	13 09 04.5
Ud	iP	13 08 07.6
	i	13 08 22.6

Italy (h = 20 km).

" 16 Ud eP 13 32 12
Afghanistan-USSR
(h = 130 km).

" 16 Ki iP 17 07 14.0
Sinkiang, China (h = 50 km).

" 16

Up	iP		20 50 18.2 C	
Ki	iP		20 49 58.5 C	
			micr	sec
	P	Z'	0.1	1.0
Um	iP		20 50 05.4	

Philippine Islands (h = 55 km).

" 17 Ki iP 02 19 49.4

" 17

Up	iPKP1	02 20 55.6
	i	02 21 02.8
Ki	iPKP1	02 20 34.7
Sk	iPKP1	02 20 50.1
Um	iPKP1	02 20 45.5
Ud	iPKP1	02 20 57.7
De	iPKP1	02 21 06.1

Kermadec Islands (h = N).
Early arrivals,by about
10 sec, when compared with
NEIS solution.

" 17 De iP 05 57 06.5

" 17 Ud iPKP 07 04 09.8
Argentina (h = 120 km).

" 17 Ki iP 07 29 17.5
Philippine Islands.

" 17 Ki iP 08 55 36.6
Banda Sea (h = N).

" 17 Um iPKP1 12 36 38.1
Ud iPKP1 12 36 50.8

" 17

Ki	iP		14 26 16.3	
	ipP		14 26 28.5	
			micr	sec
	P	Z'	0.1	1.0

(cont.)

1975
Nov. 17 (cont.)

Um	iP	14 26 23.8
Ud	iP	14 26 45.8
	ipP	14 26 57.8

Philippine Islands.
h = 40 km (Ki,Ud).

" 17

Ki	i(pP)	14 43 30.0
Ud	iP	14 42 19.6
	i	14 42 29.5
De	iP	14 41 47.2
	i	14 41 55.9

Crete (h = N).

" 17 Ki iP 15 03 04.5
Ud iP 15 03 32.8

" 17 Ud iP 16 08 00.4

" 17

Up	iP		17 58 24.3	
Ki	iP		17 58 05.2 C	
			micr	sec
	P	Z'	0.1	1.0
Ud	iP		17 58 32.5	

Philippine Islands (h = 90 km).

" 17

Up	iP	19 13 03.1
Ki	iP	19 12 43.4 C
		micr sec
	P	Z' 0.1 1.0
Ud	iP	19 13 11.0

Philippine Islands (h = N).

" 17 Ki e 20 03 23
Um iP 20 03 31.9
Ud eP 20 03 54
Volcano Islands (h = N).

" 17 Ud eP 20 35 57

" 18

Up	iP	01 11 14.3
Ki	iP	01 11 21.7
Ud	iP	01 10 18.3
	i	01 10 30.0
De	iP	01 09 47.1

Mediterranean Sea (h = 70 km).

" 18 Ud iP 05 15 44.7

" 18

Ki	iPgl	10 29 22.6
	i(S*)	10 29 54.7
	iSgl	10 29 58.8

Off coast of north Norway.
Origin time = 10 28 34.
By combination with Tromsoe
reading.

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

1975 Nov.	18	Up	i(P)		11 33 48.1	
"	18	Up	iP		11 52 12.9	
		Ki	iP		11 52 49.6	
		Ud	iP		11 52 28.1	
		Iran (h = 60 km).				
"	18	Sk	iPgl		12 29 55.8	
			iSn		12 30 30.4	
		Ud	iSgl		12 31 21.4	
		Coast of west Norway, 62.9°N, 6.7°E.				
		Origin time = 12 29 09.				
		By combination with Kongsberg readings.				
"	18	Ud	iP		13 02 57.0	
"	18	Sk	i(pP)		13 09 56.8	
		Alaska (h = N).				
"	18	Ud	i(P)		14 23 35.4	
"	18	Up	iP		19 29 18.5	
		Ki	iP		19 28 51.9	
		Um	iP		19 29 02.6	
"	18	Up	iP		23 14 51.8	
					micr	sec
			P	Z'	0.1	1.0
		Ud	iP		23 15 06.7	
		Iran (h = N).				
"	19	Up	iPKP		03 53 13.4	
		Sk	ePKP		03 53 14	
		Ud	iPKP		03 53 16.8	
		De	iPKP		03 53 20.6	
		Solomon Islands (h = 25 km).				
"	19	Up	iP		04 51 12.9	
					micr	sec
			P	Z'	0.2	1.0
		Ki	iP		04 49 46.0	
			i		04 49 49.9	
					micr	sec
			P	Z'	0.8	2.0
		Sk	eP		04 50 31	
			i		04 50 34.5	
		Um	iP		04 50 33.4	
		Ud	iP		04 51 08.9	
			i		04 51 18.1	
		De	iP		04 51 42.9	
		Svalbard (h = 25 km).				
		m = 5.5 (Up,Ki).				

1975 Nov.	19	Up	iPKPl		06 36 57.5	
			i		06 39 36.7	
			iSKPl		06 39 47.4	
					micr	sec
			i	Z'	0.1	1.0
			SKPl	Z'	0.9	1.7
		Ki	iPKP		06 36 48.5	
			iSKPl		06 39 26.0	
					micr	sec
			PKP	Z'	0.1	0.7
			SKPl	Z'	1.0	1.7
		Sk	iPKPl		06 36 52.0	
			iSKPl		06 39 41.8	
		Um	iPKPl		06 36 47.5	
			iSKPl		06 39 37.0	
		Ud	iPKPl		06 37 00.0	
			i		06 39 37.0	
			iSKPl		06 39 49.2	
		De	iPKPl		06 37 08.9	
			iPKP2		06 37 11.0	
			ipPKPl		06 39 19.2	
			ipPKP2		06 39 23.6	
			i		06 39 40.1	
			iSKPl		06 39 57.9	
		Tonga-Kermadec Islands.				
		h = 560 km (De).				
"	19	Up	iP		11 16 45.5 C	
			i		11 17 17.2	
					micr	sec
			P	Z'	0.1	1.2
		Ki	iP		11 15 50.4	
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		11 16 28.1	
		Um	iP		11 16 16.9	
		Ud	iP		11 16 48.1	
		De	eP		11 17 11	
		Kamchatka (h = 60 km).				
		m = 5.8 (Up,Ki).				
"	19	Um	iP		13 05 55.8	
		Ud	iP		13 06 13.8	
		Afghanistan-USSR (h = 240 km).				
"	19	Um	iP		13 29 06.9	
		Ud	iP		13 29 26.5	
"	19	Um	iP		14 11 46.9	
		Ud	iP		14 12 07.9	
		Burma (h = 120 km).				
"	19	Ki	iP		18 04 08.8	
		Philippine Islands (h = N).				

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

1975					
Nov.	19	Ki	i		20 05 49.3
		Sk	ePKPl		20 05 58
		Um	iPKPl		20 05 53.2 C
		Ud	iPKPl		20 06 06.0 C
		De	iPKPl		20 06 13.9 C
		Kermadec Islands (h = 25 km).			
"	19	Up	iP		23 26 22.7
					micr sec
			P	Z'	0.1 1.0
		Ud	iP		23 26 28.5
"	19	Ud	iP		23 27 23.7
		Iran-USSR (h = 40 km).			
"	19	Up	iP		23 28 48.4
		Ki	iP		23 28 28.9
					micr sec
			P	Z'	0.1 0.8
		Um	iP		23 28 35.9
		Ud	iP		23 28 56.0
			ipP		23 29 03.2
		Samar.			
		h = 25 km (Ud).			
"	19	Ki	iP		23 49 02.7
		Samar (h = N).			
"	20	Up	iP		01 03 04.7 C
			iPP		01 06 44.3
					micr sec
			P	Z'	0.1 0.8
			PP	Z'	0.2 1.5
		Ki	iP		01 03 04.2 C
			iPP		01 06 42.7
					micr sec
			P	Z'	0.6 0.9
		Sk	iP		01 03 17.9 C
		Um	iP		01 03 01.8 C
		Ud	iP		01 03 14.3 C
			iPP		01 07 00.4
		De	iP		01 03 12.5 C
		Sumatra (h = 60 km).			
		m = 6.6 (Up,Ki).			
"	20	Ki	iP		12 22 51.7
		Philippine Islands (h = N).			
"	20	Up	iP		15 11 48.3 C
					micr sec
			P	Z'	0.2 0.9
		Ki	iP		15 11 14.4 C
					micr sec
			P	Z'	0.1 0.7
		Sk	iP		15 11 22.1 C
		Um	iP		15 11 33.9 C
		(cont.)			

1975					
Nov.	20	(cont.)			
		Ud	iP		15 11 40.7 C
		De	iP		15 11 57.0 C
		Nevada.			
		m = 6.2 (Up,Ki).			
		Underground explosion.			
"	21	Up	iP		01 27 38.5 C
			i		01 27 44.3
			i		01 27 48.3
					micr sec
			P	Z'	0.1 1.2
			i	Z'	0.3 1.5
			Mx	E	1.3 23
		Ki	iP		01 27 39.4 C
			i		01 27 45.1
			i		01 27 48.3
					micr sec
			P	Z'	0.7 1.9
			i	Z'	0.7 1.7
			i	Z'	0.6 1.5
		Sk	iP		01 27 25.0 C
			i		01 27 31.0
			i		01 27 34.2
		Um	iP		01 27 42.2 C
			i		01 27 47.8
			iS		01 38 25
		Ud	iP		01 27 28.7 C
			i		01 27 34.6
		Panama-Colombia (h = 35 km).			
		m = 6.5 (Up,Ki).			
"	21	Up	iP		04 59 36.2
		Ki	iP		04 59 22.3
			i(PP)		05 03 16.3
					micr sec
			P	Z'	0.1 1.1
		Um	iP		04 59 28.1
		Ud	iP		04 59 43.5
			i(PP)		05 03 49.0
		Banda Sea (h = 120 km).			
"	21	Ud	iP		05 04 41.2
"	21	Ki	iP		08 31 15.2
		Philippine Islands (h = N).			
"	21	Ki	iP		13 59 29.4
		Ud	iP		13 59 38.9
"	21	Up	iP		21 54 55.3
		Ki	iP		21 54 35.7
			ipP		21 54 46.9
					micr sec
			P	Z'	0.1 1.0
		Ud	iP		21 55 04.1
		(cont.)			

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

1975
Nov. 21 (cont.)
Philippine Islands.
h = 35 km (Ki).

" 22	Up	iP		02 47 12.7	C
				micr sec	
		P	Z'	0.2 0.9	
		Mx	E	2.4 24	
		Mx	N	1.3 24	
		Mx	Z	2.9 26	
	Ki	eP		02 46 54	C
				micr sec	
		P	Z'	0.2 0.8	
		Mx	E	2.3 22	
		Mx	N	2.1 24	
	Sk	iP		02 47 16.8	C
	Um	iP		02 47 01.3	C
	Ud	iP		02 47 21.1	C
	De	iP		02 47 27.7	

Mindanao (h = 70 km).
m = 6.4, M = 5.6 (Up,Ki).

" 22	Ki	iP		03 42 18.4
	Ud	iP		03 42 45.5

Philippine Islands.

" 22	Ud	iP		09 01 05.9

Aleutian Islands (h = 55 km).

