



A second copy

23 JUN 1967

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG
UMEÅ, KARLSKRONA and UDDEHOLM

✓ 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
Göteborg	{Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	{Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	{Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	{Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

JANUARY 1 - 31, 1967

1967					1967				
Jan.	1	Ki	iPKP	00 39 54.6	Jan.	1	(cont.)		
		Sk	iPKP	00 40 05.7			Up	ipPKP	07 25 18.4
		Um	iPKP	00 40 00.0				ePKS	07 28 23
		Ud	iPKP	00 40 10					microns sec
		Santa Cruz Islands						M E	3.1 20
		(h = 30 km).						M N	7.2 22
"	1	Ki	eP	01 19 11			Ki	iPKP	07 24 48.7
		Um	iP	01 19 16.0				ipPKP	07 25 05.5
		Molucca Sea (h = 30 km).						iPP	07 26 44.6
"	1	Up	iP	03 11 00.2				iPKS	07 28 18
			ipP	03 11 19.9				eSKKS	07 33 39
		Ki	iP	03 11 01.1					microns sec
		Gb	iP	03 11 26.4				PKP Z'	0.1 1.0
		Um	iP	03 10 56.9				PP Z'	0.4 2.0
		Andaman Islands.						PKS N	1.1 8
		h = 80 km (Up).						M E	3.7 20
"	1	Up	iP	03 47 38.3				M N	2.7 20
		Ki	eP	03 47 39				M Z	7.1 21
		Um	iP	03 47 39.1				(D = 14100 km	
		Ud	iP	03 47 55				= 127°).	
		Nicobar Islands					Sk	iPKP	07 24 59.9
		(h = 40 km).						iPP	07 27 17.3
"	1	Ki	iPKP	04 22 54.3			Gb	i(PKP)	07 25 11.4
		Sk	ePKP	04 23 06			Um	iPKP	07 24 57.0
		Um	iPKP	04 23 00.6				i	07 26 23.2
		Santa Cruz Islands						iPP	07 27 24
		(h = 30 km).						iPKS	07 28 19
"	1	Up	iPKP	07 24 59.6				iSKKS	07 34 00
		(cont.)					Ka	iPKP	07 25 23.1
							Ud	iPKP	07 25 12
								ipPKP	07 25 27
							(cont.)		

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1967				1967			
Jan.	4	(cont.)		Jan.	4	(cont.)	
		Up	microns sec			Up	microns sec
		P	Z' 0.2 1.0			M	E 1.8 10
		M	E 1.3 14			M	N 2.4 11
		M	N 1.5 15			M	Z 2.2 10
		Ki	iP 03 53 15.3 D			D = 2450 km = 22°.	
			ipP 03 53 25.2			Ki	iP 06 04 58.6
			microns sec				microns sec
		P	Z' 0.2 1.5			P	Z' 0.3 1.5
		M	E 1.1 13			M	E 2.3 8
		M	N 0.9 14			M	N 1.5 11
		M	Z 1.3 12			M	Z 2.5 11
		Sk	iP 03 53 42.6			Sk	iP 06 04 25.4 D
			ipP 03 53 50.9				i 06 04 28.2
		Gb	iP 03 53 54.8			Gb	iP 06 03 32.1
			ipP 03 54 04.3			Um	iP 06 04 22.9
		Um	iP 03 53 22.0				i 06 04 24.8
			ipP 03 53 31.9				iPcP 06 07 54.2
		Ka	iP 03 53 49.0				iS 06 08 47
			ipP 03 53 59.0			Ka	iP 06 03 06.9
		Ud	iP 03 53 42			Ud	iP 06 03 49
			ipP 03 53 53				iS 06 07 54
			iPP 03 56 57			Greece (h = 5 km).	
		Philippine Islands.				Magn. = 6.0 (Up,Ki).	
		h = 35 km (Up,Ki,Sk,Gb,					
		Um,Ka,Ud).			"	4	Sk iP 07 15 46.4
		Magn. = 5.8 (Up,Ki).					Gb iP 07 14 51.2
							Um eP 07 15 42
"	4	Up	iLgl 04 48 38.1				Ud iP 07 15 05
		Ki	iPg 04 44 23.6 D			Greece (h = 40 km).	
			iSg 04 44 27.7				
			D = 30 km = 0.3°.			"	4
		Sk	ePg 04 46 07			Up	ipP 11 37 26.8
			eLgl 04 47 10			Ki	iP 11 37 03.7
			D = 610 km = 5.5°.				ipP 11 37 23.1
		Um	iPg 04 45 40.5			Sk	epP 11 37 47
			iLgl 04 46 26.7			Um	iP 11 37 00.5
			D = 460 km = 4.1°.				ipP 11 37 21.1
		Ud	iSn 04 47 51			Ka	ipP 11 37 35.3
			iLgl 04 48 39			Ud	iP 11 37 23 C
		Swedish Lapland,					ipP 11 37 41
		68.0°N, 21.2°E.				Burma-India.	
		Origin time = 04 44 18.				h = 70 km (Ki,Um,Ud).	
		Felt, especially at				pP is bigger than P. An	
		Kurravaara.				alternative interpretation	
						would be in terms of <u>two</u>	
"	4	Up	iP 06 03 44.6			shocks, about 19 sec apart,	
			iS 06 07 54			in the same place,	
			microns sec			the second stronger than	
		P	N 1.0 3			the first.	
		P	Z' 0.3 0.7			"	4
		S	N 1.1 6			Ki	ePn 13 46 11
		(cont.)					iSn 13 46 56.1
						(cont.)	

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1967			1967						
Jan.	5	(cont.)	Jan.	5	(cont.)				
		Ki	iP	00 50 15.8	Up	microns sec			
					M N	1.7 14			
					M Z	1.6 13			
			P	Z' 3.0 2.5	Ki	iP	10 15 36.4 D		
		Sk	iP	00 50 52.9		iPP	10 17 08.0		
		Gb	iP	00 51 14.7		eSS	10 24 20		
		Um	iP	00 50 27.1		iLg1	10 29 03		
		Ka	iP	00 51 08.1			microns sec		
		Ud	iP	00 51 03		P	Z' 0.1 1.0		
		Mongolia (h = 30 km).				PP	E 0.6 5		
		Magn. = 6.7 (Up,Ki).				PP	Z' 0.1 1.2		
"	5	Sk	iPKP	02 29 14.7		M	E 2.5 9		
		Um	iPKP	02 29 09.3		M	N 2.5 9		
		Santa Cruz Islands				M	Z 3.0 9		
		(h = 30 km).			Sk	iP	10 15 56.1 D		
"	5	Up	iP	06 25 46.4		iPP	10 17 38.8		
			ipP	06 26 36.5	Gb	iP	10 15 45.8		
				microns sec		i(Pp)	10 17 38.1		
			P	Z' 0.1 0.9		iPcP	10 17 54.7		
			M	N 0.9 18	Um	iP	10 15 27.8 D		
		Ki	iP	06 25 29.2		i	10 16 55		
			ipP	06 26 15.5		iPP	10 17 01.6		
			iS	06 35 22		iS	10 21 26		
				microns sec		iSS	10 23 46		
			P	Z' 0.1 1.0		iLg1	10 28 16		
			S	E 1.1 7	Ka	iP	10 15 39.4 D		
			S	N 0.6 11		iPP	10 17 16.6		
			M	E 0.8 16	Ud	iP	10 15 46		
			M	N 0.6 15		ePP	10 17 22		
			M	Z 0.9 15	Kirghiz SSR (h = 10 km).				
		Sk	iP	06 25 51.1	Magn. = 5.9 (Up,Ki).				
		Gb	iP	06 26 02.7	"	5	Sk	iPKP	10 54 42.8
		Um	iP	06 25 34.4 C			Um	iPKP	10 54 38.1
			i	06 25 39.8			Ud	i(PKP)	10 54 43
			ipP	06 26 16.9			Santa Cruz Islands		
			iS	06 35 32			(h = 60 km).		
		Ud	iP	06 25 55 C	"	5	Up	iP	12 14 20.4 C
			ipP	06 26 42					microns sec
		Mindoro.					P	Z' 0.1 0.5	
		h = 180 km (Up,Ki,Um,Ud).			"	5	Ki	iP	13 54 36.5
		Magn. = 5.6 (Up,Ki).			"	5	Up	iP	14 24 56.2 C
"	5	Up	iP	10 15 32.9	"	5	Ki	iPn	14 41 35.6
			i	10 16 52				iSn	14 42 23.7
			iPP	10 17 06.2				iLg1	14 42 38.6
			iSS	10 24 07					D = 440 km = 4.0°.
			iLg1	10 28 40					(cont.)
				microns sec					
			PP	Z' 0.1 1.0					
			M	E 1.3 14					
		(cont.)							

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1967				1967			
Jan.				Jan.			
5	(cont.)	Possibly northwest Russia.		6	(cont.)	Up	microns sec
		Origin time = 14 40 33.				M	N 5.9 22
		Explosion?				M	Z 4.3 22
"	5	Up	iP 17 04 47.2			D = 7650 km = 69°.	
			i 17 04 55.6		Ki	iP	00 14 24.1 C
		Ki	eP 17 06 02			ipP	00 14 34.5
		Sk	iP 17 05 28.8			i	00 15 25.6
		Um	iP 17 05 24.5			microns sec	
		Ud	iP 17 04 55			P	N 0.5 8
		Greece (h = 30 km).				P	Z 1.1 6
"	5	Ki	iP 22 48 32.5			P	Z' 0.1 1.0
		Sk	iP 22 49 08.7			M	E 3.7 19
		Um	iP 22 48 42.4			M	N 2.4 19
		Ud	iP 22 49 18			M	Z 5.7 20
"	6	Up	iP 00 06 58.4		Sk	iP	00 14 59.3
			microns sec			i(pP)	00 15 12.7
		P	Z' 0.1 1.2		Gb	iP	00 15 28.4
		Ki	iP 00 06 27.1 C		Um	iP	00 14 43.0 C
			iPP 00 08 02.9			i(pP)	00 14 51.6
			eS 00 13 06		Ka	iP	00 15 28.1
			microns sec		Ud	iP	00 15 15 C
		P	Z' 0.3 1.0			ipP	00 15 26
		M	E 1.9 8		Japan.		
		M	N 3.6 10		h = 40 km (Up,Ki,Sk,Um,Ud).		
		M	Z 1.3 9		Magn. = 6.0 (Up,Ki).		
		D = 4900 km = 44°.		"	6	Up	i(P) 00 21 33.0 C
		Sk	iP 00 07 03.2 C			Ki	i(P) 00 22 44.4
		Gb	iP 00 07 25.4			Um	iP 00 21 01.2
		Um	iP 00 06 37.3 C			Ud	i(P) 00 21 36
			iPP 00 08 04.3	"	6	Um	i(P) 00 34 37.2
			iS 00 13 12			Ud	i(P) 00 35 12
		Ka	iP 00 07 18.4		Montana, USA (h = 10 km).		
		Ud	iP 00 07 12 C	"	6	Um	i(P) 02 07 39.9
			i 00 07 57			Ud	iP 02 08 52
		Mongolia (h = 30 km).		"	6	Ki	iP 03 00 46.7
"	6	Up	iP 00 15 06.9 C			Um	iP 03 01 02.1
			ipP 00 15 18.5			Ud	eP 03 01 41
			ePP 00 17 41	"	6	Up	i(P) 06 03 26.7
			iS 00 24 17			Um	i(P) 06 03 23.3
			microns sec			Ud	i(P) 06 03 36
		P	N 0.4 3	"	6	Um	iP 06 16 28.4
		P	Z 0.7 3	"	6	Ki	iP 10 16 33.6
		P	Z' 0.2 0.9			i	10 16 42.0
		PP	E 0.7 8			Um	iP 10 16 37.1
		S	E 1.0 9		(cont.)		
		S	N 1.0 7		(cont.)		
		M	E 3.4 20		(cont.)		

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1967				1967			
Jan.	6	(cont.) Molucca Sea (h = 60 km).		Jan.	7	Ki	iP 13 11 50.2 C microns sec
"	6	Um iP 17 46 36.0 Japan (h = 30 km).					P Z' 0.1 1.0 Sk iP 13 12 26.3 Um iP 13 12 00.6 C Ud iP 13 12 35 C Mongolia (h = 30 km).
"	6	Um iP 18 17 59.4					
"	7	Up iPKS 00 50 03 microns sec M E 0.7 18 M N 1.1 18 M Z 0.6 18 Ki ePKP 00 46 33 i 00 46 41.9 microns sec M E 1.5 20 M N 0.8 18 M Z 2.3 19 Sk iPKP 00 46 44.1 C Gb iPKP 00 46 41.0 Um iPKP 00 46 37.0 iPP 00 49 24 iPKS 00 50 02 iSKKS 00 55 56 Southwest of Australia (h = 30 km). Magn. = 5.8 (Up, Ki).		"	7	Up iP 13 48 13.4 Ki iP 13 47 47.4 C microns sec P Z' 0.2 1.0 Sk iP 13 48 10.8 Gb iP 13 48 29.5 Um iP 13 47 57.4 C Ud iP 13 48 18 i 13 48 20 Mariana Islands (h = 40 km).	
"	7	Sk iP 01 38 58.1 Um iP 01 38 52.5 D		"	7	Um iPKP 16 12 45.4 Santa Cruz Islands (h = 30 km).	
"	7	Up iP 05 06 24.8 C Ud iP 05 06 22 Aleutian Islands (h = 70 km).		"	7	Up microns sec M E 1.0 17 M N 1.1 18 M Z 1.4 18 Sk iPKP 17 00 02.1 Um iPKP 16 59 56.5 Ud iPKP 17 00 05 Santa Cruz Islands (h = 30 km).	
"	7	Ki iPn 08 01 38.0 iSn 08 02 34.9 iLg1 08 02 52.3 iSg 08 03 02.0 D = 530 km = 4.8°. Sk eSg 08 05 30 Um iSn 08 03 19.6 iSg 08 03 58.4 D = 730 km = 6.6°. Northwest Russia, 67.9°N, 33.2°E. Origin time = 08 00 22. Explosion?		"	7	Up iP 18 19 13.8 i 18 19 17.9 Sk iP 18 19 33.1 Um iP 18 18 59.3 i 18 19 03.9 Ud iP 18 19 29 C	
"	7	Up iP 10 00 29.5		"	7	Um iP 19 37 05.0 Mexico (h = 70 km).	
"	7	Um iPKP 11 51 54.6 Santa Cruz Islands (h = 30 km).		"	8	Up iP 01 51 32.3 Um iP 01 51 42.7 Ud iP 01 51 46 i 01 55 32	
"	7			"	8	Up eP 05 13 04 iPcP 05 13 46.3 (cont.)	

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1967				1967			
Jan.	8	(cont.)		Jan.	9	(cont.)	
		Up	microns sec			Up	i 02 03 33.6
		M	E 1.6 17				iPP 02 04 32.6
		M	N 2.4 17			Ki	iP 02 03 29.9 C
		M	Z 2.2 17				iPP 02 05 14.2
		Ki	iP 05 12 09.8				microns sec
			ipP 05 12 21.2				P Z' 0.2 1.0
			microns sec				PP Z' 0.2 1.3
			P Z' 0.1 1.3			Sk	iP 02 03 28.3 C
			M E 2.0 16				i 02 03 30.2
			M N 2.8 18				i 02 05 26.7
			M Z 2.9 15			Gb	iP 02 03 06.3
		Sk	iP 05 12 53.1 D			Um	iP 02 03 07.0 C
		Gb	iP 05 13 25.6				i 02 03 08.9
		Um	iP 05 12 40.5				i 02 03 22.2
			iPcP 05 13 30.6				iPP 02 04 48.5
		Ka	iP 05 13 29.1			Ka	iP 02 02 44.6
		Ud	iP 05 13 06				i 02 02 46.7
			iPcP 05 13 47			Ud	iP 02 03 08
			Kamchatka. h = 40 km (Ki).				i 02 03 10
			Magn. = 5.7 (Up,Ki).				i 02 03 31
							iPP 02 04 46
"	8	Ki	iP 05 16 08.7				Iran (h = 15 km).
			Kamchatka (h = 25 km).				Magn. = 6.1 (Ki).
"	8	Up	iP 06 53 38.6				Multiple P with a small
			i 06 53 43.8				onset followed after 2 sec
			microns sec				by a much larger phase
			P Z' 0.1 1.2				(Up,Sk,Um,Ka,Ud).
		Ki	eP 06 52 49	"	9	Ki	iP 09 50 58.7
			i 06 52 54.5			Um	iP 09 51 09.4
		Gb	iP 06 54 04.9				Formosa (h = 50 km).
		Um	iP 06 53 14.9	"	9	Ki	eP 18 21 12
		Ka	iP 06 54 09.1				i 18 21 36.5
		Ud	eP 06 53 47			Sk	iP 18 20 57.9
			iPcP 06 54 26			Gb	iP 18 20 59.0 C
			Kamchatka (h = 40 km).			Um	iP 18 21 15.0 C
"	8	Ki	eP 08 41 22				i 18 21 40.1
			i 08 41 28.5			Ud	iP 18 21 01
		Ud	iP 08 42 19				Colombia (h = 40 km).
			iPcP 08 42 59	"	9	Um	iPKP 20 06 06.5 C
			Kamchatka (h = 25 km).				Santa Cruz Islands
"	8	Up	iP 13 58 07.4				(h = 80 km).
"	8	Um	iP 17 38 25.3	"	10	Um	iP 08 41 27.0
"	8	Up	iP 19 09 46.9				Japan (h = 30 km).
"	9	Up	iP 02 02 54.8 C	"	10	Ki	iP 09 40 32.9 C
			i 02 02 56.6	"	10	Ud	iP 12 45 05
		(cont.)					

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1967				1967			
Jan.	10	Ki	iP 17 52 03.8 C	Jan.	11	(cont.)	
		Ud	iP 17 52 53			Ud	iSg 13 03 26
		Kamchatka (h = 30 km).				Probably explosion in southern Baltic Sea.	
"	11	Um	iPKP 03 16 53.4	"	11	Ka	iSg 14 45 57.2
		Santa Cruz Islands (h = 30 km).				Ud	e 14 46 53
"	11	Up	iP 06 07 30.2				iSg 14 48 06
		Ki	iP 06 07 14.7			Probably explosion in southern Baltic Sea.	
			microns sec	"	11	Ki	iP 16 21 07.7
		P	Z' 0.1 1.3			Sk	iP 16 20 56.2
		Um	iP 06 07 17.8			Um	iP 16 21 10.4
		Ud	iP 06 07 34			South of Panama (h = 20 km).	
		Celebes (h = 25 km).		"	12	Ki	iSg 09 38 19.6
"	11	Ud	iP 06 55 45 C			Sk	iSg 09 38 24.2
"	11	Up	iP 11 27 06.4 C			Um	iSg 09 38 47.3
			i 11 27 11.4			Nordlands Fylke, Norway.	
			iS 11 32 20	"	12	Ki	iPn 13 35 58.4
			microns sec				iSn 13 36 43.6
		P	Z' 0.1 0.5				i(Sg) 13 36 59.7
		M	E 5.0 20				D = 420 km = 3.8°.
		M	N 6.5 19			Possibly northwest Russia.	
		M	Z 4.0 16			Origin time = 13 34 56.	
		D = 3500 km		"	12	Up	iP 18 22 01.2
		= 31 1/2°.					i 18 22 12.4
		Ki	iP 11 27 50.9 C			Ki	iP 18 22 31.8
			iPP 11 29 07.2			Um	iP 18 22 09.2
			e(S) 11 33 42			Ud	eP 18 22 12
			microns sec			Iran (h = 30 km).	
		P	Z' 0.7 1.5	"	12	Ki	iP 22 32 57.8
		PP	Z' 0.2 1.0			Um	iP 22 32 32.3
		M	E 5.0 22			Uganda (h = 30 km).	
		M	N 3.6 22	"	12	Um	iP 23 54 56.7
		M	Z 7.8 22				i 23 56 02.7
		Sk	iP 11 27 44.5	"	13	Um	iP 03 59 23.8 C
			i(PP) 11 28 44.7			Ud	iP 03 59 43
		Gb	iP 11 27 16.0	"	13	Up	iP 04 37 19.8
			iPP 11 28 13.8			Um	iP 04 36 59.9
		Um	iP 11 27 23.5			Ud	iP 04 37 27
		Ka	iP 11 26 53.3 C			South of Japan (h = 390 km).	
			i 11 27 01.3				
		Ud	iP 11 27 21				
		Iran-Iraq (h = 30 km).					
		Magn. = 5.9 (Up,Ki).					
"	11	Up	i 13 03 06.3				
			iSg 13 03 22.7				
		Ka	iSg 13 01 15.1				
		Ud	i 13 02 26				
		(cont.)					

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Jan.	13	Ki	iP 09 46 31.2 C	Jan.	14	(cont.)	
			Alaska (h = 130 km).			Up	isP 12 15 55.8
							microns sec
"	13	Ud	iP 10 09 18 D				P Z' 0.1 0.8
"	13	Up	---			Ki	iP 12 14 46.5 C
							ipP 12 15 00.2
							microns sec
		M	E 3.8 20				P Z' 0.1 0.9
		M	N 2.4 20			Sk	iP 12 15 20.3
		M	Z 5.2 20			Gb	iP 12 15 56.4
		Ki	iPKP 14 06 50.0				ipP 12 16 08.5
						Um	iP 12 15 12.6 C
							ipP 12 15 24.1
		M	E 2.9 21			Ud	iP 12 15 42 C
		M	N 4.0 20				ipP 12 15 54
		M	Z 6.3 22				
		Solomon Islands				Aleutian Islands.	
		(h = 30 km).				h = 40 km (Up,Ki,Gb,Um,Ud).	
		Magn. = 6.2 (Up,Ki).				Magn. = 5.7 (Up,Ki).	
"	13	Ki	iP 14 14 44.7	"	14	Um	iP 12 44 08.7
		Um	iP 14 14 43.6				
		Ud	iP 14 15 05	"	14	Up	ipP 12 54 32.9
			ipP 14 15 31			Ki	iP 12 54 18.0
		Burma-India.					ipP 12 54 32.3
		h = 100 km (Ud).				Sk	eP 12 54 30
"	13	Ud	iP 20 01 29				ipP 12 54 44.8
"	13	Up	iP 21 42 07.0			Um	iP 12 54 15.5
"	14	Up	iP 02 21 35.9				ipP 12 54 29.7
		Japan (h = 130 km).				Ud	iP 12 54 27
							ipP 12 54 41
						Sumatra.	
						h = 50 km (Ki,Sk,Um,Ud).	
"	14	Ki	ePn 11 04 59	"	14	Up	iP 13 37 27.5
			iSn 11 05 54.2			Ud	iP 13 37 38
			iSg 11 06 17.0			Mindoro (h = 40 km).	
			D = 510 km = 4.6°				
		Um	iSn 11 06 40.1	"	14	Ki	iPg 14 24 39.6 C
			i 11 06 46.5				iSg 14 24 44.1
			iSg 11 07 20.3				microns sec
			D = 720 km = 6.5°				Sg Z' 0.2 0.5
		Probably northwest Russia.					D = 30 km = 0.3°
		Origin time = 11 03 46.				Sk	eSg 14 27 24
		Explosion?				Um	iSn 14 26 19.0
"	14	Ki	iP 11 06 55.6				iSg 14 26 35.2
		Ud	iP 11 07 07 D				D = 410 km = 3.7°
		Tadzhik SSR				Swedish Lapland,	
		(h = 25 km).				67.6°N, 20.9°E.	
						Origin time = 14 24 34.	
"	14	Up	iP 12 15 39.8 C	"	14	Um	iPKP 14 32 33.6
			ipP 12 15 50.8			(cont.)	
		(cont.)					

-12-

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967				
Jan.	14	(cont.) Santa Cruz Islands (h = 30 km).		Jan.	15	Up	iP 20 07 07.6 C iPP 20 09 02.4 microns sec M E 1.2 13 M N 1.5 13 M Z 1.8 14	
"	14	Up	iP 15 36 50.5 i 15 37 07.3 Ki iP 15 36 47.2 Sk iP 15 37 06.6 i 15 37 16.2 Um iP 15 36 37.5 Ud iP 15 37 01 Sinkiang (h = 30 km).			Ki	iP 20 06 24.8 C microns sec M E 1.4 17 M N 1.2 15 M Z 2.8 16	
"	15	Ud	iP 00 10 43 Iran (h = 30 km).			Sk	iP 20 07 05.4 Um iP 20 06 40.3 iPP 20 08 20.5 iS 20 13 03 iSS 20 16 28 Lake Baikal (h = 30 km).	
"	15	Sk	i(PKP) 02 50 53.1 Um i(PKP) 02 50 48.0 C Ud i(PKP) 02 51 01		"	15	Ki	iP 22 25 44.2 Pamir.
"	15	Up	iP 05 55 08.9 Um iP 05 54 47.8 Ud iP 05 55 17 Sea of Japan (h = 380 km).		"	16	Um	iP 03 43 13.9 Japan (h = 40 km).
"	15	Up	iSg 08 11 58.5 Ki ePg 08 08 11 iSn 08 08 40.9 iSg 08 09 03.1 D = 470 km = 4.2°. Sk eSg 08 11 30 Um iSn 08 09 21.8 iSg 08 09 52.9 Ud eS ^x 08 12 02 iSg 08 12 34 Northwest Russia, 67.4° N, 31.4° E. Origin time = 08 06 46. Explosion??		"	16	Up	--- microns sec M E 2.4 21 M N 2.4 20 M Z 3.0 19 Um iPKP 14 45 19.6 i 14 45 28.8 Ud iPKP 14 45 28 i 14 45 37 Santa Cruz Islands (h = 5 km).
"	15	Up	iP 09 26 49.2 ipP 09 26 56.1 Ki iP 09 25 55.1 Sk iP 09 26 22.7 ipP 09 26 29.5 Um iP 09 26 23.1 Kodiak Island. h = 25 km (Up,Sk).		"	16	Ud	iP 20 05 25 Dodecanese Islands (h = 160 km).
"	15	Up	iP 09 55 26.1		"	17	Ud	iP 00 44 01 Kurile Islands (h = 30 km).
"	15	Um	iP 17 31 19.9		"	17	Up	iPP 01 25 52.6 Um i(PKP) 01 25 09.5 iPKP 01 25 22.5 Ud iPKP 01 25 15 C iPP 01 25 40 Argentina (h = 590 km).
"	15	Um	iP 17 31 19.9		"	17	Up	iPKP 01 36 17.9 (cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967			1967		
Jan.	17	(cont.)	Jan.	17	(cont.)
	Up	e(PP) 01 38 49		Sk	ipP 12 10 57.0
	Um	iPKP 01 36 11.3 C		Gb	iP 12 11 12.6 C
	Ud	iPKP 01 36 21			ipP 12 11 26.4
		i(PP) 01 38 56			iPP 12 14 02.7
		iPKS 01 39 38		Um	iP 12 10 29.3 C
		New Hebrides Islands			ipP 12 10 41.8
		(h = 90 km).			iS 12 19 23
"	17	Ud iPKP 03 39 38		Ka	iP 12 11 11.6 C
		Fiji Islands (h = 500 km).			ipP 12 11 25.3
"	17	Um iPKP 10 44 21.5		Ud	iP 12 11 00 C
		South Sandwich Islands			ipP 12 11 13
		(h = 30 km).			Japan. h = 50 km (Up, Ki, Sk, Gb, Um, Ka, Ud).
"	17	Up iPKP 11 10 30.4	"	17	Up iP 12 37 42.3
		Um iPKP 11 10 17.4			Ki iP 12 37 01.3
		i 11 10 25.8			Um iP 12 37 19.6
		Ud iPKP 11 10 28			Ud iP 12 37 51
		i 11 10 51			ipP 12 38 02
		Kermadec Islands			Japan. h = 40 km (Ud).
		(h = 30 km).	"	17	Ud iP 12 52 23
"	17	Up iP 12 10 52.0 C			Kurile Islands
		ipP 12 11 03.1			(h = 30 km).
		iS 12 20 10	"	18	Up iP 04 31 36.9
		microns sec			i 04 31 44.1
		P E 1.4 6			Ki iP 04 30 45.9
		P N 0.8 4			Um iP 04 31 10.2 C
		P Z 1.9 4			Ka iP 04 32 00.3
		P Z' 1.2 1.3			Ud iP 04 31 38
		S E 3.7 10			Kurile Islands
		S N 6.2 9			(h = 40 km).
		M E 31 17	"	18	Up iP 05 43 21.2 D
		M N 37 24			iPa 05 45 41
		M Z 54 18			iS 05 50 25
		D = 7950 km			iSS 05 54 05
		= 71 1/2°.			microns sec
	Ki	iP 12 10 11.5 C			P E 0.7 4
		ipP 12 10 24.2			P N 1.0 4
		i 12 18 28			P Z 3.0 6
		iS 12 18 52			P Z' 0.3 0.6
		iPS 12 19 16			S E 4.8 10
		microns sec			S N 5.8 8
		P Z' 0.9 1.5			M E 58 19
		S N 7.3 10			M N 68 16
		M E 39 16			M Z 20 17
		M N 27 22			D = 5500 km
		M Z 65 16			= 49 1/2°.
		D = 7200 km = 65°.			
	Sk	iP 12 10 45.0 C			
	(cont.)			(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967

Jan. 18 (cont.)

Ki	iP	05 42 31.8
	iPP	05 44 23
	i(PcS)	05 48 29
	iS	05 48 57
	iSS	05 51 54
		microns sec
P	E	2.3 6
P	Z	4.5 7
P	Z'	0.4 0.8
PP	E	6.3 8
PP	N	4.2 8
PP	Z	5.3 8
S	E	10 12
S	N	5.8 6
S	Z	4.5 7
M	E	34 12
M	N	47 11
M	Z	16 8
	D	= 4800 km = 43°.

Sk	iP	05 43 14.1
Gb	iP	05 43 47.1
Um	iP	05 42 53.3
	iPP	05 44 41
	iPa	05 44 54
	iS	05 49 30
	iSS	05 52 44
Ka	iP	05 43 46.0
Ud	iP	05 43 27

Eastern Russia
(h = 10 km).

Magn. = 6.6 (Up,Ki).

P: long-period motion dominates the first period, after which shorter periods set in (on the Z' records). Pa: this phase is definitely distinct from PP and PPP, contrary to some recently expressed ideas. Clear higher-mode surface waves are recorded.

"	18	Ud	iP	06 32 26
		Kurile Islands (h = 30 km).		

"	18	Up	iP	08 29 17.3
			iPcP	08 29 44.2
				microns sec
		P	Z'	0.3 0.9

(cont.)

1967

Jan. 18 (cont.)

Up				microns sec
	M	E	4.7	26
	M	N	3.7	25
Ki	iP		08 28	24.0
				microns sec
	P	Z'	0.4	0.8
Sk	iP		08 28	53.7
Gb	iP		08 29	32.0
Um	iP		08 28	51.0
	iPcP		08 29	27.3
Ka	iP		08 29	39.6
	iPcP		08 29	57.4
Ud	iP		08 29	12
Aleutian Islands (h = 40 km).				
Magn. = 6.2 (Up,Ki).				

"	18	Ki	iP	08 39 18.1
		Sk	iP	08 39 53.1
		Um	iP	08 39 37.9
		Ud	iP	08 40 05
		Japan (h = 70 km).		

"	18	Ki	iP	10 50 52.6
			ipP	10 51 14.6
		Sk	epP	10 51 48
		Ud	iP	10 51 46
			ipP	10 52 09
		Alaska. h = 100 km (Ki,Ud).		

"	18	Ud	i(P)	14 47 37
---	----	----	------	----------

"	18	Up	iP	15 38 41.3
		Ki	eP	15 37 53
		Um	iP	15 38 13.9
		Kurile Islands (h = 140 km).		

"	18	Up	eP	21 58 02
		Ki	iP	21 57 31.8 C
				microns sec
		P	Z'	0.1 1.0
		Sk	iP	21 58 07.6
		Um	iP	21 57 41.9
		Mongolia (h = 30 km).		

"	19	Up	iPKP	12 57 16.6
		Ki	iPKP	12 57 03.2
				microns sec
		PKP	Z'	0.1 1.0

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Jan.	19	(cont.)			Jan.	19	Up	iP	16 56 49.2
		Sk	iPKP	12 57 14.9					microns sec
		Gb	iPKP	12 57 22.3				P	Z' 0.1 0.8
		Um	iPKP	12 57 09.1			Ki	iP	16 56 14.4 C
		Ka	iPKP	12 57 25.0			Sk	iP	16 56 21.9
		Santa Cruz Islands					Um	iP	16 56 34.2
		(h = 160 km).						i	16 56 39.9
"	19	Up	iPKS	13 02 55			Ud	iP	16 56 38 C
			eSS	13 19 43			Nevada.		
				microns sec			Origin time = 16 45 00.		
			PKS N	2.0 4			Underground explosion.		
			M E	14 21	"	19	Um	iP	19 55 50.3
			M N	40 23			Caribbean Sea (h = 30 km).		
			M Z	35 23					
		Ki	iPKP	12 59 24.1	"	20	Um	iP	00 31 01.8
				microns sec					
			PKP Z'	0.1 1.5	"	20	Up	iP	02 05 59.9
			M E	26 21				i	02 06 02.0
			M N	17 20				iPcP	02 07 27.8
			M Z	44 21				iPP	02 07 51
		Um	iPKP	12 59 27.0				iS	02 12 55
			iPP	13 01 23				iPS	02 13 11
			iPPS	13 13 08				i(SS)	02 16 46
		Fiji Islands (h = 20 km).							microns sec
		Magn. = 7.1 (Up,Ki).						P E	4.2 5
"	19	Up	iP	13 52 18.6 C				P N	2.7 5
		Ka	iP	13 52 23.9				P Z	8.1 4
								P Z'	0.4 1.0
								PP E	8.4 5
"	19	Ki	iP	14 48 05.6				PP N	6.0 5
		Kamchatka (h = 30 km).						PP Z	12 5
								S E	4.9 9
"	19	Up	iP	14 52 30.7				M E	110 12
				microns sec				M N	41 11
			P	Z' 0.1 0.5				M Z	110 12
		Ki	iP	14 51 37.1				D = 5350 km = 48°.	
			iPcP	14 52 23.9			Ki	iP	02 05 27.4 C
				microns sec				i	02 05 30.6
			P	Z' 0.1 0.8				iPP	02 07 07.8
		Sk	iP	14 52 15.2				iS	02 11 54
			i	14 52 42.6				iPS	02 12 15
		Gb	iP	14 52 45.0				iSS	02 15 03
		Um	iP	14 52 04.2					microns sec
			iPcP	14 52 40.3				P E	10 6
		Ka	iP	14 52 53.7				P N	1.6 6
		Aleutian Islands						P Z	16 5
		(h = 60 km).						P Z'	5.6 2.0
		Magn. = 5.9 (Up,Ki).						PP E	14 7
"	19	Um	iP	15 27 03.0				PP N	2.4 7
								PP Z	8.6 6
								PP Z'	3.5 2.7

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Jan.	20	(cont.)		Jan.	20	(cont.)	
		Ki	microns sec			West Pakistan	
		S	E 4.4 7			(h = 70 km).	
		M	E 53 15				
		M	N 56 10	"	20	Ki	iP 06 31 23.0
		M	Z 56 11				microns sec
			D = 4900 km = 44°.				P Z' 0.1 1.0
		Sk	iP 02 06 04.7 C			Sk	iP 06 31 58.6
			i 02 06 06.7			Um	iP 06 31 32.7
			iPcP 02 07 28.8			Ka	iP 06 32 13.8
			iPP 02 08 00.3			Ud	iP 06 32 05
		Gb	iP 02 06 26.6				Mongolia (h = 30 km).
			i 02 06 28.8				
			iPcP 02 07 41.9	"	20	Ki	i(Pg) 13 44 03.9
			iPP 02 08 21.2				i 13 44 47.4
		Um	iP 02 05 38.8 C				iSg 13 44 50.8
			i 02 05 41.1			Um	i(Sn) 13 45 33.2
			iPcP 02 07 14.1				iSg 13 46 02.6
			iPP 02 07 23				
			iPS 02 12 30	"	20	Up	iP 17 51 51.7
		Ka	iP 02 06 20.3 C			Ki	iP 17 51 18.1 C
			i 02 06 22.4			Sk	iP 17 51 26.0
			iPcP 02 07 38.2			Gb	iP 17 51 51.8
		Ud	iP 02 06 13 C			Um	iP 17 51 37.6
			i 02 06 15			Ud	iP 17 51 43
			iPcP 02 07 35				Nevada.
			Mongolia (h = 30 km).				Origin time = 17 40 00.
			Magn. = 7.0 (Up,Ki).				Probably underground
			Multiple P: in general				explosion.
			about 2.2 sec between				
			the first small and	"	20	Ud	iP 21 28 28
			the second large onset;				Mongolia (h = 30 km).
			compare. Jan. 5, 1967, at				
			06 25.	"	20	Sk	iP 22 01 40.8
"	20	Ki	iP 03 35 20.1			Um	iP 22 01 01.7 C
		Sk	iP 03 35 56.4			Ud	iP 22 01 33
		Um	iP 03 35 28.8	"	21	Ki	iP 00 49 37.7
		Ud	iP 03 36 04				microns sec
			Mongolia (h = 30 km).				P Z' 0.1 1.1
						Sk	iP 00 50 14.1 C
						Um	iP 00 49 48.3 C
						Ud	iP 00 50 22 C
							Mongolia (h = 30 km).
"	20	Ki	iP 03 36 52.4	"	21	Up	i(PKP) 03 13 54.7
		Sk	iP 03 37 28.3				iPKP 03 14 01.5
		Um	iP 03 37 02.6 C				microns sec
		Ud	iP 03 37 35				PKP Z' 0.1 1.4
			Mongolia (h = 30 km).				M E 2.0 18
"	20	Um	iP 04 17 12.7				M N 2.4 20
"	20	Um	iP 04 22 45.2				M Z 3.0 19
"	20	Um	iP 05 24 58.1				(cont.)
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Jan.	21	(cont.)			Jan.	21	(cont.)		
		Ki	e(PKP)	03 13 52			Japan (h = 70 km).		
			iPKP	03 14 04.2					
				microns sec	"	21	Up	iP	13 00 29.5
			PKP Z'	0.3 1.4			Ud	iP	13 00 08
			M E	2.4 18					
			M N	2.1 19					
			M Z	4.6 19					
		Sk	ePKP	03 13 49					
		Gb	iPKP	03 13 48.2					
		Um	i(PKP)	03 13 46.1					
			iPKP	03 13 57.4					
			iPKP2	03 14 04.5					
			i	03 20 21					
			eSS	03 37 09					
		Ka	i(PKP)	03 13 48.5					
			iPKP	03 13 58.9					
		Ud	i(PKP)	03 13 52					
			iPKP	03 13 59					
		Easter Island Rise							
		(h = 30 km).							
		Magn. = 6.1 (Up,Ki).							
"	21	Ki	iPn	10 14 02.6					
			iSn	10 14 55.2					
			iSg	10 15 17.7					
			D = 490 km = 4.4°						
		Um	i	10 16 02.4					
			iSg	10 16 09.9					
		Probably northwest Russia.							
		Origin time = 10 12 53.							
		Explosion?							
"	21	Ki	iPn	10 22 19.0					
			iSn	10 23 15.2					
			iLgl	10 23 36.0					
			D = 520 km = 4.7°						
		Sk	eSg	10 26 09					
		Um	iSn	10 24 00.5					
			iSg	10 24 39.6					
			D = 700 km = 6.3°						
		Northwest Russia,							
		67.6°N, 32.8°E.							
		Origin time = 10 21 07.							
		Explosion?							
"	21	Um	iP	12 04 25.5	"	22	Up	iP	12 10 26.5
"	21	Up	iP	12 37 18.7 C			Ki	iP	12 09 55.1 C
		Um	iP	12 37 24.0					microns sec
									P Z' 0.2 1.5
									M E 1.8 22
									M N 2.3 17
"	21	Um	iP	12 51 44.6 C					(cont.)
		(cont.)							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

<p>1967 Jan. 22 (cont.) Sk iP 12 10 31.0 C Um iP 12 10 05.4 C Ud iP 12 10 40 Mongolia (h = 30 km). " 22 Up iP 12 21 33.5 Ki iP 12 21 34.4 Sk iP 12 21 50.2 Um iP 12 21 30.5 Ud iP 12 21 48 Nicobar Islands (h = 40 km). " 22 Ki iP 12 24 08.2 C Sk iP 12 24 44.4 Um iP 12 24 18.4 Ud iP 12 24 54 Mongolia (h = 30 km). " 22 Um iP 12 36 18.5 " 22 Ki iP_{nn} 16 00 36.8 iP^x 16 00 46.1 iSn 16 01 25.5 iLgl 16 01 38.3 D = 440 km = 4.0^o. Sk iSg 16 04 27.9 Um iP_{nn} 16 01 14.5 iS^x 16 02 47.6 iSg 16 03 09.3 D = 720 km = 6.5^o. Northwest Russia, 68.8°N, 31.1°E. Origin time = 15 59 34. Explosion? This event is considerably stronger than the average in this series. " 22 Um iP 19 33 10.2 North of Ascension Island (h = 30 km). " 22 Um iSKP 22 56 35.0 Fiji Islands (h = 600 km). " 22 Ki eP 23 19 51 Um iP 23 19 51.4 Formosa (h = 60 km). " 23 Um iP 05 26 37.5 C</p>	<p>1967 Jan. 23 Ki iP 09 32 37.8 Ud iP 09 32 58 Celebes (h = 170 km). " 23 Um iP 11 19 41.1 " 23 Up iPKP 11 29 24.4 Um iPKP 11 29 13.0 Ud iPKP 11 29 25 Kermadec Islands (h = 60 km). " 23 Ki e(P) 16 36 51 Sk e(P) 16 36 08 Um i(P) 16 34 51.8 Ud i(P) 16 35 18 " 23 Up --- microns sec M E 2.7 18 M N 2.8 20 M Z 3.4 21 Ki eP 20 38 11 microns sec P Z' 0.1 1.5 M E 2.7 14 M N 2.8 17 M Z 5.6 18 Um eP 20 38 24 iS 20 49 08 iSS 20 54 52 Revilla Gigedo Islands (h = 60 km). Magn. = 5.9 (Up, Ki). " 23 Sk eP 20 58 54 i 20 59 04.6 Um iP 20 59 09.3 i 20 59 16.7 Ud iP 20 58 40 i 20 58 49 North of Ascension Island. h = 30 km (Sk, Um, Ud). " 24 Um iPKP 02 03 02.4 Santa Cruz Islands (h = 30 km). " 24 Up iP 03 16 39.2 C ipP 03 17 01.4 microns sec P N 0.4 3 (cont.)</p>
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Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967
Jan. 24 (cont.)

1967
Jan. 24 (cont.)

Up				microns sec
	P	Z'	0.2	1.0
	M	E	1.8	19
	M	N	3.0	21
	M	Z	3.6	22
Ki	iP		03 15	56.5
	iPP		03 18	06.8
				microns sec
	P	Z'	0.4	1.4
	M	E	1.3	16
	M	N	1.8	19
	M	Z	3.6	18
Sk	iP		03 16	31.3
	ipP		03 16	49.4
Gb	iP		03 17	00.2
	ipP		03 17	17.1
Um	iP		03 16	14.8 C
Ka	iP		03 16	59.3
	ipP		03 17	21.4
Ud	iP		03 16	47 C
	ipP		03 17	06
Japan. h = 70 km (Up,Sk,Gb, Ka,Ud).				
Magn. = 6.2 (Up,Ki).				

Ki				microns sec
	S	N	4.3	13
	M	E	18	19
	M	N	13	19
	M	Z	25	18
Sk	iP1		09 40	13.8
	iP2		09 40	27.4
Gb	iP2		09 39	56.2 C
	i		09 40	06.7
Um	iP1		09 40	29.0 C
	i		09 40	33.5
	iP2		09 40	42.5
	iPa		09 45	13
	iS		09 49	52
Ka	iP1		09 39	42.4
	iP2		09 39	56.0
Ud	iP1		09 39	57
	iP2		09 40	11

Northwest of Ascension Island (h = 30 km).
Magn. = 6.4 (Up,Ki).
Probably two shocks in the same area, marked P1 and P2 above, 13.6 sec apart. The second shock is much larger than the first one.

" 24

Um	iP		03 32	12.7
	i		03 32	19.3
Ud	iP		03 33	02

" 24

Um	iP		04 59	05.7
Ud	iP		04 59	37
Japan (h = 160 km).				

" 24

Up	iP1		09 40	05.6
	iP2		09 40	18.9
	iPcP		09 40	48
	eS		09 49	10
				microns sec
	P2	Z'	0.2	1.0
	M	E	11	23
	M	N	18	17
	M	Z	15	18
	D = 7550 km = 68°.			
Ki	iP2		09 41	00.5 C
	ePa		09 45	41
	iS		09 50	26
				microns sec
	P	N	0.7	6
	P	Z	1.3	7
	P2	Z'	0.5	1.5
	S	E	3.2	13

" 24

Up	iP		14 55	39.2
				microns sec
	P	Z'	0.1	0.7
	M	N	2.0	17
Ki	iP		14 55	21.0
				microns sec
	M	E	3.1	14
	M	N	2.0	17
	M	Z	4.6	13
Sk	iP		14 55	48.3
Um	iP		14 55	25.5
Ud	iP		14 55	51

Szechwan, China (h = 30 km).

" 24

Um	iP		15 33	18.8
Northwest of Ascension Island (h = 30 km).				

" 24

Ki	iPn		20 33	22.5
	iSn		20 34	01.6
	iSg		20 34	17.6
D = 390 km = 3.5°.				

(cont.)

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

Table with columns for date (1967 Jan. 24, 25), station codes (Up, Ki, Sk, Gb, Um, Ka, Ud), seismic phase codes (ePn, iPn, iSn, iSg, iP, iPP, iPcP, iS, iSS, P, S, M, i, isS, iX), and arrival times in hours, minutes, and seconds. Includes additional data like hypocenter depth (h) and origin time.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Jan.	28	(cont.)		Jan.	28	Um	iP 15 44 48.9
		Ki	microns sec			Ud	iP 15 45 14
			P Z' 0.1 1.0			Aleutian Islands	
		Um	iP 14 17 41.8			(h = 30 km).	
		Ud	iP 14 18 07		"	28	Um iP 15 55 53.3
		Aleutian Islands.					Aleutian Islands
		Origin time = 14 07 14.					(h = 30 km).
"	28	Um	iP 14 23 25.0	"	28	Ud	iP 16 27 29 C
"	28	Up	iP 14 34 21.5	"	28	Up	iP 16 42 18.3
			microns sec				microns sec
			P Z' 0.1 1.0				P Z' 0.2 1.0
		Ki	iP 14 33 28.7			Ki	iP 16 41 25.4 C
			microns sec				microns sec
			P Z' 0.1 1.0				P Z' 0.3 1.2
		Sk	iP 14 33 58.8			Sk	iP 16 41 55.2 C
		Gb	iP 14 34 35.6			Gb	iP 16 42 33.0 C
		Um	iP 14 33 54.4 C			Um	iP 16 41 50.9 C
		Ud	iP 14 34 20			Ka	iP 16 42 41.5
		Aleutian Islands				Ud	iP 16 42 16
		(h = 50 km).				Aleutian Islands	
		Magn. = 5.7 (Up,Ki).				(h = 30 km).	
"	28	Up	iP 14 41 20.7			Magn. = 6.1 (Up,Ki).	
			microns sec	"	28	Ki	iP 17 06 33.4
			P Z' 0.1 1.0	"	28	Ki	iP 17 09 20.3
		Ki	iP 14 40 27.8			Um	iP 17 09 47.0
			microns sec			Ud	iP 17 10 12
			P Z' 0.1 1.0			Aleutian Islands	
		Sk	iP 14 40 57.4			(h = 30 km).	
		Gb	iP 14 41 35.5	"	28	Um	iP 17 23 31.0
		Um	iP 14 40 54.1				ipP 17 23 41.9
		Ud	iP 14 41 19			Aleutian Islands.	
		Aleutian Islands				h = 40 km (Um).	
		(h = 30 km).		"	28	Up	iP 17 30 29.2 C
		Magn. = 5.7 (Up,Ki).					microns sec
"	28	Up	eP 14 47 03				P Z' 0.1 1.0
"	28	Up	iP 14 52 19.5			Ki	iP 17 29 36.1
		Ki	iP 14 51 24.8				microns sec
		Um	iP 14 51 51.4				P Z' 0.1 1.0
		Ud	iP 14 52 16			Sk	iP 17 30 06.1 C
		Aleutian Islands				Gb	iP 17 30 44.1
		(h = 60 km).				Um	iP 17 30 02.3 C
"	28	Um	iP 15 00 03.7			Ud	iP 17 30 29 C
		Ud	iP 15 00 30			Aleutian Islands	
		Aleutian Islands				(h = 40 km).	
		(h = 50 km).				Magn. = 5.7 (Up,Ki).	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967						1967						
Jan.	28	Up	iP	17 37 30.1		Jan.	28	Ki	iP	20 58 35.0		
				microns sec				Um	iP	20 59 02.0		
			P	Z' 0.1 1.0				Ud	iP	20 59 28		
		Ki	iP	17 36 35.5				Aleutian Islands				
				microns sec				(h = 50 km).				
			P	Z' 0.1 1.0				"	28	Um	iP	21 13 23.5
		Sk	iP	17 37 07.0				Ud	iP	21 13 49		
		Um	iP	17 37 03.2				Aleutian Islands				
			ipP	17 37 15.4				(h = 30 km).				
		Ud	eP	17 37 28				"	28	Up	iP	22 38 07.3
			i	17 37 30						ipP	22 38 46.6	
		Aleutian Islands.						Ki	iP	22 37 13.5		
		h = 45 km (Um).						Sk	iP	22 37 50.7		
		Magn. = 5.7 (Up,Ki).						Gb	eP	22 38 28		
"	28	Um	iP	17 39 59.4				Um	iP	22 37 39.5		
"	28	Up	iP	17 52 55.3 C					isP	22 38 30.5		
			i	17 52 58.6				Ka	iP	22 38 32.8		
				microns sec				Ud	iP	22 38 13		
			P	Z' 0.3 0.9					ipP	22 38 51		
			M	E 2.2 19				Kamchatka.				
			M	N 3.4 21				h = 160 km (Up,Ud).				
			M	Z 3.4 21				"	29	Ki	iP	00 06 37.2
		Ki	iP	17 52 02.1 C				Um	iP	00 07 04.0		
				microns sec				Ud	iP	00 07 33 C		
			P	Z' 0.5 1.1				Aleutian Islands				
			M	E 2.8 18				(h = 30 km).				
			M	N 2.4 19				"	29	Up	iP	00 15 05.7
		Sk	iP	17 52 32.4						iS	00 17 15.1	
		Gb	iP	17 53 09.9						iSS	00 17 30.5	
		Um	iP	17 52 28.9 C						iLg2	00 18 47	
		Ka	iP	17 53 19.3 C						D = 1350 km = 12°.		
			ipP	17 53 44.3				Ki	iP	00 16 49.4		
		Ud	iP	17 52 56					iLg2	00 23 02.0		
		Aleutian Islands						Sk	iP	00 15 53.1		
		(h = 50 km).							iLg2	00 20 41.9		
		Magn. = 6.4 (Up,Ki).						Gb	iS	00 16 24.4		
"	28	Um	iP	18 21 22.3					iLg2	00 17 43.9		
"	28	Ki	i(P)	19 03 43.0				Um	iP	00 15 58.9		
		Ud	iP	19 04 27					iLg2	00 21 03.7		
		Aleutian Islands						Ka	iP	00 14 14.0		
		(h = 50 km).							iLg2	00 16 47.8		
"	28	Um	iP	20 05 03.5 C				Ud	eP	00 15 13		
"	28	Um	iP	20 20 48.2					iS	00 17 32		
		Ud	iP	20 21 15					iLg1	00 18 47		
		Aleutian Islands						Austria (h = 25 km).				
		(h = 30 km).					"	29	Um	iP	02 18 08.6	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Jan.	29	Up	iP	04 01 48.4	Jan.	29	(cont.)		
				microns sec			Ki		microns sec
			P	Z' 0.1 1.0			M	E	2.1 15
		Ki	iP	04 02 21.7			M	N	0.8 12
			i	04 02 25.5			Sk	iP	07 22 00.5
				microns sec			Um	iP	07 21 38.7
			P	Z' 0.1 1.0				iPP	07 23 19.9
		Sk	iP	04 02 23.5			Ud	iP	07 21 44
		Um	iP	04 02 00.6			Iran.		
		Ud	iP	04 02 06			Origin time =	07 13 38.	
			i	04 02 08					
			iPP	04 03 53	"	29	Up	iP	08 04 30.1
		Iran (h = 40 km).					i	08 04 32.7	
		Magn. = 5.7 (Up,Ki).					eS	08 10 41	
							iSS	08 13 53	
"	29	Up	iP	04 43 55.3					microns sec
		Ki	iP	04 43 00.6			P	Z' 0.1	0.6
		Um	iP	04 43 27.5 D			S	E	1.1 10
		Ud	iP	04 43 54			M	E	2.8 15
		Aleutian Islands					M	N	2.6 13
		(h = 30 km).					M	Z	3.5 14
							D =	4650 km =	42°.
"	29	Ki	iP	07 09 40.1			Ki	iP	08 05 01.4
		Sk	iP	07 10 18.1			i	08 05 07.0	
		Um	iP	07 09 52.4			iPP	08 06 59.1	
		Ud	iP	07 10 28			iS	08 11 38	
		Mongolia (h = 30 km).					iSS	08 15 00	
									microns sec
"	29	Up	iP	07 13 48.2			P	Z' 0.1	0.8
		Ki	eP	07 14 23			PP	Z' 0.3	1.9
		Um	iP	07 14 01.4			S	N	0.4 7
			iPP	07 15 37.5			M	E	5.7 15
		Iran (h = 60 km).					M	N	2.4 13
							D =	5100 km =	46°.
"	29	Up	iP	07 19 57.3 C			Sk	eP	08 05 02
		Ki	iP	07 20 29.7			i	08 05 06.8	
		Iran (h = 30 km).					Gb	iP	08 04 43.5
"	29	Up	iP	07 21 01.9			Um	iP	08 04 40.4
		Ki	iP	07 21 35.5			i	08 04 44.6	
		Sk	iP	07 21 34.9			iPP	08 06 24	
		Um	iP	07 21 11.8			iS	08 10 56	
		Ud	iP	07 21 17			iSS	08 14 18	
		Iran.					Ka	iP	08 04 21.0
		Origin time =	07 13 11.				i	08 04 23.9	
"	29	Up	iP	07 21 26.6			Ud	iP	08 04 47
				microns sec			i	08 04 51	
			M	N 1.5 15			Iran (h = 40 km).		
			M	Z 1.0 13			Magn. = 5.8 (Up,Ki).		
		Ki	iP	07 22 03.2	"	29	Ki	iP	09 33 42.6
			eSS	07 31 58			Um	iP	09 34 08.9
		(cont.)					(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967					
Jan.	29	(cont.)			Jan.	30	(cont.)			
		Ud	iP	09 34 37 C			Ki	iP	04 08 36.6 C	
		Aleutian Islands						i	04 10 11.8	
		(h = 30 km).					Sk	iP	04 09 07.8	
"	29	Ud	eP	12 21 17			Um	iP	04 08 37.6	
		Aleutian Islands					Ud	iP	04 09 12	
		(h = 100 km).					Kazakh SSR.			
							Origin time = 04 02 00.			
							Underground explosion.			
"	29	Ki	eP	13 28 57	"	30	Up	iP	07 19 31.6	
		Um	iP	13 28 35.3				iX	07 19 46.5	
		Iran (h = 30 km).					Sk	iP	07 19 48.7 C	
"	29	Ud	iP	15 53 55			Um	iP	07 19 24.9	
		Ryukyu Islands						i	07 19 35.4	
		(h = 30 km).						iX	07 19 39.9	
"	30	Up	iP	01 25 52.3			Ud	iP	07 19 44	
			i	01 25 56.3			India-East Pakistan			
			iS	01 30 26			(h = 30 km).			
				microns sec	"	30	Um	iP	10 50 51.8	
		P	Z'	0.2 1.0			Japan (h = 210 km).			
		S	N	1.5 5	"	30	Up	iP	12 30 27.0	
		M	E	3.2 17				i	12 30 32.2	
		M	N	9.3 20					microns sec	
		M	Z	4.5 16					P	Z' 0.1 0.9
		D = 2800 km = 25°.					Ki	iP	12 31 18.8	
		Ki	iP	01 26 34.9					microns sec	
			i	01 26 37.7					P	Z' 0.1 1.0
			eS	01 31 34			Sk	eP	12 31 06	
				microns sec			Um	iP	12 30 48.4	
		P	Z'	0.2 0.9			Ud	iP	12 30 46	
		S	E	0.5 7				iPn	12 31 18	
		M	E	7.6 15			Turkey (h = 30 km).			
		M	N	5.1 14			Magn. = 5.5 (Up,Ki).			
		D = 3300 km			"	30	Up	iP	21 15 47.9 C	
		= 29 1/2°.							microns sec	
		Sk	eP	01 26 36					P	Z' 0.2 0.7
			i	01 26 57.2			Ki	iP	21 15 39.2 C	
		Gb	iP	01 26 08.0					microns sec	
			i	01 26 28.3					P	Z' 0.1 1.0
		Um	iP	01 26 08.3			Sk	iP	21 16 02.6 C	
			i	01 26 10.3			Gb	iP	21 16 08.9 C	
			iS	01 30 37			Um	iP	21 15 39.4 C	
		Ka	iP	01 25 43.6			Ka	iP	21 15 57.5	
		Ud	iP	01 26 13 C			Ud	iP	21 16 04 C	
		Caucasus (h = 30 km).					Burma (h = 40 km).			
		Magn. = 5.5 (Up,Ki).					Magn. = 6.1 (Up,Ki).			
		Multiple P.			"	31	Um	iP	00 49 23.3	
"	30	Up	iP	04 08 52.6						
			iPP	04 09 59.8						
		(cont.)								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967					
Jan.	31	Um	iP	01 49 12.2	Jan.	31	(cont.)			
"	31	Um	iP	02 04 05.1			Ud	iP	19 08 31	
"	31	Um	iP	03 08 04.2			Iran (h = 15 km).			
"	31	Up	iP	03 44 14.0			Magn. = 5.7 (Up,Ki).			
"	31	Ki	iP	03 43 42.8		"	31	Up	iP	19 12 14.1
				microns sec				Ki	iP	19 12 48.5
			P	Z' 0.1 1.0				Sk	iP	19 12 47.7
		Sk	iP	03 44 18.8				Um	iP	19 12 26.7
		Um	iP	03 43 53.2				Ud	eP	19 12 26
		Ud	iP	03 44 27 D				Iran.		
		Mongolia (h = 30 km).						Origin time = 19 04 19.		
"	31	Um	iP	05 48 37.1		"	31	Um	eP	20 12 04
"	31	Ki	iP	09 15 39.3				i		20 12 19.8
"	31	Um	iP	11 37 22.8		"	31	Ki	iP	20 15 05.8
"	31	Um	iP	13 36 26.1				Um	iP	20 14 41.7
		Mindoro (h = 200 km).						Ud	iP	20 14 45
"	31	Um	iP	13 50 56.2				Iran (h = 50 km).		
		Central America (h = 30 km).				"	31	Um	iP	21 09 30.5
"	31	Up	iP	17 54 57.6 C		"	31	Um	iP	21 09 55.4
			ipP	17 55 09.9				Formosa (h = 20 km).		
				microns sec						
			P	Z' 0.2 0.7						
		Ki	iP	17 54 13.8						
				microns sec						
			P	Z' 0.1 1.0						
		Sk	iP	17 54 48.2						
		Gb	iP	17 55 19.3						
		Um	iP	17 54 33.3 C						
		Ud	iP	17 55 02						
		Japan. h = 45 km (Up).								
		Magn. = 6.0 (Up,Ki).								
"	31	Up	iP	19 08 17.4						
				microns sec						
			P	Z' 0.1 1.0						
		Ki	iP	19 08 53.3 C						
				microns sec						
			P	Z' 0.1 1.0						
		Sk	iP	19 08 52.7						
		Um	iP	19 08 28.7						
			iPP	19 10 11.8						
			iSS	19 18 08						
		(cont.)								