" 22	Up	iP		10 10 39.6	
		i		10 10 41.8	
				micr sec	
		P	Z'	0.1 0.8	
		i	Z'	0.4 1.0	
		Mx	E	2.0 11	
		Mx	N	2.0 16	
	Ki	iP		10 11 56.8	
				micr sec	
		P	Z'	0.5 2.0	
		Mx	E	2.3 11	
		Mx	N	2.0 14	
		Mx	Z	1.4 12	
	Sk	iP		10 11 21.1	
	Um	iP		10 11 20.6	
		i		10 11 23.2	
		i		10 11 27.6	
	Ud	iP		10 10 44.9	
		i		10 10 48.5	
	De	i		10 10 07.4	
		i		10 10 10.4	

Greece-Albania (h = 35 km).
m = 5.8, M = 4.9 (Up,Ki).

" 22	Ud	iP		18 04 28.7	

1975
Nov. 22

Up	iP			18 39 53.1	
				micr sec	
	P		Z'	0.1 1.4	
Ki	eP			18 41 08	
Sk	iP			18 40 34.3	
Ud	iP			18 40 02.0	
	i			18 40 05.5	

Greece (h = N).

" 23	Ud	ipPKP		00 55 34.8
		iSKP		00 58 14.3
	De	ipPKP		00 55 40.5

Solomon Islands (h = 55 km).

" 23	Um	i(P)		01 03 43.0
" 23	Ud	i(P)		01 05 48.7
" 23	Um	i(P)		02 41 55.5
		i		02 42 23.5
" 23	Up	iPKP		09 58 18.3
	Ki	iPKP		09 58 04.6
	Sk	iPKP		09 58 15.8
	Um	iPKP		09 58 10.9
	Ud	iPKP		09 58 20.2
	De	iPKP		09 58 25.0

New Hebrides Islands
(h = 230 km).

" 23	Ud	iP		13 24 41.1	D
" 23	Up	iP		23 12 53.8	D
		i		23 13 06.3	
		ipP		23 13 32.6	
		iPP		23 15 23.2	
				micr sec	
		P	Z'	0.3 1.1	
	Ki	iP		23 12 12.8	D
		ipP		23 12 50.4	
		iPP		23 14 25.6	
				micr sec	
		P	Z'	0.3 1.1	
	Sk	iP		23 12 47.1	D
		iPP		23 15 17.2	
	Um	iP		23 12 30.9	D
		ipP		23 12 08.9	
	Ud	iP		23 13 01.6	D
		i		23 13 14.6	
		ipP		23 13 40.8	
		iPP		23 15 37.3	
	De	iP		23 13 17.5	D
		i		23 13 29.5	
		ipP		23 13 56.5	
		iPP		23 15 55.7	

(cont.)

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

1975
Nov. 23 (cont.)
Japan.
h = 160 km (Up,Ki,Um,Ud,De).
m = 6.1 (Up,Ki).

"	23	De	iP	23 36 28.6	
"	24	Up	iP	08 09 06.0	C
			ipP	08 09 18.0	
				micr sec	
			P	Z' 0.4 1.0	
		Ki	iP	08 08 21.0	C
			ipP	08 08 32.2	
				micr sec	
			P	Z' 0.4 1.3	
		Sk	iP	08 08 56.6	
			ipP	08 09 08.4	
		Um	iP	08 08 40.9	C
			ipP	08 08 52.7	
		Ud	iP	08 09 12.3	C
			ipP	08 09 24.1	
		De	iP	08 09 29.8	C
			ipP	08 09 41.9	

Kurile Islands.
h = 40 km (Up,Ki,Sk,Um,Ud, De).
m = 6.4, M = 5.6 (Up,Ki).

"	24	Up	iP	08 36 11.1	
				micr sec	
			P	Z' 0.2 1.1	
		Ki	iP	08 35 26.2	
			ipP	08 35 37.4	
				micr sec	
			pP	Z' 0.1 1.0	
		Um	iP	08 35 46.5	
		Ud	iP	08 36 16.7	

Kurile Islands.
h = 40 km (Ki).
m = 5.9 (Up,Ki).

"	24	Ud	iP	08 39 51.0	
"	24	Up	iP	10 02 50.4	
				micr sec	
			P	Z' 0.2 1.1	
		Ki	iP	10 02 04.0	
			ipP	10 02 15.4	
				micr sec	
			P	Z' 0.2 1.3	
"		Sk	iP	10 02 40.3	
		Um	iP	10 02 25.8	
		Ud	iP	10 02 56.4	C
			ipP	10 03 07.5	
		De	iP	10 03 14.5	

(cont.)

1975
Nov. 24 (cont.)

		De	ipP	10 03 25.5	

Kurile Islands.
h = 40 km (Ki,Ud,De).
m = 6.0 (Up,Ki).

"	24	Up	iP	14 14 30.0	
		Ki	iP	14 14 10.6	
				micr sec	
			P	Z' 0.1 0.8	
		Ud	iP	14 14 39.5	

Philippine Islands (h = N).

"	24	Up		micr sec	
			Mx	E 1.8 19	
			Mx	N 1.1 20	
		Ki	iP	14 51 36.6	
				micr sec	
			Mx	E 1.4 22	
			Mx	N 2.4 16	
		Um	iS	15 02 31	

Sumatra (h = N).
M = 5.7 (Up,Ki).

"	24	Ud	iP	18 13 03.6	
"	24	Ud	iP	18 58 14.3	
"	24	Ud	iP	21 09 05.0	

Yunnan, China (h = N).

"	24	Ud	iP	21 44 19.7	

Atlantic Ocean (h = N).

"	24	Up	iPKPl	21 59 27.8	
				micr sec	
			PKPl	Z' 0.1 0.9	
		Ud	iPKPl	21 59 29.2	
			i	21 59 34.0	
		De	iPKPl	21 59 39.9	
			i	21 59 43.8	

Tonga-Kermadec Islands (h = 300 km).

"	24	Up	iP	22 55 11.5	
		Ud	iP	22 55 19.1	
"	24	Up	iP	23 53 24.7	

Greece-Albania (h = N).

"	25	Up		micr sec	
			Mx	E 3.0 22	
			Mx	N 3.0 27	
			Mx	Z 6.0 28	

(cont.)

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

1975
Nov. 25 (cont.)

Ki			micr	sec	
	Mx	E	6.0	24	
	Mx	N	7.8	24	
	Mx	Z	10	28	
Um	i		08 25 35.3		
Ud	iPKP		08 25 32.7		
	i		08 26 18.2		
De	i		08 26 25.1		

Solomon Islands (h = N).
M = 6.2 (Up,Ki).

" 25 Ki iP 10 07 43.9
Ud iP 10 08 33.0
Japan (h = 25 km).

" 25 Um iP 12 56 59.2
Ud iP 12 57 15.7

" 25 Ud iPKPl 14 33 16.8
De iPKPl 14 33 27.4
Fiji Islands (h = 590 km).

" 25 Um iP 16 40 56.7

" 26 Up iP 00 27 30.6
i 00 27 48.1
iS 00 35 09

			micr	sec
	P	Z'	0.1	1.0
	i	Z'	0.1	1.0
	Mx	N	2.3	25
	Mx	Z	3.0	22
Ki	iP		00 28 03.4	
			micr	sec
	P	Z'	0.1	1.2
	Mx	E	1.2	21
	Mx	N	1.9	19
	Mx	Z	1.6	21
Sk	iP		00 28 00.9	
Um	iP		00 27 42.9	
	iS		00 35 35	
Ud	iP		00 27 41.7	

Socotra (h = N).
m = 5.8, M = 5.3 (Up,Ki).

" 26 Up iP 04 12 10.6
Ki iP 04 12 44.4
Sk eP 04 12 41
Um iP 04 12 23.7
Ud iP 04 12 23.2
Socotra (h = N).

" 26 Up iP 12 17 28.1
Ki eP 12 16 57
(cont.)

1975
Nov. 26 (cont.)
Ud iP 12 17 34.7
Volcano Islands (h = N).

" 26 Up iP 14 25 24.4
Ki iP 14 24 38.9
Ud iP 14 25 28.8
ipP 14 25 41.0
Kurile Islands.
h = 40 km (Ud).

" 26 Up iP 15 12 08.8

			micr	sec
	P	Z'	0.1	0.7
Sk	iP		15 12 27.0	
Um	iP		15 12 02.8	
Ud	iP		15 12 23.1	

Tibet (h = N).

" 26 Ud iP 15 40 19.6

" 27 Ki iP 00 21 07.8

			micr	sec
	P	Z'	0.1	1.0
Um	iP		00 21 13.6	
Ud	iP		00 21 34.0	

Philippine Islands (h = 35 km).

" 27 Up iP 00 51 42.4
Ki i 00 51 21.9
Um iP 00 51 30.3
Ud iP 00 51 50.6
Samar (h = N).

" 27 Up iPl 03 44 30.4
iP2 03 44 35.4
Ki iPl 03 44 13.3
iP2 03 44 17.9
Sk iP2 03 44 48.0
Um iP2 03 44 20.8
Ud iP2 03 44 49.5
Sinkiang, China (h = N).

" 27 Ki iPl 10 16 13.2
iP2 10 16 17.4
Sk iP2 10 16 50.4
i 10 16 54.0
Um iPl 10 16 20.3
Ud iPl 10 16 51.8
iP2 10 16 56.4
De iPl 10 17 03.7
iP2 10 17 07.0
i 10 17 12.6
Mongolia (h = N).

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

1975
Nov. 27 Up iSgl 10 44 42.8
Ud iSn 10 43 29.2
iSgl 10 43 51.8
De iSgl 10 43 32.9
Skagerrak, 57.1°N, 7.0°E.
Origin time = 10 41 32.
m = 4.2, M_L = 2.5 (Ud).
By combination with
Kongsberg readings.

" 27 Ud eP 14 34 00
Greece (h = 55 km).

" 27 Ud iPKP 16 40 40.8
New Hebrides Islands
(h = 210 km).

" 27 Up iP 19 33 01.0
Ud iP 19 33 06.7
Kurile Islands (h = 35 km).

" 27 Up iP 19 45 44.8
micr sec
P Z' 0.1 0.8
Ki iP 19 44 59.2
Um iP 19 45 20.0
Ud iP 19 45 51.1
ipP 19 46 00.4
Kurile Islands.
h = 30 km (Ud).

" 27 Ud iP 20 00 06.4

" 27 Ki iP 20 23 19.7
Ud eP 20 23 55
Mariana Islands (h = 320 km).

" 27 Sk iS 20 31 29.3
i 20 30 58.1
Ud iS 20 31 18.1
i 20 31 34.2
De iS 20 31 38.0
United Kingdom (h = N).

" 27 Ud iP 21 08 14.0

" 28 Ud i(P) 00 45 50.8

" 28 Ki iP 02 24 27.0
Molucca Passage (h = 10 km).

" 28 Ud iP 04 15 23.6
Turkey (h = 20 km).

1975
Nov. 28 Up iP 06 11 54.6
Ki iP 06 11 08.8
Ud iP 06 12 00.8
Kurile Islands (h = 5 km).

" 28 Ki eP 12 26 19
Um iP 12 26 37.4
Ud iP 12 27 07.9
i 12 27 16.8
Japan (h = 15 km).

" 28 Ki iP 16 05 14.8
Japan (h = 50 km).

" 28 Ud iPKPl 17 54 30.5
De iPKPl 17 54 41.7

" 28 Ki iP 18 22 12.6
Ud iP 18 22 25.8
Tadzhik-Sinkiang (h = 70 km).

" 28 Up i 18 57 18.1
iRg 18 57 24.4
Sk iSgl 18 58 35.2
Um iSgl 18 58 53.5
Ud iSgl 18 57 04.7
iRg 18 57 09.1
Central Sweden,
near 60°N, 15°E.
Near-surface event.

" 28 Ud iP 21 18 26.4

" 29 Up iP 02 30 48.9
iS 02 41 32
micr sec
P Z' 0.1 1.2
Mx E 5.1 18
Mx N 11 16
Mx Z 9.5 17
Ki iP 02 30 28.2
i 02 30 33.2
iS 02 40 53
micr sec
P Z' 0.1 1.0
Mx E 7.5 14
Mx N 8.6 16
Mx Z 11 15
Um iP 02 30 34.9
iS 02 41 16.0
Ud iP 02 30 56.0
i 02 30 59.9
i 02 31 07.4
Samar (h = 60 km).
m = 5.9, M = 6.4 (Up,Ki).

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

1975
Nov. 29 Up iSgl 07 41 30.2
Sk iSgl 07 39 48.2
Ud iSn 07 39 57.9
iSgl 07 40 29.6
i 07 40 32.8
Off coast of west Norway, near 62 1/4°N, 3 1/2°E.
Origin time = 07 37 42.
m = 4.4, M_L = 3.1 (Up,Ud).
By combination with Bergen and Kongsberg readings.

" 29 Up iPKP1 09 20 36.0
iPKP2 09 20 45.4
i 09 21 10.6
micr sec
i Z' 0.1 1.0
Ki i 09 20 21.0
Sk ePKP1 09 20 31
i 09 20 53.5
Um iPKP1 09 20 25.3
Ud iPKP1 09 20 38.0
i 09 21 15.9
De iPKP2 09 21 01.4
Kermadec Islands (h = 50 km).

" 29 Ki iP 09 32 17.0
micr sec
P Z' 0.1 1.0
Sk iP 09 32 02.0
Um iP 09 32 18.8
Ud iP 09 32 05.5
Colombia (h = 15 km).

" 29 Up iPKP 11 05 43.4
iPKKP 11 15 41.0
micr sec
PKP Z' 0.1 1.0
Mx E 1.5 25
Mx N 1.2 22
Ki iPKP 11 05 59.0
i(SKP) 11 09 15.1
iSKP 11 09 17.4
micr sec
PKP Z' 0.5 1.3
SKP Z' 0.3 1.6
Sk iPKP 11 05 48.1
Um iPKP 11 05 52.4
Ud iPKP 11 05 41.5
iPKKP 11 15 42.8
South Sandwich Islands (h = 50 km).

" 29 Ki i(Sn) 12 40 54.1
i 12 41 06.5
Um i(Sgl) 12 42 30.5

1975
Nov. 29 Ki iP 13 48 55.2
Sk iP 13 49 12.2
Hawaii (h = 10 km).

" 29 Up iP1 15 01 32.4
iP2 15 01 36.2
i 15 02 03.0
i 15 06 07.5
i 15 06 28.5
micr sec
P2 Z' 0.1 1.1
i Z' 0.2 1.2
i Z' 0.7 1.7
Mx E 26 21
Mx N 35 20
Mx Z 62 20
Ki iP1 15 00 57.4
iP2 15 01 01.6
i 15 01 27.2
i 15 05 14.6
micr sec
P2 Z' 0.2 1.4
i Z' 0.4 1.4
i Z' 1.4 2.5
Mx E 23 17
Mx N 25 18
Mx Z 72 21
Sk iP1 15 01 15.7
i 15 01 45.2
i 15 05 53.2
Um iP1 15 01 13.5
i 15 01 57.2
Ud iP1 15 01 29.3
iP2 15 01 35.1
i 15 02 01.7
i 15 05 59.5
i 15 06 20.9
Hawaii (h = 5 km).
m = 6.6, M = 6.9 (Up,Ki).

" 29 Ki ipP 16 30 37.7
Sk iP 16 30 18.9
Um iP 16 30 37.0
Ud ipP 16 30 28.3
i 16 30 36.7
Panama-Colombia (h = 25 km).

" 29 Ud iP 17 57 26.5
Japan (h = 80 km).

" 29 Up iPKP1 23 25 03.0
Sk iPKP1 23 24 57.3
Um iPKP1 23 24 52.6
Ud iPKP1 23 25 05.2
i 23 25 06.8
De iPKP1 23 25 15.1
Kermadec Islands (h = 70 km).

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

1975 Nov.	30	Up	iP		04 25 46.2	
		Ki	iP		04 26 58.9	
		Sk	iP		04 26 25.3	
		Um	iP		04 26 23.1	
		Ud	iP		04 25 52.0	
		De	iP		04 25 17.2	
		Greece (h = 55 km).				
"	30	Ud	iP		05 42 12.8	
		Aleutian Islands (h = 100 km).				
"	30	Ki	eP		10 58 27	
		Ud	iP		10 59 03.9	
		Vancouver Island (h = 30 km).				
"	30	Ki	ipP		11 51 51.2	
		Um	ipP		11 52 10.8	
		Ud	ipP		11 52 39.5	
		Japan (h = 30 km).				
"	30	Ki	eP		16 12 13	
		Ud	iP		16 11 55.0	
		Iran (h = 35 km).				
"	30	Ki	iP		16 16 02.0	
		Ud	iP		16 15 43.6	
		Iran.				
"	30	Up	iP		18 32 51.5	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		18 32 38.2	
		Sk	iP		18 33 04.0	
		Um	iP		18 32 41.1	
		Ud	iP		18 33 04.6	
		De	iP		18 33 08.6	
		Yunnan, China (h = 20 km).				
"	30	Up	iP		18 43 50.8 C	
		Ki	iP		18 43 37.7	
		Sk	eP		18 44 03	
		Ud	iP		18 44 03.7 C	
		Yunnan, China (h = N).				
"	30	Up	iP		18 45 32.5	
"	30	Ud	iP		19 22 07.2	
"	30	Up	iP		20 41 13.1 C	
			ipP		20 41 20.3	
			iS		20 50 19	
					micr	sec
			P	Z'	0.2	1.2
			pP	Z'	0.3	1.1
		(cont.)				

1975 Nov.	30	(cont.)				
		Up			micr	sec
			Mx	E	7.4	17
			Mx	N	8.0	18
			Mx	Z	12	16
		Ki	iP		20 40 19.4	
					micr	sec
			P	Z'	0.4	1.0
			Mx	E	11	16
			Mx	N	13	16
			Mx	Z	14	17
		Sk	iP		20 40 49.6	
		Um	iP		20 40 46.8 C	
			iS		20 49 28	
		Ud	iP		20 41 12.2 C	
			ipP		20 41 19.4	
		De	iP		20 41 35.0 C	
			ipP		20 41 42.1	
		Aleutian Islands.				
		h = 25 km (Up,Ud,De).				
		m = 6.3 (Up,Ki).				
"	30	Ki	iP		21 16 50.7	
		Ud	iP		21 17 42.2	
		De	iP		21 18 05.7	
		Aleutian Islands (h = N).				
"	30	Ud	iP		22 42 02.0	
"	30	Ki	iP		22 45 37.0	
		Ud	eP		22 46 00	
			i		22 46 11.9	
		Alma-Ata, USSR (h = 35 km).				

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September 14, 1977

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BOX 517
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SWEDEN

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

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

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

D E C E M B E R 1 - 31, 1975

1975				
Dec.	1	Um	iP	01 38 53.5
"	1	Ki	iP	02 15 10.7
"	1	Ki	iP	02 15 18.3
		Um	iP	02 15 45.6
		Ud	iP	02 16 10.9
		De	iP	02 16 33.1
		Aleutian Islands (h = 55 km).		
"	1	Up	iPKP	02 33 13.2
			iSKP1	02 36 27.0
		Ki	iPKP	02 32 58.6
		Sk	iPKP	02 33 10.1
		Um	iPKP	02 33 02.4
			iSKP1	02 36 15.1
		Ud	iPKP	02 33 14.8
			iSKP1	02 36 30.8
		De	iPKP	02 33 22.0
			iSKP1	02 36 40.0
		New Hebrides Islands (h = 120 km).		
"	1	Ud	iP	02 47 04.3
"	1	Ud	iP	04 19 03.3
		Hindu Kush.		
"	1	Ki	iP	05 25 31.2
		Kamchatka (h = 55 km).		
"	1	Up	iP	06 03 18.0
		Ud	iP	06 03 16.7
		Aleutian Islands (h = 30 km).		
"	1	Ki	iP	08 01 36.2
		Ud	iP	08 02 25.8

1975				
Dec.	1	Ud	iP	10 28 13.5
		De	iP	10 27 59.5
"	1	Sk	i(P)	10 44 36.2
"	1	Ki	iP	11 26 51.4
		Um	iP	11 26 06.3
		Ud	iP	11 26 34.5
		Japan (h = 370 km).		
"	1	Up	iP	12 19 45.5 D
			i	12 20 00.9
				micr sec
			P Z'	0.1 1.1
			Mx E	0.9 16
			Mx Z	1.4 21
		Ki	iP	12 19 26.1 D
			i	12 19 32.5
				micr sec
			P Z'	0.2 1.1
		Um	iP	12 19 33.3 D
		Ud	iP	12 19 54.1 D
			i	12 20 12.2
		De	iP	12 20 00.9 D
		Philippine Islands (h = 30 km). m = 6.1 (Up,Ki).		
"	1	Up	iP	14 11 03.2
		Ki	iP	14 10 33.4
			i	14 10 37.1
		Um	iP	14 10 44.2
		Ud	iP	14 11 17.6
		De	iP	14 11 28.3
			i	14 11 31.3
		USSR-Mongolia (h = N).		
"	1	Up	iP	18 47 08.6

(cont.)

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

1975
Dec. 1 (cont.)
Ki iP 18 46 53.1
Ud iP 18 47 17.1
Celebes Sea (h = 330 km).

" 1 Up iP 23 22 48.6
Ud iP 23 22 05.4
De iP 23 22 01.8
Hindu Kush.

" 2 Ud iP 01 14 49.3
Greece.

" 2 Ud iP 01 49 40.3
Kurile Islands (h = N).

" 2 Up iPKPl 05 14 22.6
micr sec
PKPl Z' 0.1 1.2
Ki i 05 14 14.7
Sk i 05 14 26.6
Um iPKPl 05 14 12.1
Ud iPKPl 05 14 25.0

" 2 Up iP 11 14 01.0
Ud iP 11 14 15.5

" 2 Ud iP 15 00 11.3

" 2 Up iPgl 16 05 10.0
iSgl 16 05 27.3
i 16 05 32.0
iRg 16 05 34.9
Sk eSgl 16 06 49
Um iSgl 16 07 07.5
Ud iSgl 16 05 07.0
iRg 16 05 09.9
De iSgl 16 06 42.4
Ställberg, Sweden,
60.0°N, 14.9°E.
Origin time = 16 04 47.
m = 4.0, M_L = 2.2 (Up,Um).
Rockburst.
Felt.

" 2 Ki iP 20 31 09.7
Mariana Islands (h = 140 km).

" 2 Up iP 23 35 37.5
Ki iP 23 35 23.2
Sk i 23 35 46.7
Um iP 23 35 29.3
Ud iP 23 35 46.3
Talaud Islands (h = 170 km).

1975
Dec. 2 Up iP 23 48 01.2
Hindu Kush (h = 210 km).

" 3 Ki iPKP 06 05 00.7
Sk iPKP 06 05 11.9
Um iPKP 06 05 06.8
Santa Cruz Islands
(h = 250 km).

" 3 Up iP 07 25 28.6
micr sec
P Z' 0.1 0.8
Ki iP 07 24 45.8
iPcP 07 25 25.3
micr sec
PcP Z' 0.1 1.1
Sk iP 07 25 21.1
Um iP 07 25 03.5
iPcP 07 25 38.5
Ud iP 07 25 34.8
De iP 07 25 52.2
Japan (h = 80 km).
m = 5.8 (Up,Ki).