Markus Båth
June 21, 1967

pw

Y A I A INDICATED

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

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

VDD

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

J A N U A R Y 1 - 31, 1967
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1967					1967				
Jan.	1	Ki	iPKP	00 39 54.6	Jan.	1	(cont.)		
		Sk	iPKP	00 40 05.7			Up	ipPKP	07 25 18.4
		Um	iPKP	00 40 00.0				ePKS	07 28 23
		Ud	iPKP	00 40 10					microns sec
		Santa Cruz Islands					M	E	3.1 20
		(h = 30 km).					M	N	7.2 22
"	1	Ki	eP	01 19 11			M	Z	7.2 22
		Um	iP	01 19 16.0			Ki	iPKP	07 24 48.7
		Molucca Sea (h = 30 km).						ipPKP	07 25 05.5
"	1	Up	iP	03 11 00.2				iPP	07 26 44.6
			ipP	03 11 19.9				iPKS	07 28 18
		Ki	iP	03 11 01.1				eSKKS	07 33 39
		Gb	iP	03 11 26.4					microns sec
		Um	iP	03 10 56.9				PKP Z'	0.1 1.0
		Andaman Islands.						PP Z'	0.4 2.0
		h = 80 km (Up).						PKS N	1.1 8
"	1	Up	iP	03 47 38.3				M E	3.7 20
		Ki	eP	03 47 39				M N	2.7 20
		Um	iP	03 47 39.1				M Z	7.1 21
		Ud	iP	03 47 55				(D = 14100 km	
		Nicobar Islands						= 127°).	
		(h = 40 km).					Sk	iPKP	07 24 59.9
"	1	Ki	iPKP	04 22 54.3				iPP	07 27 17.3
		Sk	ePKP	04 23 06			Gb	i(PKP)	07 25 11.4
		Um	iPKP	04 23 00.6			Um	iPKP	07 24 57.0
		Santa Cruz Islands						i	07 26 23.2
		(h = 30 km).						iPP	07 27 24
"	1	Up	iPKP	07 24 59.6				iPKS	07 28 19
		(cont.)						iSKKS	07 34 00
							Ka	iPKP	07 25 23.1
							Ud	iPKP	07 25 12
								ipPKP	07 25 27
							(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Jan.				Jan.			
1	(cont.)			2	(cont.)		
	Tonga Islands.				Ki	microns sec	
	h = 60 km (Up,Ki,Ud).				P	Z' 0.1 1.2	
	Magn. = 6.5 (Up,Ki).				Sk	ipP 09 59 40.2	
"	1	Up	i(P) 10 44 31.3		Um	iP 09 59 27.1	
			i 10 44 48.2			ipP 09 59 37.7	
		Sk	i(P) 10 43 15.2		Ud	iP 09 59 07	
					Congo.	h = 40 km (Ki,Um).	
"	1	Ki	ePKP 14 37 33	"	2	Up	iP 13 57 09.0
		Santa Cruz Islands				iPP 13 58 45.4	
		(h = 30 km).				microns sec	
"	1	Ki	ePKP 17 57 25			P Z' 0.1 0.7	
		Santa Cruz Islands			Ki	iP 13 57 47.9	
		(h = 30 km).				i 13 58 07.9	
"	1	Up	iP 22 22 46.0			iPP 13 59 30.6	
		Ki	----			iPcS 14 03 34.4	
			microns sec		Sk	iP 13 57 44.5	
		M	E 1.4 17		Gb	iP 13 57 19.5	
		M	N 1.0 17		Um	iP 13 57 23.4	
		M	Z 1.4 17			i(PP) 13 58 35.8	
		Sk	iP 22 23 28.9		Ka	iP 13 56 58.0	
		Um	iP 22 23 26.8		Ud	iP 13 57 21	
			e 22 36 16			i 13 57 29	
			i 22 39 14			i 13 57 40	
		Greece.			Iran (h = 40 km).		
"	2	Ki	iPKP 00 58 36.0	"	2	Ki	iP 14 58 56.8
		Santa Cruz Islands				Ud	iP 14 59 23
		(h = 30 km).				Philippine Islands	
"	2	Ud	iP 02 51 51			(h = 30 km).	
"	2	Up	iP 08 25 22.3	"	2	Up	----
			i 08 25 44.4			microns sec	
		Ki	iP 08 26 30.9			M E 1.7 22	
			iX 08 27 31.7			M N 2.7 22	
			microns sec			M Z 3.0 23	
			P Z' 0.1 1.3		Ki	ePKP 20 18 52	
		Sk	iP 08 26 00.4			i 20 19 04.6	
		Gb	eP 08 25 13			microns sec	
		Um	iP 08 25 59.8			M E 1.2 18	
		Ka	iP 08 24 50.4			M N 1.0 20	
		Ud	iP 08 25 26			M Z 2.0 18	
			iX 08 26 28		Sk	iPKP 20 19 06.1	
		Libya (h = 20 km).			Um	iPKP 20 18 53.4 C	
"	2	Up	iP 09 59 05.5			i 20 19 00.5	
		Ki	iP 09 59 49.8		Ud	iPKP 20 19 04	
			ipP 09 59 59.5			i 20 23 26	
		(cont.)			Santa Cruz Islands		
					(h = 30 km).		
					Magn. = 6.0 (Up,Ki).		
					(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967						1967					
Jan.	2	(cont.)				Jan.	3	Sk	i(Sg)	10 24 10.0	
		PKP at Ki and Sk correspond				"	3	Sk	iPKP	11 24 13.0	
		to the second onset at Um,						Um	iPKP	11 24 07.5	
		all being comparatively						Santa Cruz Islands			
		late PKP-arrivals. PKP at						(h = 30 km).			
		Um corresponds to PKP at				"	3	Ud	eP	12 08 23	
		Ud, these two being the						North Atlantic Ocean			
		most reliable onsets.						(h = 30 km).			
"	2	Ki	iP	22 19 17.8		"	3	Ki	ePn	12 37 20	
		Kodiak Island (h = 5 km).							iSn	12 38 06.3	
"	2	Ki	eP	22 26 51					iLgl	12 38 21.9	
		Ud	iP	22 27 05					D = 420 km = 3.8°.		
		Tibet-India (h = 5 km).						Possibly northwest Russia.			
"	3	Ki	iP	05 37 48.5				Origin time = 12 36 19.			
		Sk	iP	05 38 17.5				Explosion?			
		Um	iP	05 38 17.8		"	3	Up	iP	13 17 49.0	
		Ud	iP	05 38 39							
		Alaska (h = 90 km).				"	3	Ki	iPn	13 26 45.0	
"	3	Up		---					iSn	13 27 30.8	
				microns sec				KIR	iLgl	13 27 44.4	
		M	E	2.5 19					D = 420 km = 3.8°.		
		M	N	3.1 17				SKA	Sk	iSg	13 30 12.2
		M	Z	3.0 23					Um	iSn	13 28 13.0
		Ki		---				UME	iSg	13 28 38.0	
				microns sec					D = 590 km = 5.4°.		
		M	E	2.8 16				Northwest Russia, 67.3° N,			
		M	N	2.3 16				30.2° E. Origin time			
		M	Z	3.6 17				= 13 25 44. Explosion?			
		Um	iPKP	05 54 44.1		"	3	Um	iPKP	18 05 36.4	
			i	05 54 51.1				Santa Cruz Islands			
			i	06 04 06				(h = 30 km).			
			iSS	06 13 04		"	3	Up		---	
		Santa Cruz Islands								microns sec	
		(h = 30 km).							M	N	1.1 18
		Magn. = 6.2 (Up,Ki).							M	Z	1.6 20
"	3	Up	eL	06 51				Ki	ePKP	21 42 10	
				microns sec					i	21 42 19.5	
		M	E	2.0 15				Sk	iPKP	21 42 20.8	
		M	N	2.6 16				Um	iPKP	21 42 16.0	
		M	Z	2.9 18				Santa Cruz Islands			
		Ki	eL	06 45				(h = 30 km).			
				microns sec		"	3	Um	iP	22 51 58.5	
		M	E	4.4 17							
		M	N	2.5 18		"	4	Up	iP	03 53 36.2 D	
		M	Z	3.6 18					i	03 53 40.8	
		Santa Cruz Islands							ipP	03 53 45.9	
		(h = 30 km).							(cont.)		
		Magn. = 6.2 (Up,Ki).									

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1967					1967					
Jan.	4	(cont.)			Jan.	4	(cont.)			
		Up	microns sec				Up	microns sec		
		P	Z'	0.2 1.0			M	E	1.8 10	
		M	E	1.3 14			M	N	2.4 11	
		M	N	1.5 15			M	Z	2.2 10	
		Ki	iP	03 53 15.3 D			D = 2450 km = 22°.			
			ipP	03 53 25.2			Ki	iP	06 04 58.6	
			microns sec					microns sec		
		P	Z'	0.2 1.5			P	Z'	0.3 1.5	
		M	E	1.1 13			M	E	2.3 8	
		M	N	0.9 14			M	N	1.5 11	
		M	Z	1.3 12			M	Z	2.5 11	
		Sk	iP	03 53 42.6			Sk	iP	06 04 25.4 D	
			ipP	03 53 50.9				i	06 04 28.2	
		Gb	iP	03 53 54.8			Gb	iP	06 03 32.1	
			ipP	03 54 04.3			Um	iP	06 04 22.9	
		Um	iP	03 53 22.0				i	06 04 24.8	
			ipP	03 53 31.9				iPcP	06 07 54.2	
		Ka	iP	03 53 49.0				iS	06 08 47	
			ipP	03 53 59.0			Ka	iP	06 03 06.9	
		Ud	iP	03 53 42			Ud	iP	06 03 49	
			ipP	03 53 53				iS	06 07 54	
			iPP	03 56 57			Greece (h = 5 km).			
		Philippine Islands.					Magn. = 6.0 (Up,Ki).			
		h = 35 km (Up,Ki,Sk,Gb,Um,Ka,Ud).				"	4	Sk	iP	07 15 46.4
		Magn. = 5.8 (Up,Ki).						Gb	iP	07 14 51.2
								Um	eP	07 15 42
"	4	UPP						Ud	iP	07 15 05
		Up	iLg1	04 48 38.1				Greece (h = 40 km).		
		Ki	iPg	04 44 23.6 D		"	4	Up	ipP	11 37 26.8
		KIR	iSg	04 44 27.7				Ki	iP	11 37 03.7
			D = 30 km = 0.3°.						ipP	11 37 23.1
		Sk	ePg	04 46 07				Sk	epP	11 37 47
		SKA	eLg1	04 47 10				Um	iP	11 37 00.5
			D = 610 km = 5.5°.						ipP	11 37 21.1
		Um	iPg	04 45 40.5				Ka	ipP	11 37 35.3
		UMC	iLg1	04 46 26.7				Ud	iP	11 37 23 C
			D = 460 km = 4.1°.						ipP	11 37 41
		UdD	iSn	04 47 51				Burma-India.		
			iLg1	04 48 39				h = 70 km (Ki,Um,Ud).		
		Swedish Lapland,						pP is bigger than P. An		
		68.0°N, 21.2°E.						alternative interpretation		
		Origin time = 04 44 18.						would be in terms of <u>two</u>		
		Felt, especially at						shocks, about 19 sec apart,		
		Kurravaara.						in the same place,		
"	4	Up	iP	06 03 44.6				the second stronger than		
			iS	06 07 54				the first.		
			microns sec							
		P	N	1.0 3		"	4	Ki	ePn	13 46 11
		P	Z'	0.3 0.7					iSn	13 46 56.1
		S	N	1.1 6				(cont.)		
		(cont.)						(cont.)		

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1967					1967				
Jan.	4	(cont.)			Jan.	5	(cont.)		
		Ki	iSg	13 47 15.4			Up		microns sec
				D = 420 km = 3.8°			P	Z'	3.5 1.5
				Possibly northwest Russia.			PP	E	12 5
				Origin time = 13 45 09.			PP	N	8.5 5
				Explosion?			PP	Z	17 5
"	4	Up	iP	15 00 09.3			S	E	120 19
		Ki	iP	14 59 15.0 C			S	N	100 21
		Um	iP	14 59 40.7			M	E	750 24
		Ud	iP	15 00 06			M	N	520 20
				Aleutian Islands			M	Z	850 19
				(h = 40 km).					D = 5350 km = 48°
"	4	Ki	iP	18 11 14.4		Ki	iP		00 22 45.4 C
		Sk	iP	18 11 46.7			i		00 22 52
		Um	iP	18 11 29.6			iPP		00 24 31
		Ud	iP	18 11 53			iS		00 29 15
				Japan (h = 420 km).					microns sec
"	4	Up	iP	20 27 35.5 C			P	E	13 6
			i	20 27 37.5			P	N	2.0 6
				microns sec			P	Z	19 5
			P	Z' 0.3 0.7			P	Z'	2.1 1.4
		Ki	iP	20 27 44.9 C			PP	E	33 6
			i	20 27 56.7			PP	N	5.5 7
			ipP	20 28 04.9			PP	Z	25 5
				microns sec			S	E	140 19
			P	Z' 0.3 1.1			S	N	35 14
		Sk	iP	20 27 23.6 C			S	Z	34 13
		Gb	iP	20 27 17.8			M	E	460 20
		Um	iP	20 27 43.4 C			M	N	230 15
			ipP	20 28 06.6			M	Z	780 20
		Ka	iP	20 27 28.1 C					D = 4900 km = 44°
		Ud	iP	20 27 (19) C		Sk	iP		00 23 21.6 C
				Venezuela. h = 80 km (Ki, Um). Magn. = 6.2 (Up, Ki).			i		00 23 27.4
"	4	Ki	iPKP	23 07 20.4		Gb	iP		00 23 43.7 C
		Um	ePKP	23 07 16			i		00 23 47.3
			i	23 07 26.0		Um	iP		00 22 55.9 C
				South Sandwich Islands			i		00 22 59.7
				(h = 90 km).			iPP		00 24 42
"	5	Up	iP	00 23 17.4 C			iS		00 29 37
			i	00 23 20.4		Ka	iP		00 23 35.7 C
			iPP	00 25 12			i		00 23 40.5
			iS	00 30 10		Ud	iP		00 23 29 C
				microns sec			i		00 23 35
			P	E 3.8 4					Mongolia (h = 30 km).
			P	N 2.5 5					Magn. = 7.4 (Up, Ki).
			P	Z 8.9 5					PL waves recorded by long-
									period instruments.
									Multiple P.
(cont.)					"	5	Up	iP	00 50 49.5
									microns sec
							P	Z'	0.9 1.4
					(cont.)				

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1967

Jan. 5 (cont.)
 Ki iP 00 50 15.8
 microns sec
 P Z' 3.0 2.5
 Sk iP 00 50 52.9
 Gb iP 00 51 14.7
 Um iP 00 50 27.1
 Ka iP 00 51 08.1
 Ud iP 00 51 03
 Mongolia (h = 30 km).
 Magn. = 6.7 (Up,Ki).
 " 5 Sk iPKP 02 29 14.7
 Um iPKP 02 29 09.3
 Santa Cruz Islands
 (h = 30 km).
 " 5 Up iP 06 25 46.4
 ipP 06 26 36.5
 microns sec
 P Z' 0.1 0.9
 M N 0.9 18
 Ki iP 06 25 29.2
 ipP 06 26 15.5
 iS 06 35 22
 microns sec
 P Z' 0.1 1.0
 S E 1.1 7
 S N 0.6 11
 M E 0.8 16
 M N 0.6 15
 M Z 0.9 15
 Sk iP 06 25 51.1
 Gb iP 06 26 02.7
 Um iP 06 25 34.4 C
 i 06 25 39.8
 ipP 06 26 16.9
 iS 06 35 32
 Ud iP 06 25 55 C
 ipP 06 26 42
 Mindoro.
 h = 180 km (Up,Ki,Um,Ud).
 Magn. = 5.6 (Up,Ki).
 " 5 Up iP 10 15 32.9
 i 10 16 52
 iPP 10 17 06.2
 iSS 10 24 07
 iLgl 10 28 40
 microns sec
 PP Z' 0.1 1.0
 M E 1.3 14
 (cont.)

1967

Jan. 5 (cont.)
 Up microns sec
 M N 1.7 14
 M Z 1.6 13
 Ki iP 10 15 36.4 D
 iPP 10 17 08.0
 eSS 10 24 20
 iLgl 10 29 03
 microns sec
 P Z' 0.1 1.0
 PP E 0.6 5
 PP Z' 0.1 1.2
 M E 2.5 9
 M N 2.5 9
 M Z 3.0 9
 Sk iP 10 15 56.1 D
 iPP 10 17 38.8
 Gb iP 10 15 45.8
 i(Pp) 10 17 38.1
 iPcP 10 17 54.7
 Um iP 10 15 27.8 D
 i 10 16 55
 iPP 10 17 01.6
 iS 10 21 26
 iSS 10 23 46
 iLgl 10 28 16
 Ka iP 10 15 39.4 D
 iPP 10 17 16.6
 Ud iP 10 15 46
 ePP 10 17 22
 Kirghiz SSR (h = 10 km).
 Magn. = 5.9 (Up,Ki).
 " 5 Sk iPKP 10 54 42.8
 Um iPKP 10 54 38.1
 Ud i(PKP) 10 54 43
 Santa Cruz Islands
 (h = 60 km).
 " 5 Up iP 12 14 20.4 C
 microns sec
 P Z' 0.1 0.5
 " 5 Ki iP 13 54 36.5
 " 5 Up iP 14 24 56.2 C
 " 5 Ki iPn 14 41 35.6
 iSn 14 42 23.7
 iLgl 14 42 38.6
 D = 440 km = 4.0⁰.
 (cont.)

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1967				1967			
Jan.	5	(cont.)		Jan.	6	(cont.)	
		Possibly northwest Russia. Origin time = 14 40 33. Explosion?				Up microns sec M N 5.9 22 M Z 4.3 22 D = 7650 km = 69°.	
"	5	Up	iP 17 04 47.2 i 17 04 55.6			Ki	iP 00 14 24.1 C ipP 00 14 34.5 i 00 15 25.6
		Ki	eP 17 06 02				microns sec P N 0.5 8 P Z 1.1 6 P Z' 0.1 1.0 M E 3.7 19 M N 2.4 19 M Z 5.7 20
		Sk	iP 17 05 28.8			Sk	iP 00 14 59.3 i(pP) 00 15 12.7
		Um	iP 17 05 24.5			Gb	iP 00 15 28.4
		Ud	iP 17 04 55			Um	iP 00 14 43.0 C i(pP) 00 14 51.6
		Greece (h = 30 km).				Ka	iP 00 15 28.1
"	5	Ki	iP 22 48 32.5			Ud	iP 00 15 15 C ipP 00 15 26
		Sk	iP 22 49 08.7			Japan. h = 40 km (Up, Ki, Sk, Um, Ud). Magn. = 6.0 (Up, Ki).	
		Um	iP 22 48 42.4			"	6 Up i(P) 00 21 33.0 C Ki i(P) 00 22 44.4 Um iP 00 21 01.2 Ud i(P) 00 21 36
		Ud	iP 22 49 18			"	6 Um i(P) 00 34 37.2 Ud i(P) 00 35 12 Montana, USA (h = 10 km).
"	6	Up	iP 00 06 58.4			"	6 Um i(P) 02 07 39.9 Ud iP 02 08 52
			microns sec P Z' 0.1 1.2			"	6 Ki iP 03 00 46.7 Um iP 03 01 02.1 Ud eP 03 01 41
		Ki	iP 00 06 27.1 C iPP 00 08 02.9 eS 00 13 06			"	6 Up i(P) 06 03 26.7 Um i(P) 06 03 23.3 Ud i(P) 06 03 36
			microns sec P Z' 0.3 1.0 M E 1.9 8 M N 3.6 10 M Z 1.3 9 D = 4900 km = 44°.			"	6 Um iP 06 16 28.4
		Sk	iP 00 07 03.2 C			"	6 Ki iP 10 16 33.6 i 10 16 42.0 Um iP 10 16 37.1
		Gb	iP 00 07 25.4			(cont.)	(cont.)
		Um	iP 00 06 37.3 C iPP 00 08 04.3 iS 00 13 12				
		Ka	iP 00 07 18.4				
		Ud	iP 00 07 12 C i 00 07 57				
		Mongolia (h = 30 km).					
"	6	Up	iP 00 15 06.9 C ipP 00 15 18.5 ePP 00 17 41 iS 00 24 17				
			microns sec P N 0.4 3 P Z 0.7 3 P Z' 0.2 0.9 PP E 0.7 8 S E 1.0 9 S N 1.0 7 M E 3.4 20				
		(cont.)					

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1967					1967						
Jan.	6	(cont.)			Jan.	7	Ki	iP	13 11 50.2 C		
		Molucca Sea (h = 60 km).							microns sec		
"	6	Um	iP	17 46 36.0			P	Z'	0.1 1.0		
		Japan (h = 30 km).					Sk	iP	13 12 26.3		
"	6	Um	iP	18 17 59.4			Um	iP	13 12 00.6 C		
"	6	Um	iP	18 17 59.4			Ud	iP	13 12 35 C		
"	7	Up	iPKS	00 50 03	"	7	Up	iP	13 48 13.4		
				microns sec			Ki	iP	13 47 47.4 C		
		M	E	0.7 18					microns sec		
		M	N	1.1 18			P	Z'	0.2 1.0		
		M	Z	0.6 18			Sk	iP	13 48 10.8		
		Ki	ePKP	00 46 33			Gb	iP	13 48 29.5		
			i	00 46 41.9			Um	iP	13 47 57.4 C		
				microns sec			Ud	iP	13 48 18		
		M	E	1.5 20				i	13 48 20		
		M	N	0.8 18					Mariana Islands		
		M	Z	2.3 19					(h = 40 km).		
		Sk	iPKP	00 46 44.1 C			"	7	Um	iPKP	16 12 45.4
		Gb	iPKP	00 46 41.0					Santa Cruz Islands		
		Um	iPKP	00 46 37.0					(h = 30 km).		
			iPP	00 49 24			"	7	Up		
			iPKS	00 50 02					---		
			iSKKS	00 55 56					microns sec		
		Southwest of Australia							M	E	1.0 17
		(h = 30 km).							M	N	1.1 18
		Magn. = 5.8 (Up,Ki).							M	Z	1.4 18
"	7	Sk	iP	01 38 58.1			Sk	iPKP	17 00 02.1		
		Um	iP	01 38 52.5 D			Um	iPKP	16 59 56.5		
"	7	Up	iP	05 06 24.8 C			Ud	iPKP	17 00 05		
		Ud	iP	05 06 22					Santa Cruz Islands		
		Aleutian Islands (h = 70 km).							(h = 30 km).		
"	7	KIR	iPn	08 01 38.0	"	7	Up	iP	18 19 13.8		
			iSn	08 02 34.9				i	18 19 17.9		
			iLgl	08 02 52.3			Sk	iP	18 19 33.1		
			iSg	08 03 02.0			Um	iP	18 18 59.3		
			D = 530 km = 4.8°					i	18 19 03.9		
		SKA	eSg	08 05 30			Ud	iP	18 19 29 C		
		UmE	iSn	08 03 19.6			"	7	Um	iP	19 37 05.0
			iSg	08 03 58.4					Mexico (h = 70 km).		
			D = 730 km = 6.6°				"	8	Up	iP	01 51 32.3
		Northwest Russia, 67.9 N,							Um	iP	01 51 42.7
		33.2° E. Origin time							Ud	iP	01 51 46
		= 08 00 22. Explosion?							i		01 55 32
"	7	Up	iP	10 00 29.5			"	8	Up	eP	05 13 04
"	7	Um	iPKP	11 51 54.6					iPcP	05 13 46.3	
		Santa Cruz Islands (h = 30 km).							(cont.)		

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1967				1967			
Jan.	8	(cont.)		Jan.	9	(cont.)	
		Up	microns sec			Up	i 02 03 33.6
		M	E 1.6 17			iPP	02 04 32.6
		M	N 2.4 17			Ki	iP 02 03 29.9 C
		M	Z 2.2 17			iPP	02 05 14.2
		Ki	iP 05 12 09.8				microns sec
		ipP	05 12 21.2			P	Z' 0.2 1.0
			microns sec			PP	Z' 0.2 1.3
		P	Z' 0.1 1.3			Sk	iP 02 03 28.3 C
		M	E 2.0 16			i	02 03 30.2
		M	N 2.8 18			i	02 05 26.7
		M	Z 2.9 15			Gb	iP 02 03 06.3
		Sk	iP 05 12 53.1 D			Um	iP 02 03 07.0 C
		Gb	iP 05 13 25.6			i	02 03 08.9
		Um	iP 05 12 40.5			i	02 03 22.2
			iPcP 05 13 30.6			iPP	02 04 48.5
		Ka	iP 05 13 29.1			Ka	iP 02 02 44.6
		Ud	iP 05 13 06			i	02 02 46.7
			iPcP 05 13 47			Ud	iP 02 03 08
			Kamchatka. h = 40 km (Ki).			i	02 03 10
			Magn. = 5.7 (Up,Ki).			i	02 03 31
						iPP	02 04 46
"	8	Ki	iP 05 16 08.7				Iran (h = 15 km).
			Kamchatka (h = 25 km).				Magn. = 6.1 (Ki).
"	8	Up	iP 06 53 38.6				Multiple P with a small
		i	06 53 43.8				onset followed after 2 sec
			microns sec				by a much larger phase
		P	Z' 0.1 1.2				(Up,Sk,Um,Ka,Ud).
		Ki	eP 06 52 49	"	9	Ki	iP 09 50 58.7
		i	06 52 54.5			Um	iP 09 51 09.4
		Gb	iP 06 54 04.9				Formosa (h = 50 km).
		Um	iP 06 53 14.9	"	9	Ki	eP 18 21 12
		Ka	iP 06 54 09.1			i	18 21 36.5
		Ud	eP 06 53 47			Sk	iP 18 20 57.9
			iPcP 06 54 26			Gb	iP 18 20 59.0 C
			Kamchatka (h = 40 km).			Um	iP 18 21 15.0 C
"	8	Ki	eP 08 41 22			i	18 21 40.1
		i	08 41 28.5			Ud	iP 18 21 01
		Ud	iP 08 42 19				Colombia (h = 40 km).
			iPcP 08 42 59	"	9	Um	iPKP 20 06 06.5 C
			Kamchatka (h = 25 km).				Santa Cruz Islands
"	8	Up	iP 13 58 07.4				(h = 80 km).
"	8	Um	iP 17 38 25.3	"	10	Um	iP 08 41 27.0
"	8	Up	iP 19 09 46.9				Japan (h = 30 km).
"	9	Up	iP 02 02 54.8 C	"	10	Ki	iP 09 40 32.9 C
		i	02 02 56.6	"	10	Ud	iP 12 45 05
		(cont.)					

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1967				1967			
Jan.	10	Ki	iP 17 52 03.8 C	Jan.	11	(cont.)	
		Ud	iP 17 52 53			Ud	iSg 13 03 26
		Kamchatka (h = 30 km).				Probably explosion in southern Baltic Sea.	
"	11	Um	iPKP 03 16 53.4	"	11	Ka	iSg 14 45 57.2
		Santa Cruz Islands (h = 30 km).				Ud	e 14 46 53
							iSg 14 48 06
"	11	Up	iP 06 07 30.2			Probably explosion in southern Baltic Sea.	
		Ki	iP 06 07 14.7				
			microns sec	"	11	Ki	iP 16 21 07.7
			P Z' 0.1 1.3			Sk	iP 16 20 56.2
		Um	iP 06 07 17.8			Um	iP 16 21 10.4
		Ud	iP 06 07 34			South of Panama (h = 20 km).	
		Celebes (h = 25 km).					
"	11	Ud	iP 06 55 45 C	"	12	Ki	iSg 09 38 19.6
"	11	Up	iP 11 27 06.4 C			Sk	iSg 09 38 24.2
			i 11 27 11.4			Um	iSg 09 38 47.3
			iS 11 32 20			Nordlands Fylke, Norway.	
			microns sec	"	12	Ki	iPn 13 35 58.4
			P Z' 0.1 0.5				iSn 13 36 43.6
		M	E 5.0 20				i(Sg) 13 36 59.7
		M	N 6.5 19				D = 420 km = 3.8°.
		M	Z 4.0 16			Possibly northwest Russia.	
			D = 3500 km			Origin time = 13 34 56.	
			= 31 1/2°.			Explosion?	
		Ki	iP 11 27 50.9 C	"	12	Up	iP 18 22 01.2
			iPP 11 29 07.2				i 18 22 12.4
			e(S) 11 33 42			Ki	iP 18 22 31.8
			microns sec			Um	iP 18 22 09.2
			P Z' 0.7 1.5			Ud	eP 18 22 12
		PP	Z' 0.2 1.0			Iran (h = 30 km).	
		M	E 5.0 22	"	12	Ki	iP 22 32 57.8
		M	N 3.6 22			Um	iP 22 32 32.3
		M	Z 7.8 22			Uganda (h = 30 km).	
		Sk	iP 11 27 44.5	"	12	Um	iP 23 54 56.7
			i(PP) 11 28 44.7				i 23 56 02.7
		Gb	iP 11 27 16.0	"	12	Um	iP 03 59 23.8 C
			iPP 11 28 13.8			Ud	iP 03 59 43
		Um	iP 11 27 23.5	"	13	Up	iP 04 37 19.8
		Ka	iP 11 26 53.3 C			Um	iP 04 36 59.9
			i 11 27 01.3			Ud	iP 04 37 27
		Ud	iP 11 27 21			South of Japan (h = 390 km).	
		Iran-Iraq (h = 30 km).					
		Magn. = 5.9 (Up,Ki).					
"	11	Up	i 13 03 06.3	"	13	Up	iP 04 37 19.8
			iSg 13 03 22.7			Um	iP 04 36 59.9
		Ka	iSg 13 01 15.1			Ud	iP 04 37 27
		Ud	i 13 02 26			South of Japan (h = 390 km).	
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967					1967					
Jan.	13	Ki	iP	09 46 31.2 C	Jan.	14	(cont.)			
				Alaska (h = 130 km).				Up	isP 12 15 55.8	
									microns sec	
"	13	Ud	iP	10 09 18 D					P Z' 0.1 0.8	
"	13	Up		---				Ki	iP 12 14 46.5 C	
									ipP 12 15 00.2	
				microns sec					microns sec	
		M	E	3.8 20					P Z' 0.1 0.9	
		M	N	2.4 20				Sk	iP 12 15 20.3	
		M	Z	5.2 20				Gb	iP 12 15 56.4	
		Ki	iPKP	14 06 50.0					ipP 12 16 08.5	
				microns sec				Um	iP 12 15 12.6 C	
		M	E	2.9 21					ipP 12 15 24.1	
		M	N	4.0 20				Ud	iP 12 15 42 C	
		M	Z	6.3 22					ipP 12 15 54	
		Solomon Islands						Aleutian Islands.		
		(h = 30 km).						h = 40 km (Up,Ki,Gb,Um,Ud).		
		Magn. = 6.2 (Up,Ki).						Magn. = 5.7 (Up,Ki).		
"	13	Ki	iP	14 14 44.7	"	14	Um	iP	12 44 08.7	
		Um	iP	14 14 43.6						
		Ud	iP	14 15 05	"	14	Up	ipP	12 54 32.9	
				ipP 14 15 31			Ki	iP	12 54 18.0	
		Burma-India.						ipP	12 54 32.3	
		h = 100 km (Ud).					Sk	eP	12 54 30	
"	13	Ud	iP	20 01 29				ipP	12 54 44.8	
"	13	Up	iP	21 42 07.0			Um	iP	12 54 15.5	
"	14	Up	iP	02 21 35.9				ipP	12 54 29.7	
		Japan (h = 130 km).					Ud	iP	12 54 27	
								ipP	12 54 41	
		Sumatra.					h = 50 km (Ki,Sk,Um,Ud).			
"	14	Ki	ePn	11 04 59	"	14	Up	iP	13 37 27.5	
			iSn	11 05 54.2			Ud	iP	13 37 38	
			iSg	11 06 17.0			Mindoro (h = 40 km).			
			D = 510 km = 4.6°							
		Um	iSn	11 06 40.1	"	14	Ki _R	iPg	14 24 39.6 C	
			i	11 06 46.5				iSg	14 24 44.1	
			iSg	11 07 20.3				microns sec		
			D = 720 km = 6.5°					Sg	Z' 0.2 0.5	
		Probably northwest Russia.							D = 30 km = 0.3°	
		Origin time = 11 03 46.					Sk _A	eSg	14 27 24	
		Explosion?					Um _E	iSn	14 26 19.0	
"	14	Ki	iP	11 06 55.6				iSg	14 26 35.2	
		Ud	iP	11 07 07 D				D = 410 km = 3.7°		
		Tadzhik SSR					Swedish Lapland,			
		(h = 25 km).					67.6°N, 20.9°E.			
"	14	Up	iP	12 15 39.8 C	"	14	Um	iPKP	14 32 33.6	
			ipP	12 15 50.8			(cont.)			
		(cont.)								

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1967				1967				
Jan.	14	(cont.) Santa Cruz Islands (h = 30 km).		Jan.	15	Up	iP 20 07 07.6 C iPP 20 09 02.4 microns sec M E 1.2 13 M N 1.5 13 M Z 1.8 14	
"	14	Up	iP 15 36 50.5 i 15 37 07.3 Ki iP 15 36 47.2 Sk iP 15 37 06.6 i 15 37 16.2 Um iP 15 36 37.5 Ud iP 15 37 01 Sinkiang (h = 30 km).			Ki	iP 20 06 24.8 C microns sec M E 1.4 17 M N 1.2 15 M Z 2.8 16	
"	15	Ud	iP 00 10 43 Iran (h = 30 km).			Sk	iP 20 07 05.4 Um iP 20 06 40.3 iPP 20 08 20.5 iS 20 13 03 iSS 20 16 28 Lake Baikal (h = 30 km).	
"	15	Sk	i(PKP) 02 50 53.1 Um i(PKP) 02 50 48.0 C Ud i(PKP) 02 51 01		"	15	Ki	iP 22 25 44.2 Pamir.
"	15	Up	iP 05 55 08.9 Um iP 05 54 47.8 Ud iP 05 55 17 Sea of Japan (h = 380 km).		"	16	Um	iP 03 43 13.9 Japan (h = 40 km).
"	15	UpP	iSg 08 11 58.5 KiP ePg 08 08 11 iSn 08 08 40.9 iSg 08 09 03.1 D = 470 km = 4.2 SkA eSg 08 11 30 UmE iSn 08 09 21.8 iSg 08 09 52.9 UdP eS 08 12 02 iSg 08 12 34 Northwest Russia, 67.4°N, 31.4°E. Origin time = 08 06 46. Explosion??		"	16	Up	--- microns sec M E 2.4 21 M N 2.4 20 M Z 3.0 19 Um iPKP 14 45 19.6 i 14 45 28.8 Ud iPKP 14 45 28 i 14 45 37 Santa Cruz Islands (h = 5 km).
"	15	Up	iP 09 26 49.2 ipP 09 26 56.1 Ki iP 09 25 55.1 Sk iP 09 26 22.7 ipP 09 26 29.5 Um iP 09 26 23.1 Kodiak Island. h = 25 km (Up,Sk).		"	16	Ud	iP 20 05 25 Dodecanese Islands (h = 160 km).
"	15	Up	iP 09 55 26.1		"	17	Ud	iP 00 44 01 Kurile Islands (h = 30 km).
"	15	Um	iP 17 31 19.9		"	17	Up	iPP 01 25 52.6 Um i(PKP) 01 25 09.5 iPKP 01 25 22.5 Ud iPKP 01 25 15 C iPP 01 25 40 Argentina (h = 590 km).
"	15	Um	iP 17 31 19.9		"	17	Up	iPKP 01 36 17.9 (cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967				1967			
Jan.	17	(cont.)		Jan.	17	(cont.)	
		Up	e(PP) 01 38 49			Sk	ipP 12 10 57.0
		Um	iPKP 01 36 11.3 C			Gb	iP 12 11 12.6 C
		Ud	iPKP 01 36 21				ipP 12 11 26.4
			i(PP) 01 38 56				iPP 12 14 02.7
			iPKS 01 39 38			Um	iP 12 10 29.3 C
		New Hebrides Islands					ipP 12 10 41.8
		(h = 90 km).					iS 12 19 23
"	17	Ud	iPKP 03 39 38			Ka	iP 12 11 11.6 C
		Fiji Islands (h = 500 km).					ipP 12 11 25.3
"	17	Um	iPKP 10 44 21.5			Ud	iP 12 11 00 C
		South Sandwich Islands					ipP 12 11 13
		(h = 30 km).				Japan. h = 50 km (Up, Ki, Sk, Gb, Um, Ka, Ud).	
						Magn. = 6.7 (Up, Ki).	
"	17	Up	iPKP 11 10 30.4	"	17	Up	iP 12 37 42.3
		Um	iPKP 11 10 17.4			Ki	iP 12 37 01.3
			i 11 10 25.8			Um	iP 12 37 19.6
		Ud	iPKP 11 10 28			Ud	iP 12 37 51
			i 11 10 51				ipP 12 38 02
		Kermadec Islands				Japan. h = 40 km (Ud).	
		(h = 30 km).					
"	17	Up	iP 12 10 52.0 C	"	17	Ud	iP 12 52 23
			ipP 12 11 03.1			Kurile Islands	
			iS 12 20 10			(h = 30 km).	
			microns sec	"	18	Up	iP 04 31 36.9
		P	E 1.4 6				i 04 31 44.1
		P	N 0.8 4			Ki	iP 04 30 45.9
		P	Z 1.9 4			Um	iP 04 31 10.2 C
		P	Z' 1.2 1.3			Ka	iP 04 32 00.3
		S	E 3.7 10			Ud	iP 04 31 38
		S	N 6.2 9			Kurile Islands	
		M	E 31 17			(h = 40 km).	
		M	N 37 24	"	18	Up	iP 05 43 21.2 D
		M	Z 54 18				iPa 05 45 41
		D = 7950 km					iS 05 50 25
		= 71 1/2°.					iSS 05 54 05
		Ki	iP 12 10 11.5 C				microns sec
			ipP 12 10 24.2			P	E 0.7 4
			i 12 18 28			P	N 1.0 4
			iS 12 18 52			P	Z 3.0 6
			iPS 12 19 16			P	Z' 0.3 0.6
			microns sec			S	E 4.8 10
		P	Z' 0.9 1.5			S	N 5.8 8
		S	N 7.3 10			M	E 58 19
		M	E 39 16			M	N 68 16
		M	N 27 22			M	Z 20 17
		M	Z 65 16			D = 5500 km	
		D = 7200 km = 65°.				= 49 1/2°.	
		Sk	iP 12 10 45.0 C				
		(cont.)				(cont.)	

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1967

Jan. 18 (cont.)

Ki	iP	05 42 31.8
	iPP	05 44 23
	i(PcS)	05 48 29
	iS	05 48 57
	iSS	05 51 54
		microns sec
P	E	2.3 6
P	Z	4.5 7
P	Z'	0.4 0.8
PP	E	6.3 8
PP	N	4.2 8
PP	Z	5.3 8
S	E	10 12
S	N	5.8 6
S	Z	4.5 7
M	E	34 12
M	N	47 11
M	Z	16 8
	D = 4800 km = 43°.	
Sk	iP	05 43 14.1
Gb	iP	05 43 47.1
Um	iP	05 42 53.3
	iPP	05 44 41
	iPa	05 44 54
	iS	05 49 30
	iSS	05 52 44
Ka	iP	05 43 46.0
Ud	iP	05 43 27

Eastern Russia

(h = 10 km).

Magn. = 6.6 (Up,Ki).

P: long-period motion dominates the first period, after which shorter periods set in (on the Z' records). Pa: this phase is definitely distinct from PP and PPP, contrary to some recently expressed ideas. Clear higher-mode surface waves are recorded.

" 18 Ud iP 06 32 26
Kurile Islands
(h = 30 km).

" 18 Up iP 08 29 17.3
iPcP 08 29 44.2
microns sec
P Z' 0.3 0.9
(cont.)

1967

Jan. 18 (cont.)

Up		microns sec
	M E	4.7 26
	M N	3.7 25
Ki	iP	08 28 24.0
		microns sec
	P Z'	0.4 0.8
Sk	iP	08 28 53.7
Gb	iP	08 29 32.0
Um	iP	08 28 51.0
	iPcP	08 29 27.3
Ka	iP	08 29 39.6
	iPcP	08 29 57.4
Ud	iP	08 29 12
		Aleutian Islands
		(h = 40 km).
		Magn. = 6.2 (Up,Ki).

" 18 Ki iP 08 39 18.1
Sk iP 08 39 53.1
Um iP 08 39 37.9
Ud iP 08 40 05
Japan (h = 70 km).

" 18 Ki iP 10 50 52.6
ipP 10 51 14.6
Sk epP 10 51 48
Ud iP 10 51 46
ipP 10 52 09
Alaska. h = 100 km
(Ki,Ud).

" 18 Ud i(P) 14 47 37

" 18 Up iP 15 38 41.3
Ki eP 15 37 53
Um iP 15 38 13.9
Kurile Islands
(h = 140 km).

" 18 Up eP 21 58 02
Ki iP 21 57 31.8 C
microns sec
P Z' 0.1 1.0
Sk iP 21 58 07.6
Um iP 21 57 41.9
Mongolia (h = 30 km).

" 19 Up iPcP 12 57 16.6
Ki iPcP 12 57 03.2
microns sec
PKP Z' 0.1 1.0
(cont.)

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1967				1967			
Jan.	19	(cont.)		Jan.	19	Up	iP 16 56 49.2
		Sk	iPKP 12 57 14.9				microns sec
		Gb	iPKP 12 57 22.3				P Z' 0.1 0.8
		Um	iPKP 12 57 09.1			Ki	iP 16 56 14.4 C
		Ka	iPKP 12 57 25.0			Sk	iP 16 56 21.9
		Santa Cruz Islands				Um	iP 16 56 34.2
		(h = 160 km).					i 16 56 39.9
"	19	Up	iPKS 13 02 55			Ud	iP 16 56 38 C
			eSS 13 19 43			Nevada.	
			microns sec			Origin time = 16 45 00.	
			PKS N 2.0 4			Underground explosion.	
			M E 14 21	"	19	Um	iP 19 55 50.3
			M N 40 23			Caribbean Sea (h = 30 km).	
			M Z 35 23				
		Ki	iPKP 12 59 24.1	"	20	Um	iP 00 31 01.8
			microns sec				
			PKP Z' 0.1 1.5	"	20	Up	iP 02 05 59.9
			M E 26 21				i 02 06 02.0
			M N 17 20				iPcP 02 07 27.8
			M Z 44 21				iPP 02 07 51
		Um	iPKP 12 59 27.0				iS 02 12 55
			iPP 13 01 23				iPS 02 13 11
			iPPS 13 13 08				i(SS) 02 16 46
		Fiji Islands (h = 20 km).					microns sec
		Magn. = 7.1 (Up,Ki).					P E 4.2 5
"	19	Up	iP 13 52 18.6 C				P N 2.7 5
		Ka	iP 13 52 23.9				P Z 8.1 4
"	19	Ki	iP 14 48 05.6				P Z' 0.4 1.0
		Kamchatka (h = 30 km).					PP E 8.4 5
"	19	Up	iP 14 52 30.7				PP N 6.0 5
			microns sec				PP Z 12 5
			P Z' 0.1 0.5				S E 4.9 9
		Ki	iP 14 51 37.1				M E 110 12
			iPcP 14 52 23.9				M N 41 11
			microns sec				M Z 110 12
			P Z' 0.1 0.8				D = 5350 km = 48°.
		Sk	iP 14 52 15.2			Ki	iP 02 05 27.4 C
			i 14 52 42.6				i 02 05 30.6
		Gb	iP 14 52 45.0				iPP 02 07 07.8
		Um	iP 14 52 04.2				iS 02 11 54
			iPcP 14 52 40.3				iPS 02 12 15
		Ka	iP 14 52 53.7				iSS 02 15 03
		Aleutian Islands					microns sec
		(h = 60 km).					P E 10 6
		Magn. = 5.9 (Up,Ki).					P N 1.6 6
"	19	Um	iP 15 27 03.0				P Z 16 5
							P Z' 5.6 2.0
							PP E 14 7
							PP N 2.4 7
							PP Z 8.6 6
							PP Z' 3.5 2.7

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967						1967				
Jan.	20	(cont.)				Jan.	20	(cont.)		
		Ki		microns sec				West Pakistan		
			S	E 4.4 7				(h = 70 km).		
			M	E 53 15						
			M	N 56 10		"	20	Ki	iP	06 31 23.0
			M	Z 56 11						microns sec
				D = 4900 km = 44°					P	Z' 0.1 1.0
		Sk	iP	02 06 04.7 C				Sk	iP	06 31 58.6
			i	02 06 06.7				Um	iP	06 31 32.7
			iPcP	02 07 28.8				Ka	iP	06 32 13.8
			iPP	02 08 00.3				Ud	iP	06 32 05
		Gb	iP	02 06 26.6				Mongolia (h = 30 km).		
			i	02 06 28.8		"	20	Ki	i(Pg)	13 44 03.9
			iPcP	02 07 41.9					i	13 44 47.4
			iPP	02 08 21.2					iSg	13 44 50.8
		Um	iP	02 05 38.8 C				Um	i(Sn)	13 45 33.2
			i	02 05 41.1					iSg	13 46 02.6
			iPcP	02 07 14.1		"	20	Up	iP	17 51 51.7
			iPP	02 07 23				Ki	iP	17 51 18.1 C
			iPS	02 12 30				Sk	iP	17 51 26.0
		Ka	iP	02 06 20.3 C				Gb	iP	17 51 51.8
			i	02 06 22.4				Um	iP	17 51 37.6
			iPcP	02 07 38.2				Ud	iP	17 51 43
		Ud	iP	02 06 13 C				Nevada.		
			i	02 06 15				Origin time = 17 40 00.		
			iPcP	02 07 35				Probably underground explosion.		
		Mongolia (h = 30 km).				"	20	Ud	iP	21 28 28
		Magn. = 7.0 (Up,Ki).						Mongolia (h = 30 km).		
		Multiple P: in general				"	20	Sk	iP	22 01 40.8
		about 2.2 sec between						Um	iP	22 01 01.7 C
		the first small and						Ud	iP	22 01 33
		the second large onset;				"	20			
		compare Jan. 5, 1967, at								
		06 25.				"	21	Ki	iP	00 49 37.7
"	20	Ki	iP	03 35 20.1						microns sec
		Sk	iP	03 35 56.4					P	Z' 0.1 1.1
		Um	iP	03 35 28.8				Sk	iP	00 50 14.1 C
		Ud	iP	03 36 04				Um	iP	00 49 48.3 C
		Mongolia (h = 30 km).						Ud	iP	00 50 22 C
"	20	Ki	iP	03 36 52.4				Mongolia (h = 30 km).		
		Sk	iP	03 37 28.3		"	21	Up	i(PKP)	03 13 54.7
		Um	iP	03 37 02.6 C				iPKP	03 14 01.5	
		Ud	iP	03 37 35						microns sec
		Mongolia (h = 30 km).							PKP	Z' 0.1 1.4
"	20	Um	iP	04 17 12.7				M	E	2.0 18
"	20	Um	iP	04 22 45.2				M	N	2.4 20
"	20	Um	iP	05 24 58.1				M	Z	3.0 19
		(cont.)						(cont.)		

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1967						1967				
Jan.	21	(cont.)				Jan.	21	(cont.)		
		Ki	e(PKP)	03 13 52				Japan (h = 70 km).		
			iPKP	03 14 04.2						
				microns sec			"	21	Up	iP 13 00 29.5
			PKP Z'	0.3 1.4					Ud	iP 13 00 08
			M E	2.4 18						
			M N	2.1 19					"	21
			M Z	4.6 19					Ki	iP 13 43 40.8
		Sk	ePKP	03 13 49					Um	iP 13 43 38.6 C
		Gb	iPKP	03 13 48.2					Ud	iP 13 43 53
		Um	i(PKP)	03 13 46.1					Sumatra (h = 100 km).	
			iPKP	03 13 57.4					"	21
			iPKP2	03 14 04.5					Up	iPKP 14 07 53.3 C
			i	03 20 21						ipPKP 14 08 07.8
			eSS	03 37 09						microns sec
		Ka	i(PKP)	03 13 48.5						PKP Z' 0.1 0.5
			iPKP	03 13 58.9					Ki	iPKP 14 07 33.3
		Ud	i(PKP)	03 13 52					Sk	iPKP 14 07 46.9 C
			iPKP	03 13 59					Gb	iPKP 14 08 01.2
		Easter Island Rise							Um	iPKP 14 07 41.0 C
		(h = 30 km).								ipPKP 14 07 57.7
		Magn. = 6.1 (Up,Ki).							Ka	iPKP 14 08 02.1
										ipPKP 14 08 16.5
"	21	Ki	iPn	10 14 02.6					Ud	iPKP 14 07 55
			iSn	10 14 55.2					Kermadec Islands.	
			iSg	10 15 17.7					h = 60 km (Up,Um,Ka).	
			D = 490 km = 4.4°						"	21
		Um	i	10 16 02.4					Up	iP 15 37 49.8
			iSg	10 16 09.9					Ki	iP 15 37 17.4
		Probably northwest Russia.							Um	iP 15 37 30.6
		Origin time = 10 12 53.							South of Japan	
		Explosion?							(h = 440 km).	
"	21	Ki R	iPn	10 22 19.0					"	21
			iSn	10 23 15.2					Um	iP 15 41 19.0
			iLg1	10 23 36.0					"	22
			D = 520 km = 4.7°						Ki	iP 09 31 25.4
		Sk A	eSg	10 26 09					Komandorsky Islands	
		Um	iSn	10 24 00.5					(h = 30 km).	
			iSg	10 24 39.6					"	22
			D = 700 km = 6.3°						Up	iP 10 40 52.5
		Northwest Russia,							Ki	iP 10 39 56.3 C
		67.6°N, 32.8°E.							Sk	eP 10 40 27
		Origin time = 10 21 07.							Um	iP 10 40 22.9
		Explosion?							Ud	iP 10 40 49 C
"	21	Um	iP	12 04 25.5					Aleutian Islands	
									(h = 70 km).	
"	21	Up	iP	12 37 18.7 C					"	22
		Um	iP	12 37 24.0					Up	iP 12 10 26.5
									Ki	iP 12 09 55.1 C
										microns sec
										P Z' 0.2 1.5
										M E 1.8 22
										M N 2.3 17
"	21	Um	iP	12 51 44.6 C					(cont.)	
		(cont.)								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967				1967			
Jan.	22	(cont.)		Jan.	23	Ki	iP 09 32 37.8
		Sk	iP 12 10 31.0 C			Ud	iP 09 32 58
		Um	iP 12 10 05.4 C			Celebes (h = 170 km).	
		Ud	iP 12 10 40				
		Mongolia (h = 30 km).		"	23	Um	iP 11 19 41.1
"	22	Up	iP 12 21 33.5	"	23	Up	iPKP 11 29 24.4
		Ki	iP 12 21 34.4			Um	iPKP 11 29 13.0
		Sk	iP 12 21 50.2			Ud	iPKP 11 29 25
		Um	iP 12 21 30.5			Kermadec Islands	
		Ud	iP 12 21 48			(h = 60 km).	
		Nicobar Islands		"	23	Ki	e(P) 16 36 51
		(h = 40 km).				Sk	e(P) 16 36 08
"	22	Ki	iP 12 24 08.2 C			Um	i(P) 16 34 51.8
		Sk	iP 12 24 44.4			Ud	i(P) 16 35 18
		Um	iP 12 24 18.4	"	23	Up	---
		Ud	iP 12 24 54				microns sec
		Mongolia (h = 30 km).				M	E 2.7 18
"	22	Um	iP 12 36 18.5			M	N 2.8 20
"	22	KiR	iP _x 16 00 36.8			M	Z 3.4 21
			iP _x 16 00 46.1			Ki	eP 20 38 11
			iSn 16 01 25.5				microns sec
			iLgl 16 01 38.3			P	Z' 0.1 1.5
			D = 440 km = 4.0⁰			M	E 2.7 14
		SkA	iSg 16 04 27.9			M	N 2.8 17
		Um	iP _x 16 01 14.5			M	Z 5.6 18
			iS _x 16 02 47.6			Um	eP 20 38 24
			iSg 16 03 09.3				iS 20 49 08
			D = 720 km = 6.5⁰				iSS 20 54 52
		Northwest Russia,				Revilla Gigedo Islands	
		68.8° N, 31.1° E.				(h = 60 km).	
		Origin time = 15 59 34.				Magn. = 5.9 (Up, Ki).	
		Explosion?		"	23	Sk	eP 20 58 54
		This event is considerably					i 20 59 04.6
		stronger than the average				Um	iP 20 59 09.3
		in this series.					i 20 59 16.7
"	22	Um	iP 19 33 10.2			Ud	iP 20 58 40
		North of Ascension Island					i 20 58 49
		(h = 30 km).				North of Ascension Island.	
"	22	Um	iSKP 22 56 35.0			h = 30 km (Sk, Um, Ud).	
		Fiji Islands (h = 600 km).		"	24	Um	iPKP 02 03 02.4
"	22	Ki	eP 23 19 51			Santa Cruz Islands	
		Um	iP 23 19 51.4			(h = 30 km).	
		Formosa (h = 60 km).		"	24	Up	iP 03 16 39.2 C
"	23	Um	iP 05 26 37.5 C				ipP 03 17 01.4
							microns sec
						P	N 0.4 3

(cont.)

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1967						1967						
Jan.	24	(cont.)				Jan.	24	(cont.)				
		Up		microns sec				Ki		microns sec		
			P	Z' 0.2 1.0					S	N 4.3 13		
			M	E 1.8 19		7			M	E 18 19		
			M	N 3.0 21					M	N 13 19		
			M	Z 3.6 22					M	Z 25 18		
		Ki	iP	03 15 56.5				Sk	iP1	09 40 13.8		
			iPP	03 18 06.8					iP2	09 40 27.4		
				microns sec				Gb	iP2	09 39 56.2 C		
			P	Z' 0.4 1.4					i	09 40 06.7		
			M	E 1.3 16				Um	iP1	09 40 29.0 C		
			M	N 1.8 19					i	09 40 33.5		
			M	Z 3.6 18					iP2	09 40 42.5		
		Sk	iP	03 16 31.3					iPa	09 45 13		
			ipP	03 16 49.4					iS	09 49 52		
		Gb	iP	03 17 00.2				Ka	iP1	09 39 42.4		
			ipP	03 17 17.1					iP2	09 39 56.0		
		Um	iP	03 16 14.8 C				Ud	iP1	09 39 57		
		Ka	iP	03 16 59.3					iP2	09 40 11		
			ipP	03 17 21.4								
		Ud	iP	03 16 47 C								
			ipP	03 17 06								
		Japan. h = 70 km (Up,Sk,Gb, Ka,Ud).							Northwest of Ascension Island (h = 30 km).			
		Magn. = 6.2 (Up,Ki).							Magn. = 6.4 (Up,Ki).			
									Probably two shocks in the same area, marked P1 and P2 above, 13.6 sec apart. The second shock is much larger than the first one.			
"	24	Um	iP	03 32 12.7								
			i	03 32 19.3				"	24	Up	iP 14 55 39.2	
		Ud	iP	03 33 02							microns sec	
"	24	Um	iP	04 59 05.7						P	Z' 0.1 0.7	
		Ud	iP	04 59 37						M	N 2.0 17	
		Japan (h = 160 km).							Ki	iP	14 55 21.0	
"	24	Up	iP1	09 40 05.6							microns sec	
			iP2	09 40 18.9						M	E 3.1 14	
			iPcP	09 40 48						M	N 2.0 17	
			eS	09 49 10						M	Z 4.6 13	
				microns sec					Sk	iP	14 55 48.3	
			P2	Z' 0.2 1.0					Um	iP	14 55 25.5	
			M	E 11 23					Ud	iP	14 55 51	
			M	N 18 17					Szechwan, China (h = 30 km).			
			M	Z 15 18								
			D = 7550 km = 68°.					"	24	Um	iP 15 33 18.8	
		Ki	iP2	09 41 00.5 C					Northwest of Ascension Island (h = 30 km).			
			ePa	09 45 41								
			iS	09 50 26				"	24	Ki	iPn 20 33 22.5	
				microns sec							iSn 20 34 01.6	
			P	N 0,7 6							iSg 20 34 17.6	
			P	Z 1.3 7							D = 390 km = 3.5°.	
			P2	Z' 0.5 1.5								
			S	E 3.2 13								
		(cont.)										(cont.)

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Year	Date	Station	Type	Time	Location
1967	Jan. 24	(cont.)			
		SkA	ePn	20 34 08	Norwegian Sea, near 70 1/2° N, 13 1/2° E. Origin time = 20 32.4. D = 780 km = 7.0°.
		UmE	iPn	20 34 10.8	
	iSn	20 35 30.8			
			iSg	20 36 12.8	
"	25	Up	iP	01 57 38.3 C	
			iPP	01 59 06	
			iPcP	01 59 26	
			iS	02 03 29	
			iSS	02 06 54	
					microns sec
		P	Z'	0.7 0.5	
		S	N	1.3 3	
		Ki	iP	01 57 46.0 C	
			i	01 57 53.6	
			iPP	01 59 12.8	
			iS	02 03 44	
			iSS	02 07 05	
					microns sec
		P	Z'	1.6 0.7	
		PP	Z'	1.1 1.5	
		S	E	2.1 9	
		S	N	2.6 9	
		M	E	1.7 8	
		M	N	1.7 8	
		Sk	iP	01 58 03.6 C	
			iPP	01 59 32.4	
		Gb	iP	01 57 59.7 C	
			iPP	01 59 26.8	
			iPcP	01 59 45.2	
		Um	iP	01 57 36.0 C	
			ipP	01 58 34.4	
			iPP	01 59 04.1	
			i	02 00 30	
			iS	02 03 24	
			isS	02 05 02	
			iSS	02 06 26	
		Ka	iP	01 57 43.6 C	
			iPP	01 59 11.0	
			isPP	02 00 46.2	
		Ud	iP	01 57 56 C	
			ipP	01 58 55	
			iPP	01 59 24	
					Hindu Kush. h = 290 km (Um,Ud). Magn. = 6.3 (Up,Ki).
1967	Jan. 25	Ud	iPKP	07 49 58	Fiji Islands (h = 520 km).
"	25	Ud	eP	13 19 50	Aleutian Islands (h = 30 km).
"	25	Ud	iP	21 21 18	Aleutian Islands (h = 30 km).
"	26	Um	iPKP	02 30 19.3	South Sandwich Islands (h = 30 km).
"	26	Ki	iP	06 17 01.4	Revilla Gigedo Islands (h = 30 km).
		Sk	eP	06 17 00	
		Um	iP	06 17 14.3	
"	26	Up	iP	10 15 26.3	
					microns sec
			P	Z'	0.1 0.5
"	26	Um	eP	10 16 32	Formosa (h = 50 km).
"	26	Up	iP	16 17 11.5	Tunisia (h = 30 km).
		Um	iP	16 17 58.5	
		Ud	iP	16 17 09	
			i	16 17 21	
"	26	Up	iP	16 23 17.1	
			iX	16 24 22.6	
					microns sec
		M	E	3.0 22	
		M	N	2.3 22	
		M	Z	3.6 22	
		Ki	iP	16 23 03.1	
			iX	16 24 08.3	
			e	16 32 03	
					microns sec
		M	E	2.2 20	
		M	N	1.1 21	
		M	Z	3.5 21	
		Um	iP	16 23 10.8	
			i	16 23 39.9	
			i	16 25 06	
			iS	16 33 32	

(cont.)

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1967						1967							
Jan.	26	(cont.)				Jan.	28	(cont.)					
			Ud	iP	16 23 03 C				Up	microns sec			
					Mexico-Guatemala				S	N 3.9 10			
					(h = 60 km).				M	E 43 25			
"	26		Um	iP	20 30 57.8				M	N 77 22			
				i	20 31 06.1				M	Z 64 21			
"	27		Um	iP	05 19 36.0				D = 7500 km				
"	27		Um	iPKP	14 32 29.6				= 61 1/2°.				
			Ud	ePKP	14 32 49			Ki	iP	14 03 00.0 C			
					Kermadec Islands				ipP	14 03 15.4			
					(h = 470 km).				i	14 08 35			
"	27		Ki	iP	19 10 22.3				iS	14 11 09			
			Um	iP	19 10 19.5				microns sec				
					Sumatra (h = 30 km).				P	N 3.3 8			
"	28		Up	eP	01 52 03 D				P	Z' 0.7 1.0			
				ipP	01 52 26.2				S	E 5.0 17			
					microns sec				S	N 4.8 9			
					pP Z' 0.1 1.3				M	E 34 18			
			Ki	iP	01 51 39.2 D				M	N 42 18			
				ipP	01 52 02.0				D = 6600 km				
					microns sec				= 59 1/2°.				
					pP Z' 0.1 1.2			Sk	iP	14 03 30.2			
			Gb	iP	01 52 24.5				iPcP	14 04 06.3			
				ipP	01 52 47.7			Gb	iP	14 04 07.4			
			Um	iP	01 51 47.9 D				iPcP	14 04 29.8			
				ipP	01 52 10.1			Um	iP	14 03 26.4 C			
			Ud	iP	01 52 13 D				ipP	14 03 42.0			
				ipP	01 52 35				iPP	14 05 41			
					Formosa.				iS	14 12 00			
					h = 90 km (Up,Ki,Gb,Um,Ud).				iP'P'	14 32 19.2			
"	28		Um	iP	03 06 48.9			Ka	iP	14 04 14.3			
			Ud	iP	03 07 05			Ud	iP	14 03 53 C			
					West Pakistan (h = 40 km).			Aleutian Islands.					
"	28		Up	iP	10 12 36.1			h = 60 km (Ki,Um).					
				i	10 12 51.2			Magn. = 6.6 (Up,Ki).					
"	28		Up	iP	14 03 53.2 C			"	28	Up	iP	14 16 52.7	
				iPcP	14 04 17.5							microns sec	
				eS	14 12 45							P	Z' 0.1 1.0
				iScS	14 13 48					Ki	iP	14 15 59.3	
				iP'P'	14 32 13.1							microns sec	
					microns sec							P	Z' 0.1 1.0
					P N 4.1 10					Sk	iP	14 16 29.5	
					P Z 6.2 10					Gb	iP	14 17 07.0 C	
					P Z' 0.4 1.0					Um	iP	14 16 25.7	
					(cont.)					Ud	iP	14 16 51 C	
										Aleutian Islands			
										(h = 50 km).			
										Magn. = 5.7 (Up,Ki).			
								"	28	Up	iP	14 18 09.0	
										Ki	iP	14 17 15.0	
								(cont.)					

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1967						1967						
Jan.	28	(cont.)				Jan.	28	Um	iP	15 44 48.9		
			Ki		microns sec			Ud	iP	15 45 14		
				P	Z' 0.1 1.0			Aleutian Islands				
			Um	iP	14 17 41.8			(h = 30 km).				
			Ud	iP	14 18 07							
			Aleutian Islands.				"	28	Um	iP	15 55 53.3	
			Origin time = 14 07 14.					Aleutian Islands				
								(h = 30 km).				
"	28		Um	iP	14 23 25.0							
"	28		Up	iP	14 34 21.5		"	28	Ud	iP	16 27 29 C	
					microns sec							
				P	Z' 0.1 1.0		"	28	Up	iP	16 42 18.3	
			Ki	iP	14 33 28.7						microns sec	
					microns sec						P	Z' 0.2 1.0
				P	Z' 0.1 1.0			Ki	iP	16 41 25.4 C		
			Sk	iP	14 33 58.8						microns sec	
			Gb	iP	14 34 35.6						P	Z' 0.3 1.2
			Um	iP	14 33 54.4 C			Sk	iP	16 41 55.2 C		
			Ud	iP	14 34 20			Gb	iP	16 42 33.0 C		
			Aleutian Islands					Um	iP	16 41 50.9 C		
			(h = 50 km).					Ka	iP	16 42 41.5		
			Magn. = 5.7 (Up,Ki).					Ud	iP	16 42 16		
								Aleutian Islands				
"	28		Up	iP	14 41 20.7			(h = 30 km).				
					microns sec			Magn. = 6.1 (Up,Ki).				
				P	Z' 0.1 1.0		"	28	Ki	iP	17 06 33.4	
			Ki	iP	14 40 27.8							
					microns sec		"	28	Ki	iP	17 09 20.3	
				P	Z' 0.1 1.0			Um	iP	17 09 47.0		
			Sk	iP	14 40 57.4			Ud	iP	17 10 12		
			Gb	iP	14 41 35.5			Aleutian Islands				
			Um	iP	14 40 54.1			(h = 30 km).				
			Ud	iP	14 41 19							
			Aleutian Islands				"	28	Um	iP	17 23 31.0	
			(h = 30 km).						ipP	17 23 41.9		
			Magn. = 5.7 (Up,Ki).					Aleutian Islands.				
"	28		Up	eP	14 47 03			h = 40 km (Um).				
"	28		Up	iP	14 52 19.5		"	28	Up	iP	17 30 29.2 C	
			Ki	iP	14 51 24.8						microns sec	
			Um	iP	14 51 51.4						P	Z' 0.1 1.0
			Ud	iP	14 52 16			Ki	iP	17 29 36.1		
			Aleutian Islands								microns sec	
			(h = 60 km).								P	Z' 0.1 1.0
"	28		Um	iP	15 00 03.7			Sk	iP	17 30 06.1 C		
			Ud	iP	15 00 30			Gb	iP	17 30 44.1		
			Aleutian Islands					Um	iP	17 30 02.3 C		
			(h = 50 km).					Ud	iP	17 30 29 C		
								Aleutian Islands				
								(h = 40 km).				
								Magn. = 5.7 (Up,Ki).				

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1967				1967							
Jan.	28	Up	iP	17 37 30.1	Jan.	28	Ki	iP	20 58 35.0		
				microns sec			Um	iP	20 59 02.0		
			P	Z' 0.1 1.0			Ud	iP	20 59 28		
		Ki	iP	17 36 35.5			Aleutian Islands				
				microns sec			(h = 50 km).				
			P	Z' 0.1 1.0			"	28	Um	iP	21 13 23.5
		Sk	iP	17 37 07.0					Ud	iP	21 13 49
		Um	iP	17 37 03.2			Aleutian Islands				
			ipP	17 37 15.4			(h = 30 km).				
		Ud	eP	17 37 28			"	28	Up	iP	22 38 07.3
			i	17 37 30					ipP	22 38 46.6	
		Aleutian Islands.					Ki	iP	22 37 13.5		
		h = 45 km (Um).					Sk	iP	22 37 50.7		
		Magn. = 5.7 (Up,Ki).					Gb	eP	22 38 28		
"	28	Um	iP	17 39 59.4			Um	iP	22 37 39.5		
"	28	Up	iP	17 52 55.3 C				isP	22 38 30.5		
			i	17 52 58.6			Ka	iP	22 38 32.8		
				microns sec			Ud	iP	22 38 13		
			P	Z' 0.3 0.9				ipP	22 38 51		
			M	E 2.2 19			Kamchatka.				
			M	N 3.4 21			h = 160 km (Up,Ud).				
			M	Z 3.4 21			"	29	Ki	iP	00 06 37.2
		Ki	iP	17 52 02.1 C					Um	iP	00 07 04.0
				microns sec					Ud	iP	00 07 33 C
			P	Z' 0.5 1.1			Aleutian Islands				
			M	E 2.8 18			(h = 30 km).				
			M	N 2.4 19			"	29	Up	iP	00 15 05.7
		Sk	iP	17 52 32.4					iS	00 17 15.1	
		Gb	iP	17 53 09.9					iSS	00 17 30.5	
		Um	iP	17 52 28.9 C					iLg2	00 18 47	
		Ka	iP	17 53 19.3 C					D = 1350 km = 12°.		
			ipP	17 53 44.3					Ki	iP	00 16 49.4
		Ud	iP	17 52 56					iLg2	00 23 02.0	
		Aleutian Islands					Sk	iP	00 15 53.1		
		(h = 50 km).						iLg2	00 20 41.9		
		Magn. = 6.4 (Up,Ki).					Gb	iS	00 16 24.4		
"	28	Um	iP	18 21 22.3				iLg2	00 17 43.9		
"	28	Ki	i(P)	19 03 43.0			Um	iP	00 15 58.9		
		Ud	iP	19 04 27				iLg2	00 21 03.7		
		Aleutian Islands					Ka	iP	00 14 14.0		
		(h = 50 km).						iLg2	00 16 47.8		
"	28	Um	iP	20 05 03.5 C			Ud	eP	00 15 13		
"	28	Um	iP	20 20 48.2				iS	00 17 32		
		Ud	iP	20 21 15				iLg1	00 18 47		
		Aleutian Islands					Austria (h = 25 km).				
		(h = 30 km).					"	29	Um	iP	02 18 08.6

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1967				1967					
Jan.	29	Up	iP	04 01 48.4	Jan.	29	(cont.)		
				microns sec			Ki	microns sec	
			P	Z' 0.1 1.0			M	E 2.1 15	
		Ki	iP	04 02 21.7			M	N 0.8 12	
			i	04 02 25.5			Sk	iP 07 22 00.5	
				microns sec			Um	iP 07 21 38.7	
			P	Z' 0.1 1.0				iPP 07 23 19.9	
		Sk	iP	04 02 23.5			Ud	iP 07 21 44	
		Um	iP	04 02 00.6			Iran.		
		Ud	iP	04 02 06			Origin time =	<u>07 13 38.</u>	
			i	04 02 08		"	29	Up	iP 08 04 30.1
			iPP	04 03 53				i	08 04 32.7
		Iran (h = 40 km).						eS	08 10 41
		Magn. = 5.7 (Up, Ki). ✓						iSS	08 13 53
	"	29	Up	iP 04 43 55.3					microns sec
			Ki	iP 04 43 00.6				P	Z' 0.1 0.6
			Um	iP 04 43 27.5 D				S	E 1.1 10
			Ud	iP 04 43 54				M	E 2.8 15
				Aleutian Islands				M	N 2.6 13
				(h = 30 km).				M	Z 3.5 14
	"	29	Ki	iP 07 09 40.1				D =	4650 km = 42°.
			Sk	iP 07 10 18.1			Ki	iP	08 05 01.4
			Um	iP 07 09 52.4				i	08 05 07.0
			Ud	iP 07 10 28				iPP	08 06 59.1
				Mongolia (h = 30 km).				iS	08 11 38
								iSS	08 15 00
	"	29	Up	iP 07 13 48.2					microns sec
			Ki	eP 07 14 23				P	Z' 0.1 0.8
			Um	iP 07 14 01.4				PP	Z' 0.3 1.9
				iPP 07 15 37.5				S	N 0.4 7
			Iran (h = 60 km). ✓					M	E 5.7 15
								M	N 2.4 13
								D =	5100 km = 46°.
	"	29	Up	iP 07 19 57.3 C			Sk	eP	08 05 02
			Ki	iP 07 20 29.7				i	08 05 06.8
			Iran (h = 30 km). ii = 07 12 05				Gb	iP	08 04 43.5
	"	29	Up	iP 07 21 01.9			Um	iP	08 04 40.4
			Ki	iP 07 21 35.5				i	08 04 44.6
			Sk	iI 07 21 34.9				iPP	08 06 24
			Um	iP 07 21 11.8				iS	08 10 56
			Ud	iP 07 21 17				iSS	08 14 18
			Iran.				Ka	iP	08 04 21.0
			Origin time =	07 13 11.				i	08 04 23.9
							Ud	iP	08 04 47
								i	08 04 51
	"	29	Up	iP 07 21 26.6				Iran (h = 40 km).	
				microns sec				Magn. =	5.8 (Up, Ki).
			M	N 1.5 15				Multiple P.	
			M	Z 1.0 13					
		Ki	iP	07 22 03.2		"	29	Ki	iP 09 33 42.6
			eSS	07 31 58				Um	iP 09 34 08.9
		(cont.)						(cont.)	

I)

II)

III)

DIF = 1' : 6"

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967					1967				
Jan.	31	Um	iP	01 49 12.2	Jan.	31	(cont.)		
"	31	Um	iP	02 04 05.1			Ud	iP	19 08 31
"	31	Um	iP	03 08 04.2			Iran (h = 15 km).		
"	31	Um	iP	03 08 04.2			Magn. = 5.7 (Up,Ki).		
"	31	Up	iP	03 44 14.0	"	31	Up	iP	19 12 14.1
"	31	Ki	iP	03 43 42.8			Ki	iP	19 12 48.5
				microns sec			Sk	iP	19 12 47.7
			P	Z' 0.1 1.0			Um	iP	19 12 26.7
		Sk	iP	03 44 18.8			Ud	eP	19 12 26
		Um	iP	03 43 53.2			Iran.		
		Ud	iP	03 44 27 D			Origin time = 19 04 19.		
		Mongolia (h = 30 km).			"	31	Um	eP	20 12 04
"	31	Um	iP	05 48 37.1			i		20 12 19.8
"	31	Ki	iP	09 15 39.3	"	31	Ki	iP	20 15 05.8
"	31	Um	iP	11 37 22.8			Um	iP	20 14 41.7
"	31	Um	iP	13 36 26.1			Ud	iP	20 14 45
"	31	Um	iP	13 50 56.2			Iran (h = 50 km).		
"	31	Um	iP	13 50 56.2	"	31	Um	iP	21 09 30.5
		Central America			"	31	Um	iP	21 09 55.4
		(h = 30 km).					Formosa (h = 20 km).		
"	31	Up	iP	17 54 57.6 C					
			ipP	17 55 09.9					
				microns sec					
			P	Z' 0.2 0.7					
		Ki	iP	17 54 13.8					
				microns sec					
			P	Z' 0.1 1.0					
		Sk	iP	17 54 48.2					
		Gb	iP	17 55 19.3					
		Um	iP	17 54 33.3 C					
		Ud	iP	17 55 02					
		Japan. h = 45 km (Up).							
		Magn. = 6.0 (Up,Ki).							
"	31	Up	iP	19 08 17.4					
				microns sec					
			P	Z' 0.1 1.0					
		Ki	iP	19 08 53.3 C					
				microns sec					
			P	Z' 0.1 1.0					
		Sk	iP	19 08 52.7					
		Um	iP	19 08 28.7					
			iPP	19 10 11.8					
			iSS	19 18 08					
		(cont.)							

Markus Båth
June 21, 1967

P lw

13 JUL 1967

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN
UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

FEBRUARY 1 - 28, 1967
.....

1967	Feb. 1	Up	iP	01 15 10.0 C	1967	Feb. 1	(cont.)				
			i	01 15 12.4			GÖT	iSg 12 48 32.9			
				microns sec			Ud	iPg 12 48 22			
			P	Z' 0.1 1.0				iSg 12 48 42			
			M	N 0.8 14			Västergötland, Sweden, 58.5°N, 13.7°E. Origin time = 12 47 53.				
		Ki	iP	01 15 44.6 C		"	1	Ki	iP 15 33 01.2		
			eSS	01 25 54					microns sec		
				microns sec				P	Z' 0.1 1.0		
			P	Z' 0.1 1.0				Sk	iP 15 33 15.2		
			M	E 1.0 14				Um	iP 15 32 58.5		
			M	N 0.7 10				Ud	iP 15 33 09		
			M	Z 1.0 14				i	15 33 26		
		Sk	iP	01 15 43.5				Sumatra (h = 30 km).			
		Um	iP	01 15 23.2			"	1	Up	iPKP 18 03 56.2	
			eSS	01 25 04					Um	iPKP 18 03 40.9	
		Ud	iP	01 15 24					Ud	iPKP 18 03 53	
			i	01 15 26					Kermadec Islands (h = 270 km).		
		Iran (h = 20 km).					"	1	Up	iP 19 48 44.8	
		Magn. = 5.7 (Up,Ki).							i	19 48 51.3	
"	1	Um	iP	07 22 51.9					Ki	iP 19 47 52.5	
"	1	Um	iP	09 05 10.4 C			"	1	i	19 48 03.8	
		Ud	iP	09 05 34					Um	iP 19 48 17.5	
		Aleutian Islands							Kamchatka (h = 30 km).		
		(h = 30 km).						"	1	Up	i(P) 21 01 48.5
"	1	Ki	iP	09 27 55.5						microns sec	
			ipP	09 28 31.2					(P) Z' 0.1 0.6		
		Ud	iP	09 28 53					Ud	iSg 21 02 44	
		Kamchatka. h = 160 km (Ki).							Probably blast in the Uppsala area.		
"	1	Up	iSg	12 49 11.6							
		Sk	iLgl	12 50 30.9							
		(cont.)									

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967				
Feb.	2	Ki	iP	01 26 34.1	Feb.	2	(cont.)	
		Kirghiz-Sinkiang					Ki	microns sec
		(h = 30 km).					M	Z 2.5 15
"	2	Up	iPKP	06 44 34.5			Sk	iP 07 45 56.5
				microns sec				iPP 07 47 35.7
			PKP Z'	0.1 0.6			Gb	iP 07 45 57.5
			M E	2.4 21				i 07 48 10.7
			M N	3.0 21			Um	iP 07 45 27.3
			M Z	3.2 20				i 07 45 34.4
		Ki	iPKP	06 44 49.2 C				i 07 55 44
			iX	06 44 59.8				iLi 07 56 52
			iPKS	06 48 08.4				iLgl 07 58 45
				microns sec			Ka	iP 07 45 41.0
			PKP Z'	0.2 1.4			Ud	iP 07 45 47
			PKS E	0.7 10				i 07 46 04
			PKS N	1.0 13				iPP 07 47 29
			PKS Z'	0.2 1.5			Sinkiang (h = 40 km).	
			M E	2.7 22			Magn. = 5.9 (Up,Ki).	
			M N	2.7 20			Well developed higher	
			M Z	4.4 20			modes (typical for	
		Sk	iPKP	06 44 39.3			Sinkiang earthquakes on	
		Um	iPKP	06 44 42.4 C			our records).	
			iX	06 44 52.5	"	2	Sk	eP 13 55 35
			iPP	06 46 40	"	2	Up	iP 16 35 21.6
			iPKS	06 48 01				ipP 16 36 06.0
			i	06 56 09				iS 16 44 05
			iSS	07 03 23			Ki	iP 16 34 40.2
		Ka	iPKP	06 44 27.9 C				iX 16 34 47.4
		Ud	iPKP	06 44 30				iPP 16 36 50.5
			iX	06 44 40				iS 16 42 43
			iPP	06 46 00				eSS 16 46 37
			iPKKP	06 54 31				microns sec
		South Sandwich Islands					P	Z' 0.1 0.9
		(h = 80 km).					S	E 0.5 6
"	2	Up	iP	07 45 33.6			S	N 0.9 8
			iLgl	07 59 22			M	E 0.4 16
			iLg2	08 00 07			M	N 0.3 10
				microns sec			D = 6900 km = 62°.	
			P Z'	0.1 1.0			Sk	iP 16 35 14.8
			M E	1.8 14				i 16 37 40.0
			M N	1.6 16			Gb	iP 16 35 42.8
			M Z	2.0 13				iPP 16 38 26.3
		Ki	iP	07 45 33.8			Um	iP 16 34 57.8
			i	07 45 43.8				iX 16 35 09.4
			iLi	07 57 06				ipP 16 35 41.5
			iLgl	07 59 07				iS 16 43 21
				microns sec				iSS 16 47 23
			P Z'	0.2 0.8			Ka	iP 16 35 41.9
			M E	2.1 13				iX 16 35 51.2
			M N	1.0 11			Ud	iP 16 35 30
		(cont.)					(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
m Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Feb.		(cont.)		Feb.		(cont.)	
	2	Ud iX	16 35 39		3	Ud iP	13 01 52
		Japan. h = 180 km (Up, Um). Magn. = 5.7 (Ki).				Java Sea. Origin time = 12 49 14.5. Probably about same depth as for the preceding shock.	
"	2	Ud i(Sg)	17 02 37				
"	2	Ki iP	17 06 07.1 C	"	3	Um iP	21 36 58.8
		Um iP	17 05 58.0 C			Kodiak Island (h = 30 km).	
		Ud iP	17 06 18				
		Pamir.					
"	3	Ki eP	08 27 50	"	4	Up eP	02 38 34
			microns sec			i	02 38 42.6
		M E	0.7 15	"	4	Ki ePn	09 35 41
		M N	0.8 18			eSn	09 36 37
		M Z	0.9 15			iSg	09 36 58.4
		Um iP	08 28 06.4			Um iSn	09 37 21.9
		Japan (h = 25 km).				i	09 37 38.8
"	3	Ki eP	12 43 16			iSg	09 38 10.7
		Um iP	12 43 15.8			Probably northwest Russia. Explosion?	
		Ud iP	12 43 30	"	4	Um iP	11 18 58.4
		Java Sea (h = 570 km).		"	4	Um i(P)	12 37 01.0
"	3	Up iP	13 00 39.3	"	4	Ki iP _X	12 40 06.9
		iX	13 00 41.5			iP ^X	12 40 15.6
		iPP	13 04 44.2			iSn	12 40 53.5
			microns sec			iLgl	12 41 08.5
		P Z'	0.1 0.7			D = 430 km = 3.9°.	
		Ki iP	13 00 33.7			Possibly northwest Russia. Origin time = 12 39 05. Explosion?	
		iX	13 00 35.9				
		iSKS	13 10 18				
		Sk iP	13 00 49.5				
		Um iP	13 00 32.5				
		iX	13 00 34.0				
		i	13 00 36.5				
		ipP	13 02 33.0				
		iS	13 10 55				
		iSP	13 12 23				
		Ud iP	13 00 46				
		iX	13 00 47				
		iPP	13 04 46				
		Java Sea. h = 550 km (Um). Multiple P (denoted P and X).					
"	3	Up iP	13 01 43.8				
		Ki iP	13 01 38.6				
		Sk iP	13 01 54.5				
		Um iP	13 01 38.6				
		(cont.)					

4 Up P iPn 15 35 31.7
 iPg 15 35 39.7
 iSn 15 35 58.3
~~microns sec~~
~~Pn Z' 0.1 0.5~~
~~Pg Z' 0.2 0.5~~
~~Sn Z' 0.4 0.5~~
 KiR eSn 15 38 52
~~iLgl 15 39 35.5~~
 iSg 15 39 58.3
 SkA iPn 15 35 56.8
 iPg 15 36 07.8
 iSn 15 36 42.9
 iSg 15 37 01.1
 GOT iPn 15 35 28.6
 (cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967 Feb. 4	(cont.)				1967 Feb. 6	(cont.)			
	Sk	iPg	15 35	36.0		Ud	iP	03 36	30
		iSn	15 35	55.2		Alaska. h = 120 km (Ki).			
	Um	ePn	15 36	26	"	6	Up	eP	04 40 18
		i	15 36	32.3				i	04 40 27.2
		iSn	15 37	28.8			Um	eP	04 40 02
		iLgl	15 37	40.5			Ud	i(P)	04 40 40
	Ka	iPg	15 36	06.8	"	6	Um	iP	12 12 35.6
	KLS	i	15 36	22.6	"	6	Um	iP	13 01 29.6
		iSg	15 36	45.1	"	6	Um	iP	13 01 29.6
	Ud	iPg	15 35	05 C	"	7	Ki	iP	08 41 39.2
		iSg	15 35	13			Um	iP	08 41 50.0
	Värmland, Sweden.							i	08 42 45.6
	USCGS: 59.6°N, 13.3°E.						Ud	iP	08 42 10
	Origin time = 15 34 55.7.						Mariana Islands		
	Felt.						(h = 140 km).		
"	4	Up	iP	17 50 07.1	"	7	Up	iP	13 55 53.9
		i	17 50	12.9			microns sec		
		Sk	iP	17 50 19.4			P	Z'	0.1 0.5
		Um	iP	17 49 53.7	"	7	Up	iP	15 03 39.3
		i	17 49	59.6			Ki	iP	15 02 44.9
"	4	Up	iP	18 01 29.1			i(pP)	15 02 57.1	
		Ki	iP	18 00 57.8			microns sec		
		Sk	iP	18 01 27.1			P	Z'	0.1 1.0
		Um	iP	18 01 10.2			Sk	iP	15 03 13.3
		Ud	iP	18 01 37			Gb	iP	15 03 52.9
		i	18 01	42			iPcP	15 04 30.3	
	Volcano Islands						Um	iP	15 03 13.4
	(h = 30 km).						ipP	15 03 29.0	
"	5	Um	iP	03 04 08.2			iPcP	15 03 59.1	
		Ud	iP	03 04 29			Ka	iP	15 04 03.2
"	5	Ki	i	07 21 03.7			Ud	iP	15 03 36
			i(Sg)	07 21 25.8			ipP	15 03 52	
		Um	i(Sg)	07 22 19.0			Alaska. h = 60 km (Um,Ud).		
"	5	Ki	iP	19 07 36.4	"	7	Ki	eSg	16 29 22
		i	19 07	42.1			Sk	eSg	16 29 26
		Um	iP	19 07 15.9			Um	iSg	16 29 51.2
		i	19 07	21.1			Nordlands Fylke, Norway.		
		Ud	iP	19 06 48	"	7	Ki	iP	19 49 54.3
	Ascension Island						Kamchatka (h = 30 km).		
	(h = 20 km).				"	8	Um	iP	10 00 40.5
"	6	Ki	iP	03 35 36.2			Japan (h = 50 km).		
		ipP	03 36	04.6	"	8	Um	i(Sg)	13 40 30.4
		Sk	iP	03 36 05.5			(cont.)		
		Um	iP	03 36 05.8					
		iPcP	03 37	00.5					
	(cont.)								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Feb.	9	(cont.)		Feb.	10		
		Ki	ipPP 15 41 27			Ki	iP 02 48 44.2
			iSKS 15 48 05			Ud	iP 02 49 05
			iS 15 48 30			Tien-Shan.	
			microns sec		"	10	Up iP 05 54 49.2
		P	E 3.3 7			Ki	iP 05 54 55.7
		P	N 0.6 6			Sk	iP 05 55 13.7
		P	Z 11 9			Um	iP 05 54 47.3
		P	Z' 1.6 1.7			Ka	iP 05 54 54.6
		pP	E 6.6 7			Ud	iP 05 55 07
		pP	N 1.8 6			Kashmir-India (h = 25 km).	
		pP	Z 20 7		"	10	Up iP 05 59 15.8
		PP	E 8.2 7			Ki	iP 05 59 02.5 C
		PP	Z 8.8 7				microns sec
		SKS	E 27 10				P Z' 0.1 1.0
		SKS	N 7.4 9			Sk	iP 05 59 30.9 C
		S	N 24 14			Um	iP 05 59 02.8 C
		M	E 130 23				i 05 59 14.4
		M	N 71 23			Ka	iP 05 59 28.8
		M	Z 240 24			Ud	iP 05 59 32 C
			D = 9900 km = 89°.			Sinkiang (h = 25 km).	
		Sk	iP 15 37 23.6 C		"	10	Ki eP 06 51 46
			ipP 15 37 42.0			Sk	iP 06 52 32.3
		Gb	iP 15 37 22.2 C			Um	iP 06 52 34.8
			iX 15 37 33.4				i 06 52 42.9
		Um	iP 15 37 39.9 C				i 06 52 58.9
			iX 15 37 51.0			Ud	iP 06 53 11
			i 15 40 25			West of Svalbard.	
			iPP 15 41 05		"	10	Ki iP 08 49 07.2
			i 15 47 15				i(Sg) 08 49 38.4
		Ka	iP 15 37 32.5		"	10	Um iP 11 43 51.2
			ipP 15 37 50.4			Ud	ePP 11 48 46
		Ud	iP 15 37 24 C			Banda Sea (h = 25 km).	
			iX 15 37 35		"	10	Ud eP 12 39 17
		Colombia. h = 60 km (Up,Ki,Sk,Ka). Magn. = 7.3 (Up,Ki). An alternative interpretation could be that the phase marked X is pP, and then the depth would be only 40 km.			"	10	Ki iP 12 44 07.9
"	9	Um	iP 18 55 54.0	"	10	Up	iP 14 17 20.4
"	9	Ud	eP 21 28 02	"	10	Ud	iP 21 10 34
			i 21 28 11		"	10	Sk eP 22 53 52
		Colombia (h = 60 km).				Ud	eP 22 53 17
"	9	Um	iP 23 18 30.1 C			Greece.	
"	10	Ud	eP 01 46 30	"	11	Ki	iP 00 43 50.1
			i 01 48 04			Um	iP 00 43 45.2
						(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967

Feb. 11 (cont.)

Ki	P	microns sec		
		Z'	0.1	1.0
Sk	iP	15	35	16.4
Gb	iP	15	36	21.2
	i	15	36	32.0
Um	iP	15	35	15.2
	i	15	35	18.8
Ka	iP	15	36	37.2 C
	i	15	36	52.8
Ud	iP	15	35	57 C
	iPP	15	36	14

West of Svalbard
(h = 30 km).

" 11 Um i(P) 18 26 03.1
i 18 26 23.8

" 11 UpP iPn 18 27 10.6
iP 18 27 18.2
iSn 18 27 58.4
iSg 18 28 13.8
~~D = 430 km = 3.9°~~
GDT iSg 18 26 28.1
i 18 26 47.9
K&S eSn 18 27 35
iSg 18 27 46.8
UdD iPn 18 26 51
iSg 18 27 34

Off west coast of Sweden,
57.8° N, 11.0° E.
Origin time = 18 26 08.

" 11 KiR e 20 38 24
iSg 20 38 32.0
SkA eSg 20 38 16
UmE iPg 20 38 03.4
iSg 20 38 53.9
~~D = 430 km = 3.9°~~
UdD eSg 20 40 05

Nordlands Fylke, Norway,
66.3° N, 13.2° E.
Origin time = 20 36 45.

" 11 Up iP 23 01 36.4
Aleutian Islands
(h = 30 km).

" 11 Um iP 23 08 24.1

" 12 Up iP 16 14 26.4
(cont.)

1967

Feb. 12 (cont.)

Up	P	microns sec		
		Z'	0.1	0.5
Ki	iP	16	14	36.5
Sk	iP	16	14	53.3
Gb	iP	16	14	48.5
Um	iP	16	14	25.6
	i	16	14	32.1
	ipP	16	14	48.0
Ka	iP	16	14	30.7
	ipP	16	14	53.8
Ud	iP	16	14	44
	ipP	16	15	07

Hindu-Kush.
h = 110 km (Um, Ka, Ud).

" 12 Um iP 16 43 31.5
Ud eP 16 43 56

" 12 Up iP 16 53 10.0 D
Ka iP 16 52 59.4
Ud iP 16 53 24
Iran (h = 30 km).

" 13 Ki iP 10 17 34.5
Um iP 10 18 01.5
Ud iP 10 18 28
Aleutian Islands
(h = 50 km).

" 13 Up eP 11 32 31
Ki iP 11 31 54.1 C
Sk iP 11 32 28.2
Um iP 11 32 11.0 C
i 11 32 13.5
Ka iP 11 32 52.7
Ud iP 11 32 40 C
Japan (h = 60 km).

" 13 Up iP 11 41 47.4
Um iP 11 41 22.6
Ka iP 11 42 08.9
Ud iP 11 41 53
Kurile Islands
(h = 30 km).

" 13 Sk i(Sg) 14 05 36.6

" 13 UpP eSg 15 50 53
UmE iSg 15 51 21.5
K&S iSg 15 52 00.9
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967 Feb. 13 (cont.)

Ud	e	15 51 29
	iSg	15 52 00

Esthonia,
 59.3°N, 26.4°E.
 Origin time = 15 48 24.
 Explosion?

" 13 Up iP 17 16 14.6 D

Gb iP 17 16 35.4

Um iP 17 15 50.0

Ka iP 17 16 36.2

Ud iP 17 16 26

Kurile Islands
(h = 30 km).

" 13 Up iP 20 54 49.1

Ki iP 20 53 56.3

Um iP 20 54 22.9

Ka eP 20 55 11

Ud iP 20 54 53

Aleutian Islands
(h = 30 km).

" 13 Ud iP 21 11 43

" 13 Ka eP 22 47 58

" 13 Up iP1 23 20 19.7 C

iP2 23 20 27.4

iS 23 25 09

microns sec	
P2 E	8.4 4
P2 N	1.4 3
P2 Z	7.4 5
P2 Z'	1.4 0.8
S E	23 11
S N	29 18
M E	92 19
M N	180 20
M Z	150 22

D = 3200 km = 29°.

Ki iP1 23 20 26.9 C

iP2 23 20 34.0

i 23 20 48.4

iPeP 23 23 34

iS 23 25 33

microns sec	
P2 E	2.9 8
P2 Z	9.6 11
P2 Z'	7.3 3.0
S N	5.8 11

(cont.)

1967 Feb. 13 (cont.)

Ki		microns sec
M E	52	12
M N	67	16
M Z	220	21

D = 3350 km = 30°.

Sk iP1 23 19 55.8

iP2 23 20 03.7

Gb iP1 23 19 57.1 C

iP2 23 20 05.2

i 23 20 18.5

Um iP1 23 20 26.8 C

iP2 23 20 35.0

i 23 20 40.5

iS 23 25 23

Ka iP1 23 20 16.7 C

iP2 23 20 23.6

i 23 20 34.7

Ud iP1 23 20 06 C

iP2 23 20 14

i 23 21 45

North Atlantic Ocean
(h = 10 km).
Magn. = 6.6 (Up,Ki).
P is multiple, especially clear are the phases marked P1 and P2 above.
The amplitude of P2 is much larger than that of P1 and the average time difference P2 - P1 is 7.7 sec. PL waves are recorded.

" 14 Up iP 01 47 31.2

iPP 01 50 14.9

i(S) 01 57 14

microns sec	
P E	0.9 5
P Z'	0.2 1.3
(S) E	4.1 17
(S) N	5.2 12
M E	50 25
M N	37 20
M Z	71 26

D = 8050 km = 72 1/2°.

Ki iP 01 47 28.6

i(S) 01 57 14

microns sec	
P Z'	0.9 2.0
(S) E	4.9 13
(S) N	8.0 11

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967						1967				
Feb.	14	(cont.)				Feb.	14	(cont.)		
		Ki		microns sec						Our stations cover the distance range of 122°-133° and exhibit a good example of the relative amplitudes of PKP and SKP. There is no SKP at Ki and Um, but it is very strong at Up.
			M	E 46 18						
			M	N 58 20						
			M	Z 70 17						
				D = 8050 km						
				= 72 1/2°.						
		Sk	iP	01 47 46.4						
			i	01 47 51.1						
		Gb	iP	01 47 47.9						
		Um	iP	01 47 25.7		"	14	Ud	iP	08 07 57
			i	01 47 40.1						
			e(S)	01 56 55		"	14	Ud	iP	08 20 06
		Ka	iP	01 47 36.7 D		"	14	Sk	iSg	14 17 07.2
			i	01 48 28.8				Um	i	14 15 29.5
		Ud	iP	01 47 41					iSg	14 15 40.0
			ePP	01 50 19				Ud	eSg	14 16 12
		Andaman Islands								Esthonia. Explosion?
		(h = 25 km).								
		Magn. = 6.7 (Up,Ki).								
"	14	Up	iP	01 50 51.6		"	14	Up	iP	14 46 54.0
		Ki	iP	01 50 49.0				Sk	iP	14 47 28.7
		Sk	iP	01 51 06.2				Ka	iP	14 46 14.7
		Um	iP	01 50 46.0					i	14 46 20.9
		Ka	iP	01 50 57.2				Ud	iP	14 46 56
		Ud	iP	01 51 01		"	14	Up	iP	17 44 59.3
		Andaman Islands.						Ka	iP	17 45 03.3
		Origin time = 01 39 25.1.						Ud	iP	17 45 15
		Probably same focus location as for the preceding shock.								Hindu-Kush.
"	14	Up	iPKP	05 20 37.1		"	14	Up	iP	22 13 42.7
			iSKP	05 23 04.0						Aleutian Islands (h = 20 km).
				microns sec						
			SKP Z'	0.3 0.6		"	15	Up	iP	01 53 51.8
		Ki	iPKP	05 20 23.0					i	01 53 56.3
				microns sec				Ki	iP	01 54 33.9 C
			PKP Z'	0.1 0.9						microns sec
		Sk	iPKP	05 20 33.7					P	Z' 0.1 1.0
			iSKP	05 22 57.3				Um	iP	01 54 07.8
		Gb	iPKP	05 20 43.8				Ka	iP	01 53 41.8
			iSKP	05 23 16.0				Ud	iP	01 54 08
		Um	iPKP	05 20 29.5 C					i	01 54 34
		Ka	iPKP	05 20 42.2						Iran (h = 40 km).
			iSKP	05 23 16.8		"	15	Ud	iP	02 01 04
		Ud	iPKP	05 20 41		"	15	Up	iP	06 08 11.6
			iSKP	05 23 11					iX	06 08 26.3
		New Hebrides Islands							i	06 08 48.7
		(h = 640 km).								(cont.)
		(cont.)								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967
Feb. 15 (cont.)

		microns sec		
	P	Z'	0.1	1.0
Up				
Ki	iP	06	08	06.8
	iX	06	08	23.1
Sk	iP	06	08	27.1
	iX	06	08	42.4
	i	06	09	08.7
	iPP	06	10	56.3
Gb	iP	06	08	29.7
	iX	06	08	44.4
Um	iP	06	08	04.5
	iX	06	08	20.3
Ka	iP	06	08	18.5
	iX	06	08	33.1
Ud	iP	06	08	27
	iX	06	08	41
	iPP	06	10	59

Burma (h = 10 km).
X is a clear phase at all
our stations (on Z'),
about 15 sec after P:
another shock or pP?

"

15	Up	iSg	14	09	22.8
	Sk	eSg	14	11	15
	Um	iSg	14	09	55.4
	Ka	eSg	14	10	28
	Ud	e	14	09	58
		eSg	14	10	25
Esthonia, 59.2° N, 26.1° E.					
Origin time = 14 06 55.					
Explosion?					

"

15	Up	iP	16	23	41.9
		ipP	16	25	52.3
		iPP	16	27	48.4
		iSKS	16	33	17
		iS	16	34	11
		eP'P'	16	48	32
		microns sec			
	P	Z'	0.2	0.8	
	pP	Z'	0.6	1.8	
	PP	Z'	0.6	2.0	
	SKS	E	5.4	9	
	S	E	4.1	6	
	S	N	3.9	9	
	M	E	3.1	20	
	M	N	2.8	20	
	M	Z	4.1	21	
	(D = 10800 km				
	= 97°).				

(cont.)

1967
Feb. 15 (cont.)

Ki	iP	16	23	50.6
	ipP	16	26	04
	i	16	27	32.9
	iSKS	16	33	30
	iSP	16	36	05
	iPKKP	16	40	14.3
	i	16	40	42.5
	microns sec			
	P	Z'	0.6	1.3
	SKS	E	8.1	9
	M	E	4.9	21
	M	N	3.6	22
	M	Z	7.8	23
	(D = 11000 km			
	= 99°).			
Sk	iP	16	23	32.5
	ipP	16	25	44.3
	iPP	16	27	37.3
	ipPP	16	29	21.6
	iPKKP	16	40	25.1
	iP'P'	16	48	36.9
Gb	iP	16	23	27.5
	i	16	23	29.8
	ipP	16	25	39.4
Um	iP	16	23	49.6
	ipP	16	25	58.4
	iPP	16	27	58.9
	iSKS	16	33	28
	iS	16	34	24
	i	16	35	39
	iPKKP	16	40	15.7
	iP'P'	16	48	26.9
Ka	iP	16	23	36.3
	ipP	16	25	44.7
	isPP	16	30	40.8
Ud	iP	16	23	34
	ipP	16	25	43
Peru-Brazil. h = 600 km				
(Up, Ki, Sk, Gb, Um, Ka, Ud).				
Magn. = 6.8 (Up, Ki).				
"	15	Gb	ePKP	19 52 01
		Ud	iPKP	19 51 54
Tonga-Kermadec Islands				
(h = 70 km).				
"	15	Up	iP	23 48 52.5
		Um	iP	23 48 54.2
		Ud	iP	23 48 32
North Atlantic Ocean				
(h = 30 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

Feb. 16 Ud iP 12 02 11
Iran (h = 15 km).

" 16 KiR iPn 15 46 31.7
iSn 15 47 27.0
~~iLgl 15 47 45.9~~
~~D = 510 km = 4.6°~~
~~SkA eLgl 15 50 25~~
UmE iSn 15 48 37.4
~~iLgl 15 49 14.8~~
~~D = 830 km = 7.4°~~
Northwest Russia,
69.8°N, 32.0°E.
Origin time = 15 45 20.
Explosion?

" 16 Ki e(P) 20 35 24
Um i(P) 20 34 54.3

" 17 Ki iP 00 50 40.4
i 00 51 02.4
i 00 51 12.1
Um iP 00 50 46.6
i 00 51 02.3
Ud iP 00 51 04
Talaud Islands
(h = 70 km).

" 17 Up iPKP 10 30 19.7
i 10 30 39.9
i 10 31 39
iPP 10 33 34
iPKS 10 34 01

microns sec
PKP Z 0.9 5
PKP Z' 0.2 1.0
PP Z 1.1 5
PKS N 1.8 5
M E 4.4 21
M N 11 21
M Z 7.2 22
(D = 15800 km = 142°).

Ki i(PKP) 10 29 59.6
iPKP 10 30 08.5
iPP 10 32 34
i 10 33 09
iPKS 10 33 34
eX 10 33 56
iPKKS 10 42 54
microns sec
PKP Z 1.1 5

(cont.)

1967

Feb. 17 (cont.)

Ki microns sec
PKP Z' 1.1 2.5
PP Z 0.9 9
PKS E 1.3 9
PKS N 2.2 10
M E 5.6 20
M N 9.5 21
M Z 14 21
(D = 14950 km = 134 1/2°).

Sk i(PKP) 10 30 14.5
iPKP 10 30 21.5
Gb iPKP 10 30 29.0 D
i 10 30 47.5
i 10 31 04.4

Um i(PKP) 10 30 08.2
iPKP 10 30 16.5
i 10 33 41
iPKS 10 33 56
iX 10 34 10.2
i 10 34 20.3
iSKKS 10 40 00
iPKKS 10 42 32

Ka iPKP 10 30 32.0 D
Ud iPKP 10 30 21
Tonga Islands (h = 20 km).
Magn. = 6.6 (Up, Ki).
The phases marked X (at Ki, Um on Z') are pronounced, but unidentified.

" 17 UpP iSg 13 18 27.9
~~SkA~~ iSg 13 20 17.4
UmE iSg 13 18 56.5
UdD i 13 19 01
iSg 13 19 30
Esthonia, 59.2°N, 26.1°E.
Origin time = 13 15 58.
Explosion?

" 18 Ud iP 00 40 44
North Atlantic Ocean
(h = 30 km).

" 18 Up iPKP 02 58 00.7
Ki iPKP 02 57 48.1
Sk iPKP 02 58 00.1
Um iPKP 02 57 53.1
Ud iPKP 02 58 07 C
New Ireland (h = 40 km).

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967
Feb. 18

KiR iPn 09 22 01.6
iSn 09 22 57.3
iSg 09 23 18.5
~~D = 510 km = 4.6°~~
SkA eSg 09 25 50
UmE iSn 09 23 42.7
iSg 09 24 17.5
i 09 24 29.8
~~D = 710 km = 6.4°~~
Northwest Russia,
67.8°N, 32.6°E.
Origin time = 09 20 49.
Explosion?

" 18 Ki iP 10 00 32.1
Um iP 10 01 00.0
Kodiak Island (h = 50 km).

" 18 Sk eP 11 35 28
Um iP 11 34 59.4
Ud iP 11 35 18
Hindu-Kush.

KiR ePn 14 01 50
iSn 14 02 35.6
iSg 14 02 52.3
~~D = 420 km = 3.8°~~
SkA eSg 14 05 17
UmE iSn 14 03 17.8
iSg 14 03 48.0
~~D = 610 km = 5.5°~~
Northwest Russia,
67.5°N, 30.4°E.
Origin time = 14 00 48.
Explosion?

" 19 Up iP 06 43 31.9
Um iP 06 43 05.0
Ud iP 06 43 42
Kurile Islands
(h = 30 km).

KiR iPn 10 25 09.9
iSn 10 26 08.5
~~iLgl 10 26 28.3~~
~~D = 560 km = 5.0°~~
SkA eSg 10 28 57
UmE iSg 10 27 18.1
Northwest Russia,
67.1°N, 33.4°E.
Origin time = 10 23 51.
Explosion?

1967
Feb. 19

Up iP 12 40 29.8 D
Ki iP 12 40 00.4
Sk iP 12 40 27.2
Um iP 12 40 13
Mariana Islands
(h = 380 km).

" 19 Up iP 12 53 25.4
i 12 53 38.5

" 19 Up iP 20 09 31.5
Um iP 20 09 03.8
Ud iP 20 09 34
Aleutian Islands.

" 19 Up iP 20 16 19.5
microns sec
P Z' 0.1 0.8
Ki iP 20 16 08.5
Sk iP 20 16 36.5
Gb iP 20 16 45.7
Um iP 20 16 07.3
Ka iP 20 16 32.3
Ud iP 20 16 36 C
Sinkiang (h = 30 km).

" 19 Up iP 21 40 37.7
Ki iP 21 39 44.1
Um iP 21 40 10.7 C
iPcP 21 40 46.4
Ud iP 21 40 37
Aleutian Islands
(h = 50 km).

" 19 Up iP 22 28 14.5
iX 22 28 23.4
iPP 22 32 16.8
iS 22 39 39

microns sec
P Z' 0.2 1.3
PP Z' 0.1 0.9
S N 1.9 8
M E 2.0 21
M N 8.4 30
M Z 1.9 20
(D = 11100 km = 100°).

Ki iP 22 28 08.5
iPP 22 32 06.8
iSKS 22 38 45
i(PKKP) 22 45 00.9

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Feb.	19	(cont.)			Feb.	20	Ki	iP	14 32 11.8
			Ki	microns sec			Sk	eP	14 32 29
				PP Z' 0.1 1.0			Um	iP	14 32 02.5
				SKS E 1.4 5			Ud	iP	14 32 21
				M E 1.5 14			Kashmir (h = 30 km).		
				M N 1.6 16		"	20	Up	iP 15 26 57.8 C
				M Z 2.0 16				iPP	15 28 39.0
				(D = 11000 km					microns sec
				= 99°).				P	Z' 0.2 0.7
			Sk	iP 22 28 25.2				M	E 2.6 14
				i(X) 22 28 36.8				M	N 2.1 13
				i 22 32 22.4				M	Z 2.8 13
			Um	iP 22 28 09.2 C			Ki	iP 15 27 04.4 C	
				iX 22 28 18.8				iX	15 27 18.0
				iS 22 39 23				iSS	15 37 21
				iSS 22 46 09					microns sec
			Ka	iPP 22 32 29.9				P	Z 1.2 5
			Ud	iP 22 28 25				P	Z' 0.6 1.2
				iX 22 28 34				M	E 3.7 11
				iPP 22 32 42				M	N 3.5 12
				ePKKP 22 44 42				M	Z 3.2 11
			Java (h = 80 km).				Sk	iP 15 27 22.0 C	
			Magn. = 6.4 (Up,Ki).					i	15 28 37.4
			X is a clear phase (Up,Sk,				Gb	iP 15 27 18.8 C	
			Um,Ud); interpreted as pP,					iX	15 27 32.9
			it gives a focal depth of				Um	iP 15 26 55.5 C	
			only 35 km.					i	15 28 26.6
"	19	Up	iP	23 41 53.2				iSS	15 36 48
				microns sec			Ka	iP 15 27 03.1 C	
			M	E 1.7 22			Ud	iP 15 27 13 C	
			M	N 4.0 27				i	15 27 35
			M	Z 3.0 23			Kashmir (h = 25 km).		
		Ki	iP	23 41 40.5			Magn. = 6.4 (Up,Ki).		
				microns sec		"	20	Up	iP 16 45 37.0
			P	Z' 0.1 1.3				Sk	iP 16 45 58.1
			M	E 2.5 17				Um	iP 16 45 44.1
			M	N 1.5 19				Ud	iP 16 45 44
			M	Z 4.0 19			Chagos Islands		
		Sk	iP	23 42 00.6			(h = 30 km).		
		Um	iP	23 41 44.4		"	20	Um	iPKP 23 00 40.4
			iPP	23 45 42.9			Santa Cruz Islands		
			iSKS	23 52 06			(h = 20 km).		
		Ud	iP	23 42 00		"	20	Sk	iP 09 17 58.8
		Molucca Sea (h = 100 km).						Ud	iP 09 17 15
"	20	Sk	iP	09 17 58.8		"	21	Ki	iP 04 27 41.7
		Ud	iP	09 17 15				Sk	iP 04 27 22.9
		Crete (h = 100 km).						Um	iP 04 27 43.7
"	20	Ki	iP	12 25 46.3			Mona Passage (h = 40 km).		
		Ryukyu Islands			"	21	Um	iP 05 30 20.6	
		(h = 20 km).							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
Feb.	21	Ki	iP	09 24 44.9	Feb.	22	(cont.)
		Sk	iP	09 25 10.3			Ud iX 18 52 19
		Um	iP	09 24 56.5 D			New Hebrides Islands.
		Mariana Islands					h = 100 km (Ki,Um).
		(h = 70 km).					The phase X (Um,Ud)
"	21	Um	iP	12 13 22.9			possibly belongs to an
							independent earthquake.
"	21	Ki	iP	12 46 08.2 C	"	22	Um iPKP 23 46 55.7
				microns sec			South Sandwich Islands
				P Z' 0.1 1.0			(h = 30 km).
		Sk	iP	12 46 26.1			
		Um	iP	12 45 59.3	"	23	Ki iP 05 23 19.2
		Ud	iP	12 46 17			Colombia (h = 170 km).
		Kashmir (h = 30 km).					
"	21	Ud	iP	13 56 54	"	23	Um iP 12 20 51.0
"	21	Ki	eP	15 17 56	"	23	Ki ePn 13 42 59
		Ud	iP	15 17 23			iSn 13 43 43.5
		Iran (h = 60 km).					iSg 13 44 00.8
							D = 410 km = 3.7°.
"	21	Ki	iP	18 55 15.0 D			Um iSg 13 44 57.4
		Um	iP	18 55 20.4			Probably northwest Russia.
		Ud	iP	18 55 33			Origin time = 13 41 59.
		Halmahera (h = 130 km).					Explosion?
"	21	Ud	iP	19 17 44	"	23	Up iP 14 37 29.1 D
"	22	Up	iP	03 16 46.5			ipP 14 37 38.6
"	22	Um	iP	08 58 14.3			Ki iP 14 37 04.6
			ipP	08 58 23.3			Sk iP 14 37 32.3
		Ud	iP	08 58 41			Um iP 14 37 13.3 D
		Japan. h = 30 km (Um).					Ud iP 14 37 35 D
"	22	Ud	iP	15 01 26			Formosa. h = 35 km (Up).
		Kurile Islands					
		(h = 50 km).					
"	22	Up	iSKP	18 49 17.6	"	23	Up iP 19 01 48.3
			i	18 49 21.1			microns sec
		Ki	iPKP	18 45 41.7 C			P Z' 0.2 1.0
			ipPKP	18 46 07.5			Ki iP 19 01 14.6 C
		Gb	iSKP	18 49 28.6			iPcP 19 01 32.8
		Um	iPKP	18 45 47.7			microns sec
			ipPKP	18 46 14.7			P Z' 0.2 1.2
			iSKP	18 49 04.8			Sk iP 19 01 22.1 C
			isPKS	18 49 46.4			Gb iP 19 01 48.5
			iX	18 51 54.2			Um iP 19 01 33.9 C
		Ud	iPKP	18 45 54			iPP 19 04 17.4
			iSKP	18 49 17			Ud iP 19 01 39 C
		(cont.)					Nevada.
							Origin time = 18 50 00.
							Magn. = 6.1 (Up,Ki).
							Underground explosion.
							According to newspaper
							reports, the yield was
							200 kiloton and the depth
							702 m below ground level.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
Feb.	23	Up	iP	20 45 01.3	Feb.	25	(cont.)
"	23	Up	iP	20 50 49.8 C			Um iP 00 28 37.6 D
			ipP	20 51 01.1			Ud iP 00 29 07
				microns sec			Sea of Japan (h = 210 km).
			P	Z' 0.1 0.8	"	25	Um iP 06 11 44.8
			M	E 2.6 13			i 06 11 50.0
			M	N 1.7 17			North Atlantic Ocean
			M	Z 2.8 13			(h = 30 km).
		Ki	iP	20 50 22.0 C	"	25	Up iP 07 50 34.5 C
			i	20 50 30.9			
				microns sec	"	25	Um iP 10 36 43.2
			P	Z' 0.2 1.5	"	25	Up iP 11 34 15.7
			M	E 1.5 13			Ki iP 11 34 02.4
			M	N 1.7 15			Sk iP 11 34 22.6
			M	Z 1.4 13			Um iP 11 34 06.9
		Sk	iP	20 50 50.6			Ud iP 11 34 25 C
			ipP	20 51 03.5			Celebes (h = 70 km).
		Um	iP	20 50 32.8 C	"	25	Up iP 11 52 11.9
			i	20 50 40.6			i 11 52 15.1
			ipP	20 50 44.3			Ki iP 11 51 57.7
		Ud	iP	20 51 00 C			Sk iP 11 52 18.2
			ipP	20 51 12			Um iP 11 52 02.0 C
				Ryukyu Islands.			Ka iP 11 52 34.2
				h = 40 km (Up,Sk,Um,Ud).			Ud iP 11 52 20
				Magn. = 5.9 (Up,Ki).			Celebes (h = 110 km).
"	23	Up	iP	22 42 40.0 C	"	25	Up iP 12 06 10.1
		Um	iP	22 43 24.0			Sk iP 12 06 25.6
				Yugoslavia.			Um iP 12 06 01.8 C
"	24	Ki	iP	00 26 02.9 C			Ka iP 12 06 21.5
		Sk	iP	00 26 20.8			Ud iP 12 06 24 C
		Um	iP	00 25 53.9	"	25	Um iP 16 05 30.1 C
		Ud	iP	00 26 14			Tonga Islands
				Pamir.			(h = 360 km).
"	24	Sk	iP	08 16 00.5	"	25	Um iP 21 47 50.5
"	24	Ki	iP	15 26 23.6			Sumatra (h = 40 km).
		Um	iP	15 25 44.2	"	25	Up iP 23 04 11.4
			i	15 25 48.7			microns sec
"	24	Up	iP	18 28 01.6			P Z' 0.1 0.6
				Alaska (h = 170 km).	"	26	Um iP 03 09 38.1
"	24	Up	iP	19 27 43.5			Ud eP 03 09 46
"	25	Up	iP	00 29 01.2			Sunda Strait (h = 30 km).
		Ki	iP	00 28 19.1	"	26	Up iP 04 04 52.9 C
		Sk	iP	00 28 54.8			(cont.)
		Gb	iP	00 29 23.9			
				(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Feb.	26	(cont.)		Feb.	27	(cont.)	
		Up	i 04 05 23.2			Ki	iP 02 19 43.5
			iPn 04 05 56.2			Sk	iP 02 19 29.7
			iPP 04 06 11.7			Um	iP 02 19 45.1
			iLgl 04 16 12			Ud	iP 02 19 26
			microns sec				Colombia (h = 70 km).
			P Z' 0.5 0.7				
			PP Z' 0.4 0.9	"	27	Ki	iPKP 02 48 27.9
		Ki	iP 04 04 37.4 C				Chile (h = 30 km).
			iPn 04 05 37.4				
			i 04 07 50.5			"	27 Ki eP 18 12 10
			microns sec				Um iP 18 13 00.4
			P Z' 0.9 0.8				i 18 13 08.9
		Sk	iP 04 05 08.6 C				Ud iP 18 13 47
			i 04 05 18.9				i 18 13 54
			i 04 05 38.6			"	27 Up iP 21 04 21.4 D
			iPP 04 06 31.2				i 21 04 23.3
		Gb	iP 04 05 21.1 C				iPP 21 04 34.5
			iPn 04 06 41.0				iS 21 07 10.4
		Um	iP 04 04 37.8 C				iLgl 21 09 13
			iPn 04 05 17.5				iPcP 21 09 25
			iPP 04 05 52.5				microns sec
		Ka	iP 04 05 09.1 C				P Z' 0.1 0.5
			i 04 05 44.3			Ki	eP 21 05 47
			iPn 04 06 22.3				i 21 05 57.3
			iPP 04 06 35.6				iLi 21 12 41
		Ud	iP 04 05 03 C				iLgl 21 13 02.1
			i 04 05 15				microns sec
			iPn 04 06 15				P Z' 0.1 1.0
		X Kazakh SSR.				Sk	iP 21 05 17.2
		Magn. = 6.6 (Up,Ki).					i 21 05 18.3
		Underground explosion.					iLgl 21 11 37.5
"	26	Up	iP 06 50 36.2			Um	iP 21 05 03.0
		Ki	eP 06 50 07				i 21 05 05.9
		Um	iP 06 50 18.7				i 21 08 13.0
		Ud	iP 06 50 47				iLgl 21 11 02
		Ryukyu Islands					i 21 11 19.6
		(h = 30 km).				Ka	iP 21 03 47.0
							i 21 05 03.8
"	26	Up	iPKP 12 16 22.5				iLgl 21 08 09.7
		Ud	iPKP 12 16 25			Ud	iP 21 04 40
			i 12 16 30				i 21 04 44
		Tonga-Kermadec Islands					i(S) 21 08 22
		(h = 540 km).					iLgl 21 10 03
							Rumania. Multiple P.
"	26	Up	iP 15 31 41.7			"	28 Up iP 09 49 09.5
		Um	iP 15 31 38.1				ipP 09 49 21.3
		Ud	iP 15 31 56				microns sec
		Hindu-Kush.					P Z' 0.1 0.6
"	27	Up	iP 02 19 39.8				M E 2.7 18
		(cont.)				(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Feb.	28	(cont.)			Feb.	28	(cont.)		
		Up		microns sec			Um	i(P)	18 37 59.7 D
		M	N	2.7 17			Ud	iP	18 38 22
		M	Z	3.2 17					
		Ki	iP	09 48 32.6 C					
			ipP	09 48 45.0					
			iS	09 57 47					
				microns sec					
		P	Z'	0.2 1.5					Markus Båth
		S	E	1.6 7					July 10, 1967
		M	E	3.1 17					
		M	N	3.0 18					
		M	Z	5.3 16					
				D = 7900 km = 71°.					
		Sk	iP	09 49 04.5					
			ipP	09 49 18.0					
		Um	iP	09 48 49.1 C					
			ipP	09 49 01.3					
			iS	09 58 15					
			iSS	10 02 50					
		Ud	iP	09 49 16					
				South of Japan.					
				h = 50 km (Up,Ki,Sk,Um).					
				Magn. = 6.0 (Up,Ki).					
"	28	Up	iP	14 26 45.1					
			ipP	14 27 00.6					
				microns sec					
		P	Z'	0.1 0.6					
		Ki	iP	14 27 59.0					
		Sk	iP	14 27 24.6					
		Gb	iP	14 26 33.0					
		Um	iP	14 27 25.0					
			ipP	14 27 39.0					
		Ka	iP	14 26 06.3					
		Ud	iP	14 26 51					
				Greece. h = 70 km (Up,Um).					
"	28	Up	iP	15 06 27.8					
				microns sec					
		P	Z'	0.1 0.7					
"	28	Up	iP	15 26 23.0					
				microns sec					
		P	Z'	0.1 0.5					
		Ki	iP	15 25 29.2					
		Sk	iP	15 26 06.7					
		Um	iP	15 25 54.7					
		Ud	iP	15 26 27					
				Kamchatka (h = 30 km).					
"	28	Up	iP	18 38 17.1					
			(cont.)						