" 3 Ki iP 07 47 02.2
Alaska (h = 80 km).

" 3 Up i(P) 09 11 07.1

" 3 Up i(P) 11 16 32.7

" 3 Up iP 12 01 10.3
i 12 01 19.0
micr sec
P Z' 0.1 1.0
Ki iP 12 01 48.2
i 12 01 54.4
micr sec
P Z' 0.1 1.0
Um iP 12 01 31.7
Ud iP 12 01 07.3
De iP 12 00 50.1
South Atlantic Ocean
(h = N).
m = 6.0 (Up,Ki).

" 3 Ud iP 12 04 37.8

" 3 Up iPKPl 13 07 02.6
Um iPKP 13 06 56.4
Ud iPKPl 13 07 05.1

" 3 Up iP 17 19 54.5
i 17 20 12.5
(cont.)

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

1975
Dec. 3 (cont.)

Ki	iP		17 19 37.0
Sk	iP		17 19 59.3
Um	iP		17 19 43.2
Ud	iP		17 20 03.2
	i		17 20 16.2
De	eP		17 20 09

Mindanao (h = 70 km).

" 3

Up	iRg		20 56 16.2
Ud	iRg		20 56 02.4

Central Sweden.
Near-surface event.

" 3

Ud	iP		21 24 44.0

" 4

Up	iP		14 27 27.8
Ki	iP		14 27 10.5
Um	iP		14 27 14.7
Ud	iP		14 27 39.9

Szechwan, China (h = N).

" 4

Um	iP		14 51 06.9

" 4

Up	iP		15 10 53.5
	ipP		15 11 18.4
Ki	iP		15 10 41.0
	ipP		15 11 04.9
			micr sec
	pP	Z'	0.1 1.2
Sk	iP		15 10 35.0
	ipP		15 10 58.6
Um	iP		15 10 49.9
	ipP		15 11 13.6
Ud	iP		15 10 43.9
	ipP		15 10 07.1
De	iP		15 10 49.7
	ipP		15 11 14.6

Mexico.
h = 90 km (Up,Ki,Sk,Um,Ud, De).

" 4

Um	iPKP1		19 08 18.1
Ud	iPKP1		19 08 34.6

" 5

Up	iP		07 45 35.6
	ipP		07 45 45.0
	i		07 47 35.7
			micr sec
	P	Z'	0.3 1.0
	i	Z'	0.4 1.5
Ki	iP		07 45 41.3
			micr sec
	P	Z'	0.2 0.8

(cont.)

1975
Dec. 5 (cont.)

Sk	iP		07 45 59.5
Um	iP		07 45 32.7
Ud	iP		07 45 51.3
De	iP		07 45 48.6

Kashmir-India.
h = 35 km (Up).
m = 6.0 (Up,Ki).

" 5

Up	iP		09 43 27.1
Ki	iP		09 43 34.5
Ud	iP		09 43 14.7
De	iP		09 43 12.4

Venezuela (h = 110 km).

" 5

Ud	iP		13 19 12.3

" 5

Up	iP		14 40 21.9
	iPP		14 44 42.4
Ki	iP		14 40 08.4
	iPP		14 44 19.8
			micr sec
	P	Z'	0.2 0.9
Um	iP		14 40 12.1
Ud	iP		14 40 32.1
	i(PP)		14 43 37.7
	iPP		14 44 56.5
De	iP		14 40 35.0
	iPP		14 44 59.9

Banda Sea (h = 580 km).

" 5

Ud	iP		15 43 28.8

" 5

Ud	iP		18 05 20.4

Alaska (h = 70 km).

" 5

Up	iP		20 25 15.3
	i		20 25 39.9
			micr sec
	P	Z'	0.3 1.1
Ki	iP		20 24 28.4
	ipP		20 24 45.2
	i		20 24 56.4
			micr sec
	P	Z'	0.4 1.3
Um	iP		20 24 49.5
	ipP		20 25 06.4
Ud	iP		20 25 21.1
	ipP		20 25 38.3
De	iP		20 25 37.9

Kurile Islands.
h = 70 km (Ki,Um,Ud).
m = 6.2 (Up,Ki).

" 6

Up	iP		05 25 25.6

(cont.)

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

1975
Dec. 6 (cont.)

Up			micr	sec
	P	Z'	0.3	1.1
Ki	iP		05 25 06.5	
	ipP		05 25 15.6	
			micr	sec
	P	Z'	0.5	1.5
	Mx	E	3.7	13
	Mx	N	2.8	14
	Mx	Z	3.3	12
Sk	iP		05 25 30.7	
Um	iP		05 25 12.7	
	ipP		05 25 22.0	
Ud	iP		05 25 35.2	
De	iP		05 25 42.2	

Philippine Islands.
h = 30 km (Ki,Um).
m = 6.3 (Up,Ki).

" 6

Ki	iP	05 30 23.8
Um	iP	05 30 30.3
Ud	iP	05 30 53.5

Philippine Islands (h = 45 km).

" 6

Up	iP		07 10 47.7	
			micr	sec
	P	Z'	0.1	1.2
Ki	iP		07 10 29.3	
Sk	eP		07 10 55	
Um	iP		07 10 35.1	
Ud	iP		07 10 57.6	

Philippine Islands (h = 50 km).

" 6

Ki	eP	08 25 13
Ud	iP	08 24 12.7

Aegean Sea (h = 25 km).

" 6

Up	iPKP2	17 31 03.7
Um	iPKP1	17 30 47.2
	i	17 31 00.9
	i	17 31 07.4
Ud	iPKP1	17 30 59.0
	iPKP2	17 31 05.4

Kermadec Islands (h = N).

" 6 Um iP 17 39 41.8

" 7

Up	iPKP	04 20 57.2
Um	i1	04 20 56.2
	i2	04 21 02.3
Ud	iPKP	04 20 59.2
	i1	04 21 07.5
De	iPKP	04 21 03.1
	i2	04 21 17.1

New Ireland (h = 40 km).

1975
Dec. 7

Up	iP	08 08 56.7
Um	iP	08 08 33.2
Ud	iP	08 09 03.0
	ipP	08 09 09.0

Kurile Islands.
h = 20 km (Ud).

" 7 Ud iP 09 55 49.8
Ryukyu Islands (h = 25 km).

" 7 Ud iP 12 15 13.1

" 8

Ki	iP	10 33 33.9
Ud	iP	10 34 06.8

Philippine Islands (h = 15 km).

" 8

Up	eP	16 17 36
Ki	iP	16 16 00.4
	i	16 16 19.4
Um	iP	16 16 54.2
Ud	iP	16 17 33.6

Svalbard (h = N).

" 8

Up	iP		19 06 08.2	
	ipP		19 06 19.4	
			micr	sec
	pP	Z'	0.2	1.3
Ki	iP		19 05 14.6	
	ipP		19 05 25.5	
			micr	sec
	P	Z'	0.1	0.7
Sk	i		19 05 53.9	
	ipP		19 06 02.4	
Um	iP		19 05 40.8	
	i		19 05 43.5	
	ipP		19 05 51.6	
Ud	iP		19 05 51.6	
	i		19 06 26.5	
De	iP		19 06 33.9	
	ipP		19 06 44.5	

Kamchatka.
h = 40 km (Up,Ki,Um,De).
m = 6.0 (Up,Ki).

" 8

Up	iP	21 30 44.2
Ki	iP	21 29 50.6
Um	iP	21 30 18.6
Ud	iP	21 30 43.4

Aleutian Islands (h = 20 km).

" 8

Up	iP		22 57 30.5	C
	iS		23 01 07	
			micr	sec
	P	Z'	0.1	0.9

(cont.)

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

1975 Dec. 8 (cont.)

Up			micr	sec
	Mx	E	1.9	20
	Mx	N	6.6	17
	Mx	Z	10	19
Ki	iP		22 55 58.3 C	
			micr	sec
	P	Z'	1.7	2.4
	Mx	E	3.5	13
	Mx	N	6.7	14
	Mx	Z	4.0	11
Sk	iP		22 56 45.6 C	
Um	iP		22 56 50.3 C	
	iS		22 59 48	
Ud	iP		22 57 26.4 C	
De	iP		22 58 03.4 C	

Greenland Sea (h = N).
m = 6.0, M = 4.9 (Up,Ki).

" 9

Up	iP		01 35 41.2	
	ipP		01 37 41.4	
			micr	sec
	P	Z'	0.3	1.1
Ki	iP		01 35 24.2	
	i		01 37 34.6	
			micr	sec
	P	Z'	0.4	1.0
Sk	iP		01 35 45.0	
Um	iP		01 35 29.7	
Ud	iP		01 35 48.3	
	ipP		01 37 50.2	
De	iP		01 35 53.8	

Mindanao.
h = 560 km (Up,Ud).
m = 6.3 (Up,Ki).

" 9 Ud iP 05 49 34.1
Mindanao (h = 480 km).

" 9 Ud iP 07 34 34.6

" 9

Sk	eP		09 03 14	
Um	iP		09 02 58.3	
Ud	iP		09 03 18.9	

Mindanao (h = 90 km).

" 9

Up	i(PKP)		09 33 50.7	
	iPKP		09 33 58.9	
			micr	sec
	Mx	E	3.4	28
	Mx	N	6.6	34
	Mx	Z	10	34
Ki	iPKP		09 33 42.5	

(cont.)

1975 Dec. 9 (cont.)

Ki			micr	sec
	PKP	Z'	0.1	1.2
	Mx	N	5.5	19
	Mx	Z	6.3	21
Sk	iPKP		09 33 51.9	
Um	i(PKP)		09 33 39.8	
	iPKP		09 33 49.5	
Ud	i(PKP)		09 33 48.9	
	iPKP		09 33 58.3	
De	iPKP		09 34 05.1	

Samoa Islands (h = N).

" 9

Ki	iPKP	13 52 00.5
Um	iPKP	13 52 08.5
Ud	iPKP1	13 52 07.9
De	iPKP1	13 52 17.6

Fiji Islands (h = 640 km).

" 9 Um iP 23 11 45.4

" 10

Up	iP		03 34 34.0	
	ipP		03 34 39.9	
	iPP		03 36 27.3	
			micr	sec
	P	Z'	0.3	1.2
	Mx	N	2.1	10
Ki	iP		03 34 39.2	
	iPP		03 36 27.7	
			micr	sec
	P	Z'	0.3	1.2
	Mx	E	6.7	12
	Mx	N	3.1	12
	Mx	Z	4.6	11
Sk	iP		03 34 57.1	
	ipP		03 35 03.2	
Um	iP		03 34 31.1	
	ipP		03 34 37.0	
Ud	iP		03 34 49.8	
De	iP		03 34 47.4	

Kashmir-India.
h = 20 km (Up,Sk,Um).
m = 5.9, M = 5.6 (Up,Ki).

" 10

Up	iP	05 12 07.9
Ki	iP	05 12 13.3
Sk	iP	05 12 31.1
Um	iP	05 12 04.3
Ud	iP	05 12 23.1

Kashmir-India (h = N).

" 10

Up	iP	05 17 05.8
Ki	iP	05 17 10.7
Sk	i	05 17 35.0
Um	iP	05 17 02.1
Ud	iP	05 17 21.4

Kashmir-India (h = 55 km).