PW

7 MAR 1967

1967 MAR 1

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

MARCH 1 - 31, 1967
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1967	Mar.	1	Up	iP	10 20 32.2	1967	Mar.	2	(cont.)					
			Ki	iP	10 21 05.4				Ki	iP	03 00 35.0 D			
			Um	iP	10 20 43.7						microns sec			
				ipP	10 20 51.2					P	Z' 0.1 1.0			
			Ud	iP	10 20 48				Sk	iP	03 00 21.2			
			Iran. h = 30 km (Um).						Gb	iP	03 00 22.1			
"		1	Ki	iP	14 37 41.5				Um	iP	03 00 36.9 D			
			Molucca Passage (h = 50 km).							i	03 00 42.5			
"		1	Gb	i(P)	16 42 49.7					ipp	03 04 23.8			
"		1	Um	iP	16 46 41.9				Ud	iP	03 00 25 D			
"		1	Ki	eP	18 50 37				Ecuador (h = 120 km).					
"		1	Um	iP	18 50 59.1				"	2	Ki	iP	03 36 33.5	
			Japan (h = 30 km).							Um	iP	03 36 51.4		
"		1	Up	iP	20 31 17.7 D					Ud	iP	03 37 13		
"		1	Up	iP	22 27 29.2					"	2	Ud	ipKP	06 17 05 C
					microns sec							Tonga-Kermadec Islands (h = 480 km).		
				P	Z' 0.2 0.7				"	2	Ud	iP	08 02 59	
			Ki	iP	22 26 36.0							Iran (h = 30 km).		
			Sk	iP	22 27 08.5				"	2	Up	iP	08 29 10.7	
			Um	iP	22 27 02.3						Ki	iP	08 28 32.8 C	
			Ud	iP	22 27 30 C						Sk	iP	08 29 05.8	
			Aleutian Islands (h = 30 km).								Um	iP	08 28 49.3 C	
"		2	Up	iP	03 00 33.2							ipP	08 29 10.3	
			(cont.)									Ud	iP	08 29 21
												Japan. h = 80 km (Um).		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967					1967				
Mar.	2	Ki	iP	09 58 59.6	Mar.	2	(cont.)		
		Um	iP	09 58 51.6			Kamchatka (h = 20 km).		
		Ud	iP	09 59 15 C			Magn. = 5.7 (Up,Ki).		
				Kirghiz SSR (h = 60 km).		"	3	Ki	e(Pg) 00 07 30
"	2	Up	iP	11 56 44.4					iSg 00 08 05.5
		Ki	iP	11 56 42.2				Um	iSg 00 09 54.0
		Ud	iP	11 56 59		"	3	Up	iP 01 37 37.5 C
				Tibet (h = 40 km).					i 01 37 44.7
"	2	Um	i(Sg)	12 07 34.5				Um	eP 01 38 26
"	2	Ki	ePn	13 49 54				Ka	iP 01 36 58.4
			iSn	13 50 40.2				Ud	iP 01 37 46
			iSg	13 50 57.3					Ionian Sea (h = 30 km).
				D = 420 km = 3.8°.		"	3	Up	iP 06 00 41.0
				Possibly northwest Russia.				Gb	iP 06 00 48.2
				Origin time = 13 48 52.				Um	iP 06 00 49.5
				Explosion?					ipP 06 00 57.1
"	2	Up	iP	20 58 12.7				Ud	iP 06 00 52
			ipP	20 58 23.6					ipP 06 00 59
				microns sec					Chagos Islands.
			P	Z' 0.1 1.0					h = 25 km (Um,Ud).
		Ki	eP	20 57 19		"	3	Um	iPKP 14 59 48.4
			ipP	20 57 31.6					South of Australia
				microns sec					(h = 30 km).
			P	Z' 0.1 1.0		"	3	Ud	iP 15 26 41
		Sk	iP	20 57 56.1		"	4	Up	iP 01 24 11.8
		Gb	iP	20 58 33.8					ipP 01 24 28.7
			ipP	20 58 43.9				Ki	iP 01 23 46.3
		Um	iP	20 57 44.6				Um	iP 01 23 58.9
			ipP	20 57 56.6				Ud	iP 01 24 22
		Ka	iP	20 58 37.7					Formosa. h = 60 km (Up).
		Ud	iP	20 58 22		"	4	Up	iP 05 21 12.0
			ipP	20 58 33					i 05 21 16.5
				Kamchatka.					microns sec
				h = 40 km (Up,Ki,Gb,Um,Ud).					Z' 0.2 0.6
				Magn. = 5.7 (Up,Ki).				Ki	iP 05 20 49.8 D
"	2	Up	iP	23 14 05.9					ipP 05 21 30.8
				microns sec					e 05 51 26
			P	Z' 0.1 1.0					microns sec
		Ki	iP	23 13 11.9					Z' 0.2 1.0
			i	23 13 13.1					M E 1.4 15
				microns sec					M N 0.9 14
			P	Z' 0.1 1.0					M Z 1.6 14
		Sk	iP	23 13 49.5				Sk	iP 05 21 15.3
		Gb	iP	23 14 26.9				Gb	iP 05 21 30.4
		Um	iP	23 13 37.4				Um	iP 05 20 57.0
		Ka	iP	23 14 30.6					(cont.)
		Ud	iP	23 14 12					
				(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967					1967				
Mar.	4	(cont.)			Mar.	4	(cont.)		
		Um	ipP	05 21 38.0			Probably northwest Russia.		
			iS	05 30 22			Origin time = 15 19 23.		
		Ka	iP	05 21 26.7			Explosion?		
		Ud	iP	05 21 23					
			ipP	05 22 10	"	4	Up	eP	18 02 49 D
		Formosa. h = 170 km (Ki,Um,Ud).						i	18 02 50.5
		Magn. = 5.9 (Up,Ki).						iPP	18 03 18.6
								iS	18 06 38
"	4	Up	iPKP	06 35 09.5					microns sec
			i	06 35 17.1			P	E	5.9 7
			iPP	06 38 02.8			P	N	23 7
		Ki	iPKP	06 35 04.8			P	Z	22 7
							P	Z'	1.3 1.5
							S	E	24 8
							S	N	30 10
		Sk	e(PKP)	06 35 06			S	Z	73 11
			i	06 35 17.0			M	E	180 7
		Gb	iPKP	06 35 18.8			M	N	110 7
		Um	i(PKP)	06 34 57.6			M	Z	230 11
			i	06 35 06.6					D = 2350 km = 21°.
			iPKP	06 35 11.5			Ki	iP	18 04 03.3
			iPP	06 38 22.2				iPa	18 04 38
		Ud	iPKP	06 35 10 C				iPcP	18 07 21
			iPP	06 38 08				iS	18 08 53
		Tonga Islands (h = 230 km).						iSa	18 09 23
								iSS	18 10 22
"	4	Ki	iPn	11 22 02.7					microns sec
			iSn	11 22 58.6			P	N	5.6 7
			iLgl	11 23 19.4			P	Z	8.0 7
			D = 520 km = 4.7°.				P	Z'	0.8 1.7
		Sk A	iSg	11 25 57.2			S	E	11 10
		Um	iSn	11 23 42.5			S	N	47 18
			iSg	11 24 23.0			M	E	250 13
			D = 710 km = 6.4°.				M	N	240 14
		Ud	iSg	11 27 00			M	Z	260 16
		Northwest Russia, 67.7°N, 32.8°E. Origin time = 11 20 50. Explosion?							D = 3200 km = 29°.
"	4	Up	iP	15 10 36.2			Sk	iP	18 03 32.4
		Ki	iP	15 09 43.7			Gb	iP	18 02 40.3
		Um	iP	15 10 09.9				i	18 02 41.8
		Ud	iP	15 10 38				iS	18 06 28.6
		Aleutian Islands (h = 40 km).					Um	eP	18 03 24 D
								i	18 03 27.0
								iPcP	18 06 59
								iS	18 07 48
							Ka	iP	18 02 13.8
								i	18 02 16.2
								iS	18 05 37.7
"	4	Ki	iPn	15 20 28.9			Ud	eP	18 02 58
			iSn	15 21 17.5				i	18 03 00
			iLgl	15 21 31.2				e(S)	18 07 11
			D = 460 km = 4.1°.						Aegean Sea (h = 30 km).
		Um	i	15 22 39.0					Magn. = 6.8 (Up,Ki).
			iSg	15 23 00.9					Multiple P.
		(cont.)							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967				1967			
Mar.	4	Up	eP	18 42 48	Mar.	5	(cont.)
		Sk	iP	18 43 31.2			Up i 18 58 01.8
		Um	iP	18 43 24.5			Um iP 18 58 39.2
			i	18 43 51.9			Ka iP 18 57 18.4
		Ud	iP	18 42 59			Ud eP 18 58 13
		Aegean Sea (h = 40 km).					Rumania (h = 60 km).
"	4	Um	iP	22 49 35.3	"	5	Ki iP 19 31 34.8 C
"	4	Ki	iP	22 54 33.3	"	5	Ki iPn 19 52 19.5
			i	22 54 50.5			iSn 19 53 07.7
		Caroline Islands (h = 20 km).					iLgl 19 53 23.3
							D = 440 km = 4.0°.
"	4	Um	iP	23 21 39.1			Um iSn 19 54 19.1
"	5	Ud	iP	01 04 31			iS ^x 19 54 43.5
		Aegean Sea.					iSg 19 54 58.5
							D = 760 km = 6.8°.
"	5	Ki	iPn	04 29 41.0			Probably northwest Russia.
			iSn	04 30 41.2			Origin time = 19 51 17.
			iLgl	04 31 02.0			Explosion?
				D = 560 km = 5.0°.	"	6	Up iP 02 55 18.4
		Sk	iLgl	04 33 28			Ki eP 02 55 04
			iSg	04 33 36.9			Talud Islands (h = 80 km).
		Um	iSn	04 31 21.5	"	6	Up iP 04 51 21.2
			i	04 31 32.0			microns sec
			iSg	04 31 56.2			P Z' 0.2 0.6
			D = 720 km = 6.5°.				Ki iP 04 50 50.6 D
		Ud	eSg	04 34 27			microns sec
		Northwest Russia, 67.5°N, 33.5°E.					P Z' 0.1 1.0
		Origin time = 04 28 24.					Gb iP 04 51 41.2
		Explosion?					Um iP 04 51 02.6 D
"	5	Up	iP	10 06 09.5			i 04 51 08.1
		Ki	iP	10 05 21.5			ipP 04 52 49.8
		Um	iP	10 05 43.5			Ka iP 04 51 39.0
		Ud	iP	10 06 09			iPP 04 54 49.5
		Kurile Islands (h = 30 km).					Ud iP 04 51 28
							ipP 04 53 24
"	5	Up	iP	17 26 21.0			South of Japan.
			i	17 26 36.5			h = 510 km (Um,Ud).
		Ki	iP	17 27 50.7			Magn. = 5.6 (Up,Ki).
			ipP	17 28 13.2	"	6	Up eP 05 00 26
		Um	iP	17 27 02.6			i 05 00 28.9
			i	17 32 24.5			Um i(P) 04 59 53.4
		Ka	iP	17 25 46.0			Ka iP 05 01 02.3
		Ud	iP	17 26 37			Ud iP 05 00 43
		Rumania. h = 120 km (Ki).		"	6	Sk	iP 05 54 17.8
"	5	Up	iP	18 57 52.7	"	6	Ki iPKP 08 30 50.6
		(cont.)					(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967						1967					
Mar.	6	(cont.)				Mar.	7	(cont.)			
		Gb	iPKP	08 31 06.5	D			Um	iSg	16 16 18.6	
		Um	i(PKP)	08 30 50.7				Nordlands Fylke, Norway.			
			iPKP	08 30 56.1							
		Ka	iPKP	08 31 08.7	D	"	7	Ki	iP	16 34 10.0	
			i	08 31 11.7						microns sec	
		Ud	iPKP	08 30 58					P	Z' 0.1 1.0	
		Tonga-Kermadec Islands						Um	iP	16 34 14.9	C
		(h = 230 km).						Ud	iP	16 34 34	
"	6	Up	iP	11 40 58.1				Talaud Islands			
			ipP	11 41 12.9				(h = 170 km).			
		Ki	iP	11 40 59.5	C	"	8	Um	eP	01 16 20	
			ipP	11 41 11.7							
		Um	iP	11 40 55.4		"	8	Up	iP	05 26 05.2	
		Ka	iP	11 40 58.7				Um	iP	05 25 47.7	C
		Ud	iP	11 41 08				Ud	iP	05 26 10	
			ipP	11 41 23				Volcano Islands (h = 30 km).			
		Sumatra.				"	8	Um	iP	10 07 23.2	
		h = 50 km (Up,Ki,Ud).				"	8	Sk	e(P)	11 06 43	
"	6	Ki	iP	11 46 44.2		"	8	Um	iP	11 05 29.1	
		Ud	iP	11 47 36				Ud	iP	11 05 40	
		Aleutian Islands				"	8	Ki	iP _n	14 57 03.2	
		(h = 10 km).							iP ^x	14 57 11.2	
"	7	Ud	iP	03 11 43					iSn	14 58 00.3	
"	7	Ki	iP	04 53 20.0					iLgl	14 58 15.9	
		Um	iP	04 53 32.4					D = 530 km = 4.8°.		
		Ud	iP	04 53 53				Um	eSg	14 59 37	
		Volcano Islands						Probably northwest Russia.			
		(h = 170 km).						Origin time = 14 55 46.			
"	7	Sk	eP	06 36 43		"	8	Up	iP	21 57 30.0	
		Ud	iP	06 37 03	C						
"	7	Ud	iP	07 29 06		"	8	Up	iPKP	22 32 52.8	
		Atlantic Ocean (h = 30 km).						Ki	iPKP	22 32 38.8	
"	7	Ki	iP	08 05 51.0				Sk	iPKP	22 32 50.2	
		Sk	iP	08 05 09.4				Um	iPKP	22 32 44.6	
		Um	iP	08 05 10.6	D			Ud	iPKP	22 32 56	
		Yugoslavia (h = 30 km).						New Hebrides Islands			
								(h = 130 km).			
"	7	Ud	iP	10 19 58	D	"	8	Um	eP	22 40 32	
"	7	Ud	iP	11 51 05		"	9	Up	iSSS	07 41 12	
		Japan (h = 30 km).								microns sec	
"	7	Ki	iSg	16 15 51.9				M	E	2.8 21	
		Sk	iSg	16 15 56.1				M	N	3.8 23	
		(cont.)						M	Z	4.5 23	
								(cont.)			

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1967				1967			
Mar.	9	(cont.)		Mar.	9		
		Ki	eSKSP 07 28 27			Um	iP 20 40 43.1
			microns sec			Ud	iP 20 40 11
		M	E 4.3 24			North Atlantic Ocean	
		M	N 3.2 22			(h = 30 km).	
		M	Z 3.5 21	"	9	Ud	iP 21 05 10
		Um	iPKP 07 17 30.5			North Atlantic Ocean	
		i	07 27 47			(h = 30 km).	
		iSKSP	07 28 59	"	9	Um	iP 21 06 29.8
		Santa Cruz Islands				Ud	iP 21 06 19
		(h = 30 km).		"	9	Ki	iP 21 17 33.6
		Magn. = 6.2 (Up,Ki).				Um	iP 21 17 48.6 C
"	9	UpP	iSn 12 17 58.3			Ud	iP 21 18 14
		SkA	iSg 12 18 55.1			South of Japan	
		GBT	iPg 12 16 18.1			(h = 250 km).	
			iSn 12 16 46.9	"	9	Ud	iP 21 28 13
			iSg 12 16 50.8			North Atlantic Ocean	
		Um	iLgl 12 20 01.7			(h = 30 km).	
		Ka, KLS	ePn 12 16 45	"	9	Um	iP 21 30 43.9
			iSg 12 18 05.7			Ud	iP 21 30 22
		Udd	iPg 12 16 40	"	9	Up	iPKP 21 44 24.1
			iSn 12 17 17			Um	iPKP 21 44 23.9
			iSg 12 17 37			Ka	iPKP 21 44 36.4
		South coast of Norway,				Ud	iPKP 21 44 27
		57.9°N, 7.5°E.				Fiji Islands (h = 280 km).	
		Origin time = 12 15 30.		"	9	Ud	eP 22 23 32
"	9	Up	i(P) 15 22 47.4			North Atlantic Ocean	
		Um	i(P) 15 22 28.1			(h = 30 km).	
"	9	Um	iP 15 28 29.0	"	10	Up	iP 00 42 30.9
"	9	Ki	iPKP 17 51 27.8			i	00 42 36.7
		Um	iPKP 17 51 34.4			microns sec	
		New Zealand (h = 160 km).				P	Z' 0.1 0.5
"	9	Um	iP 18 16 23.1			Ki	iP 00 41 59.7 C
"	9	Up	eL 19 03			Sk	iP 00 42 28.7 C
			microns sec			Um	iP 00 42 12.7 C
		M	N 2.4 23				ipP 00 44 06.7
		M	Z 2.3 23			Ka	iP 00 42 47.1
		Ki	eL 19 06			Ud	iP 00 42 37 C
			microns sec			Bonin Islands.	
		M	N 1.7 20			h = 540 km (Um).	
		M	Z 3.8 20	"	10	Ud	iP 01 49 28
		Santa Cruz Islands				North Atlantic Ocean	
		(h = 60 km).				(h = 30 km).	
		Magn. = 5.9 (Up,Ki).		"	10	Ud	iPKP 06 52 14
"	9	Ud	iP 20 08 16			(cont.)	
		North Atlantic Ocean					
		(h = 30 km).					

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå
 Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Mar.	10	(cont.)		Mar.	11	(cont.)	
		Tonga-Kermadec Islands (h = 550 km).				Ki iP	06 38 40.4 microns sec
"	10	Ud iP	07 27 16			P	Z' 0.2 1.3
		North Atlantic Ocean (h = 30 km).				Sk iP	06 38 57.7
						Um iP	06 38 30.0 C
"	10	Ud eP	11 20 03			ipP	06 39 16.0
		North Atlantic Ocean (h = 30 km).				Ka iP	06 38 36.1 C
						i	06 38 39.6
"	10	Ki iP	14 26 50.8			iPP	06 40 07.0
		Um iP	14 27 07.7			Ud iP	06 38 50 C
		Ud iP	14 27 36			ipP	06 39 36
		Japan (h = 310 km).				Hindu Kush.	
						h = 220 km (Up,Um,Ud).	
						Magn. = 5.6 (Up,Ki).	
"	10	Up i(P)	14 55 19.7	"	11	Um iP	08 52 15.9
			microns sec			Santa Cruz Islands	
			(P) Z' 0.1 0.7			(h = 50 km).	
"	10	Up iPg	15 38 51.6	"	11	Ki e	09 07 12
		iSg	15 39 04.1			i(Sg)	09 07 57.7
		microns sec				Um i(Sg)	09 09 20.8
		Sg Z' 0.1 0.8		"	11	Ki R	iPn 11 11 08.7
		Ud iPg	15 39 19			iSn	11 12 04.6
		iSg	15 39 48			iSg	11 12 27.6
						D = 520 km = 4.7°	
						SkA iSg	11 15 06.2
						UmE iSn	11 12 49.4
						iSg	11 13 36.6
						Northwest Russia,	
						68.1°N, 32.9°E.	
						Origin time = 11 09 54.	
						Explosion?	
"	10	Sk iP	17 17 59.2	"	11	Um iP	12 26 03.5
"	10	Sk e	17 38 01	"	11	Um iP	12 26 51.9
		i(Sg)	17 38 33.2			Ud eP	12 26 17
"	10	Ud iP	20 52 01			Iceland (h = 30 km).	
		North Atlantic Ocean (h = 30 km).		"	11	Up eP	14 57 31
"	11	Um eP	03 11 15			ipP	14 57 43.8
		Ud eP	03 10 54			microns sec	
		North Atlantic Ocean (h = 30 km).				P	Z' 0.1 1.3
"	11	Up iP	06 38 31.4 C			Ki iP	14 57 17.0 C
		ipP	06 39 18.2			ipP	14 57 31.4
			microns sec			i	14 57 47.8
						microns sec	
			P Z' 0.1 0.5			P	Z' 0.5 1.8
		(cont.)				(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967

Mar. 11 (cont.)
Ki microns sec
M E 4.5 22
M N 2.0 22
M Z 6.3 22
Sk iP 14 57 11.5
ipP 14 57 24.1
Gb eP 14 57 24
ipP 14 57 37.9
Um iP 14 57 27.1
ipP 14 57 39.8
Ka iP 14 57 36.8 C
ipP 14 57 50.7
Ud iP 14 57 28
i 14 57 34
Mexico.
h = 50 km (Up,Ki,Sk,Gb,Um,Ka).
Magn. = 6.0 (Up,Ki).

" 11 Up iP 17 06 52.8 C
microns sec
P Z' 0.2 0.8
Ki iP 17 06 43.6 C
microns sec
P Z' 0.1 1.0
Sk iP 17 07 08.0 C
Gb iP 17 07 11.9
Um iP 17 06 43.6 C
Ka iP 17 07 02.7
Ud iP 17 07 07 C
India-China (h = 5 km).
Magn. = 6.0 (Up,Ki).

" 11 Up iP 18 21 00.0
North Atlantic Ocean
(h = 30 km).

" 11 Ki iP 18 54 55.1
Ud iP 18 55 10
Nepal (h = 10 km).

" 12 Um i(PcP) 01 34 48.8
(Aleutian Islands).

" 12 Up iP 03 02 55.0 C
microns sec
P Z' 0.1 1.0
Ki iP 03 02 11.4
microns sec
P Z' 0.2 1.3
Sk iP 03 02 46.9
Gb iP 03 03 19.1
(cont.)

1967

Mar. 12 (cont.)
Um iP 03 02 30.6 C
i 03 02 59.4
Ka iP 03 03 17.0
Ud iP 03 02 59 C
Japan (h = 30 km).
Magn. = 5.8 (Up,Ki).

" 12 Um iP 06 57 34.5

" 12 KiR ePn 13 27 27
iSn 13 28 12.1
iSg 13 28 27.9
~~D = 410 km = 3.7°~~
SkA eSg 13 30 59
Um e(Pg) 13 28 08
iSn 13 28 54.4
iSg 13 29 21.3
~~D = 600 km = 5.1°~~

Northwest Russia,
67.5°N, 30.0°E.
Origin time = 13 26 27.
Explosion?

" 13 Ud eP 07 43 12
Greece.

" 13 Ki iP 07 55 42.8
Um iP 07 55 49.2
Ka iP 07 56 01.1
Ud iP 07 55 53
Fiji Islands (h = 590 km).

" 13 Um iP 12 12 41.5

" 13 Up iP 14 54 56.5
Ki iP 14 54 02.7 C
Sk iP 14 54 33.1
Um iP 14 54 29.5
Ud iP 14 54 57
Aleutian Islands
(h = 30 km).

" 13 Ki iP 16 25 57.4 C
Um iP 16 25 55.0
Ud iP 16 25 50 C
Chile (h = 30 km).

" 13 Ki iP 17 40 17.6
microns sec
P Z' 0.1 1.5
Ud iP 17 40 45
Talaud Islands (h = 60 km).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
Mar.	13	Ki	iP	17 49 28.9	Mar.	14	Up	iP	07 08 06
		Um	iP	17 48 52.2				iS	07 16 12
		Ud	iP	17 48 26					microns sec
		Greece (h = 90 km).						P	E 0.8 4
"	13	Up	iP	19 14 26.8				M	E 13 15
		Ki	iP	19 14 10.6				M	N 11 16
				microns sec				M	Z 17 15
			P	Z' 0.1 1.1				D = 6600 km =	
		Um	iP	19 14 15.2			Ki	iP	07 07 56.6 C
		Ud	iP	19 14 39 D				ipP	07 08 03.7
		Talaud Islands (h = 40 km).						i	07 27 02
"	13	Ud	iP	19 28 31					microns sec
"	13	Up	iP	19 30 15.4 C				P	Z' 0.5 1.3
			iPP	19 32 05.3				M	E 14 15
				microns sec				M	N 6.8 17
			P	Z' 0.6 2.0			Sk	iP	07 08 20.6 C
		Ki	iP	19 31 07.5				ipP	07 08 28.2
			i	19 31 32.1			Gb	iP	07 08 26.9
				microns sec			Um	iP	07 07 56.3 C
			P	Z' 0.5 1.7				iPa	07 11 36
		Sk	iP	19 30 51.9				iS	07 15 56
			i	19 31 22.5				iSS	07 19 47
		Gb	iP	19 30 15.2 C			Ka	iP	07 08 15.1 C
			i	19 30 36.6			Ud	iP	07 08 18 C
		Um	iP	19 30 36.9			India-China.		
			iPP	19 32 16.5			h = 25 km (Ki,Sk).		
		Ka	iP	19 29 54.1			Magn. = 6.3 (Up,Ki).		
		Ud	iP	19 30 31 C	"	14	Up	iP	07 55 24.9
		Red Sea (h = 5 km).						iPn	07 55 45.4
		Magn. = 6.3 (Up,Ki).						iSn	08 00 20.3
"	13	Ud	iP	20 55 58 C				i	08 00 58
		North Atlantic Ocean						iLg1	08 02 56
		(h = 30 km).							microns sec
"	13	Um	iP	21 39 01.0				M	E 1.7 15
"	13	Ki	iP	21 47 38.1				M	N 4.3 11
			iPP	21 47 47.9				M	Z 3.8 11
			iS	21 50 18.4			Ki	iP	07 53 47.8 D
		Um	iP	21 48 23.3				iS	07 56 29.0
			iS	21 51 58.1				iLg1	07 58 23.0
			iPcP	21 52 58.2				iLg2	07 58 40
		Ud	iP	21 49 20					microns sec
		Arctic Ocean (h = 10 km).						P	Z' 0.3 1.0
"	14	Up	iP	00 17 47.0				S	Z' 0.3 1.5
		Ud	iP	00 17 38				M	E 4.8 13
			i	00 17 46				M	N 8.0 11
								M	Z 10 11
								D = 1650 km = 15°.	
							Sk	iP	07 54 52.1
								iLg1	08 00 43.2

(cont.)

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1967				1967			
Mar.	14	(cont.)		Mar.	14	Up	iP 23 11 51.4
		Sk	iLg2 08 01 28.3			Ki	iP 23 10 45.3
		Gb	iP 07 55 49.5				
			i 08 04 27.0	"	14	Up	iPg 23 20 02.6
			iLg2 08 04 36.2				iSg 23 20 25.1
		Um	iP 07 54 38.0				D = 190 km = 1.7°.
			i 07 54 49.7				Degerfors, central Sweden.
			i 07 57 14.8				Underwater explosion.
			iS 07 58 02.0				
		Ka	i(Sn) 08 01 02.2	"	14	Up	iP 23 24 02.2
		Ud	iP 07 55 23				i 23 24 12.8
			iLg2 08 03 09				microns sec
			Arctic Ocean (h = 30 km).				P Z' 0.1 1.0
			Very clear higher-mode waves.				
			There is some indication of	"	14	Up	iPKP 23 43 00.3
			teleseismic Pn and Sn - for			Ki	iPKP 23 42 50.8
			the first time from this			Gb	iPKP 23 43 10.7
			locality (cf Båth, Pure and			Um	i(PKP) 23 42 48.7
			Appl. Geophys., 64: 159-170,				iPKP 23 42 59.3
			1966, and 66: 181-187, 1967).				iSKP 23 45 34.9
						Ka	iPKP 23 43 12.8
"	14	Ki	iPn 12 34 17.8				Tonga-Kermadec Islands
			e 12 34 30				(h = 650 km).
			iSn 12 35 04.5	"	15	Ki	ePn 06 16 56
			iLg1 12 35 19.7				iSn 06 17 46.4
			D = 430 km = 3.9°.				iLg1 06 18 04.0
			Possibly northwest Russia.				D = 470 km = 4.2°.
			Origin time = 12 33 16.			Um	iSg 06 19 36.7
			Explosion?				Probably northwest Russia.
"	14	Ud	iP 14 42 50				Origin time = 06 15 50.
			Hindu Kush (h = 190 km).				Explosion?
"	14	Up	iPg 20 45 46.4	"	15	Ki	e(Pn) 07 09 37
			iSg 20 46 08.8				iSn 07 10 28.0
			D = 190 km = 1.7°.				iLg1 07 10 36.8
			Degerfors, central Sweden.				Possibly northwest Russia.
			Underwater explosion.				Explosion?
"	14	Up	iP 22 53 08.8	"	15	Up	iP 14 50 04.3
"	14	Up	iPg 23 03 21.9	"	15	Ki	iPn 15 04 38.5
			i 23 03 38.2				iP [*] 15 04 47.9
			iSg 23 03 44.1				iSn 15 05 27.3
			microns sec				iLg1 15 05 42.9
			Sg Z' 0.2 0.7				D = 440 km = 4.0°.
			D = 190 km = 1.7°.				Possibly northwest Russia.
		Sk	iLg1 23 05 07.6				Origin time = 15 03 36.
		Um	i(Lg1) 23 05 23.8				Explosion?
			Degerfors, central Sweden.	"	15	Ki	eP 15 18 05
			Origin time = 23 02 48.				i(Sg) 15 19 20.8
			Underwater explosion.				

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1967					
Mar.	15	Um	iPKP	22 21 10.9	
					South Sandwich Islands (h = 30 km).
"	16	Ki	iP	03 20 51.5	
		Um	iP	03 20 21.4	
			iPP	03 21 57.8	
					Red Sea (h = 30 km).
"	16	Up	iP	12 23 40.1	
		Ki	eP	12 23 31	
					Burma (h = 5 km).
"	16	Um	iPKP	12 28 47.3	
			iSKP	12 32 12.0	
					Loyalty Islands (h = 70 km).
"	16	Um	iP	14 22 22.6	
"	16	Um	iPKP	17 50 58.0 C	
		Ud	iSKP	17 53 31	
					New Hebrides Islands (h = 640 km).
"	17	Up	iSg	02 33 29.8	
		Sk	iSg	02 32 23.5	
		Um	iSg	02 34 02.8	
		Ud	ePg	02 31 53	
			iSg	02 32 31	
					South Norway, near 61.6°N, 8.7°E. Origin time = 02 30 56.
"	17	Um	iP	02 33 12.4	
					Japan (h = 60 km).
"	17	Um	iP	06 58 02.0	
					Aleutian Islands (h = 40 km).
"	17	Up			

					microns sec
		M	E	4.6	20
		M	N	5.2	23
		M	Z	8.4	25
		Ki			

					microns sec
		M	E	4.7	25
		M	N	2.7	19
		M	Z	9.6	24
		Um	iPS	11 53 08	
			iSS	11 59 15	
					(cont.)

1967					
Mar.	17		(cont.)		
					New Ireland (h = 30 km). Magn. = 6.2 (Up,Ki).
"	17	Ki	iP	21 50 33.7	
"	18	Ki	iP	00 17 17.5	
		Um	iP	00 16 34.3	
			i	00 16 41.5	
		Ud	iP	00 16 38 C	
					Caucasus.
"	18	Um	eP	01 13 11	
"	18	Um	iPKP	09 45 44.0	
			iSKP	09 48 23.4	
		Ka	iPKP	09 46 01.7	
		Ud	iPKP	09 45 51	
					Fiji Islands (h = 650 km).
"	18	Ki	iPn	11 24 25.5	
			iSn	11 25 20.8	
			iLg	11 25 35.0	
			iSg	11 25 44.1	
			D	510 km = 4.6°	
		Sk	eSn	11 27 19	
			iSg	11 28 14.6	
		Um	iPn	11 24 52.3	
			iSn	11 26 05.6	
			iSg	11 26 42.1	
			i	11 26 52.7	
			D	710 km = 6.4°	
		Ud	eSn	11 28 01	
					Northwest Russia, 67.9°N, 32.6°E. Origin time = 11 23 13. Explosion? This is one of the strongest events in this whole series.
"	18	Up	iP	12 18 46.6 C	
"	18	Up	iP	14 30 54.8	
"	18	Ka	iPKP	17 09 34.0	
					New Hebrides Islands (h = 20 km).
"	18	Up	iP	18 01 09.8	
			ipP	18 01 29.0	
		Ki	iP	18 00 31.5	
			i	18 01 10.5	
					(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Mar.	18	(cont.)		Mar.	19	(cont.)	
		Sk	iP 18 01 05.6			Ki	iP 04 11 49.0
		Um	iP 18 00 48.7			i	04 11 50.8
			ipP 18 01 06.1			iS	04 20 03
		Ka	iP 18 01 30.2			iScS	04 21 41
		Ud	iP 18 01 18 C				microns sec
		Japan. h = 70 km (Up,Um).				P	Z 6.3 9
"	19	Up	iP 01 24 54.0 C			P	Z' 0.2 1.0
			iPKP 01 29 09.9			S	E 8.3 17
			i 01 29 16.9			S	N 3.5 11
		Ki	iP 01 24 39.5			M	E 71 16
			i 01 25 23.2			M	N 57 19
			iPKP 01 28 53.6			M	Z 90 21
		Um	iP 01 24 44.3 C			D = 6800 km = 61°.	
			i 01 25 16.3			Sk	iP 04 12 24.8
			iPKP 01 29 00.0			Gb	iP 04 12 56.9
		Ka	iPP 01 29 41.7			i	04 12 59.8
		Ud	iP 01 25 06			i!	04 13 13.4
			iPKP 01 29 10			Um	iP 04 12 09.8
			iPP 01 29 38			i!	04 12 25.8
		Banda Sea (h = 60 km).				iPa	04 16 11
"	19	Ud	ePP 02 33 28			iS	04 20 46
		Chile (h = 30 km).				i	04 21 25
"	19	Up	iP 03 06 09.2			Ka	iP 04 12 58.3
		Ki	iP 03 05 39.6			i	04 13 00.9
		Sk	iP 03 06 09.4			Ud	iP 04 12 40
		Gb	iP 03 06 29.1			Kurile Islands (h = 30 km).	
		Um	iP 03 05 51.1			Magn. = 6.6 (Up,Ki).	
		Ka	iP 03 06 26.4			Multiple P.	
		Ud	iP 03 06 17 C	"	19	Up	iP 06 07 26.4 C
		Ryukyu Islands (h = 50 km).				Ki	iP 06 07 09.2 C
"	19	Up	iP 04 12 34.0			Um	iP 06 07 14.8
		i	04 12 36.3			Ka	eP 06 07 38
		ePa	04 17 24			Ud	iP 06 07 38 C
		eS	04 21 18			Mindoro (h = 100 km).	
		i	04 21 46	"	19	Um	iP 07 37 27.9
		iScS	04 22 31	"	19	Up	iP 07 48 22.5
		i	04 22 52			i	07 48 32.9
		iP'P'	04 40 54.4	"	19	Up	iP 11 20 25.1 C
			microns sec			i	11 20 32.6
		P	Z 3.9 7			Um	i(P) 11 20 34.1
		P	Z' 0.2 0.7	"	19	Ki	eP 15 29 40
		S	N 3.8 12			Leyte (h = 130 km).	
		M	E 47 19	"	19	Ki	iP 16 06 03.5
		M	N 61 20			Leyte (h = 30 km).	
		M	Z 55 19				
		D = 7550 km = 68°.					
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967						1967				
Mar.	19	Up	iP	17 36 06.0		Mar.	20	(cont.)		
			ipP	17 36 17.8				Kurile Islands (h = 50 km).		
				microns sec				Magn. = 6.4 (Up,Ki).		
			pP	Z' 0.1 0.9						
		Ki	iP	17 35 14.5		"	20	Up	iP	13 49 49.7
			ipP	17 35 25.0				Um	iP	13 49 23.9
		Um	iP	17 35 39.4				Ud	iP	13 49 54
			ipP	17 35 50.8				Kurile Islands (h = 50 km).		
		Ud	iP	17 36 05		"	20	Up	iP	13 51 49.7
			ipP	17 36 16				i		13 51 56.4
		Aleutian Islands.						iPcP		13 52 15.0
		h = 40 km (Up,Ki,Um,Ud).							microns sec	
"	19	Up	iP	22 01 43.9 C				P	Z' 0.2 0.6	
		Ki	iP	22 00 56.9				Ki	iP	13 51 02.5
		Um	iP	22 01 17.1				ipP		13 51 15.8
		Ud	iP	22 01 48					microns sec	
		Kurile Islands (h = 30 km).						P	Z' 0.2 0.9	
"	19	Up	iP	23 07 13.1				Sk	iP	13 51 37.0
"	20	Ud	iP	05 25 04				Gb	iP	13 52 10.6
		Kurile Islands (h = 30 km).						Um	iP	13 51 24.5 C
"	20	Up	iP	09 41 34.6 C				i		13 51 33.3
		Ki	iP	09 40 48.2				Ka	iP	13 52 12.2
		Um	iP	09 41 09.2				Ud	iP	13 51 55 C
		Ud	iP	09 41 41 C				ipP		13 52 08
			i	09 41 55				Kurile Islands.		
		Kurile Islands (h = 30 km).				"	20	Up	iP	14 03 04.0
"	20	Up	iP	10 58 57.2				i		14 03 09.0
		Ki	iP	10 58 03.4					microns sec	
		Um	iP	10 58 30.1				P	Z' 0.1 0.5	
		Ud	iP	10 58 57				Ki	iP	14 02 16.7
		Aleutian Islands							microns sec	
		(h = 50 km).						P	Z' 0.1 0.9	
"	20	Up	iP	13 42 31.5				Sk	iP	14 02 55.3
			i	13 42 35.7				i		14 03 15.3
				microns sec				Gb	iP	14 03 25.2
			P	Z' 0.2 0.6				Um	iP	14 02 37.9
		Ki	iP	13 41 44.1				Ka	iP	14 03 27.7
			i	13 41 53.4				Ud	iP	14 03 09 C
				microns sec				Kurile Islands (h = 30 km).		
			P	Z' 0.4 0.8				Magn. = 5.8 (Up,Ki).		
		Sk	iP	13 42 20.0 C		"	20	Ki	iPn	14 31 09.9
		Gb	iP	13 42 51.1 C				iSn		14 31 58.4
		Um	iP	13 42 04.7				iLg1		14 32 15.3
		Ka	iP	13 42 53.7				D = 440 km = 4.0°.		
			i	13 43 10.4				Possibly northwest Russia.		
		Ud	iP	13 42 36				Origin time = 14 30 07.		
		(cont.)						Explosion?		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Mar.	20	Up	iP	14 55 16.0	Mar.	21	Up	iP	18 23 59.1
		Ki	iP	14 54 28.1			Ki	iP	18 24 02.5
		Um	iP	14 54 50.4			Sk	iP	18 23 46.8
		Ud	iP	14 55 20			Um	iP	18 24 03.6
		Kurile Islands (h = 50 km).					Colombia (h = 150 km).		
"	20	Up	iP	15 57 24.7	"	22	Ki	iP	06 08 23.1
		Ki	iP	15 56 37.2			Aleutian Islands		
		Gb	iP	15 57 44.6			(h = 30 km).		
		Um	iP	15 56 58.5 C	"	22	Um	iP	18 07 16.1
		Ud	iP	15 57 30					
		Kurile Islands (h = 60 km).			"	22	Ki	iPKP	21 36 38.9
"	20	Ud	iP	16 23 06			Um	iPKP	21 36 35.4
		Kurile Islands (h = 30 km).					South Sandwich Islands		
"	20	Up	iP	17 22 33.7			(h = 25 km).		
		Ki	iP	17 21 46.4	"	22	Up	iP	21 47 14.6 C
		Um	iP	17 22 08.0 C			i		21 47 17.2
		Ud	iP	17 22 41 C	"	23	Ki	i	06 16 34.9
		Kurile Islands (h = 30 km).					i(Sg)		06 16 53.7
"	20	Ki	iPKP	19 26 34.0			Sk	e(Sg)	06 19 55
		Gb	iPKP	19 26 52.6			Um	i	06 18 19.2
		Um	iPKP	19 26 39.6			i(Sg)		06 18 34.9
		Ud	iPKP	19 26 44	"	23	Ki	ePp	07 40 09
		Loyalty Islands (h = 30 km).					iP ^x		07 40 17.7
"	20	Up	iP	22 06 12.6			iSn		07 41 01.0
		Ki	iP	22 05 36.2			iLgl		07 41 12.6
		Sk	iP	22 06 10.9			D = 490 km = 4.4°		
		Um	iP	22 05 50.7			Um	iSg	07 42 42.1
		iPcP		22 06 12.3			i		07 42 58.4
		Ud	iP	22 06 17			Probably northwest Russia.		
		Japan (h = 60 km).					Origin time = 07 38 58.		
"	20	Ki	iP	22 37 31.7			Explosion?		
				microns sec	"	23	Ki	iP	10 17 35.2
				Z' 0.1 1.0	"	23	Up	iP	13 52 55.6
		Um	iP	22 37 05.7			ipP		13 53 06.1
		Ka	iP	22 36 38.6			Ki	iP	13 52 08.1 C
		Ud	iP	22 37 16					microns sec
		Iraq (h = 40 km).							Z' 0.1 1.0
"	21	Up	iP	00 34 31.8			Um	iP	13 52 29.7
"	21	Up	iP	00 45 16.6			Ud	iP	13 53 01
"	21	Ki	iP	14 43 28.8			ipP		13 53 14
"	21	Um	iP	15 16 04.2			Kurile Islands.		
		Japan (h = 40 km).					h = 40 km (Up,Ud).		
"	21	Um	iP	15 16 04.2	"	23	Ki	iP	15 13 30.6
		Japan (h = 40 km).					(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
 Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Mar.	23	(cont.)		Mar.	24	(cont.)	
		Um	iP 15 13 27.2			Up	microns sec
		Ud	iP 15 13 43			pP	Z 0.9 4
		Sumatra (h = 30 km).				pP	Z' 0.5 1.5
"	23	Ki	iPn 15 32 53.5			PP	Z' 0.5 1.5
			iSn 15 33 51.8			SKS	E 2.7 10
			iLgl 15 34 09.6			S	N 3.5 10
			D = 530 km = 4.8°.			M	E 2.4 18
		Um	iSg 15 35 36.9			M	N 3.6 22
		Northwest Russia.				M	Z 2.6 20
		Origin time = 15 31 39.				(D = 10650 km = 96°).	
		Explosion?				Ki	iP 09 12 45.9
"	24	Up	iP 01 19 49.4			ipP	09 14 53.7
		Ud	iP 01 20 01			iPP	09 16 37.7
		Formosa (h = 50 km).				i	09 17 56.0
"	24	Up	iP 02 05 40.6			iSKS	09 22 20
			i 02 05 43.9			microns sec	
		Sk	iP 02 06 16.6			pP	Z' 0.4 1.6
		Um	iP 02 06 04.4			SKS	E 6.9 10
		Red Sea (h = 30 km).				M	E 4.5 21
"	24	Up	iP 02 09 41.5 C			M	N 2.7 20
		Sunda Strait (h = 20 km).				M	Z 6.3 22
"	24	Um	eP 03 26 51			(D = 10550 km = 95°).	
		Sinkiang (h = 30 km).				Sk	iP 09 13 01.1
"	24	Up	iP 04 22 46.6 D			ipP	09 15 11.7
			ipP 04 22 53.3			iPP	09 17 21.8
		Ki	iP 04 22 15.2			i	09 18 46.3
		Um	iP 04 22 23.1			ipPP	09 19 10.6
		Ud	eP 04 22 57			ipPP	09 19 02.8
		Japan. h = 25 km (Up).				Um	iP 09 12 44.1
"	24	Ki	iP 06 46 54.1			ipP	09 14 53
		Red Sea (h = 40 km).				iPP	09 16 42.5
"	24	Um	iP 07 11 19.0			Ka	iPP 09 17 10.6
		Tashkent.				Um	ipPP 09 18 37
"	24	Up	iP 08 27 06.6			iSKS	09 22 22
		Hindu Kush.				iS	09 23 08
"	24	Up	iP 09 12 50.6			i	09 24 34
			ipP 09 15 00.1			Ud	iP 09 13 01
			iPP 09 16 57.7			ipP	09 15 11
			ipPP 09 18 49.8				09 17 08
			iSKS 09 22 27				09 18 06
			iS 09 23 18				
		(cont.)					

Handwritten notes on a yellow sticky note:

pp 09 15 06 " B z
 " " " " S z

Um, Ud).
 25
 4.6
 3
 0.8
 .9
 58

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
 Ka = Karlskrona, Ud = Uddeholm

1967 Mar. 24 (cont.)
 Northern coast of the Kola Peninsula, 69.5°N, 33.4°E.
 Origin time = 09 49 07.
 Explosion?

" 24 Up iP 11 58 44.6
 Um iP 11 58 37.6
 ipP 12 00 49.5
 Ud iP 11 58 54
 Java Sea. h = 610 km (Um).

" 24 Um iP 12 36 41.1

" 24 Up iP 18 41 38.2 C
 Bonin Islands (h = 30 km).

" 24 Ki iPKP 19 29 04.9
 Um iPKP 19 29 12.0
 i 19 29 19.8
 New Zealand (h = 30 km).

" 24 Up iPKP 23 18 00.8
 iSKP 23 20 35.2
 Um iSKP 23 20 23.5
 Ud iSKP 23 20 40
 Fiji Islands (h = 650 km).

" 25 Up iP 06 04 53.7 C
 iPn 06 05 59.3
 iPP 06 06 12.2
 microns sec
 P Z' 0.1 0.7
 PP Z' 0.1 0.8
 Ki iP 06 04 38.5 C
 iPn 06 05 31.7
 microns sec
 P Z' 0.2 0.7
 Sk iP 06 05 09.7 C
 iPn 06 06 23.4
 Gb iP 06 05 22.1
 Um iP 06 04 38.9 C
 iPn 06 05 40.4
 iPP 06 05 53.7
 Ka iP 06 05 09.8 C
 Ud iP 06 05 09 C
 i 06 05 41
 iPn 06 06 22
 Kazakh SSR.
 Magn. = 5.9 (Up,Ki).
 Underground explosion.

1967 Mar. 25 Up iP 07 46 49.5
 Um eP 07 46 31
 Ud iP 07 47 01
 Formosa (h = 120 km).

" 25 KiR iPn 10 09 28.6
 iSn 10 10 24.8
~~iLg1 10 10 42.3~~
~~D = 520 km = 4.7°~~
 SkA eSg 10 13 23
 Um iSn 10 11 08.7
 iSg 10 11 48.3
~~D = 720 km = 6.5°~~

Northwest Russia,
 67.9°N, 32.8°E.
 Origin time = 10 08 15.
 Explosion?

" 25 Ki iPn 12 44 33.8
 iSn 12 45 30.0
 iLg1 12 45 43.3
 D = 520 km = 4.7°
 Um iSn 12 46 14.3
 iSg 12 46 53.7
 D = 720 km = 6.5°
 Northwest Russia.
 Origin time = 12 43 19.
 Explosion?

" 25 Um iP 14 42 03.1
 Panama (h = 40 km).

" 25 Um iP 14 46 23.1
 Panama (h = 30 km).

" 25 Ki iP 22 34 45.8
 Um iP 22 34 27.9
 Ud iP 22 34 36
 Iran (h = 40 km).

" 25 Up iP 22 58 56.7
 ipP 22 59 10.7
 microns sec
 P Z' 0.3 1.0
 M E 8.1 18
 M N 5.3 20
 M Z 4.6 18
 Ki iP 22 58 09.6
 ipP 22 58 25.1
 microns sec
 P Z' 0.3 1.0
 (cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Mar.	25	(cont.)		Mar.	26	(cont.)	
		Ki	microns sec			Up ipP	08 02 14.1
		M	E 11 17			Aleutian Islands.	
		M	N 6.3 17			h = 40 km (Up).	
		M	Z 8.7 18				
		Sk	iP 22 58 46.7				
		Gb	iP 22 59 18.7				
		Um	iP 22 58 31.1				
			ipP 22 58 46.2				
			iS 23 07 09				
		Ka	iP 22 59 20.1				
		Ud	iP 22 59 04				
			ipP 22 59 17				
		Kurile Islands.					
		h = 50 km (Up,Ki,Um,Ud).					
		Magn. = 6.2 (Up,Ki).					
"	26	Um	iP 01 42 03.8	"	26	Up	iP 13 37 41.4
		Japan (h = 50 km).					
"	26	Up	iP 03 16 56.9	"	26	Up	iP 16 33 34.2
		Ki	iP 03 17 16.1			Ki	iP 16 33 03.0
		Sk	eP 03 17 33			Um	iP 16 33 16.3 D
		Um	iP 03 17 00.8			Bonin Islands (h = 450 km).	
		Ud	eP 03 17 09	"	26	Ki	iP 17 13 29.6 C
			i 03 17 37			Um	eP 17 13 38
		West Pakistan (h = 20 km).				Mindanao (h = 90 km).	
"	26	Sk	iP 04 33 22.8	"	26	Up	iPKP 21 29 57.8
		Um	iP 04 33 24.5				i 21 30 03.2
		Alaska (h = 30 km).				Ki	iPKP 21 29 30.8
"	26	Up	iSg 06 16 34.0			Sk	iPKP 21 29 49.3
		Sk	eSg 06 16 12			Um	iPKP 21 29 40.5
		Um	iSn ^x 06 13 56.6			New Zealand (h = 30 km).	
			iS ^x 06 14 12.7	"	26	Um	iP 21 38 27.6
			iSg 06 14 32.7			Japan (h = 30 km).	
		Northwest Russia.		"	26	Um	iPKP 22 57 40.9
		Explosion?				New Guinea (h = 15 km).	
"	26	Ki	iSn 06 19 23.5	"	27	Up	iP 01 02 48.8
			iLgl 06 19 45.2	"	27	Up	iP 08 20 12.5
		Sk	eSg 06 22 12				ipP 08 20 17.3
		Um	eSn 06 20 05			Ki	iP 08 20 23.1
			iSg 06 20 34.2				ipP 08 20 28.7
		Northwest Russia.				Sk	iP 08 20 35.3 C
		Origin time = 06 17 36.				Um	iP 08 20 13.1
		Explosion?					ipP 08 20 19.2
"	26	Um	iP 07 37 48.8			Ud	iP 08 20 23 C
"	26	Up	iP 08 02 03.4				ipP 08 20 27
		(cont.)				(cont.)	

26 Ki iPn 09 56 01.3
iSn 09 56 59.9
~~iLgl 09 57 21.0~~
~~D = 560 km = 5.0~~
SkA eSg 09 59 52
Um i 09 57 22.9
iSg 09 58 15.1

Northwest Russia,
67.3°N, 33.3°E.
Origin time = 09 54 43.
Explosion?

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967				1967						
Mar.	28	Up	iP	07 14	55.3	Mar.	29 (cont.)			
"	28	Up	iS	15 54	43.5	Up	i	02 08 31.9		
		Gb	iP	15 51	26.6	Sk	ePKP	02 08 14		
			i	15 51	33.5		i	02 08 36.3		
			iS	15 52	59.7	Gb	iPKP	02 08 29.0		
		Um	iP	15 53	06.2	Um	iPKP	02 08 09.3		
		Ka	iP	15 51	32.7		i	02 08 20.8		
			iS	15 53	06.6	Ud	iPKP	02 08 26		
		Ud	iP	15 51	56 C		i	02 08 39		
			iS	15 53	54	Kermadec Islands.				
		Belgium (h = 20 km).				"	29	Up	iSg	13 06 45.0
"	28	Up	iP	18 32	24.1			Um	iSg	13 07 15.3
"	28	Up	iP	19 44	44.3			Ud	iSg	13 07 47
			ipP	19 44	57.8	Southwest Finland.				
		Ki	iP	19 44	26.0	Origin time = 13 05 29.				
		Sk	iP	19 44	54.9	Explosion?				
		Gb	iP	19 45	01.4	"	29	Up	iSKP	17 30 13.0
		Um	iP	19 44	31.3			Um	iSKP	17 30 03.6
		Ud	iP	19 44	55			Ka	iPKP	17 27 41.7
		Luzon. h = 50 km (Up).						Ud	iSKP	17 30 18
"	28	Up	iP	20 04	25.3	Fiji Islands (h = 610 km).				
			i	20 04	35.6	"	29	Ud	iP	21 09 33
"	28	Up	ePKP	21 23	44	East of Crete.				
			i	21 23	53.1	"	30	Up	eP	02 22 00
		Sk	i(PKP)	21 23	45.1				i	02 22 22.2
		Um	iPKP	21 23	32.1 C				iPP	02 26 11.5
			i	21 23	40.0				iPS	02 35 28
		Ud	iPKP	21 23	45					microns sec
			i	21 23	54			PP	Z'	0.2 1.5
		(Kermadec Islands).						M	E	2.8 21
"	28	Ud	iP	21 35	34			M	N	7.8 25
		Luzon (h = 50 km).						M	Z	4.1 21
"	28	Up	i(PKP)	21 39	50.5	Ki	iP			02 21 54.3
		Sk	i(PKP)	21 39	43.6		iX			02 25 52.8
		Um	iPKP	21 39	32.3					microns sec
		Ud	iPKP	21 39	45			M	E	2.5 16
		(Kermadec Islands).						M	N	2.7 19
"	29	Up	iP	01 20	23.0 C			M	Z	2.8 16
		Ki	iP	01 20	22.1 C	Sk	eP			02 22 13
		Sk	iP	01 20	36.6		iPP			02 26 38.0
		Um	iP	01 20	20.0 C	Um	iP			02 21 53.9
		Sumatra (h = 90 km).					i			02 22 06.7
"	29	Up	iPKP	02 08	21.5		iX			02 25 51.4
		(cont.)					iPP			02 26 05.9
							iSKS			02 32 33
							iPS			02 35 09
							iSS			02 40 41
						Ka	iX			02 26 17.0
						(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Mar.	30	(cont.)			Mar.	31	Ki	iP	07 07 01.3
		Ud	iP	02 22 08 C			Um	iP	07 07 08.0
			iPP	02 26 32			Ud	iP	07 07 27
		Bali (h = 30 km).					Luzon (h = 30 km).		
		Magn. = 6.3 (Up,Ki).							
"	30	Ki	eP	03 32 30	"	31	Up	iP	09 26 20.4
		Arctic Ocean (h = 30 km).						i	09 26 26.0
"	30	Ki	iP	08 45 48.2			Ki	iP	09 25 27.1
		Um	iP	08 46 30.1			Um	iP	09 25 52.3
		Arctic Ocean (h = 30 km).						i	09 26 09.9
"	30	Up	iP	19 28 41.5			Ud	iP	09 26 22 C
		Unimak Island (h = 20 km).					Aleutian Islands (h = 50 km).		
"	30	Up	iP	20 58 38.0	"	31	Ud	iPKP	10 48 55
"	31	Ki	eL	00 06			Southern Pacific Ocean (h = 30 km).		
				microns sec	"	31	Ki	iPn	13 15 11.2
		M	N	1.5 19				iSn	13 16 10.4
		M	Z	3.2 20				iSg	13 16 36.8
		Fiji Islands (h = 30 km).						D = 560 km = 5.0°.	
"	31	Up	iP	02 23 17.0 C			Um	iS ^x	13 17 04.5
				microns sec				iSg	13 17 24.2
		P	Z'	0.1 1.0			Probably northwest Russia. Origin time = 13 13 52. Explosion?		
		Ki	iP	02 22 23.9 C	"	31	Up	iPKP	20 24 14.5
				microns sec				iSKP	20 27 26.9
		P	Z'	0.2 1.0				iPKS	20 27 37.8
		Sk	eP	02 22 54			Ki	iPKP	20 24 00.4 C
		Gb	iP	02 23 31.4			microns sec		
		Um	iP	02 22 50.2 C				PKP Z'	0.1 0.8
		Ka	iP	02 23 39.9			Sk	ePKP	20 24 11
		Ud	iP	02 23 12			Um	i(PKP)	20 23 57.4
		Aleutian Islands (h = 30 km).						iPKP	20 24 05.9
		Magn. = 5.8 (Up,Ki).					Ud	iPKP	20 24 14
"	31	Up	iP	03 26 16.1 C			New Hebrides Islands (h = 130 km).		
		Ki	iP	03 27 09.3 C	"	31	Um	iP	21 18 15.4
		Sk	iP	03 26 52.2			Japan (h = 10 km).		
		Um	iP	03 26 39.9					
		Red Sea (h = 30 km).							
"	31	Ki	iP	04 27 13.3					
			ipP	04 27 30.4					
		Um	iP	04 27 41.9					
		Alaska. h = 60 km (Ki).							
"	31	Um	iP	06 50 24.4					
		Azores Islands (h = 30 km).							

Markus Båth
August 4, 1967



Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN
UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

A P R I L 1 - 30, 1967
.....

1967				1967			
Apr. 1	Up	iP	06 05 16.0 C	Apr. 1	(cont.)		
		ipP	06 05 31.2		Up	microns sec	
		eS	06 14 22		P	Z' 0.3 0.8	
			microns sec		Ki	iP 06 07 16.6	
		P	Z' 0.4 0.8		ipP	06 07 31.3	
		M	E 8.1 18			microns sec	
		M	N 11 20		P	Z' 0.3 0.9	
		M	Z 8.9 21		Sk	iP 06 07 50.7	
		D = 7550 km = 68°.			ipP	06 08 07.0	
	Ki	iPa	06 08 29		Gb	iP 06 08 26.2	
		eS	06 12 48		ipP	06 08 41.3	
			microns sec		Um	iP 06 07 37.3	
		S	E 1.9 14		ipP	06 07 52.4	
		S	N 0.9 11		Ka	iP 06 08 26.6	
		M	E 13 17		ipP	06 08 40.8	
		M	N 9.5 17		Ud	iP 06 08 11	
		M	Z 17 19		ipP	06 08 28	
	Sk	eP	06 05 04			Kurile Islands.	
		iPcP	06 05 33.4			h = 60 km (Up,Ki,Sk,Gb,Um,Ka).	
	Gb	iP	06 05 37.4			Magn. = 6.3 (Up,Ki).	
		ipP	06 05 50.9				
		i	06 07 05.5	"	1	Ki	iP 07 47 51.3
	Um	iP	06 04 49.6 C			Um	iP 07 48 12.5
		ePP	06 07 13			Ud	eP 07 48 47
		iPa	06 08 45				Kurile Islands (h = 40 km).
		iS	06 13 27				
		iPS	06 13 45	"	1	Up	iP 07 59 24.6
	Ka	iP	06 05 38.9 C			Ki	iP 07 58 37.5 C
	Ud	iP	06 05 24				microns sec
			Kurile Islands.			P	Z' 0.1 1.0
			h = 50 km (Up,Gb).			M	E 1.2 18
			Magn. = 6.3 (Up,Ki).			M	N 1.3 20
						M	Z 1.7 19
"	1	Up	iP 06 08 03.0			Um	iP 07 58 58.6
		ipP	06 08 18.1			Ud	iP 07 59 34
	(cont.)						Kurile Islands (h = 40 km).

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967
Apr. 1 Up iP 08 00 02.9
Ki iP 07 59 16.8
Um iP 07 59 38.2
Ud iP 08 00 13
Kurile Islands.
Origin time = 07 49 07.

" 1 Up iP 10 07 18.5 C

" 1 Ki i(Pg) 10 49 15.0
i(Sg) 10 49 38.2

" 1 Kir iPn 10 51 42.1
iSn 10 52 37.6
~~iLgl 10 52 57.7~~
~~D = 520 km = 4.7°.~~
SkA eSg 10 55 37
Um e iSn 10 53 22.2
iSg 10 54 01.4
~~D = 710 km = 6.4°.~~
Northwest Russia, 67.7° N,
32.8° E.
Origin time = 10 50 29.
Explosion?