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

1975

Dec.	10	Up	iP		06 30 53.7	
					micr	sec
			P	Z'	0.1	1.1
		Ki	iP		06 30 50.4	
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		06 31 14.1	
		Um	iP		06 30 46.2	
		Ud	iP		06 31 09.9	
		De	iP		06 31 10.7	
		Kirgiz-Sinkiang (h = 50 km).				
		m = 5.5 (Up,Ki).				
"	10	Ki	iP		08 43 53.0	
		Ud	iP		08 44 12.3	
		Kirgiz SSR.				
"	10	Ki	iP		17 07 14.7	
		Ud	iP		17 08 44.9	
"	10	Ki	iP		17 18 32.5	
		Kirgiz SSR.				
"	10	Ud	iP		18 18 07.2	
		De	eP		18 17 38	
		Crete (h = 50 km).				
"	10	Ud	iP		21 10 08.3	
"	11	Ud	iP		01 29 45.0	
"	11	Up	iPKPl		03 02 47.8	
		Um	iPKPl		03 02 37.0	
		Ud	iPKPl		03 02 49.5	
		De	iPKPl		03 03 00.2	
"	11	Up	iP		03 51 32.6	
		Ki	iP		03 50 39.3	
		Um	iP		03 51 05.5	
		Ud	iP		03 51 34.2	
		Aleutian Islands (h = 70 km).				
"	11	Up	iPKP		05 35 05.6	
		Ki	iPKP		05 34 51.5	
		Um	iPKP		05 34 58.0	
		Ud	iPKP		05 35 06.7	
		De	iPKP		05 35 12.3	
		Santa Cruz Islands (h = 50 km).				
"	11	Ud	iP		06 39 20.7	
		Vancouver Island (h = N).				
"	11	Ud	iP		07 14 00.6	
		Vancouver Island (h = 20 km).				

1975

Dec.	11	Up	iP		07 53 50.0	
		Ud	iP		07 53 58.9	
		Ryukyu Islands (h = 130 km).				
"	11	Up	iP		10 18 14.0	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		10 18 19.7	
					micr	sec
			P	Z'	0.1	1.1
		Sk	iP		10 18 37.8	
		Um	iP		10 18 10.9	
		Ud	iP		10 18 29.8	
		De	iP		10 18 26.9	
		Kashmir-India (h = 60 km).				
		m = 5.5 (Up,Ki).				
"	11	Up	i(P)		13 53 47.8	
		Ud	i(P)		13 53 56.9	
			i		13 54 05.2	
"	11	Up	iP		13 56 07.3	
		Ud	iP		13 56 24.0	
		De	iP		13 56 11.6	
		Caspian Sea (h = N).				
"	11	Up	iP		16 54 08.4	
			ipP		16 54 24.5	
					micr	sec
			P	Z'	0.2	1.0
		Ki	iP		16 53 21.6	
					micr	sec
			P	Z'	0.1	1.0
		Sk	iP		16 53 56.9	
		Um	iP		16 53 42.8	
			ipP		16 53 58.8	
		Ud	iP		16 54 14.2	
		De	iP		16 54 33.1	
		Kurile Islands.				
		h = 60 km (Up,Um).				
		m = 6.0 (Up,Ki).				
"	11	Up	iP		17 33 01.4	
		Ud	iP		17 33 08.2	
		Greece (h = 25 km).				
"	11	Ki	iPP		20 35 15.8	
					micr	sec
			PP	Z'	0.1	1.0
		Peru (h = 100 km).				
"	11	Um	iP		22 08 32.7	
		Ud	iP		22 09 02.5	

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

1975				
Dec.	11	Ud	iP	22 46 47.1
		Iran-USSR (h = 20 km).		
"	12	Ud	i	03 18 38.2
			iRg	03 18 48.0
		Regional near-surface event.		
"	12	Ud	iP	04 16 49.1
"	12	Up	iP	08 25 39.4
		Ki	iP	08 25 21.2
		Um	iP	08 25 27.8
		Ud	iP	08 25 47.5
		Samar (h = 55 km).		
"	12	Sk	il	13 28 03.9
		Um	il	13 28 00.2
		Ud	ePKP	13 27 55.7
			il	13 28 09.7
		De	iSKPl	13 31 27.1
		Santa Cruz Islands (h = 55 km).		
"	13	Ud	iP	03 55 35.5
"	13	Up	iP	04 40 33.9
		Ki	eP	04 40 28
		Um	iP	04 40 28.9
		Ud	iP	04 40 43.4
		De	iP	04 40 43.5
		Java Sea (h = 610 km).		
"	13	Up	iP	05 03 52.3
			iPn	05 04 59.2
		Ki	iP	05 03 37.1 C
				micr sec
			P Z'	0.1 0.6
		Sk	iP	05 04 08.4
		Um	iP	05 03 37.7
		Ud	iP	05 04 09.3 C
			iPn	05 05 23.8
		Kazakh SSR.		
		Underground explosion.		
"	13	Up	iP	10 12 45.9
		Ud	iP	10 12 59.6
"	13	Ud	iP	13 53 41.4
"	13	Up	i(S*)	15 33 39.2
			iSgl	15 33 45.1
		Ki	iPgl	15 30 16.8
			iSn	15 30 29.0
			iSgl	15 30 32.9
		Sk	iSgl	15 32 43.1
		(cont.)		

1975				
Dec.	13	(cont.)		
		Um	iPgl	15 30 51.5
			iSn	15 31 18.0
			iSgl	15 31 33.6
		Ud	iSgl	15 33 57.0
		Swedish Lapland,		
		66.8°N, 22.4°E.		
		Origin time = 15 29 55.		
		m = 4.3, M_L = 2.7 (Ki,Um,Ud).		
		Felt.		
"	13	Up	iPKPl	16 12 11.4
			i	16 12 17.3
		Um	iPKPl	16 12 00.4
		Ud	iPKPl	16 12 13.0
"	13	Ud	eP	17 59 17
			i	17 59 34.6
		Hindu Kush.		
"	13	Ud	iP	19 10 30.8
"	13	Up	iP	22 46 06.8 D
			ipP	22 46 27.8
				micr sec
			P Z'	0.1 0.7
		Ki	iP	22 46 00.8 D
				micr sec
			P Z'	0.1 0.8
		Sk	iP	22 46 22.6 D
		Um	iP	22 45 59.6 D
			ipP	22 46 20.3
		Ud	iP	22 46 20.3 D
			ipP	22 46 41.2
		De	iP	22 46 21.8
			ipP	22 46 43.1
		Burma-India.		
		h = 80 km (Up,Um,Ud,De).		
		m = 6.0 (Up,Ki).		
"	13	Ud	i(P)	23 01 05.1
"	14	Ud	iP	09 59 07.4
"	14	Up	iP	17 43 13.0
		Ud	iP	17 43 05.7
"	14	Up	iP	21 02 05.5
		Ki	eP	21 01 50
		Ud	eP	21 02 12
			i	21 02 23.7
		Negros (h = 15 km).		
"	14	Up	iP	23 14 27.1
		Ki	i	23 14 32.6
		(cont.)		

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

1975
Dec. 14 (cont.)

Ud	iP		23 14 43.0
De	iP		23 14 42.9

Tadzhik-Sinkiang (h = 55 km).

" 14	Up	iP		23 25 31.5
			micr	sec
		P	Z' 0.5	1.7
	Ud	iP		23 25 39.7
	De	iP		23 25 19.0

Arabian Peninsula (h = N).

" 14	Up	iP		23 36 07.6
			micr	sec
		P	Z' 0.2	1.1
	Ud	iP		23 36 17.6
	De	iP		23 35 55.3

Arabian Peninsula (h = N).

" 15	Up	iP	01 05 27.8
	Ud	iP	01 05 35.5

Japan (h = 70 km).

" 15	Up	iPKP1		04 43 48.1
			micr	sec
		PKP1	Z' 0.1	0.9
	Ud	iPKP1		04 43 49.6
	De	iPKP1		04 43 57.9

Kermadec Islands (h = 200 km).

" 15	Up	iP		13 49 04.0
			micr	sec
		P	Z' 0.1	1.0
	Ud	iP		13 48 55.9

Atlantic Ocean (h = N).

" 15	Ud	iP	19 11 43.5

Tadzhik SSR (h = 210 km).

" 15	Ud	iPKP1	19 20 07.2
		i	19 20 09.8
	De	i	19 20 19.0

Tonga-Kermadec Islands
(h = 100 km).

" 15	Up	iPKP1	22 30 51.7
	Ud	iPKP1	22 30 53.6
	De	iPKP1	22 31 04.0

" 16	Up	iPKP1	02 23 44.1
	Ud	iPKP1	02 23 44.7
	De	iPKP1	02 23 55.2

Fiji Islands (h = 550 km).

" 16	Up	iP	04 01 11.4

(cont.)

1975
Dec. 16 (cont.)

Up				
			micr	sec
	P	Z'	0.1	1.2
Ki	iP			04 00 45.7
			micr	sec
	P	Z'	0.1	1.4
Um	iP			04 00 53.1
Ud	iP			04 00 54.3
De	i			04 01 32.9

Iceland (h = 10 km).
m = 4.8 (Up,Ki).

" 16	Up	iP		05 00 48.6
			micr	sec
		P	Z' 0.1	1.0
	Ki	iP		05 00 03.9
			micr	sec
		P	Z' 0.1	1.0
	Um	iP		05 00 24.4
	Ud	iP		05 00 55.0
	De	iP		05 01 13.2

Kurile Islands (h = 40 km).
m = 5.9 (Up,Ki).

" 16	Ki	i(pP)	07 49 26.3

Iran-USSR (h = 60 km).

" 16	Up	iP	08 13 04.0

Greece-Albania (h = 70 km).

" 16	Up	iP	10 17 07.5
	Ki	iP	10 16 44.1

Iceland (h = 20 km).

" 16	Up	iP		10 18 57.5
			micr	sec
		P	Z' 0.1	1.0
	Ki	iP		10 18 25.7
		ipP		10 18 37.2
			micr	sec
		P	Z' 0.1	1.0
	Sk	iP		10 18 57.2
	Um	iP		10 18 39.5

Japan.
h = 40 km (Ki).
m = 5.8 (Up,Ki).

" 16	Up	iP		13 41 55.4
			micr	sec
		P	Z' 0.1	1.0
	Ki	iP		13 42 43.6
			micr	sec
		P	Z' 0.1	1.1
	Um	iP		13 42 22.6
	De	iP		13 41 25.9

(cont.)

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

1975
Dec. 16 (cont.)
North Atlantic Ocean (h = N).
m = 5.5 (Up,Ki).

" 16 Ki iP 13 45 23.5
Mariana Islands (h = 80 km).

" 16 Up iP 15 52 07.1 C
micr sec
P Z' 0.2 1.0
Ki iP 15 51 35.4 C
micr sec
P Z' 0.1 1.0
Sk eP 15 52 04 C
Um iP 15 51 49.3 C
De eP 15 52 27
Japan (h = 480 km).
m = 5.5 (Up,Ki).

" 16 Um iP 18 37 15.4

" 16 Ki iP 20 00 41.6
ipP 20 01 15.7
Sk iP 20 01 08.7
Um iP 20 00 54.6
ipP 20 01 29.4
Volcano Islands.
h = 140 km (Ki,Um).

" 16 Up iP 23 16 11.2
Um iP 23 15 49.6
Japan (h = 50 km).

" 17 Up iP 00 47 44.7

" 17 Up iPKP 01 55 40.9
Um iPKP 01 55 49.0
South Sandwich Islands
(h = N).

" 17 Ki iP 02 58 55.9
Sk iP 02 58 28.9
Um iP 02 58 21.5
Crete (h = 55 km).

" 17 Sk ePKPl 05 18 37
Um iPKP 05 18 38.6
De iPKPl 05 18 53.7
Tonga-Kermadec Islands
(h = 440 km).

" 17 Up iP 05 47 24.4 C
micr sec
P Z' 0.1 0.8
Mx E 10 18
(cont.)