" 1 Up eL 11 26
microns sec
M E 2.0 21
M N 1.1 19
M Z 2.9 22
Ki eL 11 25
microns sec
M E 3.0 23
M N 2.4 24
M Z 5.8 24
Easter Island Rise
(h = 30 km).
Magn. = 6.0 (Up, Ki).

" 1 Up iP 12 04 42.0
Um iP 12 05 13.0
Ka e(P) 12 05 49

" 1 Up i(P) 12 12 34.7

" 1 Up iP 12 34 32.5 C
iS 12 43 38
iScS 12 44 27
microns sec
P Z' 0.5 0.8
M E 8.3 19
M N 8.5 20
M Z 7.9 22
D = 7550 km = 68°.
(cont.)

1967
Apr. 1 (cont.)
Ki iP 12 33 45.1 C
iS 12 41 51
microns sec
P N 0.6 8
P Z 1.0 9
P Z' 0.7 1.0
S E 1.8 15
S N 0.7 10
M E 11 16
M N 11 19
M Z 14 18
D = 6700 km = 60 1/2°.

Sk iP 12 34 20.7
i 12 34 39.9
i 12 35 11.7

Gb iP 12 34 53.3 C
Um iP 12 34 06.6
iPa 12 38 11
iS 12 42 29
iPS 12 42 50

Ka iP 12 34 54.9
Ud iP 12 34 36 C
Kurile Islands (h = 40 km).
Magn. = 6.3 (Up, Ki).

" 1 Um iP 12 45 43.2
Ud iP 12 45 28
Iceland (h = 2 km).

" 1 Up iP 14 11 32.7 C
microns sec
P Z' 0.2 0.7
M E 1.0 18
M N 1.4 18
M Z 1.5 19
Ki iP 14 10 45.6
microns sec
P Z' 0.1 0.7
M E 1.8 16
M N 1.5 19
M Z 2.8 19

Sk iP 14 11 20.9
Gb iP 14 11 54.3 C
Um iP 14 11 06.6 C
ipP 14 11 13.2
Ka iP 14 11 55.7
Ud iP 14 11 37
Kurile Islands.
h = 25 km (Um).

" 1 Up iP 17 26 43.7
Ki iP 17 25 56.3
Um iP 17 26 17.9
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967						1967				
Apr.	1	(cont.)				Apr.	2	(cont.)		
		Ud	iP	17 26 51				Ki	iPS	18 09 02
			ipP	17 27 04						microns sec
		Kurile Islands.						M	E	1.7 19
		h = 50 km (Ud).						M	N	1.2 19
								M	Z	3.4 19
"	1	Up	iP	17 29 41.2				Um	iPKP	17 59 10.0
			ipP	17 29 47.6					iPS	18 09 23
		Ki	iP	17 28 53.7					i(SS)	18 16 04
			ipP	17 29 00.2				New Britain (h = 40 km).		
		Um	iP	17 29 15.2				Magn. = 6.0 (Up,Ki).		
			ipP	17 29 21.9						
		Ud	iP	17 29 49		"	2	Up	iP	20 56 27.6
			ipP	17 29 56				Aleutian Islands		
		Kurile Islands.						(h = 30 km).		
		h = 25 km (Up,Ki,Um,Ud).								
"	1	Up	iP	17 32 07.3		"	3	Up	iP	07 46 22.8
		Ki	iP	17 31 20.4				Ki	iP	07 47 15.4
										microns sec
			P	Z' 0.1 1.0					P	Z' 0.2 1.8
		Sk	iP	17 31 56.8				Sk	iP	07 46 59.0
		Um	iP	17 31 41.6				Um	iP	07 46 45.8
		Ud	iP	17 32 16				Ud	iP	07 46 30
			ipP	17 32 29				Red Sea (h = 30 km).		
		Kurile Islands.				"	3	Um	i(SS)	08 39 38
		h = 50 km (Ud).						New Britain (h = 15 km).		
"	1	Up	iP	21 52 53.6		"	3	Ki	eL	14 06
"	1	Up	iP	23 31 21.9						microns sec
		Ki	iP	23 30 26.9				M	N	1.7 20
		Sk	iP	23 30 55.6				M	Z	3.2 20
		Um	iP	23 30 54.4				Tonga Islands (h = 50 km).		
			iPcP	23 31 45.3						
		Ud	iP	23 31 20		"	3	Ki	iP	15 43 55.7
		Alaska (h = 100 km).						Um	iP	15 44 22.6
								Aleutian Islands		
								(h = 50 km).		
"	2	Um	ePKP	00 25 57		"	3	Up	iP	16 40 02.5
		New Hebrides Islands						Ki	eP	16 41 35
		(h = 30 km).						Um	iP	16 40 48.3
"	2	Up	iP	15 28 20.1				Ud	iP	16 40 03
		Ki	eP	15 27 22				Italy (h = 30 km).		
		Um	iP	15 27 52.0						
		Ud	iP	15 28 14		"	3	Ki	iSn	18 33 20.6
		Yukon (h = 30 km).						i		18 33 37.1
"	2	Up		---				Sk	ePg	18 31 14
									iSg	18 31 50.2
								Um	iSn	18 33 09.1
			M	E 1.9 20					iLgl	18 33 31.6
			M	N 2.0 20				Probably off west coast of		
			M	Z 3.2 20				Norway.		
		(cont.)								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Apr.	3	Ki	iP	19 08 53.7	Apr.	4	(cont.)		
		Um	iP	19 09 03.1			Ka	iP	04 05 47.6
							Ud	iP	04 05 30 C
"	3	Up	iP	21 41 48.9				ipP	04 05 43
				microns sec			Kurile Islands.		
			P	Z' 0.1 0.5			h = 50 km (Up,Ki,Sk,Gb,Um, Ud).		
"	3	Ki	iP	21 53 11.8	"	4	Sk	iPKP	04 35 13.3
"	4	Up		---			South of Australia (h = 30 km).		
				microns sec					
		M	E	1.1 20	"	4	Ki	iP	09 16 28.6
		M	N	1.4 20				i	09 16 32.2
		M	Z	1.9 20				ipP	09 17 46.0
		Ki		---			Sk	iP	09 16 59.3
				microns sec			Um	iP	09 16 43.0
		M	E	1.5 18				ipP	09 18 01.8
		M	N	0.8 19			Ud	iP	09 17 12
		M	Z	2.0 18				ipP	09 18 33
		Um	iP	00 51 30.8			South of Japan.		
			i	00 51 37.9			h = 350 km (Ki,Um,Ud).		
			e(PS)	01 04 58					
			iSS	01 10 54	"	4	Up	iP	17 04 18.6
		New Guinea (h = 10 km).						i	17 04 40.5
		Magn. = 5.8 (Up,Ki).					Ki	iP	17 05 27.8
"	4	Up	iP	01 43 57.9			Sk	iP	17 04 57.8
				microns sec			Gb	iP	17 04 03.9
			P	Z' 0.1 0.6			Um	iP	17 04 51.6
"	4	Up	iP	02 47 09.9			Ka	iP	17 03 43.3
		Ka	iP	02 46 32.5				iS	17 07 33.0
		Ud	iP	02 47 16			Ud	iP	17 04 30
		Greece.						iS	17 08 48
"	4	Um	iP	03 52 26.1	"	4	Ud	iP	18 00 02
			i	03 52 36.4			Aegean Sea (h = 30 km).		
		Ud	eP	03 51 58	"	4	Up	iP	18 09 31.4
		Turkey (h = 40 km).						i	18 09 46.0
"	4	Up	iP	04 05 25.4 C			Sk	iP	18 10 24.5
			ipP	04 05 38.2			Gb	iP	18 09 27.8
		Ki	iP	04 04 37.4 C			Um	iP	18 10 12.4
			ipP	04 04 50.4				i	18 10 29.6
				microns sec			Ka	iP	18 08 57.3
			P	Z' 0.1 1.0			Ud	iP	18 09 48
			M	N 0.9 19			Rumania (h = 130 km).		
			M	Z 2.5 18	"	4	Up	iP	20 41 43.5
		Sk	eP	04 05 12	"	5	Up	iP	02 47 07.4 D
			ipP	04 05 24.5				ipP	02 47 21.6
		Gb	iP	04 05 46.6					microns sec
			ipP	04 05 58.7					P
		Um	iP	04 04 59.5 C					Z' 0.3 0.8
			ipP	04 05 12.5					M
		(cont.)							E 1.1. 20
		(cont.)					(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Apr. 5	(cont.)				Apr. 5	Up	iP	03 02	56.4
	Up		microns sec			Ki	iP	03 02	27.3
		M	N 1.6 20			Sk	iP	03 02	52.8
		M	Z 1.8 19			Um	iP	03 02	39.6
	Ki	iP	02 46 38.1			Ka	iP	03 03	11.6
		ipP	02 46 52.9			Ud	iP	03 03	07
		eS	02 57 04			Mariana Islands.			
		eScS	02 57 20			Origin time = 02 49 59.8.			
			microns sec						
		P	Z' 0.7 1.5		" 5	Up	iP	08 07	59.2
		M	E 2.1 21			Ki	iP	08 07	22.7
		M	N 1.3 17			Um	iP	08 07	38.1
		M	Z 3.2 20			Ud	iP	08 08	10
		D = 9350 km = 84°.				Japan (h = 270 km).			
	Sk	iP	02 47 04.3 C		" 5	Ki	iPg	15 07	45.0
		ipP	02 47 20.6				iSn	15 08	18.9
		i	02 49 20.6				iSg	15 08	39.8
	Gb	iP	02 47 25.1				D = 490 km = 4.4°.		
	Um	iP	02 46 50.9 D			Um	iSg	15 09	34.8
		ipP	02 47 04.3			Northwest Russia.			
		iPP	02 50 13			Origin time = 15 06 16.			
		iSKS	02 57 14			Explosion?			
		iS	02 57 27						
	Ka	iP	02 47 22.9		" 5	Ki	iSg	16 21	17.4
		ipP	02 47 36.6			Sk	iSg	16 21	21.0
		iPP	02 51 09.7			Um	iSg	16 21	43.7
	Ud	iP	02 47 18			Nordlands Fylke, Norway.			
		ipP	02 47 32						
	Mariana Islands.					" 5	Up	eP	18 36 53
	h = 50 km (Up,Ki,Sk,Um,Ka, Ud).					" 5	Ki	iP	19 04 30.7
	Magn. = 6.2 (Up,Ki).					" 5	Ki	eP	20 52 20
" 5	Up	iP	03 00 52.1 D		" 5	Ud	iP	20 51 47	
		ipP	03 01 05.9			Atlantic Ocean (h = 30 km).			
			microns sec						
		P	Z' 0.1 0.5		" 5	Up	iP	21 37	15.8
	Ki	iP	03 00 23.0 D		" 5	Ki	iPKP	22 49	16.9
		ipP	03 00 36.6			Sk	iPKP	22 49	24.9
			microns sec			Um	iPKP	22 49	15.9
		P	Z' 0.7 2.0			West of Macquarie Islands			
		M	E 1.2 18			(h = 30 km).			
		M	N 1.3 17		" 5	Up	iP	23 10	13.0
		M	Z 3.2 20				i	23 10	28.1
	Sk	iP	03 00 48.1 C			Ki	iP	23 10	13.0
		i	03 00 54.7			Um	iP	23 10	10.2
	Gb	iP	03 01 08.6			Sumatra (h = 30 km).			
	Um	iP	03 00 35.7 D		" 5	Up	i(PKP)	23 52	46.3
		ipP	03 00 49.5				iPKP	23 52	50.8
	Ka	iP	03 01 07.3				i	23 52	54.8
		iPP	03 04 53.4			(cont.)			
	Ud	iP	03 01 02 D						
	Mariana Islands.								
	h = 50 km (Up,Ki,Um).								
	Magn. = 6.1 (Up,Ki).								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967					1967				
Apr.	5	(cont.)			Apr.	6	(cont.)		
		Up		microns sec			Sk	iP	09 18 21.2
				PKP Z' 0.2 0.7			Um	iP	09 18 00.3
		Ki		i(PKP) 23 52 28.5			Japan (h = 25 km).		
				iPKP 23 52 36.5					
		Sk		i(PKP) 23 52 40.4		"	6	Up	iP 12 34 56.9 D
				iPKP 23 52 44.9					microns sec
				i 23 52 54.1					P Z' 0.2 0.6
		Gb		iPKP 23 52 58.1			Ki	iP	12 34 27.6
				i 23 53 07.8					microns sec
		Um		i(PKP) 23 52 34.6					P Z' 0.3 1.5
				iPKP 23 52 38.8					M N 1.5 19
				i 23 52 44.1					M Z 1.7 19
		Ka		iPKP 23 52 59.7 C			Sk	iP	12 34 53.5
		Kermadec Islands						i	12 35 11.2
		(h = 60 km).					Gb	iP	12 35 14.1
							Um	iP	12 34 40.2 D
"	6	Ki		iP 02 45 33.2				i	12 34 53.2
		Sk		iP 02 46 03.6			Ka	iP	12 35 11.7
		Um		iP 02 45 45.0			Mariana Islands (h = 20 km).		
				iPcP 02 46 08.1			Magn. = 6.2 (Up,Ki).		
		Ryukyu Islands (h = 30 km).				"	6	Ka	iPg 13 00 53.5
"	6	Um		iP 03 18 23.7				iSg	13 00 58.9
		Virgin Islands (h = 15 km).							
"	6	Up		iP 06 29 08.5		"	6	Up	iP 13 04 26.3 C
				microns sec				i	13 04 36.7
				P Z' 0.3 1.5					microns sec
				M E 1.4 19					P Z' 0.1 0.6
				M N 1.4. 17			Ki	iP	13 05 05.3 C
		Ki		iP 06 28 30.7				iPP	13 06 39.4
				i 06 29 04.6					microns sec
				microns sec					P Z' 0.1 1.0
				M E 1.9 17			Sk	iP	13 05 02.2
				M N 1.9 18			Gb	iP	13 04 39.1
		Sk		iP 06 29 05.6			Um	iP	13 04 40.7
		Um		iP 06 28 46.3				i(Pn)	13 06 00.9
		Ka		eP 06 29 34				iS	13 10 37.5
		Japan (h = 15 km).					Ka	eP	13 04 17
		Magn. = 5.7 (Up,Ki).						i	13 04 27.4
"	6	Ki		i(Sg) 08 15 47.9			Iran (h = 10 km).		
							Magn. = 5.8 (Up,Ki).		
"	6	Ki		---		"	6	Ki	eP 14 13 53
				microns sec				Um	iP 14 14 03.3
				M E 1.4 17				i	14 14 09.8
				M N 1.1 18			Mexico (h = 50 km).		
				M Z 1.7 19					
		Um		iP 09 00 56.3 D		"	6	Up	iPg 15 19 20.0
		Japan (h = 30 km).						iSg	15 19 33.8
"	6	Up		iP 09 18 24.6		"	6	Up	iP 23 40 31.6
		Ki		iP 09 17 44.6			(cont.)		
		(cont.)							

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Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Apr.	6	(cont.)		Apr.	7	(cont.)	
		Up	microns sec			Ki	microns sec
		M	E 1.1 20			M	E 0.7 15
		M	N 1.6 16			M	N 0.4 10
		Ki	iP 23 39 53.4			Sk	iP 17 13 21.3
			iS 23 48 59			Gb	iP 17 12 44.9
			microns sec			Um	iP 17 13 04.6 C
		S	N 0.4 9				iS 17 17 52
		M	E 2.2 20				i 17 21 21
		M	N 0.9 16			Ud	eP 17 12 57
		M	Z 1.5 18			Turkey (h = 50 km).	
		D = 7600 km = 68 1/2°.				Clear higher-mode surface waves.	
		Sk	iP 23 40 25.7				
		Um	iP 23 40 09.0				
			iS 23 49 25	"	7	Up	iP 18 38 54.0
		Ka	eP 23 40 51				i 18 38 57.0
		Japan (h = 15 km).					i 18 40 33.2
		Magn. = 5.6 (Up, Ki).					iS 18 43 23
							i(Sa) 18 43 31
"	6	Up	iP 23 43 38.4				microns sec
			ipP 23 43 50.5			P	Z' 0.1 0.8
		Ki	iP 23 43 00.1 C			S	E 0.2 4
			microns sec			M	E 1.1 12
			P Z' 0.1 1.1			M	N 0.8 13
		Sk	iP 23 43 32.8 C			M	Z 1.5 12
		Um	iP 23 43 16.8 C			D = 2800 km = 25°.	
			ipP 23 43 29.9			Ki	iP 18 39 53.3
		Japan. h = 50 km (Up, Um).					iSa 18 46 24
							eLg1 18 49 51
"	7	Um	eP 01 14 01				microns sec
"	7	Up	iP 01 51 10.5			P	Z' 0.1 1.5
"	7	Ki	eP 06 40 03			M	E 1.7 17
			i 06 40 14.1			M	N 1.0 10
		South of Alaska (h = 30 km).				M	Z 0.9 11
"	7	Up	i(P) 13 24 29.7			Sk	iP 18 39 38.0
		Gb	i(P) 13 24 09.1			Gb	iP 18 39 01.0
"	7	Up	iP 15 28 16.0				i 18 39 07.9
"	7	Ki	e(Sg) 16 05 25				i 18 39 18.5
"	7	Up	iP 17 12 39.8			Um	iP 18 39 20.5
			e(S) 17 16 48				iS 18 44 08
			iSa 17 17 19				i 18 44 20
			microns sec				iLg1 18 48 08
		(S)	E 0.3 5			Ka	iP 18 38 37.4
		M	E 0.8 14				i 18 38 41.7
		M	N 0.5 11			Ud	iP 18 39 09.9
		M	Z 0.5 11			Turkey (h = 40 km).	
		D = 2800 km = 25°.				Magn. = 5.1 (Up, Ki).	
		Ki	iP 17 13 36.3			Clear higher-mode surface waves.	
		(cont.)		"	7	Up	iP 19 49 25.0 C
						Ki	iP 19 48 38.5 C
							microns sec
						P	Z' 0.1 1.0
						(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skälstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Apr.	7	(cont.)		Apr.	9	(cont.)	
		Sk	iP 19 49 14.6			Up	microns sec
		Um	iP 19 48 59.6			M E	2.0 21
		Ud	iP 19 49 30.9 C			M N	2.3 22
		Okhotsk Sea (h = 300 km).				M Z	2.7 21
"	7	Up	iP 21 29 11.9			Ki	eP 00 19 06
						iPP	00 23 25
						eSKS	00 29 46
"	8	Up	iPKP 05 53 26.1				microns sec
			iSKP 05 56 12.3			PP Z	0.5 7
			i 05 56 19.5			SKS E	0.4 6
		Ki	iPKP 05 53 18.1			M E	1.7 19
			iSKP 05 55 47.2			M N	1.3 20
						M Z	3.2 20
			microns sec			Um	iP 00 19 16.1
			SKP Z' 0.2 1.5			iPP	00 23 36
		Sk	iPKP 05 53 17.7			iSKS	00 29 53
			iSKP 05 56 04.7			i(S)	00 31 05
		Gb	iPKP 05 53 35.7			iPS	00 32 42
		Um	iPKP 05 53 19.2			eSS	00 38 30
			i 05 53 27.6			Ud	iP 00 19 36
			i(SKP) 05 55 52.0			New Guinea (h = 15 km).	
			iSKP 05 55 59.6			Magn. = 6.1 (Up, Ki).	
			ipPKS 05 59 14				
			i 06 00 22			"	9 Up iP 01 19 31.9
			i 06 01 55			"	9 Up iP 01 23 22.8
		Ud	iPKP 05 53 26.7				ipP 01 23 38.1
			iSKP 05 56 11.8			Ki	iP 01 23 24.1
		Fiji Islands (h = 620 km).				Sk	eP 01 23 41
"	8	Ki	iP 09 05 39.7			Um	iP 01 23 20.0
		Um	iP 09 06 02.0				ipP 01 23 35.5
		Ud	iP 09 06 33.4			Sumatra. h = 60 km (Up, Um).	
		Kurile Islands (h = 60 km).				"	9 Um iPKP 01 46 18.7
"	8	Ki	iSg 10 36 13.3			Fiji Islands (h = 420 km).	
		Sk	iSg 10 36 17.0			"	9 Ki ePKP 06 48 31
		Um	iSg 10 36 38.8				iSKP 06 50 59.4
		Nordlands Fylke, Norway.				Um	iSKP 06 51 11.1
"	8	Up	iP 20 27 06.9			Fiji Islands (h = 650 km).	
		Ki	iP 20 26 49.4			"	9 Up iPKP 09 15 43.9
		Sk	iP 20 27 10.3			Ki	iPKP 09 15 32.6
		Um	iP 20 26 55.0				microns sec
		Ud	iP 20 27 15 D			M E	0.6 21
		Mindanao (h = 140 km).				M N	0.3 20
"	8	Um	iP 21 22 20.1			M Z	0.6 20
		Ud	iP 21 22 39			Sk	iPKP 09 15 42.6
		Hindu Kush.				Gb	iPKP 09 15 51.0
"	9	Up	iPP 00 23 55			Um	iPKP 09 15 36.9 C
			iS 00 31 21			Ka	iPKP 09 15 50.1
			i(SS) 00 38 31			Ud	iPKP 09 15 46
		(cont.)				Solomon Islands (h = 40 km).	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
Apr.	9	Um	iP	13 52 17.4	Apr.	10	(cont.)
			i	13 52 40.0			Ki
							microns sec
"	9	Um	iP	17 55 47.6			M E 1.2 21
		Banda Sea (h = 140 km).					M N 1.2 22
							M Z 1.6 20
"	9	Um	iPKP	21 37 14.1			Um
			i	21 39 32.8			iPKP 05 18 32.1
		Solomon Islands (h = 40 km).					iPP 05 19 24
							iSKKS 05 26 34
							ePS 05 29 06
"	9	Up	iP	21 39 03.0			Solomon Islands (h = 40 km).
		Ki	eP	21 39 07			Magn. = 5.8 (Up,Ki).
		Ud	eP	21 39 13	"	10	Ki
							eP 10 32 23
"	9	Up	iP	22 03 32.7	"	10	Up
		Ki	iP	22 02 45.2			i(P) 12 07 51.4
		Um	eP	22 03 06			Sk
		Ud	eP	22 03 38			i(P) 12 07 52.5
		Kurile Islands (h = 30 km).					Um
					"	10	Ki
"	10	Um	iPP	00 19 16			iSg 12 46 34.5
			eSS	00 36 48			Sk
		Tonga Islands (h = 70 km).					iSg 12 45 54.0
							Um
							iSg 12 44 34.4
"	10	Um	iP	02 41 27.6			Ud
			i	02 41 41.1			e(Sn) 12 44 27
							iSg 12 45 03.2
"	10	Ki	eP	03 07 36			North coast of Esthonia,
"	10	Sk	iP	04 39 24.8 C			near Reval.
"	10	UpP	eLg1	05 17 35			Origin time = 12 41 51.
		KiR	ePg	05 15 20			Explosion?
			i	05 15 22.3	"	10	Um
			iSg	05 15 58.3			iP 13 30 37.8
			i	05 16 01.0	"	10	Up
			D = 300 km = 2.7°				iPKP 15 21 27.7
		SkA	iSg	05 17 00.4			iPP 15 22 42
		UmC	iPg	05 15 04.7			microns sec
			iSg	05 15 27.6			M E 2.0 21
			D = 200 km = 1.8°				M N 2.4 20
		UdD	eSn	05 17 23			M Z 2.9 22
			iLg1	05 17 57			Ki
		Gulf of Bothnia, 65.3° N, 22.6° E.					iPKP 15 21 19.4
		Origin time = 05 14 28.					ePP 15 22 11
							iPS 15 31 24
"	10	Up	iPP	05 19 57			microns sec
							M E 2.6 20
							M N 2.7 20
							M Z 6.3 20
		Ki	ePs	05 28 41			Sk
		(cont.)					iPKP 15 21 25.9
							iPP 15 22 45.5
							Gb
							iPKP 15 21 35.1
							Um
							iPKP 15 21 20.6
							ePP 15 22 18
							eS 15 29 59
							iPS 15 31 52
							Ka
							ePKP 15 21 40
							Ud
							iPKP 15 21 29.7
							i 15 22 25.9
							Solomon Islands (h = 30 km).
							Magn. = 6.1 (Up,Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Apr.	10	Um	iP 15 31 56.9	Apr.	10	Sk	ePKP 22 08 03
						Um	iPKP 22 07 58.0
"	10	Up	i 17 20 17			Ud	iPKP 22 08 07.2
			eSKKS 17 20 40			Solomon Islands (h = 40 km).	
			i 17 21 13				
			microns sec	"	11	Um	iP 01 21 19.3 C
		M	E 2.7 23			Leeward Islands (h = 30 km).	
		M	N 6.0 24				
		M	Z 4.8 24	"	11	Ki	iP 03 21 43.6
		Ki	i 17 14 35			Sk	iP 03 21 58.5
			iSKKS 17 20 58			Nicobar Islands (h = 30 km).	
			microns sec	"	11	Up	---
		M	E 3.2 22				microns sec
		M	N 2.3 20			M	E 1.0 18
		M	Z 3.9 22			M	N 1.4 18
		Sk	ePKP2 17 09 53			M	Z 1.5 19
			ePP 17 13 40			Ki	---
		Um	iSKKS 17 20 36				microns sec
			iSKSP 17 24 27			M	E 2.5 21
			South Pacific Ocean			M	N 2.2 18
			(h = 30 km).			M	Z 3.5 21
			Magn. = 6.2 (Up,Ki).			Sk	ePP 05 27 06
			Sk is very close to the			Um	iSKS 05 33 17
			antipode of the epicenter.			Celebes (h = 20 km).	
						Magn. = 5.8 (Up,Ki).	
"	10	Up	iP 19 11 38.6	"	11	Ki	iPg 12 45 44.6
		Um	iP 19 11 25.5				iSg 12 45 56.7
		Colorado (h = 5 km).				Sk	e(Sg) 12 48 51
"	10	Up	iP 20 07 44.8			Um	i(Sg) 12 47 38.7
			iPcP 20 08 25.6				
			iS 20 16 00				
			microns sec	"	11	Up	iS 13 02 50
		P	Z' 0.1 1.0			Ki	eP 12 54 03
		D = 6850 km = 61 1/2°.					i 12 54 10.3
		Ki	iP 20 06 49.0				microns sec
			iPcP 20 07 54.5			M	E 1.7 19
			microns sec			M	N 0.8 19
		P	Z' 0.1 1.2			M	Z 1.7 19
		Sk	iP 20 07 17.7			Sk	iP 12 53 35.9
			i 20 07 30.1			Um	iP 12 53 56.4
			iPcP 20 08 10.0				i 12 54 04.4
		Gb	iP 20 07 56.9				iS 13 03 04
			iPcP 20 08 33.0			Ud	iP 12 53 40.6
		Um	iP 20 07 17.9			Leeward Islands (h = 50 km).	
			iPcP 20 08 10.2				
		Ka	iP 20 08 08.1	"	11	Um	i(Sg) 13 03 11.7
		Ud	iP 20 07 41.6	"	11	Ki	eP 13 54 38
			iPcP 20 08 24.0			Um	iP 13 54 54.5
			Alaska (h = 90 km).				i 13 55 24.9
			Magn. = 5.6 (Up,Ki).			Ud	eP 13 55 18
"	10	Um	iPKP 21 26 19.6			South of Japan (h = 50 km).	
		Solomon Islands (h = 100 km).					

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1967	1967
Apr. 12 Sk eP 01 04 44	Apr. 12 (cont.)
Um iP 01 44 48.4	Ki microns sec
Ud iP 01 05 08.2	M Z 40 20
Alaska (h = 40 km).	D = 8850 km = 79 1/2°.
" 12 Um eSS 02 34 22	Sk iP1 05 03 58.7 C
Bismarck Sea (h = 30 km).	iP2 05 04 05.3
" 12 Up iSKP 04 53 59.4	Gb iP1 05 03 58.5
Ki ePKP 04 50 26	iP2 05 04 04.4
Sk ePKP 04 50 33	i 05 05 10.4
iSKP 04 53 49.9	Um iP1 05 03 39.7 C
Um iPKP 04 50 33.8	iP2 05 03 46.6
iSKP 04 53 40.5	i 05 04 06.2
Ud iSKP 04 53 59.2	i 05 06 22
New Hebrides Islands	iPP 05 06 44
(h = 200 km).	iS 05 13 36
" 12 Ki iP 04 52 03.8	Ka iP1 05 03 49.3
Sk iP 04 51 44.4	iP2 05 03 52.6
Um iP 04 52 04.3	Ud iP1 05 03 54.0 C
Ud iP 04 51 47.2	iP2 05 04 00.6
Leeward Islands (h = 40 km).	Sumatra (h = 60 km).
" 12 Up iP1 05 03 43.5	Magn. = 6.6 (Up,Ki).
iP2 05 03 49.2	Multiple P, denoted P1 and
e 05 13 30	P2 above; time difference
iS 05 13 42	P2 - P1 is generally 6-7
microns sec	sec, and the amplitude of
P2 E 1.0 8	P2 much greater than that
P2 Z 2.4 7	of P1.
P2 Z' 0.4 0.8	" 12 Up iP 05 23 19.8
S E 1.7 5	Ki iP 05 23 20.8 C
S N 1.4 5	microns sec
M E 20 20	P Z' 0.1 0.8
M N 25 21	Sk iP 05 23 35.7
M Z 29 21	Um iP 05 23 17.0 C
D = 8850 km = 79 1/2°."	Ud iP 05 23 31.0 C
Ki iP1 05 03 43.8 C	Sumatra (h = 30 km).
iP2 05 03 50.1	" 12 Ki iP 05 30 10.8
i 05 04 29	Um iP 05 30 07.5
iPP 05 06 50	iPP 05 30 29.6
iS 05 13 46	Ud eP 05 30 21
iPS 05 14 34	Sumatra. h = 80 km (Um).
microns sec	" 12 Um iP 05 39 56.1
P2 E 1.9 8	Ud iP 05 40 17.0
P2 Z 4.3 8	" 12 Um iP 05 55 14.0
P2 Z' 0.6 1.0	Mariana Islands (h = 140 km).
PP E 2.0 8	" 12 GOT iPg 09 09 55.8
S E 7.9 7	iSg 09 10 11.5
S N 2.1 6	D = 160 km = 1.4°.
S Z 2.0 6	Um (K) iSg 09 13 20.5
M E 22 19	K(S) i(Sg) 09 11 27.8
M N 20 18	(cont.)
(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967	Apr. 12	(cont.)				1967	Apr. 13	Ud	iP	04 58 14.2	
			Ud	iPg	09 10 11.7						Kurile Islands (h = 50 km).
				iSg	09 10 43.9		"	13	Up	iP	08 37 45.2
				D = 260 km = 2.3°					Ki	iP	08 37 45.9 C
				Off south coast of Norway, 58.7°N, 9.9°E. Origin time = 09 09 27.					Um	iP	08 37 42.3
									Ud	iP	08 37 56.3 C
									Sumatra (h = 70 km).		
"	12	Ud	e(Sg)		13 42 49		"	13	Up	eSg	08 50 38
"	12	Up		---					Ki	iPg	08 46 24.0 C
					microns sec					iSg	08 46 29.7
			M	E	1.1 22					microns sec	
			M	N	1.0 20					Sg	Z' 0.8 0.5
		Ki			---					D = 40 km = 0.4°	
					microns sec				Sk	ePn	08 47 41
			M	E	1.2 21					iSg	08 49 16.3
		Sk	ePKP		14 13 40				Um	iPg	08 47 33.2
		Um	iPKP		14 13 34.3					iSn	08 48 13.7
		Ud	iPKP		14 13 43.9					iSg	08 48 31.2
					Solomon Islands (h = 50 km).				Ka	iSg	08 52 37.2
"	12	Um	iP		14 34 36.4				Ud	ePn	08 48 25
					Mariana Islands (h = 60 km).					iSn	08 49 54.8
"	12	Sk	iP		14 45 12.9					iSg	08 50 49.8
					Mexico (h = 30 km).					Swedish Lapland, 67.7°N, 21.5°E. Origin time = 08 46 17.	
"	12	Sk	eP		16 06 49		"	13	Up	i(P ^x)	09 04 48.7
					Alaska (h = 10 km).					i	09 05 21.1
"	12	Ki	i(Pn)		19 38 33.3					iSn	09 05 26.4
			iSg		19 39 13.4					iLg1	09 05 32.5
		Um	eSg		19 38 26					microns sec	
"	12	Up	iP		19 45 51.0					Lg1	Z' 0.1 0.5
		Ki	iP		19 45 51.3				Ki	iSg	09 06 10.8
		Sk	iP		19 46 06.2					microns sec	
		Um	iP		19 45 47.4					Sg	Z' 0.1 0.7
		Ud	iP		19 46 02.1				Sk	iPg	09 04 39.4
					Sumatra (h = 60 km).					iSg	09 05 19.4
"	12	Ud	eP		20 14 12				GBT	i(Sn)	09 06 47.2
"	12	Um	iPKP		21 41 04.5					iLg1	09 07 07.1
			i		21 41 15.6				Um	iPg	09 04 00.7 D
		Ud	iPKP		21 40 55.7					iSg	09 04 10.7
			i		21 41 06.8					D = 90 km = 0.8°	
			iPKKP		21 51 15.8					Ka	iLg1 09 07 28.8
					Chile (h = 10 km).				Ud	i(P ^x)	09 04 58.0
"	13	Um	iPKP		04 33 22.2					iSn	09 05 36.6
					New Hebrides Islands (h = 120 km).					iLg1	09 05 50.9
										Near Örnsköldsvik, Sweden, 63.4°N, 18.6°E. Origin time = 09 03 45. Felt.	
"	13	Um	iSKP		17 34 27.2		"	13	Um	iSKP	17 34 27.2
					Fiji Islands (h = 610 km).						

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967					1967							
Apr.	13	Up	iP	18 50 47.7	Apr.	14	Ki	iSg	08 26 01.6			
		Ki	iP	18 49 52.0			Sk	iSg	08 26 06.4			
		Um	iP	18 50 19.2 D			Um	iSg	08 26 29.3			
		Ud	iP	18 50 50.6			Nordlands Fylke, Norway.					
		Kamchatka (h = 50 km).										
"	13	Up	iP	20 05 30.4 C	"	14	Up	iPg	14 49 42.5			
				microns sec				iSg	14 50 09.4			
				Z' 0.5 1.0					microns sec			
		Ki	iP	20 05 00.2 C				Sg	Z' 0.2 0.6			
			ipP	20 05 07.6					D = 220 km = 2.0°.			
				microns sec			Ka	i(Rg)	14 51 36.5			
				Z' 0.7 1.3			Ud	iSg	14 50 51.5			
		Sk	iP	20 05 29.8 C				iRg	14 51 03.4			
			ipP	20 05 38.9			Probably underwater explosion in the Baltic.					
		Gb	iP	20 05 49.4 C	"	14	Ud	iP	15 39 42.1			
		Um	iP	20 05 11.5 C			Aleutian Islands					
		Ka	iP	20 05 45.0 C			(h = 40 km).					
		Ud	iP	20 05 38.3 C	"		<div style="display: flex; justify-content: space-between;"> 14 Up iPg 15 58 01.3 </div> <div style="display: flex; justify-content: space-between;"> iSg 15 58 33.1 </div> <div style="display: flex; justify-content: space-between;"> D = 260 km = 2.3°. </div> <div style="display: flex; justify-content: space-between;"> SkA eSn 15 59 40 </div> <div style="display: flex; justify-content: space-between;"> eLg1 16 00 02 </div> <div style="display: flex; justify-content: space-between;"> GoT iPg 15 57 40.8 </div> <div style="display: flex; justify-content: space-between;"> iSg 15 58 02.4 </div> <div style="display: flex; justify-content: space-between;"> D = 160 km = 1.4°. </div> <div style="display: flex; justify-content: space-between;"> Ud iPg 15 57 48.6 </div> <div style="display: flex; justify-content: space-between;"> iSg 15 58 11.0 </div> <div style="display: flex; justify-content: space-between;"> D = 190 km = 1.9°. </div> <div style="display: flex; justify-content: space-between;"> Lake Vetter, Sweden, 58.3°N, 14.4°E. </div> <div style="display: flex; justify-content: space-between;"> Origin time = 15 57 15. </div>					
		Ryukyu Islands. h = 30 km (Ki, Sk). Magn. = 6.6 (Up, Ki).										
"	13	Up	iP	20 12 29.4								
			iS	20 22 58								
				microns sec								
				P Z' 0.1 1.0								
				D = 9600 km = 86 1/2°.								
		Ki	iP	20 12 14.0								
		Sk	iP	20 12 11.3 D								
			ipP	20 12 36.2								
		Gb	iP	20 12 23.5 D								
		Um	iP	20 12 23.9 D								
			iS	20 23 01								
		Ka	iP	20 12 34.9 D								
		Ud	iP	20 12 20.9 D								
		Mexico. h = 90 km (Sk).			"	14	Up	iP	19 07 39.1			
"	14	Up	iP	03 05 34.1			Um	iP	19 07 51.6 D			
		Um	iP	03 05 13.2			Arabian Sea (h = 30 km).					
			i	03 05 24.6	"	14	Ud	iP	21 42 47.9			
"	14	Up	i(P)	05 31 41.0	"	14	Ud	iP	22 18 56.3			
		Ki	eP	05 31 05	"	14	Um	iSn	22 31 40.0			
			ipP	05 31 20.8				iSg	22 32 16.6			
			i	05 31 27.8			Ka	eSn	22 31 51			
		Sk	iP	05 31 05.7				iSg	22 32 30.3			
			ipP	05 31 17.2			Probably Esthonia.					
		Gb	iP	05 31 14.4			Origin time = 22 29 01.					
		Um	iP	05 31 15.1			Explosion?					
			ipP	05 31 30.9	"	14	Up	i	22 32 43.5			
		Ka	iP	05 31 28.1				iSg	22 34 24.4			
		Mexico. h = 50 km (Ki, Sk, Um).					(cont.)					

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1967				1967			
Apr.	14	(cont.)		Apr.	15	Up	iP 21 06 43.6
		Ud	e 22 32 58				i 21 06 44.9
			eSg 22 34 16				microns sec
"	14	Gb	iP 23 49 22.8			P	Z' 0.1 0.6
		Ka	iP 23 49 06.9 C			Ki	iP 21 05 51.8
		Ud	iP 23 49 46.6			Gb	iP 21 07 00.7
"	15	Up	iPKP 01 01 03.1			Um	iP 21 06 17.5
		Um	iPKP 01 00 47.8			Ud	iP 21 06 44.8
			i 01 00 52.8			Aleutian Islands	
		Ud	ePKP 01 01 01			(h = 50 km).	
		South of Kermadec Islands		"	15	Up	iP 23 46 49.7
		(h = 40 km).				Ki	iP 23 46 07.2
"	15	Up	iP 01 14 58.6			Um	iP 23 46 25.6
		Mariana Islands				Ud	iP 23 46 56.4
		(h = 100 km).				Japan (h = 70 km).	
"	15	Up	iP 02 11 47.2	"	16	Up	iP 06 48 47.4
		Yugoslavia.		"	16	Um	iPKP 07 37 18.6
"	15	Up	iPKP 09 19 39.5			i	07 37 31.4
			i 09 19 42.3			Fiji Islands (h = 40 km).	
		Sk	iPKP 09 19 33.0	"	16	Gb	iPKP 07 49 13.6
"		Um	iPKP 09 19 27.1 C			Tonga Islands.	
		Ka	iPKP 09 19 49.9	"	16	Ud	iP 10 05 40.4
		Ud	iPKP 09 19 41.1			Central Atlantic Ocean	
		Kermadec Islands				(h = 30 km).	
		(h = 350 km).		"	16	Up	iP 10 21 04.3
"	15	Ki	iPn 10 21 05.6				microns sec
			iSn 10 22 01.1			P	Z' 0.1 0.8
			iSg 10 22 24.5			Ki	iP 10 20 16.6 C
			D = 510 km = 4.6			i	10 20 28.8
		Um	iSn 10 22 46.5				microns sec
			iSg 10 23 28.0			P	Z' 0.1 0.9
			D = 720 km = 6.2			Sk	iP 10 20 52.0
		Northwest Russia, 68.1 N,				Gb	iP 10 21 26.1
		32.6 E.				Um	iP 10 20 38.6 C
		Origin time = 10 19 54.				Ka	iP 10 21 27.4 C
		Explosion?				Ud	iP 10 21 10.2 C
"	15	Um	iP 12 00 29.5			i	10 21 49.1
						Kurile Islands (h = 25 km).	
"	15	Up	iPKP 12 30 59.6			Magn. = 5.7 (Up, Ki).	
		Um	iPKP 12 30 41.1	"	16	Ki	iPn 13 45 31.2
		Ud	ePKP 12 30 53			iSn	13 46 19.7
		Kermadec Islands				iLg1	13 46 34.0
		(h = 20 km).				D = 460 km = 4.1	
"	15	Up	iP 14 58 15.9			Um	iS ^x 13 47 48.3
						iSg	13 48 08.5
"	15	Ud	iP 19 52 56.5			Probably northwest Russia.	
						Origin time = 13 44 26.	
						Explosion?	

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1967					1967				
Apr.	22	(cont.)			Apr.	23	Up	iP	09 35 48.1
			Ki	microns sec				i	09 35 51.6
				S E 0.7 8				e(S)	09 40 27
				M E 1.4 19					microns sec
				M N 1.0 17			Ki	M E 0.5 13	
				M Z 2.0 18				iP	09 36 56.4
				D = 8850 km = 79 1/2°.					microns sec
			Gb	iP 13 19 57.5				M E 0.6 15	
			Um	iP 13 19 39.5 C				M N 0.4 11	
				iPP 13 22 49				M Z 0.5 11	
				iS 13 29 35			Sk	eP 09 36 11	
			Ud	iP 13 19 54.0 C			Gb	iP 09 35 18.8	
			Sumatra (h = 40 km).					i	09 35 22.3
			Magn. = 5.7 (Up,Ki).				Um	iP 09 36 25.0	
							Ka	iP 09 35 11.9	
"	22		Ki	i 14 32 14.8			Ud	iP 09 35 41.7	
				iSg 14 32 40.3				i	09 35 45.7
			Um	i 14 33 09.5				Algeria (h = 30 km).	
				iSg 14 33 29.3					
"	22		Up	eP 14 56 09	"	23	Up	iP 13 03 28.9	
			Ki	eP 14 56 05				i	13 03 35.4
			Sk	eP 14 55 44			Ki	iP 13 03 11.6	
			Um	iP 14 56 09.4				i	13 03 21.2
			Ud	eP 14 55 57			Sk	iP 13 03 33.0	
			Panama-Costa Rica				Um	iP 13 03 17.3	
			(h = 40 km).				Ud	iP 13 03 37.6	
								Mindanao (h = 40 km).	
"	22		Ki	e(P) 16 45 32	"	23	Up	iP 14 11 19.6	
			Um	i(P) 16 45 47.4			Sk	iP 14 11 02.0	
			Panama-Costa Rica				Um	iP 14 11 13.9	
			(h = 40 km).					Mexico (h = 70 km).	
"	22		Ki	iP 16 54 21.4	"	23	Ki	iP _n 14 14 12.1	
"	22		Ki	iP 17 40 35.1				iP ^x 14 14 21.7	
"	22		Sk	eP 17 41 10				iSn 14 15 01.0	
			Um	iP 17 40 47.9				iLg1 14 15 15.5	
			Ud	iP 17 41 00.2				D = 460 km = 4.1°.	
			Mindanao (h = 70 km).				Um	iS ^x 14 16 36.0	
								iSg 14 16 54.3	
								Probably northwest Russia.	
								Origin time = 14 13 07.	
"	22		Um	iP 19 55 54.6				Explosion?	
			Banda Sea (h = 80 km).						
"	22		Ud	iP 23 11 26.2	"	23	Up	iP 15 12 46.9	
			Kurile Islands (h = 70 km).					ipP 15 12 54.5	
"	23		Up	iP 05 40 35.2			Ki	ipP 15 13 07.1	
			Aleutian Islands				Sk	epP 15 13 16	
			(h = 40 km).				Gb	ipP 15 13 05.2	
							Um	iP 15 12 50.4	
								ipP 15 12 58.5	
"	23		Ud	iP 06 49 49.4			Ka	ipP 15 12 51.2	
			North Atlantic Ocean				Ud	iP 15 12 58.1 C	
			(h = 30 km).				(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Apr.	23	(cont.)		Apr.	23	(cont.)	
			Ud ipP 15 13 06.0			Ud i(P) 22 38 05.6	
			Indian Ocean.			iP 22 38 13.3	
			h = 30 km (Up,Um,Ud).			Costa Rica (h = 50 km).	
			The amplitude of pP is much				
			greater than that of P,	"	24	Sk iP 02 35 50.7	
			which explains that P has been			Ud eP 02 35 18	
			missed at some of our stations.			Crete.	
"	23	Up	iP 17 51 52.8	"	24	Up iP 08 58 53.3 D	
"	23	Up	iP 18 06 11.9			i 08 58 57.5	
		Ki	iP 18 05 45.7 C			iPP 09 00 23.3	
		Um	iP 18 05 56.1				microns sec
		Ud	iP 18 06 18.8			P Z' 0.3 1.0	
			Mariana Islands (h = 60 km).			M E 1.6 14	
						M N 4.5 15.	
"	23	Ki	eP 18 26 34			M Z 2.2 14	
			Kamchatka (h = 30 km).			Ki iP 08 58 59.3	
"	23	Up	eP 18 37 35			i 08 59 05.9	
			i 18 37 48.8			eSS 09 08 14	
		Ki	iP 18 36 42.3			iLg1 09 12 33	
		Um	iP 18 37 02.0				microns sec
		Ud	eP 18 37 46			P Z' 0.2 1.3	
			Kamchatka (h = 30 km).			M E 1.6 11	
						M N 2.3 15	
						M Z 1.4 10	
"	23	Up	iP 20 29 12.1			Sk iP 08 59 18.6	
			ipP 20 29 31.7			iPP 09 00 59.6	
		Ki	eP 20 29 05			Gb iP 08 59 16.1	
			ipP 20 29 24.8			i 09 01 13.7	
		Sk	eP 20 29 27			Um iP 08 58 49.7	
			epP 20 29 47			i 08 58 50.8	
		Um	iP 20 29 03.7			iPP 09 00 22.4	
			ipP 20 29 22.7			iS 09 04 49	
		Ka	eP 20 29 22			iSS 09 07 55	
			ipP 20 29 41.3			iLg1 09 12 07	
		Ud	iP 20 29 25.2			Ka iP 08 58 59.4	
			ipP 20 29 45.1			Ud iP 08 59 09.6	
			Burma-India.			i 08 59 10.6	
			h = 80 km (Up,Ki,Sk,Um,Ka,			iPP 09 00 45.8	
			Ud).			Tadzhik SSR (h = 30 km).	
						Magn. = 6.1 (Up,Ki).	
"	23	Ka	iP 22 17 28.6	"	24	Up iP 15 22 32.3	
"	23	Up	iP 22 38 22.2				microns sec
		Ki	iP 22 38 19.1			P Z' 0.1 0.7	
		Sk	eP 22 38 08			Ki iP 15 21 54.2 D	
		Gb	eP 22 38 04				microns sec
		Um	i(P) 22 38 16.9			P Z' 0.1 1.0	
			iP 22 38 22.3			Sk iP 15 22 29.0	
		Ka	iP 22 38 15.9			Gb iP 15 22 55.3	
			i 22 38 31.4			Um iP 15 22 10.6 D	
			(cont.)			Ka iP 15 22 53.0	
						Ud iP 15 22 36.5	
						(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967			1967		
Apr.	24	(cont.)	Apr.	25	(cont.)
		Ud i 15 22 41.4 Russia-China (h = 520 km). Magn. = 5.8 (Up,Ki).			Ud iPKP 15 43 44.8 C i 15 43 48.0 Kermadec Islands (h = 210 km).
"	24	Ud iP 16 37 33.5 Aleutian Islands (h = 40 km).	"	26	Up iP 02 28 20.0 C Ki iP 02 27 31.6 C Um iP 02 27 53.6 i 02 28 07.9 Ud eP 02 28 24 Kurile Islands (h = 30 km).
"	25	Up iP 10 38 43.1 C ipP 10 38 52.4 iLg1 10 53 26 microns sec P Z' 0.2 0.8 M E 1.1 20 M Z 1.4 18 Ki iP 10 38 27.2 C ipP 10 38 37.0 microns sec P Z' 0.1 0.9 Sk iP 10 38 56.9 ipP 10 39 06.3 iPP 10 40 34.8 Gb iP 10 39 09.2 ipP 10 39 18.6 iPP 10 40 56.6 Um iP 10 38 28.8 C ipP 10 38 37.8 Ka iP 10 39 06.6 C ipP 10 39 16.8 Ud iP 10 38 58.0 C ipP 10 39 07.3 Sinkiang. h = 35 km (Up,Ki,Sk,Gb,Um, Ka). Magn. = 5.7 (Up,Ki).	"	26	Ud eP 05 07 37 i 05 08 13.1 Hindu Kush. (h = 120 km). " 26 Ki iP 10 59 31.7 D Sk iP 10 59 10.6 Ud iP 10 59 10.8 Windward Islands (h = 120 km). " 26 Ki iP 12 55 52.6 i 12 55 54.6 iSg 12 56 12.4 D 170 km = 1.50 SkA i(Sg) 12 58 09.7 i 12 58 18.4 Um iSg 12 57 55.5 Norway, near Lofoten, 68.3° N, 16.5° E. Origin time = 12 55 22.
"	25	Ki ePKP 10 55 08 Um i(PKP) 10 54 58.6 iPKP 10 55 06.6 Ud iPKP 10 54 58.0 Argentina (h = 40 km).	"	26	Up iP 13 24 00.4 i 13 24 08.7 Ki iP 13 24 13.6 C i 13 24 47.9 Sk iP 13 24 17.3 Gb iP 13 24 11.2 Um iP 13 23 59.8 Ka eP 13 24 05 Ud iP 13 24 09.8 i 13 24 27.6 Indian Ocean (h = 30 km).
"	25	Up iP 12 47 33.7 iPKS 12 50 56.4 Um iP 12 47 26.3 New Hebrides Islands (h = 50 km).	"	26	Up iSg 14 55 50.3 microns sec Sg Z' 0.1 0.7 Ud iSg 14 56 32.9 Probably blast near Uppsala.
"	25	Up iP 15 43 43.5 Sk iP 15 43 36.1 Gb iP 15 43 51.7 C Um iP 15 43 29.2 (cont.)	"	26	Ud iPKP 22 05 48.4 Fiji Islands (h = 120 km).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Sk = Skalstugan

1967	Apr. 27	Up	iP	00 03 27.3	1967	Apr. 27	(cont.)		
			i	00 03 33.4			Ki	microns sec	
				microns sec				P	Z' 0.1 1.0
			P	Z' 0.1 0.6				M	E 0.6 13
"	27	Ki		---				M	Z 1.8 12
				microns sec			Sk	iP	23 23 32.4
			M	E 1.2 18			Gb	iP	23 23 40.5
			M	N 0.8 17				ipP	23 23 43.9
			M	Z 1.5 18			Um	iP	23 23 03.4 C
		Um	eSS	08 42 54				ipP	23 23 07.4
		Ud	iP	08 23 56.9				iPP	23 24 35.1
		New Guinea (h = 30 km).					Ka	iP	23 23 26.5 C
								iPP	23 25 14.9
"	27	Ki	iSg	11 31 35.4			Ud	iP	23 23 30.8 C
		Sk	iSg	11 31 38.6				ipP	23 23 34.8
		Um	iSg	11 32 01.3				iPP	23 25 16.5
		Ud	eSg	11 33 29			Sinkiang.		
		Nordlands Fylke, Norway.					h = 15 km (Up, Gb, Um, Ud).		
							Magn. = 5.5 (Up, Ki).		
"	27	Ud	ePn	12 40 15	"	28	Up	iPKP	01 02 24.7
			iSg	12 41 28.6				i	01 02 34.6
"	27	Ud	iPKP	12 42 47.8			Um	iPKP	01 02 14.9 C
		Tonga-Kermadec Islands					Ud	iPKP	01 02 26.3
		(h = 550 km).				"	28	Um	iPKP 08 03 30.5
"	27	Ki	iP	14 27 03.1			Santa Cruz Islands		
			i	14 27 11.6			(h = 30 km).		
"	27	Sk	iP	14 27 24.4	"	28	Um	iSg	11 52 05.0
		Um	iP	14 27 45.4			Ud	iSg	11 52 39.9
		Ka	eP	14 29 01	"	28	Ud	iP	13 11 22.3
		Ud	eP	14 28 13	"	28	Up	iP	19 46 23.2
			i	14 28 28.1			Ki	iP	19 46 51.7
		Northeast of Jan Mayen					Um	iP	19 46 24.4
		(h = 30 km).						i	19 46 31.2
"	27	Um	iP	20 55 57.3				i	19 46 48.4
		Iran (h = 40 km).					Ud	iP	19 46 36.8
"	27	Up	iP	23 23 14.7 C			Iran (h = 25 km).		
			ipP	23 23 18.7	"	29	Um	i(P)	00 10 16.7
			i	23 23 24.0				i	00 10 47.4
			iPP	23 24 52.8	"	29	Up	eP	00 15 32
			iLi	23 36 08				microns sec	
			iLg1	23 37 26				M	E 1.2 16
				microns sec				M	N 4.1 22
			P	Z' 0.1 1.0				M	Z 2.4 19
			M	E 1.0 13			Ki	iP	00 14 50.0
			M	N 2.0 17				microns sec	
			M	Z 1.2 13				M	E 2.0 16
		Ki	iP	23 23 05.5 C				M	N 2.4 19
			iLg1	23 36 39				M	Z 3.4 19
		(cont.)					(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
Apr.	29 (cont.)			Apr.	29 (cont.)				
	Um	iP	00 15 15.2		Um	iP	22 13 19.0		
	Ud	iP	00 15 30.9		Ud	iP	22 13 49.5		
	Queen Charlotte Islands (h = 5 km).				Japan (h = 50 km).				
	Magn. = 5.6 (Up,Ki).			"	30	Um	iP	01 20 45.8	
"	29	Up	iP	04 06 17.7 C			i	01 20 52.8	
				microns sec		Ud	eP	01 21 14	
		P	Z'	0.3 0.9		Japan.			
		M	E	1.7 18	"	30	Up	iP	06 47 39.1
		M	N	2.3 19	"	30	Up	iP	07 47 59.5
		M	Z	3.2 20		Ud	iP	07 48 00.9	
	Ki	iP	04 05 24.6 C		"	30	Ud	iP	08 16 23.2
		iPcP	04 06 09.3				i	08 16 27.2	
			microns sec			Iran (h = 70 km).			
		P	Z'	0.2 1.2		30	Ki	iPn	09 44 47.1
	Sk	iPcP	04 06 29.4				iSn	09 45 24.1	
	Gb	iP	04 06 33.7 C				iSg	09 45 38.7	
		iPcP	04 06 53.8				D = 330 km = 3.0°.		
	Um	iP	04 05 50.5 C		"	30	Ki	iPn	14 27 55.3
		iPcP	04 06 25.1				iSn	14 28 43.9	
	Ka	iP	04 06 40.9				iLg1	14 28 59.1	
		iPcP	04 07 03.2				D = 460 km = 4.1°.		
	Ud	iP	04 06 18.4 C			SkA	iSg	14 31 46.6	
		iPcP	04 06 42.9			Um	iPn	14 28 33.4	
	Aleutian Islands (h = 50 km).						iS ^x	14 30 06.4	
	Magn. = 6.0 (Up,Ki).						iSg	14 30 28.0	
"	29	Ki	iP	05 04 38.7		Northwest Russia, 68.8° N, 31.4° E. Origin time = 14 26 50. Explosion?			
		Ud	iP	05 04 54.7					
	Sinkiang (h = 30 km).				"	30	Up	Up	---
"	29	Ki	iP	06 37 21.0				microns sec	
	Mariana Islands (h = 110 km).						M	E	0.6 20
"	29	Up	iP	09 36 38.3 C			M	N	1.7 21
"	29	Ki	i(Sg)	10 34 14.4		Um	i(P)	17 13 11.1	
		Sk	e(Sg)	10 34 20			eSS	17 32 10	
"	29	Up	iP	12 36 29.8		New Guinea (h = 30 km).			
			iPcP	12 36 55.0		30	Up	iP	20 33 34.7
	Ki	iP	12 35 36.4		"	30	Ud	iP	22 35 33.2 C
	Um	iP	12 36 02.5						
		iPcP	12 36 36.3						
	Ud	iP	12 36 30.8						
		i	12 36 50.2						
	Aleutian Islands (h = 50 km).								
"	29	Up	iP	22 13 40.6		Markus Båth September 15, 1967			
	(cont.)								



AW *hed 20/10/77*

**Seismological Institute
Uppsala**

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 , G Ö T E B O R G ,

U M E Å , K A R L S K R O N A a n d U D D E H O L M

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N;	13°36.4'E;	h = 240 m

M A Y 1 - 31, 1967
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1967					1967				
May	1	Ud	iP	00 02 32.0	May	1	(cont.)		
		Aegean Sea.					Sk	iP	07 14 19.8 D
								iS	07 18 41.1
"	1	Um	iP	06 52 49.7			Gb	iP	07 13 23.7 D
		Unimak Island (h = 30 km).						i	07 13 25.3
							Um	iP	07 14 16.8 D
"	1	Up	iP	07 13 37.6 D				i	07 15 34.4
			iS	07 17 19				iS	07 18 34
			iLg2	07 20 12			Ka	iP	07 12 57.3
				microns sec				i	07 13 00.5
		P	N	2.7 2			Ud	iP	07 13 43.7 D
		P	Z	2.0 2				iS	07 17 36.1
		P	Z'	1.0 0.6			Greece (h = 15 km).		
		S	E	13 9			Magn. = 6.2 (Up,Ki).		
		S	N	13 8			Clear PL-waves on long-period		
		S	Z	10 10			N and Z at Up and Um.		
		M	E	51 14					
		M	N	35 10	"	1	Um	i(P)	07 21 35.9
		M	Z	33 8					
		D = 2300 km = 20 1/2°.							
		Ki	iP	07 14 53.6 D		1	Up	iP	08 20 18.9 C
			iPP	07 15 38.2			Sk	iP	08 21 01.7
			iS	07 19 29			Um	iP	08 21 00.3
			iSa	07 20 07			Greece (h = 50 km).		
			iLi	07 22 36	"	1	Sk	iP	08 33 40.0
				microns sec			Greece (h = 30 km).		
		P	N	0.7 6					
		P	Z	0.8 5	"	1	Up	iP	09 52 18.1
		P	Z'	0.4 1.0				iPP	09 52 46.7
		S	E	2.1 10			Sk	iP	09 53 04.1
		S	N	2.1 9			Ka	iPP	09 52 08.3
		M	E	100 17			Ud	iP	09 52 31.0
		M	N	27 10				iPP	09 52 56.6
		M	Z	31 10			Greece (h = 25 km).		
		D = 3100 km = 28°.							
		(cont.)							

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May	1	Up	iP 09 54 43.6	May	2	Up	iP 02 47 42.2
			eS 09 58 25			Um	iP 02 47 24.4 C
			microns sec			Bonin Islands (h = 490 km).	
		P	Z' 0.1 0.7				
		M	E 1.4 15	"	2	Up	iP 08 16 31.0
		M	N 1.4 12			i	08 16 34.1
		M	Z 1.7 11			Sk	eP 08 17 13
		D = 2300 km = 20 1/2°.				Ka	eP 08 15 53
		Ki	iP 09 56 00.6			Greece (h = 20 km).	
			i 09 56 24.6				
			microns sec	"	2	Ki	iP 09 09 00.7
		M	E 1.5 14			iPP	09 10 24.5
		M	N 0.8 10			Um	iP 09 08 50.6
		M	Z 1.0 10			Ka	iP 09 08 56.6
		Sk	iP 09 55 27.4			Ud	iP 09 09 08.5
		Um	iP 09 55 24.5			i	09 10 16.9
			i 09 55 26.9			iPP	09 10 31.7
			iS 09 59 38			Hindu Kush (h = 230 km).	
		Ka	iP 09 54 05.8				
		Ud	iP 09 54 51.3	"	2	Sk	iP 13 56 54.0
		Greece (h = 20 km).				Greece.	
"	1	Up	iP 14 42 40.0	"	2	Um	iSS 17 44 18
		Sk	iP 14 43 25.5			New Guinea (h = 150 km).	
		Um	eP 14 43 22				
			i 14 43 32.4	"	2	Ki	iP 19 18 26.8 C
		Ka	eP 14 42 02				
		Ud	iP 14 42 48.3	"	2	Ki	e(P) 19 28 22
			i 14 43 49.7			i	19 28 30.9
		Greece (h = 30 km).		"	2	Up	iP 19 34 00.3
"	1	Up	iP 16 44 42.1			Sk	iP 19 34 44.3
		Sk	iP 16 45 24.8			Um	iP 19 34 42.3
		Ka	iP 16 44 03.2			Ud	iP 19 34 07.0
		Ud	iP 16 44 49.1			Greece (h = 5 km).	
		Greece (h = 30 km).		"	2	Up	i(P) 21 34 37.7
"	1	Sk	iP 18 15 21.2			i	21 35 04.7
		Ud	eP 18 14 49	"	2	Ki	iP 22 07 12.7
		Greece.		"	3	Up	iP 05 24 27.6
"	1	Up	iP 22 51 27.6			Ki	iP 05 25 21.6
		Sk	eP 22 52 09			i	05 25 31.5
		Ud	iP 22 51 34.3			Gb	iP 05 24 31.3
		Greece.				Um	iP 05 24 49.4
"	2	Up	iP 01 31 53.4			i	05 24 58.2
		Sk	iP 01 32 36.7			Ka	eP 05 24 04
		Um	i(P) 01 32 48.3			Ud	eP 05 24 39
		Ka	iP 01 31 15.4			i	05 24 58.2
		Ud	iP 01 32 00.6			Black Sea (h = 30 km).	
		Greece (h = 30 km).				There are double phases on Ki	

In several shocks in this series from Greece, Um Z' exhibits a clear phase, about 10-12 sec too late to be P, and much bigger than the proper P.

and Um Z', and it is the second of these which correspond to the P-readings at the other stations.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

May 3 Ki iPKP 11 08 19.6 C
microns sec
PKP Z' 0.1 0.7
Sk iPKP 11 08 32.5
Um iPKP 11 08 27.2 C
ipPKP 11 09 02.3
Ud ePKP 11 08 38
i 11 08 56.6
New Zealand (h = 105 km).

" 3 Up iP 18 46 21.5
i 18 46 25.8
microns sec
P Z' 0.2 0.6
Ki iP 18 47 37.8
i 18 47 43.5
i(P) 18 47 54.8
Sk iP 18 47 04.2
i 18 47 08.9
i(P) 18 47 20.4
Gb iP 18 46 09.6
i 18 46 14.1
Um iP 18 47 03.6
i 18 47 07.5
Ka iP 18 45 43.4
i 18 45 46.7
i(P) 18 45 59.7
Ud iP 18 46 29.4
i(P) 18 46 46.7
Greece (h = 40 km).

Multiple P; average difference = 4.4 sec between the first small and the second larger onset. The phase marked (P) could be P of another shock in the same area, average = 16.7 sec after the first P.

ATH

" 3 Up iP 23 25 54.0
i 23 26 24.4
Sk eP 23 26 40
Um iP 23 26 40.3
Ud iP 23 26 00.7
i 23 26 05.4
Greece.
Origin time = 23 21.3.

" 4 Um iP 00 27 13.1
Aleutian Islands
(h = 30 km).

" 4 Um iP 00 40 15.1
Ud iP 00 40 45.7
Kurile Islands
(h = 20 km).

1967

May 4 Ud eP 03 23 08
Greece.
" Up iP 04 50 51.6
i 04 50 55.7
Ki iP 04 52 08.3
Sk iP 04 51 34.6
Um iP 04 51 33.2
i 04 51 42.3
Ud iP 04 51 00.3
i 04 51 02.8
Greece (h = 50 km).

" 4 Ki iP 05 19 06.0
Um iP 05 19 33.1
Ud iP 05 19 58.8
Aleutian Islands
(h = 40 km).

" 4 Um iP 05 29 53.0

" 4 Up iPKP 08 36 19.5
ipPKP 08 36 30.5
microns sec
M E 1.0 20
M N 1.6 20
M Z 1.6 20
Ki iP 08 36 34.8 C
ipPKP 08 36 44.8
i 08 39 49.2

microns sec
PKP Z' 0.1 1.1
M E 0.8 19
M N 0.8 19
M Z 1.3 18
Sk ePKP 08 36 29
Um iPKP 08 36 27.8
ipPKP 08 36 38.5
Ud iPKP 08 36 18.3
iPP 08 37 40.8
South Sandwich Islands.
h = 40 km (Up, Ki, Um).
Magn. = 5.8 (Up, Ki).

" 4 Sk eP 08 58 28
Ud eP 08 57 56
Greece.
Origin time = 08 53.2.

" 4 Up iP 08 58 17.1
Ki eP 08 59 24
Sk iP 08 59 00.7
Um iP 08 58 53.0
i 08 59 03.1
Ud iP 08 58 23.0
Greece.
Origin time = 08 53.7.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967				
May	4	Up	iP	09 00 24.0	May	4	Up	---
		Sk	iP	09 01 05.0				microns sec
			i	09 01 09.1			M	N 1.2 20
			i	09 01 16.4		Ki	iP	23 36 23.2
		Um	eP	09 01 04				microns sec
		Ud	iP	09 00 24.5			M	E 1.3 16
			i	09 00 32.5			M	N 1.3 17
							M	Z 0.9 17
		Greece.				Um	iP	23 36 39.1
		Origin time = 08 55.8.				Japan (h = 10 km).		
"	4	Ki	eP	12 39 24	"	4	Up	iP 23 43 53.8
			i	12 39 28.8			Ki	iP 23 43 37.0
		Ud	iP	12 40 20.0			Sk	eP 23 44 04
		Komandorsky Islands					Um	iP 23 43 40.5
		(h = 30 km).					Ud	eP 23 44 06
"	4	Sk	iP	13 15 09.3	"	5	Up	iP 00 18 34.2 C
			i	13 17 05.6			ipP	00 18 39.1
		Ud	iP	13 14 34.5				microns sec
		Greece.					P	Z' 0.1 0.6
		Origin time = 13 09.8.				Ki	iP	00 18 17.1 C
"	4	Up	iP	13 18 06.5			ipP	00 18 22.0
		Ki	iP	13 19 22.4			Sk	iP 00 18 44.7
		Sk	iP	13 18 49.0			Gb	iP 00 18 56.4
		Um	iP	13 18 46.9			Um	iP 00 18 21.2 C
		Ud	iP	13 18 13.5			ipP	00 18 26.0
		Greece (h = 40 km).				Ud	iP 00 18 46.5 C	
"	4	Up	iP	13 35 41.1 C			Szechwan, China.	
				microns sec			h = 20 km (Up, Ki, Um).	
			P	Z' 0.1 0.9	"	5	Sk	eP 03 19 34
		Ki	iP	13 36 57.6 C			Um	iP 03 19 06.3
		Sk	iP	13 36 23.8			Hindu Kush (h = 20 km).	
		Gb	iP	13 35 27.6	"	5	Up	iP 06 31 10.3 C
		Um	iP	13 36 22.1			i	06 31 16.7
			i	13 36 40.0				microns sec
		Ud	iP	13 35 48.0 C			P	Z' 0.1 0.7
			i	13 35 53.6			Ki	iP 06 32 26.6
		Greece (h = 40 km).				Sk	iP 06 31 52.7	
"	4	Up	iP	16 04 20.1			i	06 31 58.5
			i	16 04 23.6			Gb	iP 06 30 56.9
				microns sec			Um	iP 06 31 51.2
			P	Z' 0.1 0.7			i	06 31 59.8
"	4	Up	eP	17 15 41			Ka	iP 06 30 32.0
		Sk	eP	17 16 26			Ud	iP 06 31 16.3 C
		Gb	eP	17 15 30			Greece (h = 60 km).	
		Um	iP	17 16 22.0	"	5	Sk	ePKP 12 51 54
		Ud	iP	17 15 49.3			Um	iPKP 12 51 47.9
		Greece.					South of Australia	
		Origin time = 17 11.1.					(h = 30 km).	
"	4	Ki	eP	23 14 52				

ATH

ATH

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

May 5 Up iP 14 54 38.5
i 14 54 48.9
Ki eP 14 55 54
Sk iP 14 55 20.4
i 14 55 24.6
Um iP 14 55 18.7
i 14 55 27.4
Ka i(P) 14 54 06.2
Ud iP 14 54 47.0
i 14 54 54.4
Greece (h = 30 km).

" 5 Ki iP 15 17 01.6
Sk iP 15 17 28.9
Um iP 15 17 30.0
Ud iP 15 17 54.0
Alaska (h = 60 km).

" 5 Up

microns sec
M E 1.3 22
M N 1.6 20
M Z 3.2 24
Ki

microns sec
M E 1.4 22
M N 1.5 21
M Z 2.8 21
Um iPKP 15 19 11.4
Solomon Islands
(h = 40 km).
Magn. = 6.0 (Up,Ki).

" 5 Sk eP 16 03 54
Ud iP 16 03 17.5
Greece.

" 5 Up iP 17 15 47.3
i 17 15 50.8
Ki iP 17 14 48.4
i 17 14 50.7
i 17 14 58.5
Sk iP 17 15 16.4 C
Gb eP 17 15 58
Um iP 17 15 18.0
i 17 15 20.5
i 17 15 24.8
Ud iP 17 15 42.7
i 17 15 44.6
Alaska (h = 100 km).
Multiple P.

" 5 Ki ePKP 17 48 44
(cont.)

1967

May 5 (cont.)
Sk iPKP 17 48 56.9
Um iPKP 17 48 50.6
New Hebrides Islands
(h = 50 km).
" 5 Up eP 17 51 40
ipP 17 51 53.3
Ki iP 17 51 31.0 C
ipP 17 51 44.1
iSKS 18 02 02

microns sec
pP Z' 0.2 1.5
SKS E 0.4 5
M E 0.8 16
M N 0.8 19
M Z 1.8 17
Sk iP 17 51 47.0
ipP 17 52 00.2
Um iP 17 51 35.0
ipP 17 51 49.4
Ud eP 17 51 47
Java. h = 50 km
(Up,Ki,Sk,Um).

" 5 Sk iP 20 23 52.0
Um iP 20 23 49.3
i 20 24 09.2
Ud eP 20 23 19
Greece.
Origin time = 20 18.6.

" 5 Up iP 20 47 35.2

" 5 Ki iP 22 04 31.5
i 22 04 41.0
iS 22 05 56.0
eT 22 10 12
D = 900 km = 8°.
Sk iP 22 04 59.5
i(S) 22 06 37.2
Um iP 22 05 16.8
i 22 05 18.0
Ud iP 22 05 49.7
Norwegian Sea
(h = 30 km).

" 6 Ki iP 04 58 38.9
Sk eP 04 59 10
Um iP 04 59 05.5
i 04 59 09.2
Ud iP 04 59 31.3
Aleutian Islands
(h = 30 km).

ATH

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967					
Month	Day	Station	Time	Month	Day	Station	Time		
May	6	Ki	iPKP 08 50 17.7	May	6	Ki	iP 19 58 38.9		
			i 08 50 35.1				i 19 58 52.2		
			microns sec				microns sec		
			M N 0.6 19				M E 0.4 16		
			M Z 1.6 22				M N 0.3 16		
			M Z 0.9 17				M Z 0.9 17		
			South Sandwich Islands (h = 30 km).					Um iP 19 58 57.3 C	
							i 19 59 04.8		
"	6	Ki	ePn 12 33 09			Ud	iP 19 59 27.8 C		
			iSn 12 33 56.4			Japan (h = 30 km).			
			iLg1 12 34 10.8						
			D = 430 km = 3.9°	"	6	Um	iP 23 51 26.9		
		Um	iSn 12 35 07.3				i 23 51 38.8		
			iSg 12 35 44.3						
			Northwest Russia. Origin time = 12 32 07. Explosion?					" 7 Ki iP 02 19 39.4	
"	6	Up	iP 14 12 11.3				" 7 Ki iP 06 17 50.9		
		Ki	iP 14 12 05.6			Mariana Islands (h = 190 km).			
			ipP 14 12 12.5	"	7	Up	iP 06 52 01.2		
		Sk	iP 14 11 47.7			Ki	iP 06 51 07.4		
			ipP 14 11 54.2				ipP 06 51 22.2		
		Gb	iP 14 11 50.1			Um	iP 06 51 34.4		
		Um	iP 14 12 08.9			Ud	iP 06 52 00.5		
			ipP 14 12 16.4			Aleutian Islands. h = 50 km (Ki).			
		Ud	iP 14 11 58.6	"	7	Um	iP 07 02 30.7		
			Dominican Republic. h = 25 km (Ki,Sk,Um).					" 7 Ki iP 07 50 17.8	
"	6	Up	iSn 14 17 08.1			Ud	iP 07 51 10.8		
		Ki	iSg 14 19 52.9			Aleutian Islands (h = 50 km).			
		Sk	eSg 14 19 12	"	7	Ud	iP 08 22 05.6		
		Um	iSg 14 17 54.4			Aleutian Islands (h = 60 km).			
		Ud	eSn 14 17 55	"	7	Ud	iP 08 26 15.4		
			iSg 14 18 24.9			Aleutian Islands (h = 60 km).			
			Gulf of Finland, 59.9°N, 24.3°E. Origin time = 14 15 27. Probably underwater explosion.					" 7 Ki iPn 09 31 27.0	
"	6	Up	iPKP 18 48 44.0				iSn 09 32 25.7		
			i 18 48 47.5				iSg 09 32 51.0		
			microns sec				D = 540 km = 4.9°		
			PKP Z' 0.1 0.5			Um	i 09 33 20.2		
		Ki	iPKP 18 48 26.3			Northwest Russia. Origin time = 09 30 10. Explosion?			
		Sk	iPKP 18 48 37.6 D	"	7	Um	iPKP 10 35 27.6		
		Um	iPKP 18 48 32.3 D			(cont.)			
		Ka	iPKP 18 48 54.1						
		Ud	iPKP 18 48 45.9						
			Kermadec Islands (h = 290 km).						

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967

May 7 (cont.)
New Britain (h = 50 km).
" 7 Up iP 11 14 42.7 C
Ki iP 11 13 49.7
 ipP 11 14 03.8
Ud iP 11 14 44.4
Aleutian Islands.
h = 50 km (Ki).

7 UpP iSg 11 36 11.3
KiR eSg 11 38 41
SkA iSg 11 37 56.9
 i 11 38 18.5
GDT eSg 11 37 51
UmE iSg 11 36 42.4
UdD eSn 11 36 44
 iSg 11 37 10.8

Gulf of Finland,
59.9°N, 24.3°E.
Origin time = 11 34 14.
Probably underwater
explosion.

" 7 Sk iP 13 25 21.0

7 KiR ePn 13 31 17
 iSn 13 32 01.8
~~iLg1 13 32 15.3~~
~~D = 410 km = 3.7°~~
SkA eSg 13 34 42
UmE iSn 13 32 43.7
 iS^x 13 33 02.1
 iSg 13 33 13.9

Northwest Russia-Finland
border region, 67.4°N,
30.0°E.
Origin time = 13 30 18.
Explosion?

" 8 Sk eP 06 30 04
Ud iP 06 29 32.7
Crete (h = 40 km).

" 8 Um iP 07 33 33.8
West Carlonine Islands
(h = 40 km).

" 8 Up i(Sg) 12 05 24.4
 microns sec
(Sg)Z' 0.1 0.7
Ud ePg 12 05 36
 iSg 12 06 06.0
 iRg 12 06 20.0
Probably explosion.

1967

May 8 Up iP 14 58 44.9
Ki iP 14 58 16.5
Sk iP 14 58 46.8
Gb eP 14 59 02
Um iP 14 58 30.1
Ud iP 14 58 56.1
Japan (h = 60 km).

8 KiR iSg 18 17 46.9
SkA ePg 18 17 14
 iSg 18 17 52.7
 i 18 18 01.6
UmE iSn 18 18 02.8
UdD iSg 18 18 15.3
 eSg 18 19 42
Nordlands Fylke, Norway,
66.5°N, 14.6°E.
Origin time = 18 16 16.

" 8 Up iP 18 55 24.9
 iPP 18 56 59.9
 microns sec
P Z' 0.2 0.6
Ki iP 18 55 34.8 C
 microns sec
P Z' 0.1 1.0
Sk iP 18 55 51.2 C
 iPP 18 57 32.7
Gb iP 18 55 45.8
 iPP 18 57 33.8
Um iP 18 55 23.7 C
Ka iP 18 55 29.2 C
Ud iP 18 55 41.2 C
 iPP 18 57 21.4
Hindu Kush (h = 220 km).
Magn. = 5.8 (Up, Ki).

" 8 Up iP 18 59 50.9
 i 18 59 55.4

" 8 Up iPKP 19 04 44.1 D
 i 19 04 52.6
 iX 19 05 53.0
 microns sec
PKP Z' 0.3 0.9
Ki iPKP 19 04 23.0
 microns sec
PKP Z' 0.1 1.0
Sk iPKP 19 04 38.9 D
 i 19 04 42.9
 i 19 05 05.1
 iX 19 05 45.7
Gb iPKP 19 04 51.4
 ipPKP 19 05 06.1

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967 May 8	(cont.)				1967 May 9	(cont.)				
	Um	iPKP	19 04 34.2	D		Um	iP	06 25 33.5	C	
		ipPKP	19 04 49.3				ipP	06 25 46.0		
	Ka	ePKP	19 04 52				iS	06 34 08		
		ipPKP	19 05 07.0			Ka	iP	06 26 20.6	C	
	Ud	iPKP	19 04 45.6	D			ipP	06 26 33.4		
		i	19 04 55.6			Ud	iP	06 26 05.2		
	South of Kermadec Islands. h = 60 km (Gb,Um,Ka). Time difference X - PKP = 01 08 in average (Up,Sk).						Kurile Islands. h = 45 km (Up,Ki,Sk,Gb,Um, Ka,Ud). Magn. = 5.8 (Up,Ki).			
"	8	Ki	iP	20 43 46.6	"	9	Up	iP	07 29 38.7	
		Um	iP	20 43 35.7			Sk	eP	07 30 17	
		Ka	iP	20 43 42.2				i	07 30 18.3	
		Ud	iP	20 43 53.5			Greece.			
		Hindu Kush (h = 110 km).				"	9	Up	iP	08 05 18.7
"	8	Ud	iP	21 27 45.4				i	08 05 21.5	
"	9	Sk	iP	03 13 43.7			Ki	eP	08 06 34	
		Um	iP	03 13 26.4			Sk	eP	08 06 01	
		Japan (h = 170 km).						i	08 06 05.1	
"	9	Up	eP	04 09 58			Um	i(P)	08 06 08.5	
		Um	iP	04 10 34.9			Ka	iP	08 04 39.9	
			i	04 10 48.6			Ud	iP	08 05 24.9	
		Ud	eP	04 10 05				i	08 05 32.7	
		Turkey (h = 30 km).			"	9	Ki	iP	08 07 53.2	
"	9	Up	iP	06 25 58.1	C		Um	iP	08 08 32.2	
		ipP	06 26 11.2				Ud	iP	08 08 59.7	
		eS	06 34 55				Greenland (h = 30 km).			
			microns sec		"	9	Ki	iP	11 09 46.2	
		P	Z' 0.1 0.7				ipP	11 10 47.0		
		pP	Z' 0.2 0.6				Um	iP	11 10 03.1	
		M	E 1.1 15				Ud	iP	11 10 35.0	
		M	N 1.4 17				ipP	11 11 34.1		
		M	Z 1.3 17				Sea of Japan. h = 260 km (Ki,Ud).			
		D = 7600 km = 68 1/2°.				"	9	Ud	iP	12 32 52.6
	Ki	iP	06 25 13.3		"	9	Up	iP	12 47 06.2	
		ipP	06 25 25.5				iS	12 55 39		
		eS	06 33 28					microns sec		
			microns sec				M	E 0.3 18		
		P	Z' 0.2 1.0				M	N 0.3 17		
		S	N 0.3 12				M	Z 0.5 17		
		M	E 1.7 19				D = 7050 km = 63 1/2°.			
		M	N 1.7 18			Ki	iP	12 46 12.6		
		M	Z 2.3 17				iS	12 54 01		
		D = 6850 km = 61 1/2°.						microns sec		
	Sk	iP	06 25 48.1				P	Z' 0.1 1.0		
		ipP	06 26 00.0				S	E 0.3 8		
	Gb	iP	06 26 19.6				(cont.)			
		ipP	06 26 32.3				(cont.)			
	(cont.)						(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967

May 9

(cont.)

Ki microns sec
 M E 0.5 18
 M N 0.6 19
 M Z 1.1 19
 D = 6200 km = 56°.
 Sk iP 12 46 39.8
 ipP 12 46 47.2
 Gb iP 12 47 18.8
 ipP 12 47 26.1
 Um iP 12 46 40.7 C
 ipP 12 46 48.1
 iS 12 54 50
 iScS 12 56 27
 Ka iP 12 47 29.6
 ipP 12 47 37.0
 Ud iP 12 47 03.5
 ipP 12 47 10.8
 Kodiak Island. h = 25 km
 (Sk, Gb, Um, Ka, Ud).
 Magn. = 5.2 (Up, Ki).

" 9 Sk^A eSg 13 31 13
 Gb^T iSg 13 28 43.4
~~iPg 13 28 47.2~~
 Ud^D iPg 13 28 54.3
 iSg 13 29 22.8

West coast of Sweden,
 58.5°N, 11.3°E.
 Origin time = 13 28 17.
 Explosion?

" 9 Ki^R iPn 13 36 01.6
 iSn 13 36 50.4
~~iLgl 13 37 04.7~~
~~D = 440 km = 4.0°.~~
 Sk^A eSg 13 39 56
 Um^E iSn 13 37 49.6
 iSg 13 38 35.6

Northwest Russia,
 68.8°N, 30.9°E.
 Origin time = 13 34 59.
 Explosion?

" 9 Ud eP 13 39 37
 Greece.

" 9 Up iPg 14 43 19.0
 iSg 14 43 38.5
 microns sec
 Sg Z' 0.1 0.6
 Um iLgl 14 45 30.2
 Ud iPg 14 43 42.3.
 eSg 14 44 20

(cont.)

1967

May 9

(cont.)

Baltic Sea.
 Origin time = 14 42 46.
 Probably underwater
 explosion.

" 9 Up iPg 14 49 56.2
 iSg 14 50 16.5
 Sk eLgl 14 52 27
 Um iLgl 14 52 09.9
 Ud iPg 14 50 23.2
 iSg 14 51 00.8

Baltic Sea.
 Origin time = 14 49 25.
 Probably underwater
 explosion.

" 9 Ki iP 15 16 35.7
 Sk iP 15 17 02.7 D
 ipP 15 17 10.1
 Um iP 15 17 03.7
 ipP 15 17 10.5
 iS 15 25 16
 eP 15 17 26

Kodiak Island.
 h = 25 km (Sk, Um).

" 9 Ki iP 16 10 27.8
 Um iP 16 10 38.1
 Ud eP 16 11 00

Mariana Islands
 (h = 120 km).

" 9 Ud iP 16 44 47.2
 Tadzhik SSR.

" 9 Ud eP 20 49 47
 Greece.

" 9 Up eP 21 43 19
 iSKS 21 53 42

 microns sec
 M N 0.6 21
 Ki iP 21 43 02.2 C
 ipP 21 43 34.2
 eSKS 21 53 19
 eS 21 53 53

 microns sec
 P Z' 0.1 1.0
 SKS E 0.6 5
 M E 0.6 20
 M N 0.5 20
 M Z 0.9 19

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
May	9	Ki	(cont.)	May	10	Up	iP	17 51 52.2	
			D = 10150 km			Ki	iP	17 51 28.5	
			= 91 1/2°.			Sk	eP	17 51 56	
		Sk	iP	21 43 23.5	C	Gb	eP	17 52 10	
		Gb	iP	21 43 35.1		Um	iP	17 51 36.9	
		Um	iP	21 43 07.6	C	Ud	iP	17 52 01.9	
			ipPP	21 47 20		Formosa (h = 40 km).			
			iSKS	21 53 28					
			i	21 55 13	"	10	Gb	iP	18 17 07.0
		Ka	iP	21 43 29.7					
			i	21 47 26.6	"	10	Um	iP	18 55 19.9
		Ud	iP	21 43 26.8	C		Ud	eP	18 55 38
			ipP	21 43 58.9				i	18 55 41.1
		Philippine Islands. h = 130 km (Ki,Ud).					Tadzhik SSR-Sinkiang.		
"	10	Ud	iP	04 46 42.8	"	10	Sk	eP	21 17 49
		Greece.					Ud	iP	21 17 14.3
		Greece.					Greece.		
"	10	GOT	iPg	08 37 34.5	"	11	Ka	iP	12 22 49.3
			iSg	08 37 43.9					
			iRg	08 37 47.6	"	11	Um	iP	13 15 37.2
		Ud	iPg	08 37 55.8	"	11	Up	iP1	14 58 34.7
			iSg	08 38 23.9				iP2	14 58 37.5
		West coast of Sweden, 58.5°N, 11.3°E. Origin time = 08 37 18. Explosion?						iP3	14 58 39.1
								iPP	15 00 04
"	10	Ki	iP	13 51 14.9				iS	15 04 40
		Sk	iP	13 51 23.0				iSa	15 07 01
		Um	iP	13 51 33.9	C			iSS	15 07 45
		Ka	iP	13 52 02.5				iLi	15 10 17
		Ud	iP	13 51 41.0				iLg1	15 12 19
		Nevada.							microns sec
		Origin time = 13 40 00.						P3	Z' 0.5 0.9
		Underground explosion.						PP	E 0.7 4
								PP	Z 0.6 4
								PP	Z' 0.1 0.8
"	10	Up	iSg	14 30 16.9				S	N 0.5 5
		GOT	iPg	14 28 42.0				M	E 13 18
			iSg	14 28 51.5				M	N 24 19
			iRg	14 28 55.3				M	Z 10 15
		Ud	iPg	14 29 03.6				D = 4500 km = 40 1/2°.	
			iSg	14 29 32.1			Ki	iP1	14 58 37.2
		West coast of Sweden, 58.5°N, 11.3°E. Origin time = 14 28 25. Explosion?						iP2	14 58 40.3
								iP3	14 58 42.2
								iPP	15 00 13
"	10	Um	iP	15 00 43.0				iS	15 04 47
		Ud	iP	15 00 55.6				iSS	15 07 44
								i	15 11 41
								iLg1	15 12 04
									microns sec
"	10	Up	iP	15 10 45.3				P3	E 0.4 5
								P3	Z 0.5 5
"	10	Um	iP	15 19 01.7				P3	Z' 0.9 1.0

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May	11	(cont.)		May	11		
		Ki	microns sec			Ki	iP 15 34 49.1
		PP E	0.7 5				i 15 35 01.8
		PP N	0.3 5			Sk	iP 15 35 02.7
		PP Z	0.5 5				i 15 35 20.2
		S N	0.4 4			Um	iP 15 34 51.0 D
		M E	6.4 10				i 15 35 04.4
		M N	25 15			Ka	i(P) 15 35 23.8
		M Z	9.8 11			Ud	iP 15 35 03.3
							i 15 35 22.6
			D = 4500 km				
			= 40 1/2°		"	11	Up i(P) 16 37 31.1
		Sk	iP1 14 58 58.7		"	11	Up iSg 17 27 54.5
			iP2 14 59 00.6			Sk	e 17 30 14
			iP3 14 59 02.8				iSg 17 30 20.4
			i 15 00 16.8			Um	iSg 17 29 48.7
			iPP 15 00 40.1			Ud	iPg 17 27 38.1
		Gb	iP1 14 58 58.4				iSg 17 28 41.4
			iP2 14 59 00.7				South Baltic.
			iP3 14 59 02.7				Origin time = 17 26 10.
			iPP 15 00 37.1				Probably underwater
		Um	iP1 14 58 29.4 D				explosion.
			iP2 14 58 32.3		"	12	Up iPKP 00 09 14.0 C
			iP3 14 58 34.2				i 00 09 22.8
			i 14 58 55.3			Sk	iPKP 00 09 08.9
			i 14 59 45.8			Um	iPKP 00 09 03.7
			iPP 15 00 03			Ud	iPKP 00 09 16.2
			iS 15 04 25				i 00 09 26.0
			iSa 15 06 27		"	12	Up iSKP 02 20 02.8
			iSS 15 07 21			Um	iPKP 02 17 24.4
		Ka	iP1 14 58 42.4			Ud	iSKP 02 20 03.1
			iP2 14 58 45.2				i 02 20 04.6
			iP3 14 58 46.8				New Hebrides Islands
			iPP 15 00 19.8				(h = 620 km).
		Ud	iP1 14 58 51.3		"	12	Up iP 05 28 42.9
			iP2 14 58 53.6			Ki	iP 05 28 45.6 C
			iP3 14 58 56.1				microns sec
			iPP 15 00 32.2				M E 0.4 11
		Tadzhik SSR-Sinkiang					M N 0.3 10
		(h = 20 km).					M Z 0.5 12
		Magn. = 6.1 (Up,Ki).				Sk	iP 05 29 06.3
		P is multiple, showing three				Um	iP 05 28 37.9
		successive onsets (P1,P2,P3)					iSS 05 37 31
		with increasing amplitudes.					iRg 05 44 51
		The average time differences				Ka	iP 05 28 50.4 C
		are: P2 - P1 = 2.6 sec and				Ud	iP 05 28 59.6 C
		P3 - P1 = 4.5 sec.					i 05 29 06.2
							Tadzhik SSR-Sinkiang
							(h = 5 km).
"	11	Up	iPP 15 23 40.6				
		Ki	iPP 15 24 02.8				
		Gb	iPP 15 23 14.1				
		Um	iPP 15 23 50.4				
		Ka	iPP 15 23 25.5				
		Ud	iPP 15 23 28.0				
		Chile-Bolivia					
		(h = 70 km).					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May	12			May	13	(cont.)	
		Ki	iP 09 41 05.6			Ki	microns sec
		Sk	eP 09 40 50			P	Z _i 0.4 5
		Colombia (h = 140 km).				P	Z ₁ 0.2 1.3
"	12	Ki	iSg 15 35 12.5			S	E 0.8 11
		Sk	eSg 15 35 16			M	E 0.7 17
		Um	iSg 15 35 33.2			M	N 1.1 18
		Nordlands Fylke, Norway.				M	Z 1.7 19
						D = 6200 km = 56°.	
"	12	Up	iP 17 09 26.7			Sk	iP 05 28 58.1 C
		Ki	iP 17 08 33.8			ipP	05 29 06.0
		Sk	iP 17 09 04.0			Gb	iP 05 29 37.1
		Um	iP 17 09 00.7 C			ipP	05 29 44.8
		Ka	iP 17 09 50.6			Um	iP 05 28 59.5
		Ud	iP 17 09 26.2 C			iS	05 37 04
		Aleutian Islands (h = 30 km).				Ka	iP 05 29 48.0
						ipP	05 29 56.0
"	12	Up	iP 17 57 07.6			Ud	iP 05 29 21.8 C
		Ki	e(P) 17 58 36			ipP	05 29 29.7
			i 17 58 47.5			Kodiak Island. h = 30 km (Sk, Gb, Ka, Ud).	
		Sk	iP 17 57 43.6			Magn. = 5.7 (Up, Ki).	
			i 17 57 50.6	"	13	Ki	eP 07 11 02
		Um	iP 17 57 52.6			Ud	iP 07 11 39.3
		Ud	iP 17 57 04.8			Talaud Islands (h = 80 km).	
		Italy (h = 40 km).		"	13	Sk	iP 07 51 44.2
"	12	Ki	iP 22 26 11.3	"	13	Ki	iPn 09 59 48.4
			i 22 26 14.0			iSn	10 00 47.6
		Sk	iP 22 26 39.2			i(Sg)	10 01 11.1
			i 22 26 42.5			D = 560 km = 5.0°.	
		Um	iP 22 26 39.9			Um	iSg 10 01 55.8
		Ud	iP 22 27 04.3			Northwest Russia.	
		Alaska (h = 90 km).				Origin time = 09 58 30.	
"	13	Up	iP 04 18 29.8			Explosion?	
		Ki	iP 04 18 03.2			" 13 KiR iPn 10 44 15.1	
		Sk	iP 04 18 28.3			iSn 10 45 11.1	
		Mariana Islands (h = 200 km).				iLg1 10 45 29.3	
"	13	Up	iP 05 29 25.0			D = 520 km = 4.7°.	
			iS 05 37 57			SkA	e(Sg) 10 47 59
		microns sec				Um	iSn 10 45 56.4
		P	Z ₁ 0.1 1.2				iSg 10 46 35.4
		S	N 0.3 3			D = 720 km = 6.5°.	
		M	E 0.6 17			Northwest Russia,	
		M	N 0.9 18			67.9°N, 32.8°E.	
		M	Z 0.9 18			Origin time = 10 43 01.	
		D = 7050 km = 63 1/2°.				Explosion?	
		Ki	iP 05 28 30.8 C	"	14	Ki	iP 03 06 52.2 C
			iS 05 36 18			Sk	iP 03 07 19.3
		(cont.)				Um	iP 03 07 20.2
						Kodiak Island (h = 30 km).	

Up = Uppsala, Ki = Kiruna, Sk = Skälstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
May	14	Up	iP	04 20 53.0 C	May	14	Up	iP	10 55 24.8
			iS	04 24 52.7			Ki	iP	10 55 07.5
				microns sec			Sk	eP	10 55 31
			P	Z' 0.3 0.7			Um	iP	10 55 09.2
			M	E 0.6 15			Ud	iP	10 55 33.8
			M	N 1.5 13			Mindoro (h = 110 km).		
			M	Z 1.6 13					
			D = 2450 km = 22°.			"	14	Up	iPKP 14 51 01.9
		Ki	iP	04 22 06.5 C			Sk	ePKP 14 50 56	
				microns sec			Ud	iPKP 14 51 03.4 C	
			M	E 0.6 13			Kermadec Islands		
			M	N 0.6 17			(h = 20 km).		
			M	Z 1.0 16					
		Sk	iP	04 21 32.5 C		"	14	Um	iP 16 34 54.6
		Gb	iP	04 20 39.2 C				i	16 34 58.1
		Um	iP	04 21 29.0					
			i	04 21 33.2		"	15	Up	iP 00 17 39.3
			i(pP)	04 21 45.1			Ki	iP 00 17 02.1	
			iS	04 25 59			Sk	eP 00 17 33	
		Ka	iP	04 20 15.4 C			Um	iP 00 17 17.5 C	
			i	04 21 16.5			Ud	iP 00 17 45.3	
		Ud	iP	04 20 59.4 C			South of Japan (h = 60 km).		
			i	04 21 05.7					
			i(pP)	04 21 12.4		"	15	Up	iP 00 25 24.4
			iS	04 25 08.1			i	00 25 34.6	
		Greece (h = 70 km).				Ki	iP 00 24 49.6		
							i	00 24 56.7	
"	14	Up	iP	05 23 02.5			Sk	eP 00 25 20	
		Ki	iP	05 22 31.1			Um	iP 00 25 01.1	
		Um	iP	05 22 44.3			i	00 25 12.1	
		Ud	iP	05 23 09.5			Ud	iP 00 25 29.2	
		Bonin Islands (h = 450 km).				South of Japan (h = 60 km).			
"	14	Up	iP	09 08 30.5	"	15	Up	iP 02 39 25.5 C	
			iPP	09 10 01			i	02 39 30.7	
				microns sec			iS	02 49 11	
			M	E 0.7 10				microns sec	
			M	N 1.8 18			P	Z' 0.1 1.0	
			M	Z 0.9 11			S	E 0.2 3	
		Ki	iP	09 08 31.6			M	E 0.8 21	
			iLg1	09 22 19			M	N 1.0 20	
			iLg2	09 22 57			M	Z 1.3 20	
				microns sec			D = 8550 km = 77°.		
			M	E 2.3 14		Ki	iP 02 38 49.5 C		
			M	N 0.5 14			iPa	02 43 08	
			M	Z 2.9 14			iS	02 48 02	
		Sk	iP	09 08 53.9 C				microns sec	
		Um	iP	09 08 25.2			P	Z 0.4 9	
			i	09 09 34.5			P	Z' 0.1 1.0	
			i	09 12 16			S	E 0.5 11	
			iSa	09 16 37			S	N 0.2 7	
			iLg1	09 21 37			M	E 1.4 19	
		Ka	iP	09 08 37.9			M	N 1.2 19	
		Ud	iP	09 08 46.2			M	Z 1.2 16	
		Tadzhik SSR-Sinkiang					D = 7900 km = 71°.		
		(h = 30 km).				(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
May 15	(cont.)				May 15	(cont.)			
	Sk	iP	02 39 20.7 C			Ki	microns sec		
		iPP	02 42 10.5			P	Z' 0.1 0.8		
	Gb	eP	02 39 45			S	N 0.3 10		
		i	02 39 50.1			M	E 2.7 15		
	Um	iP	02 39 05.1 C			M	N 2.5 14		
		i	02 39 10.0			M	Z 3.1 13		
		i	02 39 15.5			D = 3700 km = 33 1/2°.			
		i	02 39 23.5			Sk	iP	08 19 05.5 C	
		iPa	02 43 31			Gb	iP	08 18 22.3	
		iS	02 48 35				i	08 18 27.9	
	Ka	iP	02 39 43.2			Um	iP	08 18 58.1 C	
		i	02 39 54.9				eS	08 23 53	
	Ud	iP	02 39 32.8 C			Ka	iP	08 17 56.3	
		i	02 39 37.6				i	08 18 13.6	
		i	02 39 46.1			Ud	iP	08 18 34.6 C	
	South of Japan (h = 40 km).					Crete (h = 30 km).			
	Magn. = 5.6 (Up,Ki).					Magn. = 5.2 (Up,Ki).			
	Multiple P; the phase								
	arriving around 5 sec after				"	15	Ki	iP	08 38 46.7
	the first P is particularly						Sk	eP	08 38 19
	clear.						Ud	iP	08 37 47.0
						Crete (h = 30 km).			
"	15	Up	iPKP	02 46 34.1	"	15	Sk	iP	10 07 56.1
		Fiji Islands				Italy.			
		(h = 560 km).							
"	15	Ki	eP	02 47 11	"	15	Ud	iP	13 43 38.7
		Sk	e(P)	02 47 47				i	13 43 56.6
		Um	iP	02 47 23.1					
			i	02 47 30.2	"	15	Up	iSn	13 56 54.6
			i	02 47 46.4				iSg	13 57 09.5
		Ud	iP	02 47 48.0			Ki	iSg	13 59 43.5
	South of Japan (h = 25 km).						Sk	e	13 58 47
"	15	Ki	iP	02 50 01.7				iSg	13 59 00.8
		Um	iP	02 50 15.1			Um	iSg	13 57 41.2
		Ud	eP	02 50 43			Ka	iSg	13 58 22.0
	South of Japan (h = 15 km).						Ud	iSn	13 57 38.2
"	15	Up	iP	08 18 26.3 C				iSg	13 58 09.9
			i	08 18 29.6		<div style="border: 1px solid black; padding: 5px;"> <p>Gulf of Finland, 59.8°N, 24.3°E. Origin time = 13 55 15. Probably underwater explosion.</p> </div>			
			eS	08 22 52					
		microns sec							
		P	Z' 0.1 0.7						
		S	N 0.3 4						
		M	E 3.3 15						
		M	N 2.8 12						
		M	Z 2.2 14						
		D = 2850 km = 25 1/2°.							
	Ki	eP	08 19 34 C	"					
		eS	08 24 47	15					
		eSS	08 26 51						
	(cont.)						Up	eP	15 59 13
						Ki	iP	15 58 40.1	
							i	15 58 52.4	
						Um	iP	15 58 54.8	
							i	15 59 00.0	
						Bonin Islands (h = 30 km).			
"	15	Ki	iP	19 02 12.6	"	15	Ki	iP	19 02 12.6
		Sumatra (h = 50 km).							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967					1967			
May	16	Sk	epP	04 17 53	May	16	Up	---
		Um	iP	04 17 27.1				microns sec
			ipP	04 17 37.4			M	N 0.8 16
		Ud	eP	04 17 55			Ki	---
				South of Japan.				microns sec
				h = 40 km (Um).			M	E 0.3 15
"	16	Um	iP	05 19 00.5			M	N 0.3 15
		Ud	iP	05 19 32.7			M	Z 0.5 15
				Kurile Islands (h = 50 km).			Um	iP 16 15 26.6
								Iceland (h = 5 km).
"	16	Um	iP	05 32 54.3	"	16	Um	iPKP 16 33 29.6
				Japan (h = 40 km).				Tonga Islands (h = 30 km).
"	16	Ki	iSg	12 59 10.1	"	16	Up	iP 19 36 48.9
			i	12 59 20.7			Ki	iP 19 36 12.2 C
		Um	iSg	12 57 09.1				microns sec
		Ud	iSn	12 57 11.1			M	E 0.6 20
			iSg	12 57 42.5			M	N 0.3 15
				Gulf of Finland.			M	Z 0.5 15
				Origin time = 12 54 44.			Sk	eP 19 36 44
				Probably underwater			Gb	iP 19 37 08.4
				explosion.			Um	iP 19 36 28.4 C
"	16	Up	iP	13 10 49				i 19 36 41.6
			iS	13 21 18			Ka	iP 19 37 07.2
				D = 9650 km = 87°.			Ud	iP 19 36 56.2 C
		Ki	eP	13 10 39				South of Japan (h = 40 km).
			iS	13 21 06	"	16	Ki	iP 19 44 54.3
				microns sec			Um	iP 19 45 14.8
			P	Z 0.3 7				Kurile Islands.
			S	E 0.4 12	"	16	Up	iP 20 47 17.5
			S	N 0.2 9				i 20 47 23.5
			M	E 1.2 21			Ud	i(P) 20 48 16.4
			M	N 0.8 20				Probably local event,
			M	Z 1.6 20				near Uppsala.
				D = 9450 km = 85°.	"	16	Up	iPKP 23 30 18.8
		Um	iP	13 10 43.5			Ud	iPKP 23 30 20.7
			iPP	13 14 03				i 23 30 28.1
			iS	13 21 17				Tonga-Kermadec Islands
				Guatemala (h = 100 km).				(h = 150 km).
				Magn. = 5.7 (Ki).	"	17	Up	iP 00 43 12.1
"	16	Sk A	eSg	15 12 16				i 00 43 14.1
		Ud	iPg	15 11 15.5			Ki	iP 00 42 15.3
			iSg	15 11 38.3				i 00 42 18.6
				D = 190 km = 1.7°.				microns sec
				South Norway,			P	Z' 0.1 1.0
				61.0° N, 10.7° E.			Sk	iP 00 42 41.1
				Origin time = 15 10 42.				i 00 42 44.9
				Solution obtained by				(cont.)
				combination with Lille-				
				hammer reading.				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
May	17	(cont.)			May	17	Um	iP	11 31 04.0
		Gb	iP	00 43 21.7					Dominican Republic
			i	00 43 25.4					(h = 50 km).
		Um	iP	00 42 44.1					
			i	00 43 08.8	"	17	Ki	eSg	12 41 13
		Ka	iP	00 43 35.4			Um	iSg	12 39 16.7
			i	00 43 37.4					Gulf of Finland.
		Ud	eP	00 43 06					Probably underwater
		Alaska		(h = 15 km).					explosion.
"	17	Sk	iP	02 36 46.0	"	17	Ud	eP	13 20 18
		Alaska		(h = 30 km).					Greece.
"	17	Up		---	"	17	Ki	iPKP	16 32 32.0
				microns sec			Um	iPKP	16 32 39.8
		M	E	1.0 20					Fiji Islands
		M	N	1.1 19					(h = 80 km).
		Ki	iP	04 35 15.9					
				microns sec	"	17	Up	iP	17 58 35.4
		M	E	1.4 15					microns sec
		M	N	1.1 16					P N 0.2 3
		M	Z	0.9 13					P Z 0.3 3
		Um	iP	04 34 50.4					M E 0.4 15
			i(S)	04 40 11					M N 0.5 17
		Ka	iP	04 34 19.8					M Z 0.5 16
			i	04 34 33.0			Ki	eP	17 59 27
		Ud	eP	04 34 46					microns sec
			i	04 34 49.3					P Z 0.5 5
		Turkey-Iran		(h = 40 km).					P Z' 0.2 2.0
"	17	Ki	iPKP	08 41 12.8					M E 0.4 13
		Sk	ePKP	08 41 22					M N 0.6 17
		Um	iPKP	08 41 19.8 C					M Z 1.0 18
		New Hebrides Islands					Sk	iP	17 59 11.0
		(h = 40 km).						i	17 59 46.5
"	17	Ki	iP	09 45 24.0			Gb	iP	17 58 34.0
		Um	iP	09 45 41.9				iX	17 58 52.4
		Ud	iP	09 46 11.5			Um	iP	17 58 58.3
		Japan.						iPP	18 00 35.9
								i	18 00 53
"	17	Up	iP	10 01 56.5				iS	18 05 21
				microns sec			Ka	iP	17 58 13.1
		M	E	1.0 20				iX	17 58 30.6
		M	N	1.6 20			Ud	iP	17 58 45.0
		Ki	iP	10 01 30.1					Red Sea (h = 40 km).
				microns sec					Magn. = 5.8 (Up, Ki).
		M	E	0.6 17					The P-phases on all the
		M	N	0.5 17					short-period records have
		M	Z	0.4 13					unusually long periods,
		Um	iP	10 01 38.6					generally around 2.5-3 sec.
		Ud	iP	10 02 04.4	"	17	Ud	eP	19 34 34
		Formosa		(h = 50 km).					Greece.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967

May 17 Um iPKP 21 52 57.5
Easter Island Ridge
(h = 30 km).

" 18 Up iP 04 18 00.6 C
i 04 18 35.7
iS 04 27 05
microns sec
P Z' 0.1 1.0
M E 1.5 20
M N 1.2 20
M Z 1.2 15

Ki iP 04 17 16.3 C
iS 04 25 45
microns sec
P Z' 0.1 1.2
S E 0.4 5
M E 1.4 17
M N 1.4 18
M Z 0.9 15

D = 7750 km = 69 1/2°.
D = 6950 km = 62 1/2°.

Sk iP 04 17 52.0
Gb iP 04 18 21.5
Um iP 04 17 35.8 C
iS 04 26 19
Ud iP 04 18 06.9
Japan (h = 40 km).
Magn. = 5.7 (Up,Ki).

" 18 Ki iP 04 49 32.7
Um iP 04 49 51.6
Ud eP 04 50 24
Japan (h = 30 km).

18 ~~GPT~~ iRg 07 43 28.0
~~Ka~~ ~~Kr~~ ~~S~~ eLg1 07 44 41
UdP iPg 07 43 36.2
iSg 07 44 04.4
West coast of Sweden,
58.5°N, 11.3°E.
Origin time = 07 42 58.
Explosion?

18 GPT iSg 07 45 12.2
iRg 07 45 16.0
~~Ka~~ ~~Kr~~ ~~S~~ eLg1 07 46 29.
UdP iPg 07 45 23.7
iSg 07 45 51.0
West coast of Sweden,
58.5°N, 11.3°E.
Origin time = 07 44 46.
Explosion?

1967
May 18

18 Up' iSg 08 06 19.2
GPT iPg 08 04 40.5
iSg 08 04 49.9
~~iRg 08 04 54.3~~
~~Ka~~ ~~e(Lg1) 08 06 02~~
UdP iPg 08 05 01.6
iSg 08 05 29.3
West coast of Sweden,
58.5°N, 11.3°E.
Origin time = 08 04 24.
Explosion?

18 SkA e 08 20 23
iSg 08 20 32.4
Um e iSg 08 22 08.7
Ud P iSg 08 20 10.2
West coast of Norway,
60.5°N, 5.6°E.
Origin time = 08 18 01.
Solution obtained by
combination with Kongsberg
and Lillehammer readings.

" 18 Up iP 11 33 37.6
i 11 33 47.6
iS 11 42 42
microns sec
P Z' 0.2 1.0
M E 1.7 22
M N 1.7 21
M Z 1.1 17
D = 7750 km = 69 1/2°.
Ki iP 11 32 54.2 C
iS 11 41 22
microns sec
P Z' 0.1 1.1
S E 0.4 12
M E 1.1 15
M N 1.1 18
M Z 1.0 16
D = 6950 km = 62 1/2°.

Sk iP 11 33 28.9 C
Um iP 11 33 13.4 C
i 11 33 29.9
iS 11 41 57
Ud iP 11 33 44.2 C
Japan (h = 40 km).
Magn. = 5.6 (Up,Ki).

" 18 Up iLg1 11 51 26
Ki iP 11 38 42.6
Um iP 11 38 33.3
i 11 38 40.9
iLg1 11 50 57

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May	18	(cont.)		May	19	(cont.)	
		Ud	iP 11 38 54.8			Sk	iPKP 05 28 58.1 C
			i 11 39 39.7				iX 05 29 20.3
		Tadzhik SSR (h = 15 km).					i 05 29 26.3
"	18	Sk	iP 11 40 47.7			Um	iPKP 05 28 52.7
							iX 05 29 15.9
"	18	Up	iP 12 00 50.2			Ud	iPKP 05 28 57.0 C
		Ud	iP 12 00 51.6 C				iX 05 29 18.1
"	18	Up	i(PKP) 13 12 23.7			South of Kermadec Islands	
		Ki	iPKP 13 12 27.0			(h = 40 km).	
		Um	iPKP 13 12 20.0			The phase X arrives about	
			i 13 12 42.9			22 sec after PKP. It is	
		South Sandwich Islands				either pPKP, which suggests	
		(h = 30 km).				a focal depth of 80 km, or	
						it is PKP of another (some-	
						what stronger) shock in the	
						same location.	
"	18	Up	iP 14 12 02.3				
			microns sec			"	19
		P	Z' 0.1 0.9			Ki	iPKP 07 59 20.8
		Ki	iP 14 11 18.4 C			West of Macquarie Islands	
			i 14 11 26.9			(h = 30 km).	
			i 14 11 48.0			"	19
			microns sec			Ki	iP 11 46 17.0
		M	E 0.7 17			Ud	i(P) 11 47 29.7
		M	N 0.7 18			"	19
		M	Z 0.5 15			Up	iPKP 12 22 05.1
		Sk	iP 14 11 53.6			Sk	iPKP 12 21 57.9
			i 14 12 07.8				i 12 22 08.4
		Um	iP 14 11 38.3 C			Um	iPKP 12 21 51.8
		Ud	iP 14 12 09.3			Ka	iPKP 12 22 13.2
		Japan (h = 40 km).				Ud	iPKP 12 22 05.8
						Kermadec Islands	
						(h = 25 km).	
"	18	Up	iP 23 50 47.9			"	19
			microns sec			Up	iP 13 33 02.1
		P	Z' 0.1 0.7				microns sec
		Ki	iP 23 50 14.9				P Z' 0.1 0.9
			microns sec			"	19
		P	Z' 0.2 0.8			Up	iP 16 01 15.7
		Sk	iP 23 50 46.0			Ki	iP 16 02 04.2
		Um	iP 23 50 28.4			Sk	iP 16 01 50.5 C
		Ud	iP 23 50 56.4			Gb	iP 16 01 15.5 C
		Japan (h = 40 km).				Ud	iP 16 01 25.9
		Magn. = 6.1 (Up,Ki).				Ethiopia (h = 15 km).	
"	19	Up	iX 05 29 25.9			"	19
			microns sec			Up	iP 16 55 03.8
		X	Z' 0.1 1.0			Aleutian Islands	
		Ki	iPKP 05 28 44.2 C			(h = 50 km).	
			iX 05 29 06.4			"	20
			microns sec			Sk	iP 00 13 14.6
		PKP	Z' 0.3 1.4			Greece.	
		X	Z' 0.3 1.2			"	20
		(cont.)				Ki	iP 01 15 48.7
						(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May	20	(cont.)		May	20	(cont.)	
		Ud	iP 01 16 41.4			Um	iP 21 56 24.2
		Aleutian Islands (h = 90 km).				Ud	iP 21 56 25.6
						Iran (h = 40 km).	
"	20	Up	iP 03 04 05.7	"	20	Up	iPn 23 20 32.7
			i 03 04 18.3				i 23 20 35.7
		Ki	iP 03 03 36.1				i 23 21 46.8
							iSn 23 22 15.9
			microns sec				iLgl 23 23 14
		P	Z' 0.1 1.0				microns sec
		Sk	iP 03 04 04.5			Pn	Z' 0.2 0.5
		Um	iP 03 03 55.2			Sn	Z' 0.4 0.5
		Ud	eP 03 04 15				
		Mariana Islands (h = 40 km).				Ki	iPn 23 19 31.3
							i 23 19 35.2
"	20	Up	iP 08 54 51.2				i! 23 19 49.4
			iPP 08 56 21.1				iSn 23 20 34.3
		Ki	iP 08 54 55.1				i 23 20 53
			i 08 54 59.9				iLgl 23 20 59
			iPP 08 56 33.2				iSg 23 21 06
		Sk	iP 08 55 19.6				microns sec
			i 08 55 29.1			Pn	Z' 0.1 1.0
		Um	iP 08 54 46.6			Sn	Z' 1.9 0.8
			i 08 54 50.1			M	E 2.1 6
			i 08 54 57.1			Sk	iPn 23 20 26.7 C
		Ka	iP 08 55 00.4				iSn 23 22 12.2
		Ud	iP 08 55 07.6 D				iLgl 23 23 06.5
		Kirghiz SSR (h = 30 km).				Gb	eP 23 21 20
							i 23 21 22.3
"	20	Sk	iP 10 34 19.9				iS 23 23 35.3
"	20	Ud	iPKP 13 21 22.3				iLgl 23 25 02.9
		Drake Passage (h = 30 km).				Um	iPn 23 19 44.6
							iPg 23 20 11.2
"	20	Up	iP 15 11 48.7 C				iSn 23 20 53.5
			microns sec				iSg 23 21 27
		P	Z' 0.2 1.0			Ka	iP 23 21 20.9
		Ki	iP 15 11 14.4 C				iS 23 23 38.1
			microns sec				iLgl 23 25 06.9
		P	Z' 0.3 1.3			Ud	iP 23 20 49.2
		Sk	iP 15 11 22.5 C				iS 23 22 46.6
		Gb	iP 15 11 48.1 C				i 23 23 39.1
		Um	iP 15 11 33.8 C				iLgl 23 23 53.4
		Ka	iP 15 12 01.9 C			Northwest Russia (h = 15 km).	
		Ud	iP 15 11 41.1 C			Lgl is extremely sharp and	
		Nevada.				has by far the largest	
		Origin time = 15 00 00.				amplitudes in the whole	
		Magn. = 6.2 (Up, Ki).				records.	
		Underground explosion.					
		Surface waves are recorded					
		on Um long-period seismograms.					
"	20	Ki	iP 21 56 47.8	"	21	Ki R	ePn 04 21 48
		Sk	iP 21 56 46.1				iSn 04 22 46.2
		(cont.)					iLgl 04 23 07.8
							iSg 04 23 15.0
							D = 530 km = 4.8°
						Sk A	iSg 04 25 34.3
						(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967
May 21

(cont.)

Um e iSn 04 23 27.1
iSg 04 23 59.5

Northwest Russia,
67.4°N, 33.0°E.
Origin time = 04 20 35.
Explosion?

" 21 Up iP 07 30 44.5
i 07 30 54.0
microns sec
M E 1.7 18
M N 1.8 15
M Z 2.2 17
Ki e(P) 07 30 22
microns sec
M E 3.4 18
M N 2.5 18
M Z 3.6 18
Ud eP 07 30 37
Gulf of California
(h = 30 km).
Magn. = 5.8 (Up, Ki).

" 21 Up iP 08 32 13.6
microns sec
P Z' 0.1 0.8

" 21 Ud iP 10 40 45.5
Greece.

" 21 Up iP 18 42 18.0
i 18 42 20.6
Ki iP 18 42 28.6
Sk eP 18 42 45
i 18 42 47.0
Um iP 18 42 18.0
i 18 42 19.6
Ka iP 18 42 24.2
Ud iP 18 42 36.2
i 18 42 37.2
Hindu Kush (h = 140 km).
Multiple P.

" 21 Up iP 18 57 41.6 C
ipP 18 58 26.1
iSKS 19 07 48.1
iS 19 08 05
ipS 19 08 59
isS 19 09 19
microns sec
P E 0.8 3
P Z 2.2 3
P Z' 0.5 0.8
SKS E 5.1 5
SKS N 1.5 3
(cont.)

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May 21

(cont.)

Up microns sec
S E 3.8 3
S N 11 6
M E 3.4 20
M N 6.0 24
M Z 3.9 20
D = 9900 km = 89°.
Ki iP 18 57 40.6 C
ipP 18 58 24.6
isP 18 58 41
iSKS 19 07 43
iS 19 08 03
ipS 19 09 01
isS 19 09 17

microns sec
P E 1.3 5
P Z 4.8 4
P Z' 2.5 1.4
SKS E 6.6 10
SKS N 1.4 10
S E 15 12
S N 20 10
S Z 2.3 6
M E 4.0 18
M N 3.5 15
M Z 5.6 21
D = 9800 km = 88°.

Sk iP 18 57 54.9 C
ipP 18 58 39.8
iSKS 19 08 05.0

Gb iP 18 57 54.6 C
ipP 18 58 41.2
iPP 19 01 30.5
iS 19 08 33.1

Um iP 18 57 38.1 C
ipP 18 58 20.6
i 19 01 41
i 19 07 15.1
i 19 07 30
iSKS 19 07 47
iS 19 07 58.8

Ka iP 18 57 44.9 C
ipP 18 58 31.1
iPP 19 01 18.3
iS 19 08 13.9
Ud iP 18 57 50.9 C
ipP 18 58 34.9
iSKS 19 07 57.9
iS 19 08 25.3

Sumatra. h = 180 km
(Up, Ki, Sk, Gb, Um, Ka, Ud).
Magn. = 7.0 (Up, Ki).