1975
Dec. 17 (cont.)
Up micr sec
Mx N 13 19
Mx Z 22 18
Ki iP 05 47 25.0 C
micr sec
P Z' 0.2 1.4
Mx E 13 17
Mx N 18 18
Mx Z 14 16
Sk iP 05 47 39.8 C
Um iP 05 47 21.2 C
De iP 05 47 33.6 C
Sumatra (h = 15 km).
m = 6.0, M = 6.5 (Up,Ki).

" 17 Um iP 06 03 29.1
Afghanistan-USSR (h = 170 km).

" 17 Up iPKP 08 00 47.1
micr sec
PKP Z' 0.1 0.9
Ki iPKP 08 00 35.1 C
Sk iPKP 08 00 45.8
Um iPKP 08 00 40.3 C
Ud iPKP 08 00 49.6
De iPKP 08 00 55.3 C
Solomon Islands (h = 70 km).

" 17 Ud iPKP 08 36 07.5
De iPKP 08 36 12.9
Solomon Islands (h = 70 km).

" 17 Ki iP 10 58 32.0

" 17 Ud iP 13 19 00.5

" 17 Up iP 13 42 40.2
Ud iP 13 42 54.8
De iP 13 42 40.9
Iran (h = N).

" 17 Up iPKPl 14 00 03.0
Ud iPKPl 14 00 05.2
De iPKPl 14 00 16.3
Tonga-Kermadec Islands
(h = 620 km).

" 17 Ud iP 22 00 43.3
Turkey (h = N).

" 18 De iP 00 14 36.0

" 18 Ud i(P) 03 47 13.5

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

1975 Dec.	18	Ki	iP	06 24 25.8
		Um	iP	06 24 33.0
			i	06 24 35.8
			ipP	06 24 43.7
		Ud	iP	06 24 56.2
		Philippine Islands.		
		h = 35 km (Um).		
"	18	Up	i	08 35 43.5
		Ki	iP	08 35 33.7
		Um	iP	08 35 29.0
		Ud	iP	08 35 50.6
			i	08 35 54.7
		De	i	08 35 57.4
		Kashmir-Tibet (h = N).		
"	18	Ki	iP	08 46 47.4
		Ud	iP	08 46 59.8
		Java (h = 80 km).		
"	18	Up	i	17 11 18.0
			iRg	17 11 21.6
		Ud	iRg	17 11 06.8
		Central Sweden.		
		Near-surface event.		
"	18	Ud	iRg	17 12 48.0
		Central Sweden.		
		Near-surface event.		
"	18	Up	i	17 17 02.4
			iRg	17 17 03.8
		Ud	iRg	17 16 48.0
		Central Sweden.		
		Near-surface event.		
"	18	Up	iPgl	17 17 14.5
			i	17 17 30.9
			iRg	17 17 33.5
		Ud	iSgl	17 17 12.8
			iRg	17 17 17.8
		Central Sweden.		
		Near-surface event.		
"	19	Ki	iP	02 33 16.2
		Sk	iP	02 33 27.3
		Um	iP	02 33 22.7
		Ud	iP	02 33 31.6
		De	iP	02 33 37.8
		Santa Cruz Islands (h = N).		
"	19	Ki	iP	04 08 30.2
		Ud	iP	04 08 56.0
		Leyte (h = N).		

1975 Dec.	19	Ud	i	08 10 05.5
		De	iP	08 09 48.7
		Iran (h = 60 km).		
"	19	Sk	eP	09 22 24
		Ud	iP	09 21 52.9
		De	iP	09 21 17.3
		Greece (h = 45 km).		
"	19	Ki	ipP	12 54 59.1
		Sk	ipP	12 55 00.1
		Ud	iP	12 54 30.7
			ipP	12 54 42.6
		De	iP	12 54 16.0
		Iran.		
		h = 45 km (Ud).		
"	19	Up	iSgl	13 35 24.9
		Ud	iSgl	13 34 26.0
		Regional event.		
		Probably west coast of Norway.		
		By combination with Bergen reading.		
"	19	Up	iPKP	13 59 08.2
		Ki	epPKP	13 59 31
		Um	iPKP	13 59 14.2
			ipPKP	13 59 22.3
		Ud	iPKP	13 59 07.4
			ipPKP	13 59 14.4
		South Sandwich Islands.		
		h = 25 km (Um,Ud).		
"	19	Ud	iP	18 22 56.0
"	19	Up	iP	23 17 34.2
		Ki	iP	23 16 46.0
		Um	iP	23 17 08.5
		Ud	iP	23 17 39.7
			ipP	23 17 49.6
		Kurile Islands.		
		h = 35 km (Ud).		
"	20	Up	iP	05 09 32.1
		Ki	iP	05 09 21.1
		Ud	iP	05 09 45.4 C
			iPcP	05 10 25.6
		De	iP	05 09 48.7
		Burma-India (h = N).		
"	20	Ud	iP	09 11 14.3
"	20	Ud	iP	10 58 45.6
		Philippine Islands (h = 100 km).		

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

1975					
Dec.	20	Up	iSKPl	12 13 28.3	
		Ud	iSKPl	12 13 32.3	
		De	iSKPl	12 13 41.7	
		New Hebrides Islands			
		(h = 190 km).			
"	20	Up	iP	20 11 48.7	C
				micr sec	
			P Z'	0.3 1.4	
		Ki	iP	20 11 14.6	C
			i	20 11 33.3	
				micr sec	
			P Z'	0.2 1.5	
		Sk	iP	20 11 22.3	C
		Um	iP	20 11 34.1	C
		Ud	iP	20 11 40.9	C
		De	iP	20 11 57.2	C
		Nevada.			
		m = 6.1 (Up,Ki).			
		Underground explosion.			
"	20	Up	i	20 31 38.2	
			ipP	20 31 58.9	
				micr sec	
			pP Z'	1.0 1.1	
		Ki	iP	20 31 03.6	
		Um	ipP	20 31 37.5	
		Ud	iP	20 31 39.7	
			ipP	20 32 05.1	
		De	iP	20 31 52.7	
		Volcano Islands.			
		h = 100 km (Ud).			
"	21	Up	iP	01 16 02.1	
		Ud	iP	01 16 13.8	
		Carlsberg Ridge (h = N).			
"	21	Up	iP	01 26 29.6	
		Ud	iP	01 26 41.2	
		Carlsberg Ridge (h = N).			
"	21	Up	iPKPl	01 46 59.8	
		Ud	iPKPl	01 46 59.6	
"	21	Um	iP	02 23 17.9	
		Ud	iP	02 23 41.2	
"	21	Ud	iP	06 45 55.3	
"	21	Ud	iP	07 00 14.9	
"	21	Up	iP	11 03 48.5	D
			ipP	11 05 39.0	
			iS	11 11 31.4	
				micr sec	
			P Z'	4.1 1.0	
			pP Z'	3.1 1.6	
		(cont.)			

1975					
Dec.	21	(cont.)			
		Ki	iP	11 02 58.1	D
			ipP	11 04 43.8	
			iS	11 10 03	
				micr sec	
			P Z'	2.6 0.8	
			pP Z'	3.3 2.0	
		Sk	iP	11 03 34.7	D
			ipP	11 05 25.5	
		Um	iP	11 03 21.6	D
			ipP	11 05 06.6	
		Ud	iP	11 03 53.2	D
			ipP	11 05 42.9	
		De	iP	11 04 13.0	D
			ipP	11 06 06.2	
		Sea of Okhotsk.			
		h = 560 km (Up,Ki,Sk,Um,Ud, De).			
		m = 6.3 (Up,Ki).			
"	21	Ki	iP	12 55 15.3	
			i	12 56 00.2	
			i	12 58 08.4	
		Ud	iP	12 55 19.1	
			i	12 56 26.7	
		Iceland (h = N).			
"	21	Up	iP	14 34 27.5	
"	21	Ki	iP	15 43 37.8	
		Sk	iP	15 43 10.5	
		Ud	iP	15 42 38.9	
			ipP	15 42 55.6	
		Eastern Mediterranean Sea.			
		h = 70 km (Ud).			
"	21	Up	iP	16 12 42.2	C
			i	16 12 44.6	
			iS	16 16 44	
				micr sec	
			P Z'	0.4 1.1	
			Mx E	6.9 11	
			Mx N	8.2 12	
		Ki	iP	16 13 58.0	
			i	16 14 04.7	
				micr sec	
			P Z'	0.2 1.1	
		Sk	iP	16 13 24.1	
		Um	iP	16 13 21.7	C
		Ud	iP	16 12 50.1	C
			i	16 12 54.1	
			iS	16 16 52.5	
		De	iP	16 12 11.3	C
			i	16 12 21.1	
			i	16 12 25.2	
		Greece (h = N).			
		m = 5.7 (Up,Ki).			

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

1975
Dec. 21 Ud i 19 36 45.8
Greece (h = 20 km).

" 21 Up iP 21 10 04.8
Ud i 21 10 19.2
Greece (h = N).

" 21 Up iP 21 47 24.5
Ud iP 21 47 30.1
Kurile Islands (h = N).

" 22 Ud iP 02 00 41.8

" 22 Ud iP 02 44 02.9
Mindanao (h = 70 km).

" 22 Ki iPgl 02 53 52.5
iSgl 02 54 20.1
Um iSgl 02 56 17.6
Coast of north Norway,
69.4°N, 16.7°E.
Origin time = 02 53 16.
m = 4.5, M_L = 3.2 (Ki,Um).
Felt.
By combination with Tromsoe
and Finnish station readings.

" 22 Up iPKP 07 01 12.5
Ud iPKP 07 01 11.8
South Sandwich Islands
(h = 100 km).

" 22 Ud iP 10 30 37.0

" 22 Up iP 14 54 08.9

" 23 Ud iPKP1 01 00 14.1
De iPKP1 01 00 25.1 C
Fiji Islands (h = 620 km).

" 23 Ud iP 06 44 27.5

" 23 Ud iP 10 47 20.1

" 23 Up i 11 44 09.3
iRg 11 44 12.9
Ud iSgl 11 44 29.0
East-central Sweden.
Near-surface event.

" 23 Up iPKP 12 29 30.7
iPKP1 12 29 34.0
iPKP2 12 29 37.9
micr sec
PKP1 Z' 0.1 1.2
(cont.)

1975
Dec. 23 (cont.)
Um iPKP1 12 29 21.1
Ud iPKP1 12 29 34.0
iPKP2 12 29 40.7
Kermadec Islands (h = 410 km).
Phases are about 12 sec late
when compared with USNOS
source parameter data.

" 23 Ud iP 14 23 55.7
Tadzhik-Sinkiang (h = 190 km).

" 23 Up iP 18 46 01.2
Ud iP 18 46 09.9
Philippine Islands (h = 90 km).

" 24 Up iPKP 05 43 32.7
Ki iPKP 05 43 48.7
Um iPKP 05 43 41.3
Ud iPKP 05 43 32.2
South Sandwich Islands
(h = 110 km).

" 24 Up iPKP 05 44 28.9
Ki iPKP 05 44 43.9
Um iPKP 05 44 36.8
Ud iPKP 05 44 28.0
South Sandwich Islands.

" 24 Ki iP 09 37 18.0
iS 09 39 53.4
i 09 40 08.0
micr sec
P Z' 0.1 1.4
i Z' 0.2 1.5
Sk iP 09 37 07.9
i 09 39 41.8
Um iP 09 37 38.7
i 09 41 01.5
Ud iP 09 37 32.9
i 09 40 06.5
i 09 40 44.9
Iceland, near 68°N, 17°W.
Origin time = 09 34 00.

" 24 Ud i(P) 11 29 39.7

" 24 Up iP 11 56 44.2 C
micr sec
P Z' 0.2 0.8
Mx E 3.5 20
Mx N 4.1 25
Mx Z 3.8 25
Ki iP 11 57 18.3 C
(cont.)