" 22

Up iP 02 53 39.0
Sk eP 02 53 34
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967				
May	22	(cont.)		May	23	Up	iP	02 03 41.7 C
		Um	iP					microns sec
		Japan (h = 60 km).					P	Z' 0.1 0.5
"	22	Up	iPKP				M	E 0.7 16
		Sk	iPKP				M	N 0.9 18
		Um	iPKP			Ki	M	Z 1.1 18
		Ka	iPKP				iP	02 02 54.8 C
		Ud	iPKP					microns sec
"	22	Ka	iPKP				P	Z' 0.1 1.0
		Ud	iPKP				M	E 1.3 16
		Fiji Islands (h = 610 km).					M	N 0.6 15
"	22	Ki	e(Pn)			Sk	M	Z 1.2 16
			iPg				iP	02 03 30.1
			iSn			Gb	iP	02 04 02.4
			iLg1			Um	iP	02 03 15.8 C
		Um	iSg			Ka	iP	02 04 04.5
		Northwest Russia.				Ud	iP	02 03 47.2
		Explosion?				Kurile Islands (h = 20 km).		
"	22	Ka	iP		"	23	Up	eP
		Afghanistan-USSR (h = 40 km).						06 04 00
"	22	Ki	iSg				i	06 04 10.7
		Sk	iSg			Sk	eP	06 03 40
		Um	iSg			Um	iP	06 03 31.2
		Nordlands Fylke, Norway.				Ud	eP	06 04 05
"	22	Up	iP		"	23	Um	iP
		Ki	iP					07 31 49.9
		Ud	iP			"	23	Gb
		Turkey (h = 50 km).						07 57 43.4
"	22	Up	iP		"	23	Ki	iP
		Ki	iP					08 16 22.0
		Um	iP			"	23	Up
		Ud	iP					08 47 28.7
		Ryukyu Islands (h = 130 km).				Ki	iP	08 47 28.2
"	22	Sk	eP				i	08 47 39.1
		Mexico (h = 40 km).						microns sec
"	23	Up	iP				P	Z' 0.1 1.0
						Sk	iP	08 47 42.0
						Um	iP	08 47 25.0
							i	08 47 39.1
							i	08 48 08.0
						Ud	iP	08 47 37.4
						Sumatra (h = 60 km).		
"	23	Ki	iP		"	23	Gb	i(P)
								10 10 45.3
						"	23	Ki
								12 04 02.4
							iS	12 05 19.7
							eT	12 09 11
							i	12 09 32.0
								microns sec
						M	E	0.3 13

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967						1967			
May	24	KiR	iPg	16 14 32.4	C	May	26	(cont.)	
			iSg	16 14 38.0				Um iSg 11 58 42.2	
			microns sec					D = 160 km = 1.4°	
			Sg	Z' 0.3 0.6				Origin time = 11 57 55.	
			D = 40 km = 0.4°					Explosion.	
		SkA	iSg	16 17 08.2		"	26	Gb iP 12 30 48.8	
		UmC	iLg1	16 16 16.7				i 12 30 52.5	
		Swedish Lapland,				"	26	Um iPn 12 40 21.3	
		67.4°N, 20.8°E.						iLg1 12 40 36.6	
		Origin time = 16 14 24.						D = 160 km = 1.4°	
"	24	Up	iP	17 29 57.9				Origin time = 12 39 54.	
		Ki	iP	17 30 40.0				Explosion.	
		Ud	iP	17 30 03.3					
		Lake Nyassa (h = 30 km).					"	26	Sk ePn 14 11 41
"	24	Up	iP	22 49 02.4				iSg 14 12 32.7	
		Ki	iP	22 48 09.8				Um iPn 14 12 26.8	
		Sk	iP	22 48 47.6				iSn 14 13 53.2	
		Gb	iP	22 49 23.1				Ud iSn 14 13 18.0	
		Ud	eP	22 49 05				Probably off west coast	
		Kamchatka (h = 25 km).						of Norway. No satisfactory	
"	25	Ki	iP	01 31 18.2				agreement between the data.	
			i	01 31 44.8		"	26	Up iP 15 11 49.9	
		Um	i(P)	01 32 12.8				i 15 12 20.7	
"	25	Um	iP	17 14 59.8	D			i 15 14 32.6	
"	25	Up	iP	19 02 26.2				Ki iP 15 11 15.3	
		Ud	iP	19 02 33.8				Sk iP 15 11 23.7	
		Japan (h = 330 km).						Gb iP 15 11 49.8	
"	25	Up	iP	21 28 10.8	C			Um iP 15 11 34.8	
"	26	Um	i(P)	10 00 13.6				Ud iP 15 11 42.0	
		Ud	e(P)	10 00 18				Nevada.	
"	26	Ki	iP	10 35 35.9				Origin time = 15 00 00.	
		Sk	iP	10 35 41.8				Underground explosion.	
			i	10 35 50.2		"	26	Um iP 15 28 12.8	
			iS	10 37 30.7				"	
		Ud	eP	10 36 28				Ki eP 15 30 33	
		Jan Mayen (h = 30 km).						Sk eP 15 30 44	
"	26	Up	iP	10 47 18.8				Um iP 15 31 12.9	
		Um	iP	10 46 58.2				Ud eP 15 31 22	
		Ud	iP	10 47 25.7				Jan Mayen.	
			ipP	10 47 45.5				Origin time = 15 28.3.	
		South of Japan.				"	26	Ki iP 15 37 15.4	
		h = 70 km (Ud).						Sk iP 15 37 25.8	
"	26	Um	iPn	11 58 22.3				i 15 37 42.6	
			iLg1	11 58 38.2				Um iP 15 37 53.2	
		(cont.)						Ud eP 15 38 06	
								Jan Mayen.	
								Origin time = 15 35.0.	
"	26	Ki	iP	15 40 00.0		"	26	Ki iP 15 40 00.0	
		(cont.)						(cont.)	

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1967				1967			
May	26	(cont.)		May	27	Ki	iP 02 01 10.1
		Ki	i 15 40 06.2			Gb	eP 01 59 32
		Sk	eP 15 40 02			Ud	iP 01 59 56.4
			iS 15 41 54.2			Algeria (h = 30 km).	
		Ud	eP 15 40 53	"	27	Sk	iSg 02 43 52.7
		Jan Mayen (h = 30 km).				Ud	iPg 02 42 11.6
"	26	Ki	iP 17 37 49.2				iSg 02 42 18.1
			i 17 37 56.7			D = 60 km = 0.5°.	
		Sk	eP 17 37 19	"	27	Up	iP 06 37 22.1 C
		Um	iP 17 37 03.6			Ki	iP 06 37 03.7 C
			i 17 37 08.4			Sk	iP 06 37 31.8
		Ud	eP 17 36 44			Gb	iP 06 37 45.9
		Rumania (h = 130 km).				Um	iP 06 37 08.4
"	26	Up	iP 19 45 22.4			Ud	iP 06 37 34.8
		Ki	iP 19 44 51.7	"	27	Ki	i(Sg) 07 34 01.6
		Um	iP 19 45 05.0	"	27	Up	iP 12 50 31.1
		Ud	iP 19 45 28.9				iPP 12 52 12.8
		Volcano Islands (h = 360 km).				Ki	iP 12 50 39.5
"	26	Ki	iP 21 23 27.1				iPP 12 52 24.1
		Sk	iP 21 23 33.2			Sk	iP 12 50 56.2
		Ud	eP 21 24 19				iPP 12 52 45.2
"	26	Ki	iP 21 44 31.5			Um	iP 12 50 29.8 C
"	27	Up	iP 01 50 33.0				iPP 12 52 05.3
			iPP 01 52 15.6			Ka	iP 12 50 36.2
			iLg1 02 04 34				i 12 50 40.3
			microns sec			Ud	iP 12 50 47.5 C
		M	E 0.8 9				i 12 52 20.7
		M	N 0.6 10				iPP 12 52 31.1
		M	Z 1.1 9	"	27	Up	iP 17 33 50.7 C
		Ki	iP 01 50 31.1 C				ipP 17 33 59
			i 01 50 37.3				iS 17 42 42
			e 02 02 25				iScS 17 43 43
			iLg1 02 04 13				iP'P' 18 02 20.4
			microns sec				microns sec
		M	E 1.5 10			P	N 0.7 2
		M	N 1.2 11			P	Z 1.5 3
		M	Z 1.6 10			P	Z' 0.7 1.0
		Sk	iP 01 50 54.9			S	E 0.6 4
		Um	iP 01 50 25.7			S	N 1.1 5
			i 01 50 33.3			M	E 3.1 20
			iPP 01 51 59			M	N 13 24
			iS 01 56 31			M	Z 11 24
			iLi 02 02 30			D = 7450 km = 67°.	
			iLg1 02 03 56			Ki	iP 17 32 57.3 C
		Ud	iP 01 50 49.6 C				ipP 17 33 06.8
		Sinkiang (h = 30 km).					iPa 17 36 32
		Well developed higher-mode surface waves.					iS 17 40 57
						(cont.)	

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1967					1967					
May	27	(cont.)			May	27	(cont.)			
		Ki	eScS	17 42 43			Ki	iLg1	19 29 28	
			iP'P'	18 02 36.0					microns sec	
			i	18 02 44.2				P	E 0.4 5	
				microns sec				P	Z 0.6 4	
			P	N 0.6 8				P	Z' 0.6 1.0	
			P	Z 2.2 7				PP	E 0.4 4	
			P	Z' 0.4 1.0				S	E 1.1 13	
			S	E 1.1 8				S	N 0.7 6	
			S	N 1.1 10				M	E 6.3 20	
			M	E 9.5 19				M	N 15 18	
			M	N 8.4 21				M	Z 6.8 17	
			M	Z 14 20					D = 4950 km = 44 1/2°	
			D = 6550 km = 59°.				Sk	iP	19 14 22.1 C	
		Sk	iP	17 33 30.7 C				iPP	19 16 08.2	
			iP'P'	18 02 31.9			Gb	iP	19 14 22.1 C	
		Gb	iP	17 34 07.9 C				i	19 14 24.7	
			ipP	17 34 18.0				i(PP)	19 16 17.6	
		Um	iP	17 33 23.2 C			Um	iP	19 13 54.2 C	
			ipP	17 33 32.2				iPP	19 15 34	
			iPP	17 35 40				iPcP	19 15 46.6	
			iPa	17 37 13				i	19 15 59.1	
			iS	17 41 46				iS	19 20 18	
			iPS	17 42 02				iSS	19 23 37	
			iP'P'	18 02 17.1			Ka	iP	19 14 07.2	
			i	18 02 33.7				i	19 14 09.6	
		Ka	iP	17 34 13.5 C			Ud	iP	19 14 15.8	
			ipP	17 34 23.8				iPP	19 16 06.1	
		Ud	iP	17 33 52.0 C					Kashmir-Sinkiang (h = 40 km).	
			ipP	17 34 01.8					Magn. = 6.1 (Up,Ki).	
			iP'P'	18 02 17.4						
			Aleutian Islands. h = 35 km	"	27		Ki	iP	20 21 26.2	
			(Up,Ki,Gb,Um,Ka,Ud).				Um	iP	20 21 44.4	
			Magn. = 6.4 (Up,Ki).				Ud	iP	20 22 16.6	
									Japan (h = 70 km).	
"	27	Up	iP	19 13 59.5 C						
			iPP	19 15 42.0		"	28	Up	iP	01 42 45.2 C
			iPcP	19 15 48					iS	01 51 28
			iS	19 20 33						microns sec
			iSS	19 23 43					P	Z' 0.1 0.9
				microns sec					M	E 0.4 20
			P	Z' 0.3 0.6					M	N 1.1 22
			PP	Z' 0.2 1.0					M	Z 0.7 22
			S	E 0.3 3						D = 7400 km = 66 1/2°.
			S	N 0.5 3				Ki	iP	01 41 51.7 C
			M	E 2.1 14					e(S)	01 50 07
			M	N 7.3 9						microns sec
			M	Z 2.4 13					P	Z' 0.1 1.0
			D = 4950 km = 44 1/2°.					(S)	E 0.3 7	
		Ki	iP	19 14 00.7 C				M	E 0.6 20	
			i	19 15 19.7				M	N 0.5 19	
			ePP	19 15 46				M	Z 0.9 19	
			iS	19 20 33			Sk	iP	01 42 25.6 C	
			iSS	19 23 46			Gb	iP	01 43 02.5 C	
		(cont.)					(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
May	28	(cont.)			May	28	Um	i(Sg)	09 45 46.0
		Um	iP	01 42 17.3					
			iS	01 50 42	"	28	Up	----	
		Ka	iP	01 43 08.8 C				microns sec	
		Ud	iP	01 42 46.7 C				M N	1.0 17
		Aleutian Islands (h = 50 km).					Ki	eP	12 10 51
		Magn. = 5.5 (Up,Ki).						microns sec	
"	28	Up	iP	03 46 41.4				M E	0.6 16
								M N	0.6 16
"	28	Up	iP	04 12 35.9			Um	iP	12 10 43.0
		Ki	iP	04 12 04.6				eSS	12 19 26
		Um	iP	04 12 17.6			Ka	iP	12 10 52.6
		Ud	eP	04 12 39			Ud	eP	12 11 01
		Japan (h = 30 km).					Tadzhik SSR (h = 30 km).		
"	28	Up	iP	04 14 52.5 C	"	28	Ki	iP	12 30 27.9
			iPn	04 16 00.1			Um	iP	12 29 51.9
			iLg1	04 26 32			Ka	iP	12 29 03.7
			microns sec					ipP	12 29 14.2
		P	Z'	0.2 0.7			Uganda. h = 40 km (Ka).		
		M	E	0.2 9					
		M	Z	0.4 9	"	28	Ki	iPn	13 26 44.8
		Ki	iP	04 14 37.1 C				iSn	13 27 33.8
			iPn	04 15 36.8				iLg1	13 27 47.6
			microns sec					D = 460 km = 4.1°	
		P	Z'	0.3 0.5			Um	iSg	13 29 18.6
		Sk	iP	04 15 08.1 C			Probably northwest Russia.		
			i	04 15 19.8			Origin time = 13 25 39.		
			iPP	04 16 30.7			Explosion?		
		Gb	iP	04 15 21.1	"	29	Ki	iP	02 43 41.8
			iPP	04 16 46.6			Um	iP	02 43 58.9
		Um	iP	04 14 37.2					
			iPn	04 15 38.0	"	29	Up	iP	04 59 10.2
			iPP	04 15 52.1			Ki	iP	04 58 44.3 C
		Ka	iP	04 15 08.5 C				i	04 59 16.6
			iPP	04 16 28.6				microns sec	
		Ud	iP	04 15 09.1 C				P Z'	0.1 1.0
			iPn	04 16 17.9			Sk	eP	04 59 08
			iPP	04 16 32.9				i	04 59 39.6
		Kazakh SSR.					Um	iP	04 58 54.5 C
		Origin time = 04 08 00.					Ud	iP	04 59 16.7
		Magn. = 6.2 (Up,Ki).					Mariana Islands (h = 30 km).		
		Underground explosion.							
"	28	Ki	iSKP	06 50 52.7	"	29	Um	iPn	10 45 23.1
		Um	iSKP	06 51 03.0				iPg	10 45 25.1
		Ud	iPKP	06 48 22.3				iLg1	10 45 39.7
			eSKP	06 51 15				iSg	10 45 43.4
		Tonga-Kermadec Islands						iRg	10 45 49.4
		(h = 440 km).						D = 160 km = 1.4°	
"	28	Sk	iP	07 14 55.6			Origin time = 10 44 56.		
							Explosion.		
"	28	Ki	iP	07 29 10.3			Very sharp and well-defined		
		Mariana Islands (h = 100 km).					phases.		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May	29	Ud	iP 11 00 20.0	May	30	(cont.)	
"	29	Um	iPg 11 20 24.5 iLg1 11 20 38.5 iSg 11 20 42.5 D = 160 km = 1.4° Origin time = 11 19 56. Explosion.			Up	iRg 07 36 50.3 D = 170 km = 1.5° Origin time = 07 35 54. Explosion.
"	29	Ki	ePKP 11 28 34	"	30	Up	iP 10 05 47.2
		Um	ePKP 11 28 42				i 10 05 50.3
		Ka	ePKP 11 28 53			Ki	iP 10 04 54.2 D
		Ud	iPKP 11 28 42.2				microns sec
		Fiji Islands (h = 240 km).					P Z' 0.1 1.0
"	29	Um	iP 12 34 54.4			Sk	iP 10 05 25.9
"	29	Ki	iP 13 30 37.3	"	30	Um	iP 10 05 19.9
			i(Sg) 13 30 54.2			Ud	iP 10 05 46.7
"	29	Up	iP 21 12 39.5 C				i 10 05 50.2
			i 21 12 45.5			Aleutian Islands (h = 30 km).	
			ipP 21 13 03.3	"	30	Ki	iP 10 10 31.8
			iS 21 21 33			Um	iP 10 10 57.0
			microns sec			Ud	iP 10 11 22.9
			P Z' 0.2 0.5			Aleutian Islands (h = 30 km).	
			M N 0.3 14	"	30	Ki	ePn 10 53 49
		Ki	iP 21 11 54.7 C				iSn 10 54 49.5
			iS 21 20 09				iLg1 10 55 08.7
			microns sec				D = 570 km = 5.1°
			P Z 0.4 4			Possibly northwest Russia.	
			P Z' 0.3 1.2	"	30	Ka	iP 11 15 58.1
			S E 0.4 10	"	30	Um	iPn 11 58 20.4
			S N 0.3 9				iLg1 11 58 33.9
			M E 0.2 15				D = 140 km = 1.2°
			M N 0.2 15			Origin time = 11 57 56.	
			M Z 0.5 17			Explosion.	
		Sk	iP 21 12 29.9 C	"	30	Um	iPn 12 43 21.3
		Gb	iP 21 13 01.0				iLg1 12 43 35.9
			ipP 21 13 24.5				D = 140 km = 1.2°
		Um	iP 21 12 14.7 C			Origin time = 12 42 57.	
			iS 21 20 46			Explosion.	
		Ka	iP 21 13 00.8	"	30	Ki	iP 14 39 55.1
			ipP 21 13 24.5				microns sec
		Ud	iP 21 12 45.9 C				M E 0.3 14
			ipP 21 13 08.9				M N 0.2 16
		Japan. h = 90 km					M Z 0.4 15
		(Up, Gb, Ka, Ud).				Um	iP 14 40 04.5
		Magn. = 6.0 (Up, Ki).					iS 14 50 27
"	30	Um	iPg 07 36 22.6			Gulf of California	
			iLg1 07 36 40.6			(h = 30 km).	
			iSg 07 36 42.9				
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
May 30	Up	iP	23 59 08.4	May 31	Up	iP	16 39 20.9
-31	Ki	iP	00 00 14.0 C		Ki	iP	16 39 01.3
		iX	00 00 27.8			ipP	16 39 12.0
	Sk	iP	23 59 47.7 C		Ud	iP	16 39 29.3
		iX	00 00 01.2			ipP	16 39 39.3
	Gb	iP	23 59 04.1		Samar.		
	Um	iP	23 59 39.0 C		h = 40 km (Ki,Ud).		
	Ka	iP	23 58 39.1	" 31	Ud	iP	17 10 29.0
	Ud	iP	23 59 17.4 C	" 31	Up	iP	21 01 40.7 C
		iX	23 59 31.2	" 31	Up	iP	21 34 15.0
	Eastern Mediterranean Sea (h = 30 km).			" 31	Ud	iP	21 34 00.4
" 31	Um	iP	00 13 59.3	" 31	Ki	iP	21 48 08.1
" 31	Ki	e(Sg)	05 02 36				
" 31	Um	iPg	07 48 28.8				
		iSg	07 48 48.8				
	Explosion.						
" 31	Up	iP	10 58 00.0				
	Um	i(P)	10 58 01.7				Markus Båth
	Ud	iP	10 58 11.7				November 17, 1967
" 31	Up	iP	11 50 04.6				
	Ki	iP	11 50 15.9				
	Sk	iP	11 49 53.5 C				
		ipP	11 50 12.0				
	Gb	iP	11 49 46.3				
	Ka	iP	11 49 56.6				
	Ud	iP	11 49 52.9				
		ipP	11 50 10.4				
	Windward Islands. h = 70 km (Sk,Ud).						
" 31	Ki	i(Sn)	13 18 09.1				
		i(Lg1)	13 18 26.5				
" 31	Ki	iSg	16 17 46.4				
	Sk	eSg	16 17 51				
	Um	eSg	16 18 13				
	Nordlands Fylke, Norway.						
" 31	Up	iP	16 20 00.2				
	Ki	iP	16 20 08.5				
	Um	iP	16 19 57.8				
	Ka	iP	16 20 04.5				
	Hindu Kush (h = 270 km).						

Seismological Institute
Uppsala

SW

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SEISMOLOGICAL BULLETIN
UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

JUNE 1 - 30, 1967
.....

1967	June 1	Um	i(P)	02 58 52.1	1967	June 1	(cont.)			
"	"	1	Up	iP	03 47 04.9 C		Sk	iP'P'	04 15 40.2	
				i	03 47 06.0		Gb	iP	03 47 19.3	
				iPcP	03 47 34.4		Um	iP	03 46 38.3 C	
				iPcS	03 51 32.2		i		03 46 39.7	
				eS	03 55 47		i(pP)		03 46 54.3	
				iScS	03 56 54		iPcS		03 51 14.1	
				iP'P'	04 15 28		eS		03 54 55	
					micr sec		iScS		03 56 24	
				P Z'	0.1 1.0		iP'P'		04 15 40.2	
				P'P'Z'	0.2 2.0		Ka	iP	03 47 28.1	
				M E	0.7 23			ipP	03 47 47.2	
				M N	1.2 23			iP'P'	04 15 19.7	
				M Z	1.1 23		Ud	iP	03 47 04.0 C	
				D = 7350 km = 66°				iPcS	03 51 31.0	
								iP'P'	04 15 30.1	
				Ki	iP	03 46 11.0 C				
					i	03 46 12.4			Aleutian Islands.	
					i(pP)	03 46 33.3			h = 70 km (Ki,Um,Ka).	
					i	03 50 10			Magn. = 5.8 (Up,Ki).	
					iPcS	03 50 56.0			Multiple P (Up,Ki,Um).	
					iS	03 54 09			Clear core-reflected phases,	
					iScS	03 55 53			also on short-period records.	
					iP'P'	04 15 50.0	"	1	Ud eP	06 09 29
						micr sec			Sumatra (h = 170 km).	
					P Z'	0.2 1.0	"	1	Up iP	10 26 33.5
					S N	0.3 9			Ki iP	10 25 39.1
					P'P'Z'	0.1 2.0			Sk iP	10 26 15.8
					M E	0.7 17			Gb iP	10 26 53.5 D
					M N	0.7 20			Um iP	10 26 04.8
					M Z	1.6 22			Ka iP	10 26 57.8
					D = 6450 km = 58°				Ud iP	10 26 36.6
				Sk	iP	03 46 41.7 C			Kamchatka (h = 30 km).	
					iPcP	03 47 18.5				
					iPcS	03 51 15.9				

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967				
June	1	Sk	iSg	10 40 49.1	June	1	Ki	---
		Ud	iPg	10 39 46.4				micr sec
			iSg	10 40 03.5			M E	0.5 18
"	1	Up	iP	10 44 37.5 D			M N	0.3 20
			iS	10 49 05			M Z	1.1 19
				micr sec		Um	iPKP	21 06 23.2
		P E		0.2 4			ePP	21 07 16
		P N		0.4 4		Ka	iPKP	21 06 36.5
		P Z		0.4 4		Solomon Islands		
		P Z'		0.2 1.2		(h = 30 km).		
		S E		0.4 7	"	1	Ki	eP 22 27 22
		S N		0.7 6			Um	iP 22 27 41.2
		M E		2.2 17		Japan (h = 40 km).		
		M N		1.7 17				
		M Z		0.7 14	"	2	Up	iP 04 35 55.6 C
		D = 2700 km = 24 1/2°.					Ki	iP 04 35 41.5 C
		Ki	iP	10 45 42.5 D				i 04 35 47.3
			eSS	10 52 35			Um	iP 04 35 42.4 C
			iLg1	10 55 41			Ka	eP 04 36 09
			iScS	10 56 22			Sinkiang (h = 30 km).	
				micr sec		"	2	Up
		P Z'		0.2 1.2				iP 05 16 10.7
		M E		1.2 10				i 05 16 17.6
		M N		0.7 13				eS 05 20 23
		M Z		1.0 12				iLg1 05 23 49
		Sk	iP	10 45 17.8 D				micr sec
		Gb	iP	10 44 32.9			P Z'	0.1 0.7
			i	10 44 34.6			M E	0.4 15
			i	10 44 40.9			M N	0.4 14
		Um	iP	10 45 07.1 D			M Z	0.7 15
			i	10 45 26.9			D = 2700 km = 24 1/2°.	
			i(S)	10 50 00		Ki	iP	05 16 46.1 C
			iLg1	10 54 02			iPn	05 17 08.5
		Ka	iP	10 44 07.3			iLi	05 24 36.3
			i	10 44 09.8			iLg1	05 25 52
			i	10 44 24.4			iLg2	05 26 24.0
		Ud	iP	10 44 47.9 D				micr sec
		Turkey (h = 40 km).					P Z'	0.1 1.0
		Magn. = 5.5 (Up,Ki).					M E	0.6 16
		Clear higher-mode					M N	0.2 11
		surface waves.				Gb	iP	05 16 28.0
							i	05 16 30.6
							i	05 16 40.0
"	1	Up	iP	11 14 51.0			eSn	05 21 16
		Ki	iP	11 14 05.4		Um	iP	05 16 21.7 C
		Um	iP	11 14 23.7			iPP	05 16 53.2
		Ka	eP	11 15 12			i(S)	05 21 00
		Ud	iP	11 14 55.9			i(Sn)	05 21 32.9
		Kurile Islands (h = 60 km).					i	05 22 16.8
"	1	Um	iP	11 37 05.2			iLg1	05 24 36
"	1	Ud	iPg	12 55 05.6		Ka	iP	05 16 05.8 C
			iSg	12 55 24.5			i	05 16 10.6
							i	05 16 21.1
		Caucasus (h = 30 km).				Magn. = 5.5 (Up,Ki).		

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1967				1967			
June	2			June	3	(cont.)	
		Up	iP 06 42 31.8			Ki	iP 09 18 17.8 C
			i 06 42 37.1				ipP 09 18 25.3
		Ki	eP 06 43 06				iS 09 25 50
			i 06 43 11.0				iScS 09 28 03
		Um	iP 06 42 51.2				micr sec
			iPcP 06 43 13.9			P N	0.3 6
			iS 06 52 16			P Z	0.4 7
		Ka	iP 06 42 09.2 C			P Z'	0.2 1.0
		Atlantic Ocean (h = 30 km).				pP Z'	0.6 1.4
"	2	Ki	eP 08 20 34			S N	0.3 8
			i 08 20 46.6			M E	0.8 18
		Um	iP 08 20 08.2			M N	1.5 21
		Possibly, these are instead Sg-phases from a regional event.				M Z	2.5 20
						D = 6000 km = 54°.	
"	2	Gb	iP 18 41 55.6			Gb	iP 09 19 24.8 C
							ipP 09 19 32.2
"	2	Up	iP 20 24 46.6			Um	iP 09 18 46.5 C
		Ki	iP 20 26 00.0				ipP 09 18 55.6
		Gb	eP 20 24 27				iS 09 26 44
		Um	eP 20 25 25				iP'P' 09 48 35.1
		Ka	iP 20 24 06.6			Ka	iP 09 19 36.4 C
			i 20 24 13.5				ipP 09 19 43.8
		Ud	iP 20 24 49.4				i 09 20 00.5
		Sicily (h = 260 km).				Ud	iP 09 19 09.3 C
							ipP 09 19 18.4
						Kodiak Island. h = 30 km (Up,Ki,Gb,Um,Ka,Ud). Magn. = 5.6 (Up,Ki). The amplitude ratio pP/P is on the average = 2.2 on Z'-records.	
"	2	Up	iP 21 52 31.0 C			Up	iP 09 55 36.3
"	3	Up	iSKS 06 35 38				i 09 55 39.6
			iS 06 36 43			Um	iP 09 55 17.2
			iPS 06 38 24				
		Ki	---			"	3
			micr sec			Up	iP 10 31 13.0
			M E 0.5 18				iSn 10 32 09.1
		Um	ePP 06 29 20				i(Lg1) 10 32 30.2
			iS 06 36 54				D = 520 km = 4.7°.
			i 06 38 48				Probably northwest Russia. Origin time = 10 29 59. Explosion?
		Peru (h = 30 km).				"	3
"	3	Up	iP 07 36 39.5			Ki	iSg 10 38 21.9
			i 07 36 56.1			Um	iSg 10 38 49.4
"	3	Up	iP 09 19 13.1 C			Possibly Nordlands Fylke, Norway.	
			ipP 09 19 21.4			"	3
			iS 09 27 33			Up	iP 13 21 28.7
			iScS 09 28 59			Ki	iP 13 21 34.9 C
			iP'P' 09 48 21.1			Gb	iP 13 21 15.2
			micr sec			Ud	iP 13 21 20.2
			P Z' 0.1 1.0				ipP 13 21 57.4
			pP Z' 0.2 1.0			Peru-Brazil. h = 150 km (Ud).	
			M E 0.5 19				
			M N 0.8 19				
			M Z 1.1 22				
		D = 6850 km = 61 1/2°.					
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967								
June	3	Ki	eL	16 42	June	4	Up	iP	06 45 02.5			
				micr sec				ipP	06 45 13.1			
			M E	0.6 17			Ki	iP	06 44 10.1 C			
			M N	0.3 11			Gb	iP	06 45 23.0			
			M Z	0.3 11			Um	iP	06 44 34.8 C			
			Aegean Sea.					ipP	06 44 45.2			
							Ud	iP	06 45 06.5			
"	3	Um	iP	19 41 42.2			Kamchatka. h = 40 km (Up,Um).					
			i(Sg)	19 42 15.8			According to our interpretation, this shock and the two preceding ones have occurred at very nearly the same depth (40 km), which disagrees with USCGS.					
"	3	Up	i(P)	20 08 06.3								
		Um	i(P)	20 09 00.6								
"	4	Up	iP	05 37 25.3 C								
			ipP	05 37 36.1								
				micr sec								
			P Z'	0.3 1.0			"	4	Ki	ePn	13 57 43	
			M E	0.6 16					i	13 58 06.3		
			M N	0.9 17					iSn	13 58 32.9		
			M Z	0.7 15					iLg1	13 58 46.3		
		Ki	iP	05 36 33.2 C			"	4	Ud	iP	16 46 39.0	
			ipP	05 36 43.6			"	4	Up	iP	18 47 57.7	
				micr sec			"	5	Up	iPKP	01 40 41.0	
			P Z'	0.2 1.0					ePKS	01 44 24		
			M E	0.7 17						micr sec		
			M N	0.6 17					M N	1.0 19		
			M Z	1.3 18					M Z	0.9 18		
		Gb	iP	05 37 45.7 C				Ki	iPKP	01 40 30.2		
			ipP	05 37 56.5					ePKS	01 44 01		
		Um	iP	05 36 57.4 C						micr sec		
			ipP	05 37 08.0					PKS E	0.4 10		
			i	05 39 50.5					PKS N	0.4 11		
		Ka	iP	05 37 48.9 C					PKS Z	0.5 12		
		Ud	iP	05 37 29.2 C					M E	1.1 20		
			ipP	05 37 40.1					M N	1.0 20		
									M Z	1.3 18		
			Kamchatka. h = 40 km (Up,Ki,Gb,Um,Ka,Ud).					Um	iPKP	01 40 33.2 C		
			Magn. = 6.1 (Up,Ki).						i	01 40 47.0		
"	4	Up	iP	06 34 18.1 C					i	01 41 28.6		
				micr sec					iPKS	01 44 12		
			P Z'	0.1 1.0				Ka	iPKP	01 40 49.8		
		Ki	iP	06 33 24.5					i	01 41 00.1		
			ipP	06 33 36.2					i	01 41 10.4		
				micr sec					iPKP	01 40 43.0		
			P Z'	0.1 1.0					Tonga Islands (h = 30 km). Magn. = 5.8 (Up,Ki).			
		Gb	iP	06 34 38.2				Ud	iPKP	01 40 43.0		
		Um	iP	06 33 50.3 C								
			ipP	06 34 00.9								
		Ka	iP	06 34 41.7								
		Ud	iP	06 34 22.0 C								
			ipP	06 34 32.8				"	5	Ki	iP	05 24 45.9
										Alaska (h = 30 km).		
			Kamchatka. h = 40 km (Ki,Um,Ud).									
			Magn. = 5.7 (Up,Ki).									

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967						
June	5	Up	iP	11 21 17.9	June	6	Ud	iP	21 13 35.8 C	
				micr sec						
			P	Z' 0.1 0.5	"	7	Ki	eP	03 01 47	
"		Ki	iP	11 20 50.1 D			Um	iP	03 01 50.3	
		Ud	eP	11 21 24			Ud	iP	03 01 32.6	
		Mariana Islands					Iceland (h = 30 km).			
		(h = 410 km).								
"	5	Up	iP	13 57 50.5	"	7	Um	iP	05 17 29.3 C	
		Ud	i(P)	13 57 52.5			Ud	iP	05 17 43.8 C	
"	5	Up	iP	16 49 12.7 C	"	7	Ud	eP	08 26 47	
			ipP	16 49 23.4	"	7	Up	iP	16 00 02.3	
				micr sec			Ki	iP	16 01 09.2	
			P	Z' 0.2 1.0			Um	iP	16 00 35.2	
		Ki	iP	16 48 20.0 C			Ud	iP	16 00 10.4	
			i(pP)	16 48 33.2			Crete (h = 10 km).			
				micr sec	"	7	Up	i(S)	16 24 41.9	
			P	Z' 0.1 1.0			Austria (h = 30 km).			
		Gb	iP	16 49 32.9 C	"	7	Up	iP	17 09 21.8	
		Um	iP	16 48 44.6 C			i	17 09 25.1		
			i	16 48 51.5				micr sec		
		Ud	iP	16 49 16.3 C			Ki	iP	17 08 52.2	
			ipP	16 49 26.8			i	17 08 55.4		
		Kamchatka.					ipP	17 10 31.1		
		h = 40 km (Up,Ud).					Um	iP	17 09 01.0	
		Magn. = 5.8 (Up,Ki).					i	17 09 03.9		
"	5	Um	iP	17 01 07.9			Ka	iP	17 09 41.6 C	
"	5	Up	i(P)	18 17 51.5			Ud	iP	17 09 35.5 C	
		Ud	e(P)	18 16 53			i	17 09 38.5		
"	5	Up	iP	22 42 26.0			USSR-Mongolia (h = 30 km).			
"	6	Ki	eP	07 00 55			If the second phase (about same amplitude as P and very clear) is interpreted as pP, the focal depth is only 15 km.			
		Ud	iP	07 01 22.2 C						
		Luzon (h = 60 km).				"	7	Up	iP	18 27 27.3
"	6	Um	iP	13 05 08.5			ipP	18 27 40.2		
		Ud	i(P)	13 05 19.9			Ki	iP	18 26 36.9	
"	6	Ki	iP _n	13 43 39.3			ipP	18 26 51.3		
			iP _x	13 43 47.6			Um	iP	18 27 00.4	
			iSn	13 44 24.9			i	18 27 04.1		
			iLg1	13 44 38.8			ipP	18 27 13.9		
			D = 420 km = 3.8°				Ka	eP	18 27 49	
		Um	iSn	13 45 07.0			Ud	iP	18 27 32.0	
			iSg	13 45 36.5			ipP	18 27 46.5		
			D = 600 km = 5.4°				Kurile Islands.			
		Northwest Russia-Finland border region.					h = 50 km (Up,Ki,Um,Ud).			
		Origin time = 13 42 39.				"	7	Ud	iP	19 30 38.5 C
		Explosion?								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
June	7	Ki	iP	19 50 37.2	June	8	Up	iP	20 15 21.0
"	7	Ud	iP	20 31 26.2			Ki	iP	20 16 27.7
"	7	Ud	iP	21 28 18.0 C			Ud	iP	20 15 29.0
				Crete.					Crete.
"	7	Ki	iP	22 43 46.0	"	8	Um	iPKP	23 56 19.8
				Iran (h = 40 km).					South of Kermadec Islands
"	8	Ki	iP	07 14 36.6		9	Ud	iP	06 39 17.2
				Mindanao (h = 160 km).					Aleutian Islands (h = 30 km).
"	8	Ki	iPg	08 51 50.4	"	9	Ki	iP	11 35 01.7
			iSg	08 52 32.3				ipP	11 35 21.1
				D = 330 km = 3.0°			Um	iP	11 35 06.7 C
		Um	iPg	08 51 38.1			Ud	iP	11 35 26.2
			iSg	08 52 07.8					Talau Islands.
				D = 260 km = 2.3°					h = 70 km (Ki).
				Probably Swedish Lapland	"	9	Ki	e	12 50 24
				(by combination with Tromsö).				i(Sg)	12 50 49.7
				Origin time = 08 50 52.			Um	i(Sg)	12 48 41.1
"	8	Up	iP	12 15 15.7					Probably explosion in the
		Ki	iP	12 14 58.2					area of the Gulf of
		Ud	iP	12 15 23.1 C					Finland.
			i	12 15 32.1	"	9	Up	iPKP	13 01 22.2
				Talau Islands (h = 70 km).			Ki	iPKP	13 01 02.1
"	8	Um	iP	13 14 45.5			Um	iPKP	13 01 10.8
									West of Macquarie Islands
"	8	Ki	iPKP	13 41 12.6					(h = 30 km).
			iSKP	13 44 25.6	"	9	Um	iPKP	17 24 15.7
		Um	iPKP	13 41 19.1			Ud	iPKP	17 24 16.8
			iSKP	13 44 36.4					Fiji Islands (h = 550 km).
		Ud	iPKP	13 41 23.9	"	9	Up	iP	19 37 23.2
				Loyalty Islands (h = 90 km).			Ki	iP	19 37 07.5
"	8	Up	iP	14 04 32.8			Um	iP	19 37 11.2
		Ki	iP	14 04 17.4			Ud	iP	19 37 31.5
		Ud	iP	14 04 43.0					Talau Islands (h = 120 km).
				Philippine Islands	"	9	Ud	iP	20 45 38.4
				(h = 100 km).	"	9	Up	iP	22 58 45.3
"	8	KiR	ePg	16 19 30			Um	i(P)	22 58 12.9
			iSg	16 20 06.1	"	10	Ki	eP	04 00 01
				D = 310 km = 2.8°			Um	iP	04 00 27.6
		Um	eSn	16 20 18				i	04 00 35.3
			iSg	16 20 32.8			Ud	eP	04 00 41
		Ud	eSg	16 21 59					Aleutian Islands (h = 30 km).
				Nordlands Fylke, Norway,					
				66.4° N, 14.2° E.					
				Origin time = 16 18 34.					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
June	10			June	10	(cont.)	
		Up	iPKP 05 45 40.2			Ki	iPKP 14 16 56.1
		Ki	iPKP 05 45 47.4				iSKP 14 19 24.3
			i 05 48 33.5				micr sec
			PKP Z' 0.1 1.0				SKP Z' 0.2 1.0
			M E 0.8 18			Um	i(PKP) 14 16 53.0
			M N 0.6 18				iPKP 14 17 00.1
			M Z 0.8 18				iSKP 14 19 36.4
		Gb	iPKP 05 45 34.3			Ka	iPKP 14 17 13.2
		Um	iPKP 05 45 45.8 C				iSKP 14 19 59.6
			iX 05 46 56.6			Ud	iPKP 14 17 03.1
			i 05 47 23.5				i 14 17 13.4
		Ka	iPKP 05 45 36.2				iSKP 14 19 50.7
		Ud	iPKP 05 45 36.3			Fiji Islands (h = 600 km).	
			iX 05 46 52.7				
		Chile (h = 40 km).			"	10	Ki iP 14 27 52.7
							Um iP 14 27 59.0
							i 14 28 05.0
"	10	Up	iP 05 56 49.4		"	10	Um iP 16 49 52.0
			iS 06 05 48				
			D = 7550 km = 68°.		"	10	Ki eP 18 15 27
		Ki	iP 05 57 34.8				Um eP 18 15 22
		Um	iP 05 57 14.5				eS 18 24 01
			iX 05 57 19.8			Ud	iP 18 14 52.9
			i 05 57 24.4				i 18 15 00.3
			iS 06 06 31			North Atlantic Ocean (h = 30 km).	
		Ud	iP 05 56 44.4		"	11	Up iP 05 39 58.9
			iX 05 56 49.6				Ki ---
		North of Ascension Island (h = 10 km).					micr sec
"	10	Up	iP 06 40 52.2 C				M E 0.5 14
			i 06 40 55.0				M N 0.4 14
		Ki	iP 06 40 22.5 C				M Z 0.5 14
		Um	iP 06 40 31.1			Gb	eP 05 39 42
			i 06 40 49.1			Um	iP 05 40 35.0
		Ka	iP 06 41 11.7				i 05 40 51.0
		Ud	iP 06 41 05.8				eS 05 45 07
		USSR-Mongolia (h = 30 km).				Ud	iP 05 40 02.7
"	10	Ki	ePn 08 09 42			Greece (h = 40 km).	
			iSn 08 10 36.8		"	11	Um e(Sg) 07 32 41
			i(Lg1) 08 10 58.4		"	11	Up iP 12 01 09.5
		Um	iSn 08 11 22.1				Ki iP 12 00 20.9
			iSg 08 12 02.1				Um iP 12 00 42.6
		Probably northwest Russia. Origin time = 08 08 30. Explosion?					Ud iP 12 01 13.9
"	10	Up	iP 13 56 46.7 C			Kurile Islands (h = 40 km).	
"	10	Up	iPKP 14 17 02.6		"	11	Up iP 13 17 55.3 C
			iSKP 14 19 49.2		"	12	Ki iP 00 14 54.2
			micr sec				i 00 15 36.1
			SKP Z' 0.1 1.0				
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967						1967					
June	12	Ki	iP	00 15 59.0		June	12	(cont.)			
		Ud	iP	00 15 17.6				Gb	iP	02 55 44.3	
			i	00 15 24.3					i	02 55 56.6	
		North Atlantic Ocean						Um	iP	02 56 34.4	
		(h = 30 km).							i	02 56 43.4	
"	12	Ud	ePKP	01 08 23					i(Pn)	02 56 56.7	
			i	01 08 35.5					iS	03 01 02	
		Tonga Islands (h = 15 km).							eLg2	03 05 03	
"	12	Ki	iP	01 22 33.0				Ud	iP	02 56 04.9	
		Ud	iP	01 23 04.1					i	02 56 11.0	
		Philippine Islands							Greece (h = 30 km).		
		(h = 80 km).				"	12	Up	iS	03 31 18	
"	12	Up	iP	01 34 00.3				Ki	iP	03 20 32.2	
				micr sec					eS	03 31 14	
		M	E	0.5 18						micr sec	
		M	N	0.4 14				P	Z'	0.1 1.0	
		Ki		----				S	E	0.4 8	
				micr sec				S	N	0.4 8	
		M	E	0.5 15				M	E	0.6 16	
		M	N	0.3 15				M	N	0.8 22	
		M	Z	0.5 14				M	Z	1.0 18	
		Gb	iP	01 33 46.7				D = 9900 km = 89°.			
			i	01 34 00.7				Um	iP	03 20 28.6	
		Um	iP	01 34 43.9					i	03 20 35.5	
		Ud	eP	01 34 07					i	03 21 07.5	
			i	01 34 10.7					iS	03 31 11	
			i	01 34 20.7				Ud	iP	03 20 41.1	
		Greece (h = 25 km).						Sumatra (h = 30 km).			
"	12	Ki	iP	02 10 12.8				Magn. = 5.7 (Ki).			
		Ud	iP	02 09 40.6		"	12	Ud	iP	04 55 03.9 C	
		North Atlantic Ocean				"	12	Up			
		(h = 30 km).								micr sec	
"	12	Up	iP	02 55 58.2 C				M	E	1.8 19	
			i	02 56 01.1				M	N	2.0 20	
			iS	03 00 06				M	Z	1.6 20	
				micr sec				Ki		----	
		P	Z'	0.1 0.8						micr sec	
		M	E	1.8 14				M	E	1.8 18	
		M	N	1.4 12				M	N	1.1 18	
		M	Z	1.1 12				M	Z	2.3 19	
		D = 2450 km = 22°.						Um	iPP	05 40 07	
		Ki	iP	02 57 15.8					eSKS	05 46 14	
			iLg1	03 07 06					eS	05 47 45	
			eLg2	03 07 36					iPS	05 49 33	
				micr sec					iSS	05 55 23	
		M	E	1.4 12				Prince Edward Island			
		M	N	1.0 15				(h = 40 km).			
		M	Z	1.6 14				Magn. = 6.0 (Up, Ki).			
(cont.)						"	12	Ud	iP	11 05 24.1	
								Greece (h = 30 km).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
June	12	Ki	iP	12 48 34.2	June	12	(cont.)
		Ud	e(P)	12 47 41			Ki
							micr sec
"	12	Up	iP	18 17 24.8			P E 0.4 5
		Ki	iP	18 18 40.9 C			P N 0.4 6
		Um	iP	18 18 07.7			P Z 0.8 6
		Ka	iP	18 16 47.7			P Z' 0.1 1.3
		Ud	iP	18 17 31.8			S E 0.5 12
			i	18 17 34.3			S N 0.5 12
		Greece (h = 60 km).					M E 7.3 18
							M N 4.1 18
							M Z 8.9 20
"	12	Up	iSKS	21 41 22			D = 6550 km = 59°.
				micr sec			Um iP 23 33 08.4 C
			SKS N	0.4 5			iPa 23 37 05
			M E	0.6 16			eS 23 41 31
			M N	1.0 19			Ka iP 23 33 57.5
			M Z	1.1 22			Ud iP 23 33 40.0 C
		Ki	iP	21 30 42.1			Kurile Islands (h = 60 km).
			i	21 30 53.0			Magn. = 5.9 (Up, Ki).
			i	21 31 31.7			
			iS	21 41 28		"	12 Ki iP 23 45 29.1
				micr sec			Um eP 23 45 35
			P Z'	0.2 1.3			Ud iP 23 45 54.0
			S E	0.5 8			i 23 46 05.8
			S N	0.4 7			Mindanao (h = 60 km).
			M E	0.6 16			
			M N	1.2 22		"	13 Ki ePKP 00 36 21
			M Z	1.0 16			Um iPKP 00 36 33.5
			D = 9900 km = 89°.				New Hebrides Islands
		Um	iP	21 30 39.0			(h = 10 km).
			iX	21 31 01.0			
			iPP	21 34 08		"	13 Ki iP 01 22 59.6
			iSKS	21 41 06			micr sec
			iS	21 41 23			P Z' 0.1 1.0
		Ud	iP	21 30 52.3			Um iP 01 22 56.1
			iX	21 31 13.3			i 01 23 03.4
		Sumatra (h = 30 km).					Ud iP 01 23 08.4
		Magn. = 5.8 (Up, Ki).					Sumatra (h = 30 km).
"	12	Up	iP	23 33 34.9 C	"	13	Um iP 02 53 09.9
			iS	23 42 20			Ud iP 02 53 42.2
				micr sec			Kurile Islands (h = 30 km).
			P N	0.3 5		"	13 Um iPKP 03 31 10.1
			P Z	0.6 4			Loyalty Islands
			S E	0.4 8			(h = 30 km).
			S N	1.1 14			
			M E	2.7 18		"	13 Um i(Sg) 09 22 11.0
			M N	4.7 21			
			M Z	5.2 20			
			D = 7400 km = 66 1/2°.			"	13 Ki iP 09 48 05.5
		Ki	iP	23 32 45.0 C			Um iP 09 49 01.3
			eS	23 40 46			i 09 49 10.1
		(cont.)					(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
June	13	(cont.)		June	13	Up	iP	23 15 11.3	
		Ud	iP	09 49 40.4			i	23 15 19.7	
		Svalbard (h = 30 km).					i(S)	23 19 41	
"	13	Um	i(Sg)	09 53 12.5		Ki	iP	23 15 57.5	
							eLg1	23 25 11	
								micr sec	
"	13	Ki	i(Lg1)	12 56 22.9			M E	0.6 13	
		Sk	iSg	12 56 07.8			M N	0.4 13	
		Um	iSg	12 54 48.3			M Z	0.8 14	
			i	12 55 04.0		Um	iP	23 15 23.9	
		Ud	eSg	12 55 14			iPn	23 15 41.5	
		Esthonia.					iPP	23 16 02.6	
		Origin time = 12 51 47.					iS	23 20 03	
		Explosion?					iLg2	23 24 05	
"	13	Up	iP	12 59 10.7		Ka	iP	23 15 11.7	
		Um	iP	12 59 36.5		Ud	iP	23 15 27.0	
			i	12 59 40.8		Caucasus (h = 30 km).			
		Turkey (h = 30 km).			"	13	Up	iP	23 30 14.8
"	13	Ki	ePg	13 45 52	"	14	Up	iP	03 56 16.4 D
			iSg	13 46 33.2			iPcP	03 56 48.8	
			D = 360 km = 3.2⁰			Ki	iP	03 55 33.8	
		SkA	eSg	13 47 44		Sk	iP	03 56 09.2	
		Um	iPg	13 45 33.4			i	03 56 14.8	
			iSg	13 46 01.1		Gb	iP	03 56 39.3	
			D = 240 km = 2.2⁰			Um	iP	03 55 52.3 D	
		Gulf of Bothnia,					i	03 55 56.6	
		65.1°N, 24.5°E.					i	03 56 21.3	
		Origin time = 13 44 48.					iPcP	03 56 33.4	
		Explosion?				Ka	iP	03 56 38.4	
"	13	Um	iP	14 44 55.7		Ud	iP	03 56 24.3	
						Sikhota Alin (h = 360 km).			
"	13	Up	----		"	14	Up	iPKP	05 25 40.0
			micr sec				iY	05 25 58.3	
		M E	0.6 20				iPKS	05 29 15	
		M N	1.1 21					micr sec	
		Um	ePP	15 58 12			M E	0.6 22	
			i	15 58 22.5			M N	1.2 23	
		New Britain (h = 210 km).					M Z	1.4 22	
"	13	Um	iP	18 56 55.4		Ki	iPKP	05 25 21.2	
							iY	05 25 38.1	
								micr sec	
"	13	Up	iP	19 05 41.5			M E	1.0 21	
		Ki	iP	19 05 23.8			M N	0.7 20	
		Sk	iP	19 05 37.5			M Z	2.4 24	
		Halmahera (h = 150 km).				Sk	iPKP	05 25 30.5	
							iX	05 25 42.9	
"	13	Ud	iP	20 52 34.5		Gb	iX	05 25 58.3	
						Um	iPKP	05 25 28.3	
"	13	Ki	iP	22 41 58.0			iX	05 25 40.8	
		Um	iP	22 42 03.8			iY	05 25 51.0	
		Molucca Passage					iPP	05 27 51	
		(h = 60 km).					iPKS1	05 28 50	
							iPKS2	05 29 00	

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
June	14	(cont.)		June	14	Up	iP 08 23 51.8 C
		Ud	iPKP 05 25 36.1			i	08 23 56.9
			iY 05 25 59.9				micr sec
		Tonga Islands (h = 10 km).				P Z'	0.3 1.3
		Magn. = 5.7 (Up,Ki).				Ki iP	08 23 03.5
"	14	Um	iP 05 37 51.6			i	08 23 08.7
							micr sec
"	14	Um	iP 05 56 43.3			P Z'	0.1 1.0
			i 05 56 58.6			Sk iP	08 23 38.8 C
						Gb iP	08 24 12.8
"	14	Sk	iP 07 18 41.9			Um iP	08 23 26.0
						Ka iP	08 24 15.1 C
"	14	Up	iP 08 16 48.2 C			Ud iP	08 23 57.4 C
			i 08 17 07.6			Kurile Islands (h = 50 km).	
			iS 08 25 42			Magn. = 6.0 (Up,Ki).	
			micr sec	"	14	Ud	iP 09 41 31.6
		P Z'	0.1 1.0				
		M E	1.9 20	"	14	Um	iPn 11 02 26.0
		M N	5.1 18			iLg1	11 02 44.8
		M Z	4.5 20			iSg	11 02 47.2
		D = 7400 km = 66 1/2°.					D = 170 km = 1.5°.
		Ki iP	08 16 00.1			Origin time = 11 01 58.	
		i	08 16 22.0			Explosion.	
		iS	08 24 10				
		iPS	08 24 33				
			micr sec	"	14	KiR	eSn 13 26 45
		P Z	0.4 5				iSg 13 27 39.0
		P Z'	0.1 1.0			SkA	iSg 13 26 56.2
		S E	0.5 11			Um€	iSg 13 25 36.6
		M E	5.2 20			Ud∇	iSg 13 26 05.3
		M N	3.0 17			Gulf of Finland,	
		M Z	6.1 18			59.8°N, 24.3°E.	
		D = 6600 km = 59 1/2°.				Origin time = 13 23 07.	
		Sk iP	08 16 35.0			Probably underwater	
		i	08 16 54.6			explosion.	
		Gb iP	08 17 08.9 C	"	14	Up	i(P) 15 06 46.7
		i	08 17 27.1			Sk	iP 15 07 00.2
		Um iP	08 16 21.8 C	"	14	Ka	iP 15 35 47.6 C
		ipP	08 16 34.1				
		ePa	08 20 15	"	14	Up	iP 15 46 42.2 C
		iS	08 24 51			Ki	iP 15 45 54.4
		Ka iP	08 17 11.0			Sk	iP 15 46 30.0
		i	08 17 30.5			Um	iP 15 46 16.6 C
		Ud iP	08 16 53.4 C			Ud	iP 15 46 47.9
		ipP	08 17 05.8			Kurile Islands (h = 30 km).	
		Kurile Islands.		"	14	Up	i(P) 16 31 52.6
		h = 50 km (Um,Ud).				Um	iP 16 31 29.8
		Magn. = 5.8 (Up,Ki).		"	14	Um	iP 17 00 19.7
		There is a clear phase 19.7				i	17 00 46.8
		sec after P (in average at					
		Up,Ki,Sk,Gb,Ka), and with					
		about the same amplitude -					
		possibly another shock from					
		the same region.					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967
June 16 (cont.)
Um iPKP 06 23 12.1
Ud e(PKP) 06 23 29
iPKP2 06 23 34.8
West of Macquarie Islands
(h = 30 km).

" 16 Sk iPg 06 46 32.2
iSg 06 46 58.0

" 16 Sk iPg 07 12 34.0
iSg 07 12 59.7

" 16 Ki iPn 10 25 02.4
iSn 10 26 02.0
~~iLg1 10 26 21.4~~
~~D = 560 km = 5.0°~~
SkA eSg 10 28 47
Um iSg 10 27 13.7

Northwest Russia,
67.2° N, 33.3° E.
Origin time = 10 23 44.
Explosion?

" 16 Um iP 12 34 43.2

" 16 Um iPg 12 51 58.5
iSg 12 52 19.6

" 16 Ki ePn 14 11 15
iSn 14 12 05.8
~~iLg1 14 12 16.5~~
~~D = 480 km = 4.3°~~
SkA eSg 14 14 43
Um i 14 12 53.6
iSg 14 13 12.8

Northwest Russia,
67.3° N, 31.6° E.
Origin time = 14 10 05.
Explosion?

" 16 Up iP 16 04 27.2
Ka iP 16 04 29.6

" 16 Um iP 16 07 44.8

" 16 Sk iP 16 33 28.8
i 16 33 35.9
i 16 33 42.4
Local disturbance?

" 16 Up iPg 19 31 31.0
iSg 19 31 54.8
~~D = 200 km = 1.8°~~
(cont.)

1967
June 16 (cont.)
Ud iPg 19 31 18.5
iSg 19 31 32.8
~~iRg 19 31 37.5~~
D = 120 km = 1.1°

South-central Sweden,
59.0° N, 14.4° E.
Origin time = 19 30 56.
Explosion.
Almost the same location
as for the event on Nov. 19
at 19 30.

SEE LIST OF
PROFILING
EXPLOSIONS

" 16 Ki iPn 19 40 36.7
iSn 19 41 35.2
eLg1 19 41 52
D = 530 km = 4.8°

Probably northwest Russia.
Origin time = 19 39 22.
Explosion?

" 16 Ud iPKP 20 31 23.0
Tonga Islands (h = 90 km).

" 16 Um iP 20 35 45.6
Panama-Colombia (h = 80 km).

" 17 Up iP 00 27 44.1 C
micr sec
M E 1.0 20
M N 1.2 20
M Z 1.3 20

Ki ---
micr sec
M E 1.7 14
M N 0.9 13
M Z 2.3 14

Ud iP 00 27 59.0
Sinkiang.
Atmospheric nuclear
explosion. Clear atmospheric
pressure waves were recorded,
especially by Um LP seismo-
graphs. Energy calculations
suggest a low altitude,
considerably less than 1 km.

" 17 Up iPKP 05 18 49.5 C
iPPP 05 21 05
iSKP 05 21 42.8
iPKS 05 22 07.6
iSKS 05 25 31
i! 05 27 10
iPKKP 05 28 42.5
i 05 28 44.3

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967
June 17 (cont.)

	Up		micr	sec
	PKP	Z'	0.7	0.7
	PKS	Z	1.3	4
	PKS	Z'	0.4	0.8
	SKS	E	0.9	5
	SKS	N	2.0	5
	PKKP	Z'	0.1	0.5
	M	E	4.2	20
	M	N	4.7	21
	M	Z	7.8	20
	(D = 13550 km = 122°).			
Ki	e(PKP)		05 18	52
	iPKP		05 19	06.2
	ipPKP		05 19	51.1
	iSKP		05 22	11.8
	iPKS		05 22	28
	ipPKS		05 23	11
	isPKS		05 23	27
	eSKS		05 25	55
	iPKKP		05 27	58
	iSKSP		05 31	09
			micr	sec
	PKP	Z	3.0	5
	PKP	Z'	0.6	1.2
	SKP	E	2.1	5
	SKP	N	4.1	6
	SKP	Z	20	5
	SKP	Z'	8.5	2.0
	PKS	E	3.6	5
	PKS	N	2.7	6
	SKS	E	3.5	6
	SKS	N	3.8	8
	PKKP	E	3.7	6
	PKKP	N	4.6	7
	M	E	5.2	20
	M	N	3.6	19
	M	Z	12	18
	(D = 14450 km = 130°).			
Sk	i(PKP)		05 18	54.2
	iPKP		05 18	56.9
	iPKS		05 22	14.0
Gb	iPKP		05 18	44.2
	ipPKP		05 19	29.9
	iPP		05 20	01.6
	i		05 20	36.1
	ipPP		05 20	44.7
	iPKKP		05 28	54.0
Um	i(PKP)		05 18	44.1
	iPKP		05 18	58.0
	ipPKP		05 19	44.1
	ipPP		05 21	29
	iSKP		05 21	58.4
	iPKS		05 22	16.7

(cont.)