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

1975
Dec. 24 (cont.)

Ki			micr	sec	
	P	Z'	0.1	0.9	
	Mx	E	2.5	12	
	Mx	N	2.0	9	
	Mx	Z	3.3	11	
Sk	iP		11 57 17.9		C
Um	iP		11 56 56.2		C
	iS		12 03 28		
Ud	iP		11 56 59.3		C
De	iP		11 56 43.8		C

Iran (h = N).
m = 5.7, M = 5.5 (Up,Ki).

" 24

Up	iP	12 02 05.7
Ki	iP	12 02 42.8
Sk	eP	12 02 44
Ud	iP	12 02 21.9
De	eP	12 02 09

Iran.

" 24 Ud iP 13 15 46.2

" 24

Up			micr	sec
	Mx	E	2.3	20
	Mx	N	3.6	22
	Mx	Z	4.2	25
Ki			micr	sec
	Mx	N	2.9	17
Um	i		15 16 29.6	
	i		15 16 46.1	
Ud	iPKP		15 16 31.9	
De	i		15 16 46.4	

Solomon Islands (h = N).
M = 6.2 (Up,Ki).

" 24

Up	iP		17 09 52.6	
	i		17 10 01.3	
			micr	sec
	P	Z'	0.1	1.3
Um	iP		17 10 30.6	
Ud	iP		17 09 59.5	
	i		17 10 06.7	
De	iP		17 09 23.6	
	i		17 09 26.5	

Greece (h = 110 km).

" 24

Ki	iP	17 44 28.5
	iS	17 47 05.2
	i	17 47 17.4
Um	iP	17 44 49.1
Ud	iP	17 44 42.4

Iceland, near 68°N, 17°W.
Origin time = 17 41 09.

1975
Dec. 24

Up	iP	18 48 20.3
Ki	iP	18 48 55.5
Um	iP	18 48 34.0
Ud	iP	18 48 35.7

Iran (h = N).

" 24

Up	iP		18 59 02.1	
			micr	sec
	P	Z'	0.1	1.0
Ki	iP		18 58 15.6	
			micr	sec
	P	Z'	0.1	1.0
Sk	eP		18 58 52	
Um	iP		18 58 36.6	
Ud	iP		18 59 08.4	
De	iP		18 59 26.5	

Kurile Islands (h = 45 km).
m = 5.7 (Up,Ki).

" 24

Up	iP	19 00 32.0
Um	iP	19 00 06.2
Ud	iP	19 00 37.3

" 24

Ki	eP	19 26 53
Ud	iP	19 27 44.1

" 24

Up	iP		20 02 57.9	
	i		20 03 00.2	
			micr	sec
	P	Z'	0.1	1.0
	i	Z'	0.1	0.8
Ki	iP		20 03 33.3	
	i		20 05 21.2	
Sk	iP		20 03 33.0	
Um	iP		20 03 10.0	
Ud	iP		20 03 13.1	
	i		20 03 15.3	
	iPP		20 05 00.5	
De	iP		20 02 58.1	

Iran (h = N).

" 24 Ud iP 20 58 44.6
Iran (h = 40 km).

" 24 Ud iP 21 03 54.4

" 24

Up	iP	21 12 00.6
Ki	i	21 12 37.0
Um	iP	21 12 12.7
Ud	iP	21 12 15.1
	i	21 12 37.9
De	i	21 12 04.0

Iran (h = N).

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

1975 Dec.	24	Ki	iP		23 42 43.5	
		Um	iP		23 43 09.8	
		Ud	iP		23 43 35.3	
		Aleutian Islands (h = N).				
"	25	Ud	iP		02 06 05.9	
"	25	Ud	iP		02 10 01.9	
		Japan (h = 400 km).				
"	25	Ki	iP		05 21 42.0	
"	25	Up	iP		05 23 54.4	C
			iPP		05 25 12.4	
					micr	sec
			P	Z'	0.7	0.8
		Ki	iP		05 23 37.6	C
					micr	sec
			P	Z'	0.6	0.7
		Sk	iP		05 24 09.3	C
			iPP		05 25 31.9	
		Um	iP		05 23 38.4	C
		Ud	iP		05 24 10.6	C
		De	iP		05 24 18.0	C
		Eastern Kazakh SSR.				
		m = 6.6 (Up,Ki).				
		Underground explosion.				
"	25	Ki	iP		05 47 46.8	
			iS		05 50 20.4	
			i		05 50 32.0	
		Iceland (h = 10 km).				
"	25	Ud	iP		09 50 18.6	
		Greece (h = 25 km).				
"	25	Up	iP		15 47 29.2	
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		15 46 42.2	
					micr	sec
			P	Z'	0.1	1.1
		Um	iP		15 47 03.5	
		Ud	iP		15 47 34.7	
		De	iP		15 47 53.3	
		Kurile Islands (h = 50 km).				
		m = 5.8 (Up,Ki).				
"	25	Up	iP		15 57 07.8	
		Ki	iP		15 56 48.4	
		Um	iP		15 56 56.1	
		Ud	iP		15 57 18.0	
		De	iP		15 57 25.8	
		Luzon (h = 55 km).				

1975 Dec.	25	Up	iP		16 11 13.7	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		16 10 26.8	
					micr	sec
			P	Z'	0.1	0.9
		Sk	iP		16 11 02.2	
		Um	iP		16 10 48.4	
		Ud	iP		16 11 19.5	
		De	iP		16 11 37.8	
		Kurile Islands (h = 45 km).				
		m = 5.8 (Up,Ki).				
"	25	Ud	iP		17 17 33.4	
"	25	Up	iPKPl		17 50 46.0	
		Ud	iPKPl		17 50 48.5	
		De	iPKPl		17 50 58.5	
		Tonga- Kermadec Islands (h = 540 km).				
"	25	Up	iP		20 10 19.5	
		Ki	iP		20 09 25.8	
		Ud	iP		20 10 17.6	
		Unimak Island (h = N).				
"	25	Up	iP		21 49 22.2	
			ipP		21 49 33.7	
					micr	sec
			P	Z'	0.1	1.0
		Ki	iP		21 48 38.0	
					micr	sec
			P	Z'	0.1	1.0
		Um	ipP		21 49 08.4	
		Ud	iP		21 49 28.3	
			ipP		21 49 38.4	
		Japan.				
		h = 35 km (Up,Ud).				
		m = 5.9 (Up,Ki).				
"	25	Up	iP		22 08 26.3	
			i		22 08 29.0	
			i		22 10 30.1	
			iS		22 11 26.6	
					micr	sec
			P	Z'	0.4	1.4
			Mx	E	1.3	22
			Mx	Z	4.0	28
		Ki	iP		22 07 57.0	
			i		22 07 59.1	
			iS		22 10 31.1	
					micr	sec
			P	Z'	1.4	1.4
			Mx	E	9.9	11
			Mx	N	8.2	11
			Mx	Z	6.9	12

(cont.)

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

1975
Dec. 25 (cont.)

Sk	iP		22 07 30.5	
	i		22 07 32.5	
	iS		22 09 43.7	
Um	iP		22 08 12.6	
	i		22 08 16.6	
	i		22 08 19.6	
	iS		22 10 55.9	
Ud	iP		22 08 02.5	
	i		22 08 06.4	
	i		22 08 13.4	
	iS		22 10 42.9	
De	iP		22 08 37.1	

Iceland, near 67°N, 16°W.
Origin time = 22 04 39.
m = 5.9, M = 4.7 (Up,Ki).

" 25

Up	iP		23 36 40.2	
	ipP		23 37 13.9	
	i(PKP)		23 40 30.6	
	iPKP		23 40 41.7	
	iPP		23 41 19.7	
	i		23 41 46.9	
	iPKKP		23 51 42.3	
			micr	sec
	P	Z'	0.1	1.0
	PP	Z'	3.7	2.2
	Mx	E	23	20
	Mx	N	27	23
	Mx	Z	34	20
Ki	iP		23 36 17.2	
	ipP		23 36 48.6	
	i		23 40 01.1	
	i		23 40 10.4	
	i		23 40 29.0	
	iPP		23 40 46.3	
	i		23 41 16.9	
			micr	sec
	P	Z'	0.3	1.5
	PP	Z'	0.7	1.9
	i	Z'	1.2	2.2
	Mx	E	13	17
	Mx	N	15	15
	Mx	Z	19	18
Sk	iPKP		23 40 42.8	
	iPP		23 41 17.4	
Um	iP		23 36 28.2	
	i(PKP)		23 40 32.3	
	iPKP		23 40 36.7	
	iPP		23 41 00.4	
	i		23 41 25.1	
Ud	iP		23 36 47.1	
	ipP		23 37 19.8	
	i		23 40 11.4	

(cont.)

1975
Dec. 25 (cont.)

Ud	iPKP		23 40 44.6	
	i		23 41 20.9	
	iPP		23 41 30.8	
	i		23 42 09.9	
	iPKKP		23 51 38.6	
	i		23 52 11.4	
De	iP		23 36 57.1	
	iPKKP		23 40 48.7	
	iPP		23 41 41.0	
	i		23 42 13.7	

New Guinea.
h = 130 km (Up,Ki,Ud).
M = 6.8 (Up,Ki).
Double PKKP recorded at Ud.

" 26 Ud iP 00 28 24.4

" 26

Ki	iP		00 53 52.8	D
	i		00 54 03.1	
	iS		00 56 27.5	
	i		00 56 40.4	
			micr	sec
	P	Z'	0.2	1.4
	i	Z'	0.2	1.4
Sk	iP		00 53 34.7	
Um	iP		00 54 14.3	
	i		00 54 27.7	
Ud	iP		00 54 06.7	

Iceland, near 67°N, 17°W.
Origin time = 00 50 35.

" 26 Ud iP 01 15 45.1
Iran (h = 30 km).

" 26 Ud iP 01 24 29.0

" 26

Up	iP	05 54 30.2
Ki	iP	05 55 04.2
Ud	iP	05 54 45.7

Iran (h = N).

" 26 Ud iP 07 28 12.6

" 26

Ki	iP	09 27 46.2
	iS	09 30 21.9

Iceland.
Origin time = 09 24 28.

" 26

Up	iP		10 49 27.6	
	ipP		10 49 40.4	
			micr	sec
	P	Z'	0.1	1.1
Ki	iP		10 48 42.3	

(cont.)

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

1975
Dec. 26 (cont.)

Ud	iP		10 49 33.6		
	i		10 49 38.2		
	ipP		10 49 46.3		

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

" 26	Up	i(PKP)		16 15 45.0	
		i(PKP)		16 15 52.4	
		iPKP		16 15 58.4	
		i(PP)		16 18 33.9	
		i		16 28 10.5	
				micr	sec
		(PKP)	Z'	0.1	1.0
		PKP	Z'	0.2	1.2
		(PP)	Z'	1.2	1.7
		i	Z'	0.3	1.5
		Mx	E	56	19
		Mx	N	98	19
		Mx	Z	137	20
	Ki	i(PKP)		16 15 37.3	
		iPKP		16 15 43.3	
		i(PP)		16 17 49.5	
		i		16 18 43.4	
		i		16 28 30.0	
		i		16 28 51.2	
				micr	sec
		PKP	Z'	0.8	1.5
		(PP)	Z'	3.2	3.0
		i	Z'	0.3	1.8
		i	Z'	1.1	2.5
		Mx	E	60	19
		Mx	N	83	18
		Mx	Z	140	20
	Sk	i(PKP)		16 15 43.8	
		iPKP		16 15 53.2	
		iPP		16 18 23.6	
		i		16 28 23.7	
	Um	i(PKP)		16 15 43.0	
		iPKP		16 15 51.3	
		iPP		16 18 18.7	
		i		16 18 30.4	
		i		16 27 58.9	
		i		16 28 20.9	
	Ud	i(PKP)		16 15 45.8	
		i(PKP)		16 15 51.8	
		iPKP		16 15 59.3	
		iPP		16 18 43.1	
		i		16 28 10.3	
	De	i(PKP)		16 15 58.4	
		iPKP		16 16 07.3	
		iPP		16 19 04.8	

Samoa Islands (h = N).
M = 7.6 (Up,Ki).

1975

Dec. 26	Up	iP		16 51 54.9	
				micr	sec
		P	Z'	0.1	1.4
" 26	Ki	eP		17 00 02	
		i		17 00 10.8	
		iS		17 02 37.0	
		i		17 02 51.9	
	Sk	eS		17 02 01	
	Um	iP		17 00 20.7	
	Ud	eS		17 03 02	

Iceland, near 68°N, 17°W.
Origin time = 16 56 44.

" 26	Ud	i(PKP)		18 31 24.1

Samoa Islands (h = N).

" 26	Ki	iP		20 35 25.2
		i		20 35 33.7
		iS		20 37 58.6
	Sk	iS		20 37 04.5
	Um	iP		20 35 45.4
	Ud	iS		20 38 21.6

Iceland, near 68°N, 17°W.
Origin time = 20 32 08.

" 26	Up	iP		19 06 38.0
	Ud	iP		19 06 44.3
" 26	Up	iPKPl		22 07 38.1
				micr sec
		PKPl	Z'	0.1 0.9
	Ud	iPKPl		22 07 40.5
" 27	Ud	iP		00 19 58.0

Iran (h = N).

" 27	Um	iP		03 28 16.2

Japan (h = 40 km).

" 27	Up	iP		04 35 36.3
	Ud	iP		04 35 34.6

Italy (h = 35 km).
Arrivals are about 7 sec late when compared with USNOS source parameter data.

" 27	Up	iP		05 36 34.7
		i		05 36 45.7
	Ki	iP		05 35 49.3
	Sk	iP		05 36 25.6
	Um	iP		05 36 09.7
		i		05 36 17.0
	Ud	iP		05 36 40.0

Kurile Islands (h = 40 km).

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

1975 Dec.	27	Up	iP		05 55 09.0	
		Um	iP		05 55 06.5	
		Ud	iP		05 55 26.0	
		Afghanistan-USSR (h = 240 km).				
"	27	Up	iP		07 52 58.6	
			ipP		07 53 10.6	
					micr	sec
			P	Z'	0.1	1.0
			pP	Z'	0.2	1.0
			Mx	E	2.5	25
			Mx	N	5.1	19
		Ki	iP		07 52 13.5	
			ipP		07 52 25.0	
					micr	sec
			P	Z'	0.2	1.2
			Mx	E	9.0	17
			Mx	N	8.4	17
			Mx	Z	9.8	16
		Sk	i		07 52 51.6	
		Um	iP		07 52 34.6	
			ipP		07 52 45.8	
		Ud	iP		07 53 04.9	
			ipP		07 53 16.7	
		De	iP		07 53 23.0	
		Kurile Islands.				
		h = 40 km (Up,Ki,Um,Ud).				
		m = 6.1, M = 5.9 (Up,Ki).				
"	27	Ud	iPKPl		09 23 19.3	C
		De	iPKPl		09 23 29.0	
		Tonga-Kermadec Islands				
		(h = 480 km).				
"	27	Up	iP		09 42 54.9	D
			ipP		09 43 26.6	
					micr	sec
			P	Z'	0.1	0.8
		Ki	iP		09 43 05.1	
		Sk	iP		09 43 21.2	
		Ud	iP		09 43 11.8	D
			ipP		09 43 43.4	
		De	iP		09 43 07.4	D
		Hindu Kush.				
		h = 150 km (Up,Ud).				
"	27	Up	iP		11 15 18.5	
		Ud	iP		11 15 24.9	
"	27	Up	iP		13 01 49.8	
		Ud	iP		13 01 56.6	
			i		13 02 06.3	
		Japan (h = 70 km).				
"	27	Ud	iPKPl		16 43 13.4	
		De	iPKPl		16 43 23.3	

1975 Dec.	27	Up	iP		17 14 49.6
			ipP		17 14 58.9
		Ki	iP		17 14 04.5
		Um	iP		17 14 24.8
		Ud	iP		17 14 55.5
			ipP		17 15 04.8
		Kurile Islands.			
		h = 30 km (Up,Ud).			
"	27	Ud	iP		20 54 37.2
			i		20 54 45.3
		Japan (h = 60 km).			
"	27	Up	iPKPl		21 39 44.4
		Sk	iPKPl		21 39 36.9
		Ud	iPKPl		21 39 46.7
		De	iPKPl		21 39 55.9
"	27	Ud	iPKP		23 52 19.5
		Samoa Islands (h = N).			
"	27	Ud	i		23 54 04.2
		Samoa Islands (h = N).			
"	28	Up	iP		13 58 22.9
		Ud	iP		13 58 38.3
		De	iP		13 58 39.2
		Tibet (h = 35 km).			
"	28	Ki	iP		15 16 38.9
		Ud	iP		15 17 31.3
		Aleutian Islands (h = 30 km).			
"	28	Ud	iP		15 31 46.6
		Aleutian Islands (h = 40 km).			
"	28	Up	iP		15 38 17.0
			i(PP)		15 41 03.1
			i(PP)		15 42 09.2
			iPP		15 42 27.0
					micr sec
			P	Z'	0.2 1.0
			PP	Z'	0.5 1.6
		Ki	iP		15 38 09.2
			i(PP)		15 42 00.4
					micr sec
			P	Z'	0.2 1.1
		Sk	iP		15 38 27.2
		Um	iP		15 38 10.7
			iPP		15 42 18.0
		Ud	iP		15 38 25.7
			i(PP)		15 41 39.6
			i(PP)		15 42 30.1
		De	iP		15 38 27.4
			i(PP)		15 41 37.1

(cont.)

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

1975
Dec. 28 (cont.)
De iPP 15 42 41.7
Bali (h = 200 km).
m = 6.5 (Up,Ki).

" 28 Up iP 16 40 59.9
Ud iP 16 41 07.8
Japan (h = 55 km).

" 29 Up iP 01 30 19.7
micr sec
P Z' 0.1 1.1
Ki iP 01 30 12.9
Sk iP 01 30 36.9
i 01 30 41.1
Um iP 01 30 11.6
Ud iP 01 30 33.0
Burma (h = 60 km).

" 29 Up iPKP1 02 54 17.0
Ud iPKP1 02 54 19.5
De iPKP1 02 54 29.9
Tonga-Kermadec Islands
(h = 410 km).

" 29 Up iPKP 03 59 00.5
micr sec
PKP Z' 0.1 1.0
Mx E 14 18
Mx N 12 19
Mx Z 31 19
Ki iPKP1 03 59 05.3
micr sec
PKP1 Z' 0.2 1.2
Mx E 9.0 21
Mx N 13 18
Mx Z 12 22
Um iPKP 03 59 06.5
Ud i(PKP) 03 58 45.4
iPKP 03 58 58.0
De iPKP 03 58 55.1
Drake Passage (h = 15 km).
M = 6.8 (Up,Ki).

" 29 Up iP 05 18 16.1
i 05 18 21.7
micr sec
P Z' 0.1 0.9
i Z' 0.5 1.0
Ki iP 05 18 05.9
micr sec
P Z' 0.3 1.5
Sk iP 05 18 30.3
i 05 18 35.6
Um iP 05 18 06.6
i 05 18 11.9
(cont.)

1975
Dec. 29 (cont.)
Ud iP 05 18 29.0
i 05 18 34.2
De iP 05 18 33.8
i 05 18 37.6
Burma (h = 50 km).
m = 6.4 (Up,Ki).

" 29 Um iP 06 36 24.9

" 29 Ud iPKP 09 49 17.6
Drake Passage (h = 40 km).

" 29 Ki iP 10 48 35.6
iS 10 51 09.6
i 10 51 23.0
micr sec
P Z' 0.1 1.0
Sk eP 10 48 14
Um iP 10 48 58.0
i 10 49 13.9
Ud iP 10 48 46.8
iS 10 51 23.4
De iP 10 49 16.0
Iceland, near 67°N, 17°W.
Origin time = 10 45 18.

" 29 Ud iPKP 16 48 11.2
De iPKP 16 48 15.7
New Ireland (h = 100 km).

" 30 Up iP 01 17 24.2
Ki iP 01 18 00.5
Ud iP 01 17 39.4
De iP 01 17 26.3
Iran (h = 30 km).

" 30 Up iP 01 48 47.0
Ud iP 01 48 57.0

" 30 Um iP 04 20 59.6
Sea of Japan (h = 450 km).

" 30 Ki iP 06 55 04.3
micr sec
P Z' 0.1 1.2
Samar (h = 110 km).

" 30 Ud iP 07 05 26.0
Hindu Kush (h = 220 km).

" 30 Up iP 09 08 30.1
Ki iP 09 08 27.0
Sk iP 09 08 45.6
Um iP 09 08 23.4
Ud iP 09 08 41.4
Burma (h = N).

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

1975
Dec. 30 Ki iP 14 42 27.1
Ud i 14 42 21.6
Turkey (h = 5 km).

" 30 Up iP 16 44 24.4
Afghanistan-USSR (h = 100 km).

" 31 Up iP 09 50 34.8
ipP 09 50 39.6
micr sec
P Z' 0.1 0.7
pP Z' 1.1 1.5
Mx E 41 22
Mx N 22 18
Ki iP 09 51 49.7
ipP 09 51 54.3
micr sec
P Z' 0.1 1.0
pP Z' 0.6 1.4
Mx E 35 16
Mx N 14 10
Mx Z 17 12
Sk iP 09 51 16.4
Um iP 09 51 12.9
ipP 09 51 18.0
Ud iP 09 50 42.8
De ipP 09 50 09.7
Greece.
h = 20 km (Up,Ki,Um).
m = 6.1, M = 6.1 (Up,Ki).

" 31 Ud i 11 36 28.9
Greece (h = 40 km).

" 31 Up iP 13 56 07.4
i 13 56 17.6
micr sec
i Z' 0.1 0.9
Ki iP 13 57 23.5
Um iP 13 56 47.9
Ud iP 13 56 15.9
i 13 56 22.8
Greece (h = 25 km).

" 31 Ud iP 14 16 05.2
Andaman Islands (h = 70 km).

" 31 Up iP 14 23 35.4
ipP 14 23 55.4
micr sec
P Z' 0.1 1.0
pP Z' 0.2 1.4
Ki iP 14 22 52.9
micr sec
P Z' 0.1 1.0
(cont.)

1975
Dec. 31 (cont.)
Um iP 14 23 10.9
Ud iP 14 23 42.3
iPcP 14 24 04.2
De eP 14 24 00
Japan.
h = 80 km (Up).
m = 5.9 (Up,Ki).

" 31 Up iP 14 58 28.0
Ki iP 14 59 45.4
Ud iP 14 58 36.6
i 14 58 39.1
De i 14 58 03.6
Greece (h = 40 km).

" 31 Ud iP 15 19 37.3
Greece (h = N).

" 31 Ud iP 17 12 14.4
Greece (h = 45 km).

" 31 Ud iP 17 41 47.5
Greece (h = 40 km).

" 31 Up iP 22 59 32.9
Ud iP 22 59 43.0
Greece (h = 45 km).

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