1967
June 17 (cont.)

Um	iSKS		05 25	45
	i!		05 27	35
	iSKSP		05 30	37
	iSKKP		05 32	05.7
	iSS		05 38	06
Ka	iPKP		05 18	43.0
	ipPKP		05 19	29.0
	iPKS		05 22	02.8
	iPKKP		05 28	58.6
Ud	iPKP		05 18	48.2
	iPP		05 20	20.8
	iPKS		05 22	08.0
	iPKKP		05 28	44.8
	i		05 29	29.4
South Sandwich Islands. h = 180 km (Ki,Gb,Um,Ka). Our stations cover the distance range of about 119°-130°. Fore-runners of PKP appear beyond about 124°, but not at shorter distances. On the whole, our stations illustrate well the variation of amplitudes and other properties of various core phases over the distance range mentioned.				
"	17	Ka	iP	10 01 21.1
		Ud	iP	10 01 45.7
Caucasus (h = 30 km).				
"	17	Um	iP	12 08 55.6
"	17	Um	iP	12 35 23.4
"	17	Up	iP	13 24 26.4 D
			ipP	13 24 55.9
		Um	iP	13 24 19.0
		Ka	iP	13 24 34.5
			ipP	13 25 04.3
		Ud	iP	13 24 39.4
Burma-India. h = 120 km (Up,Ka).				
"	17	Up	iP	15 47 10.0
			i	15 47 17.2
		Um	iP	15 48 00.1 D
			i	15 48 12.5
Italy (h = 25 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
June	17	Up	iP	17 56 26.7	June	18	(cont.)
			ipP	17 56 58.4			Um iPKP 20 22 54.0
		Ud	iP	17 56 17.2			i 20 23 08.3
		Guatemala. h = 120 km (Up).					Ud iPKP 20 23 03.1
							New Ireland (h = 300 km).
"	17	Ud	iP	20 52 46.1	"	18	Um iP 23 30 18.2
		Greenland Sea (h = 30 km).					
"	18	Ud	iP	00 56 21.4	"	19	Ki i 02 57 48.3
							i(Sg) 02 58 05.9
"	18	Up	iP	01 29 18.8	"	19	Up iP 10 29 56.3
				micr sec			
		M	E	0.8 18	"	19	Up iP 11 00 36.2
		M	N	3.0 21	"	19	Um iP 12 28 35.8
		Ki		---	"	19	Ki iP 12 55 13.7
				micr sec			micr sec
		M	E	0.8 14			P Z ¹ 0.1 1.0
		M	N	2.8 17			Um iP 12 55 18.5
		M	Z	1.6 14			Ud iP 12 55 41.2
		Sk	iP	01 29 35.1			i 12 55 57.6
		Ud	iP	01 29 33.1			Philippine Islands
		Tibet (h = 30 km).					(h = 30 km).
"	18	Up	iP	05 34 09.8	"	19	Up iP 14 43 07.9
		Ki	iP	05 35 14.1 C			Ki iP 14 44 01.2
		Sk	eP	05 34 51			Sk iP 14 43 44.5
		Um	iP	05 34 39.1			Gb iP 14 43 05.8
		Ud	iP	05 34 19.4			Um iP 14 43 33.0
		Turkey (h = 40 km).					Ka iP 14 42 46.5
"	18	Um	i(P)	07 07 12.1			Ud iP 14 43 18.4
"	18	Ki	eSn	09 36 42			Red Sea (h = 40 km).
			i(Lg1)	09 37 03.4	"	19	Up iPKP 15 26 18.7
		Sk	eSg	09 39 33			i 15 26 22.2
		Um	iSg	09 37 57.6			Argentina (h = 160 km).
		Northwest Russia. Explosion?					
"	18	Um	iP	11 20 00.9	"	19	Sk iPg 15 30 54.6
"	18	Up	iP	16 46 44.3			iSg 15 31 25.0
		Um	iP	16 46 49.0	"	19	Sk ePg 15 43 04
			i	16 47 22.5			iSg 15 43 31.0
		Ka	iP	16 46 50.7	"	19	Sk iPg 16 14 39.7
		Ud	iP	16 47 01.3			iSg 16 15 10.2
			i	16 47 27.5	"	19	Sk ePg 16 37 22
		Pamir (h = 80 km).					iSg 16 37 54.4
"	18	Up	iP	17 32 07.7	"	19	Sk iPg 16 50 39.3
"	18	Um	iP	19 31 19.8			iSg 16 51 09.9
"	18	Up	iPKP	20 22 59.8			(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
June	19	Um	iP	16 53 34.5	June	19	Sk	iPg	18 54 40.5
		Uganda (h = 40 km).						iSg	18 55 10.6
"	19	Up	iP	16 57 33.4	"	19	Up	i(P)	18 57 30.0
			i	16 57 35.8			Ka	i(P)	18 57 56.6
		Um	iP	16 57 44.3					
		Ka	iP	16 57 27.5	"	19	Sk	iPg	19 07 42.7
		Ud	iP	16 57 49.7				iSg	19 08 10.1
"	19	Sk	iPg	17 08 27.7	"	19	Up	iPg	19 30 31.0
			iSg	17 08 58.2				iSg	19 30 54.6
"	19	Up	iP	17 18 39.3 C				D = 200 km = 1.8	
			iPa	17 23 16			Ki	iLg1	19 34 45.8
			iS	17 27 34			Sk	e(Lg1)	19 32 19
			i(ScS)	17 28 48			Ud	iPg	19 30 17.9
								iSg	19 30 31.9
								iRg	19 30 36.9
								D = 120 km = 1.1	
		P	N	0.6 4				South-central Sweden, 59.0°N, 14.4°E. Origin time = 19 29 56. Explosion.	
		P	Z	0.6 4					
		P	Z'	0.5 1.2					
		S	E	1.4 15					
		M	E	3.4 18					
		M	N	8.0 19					
		M	Z	7.3 19					
		D = 7500 km = 67 1/2°.			"	19	Ki	iP	20 33 07.0
		Ki	iP	17 17 45.4 C			Um	iP	20 33 33.4
			iS	17 25 58			Ud	eP	20 33 59
		P	N	0.9 8	"	19	Sk	iPg	22 28 37.0
		P	Z	1.7 8				iSg	22 29 06.2
		P	Z'	0.6 1.3	"	19	Sk	iPg	22 39 43.9
		S	E	1.1 13				iSg	22 40 13.9
		S	N	1.2 10	"	19	Sk	iPg	23 29 46.7
		M	E	4.4 17				iSg	23 30 17.0
		M	N	3.6 19	"	19	Sk	iPg	23 52 07.1
		M	Z	8.1 18				iSg	23 52 35.7
		D = 6600 km = 59 1/2°.			"	19	Sk	iPg	23 52 07.1
		Sk	iP	17 18 15.8				iSg	23 52 35.7
			iPcP	17 18 55.5	"	20	Sk	iPg	01 41 57.8
		Gb	iP	17 18 54.1 C				iSg	01 42 28.0
		Um	iP	17 18 12.8 C	"	20	Sk	iPg	01 56 55.2
			iS	17 26 43				iSg	01 57 24.6
			iSS	17 30 56	"	20	Sk	iPg	01 56 55.2
			iP'P'	17 47 11.9				iSg	01 57 24.6
		Ka	iP	17 19 02.7	"	20	Up	iP	02 20 50.1
		Ud	iP	17 18 37.6 C			Ki	iP	02 19 56.4
		Aleutian Islands (h = 30 km). Magn. = 6.1 (Up, Ki).					Um	iP	02 20 23.4 C
							Ud	iP	02 20 48.8
"	19	Sk	iPg	17 20 49.6			Aleutian Islands (h = 10 km).		
			iSg	17 21 18.6	"	20	Sk	iPg	02 25 19.6
"	19	Sk	iPg	18 08 02.4				iSg	02 25 50.1
			iSg	18 08 32.5					

SEB
SPECIAL
LIST OF
SU. EXPL.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967						
June	20	Ud	iP	04 04 48.1	June	20	Ki	iP	07 45 46.1		
"	20	Ki	iP	05 17 35.3			Um	iP	07 46 12.9		
"	20	Sk	iPg	05 27 52.6				i	07 46 25.5		
			iSg	05 28 18.7			Ka	iP	07 47 01.9		
"	20	Up	iP	05 36 17.1 C			Ud	iP	07 46 38.3		
		Ki	iP	05 35 23.9 C			Aleutian Islands (h = 30 km).				
			P	micr sec	"	20	Up	eP	07 49 42		
			Z'	0.1 0.9				ipP	07 49 54.9		
		Sk	iP	05 35 53.3 C				eS	07 58 39		
		Gb	iP	05 36 31.3 C					micr sec		
		Um	iP	05 35 50.7			P	Z'	0.3 1.2		
		Ka	iP	05 36 40.0			M	E	2.0 18		
		Ud	iP	05 36 15.8 C			M	N	3.4 19		
		Aleutian Islands (h = 30 km).					M	Z	3.0 19		
							D = 7550 km = 68°.				
"	20	Sk	iPg	05 38 59.6			Ki	iP	07 48 48.6		
			iSg	05 39 26.3				eS	07 56 59		
"	20	Sk	iPg	05 48 26.9					micr sec		
			iSg	05 48 53.0			P	Z'	0.3 1.2		
"	20	Up	iP	05 58 09.2			S	E	0.7 12		
"	20	Sk	iPg	06 00 33.3			S	N	0.4 11		
			iSg	06 00 59.9			M	E	3.3 17		
"	20	Sk	iPg	06 17 21.3			M	N	2.2 18		
			iSg	06 17 47.1			M	Z	5.1 18		
"	20	Up	iP	06 31 47.5 C			D = 6650 km = 60°.				
		Ki	iP	06 30 53.5 C			Sk	iP	07 49 18.7		
			P	micr sec				ipP	07 49 29.8		
			Z'	0.1 0.7				iPcP	07 49 53.1		
		Sk	eP	06 31 24			Gb	iP	07 49 57.1		
		Gb	iP	06 32 01.3				ipP	07 50 08.8		
		Um	iP	06 31 20.7 C			Um	i(P)	07 49 14.7		
		Ka	iP	06 32 10.2				iP	07 49 16.8		
		Ud	iP	06 31 45.9 C				iS	07 57 50		
		Aleutian Islands (h = 10 km).					Ka	iP	07 50 05.2		
"	20	Sk	iPg	07 28 38.5				ipP	07 50 17.8		
			iSg	07 29 05.4			Ud	i(P)	07 49 40.0		
"	20	Sk	iPg	07 37 27.4				iP	07 49 41.9		
			iSg	07 37 54.5			Aleutian Islands. h = 45 km (Up,Sk,Gb,Ka). Magn. = 6.1 (Up,Ki). Multiple P at Um and Ud, (P) being a very small amplitude precursor.				
"	20	Sk	iPg	07 45 24.8			"	20	Um	iP	10 27 27.5
			iSg	07 45 51.8					South of Japan (h = 30 km).		
"	20	Sk	iPg	07 45 24.8			"	20	Ki	iP	11 51 25.5
			iSg	07 45 51.8					Um	eP	11 51 52
									Ud	iP	11 52 17.6
										ipP	11 52 30.1
							Aleutian Islands. h = 45 km (Ud).				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967								
June	20	Up	iP	11 57	01.6	June	21	Ki	iPn	10 07	59.2	
		Ud	iP	11 57	14.6				iSn	10 08	57.4	
		Burma (h = 140 km).							iLg1	10 09	17.8	
"	20	Ki	iP	12 27	16.9			Um	i	10 09	51.9	
									iSg	10 10	16.0	
"	20	Up	iP	12 36	48.2			Northwest Russia.				
		Ki	iP	12 35	54.2			Origin time = 10 06 45.				
			ipP	12 36	04.8			Explosion?				
		Sk	iP	12 36	24.9	"	21	Up	iP	15 58	05.2	
		Um	iP	12 36	21.5				i	15 58	10.4	
			ipP	12 36	32.0				iS	16 08	37	
		Ka	iP	12 37	10.8				ePS	16 09	41	
		Ud	iP	12 36	46.7							
			ipP	12 36	57.0							
		Aleutian Islands.										
		h = 40 km (Ki,Um,Ud).							P	Z'	0.1	1.0
"	20	Um	iP	13 11	17.8				M	E	2.7	20
		Ud	iP	13 11	20.5				M	N	7.7	20
			i	13 11	38.5				M	Z	3.4	21
									D = 9550	km = 86°		
"	20	Up	iP	16 42	11.8			Ki	iP	15 57	47.0	
		Sk	iP	16 42	52.3				ipP	15 58	03.7	
		Um	iP	16 42	51.9				eS	16 08	03	
		Ka	iP	16 41	33.5				iPS	16 09	05	
		Ud	eP	16 42	17							
			i	16 42	27.6							
		Greece (h = 30 km).										
"	20	Gb	i(P)	17 15	53.1				pP	Z'	0.3	1.5
"	20	Up	iP	20 02	11.2				S	N	0.5	13
			i	20 02	19.3				M	E	4.1	20
"	20	Ki	iPg	22 15	25.1				M	N	5.9	21
			iSn	22 15	52.8				M	Z	4.2	21
			iSg	22 16	07.6				D = 9100	km = 82°		
								Sk	ipP	15 58	24.5	
								Um	iP	15 57	53.9	
									i	15 59	21	
									iS	16 08	16	
									i	16 09	37	
								Ud	iP	15 58	14.1	
									i	15 58	19.0	
								Luzon. h = 60 km (Ki).				
								Magn. = 6.0 (Up,Ki).				
"	21	Up	eS	07 14	21	"	21	Ki	iPKP	16 05	54.2	
									i	16 06	01.6	
			M	E	1.5	20			ipPKP2	16 06	12.1	
			M	N	2.1	25		Um	iPKP	16 05	53.6	
			M	Z	1.9	20			i	16 06	00.4	
		Ki		----				West of Macquarie Islands				
								(h = 30 km).				
			M	E	0.9	20	"	21	Ki	iP	17 03	11.3
			M	N	0.8	20			Um	iP	17 03	24.3
			M	Z	1.8	21				ipP	17 03	51.9
		Um	eS	07 14	29			Volcano Islands.				
		Peru-Ecuador						h = 110 km (Um).				
		(h = 50 km).										

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
June	21			June	21	(cont.)	
		Up	iP	18	14	21.9	
		Ki	iP	18	13	23.3	
			i	18	13	45.1	
			i	18	14	08.6	
						micr	sec
			P	Z'	0.3	1.5	
		Gb	iP	18	14	34.2	
			ipP	18	14	39.4	
		Um	iP	18	13	53.8	
			ipP	18	13	57.7	
			iS	18	21	04	
		Ka	iP	18	14	45.7	
		Ud	iP	18	14	16.9	
			ipP	18	14	22.4	
			i	18	14	29.9	
		Alaska.					
		h = 20 km (Gb,Um,Ud).					
"	21	Up	iP	18	22	36.6	
			i(PcP)	18	23	28.0	
						micr	sec
			M	E	2.8	21	
			M	N	2.2	18	
			M	Z	2.6	20	
		Ki	iP	18	21	36.8	
			ipP	18	21	41.2	
			i	18	22	00.8	
			i(PcP)	18	22	56.7	
			iS	18	28	22	
						micr	sec
			pP	Z'	0.6	2.0	
			S	N	0.7	10	
			M	E	1.9	17	
			M	N	2.7	19	
			M	Z	6.4	21	
			D = 5300 km = 47 1/2°.				
		Gb	iP	18	22	49.3	
			i	18	23	18.7	
			i(PcP)	18	23	38.3	
		Um	iP	18	22	07.8	
			i(PcP)	18	23	08.5	
		Ka	iP	18	22	57.8	
		Ud	iP	18	22	32.6	
			i	18	22	59.9	
		Alaska.					
		h = 15 km (Ki).					
		Magn. = 5.8 (Up,Ki).					
"	21	Up	iP	18	34	21.4	
		Ki	iP	18	33	19.9	
			ipP	18	33	24.3	
						micr	sec
			pP	Z'	0.4	2.0	
		Um	iP	18	33	49.4	
		(cont.)					
		Um	ipP	18	33	54.4	
		Ud	iP	18	34	14.0	
		Alaska.					
		h = 15 km (Ki,Um).					
"	21	Up	iPKP	19	28	55.1	C
			iSKP	19	31	46.2	
						micr	sec
			PKP	Z'	0.1	0.8	
		Ki	iPKP	19	28	36.2	
			i	19	28	46.2	
			iSKP	19	31	24.5	
						micr	sec
			SKP	Z'	0.1	1.2	
		Sk	iPKP	19	28	47.2	
			iSKP	19	31	40.2	
		Gb	iPKP	19	29	05.2	
			i	19	31	36.8	
			iSKP	19	31	54.3	
		Um	iPKP	19	28	44.4	
			i	19	28	49.0	
			iSKP	19	31	35.2	
		Ka	iPKP	19	29	06.8	
			i	19	31	45.2	
			iSKP	19	31	55.2	
		Ud	iPKP	19	28	56.6	C
			iSKP	19	31	47.7	
		Tonga-Kermadec Islands					
		(h = 550 km).					
"	21	Up				---	
						micr	sec
			M	E	3.1	23	
			M	N	2.1	21	
			M	Z	3.6	22	
		Ki	iPKP	20	28	06.0	
			eSKSP	20	38	50	
						micr	sec
			M	E	1.9	20	
			M	N	0.6	19	
			M	Z	1.9	20	
		Um	i(PKP)	20	28	14.6	
			iSS	20	44	55	
		Chile (h = 25 km).					
		Magn. = 6.0 (Up,Ki).					
"	21	Ki	ePKP	21	40	12	
		West of Macquarie Islands					
		(h = 20 km).					
"	21	Um	iP	22	49	58.2	
"	22	Um	iP	00	53	18.4	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967					
June				June					
22	Up	iP	03 56 11.5	22	(cont.)				
"	22	Up	iP	07 29 51.8	Um	i	22 07 50.2		
		Ki	iP	07 31 13.3		iSg	22 07 59.9		
		Um	iP	07 30 21.8	Um	iPn	22 07 19.3 C		
		Ud	iP	07 30 06.9		iSn	22 08 21.9		
		Turkey (h = 15 km).				iLi	22 08 36.3		
"	22	Ud	iP	11 03 25.9		iSg	22 08 58.3		
		Greece.			Ud	iSn	22 09 11.6		
"	22	Um	iP	11 20 32.4 C		iSg	22 09 58.6		
		Ud	iP	11 20 01.5	<div style="border: 1px solid black; padding: 5px;"> Off west coast of Norway, 67.6° N, 10.4° E. Origin time = 22 05 52. Solution checked by comparison with Finnish and Norwegian readings. </div>				
		North of Ascension Island (h = 30 km).							
"	22	Up	iP	12 23 41.5	"	23	Ki eP	01 23 28	
		Um	iP	12 24 10.8			i	01 23 41.3	
		Ud	iP	12 23 58.8			i(Sg)	01 23 49.2	
		Turkey (h = 15 km).		"	23	Up	iP	05 19 08.3	
"	22	Up	iP	15 47 33.0			iPP	05 23 36.1	
		Ki	iP	15 46 40.3		Ki	iP	05 18 53.4	
			ipP	15 46 55.6			iPP	05 23 10.5	
		Ud	iP	15 47 34.9				micr sec	
		Aleutian Islands. h = 60 km (Ki).				P	Z'	0.1 1.2	
"	22	Sk	iPg	15 53 45.1		PP	Z'	0.1 1.5	
			iSg	15 54 19.4		Sk	ePP	05 23 31	
"	22	Sk	iPg	16 03 58.6			i	05 23 43.1	
			iSg	16 04 32.5		Um	iP	05 18 58.3	
"	22	Sk	iPg	16 17 04.0			i	05 19 05.3	
			iSg	16 17 37.8			iPP	05 23 12.8	
"	22	Sk	iPg	16 31 45.5			iSKS	05 29 28	
			iSg	16 32 18.5		Ud	iP	05 19 17.0	
"	22	Sk	iPg	16 46 40.7			iPP	05 23 48.9	
			iSg	16 47 13.6			Banda Sea (h = 90 km). Magn. = 6.2 (Ki).		
"	22	Sk	iPg	17 01 19.0	"	23	Up	iP	10 11 43.4 C
			iSg	17 01 53.2			i	10 11 53.1	
"	22	Sk	iPg	16 46 40.7			iS	10 15 39.1	
			iSg	16 47 13.6			i	10 15 57	
"	22	Sk	iPg	17 01 19.0				micr sec	
			iSg	17 01 53.2			P	Z'	0.1 0.6
"	22	Up	iSn	22 09 33.5			M	E	0.7 15
			iSg	22 10 19.0			D = 2400 km = 21 1/2°.		
		Ki	iPn	22 06 52.4		Ki	iP	10 12 45.8	
			iPg	22 07 06.5			iPn	10 13 13.4	
			iSg	22 07 54.8			iSn	10 18 18.9	
			i	22 08 00.2				micr sec	
		Sk	iPn	22 06 59.1 C			P	Z'	0.1 1.0
			iPg	22 07 07.6			M	E	0.6 15
		(cont.)					M	N	0.6 14
							M	Z	1.0 14
							(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967						1967					
June	23	(cont.)				June	23	(cont.)			
		Sk	iP	10 12 30.3				Ka	iPKP	14 56 59.8	
			iSn	10 17 56.2				Ud	iPKP	14 56 49.8	
		Gb	iP	10 11 47.3				Fiji Islands (h = 610 km).			
		Um	iP	10 12 12.1 C		"	23	Up	iP	18 57 40.6	
			iS	10 16 37				Ki	iP	18 57 49.7	
			i(Sn)	10 17 29.5				Ud	iP	18 57 57.7	
			iLg1	10 19 31				Pamir (h = 210 km).			
		Ud	iP	10 11 58.8		"	23	Ki	iPKP	21 49 12.6 C	
			iS	10 16 12.5					i	21 49 24.0	
		Turkey (h = 15 km).						Sk	iPKP	21 49 35.5	
		Magn. = 5.5 (Up,Ki).						Um	iPKP	21 49 30.5	
		Note the existence of						Ud	iPKP	21 49 40.1	
		teleseismic Pn and Sn.						New Hebrides Islands			
"	23	Up	iSn	11 52 33.2				(h = 40 km).			
			iSg	11 52 49.6				The readings at Sk and Ud			
		Ki	iSg	11 55 18.4				probably correspond to the			
		Um	iSg	11 53 19.9				second reading at Ki, this			
		Ud	eSn	11 53 20				one having a larger			
			iSg	11 53 54.3				amplitude than the first.			
		Estonia, 59.5° N, 25.6° E.					"	24	Up	iP	08 04 25.2
		Origin time = 11 50 32.							Mexico (h = 90 km).		
		Explosion?									
"	23	Ki	eP	12 03 15		"	24	Sk	e(Sg)	08 12 36	
			i	12 03 30.6							
		Sk	iP	12 03 38.0		"	24	Sk	e(Sg)	08 28 39	
		Um	iP	12 03 40.3							
			i	12 03 54.5		"	24	Ki	ePn	08 44 28	
		Ud	iP	12 04 04.1					iSn	08 45 20.8	
		Alaska (h = 10 km).							iLg1	08 45 33.4	
"	23	Ki	i(Sg)	12 07 02.6					D = 500 km = 4.5°.		
"	23	Ki	i(Sg)	12 15 39.4					Probably northwest Russia.		
"	23	Up	eL	13 20					Origin time = 08 43 15.		
				micr sec					Explosion?		
		M	E	0.9 22		"	24	Up	iP	12 06 20.6	
		M	N	1.4 22							
		M	Z	1.0 20		"	24	Gb	iPKP	13 46 59.0	
		Ki	eL	13 17				Ka	iPKP	13 47 01.2	
				micr sec				Fiji Islands (h = 590 km).			
		M	E	0.8 19		"	24	Up	iPg	15 02 18.4	
		M	N	0.8 19					iSg	15 02 39.5	
		M	Z	1.5 18					D = 180 km = 1.6°.		
"	23	Up	iPKP	14 56 48.5				SkA	iSg	15 03 21.0	
			i	14 56 57.1				Um	iSg	15 03 44.2	
		Ki	iPKP	14 56 41.1 C				Ud	iPg	15 02 07.4	
			iSKP	14 59 11.9					iSg	15 02 21.3	
		Gb	iPKP	14 56 55.8					D = 120 km = 1.1°.		
		Um	iSKP	14 59 23.3				Central Sweden,			
		(cont.)						61.0° N, 15.0° E.			
								Origin time = 15 01 46.			
								Explosion.			

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1967					1967				
June	24	Um	iP	15 37 46.7	June	24	(cont.)		
			i	15 37 50.8			Ud	iP	21 16 33.6
"	24	Sk	i(Sg)	15 48 11.0				i	21 16 43.2
		Ud	i(Sg)	15 49 09.0			Samar (h = 50 km).		
"	24	Ud	iP	16 27 59.4	"	24	Sk	iPg	21 25 40.8
		Pamir.						iSg	21 26 11.2
"	24	Ud	iP	16 55 59.7			Ud	iPg	21 26 16.9
		Pamir.						iSg	21 27 13.6
"	24	Ud	iP	16 55 59.7			Probably west coast of Norway, near Kristiansund. Origin time = 21 24 55.		
"	24	Um	iPKP	18 25 19.8	"	24	Um	iP	21 35 47.9
		Peru (h = 90 km).					Southwest of Iceland (h = 30 km).		
"	24	Sk	iPg	19 19 05.3	"	25	Up	iP	01 05 25.0
			iSg	19 19 38.8				i	01 05 51.4
		Ud	iSg	19 20 41.0			Ki	iP	01 04 37.4
		Probably west coast of Norway.					Sk	eP	01 05 12
"	24	Sk	i(Pg)	19 31 54.4			Gb	iP	01 05 45.7 D
			eSg	19 32 29			Um	iP	01 04 58.7
			i	19 32 41.3			Ka	iP	01 05 47.2
		Ud	eSg	19 33 30			Ud	iP	01 05 30.4
"	24	Sk	iSg	21 10 47.8				i	01 05 36.5
		Kurile Islands (h = 30 km).							
"	24	Up	eP	21 13 46	"	25	Up	iP	02 56 01.4
				micr sec			Ud	iP	02 55 48.8
		M	E	1.4 18	"	25	Sk	iPg	03 36 50.9
		M	N	1.9 23				iSg	03 37 32.9
		M	Z	2.4 19	"	25	Sk	iPg	03 52 16.9
		Ki	iP	21 13 21.1 C				iSg	03 53 00.2
			iPS	21 25 28	"	25	Sk	ePg	04 17 04
				micr sec				i(Sg)	04 17 49.1
		M	E	2.1 21	"	25	Sk	iPg	04 51 23.8
		M	N	1.6 22				iSg	04 52 05.2
		M	Z	3.1 22	"	25	Ud	iP	05 04 29.6
		Um	iP	21 13 30.7			Formosa (h = 30 km).		
			ePS	21 25 44	"	25	Sk	iPg	05 39 38.5
		Ud	iP	21 13 54.5 C				iSg	05 40 23.1
		Mariana Islands (h = 20 km). Magn. = 5.9 (Up, Ki).			"	25	Sk	iPg	08 05 13.1
"	24	Up	iP	21 16 25.2				iSg	08 05 54.6
			i	21 16 41.6	"	25	Sk	iPg	08 22 55.5
		Ki	iP	21 16 06.6				(cont.)	(cont.)
			i	21 16 16.0					
		Gb	iP	21 16 52.3					
		Um	iP	21 16 22.2					
			i	21 16 29.9					
		Ka	eP	21 16 40					
		(cont.)							

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1967				1967			
June	25	(cont.)		June	25	(cont.)	
		Sk	iSg	08 23			37.4
		Ud	eSg	08 24			30
"	25	Sk	iPg	08 45			48.3
			iSg	08 46			30.2
"	25	Sk	iPg	09 01			25.1
			iSg	09 02			06.5
"	25	Sk	ePg	09 21			26
			iSg	09 22			11.5
"	25	Sk	iPg	09 46			30.2
			iSg	09 47			12.5
"	25	Sk	iPg	10 07			18.0
			iSg	10 07			59.4
"	25	Up	iP	14 37			52.3 D
		Ki	iP	14 37			17.5 D
		Sk	iP	14 37			48.7
		Um	iP	14 37			32.0
		Ka	eP	14 38			11
		Ud	iP	14 37			59.9 D
		South of Japan					
		(h = 340 km).					
"	25	Um	iP	17 53			39.9
"	25	Up	iP	20 03			38.0
		Ud	iP	20 03			36.8
		Aleutian Islands					
		(h = 60 km).					
"	25	Up	iP	21 39			24.4
		Sk	iP	21 39			29.6
		Um	iP	21 39			04.2
			ipP	21 39			15.4
		Ud	iP	21 39			31.7
			ipP	21 39			43.6
		South of Japan.					
		h = 45 km (Um,Ud).					
"	25	Up	iP	23 31			22.3
			ipP	23 31			32.0
							micr sec
		M	E	1.8			19
		M	N	2.6			21
		M	Z	3.0			19
		Ki	iP	23 30			58.1
			iPS	23 43			07
							micr sec
		P	Z'	0.3			1.5
		M	E	1.8			16
		(cont.)					
		Ki					micr sec
			M	N			0.9 16
			M	Z			3.1 22
		Sk	iP				23 31 22.7
		Gb	iP				23 31 48.7
		Um	iP				23 31 07.9 C
			ipP				23 31 18.2
			iPS				23 43 22
		Ka	iP				23 31 37.7
		Ud	iP				23 31 29.9
		Mariana Islands.					
		h = 40 km (Up,Um).					
		Magn. = 5.9 (Up,Ki).					
"	26	Up	iP	02 35			34.0
							micr sec
			M	E			0.7 16
			M	N			0.8 16
			M	Z			0.9 15
		Ki	iS	02 45			49
							micr sec
			S	E			0.4 10
			M	E			2.2 17
			M	N			1.0 20
			M	Z			2.3 17
		Sk	eP	02 35			12
		Um	iP	02 35			25.3
			iS	02 46			10
			iSS	02 51			53
		Mexico (h = 50 km).					
		Magn. = 5.6 (Up,Ki).					
"	26	Ud	eP	03 00			26
		Formosa (h = 30 km).					
"	26	Um	iP	03 48			22.2
		Ud	eP	03 48			47
		Aleutian Islands					
		(h = 30 km).					
"	26	Ud	iP	09 27			16.5
		Atlantic Ocean (h = 30 km).					
"	26	Ud	iP	12 38			50.5
		Burma-India (h = 5 km).					
"	26	Ki	ePn	13 29			16
			iSn	13 30			09.0
			iLg1	13 30			25.3
							D = 500 km = 4.5
		Um	iSg	13 31			15.6
		Probably northwest Russia.					
		Origin time = 13 28 04.					
		Explosion?					

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967					1967				
June	26	Ud	iP	17 50 09.5	June	27	(cont.)		
		Chile (h = 80 km).					Gb	iP	23 18 53.0
"	27	Ka	eP	12 44 23			Um	iP	23 18 17.6
"	27	Sk	e(P)	13 08 50				ipP	23 18 33.0
		Um	iP	13 07 29.2			Ud	iP	23 18 42.1 D
		Ka	iP	13 08 09.1			Formosa. h = 60 km (Ki,Um).		
"	27	Ud	iP	14 23 11.5	"	28	Ki	---	
"	27	Ud	iP	14 33 33.4				micr	sec
"	27	Up	iP	16 03 53.6 C			M	N	0.5 19
"	27	Ud	iP	17 00 03.5			M	Z	1.0 20
		Aleutian Islands (h = 40 km).					Ud	ePKP	00 33 37
"	27	Up	iP	20 43 58.4			Solomon Islands (h = 15 km).		
			P	Z' 0.1 0.8	"	28	Up	iP	01 20 59.2
		Ki	iP	20 43 05.5				micr	sec
			P	Z' 0.1 1.0			M	N	0.7 22
		Sk	iP	20 43 38.0			Ki	iP	01 20 12.0
		Gb	iP	20 44 14.9				ipP	01 20 25.3
		Um	iP	20 43 31.2 C				micr	sec
		Ka	iP	20 44 21.5			M	E	0.9 20
		Ud	iP	20 43 59.3 C			M	N	0.7 20
		Aleutian Islands (h = 25 km). Magn. = 5.7 (Up,Ki).					M	Z	1.1 19
"	27	Up	iP	21 28 18.2			Sk	iP	01 20 48.9
			i	21 28 21.2			Gb	iP	01 21 20.5
"	27	Up		---			Um	iP	01 20 33.5 C
				micr sec				ipP	01 20 49.0
		M	E	0.5 19			Ka	iP	01 21 21.3
		M	N	0.8 19			Ud	iP	01 21 04.8
		M	Z	0.9 19				ipP	01 21 19.2
		Ki		---			Kurile Islands. h = 50 km (Ki,Um,Ud).		
				micr sec	"	28	Um	iP	02 54 57.5
		M	E	0.5 18					
		M	N	0.5 17	"	28	Um	iPKP	05 53 22.5
		M	Z	1.0 18				ipKS	05 56 33
		Um	eSKSP	22 08 28			Samoa Islands (h = 40 km).		
			e	22 15 08	"	28	Up	iPg	08 51 27.1
			eSS	22 15 33				iSn	08 51 46.7
		Indian Ocean (h = 30 km).						iSg	08 51 50.2
"	27	Up	iP	23 18 33.1			Sk	iSg	08 53 19.0
		Ki	iP	23 18 10.2			Ud	iPg	08 51 51.8
			ipP	23 18 25.1				iSg	08 52 37.1
		Sk	iP	23 18 35.9			Gulf of Bothnia. Origin time = 08 50 51. Underwater explosion.		
		(cont.)			"	28	Up	iPKP2	14 54 29.0
								micr	sec
							M	E	0.6 20
							M	N	1.0 19
							Ki	iPKP	14 53 57.0 C
							(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967	1967
June 28 (cont.)	June 29 (cont.)
Ki i 14 54 27.6	Ki iP 03 03 36.6 C
	iPn 03 04 41.4
	micr sec
PKP Z' 0.2 1.0	P Z' 0.1 0.6
M E 0.8 18	Sk iP 03 04 07.7 C
M N 0.4 17	iPP 03 05 24.8
M Z 1.0 20	Um iP 03 03 36.5 C
Sk iPKP 14 53 56.8	iPn 03 04 37.9
i 14 54 12.1	iPP 03 04 51.9
Um iPKP 14 54 01.6	Ka iP 03 04 08.2
iPP 14 57 48	iPP 03 05 30.6
iSS 15 17 29	Ud iP 03 04 08.6 C
Ud iPKP2 14 54 35.3 C	Kazakh SSR.
i 14 54 44.9	Origin time = 02 57 00.
New Zealand (h = 40 km).	Underground explosion.
" 28 Up iPg 15 30 24.9	" 29 Ki i(P) 03 58 06.3
iSg 15 30 42.5	iSg 03 58 17.4
micr sec	" 29 Ki e 04 11 15
Pg Z' 0.1 0.5	i(Sg) 04 11 17.2
Sg Z' 0.1 0.5	" 29 Ud iP 05 04 21.0
Ki eSg 15 33 39	Aleutian Islands
SkA iPg 15 31 19.6	(h = 60 km).
iSg 15 32 17.9	" 29 Up iP 08 28 05.9
Um e iPg 15 30 52.0	eS 08 32 26
iSg 15 31 31.5	micr sec
KAS iSg 15 32 37.2	M E 0.5 14
Ud iPg 15 30 52.2	M N 1.1 19
iSg 15 31 34.3	M Z 0.9 15
i 15 31 45.7	D = 2700 km = 24 1/2°
Gulf of Bothnia,	Ki iP 08 28 49.2 C
60.9°N, 19.7°E.	micr sec
Origin time = 15 29 50.	P Z' 0.1 1.0
Underwater explosion.	M E 1.0 14
" 28 Ki iSg 16 21 12.9	M N 0.6 14
Sk iSg 16 21 18.1	M Z 1.0 12
Um iSg 16 21 43.0	Um iP 08 28 22.0
Nordlands Fylke, Norway.	i 08 28 34.0
" 28 Um iP 17 45 18.4	i(S) 08 33 12
" 28 Up iP 19 28 38.2	Ka iP 08 27 55.3
" 28 Up iP 23 18 15.5	Ud iP 08 28 22.2
Sk eP 23 18 18	Caucasus (h = 25 km).
Um iP 23 17 59.2	" 29 Up iP 12 17 20.4
Ud iP 23 18 24.8	Um iP 12 16 56.4
Ryukyu Islands	" 29 Up iP 16 13 14.6 C
(h = 280 km).	Gb i(P) 16 13 11.1
" 29 Up iP 03 03 52.1 C	" 29 Ki iPP 16 54 21.4
iPn 03 04 57.5	(cont.)
iPP 03 05 10.3	
(cont.)	

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1967						1967					
June	29	(cont.)				June	30	Ki	iPg	21 53 07.9	
		Sk	iPP	16 54 54.9					iSg	21 53 16.9	
		Banda Sea		(h = 120 km).					iRg	21 53 20.2	
"	29	Ud	iP	17 10 10.7							
										micr sec	
									Rg	Z' 0.3 0.9	
										D = 80 km = 0.7°.	
"	29	Up	iP	23 55 34.7						Detonation of 25 tons of	
		Sk	iP	23 55 41.5						explosives at 200 m depth	
		Ud	iP	23 55 41.0						in the iron ore mines at	
		Sinkiang		(h = 30 km).						Malmberget, Sweden.	
"	30	Ki	eP	00 16 57						Origin time = 21 52 54.	
"	30	Um	iP	11 02 14.4							
			i	11 02 25.0							
"	30	Ki	ePn	13 15 27							
			iSn	13 16 12.9							
			iLg1	13 16 28.3							
				D = 420 km = 3.8°.							
		Um	iSg	13 17 22.4							
		Probably		northwest Russia.							
		Origin time =		13 14 27.							
		Explosion?									
"	30	Ki	e	15 48 58							
			iSg	15 49 18.9							
		Um	iSg	15 47 56.4							
"	30	Up	iPKP	19 40 12.2							
			i	19 40 17.4							
		Ki	iPKP	19 39 52.3							
		Sk	iPKP	19 40 06.5							
		Um	iPKP	19 40 00.8 D							
		Kermadec Islands		(h = 260 km).							

Markus Båth
December 1, 1967

no wave indicated
 Seismological Institute
 Uppsala
 (NO EPIC.)

8 JAN 1968

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
 UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

JULY 1 - 31, 1967

1967
 July

1 Ki^R ePg 06 37 07
 iSg 06 37 44.7
 Sk^A eSg 06 38 00
 Um^E iSn 06 38 06.3
~~iS 06 38 17.2~~
 iSg 06 38 27.7
 Nordlands Fylke, Norway,
 66.9°N, 14.0°E.
 Origin time = 06 36 16.

" 1 Up iP 06 46 19.5
 Ki iP 06 45 44.2
 Um iP 06 45 58.5
 Bonin Islands (h = 30 km).

" 1 Ki iP 06 55 13.3
 Sumatra (h = 30 km).

" 1 Up iP 07 41 38.0 C
 ipP 07 41 44.9
 iS 07 52 09
 micr sec
 P Z' 0.1 1.0
 S N 1.0 10
 M E 1.1 20
 M N 1.9 23
 M Z 1.6 20
 D = 9600 km = 86 1/2°.
 Ki iP 07 41 38.6 C
 ipP 07 41 47.4
 eS 07 52 10
 micr sec
 P Z' 0.2 1.0
 S N 1.3 9
 M E 2.1 18
 M N 0.7 16

(cont.)

1967
 July 1

(cont.)
 Ki micr sec
 Z 2.3 17
 D = 9600 km = 86 1/2°.
 Um iP 07 41 34.9
 iS 07 52 06
 Sumatra. h = 30 km (Up,Ki).
 Magn. = 5.9 (Up,Ki).

" 1 Up^P iPn 08 49 28.9 C
 iSn 08 49 50.0
~~iSg 08 49 54.0~~
~~micr sec~~
~~Pn Z' 0.1 0.5~~
~~Sg Z' 0.2 0.5~~
 Ki^R eLg1 08 52 24
 e(Sg) 08 52 34
 Sk^A iLg1 08 51 18.7
 Um^E iPg 08 49 48.9
 iSg 08 50 26.3
~~Ka iLg1 08 51 48.4~~
 Gulf of Bothnia,
 60°57'N, 20°06'E
 (Helsinki).
 Underwater explosion.

" 1 Up^P iSn 11 43 27.2
 iSg 11 43 40.4
~~Ki iLg1 11 46 11.5~~
~~Sk eLg1 11 45 26~~
 Um^E iSg 11 44 12.8
 Southwest Finland,
 60.1°N, 23.4°E.
 Origin time = 11 42 04.
 Probably explosion.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

July 1 Up iP 12 01 15.3
i 12 01 21.7

X 1 Up^P iSn 13 10 14.2
iSg 13 10 31.3
~~Ki iLg1 13 13 02.1~~
~~Sk eLg1 13 12 18~~
Um^E iSg 13 11 02.3
~~Ka KLS iSg 13 12 03.3~~
Southwest Finland,
60.1° N, 23.4° E.
Origin time = 13 08 55.
Probably explosion.

" 1 Up iP 15 50 14.4
Iran (h = 40 km).

" 1 Up iP 21 32 59.1
ipP 21 33 10.9
iPcP 21 33 30.9
Ki iP 21 32 05.5
ipP 21 32 16.8
micr sec
P Z' 0.1 1.2
Sk iP 21 32 35.0
Gb iP 21 33 12.1
i 21 33 18.5
Um iP 21 32 31.7
ipP 21 32 43.9
South of Alaska.
h = 40 km (Up, Ki, Um).

" 1 Up iP 23 20 52.5 D
iPcP 23 21 27.9
iS 23 29 39
i(P'P') 23 49 18.7
iP'P' 23 49 30.5
micr sec
P N 1.2 4
P Z 1.9 4
P Z' 1.0 1.3
S E 19 14
S N 3.8 12
P'P' Z' 0.2 1.7
M E 14 23
M N 23 20
M Z 17 21
D = 7350 km = 66°.
Ki iP 23 19 59.1 D
iPcP 23 20 55.6
i 23 22 40
iS 23 27 55
eP'P' 23 49 45
(cont.)

1967

July 1 (cont.)

Ki micr sec
P N 1.8 5
P Z 3.1 6
P Z' 1.2 1.2
S E 29 13
S N 5.7 14
P'P' Z' 0.5 2.2
M E 20 19
M N 15 20
M Z 34 19
D = 6450 km = 58°.
Sk iP 23 20 26.7 D
iPP 23 22 52.8
iP'P' 23 49 43.8
Gb iP 23 21 04.9
ipP 23 21 15.7
iP'P' 23 49 29.8
Um iP 23 20 26.1 D
ipP 23 20 37.2
iPa 23 24 26
iS 23 28 47
iP'P' 23 49 40.9
Ka iP 23 21 14.4
ipP 23 21 25.5
iP'P' 23 49 19.8

South of Alaska.
h = 40 km (Gb, Um, Ka).
Magn. = 6.7 (Up, Ki).
The dilatational P-wave motion is probably preceded by a small compression, as evidenced by Um records.

" 2 Um iP 01 17 18.7
Japan (h = 50 km).

" 2 Ki iP 01 19 29.3
South of Alaska (h = 30 km).

" 2 Ki iP 02 31 27.3 C
South of Alaska (h = 30 km).

" 2 Up iP 02 47 04.3
Ki iP 02 46 10.5
ipP 02 46 20.5
micr sec
P Z' 0.1 1.0
Sk eP 02 46 39
Um iP 02 46 38.0
South of Alaska.
h = 40 km (Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967									1967										
July	2	Up	iP	03 12	13.5				July	2	(cont.)								
		Um	iP	03 11	48.3						Ki	iP	07 49	25.8	C				
		Japan (h = 330 km).											i(PcP)	07 49	49.1				
"	2	Up	iP	07 15	32.8	D					Sk	eP	07 49	59					
			i	07 15	35.3							i	07 50	03.1					
			iPP	07 18	20.2						Gb	iP	07 50	24.0					
			iS	07 25	11							ipP	07 50	36.3					
			iScS	07 25	44						Um	iP	07 49	42.1	C				
											Ka	eP	07 50	23					
											South of Japan. h = 50 km (Up, Gb).								
			P	Z'	0.5	1.0				"	2	Up	iP	08 41	00.2				
			S	E	1.8	9							ipP	08 41	05.8				
			S	N	3.0	15						Ki	iP	08 41	06.1				
			M	E	6.0	22							ipP	08 41	12.9				
			M	N	8.1	20						Sk	iP	08 41	23.8				
			M	Z	8.6	22							ipP	08 41	31.4				
			D = 8350	km = 75°								Gb	iP	08 41	27.1				
		Ki	iP	07 15	35.0							Um	iP	08 40	57.4				
			i	07 15	36.5								i	08 41	20.9				
			iPP	07 18	26.3								i	08 41	57.8				
			iS	07 25	14								ipP	08 42	50.1				
			iScS	07 25	48							Ka	iP	08 41	04.8	C			
													ipP	08 41	11.0				
												Kashmir. h = 30 km (Up, Ki, Sk, Ka).							
			P	E	0.6	9					"	2	Up	iP	10 19	56.0			
			P	Z	1.3	9							Ki	iP	10 19	02.2			
			P	Z'	0.4	1.2							Sk	eP	10 19	30			
			S	E	3.4	10							Um	iP	10 19	29.9			
			S	N	2.3	15							South of Alaska (h = 30 km).						
			M	E	14	18						"	2	Up	iP	12 17	27.8		
			M	N	7.5	17									iSn	12 17	47.5		
			M	Z	14	18									iSg	12 17	50.1		
			D = 8400	km = 75 1/2°											micr sec				
		Sk	iP	07 15	50.8										Pn	Z'	0.1		
			i	07 15	53.4										Sg	Z'	0.4		
			i	07 17	31.5										0.5				
		Gb	iP	07 15	49.4										Sk	eP	12 18	17	
			i	07 15	51.9										iSg	12 19	15.7		
		Um	iP	07 15	29.9										Um	iP	12 17	48.1	
			i	07 15	32.1										iSg	12 18	24.1		
			i	07 17	52.3										Ka	eLg1	12 19	42	
			iS	07 25	06										Gulf of Bothnia, 61°20'N, 19°10'E (Helsinki). Underwater explosion.				
		Ka	iP	07 15	37.5									"	2	Up	iP	14 21	20.2
			i	07 15	40.5											ipP	14 21	28.3	
			i(PP)	07 18	22.4											Ki	eP	14 21	22
		Nicobar Islands (h = 30 km). Magn. = 6.4 (Up, Ki). Multiple P: average difference = 2.5 sec between the first small and the second large onset.																	
"	2	Up	iP	07 50	02.9	C			"	2	Up	iP	14 21	20.2					
			ipP	07 50	16.5								ipP	14 21	28.3				
			i!	07 50	26.8								Ki	eP	14 21	22			
		(cont.)											(cont.)						

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967						1967					
July	2	(cont.)				July	2	(cont.)			
		Ki	ipP	14 21 28.7				Ki	iP	20 45 18.7	C
		Sk	eP	14 21 38				Sk	iP	20 45 49.6	C
		Um	iP	14 21 17.2				Gb	iP	20 46 10.8	C
			ipP	14 21 25.2				Um	iP	20 45 31.5	C
		Ka	ipP	14 21 31.9					i	20 45 50.1	
		Ud	iP	14 21 31.9				Ka	iP	20 46 07.4	
			ipP	14 21 40.0				Ud	iP	20 45 59.2	C
		Nicobar Islands.						Japan (h = 180 km).			
		h = 30 km (Up,Um,Ud).									
"	2	Up	iP	14 30 56.2		"	2	Ki	eP	22 12 45	
		Um	iP	14 30 53.1				Sk	eP	22 13 13	
		Ud	iP	14 31 08.9				Um	iP	22 13 00.0	
		Nicobar Islands						Ud	eP	22 13 24	
		(h = 30 km).						Volcano Islands (h = 40 km).			
"	2	Up	iP	16 27 38.8		"	3	Up	eP	02 57 27	
		Sk	iP	16 27 33.8						micr sec	
		Um	iP	16 27 18.3				M	E	1.0	11
			i	16 27 49.4				M	N	0.5	11
		Ka	iP	16 27 57.0				Ki	iP	02 58 59.9	
		Ud	iP	16 27 46.1	C					micr sec	
			i	16 28 01.4				M	E	0.8	14
		South of Japan (h = 20 km).						M	N	0.4	10
								M	Z	0.5	10
"	2	Ki	iP	16 37 29.7				Sk	iP	02 58 19.2	
"	2	Up	iPg	17 11 50.9				Um	iP	02 58 17.2	
			iSg	17 12 13.6				Ka	iP	02 56 50.0	
				micr sec				Ud	iP	02 57 35.7	
								Yugoslavia (h = 60 km).			
		Sk	eLg1	17 14 41		"	3	Up	iP	03 09 36.2	
			Sg	Z' 0.1 0.5				Ki	iP	03 08 42.8	
		Ki	eLg1	17 14 41				Um	iP	03 09 10.1	
			iSg	17 14 54.9				Ud	iP	03 09 33.8	
		Sk	eSn	17 13 22				South of Alaska			
			iLg1	17 13 30.5				(h = 30 km).			
		Um	iPg	17 12 11.7		"	3	Ki	iP	03 55 24.2	
			iSg	17 12 47.1				Ud	eP	03 55 55	
		Ka	eLg1	17 14 00				Mariana Islands			
		Ud	ePg	17 12 14				(h = 30 km).			
			iSg	17 12 53.6		"	3	Up	iP	05 20 30.4	C
		Gulf of Bothnia,						Ki	iP	05 19 45.1	
		61.0° N, 20.3° E.						Sk	iP	05 20 20.8	
		Origin time = 17 11 16.						Um	iP	05 20 04.3	C
		Underwater explosion.							i	05 20 19.7	
"	2	Ud	eP	18 48 12				Ka	iP	05 20 51.3	
		Nicobar Islands						Ud	iP	05 20 36.7	
		(h = 30 km).						Kurile Islands (h = 30 km).			
"	2	Up	iP	20 45 50.4	C	"	3	Ki	iP	07 04 33.2	
			i	20 45 57.9				Um	iP	07 05 00.4	
				micr sec				South of Alaska			
		P	Z'	0.1 0.7				(h = 30 km).			
		(cont.)									

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1967				1967			
July	3	(cont.)		July	4		
		Um	ipP 22 00 40.2			Ki	e(Sn) 16 38 34
			iS 22 10 16				i(Sg) 16 38 54.1
		Ud	iP 22 00 04.6	"	4	Sk	ePg 17 30 55
			ipP 22 00 10.8				eSg 17 32 07
		Ascension Island.				Ud	iSg 17 32 19.7
		h = 25 km (Ki,Sk,Um,Ud).				Off west coast of Norway.	
"	4	Ud	iP 00 11 33.3	"	4	Ki	iP 21 37 13.6
		Peru-Brazil (h = 90 km).				Ud	e(P) 21 36 33
"	4	Ki	eP 02 42 14	"	4	Up	iP 23 52 54.3 C
"	4	Sk	eSg 05 01 00				i 23 54 33.0
		Ud	eSg 05 01 16				iS 00 01 36
		West coast of Norway.					i 00 02 35
		Underwater explosion.					micr sec
"	4	Sk	iSg 12 13 51.5			P	Z' 0.5 0.8
		Um	iSg 12 12 31.6			S	E 0.5 7
		Ud	eSn 12 12 34			S	N 0.4 5
			iSg 12 13 05.9			M	E 0.6 11
		Southwest Finland.				M	N 0.7 11
		Probably explosion.				M	Z 1.6 20
							(D = 7550 km = 68°).
"	4	Ki	iP 12 42 48.8			Ki	iP 23 52 11.1 C
							i 23 54 17.1
							iS 00 00 16
"	4	Up	---				micr sec
			micr sec			P	E 0.5 6
		M	E 1.5 20			P	N 0.5 6
		M	N 1.5 19			P	Z 1.1 7
		M	Z 1.8 19			P	Z' 0.4 1.0
		Ki	iPKP 14 35 58.2			S	E 1.2 8
			iPP 14 37 43			S	N 0.5 8
			ePS 14 47 43			M	E 0.8 14
			eSS 14 54 54			M	N 0.7 11
			micr sec			M	Z 0.6 12
		PP	E 0.3 7				(D = 6800 km = 61°).
		PP	Z 0.4 6			Sk	iP 23 52 46.1 C
		M	E 1.2 21				i 23 54 58.5
		M	N 0.7 18			Gb	iP 23 53 16.1 C
		M	Z 0.5 23				i 23 55 36.4
		Sk	ePKP 14 35 45				iPP 23 55 52.5
		Um	iPKP 14 35 48.5			Um	iP 23 52 30.2 C
			i 14 35 55.0				iPcP 23 53 04
			iPP 14 37 34				iS 00 00 52
			i 14 45 39				iScS 00 02 08
			iPS 14 47 23				i 00 12 23
			eSS 14 54 25			Ka	iP 23 53 15.6 C
		Ud	iPKP 14 35 39.9				ipP 23 53 57.8
			i 14 35 46.4			Ud	iP 23 53 01.1 C
		Chile (h = 30 km).				Japan. h = 170 km (Ka).	
		Magn. = 6.0 (Up,Ki).				Magn. = 6.0 (Up,Ki).	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967						1967						
July	5	Up	iP	00 58 19.3		July	5	Up	iP	16 01 51.3		
			i	00 59 22.5								
			eS	01 02 29		"	5	Up	iP	16 54 37.9		
				micr sec				Ki	eP	16 55 49		
		S	N	0.6 7						micr sec		
		M	E	0.9 12				M	E	0.4 16		
		M	N	2.8 14				M	N	0.2 11		
		M	Z	2.8 15				M	Z	0.5 12		
		Ki	iP	00 59 32.1				Sk	iP	16 55 17.3		
				micr sec				Um	iP	16 55 15.7		
		M	E	1.1 15					eS	17 00 00		
		M	N	1.2 11				Ka	iP	16 54 01.5		
		M	Z	1.8 11				Ud	iP	16 54 44.3		
		Sk	iP	00 58 58.3					iPP	16 55 14.1		
			i	00 59 10.3				Greece (h = 40 km).				
		Um	iP	00 58 56.8								
			i	00 59 18.1		"	5	Up	iP	21 21 40.9		
			iS	01 03 33				Ki	iP	21 21 24.2		
			e	01 03 50				Um	iP	21 21 31.1		
		Ka	iP	00 57 42.4				Ud	iP	21 21 48.7		
		Ud	iP	00 58 25.8				Luzon (h = 40 km).				
		Greece (h = 20 km).										
"	5	Up	iP	04 13 51.1		"	5	Ki	iP	21 48 18.6		
		Ki	iP	04 12 57.2 D								
		Sk	eP	04 13 24		"	6	Um	iPP	00 41 00		
		Um	iP	04 13 24.1					iSKKS	00 47 47		
			ipP	04 13 33.1				South Pacific Ocean				
		Ud	iP	04 13 48.7				(h = 30 km).				
		South of Alaska.					"	6	Up	iP	05 15 56.8	
		h = 30 km (Um).						Ki	iP	05 15 00.1		
"	5	Ud	iPn	04 59 38.4					ipP	05 15 15.2		
			iSg	05 01 13.9						micr sec		
		Off west coast of Norway.							P	Z'	0.1 1.0	
		Underwater explosion.						Sk	iP	05 15 27.6		
"	5	Up	iP	09 12 56.5					ipP	05 15 42.5		
		Ki	iP	09 12 28.5 C				Gb	iP	05 16 08.7		
		Ud	iP	09 13 05.4				Um	iP	05 15 29.7		
		Ryukyu Islands (h = 30 km).							ipP	05 15 44.4		
"	5	Ki	i(P)	11 00 41.2				Ka	iP	05 16 20.9		
			i(Sg)	11 01 40.2				Ud	iP	05 15 52.8		
									ipP	05 16 08.4		
								Alaska. h = 60 km				
								(Ki,Sk,Um,Ud).				
"	5	Ki	iP	13 53 56.2		"	6	Ki	ipKP	05 40 14.9		
		Ud	iP	13 54 36.6				South Sandwich Islands				
		South of Japan						(h = 150 km).				
		(h = 460 km).										
"	5	Up	iP	14 29 49.2		"	6	Up	eP	08 26 56		
		Um	iP	14 29 20.8				Ki	iP	08 28 07.7		
										micr sec		
"	5	Ud	iP	15 07 28.0					M	E	0.6 15	
			i	15 07 35.9					M	N	0.3 10	
									M	Z	0.6 10	
								(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
July 6 (cont.)				July 6 (cont.)			
	Sk	iP	08 27 33.6		Ud	iP	13 53 19.4 C
	Um	iP	08 27 34.4		Aleutian Islands (h = 15 km). Magn. = 6.2 (Up,Ki).		
		eS	08 32 10				
		i	08 32 25				
	Ka	iP	08 26 17.9				
	Ud	eP	08 27 01	"	6	Ki	iP 13 56 56.2
	Greece (h = 40 km).					Um	iP 13 57 23.1
						Ud	iP 13 57 48.5
						Aleutian Islands (h = 30 km).	
	"	6	Sk eP 13 45 20				
			Ka eP 13 44 04	"	6	Up	iP 14 22 54.9
			Ud iP 13 44 46.9				
			Greece.	"	6	Um	iP 14 27 18.0
			Origin time = 13 39.6.			Ud	i(P) 14 27 44.1
	"	6	Up iP 13 53 20.0 C	"	6	Up	iP 14 43 13.2
			i 13 53 32.8				
			iS 14 02 12	"	6	Up	iP 16 25 18.8
			iScS 14 03 29			Ki	iP 16 24 25.4
			iP'P'			Gb	iP 16 25 33.0
			14 21 41.4			Um	iP 16 24 52.3 C
			micr sec			i	16 25 05.4
	P	N	0.6 5			Ud	iP 16 25 18.0 C
	P	Z'	0.6 1.3			Aleutian Islands (h = 30 km).	
	S	E	1.1 12				
	S	N	1.2 12	"	6	Ki	iSg 17 47 41.2
	M	E	1.6 17			Sk	iSg 17 47 45.7
	M	N	5.1 21			Um	iSg 17 48 08.4
	M	Z	4.5 20			Nordlands Fylke, Norway.	
	D = 7550 km = 68°.			"	6	Up	iP 18 43 18.0
	Ki	iP	13 52 27.0 C			eS	18 52 09
		e	13 52 44			micr sec	
		iPcP	13 53 12.3			M	E 0.6 21
		iPa	13 56 20			M	N 1.0 19
		iS	14 00 36			M	Z 0.9 19
			micr sec			D = 7600 km = 68 1/2°.	
	P	N	0.7 7			Ki	eP 18 43 21
	P	Z	1.4 5			iPcP	18 43 48.9
	P	Z'	0.8 1.3			iS	18 52 30
	S	E	1.5 10			micr sec	
	S	N	0.7 10			S	E 0.4 10
	M	E	4.1 21			D = 7700 km = 69 1/2°.	
	M	N	3.0 19			Sk	iP 18 42 59.9
	M	Z	5.1 19			Um	iP 18 43 20.8
	D = 6650 km = 60°.					iS	18 52 20
	Sk	iP	13 52 57.8			Ka	iP 18 43 06.8
		i	13 53 05.8			Ud	eP 18 43 02
	Gb	iP	13 53 34.6 C			i	18 43 06.2
	Um	iP	13 52 54.0 C			Leeward Islands (h = 60 km).	
		iPcP	13 53 31.0				
		i	14 00 51				
		iS	14 01 25				
		iScS	14 02 45				
		iP'P'	14 21 47.8				
	Ka	iP	13 53 43.4 C				
	(cont.)						

ATM

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967	July 6	Up	eP	19 07 55	1967	July 6	(cont.)	
				mic sec			Gb	iP 23 27 30.1
			M	E 0.8 18			Um	iP 23 26 49.8 C
			M	N 1.1 19				ipP 23 27 29.1
			M	Z 0.9 18			Ud	iP 23 27 17.8 C
		Ki	iP	19 08 29.4			Japan. h = 160 km (Ki,Um).	
				micr sec				
			M	E 1.0 16	"	7	Ki	iP 01 15 39.5
			M	N 0.7 16	"	7	Up	iP 01 19 08.9
			M	Z 1.6 16			Ki	iP 01 19 48.0
		Um	iP	19 08 12.5				micr sec
		Ud	eP	19 08 06			M	E 0.3 15
		Gulf of Aden (h = 40 km).					M	N 0.2 13
							M	Z 0.7 15
"	6	Up	iP	19 30 35.7 C			Um	iP 01 19 29.8
			iS	19 39 28				iS 01 27 07
				micr sec			Gulf of Aden (h = 30 km).	
			S	N 0.5 5	"	7	Sk	iP 04 47 27.6
			M	E 1.4 19			Um	iP 04 47 11.5 D
			M	N 1.8 22			Sea of Japan (h = 470 km).	
			M	Z 2.7 21				
		D = 7400 km = 66 1/2°.						
		Ki	iP	19 31 09.7	"	7	Up	P eSn 05 01 17
			iS	19 40 26				iLg1 05 01 39.4
				micr sec			Ki	R eS# 05 03 37
			P	Z' 0.3 2.0				iLg1 05 04 04.3
			S	N 0.6 8			Sk	A iPg 05 00 03.2
			M	E 2.1 21				iSn 05 00 46.1
			M	N 0.8 20				iSg 05 01 13.0
			M	Z 2.1 21				iSg 05 00 25.2
		D = 8000 km = 72°.					Um	E eSn 05 02 14
		Sk	iP	19 30 41.3				iLg1 05 02 41.9
		Gb	iP	19 30 12.1				iLg1 05 01 39.6
		Um	iP	19 30 57.8				iSg 05 01 46.7
			iS	19 40 01				iPn 04 59 34.6
		Ka	iP	19 30 20.3				iSn 05 00 21.1
		Ud	iP	19 30 25.1 C				iLg1 05 00 35.3
		Atlantic Ocean (h = 30 km).						West coast of Norway;
		Magn. = 5.8 (Up,Ki).						59°29.3'N, 5°51.4'E.
"	6	Up	iSg	22 12 42.5				Origin time = 04 58 30.3
			i	22 12 53.9				(Bergen).
		Sk	e(Sg)	22 14 41				Underwater explosion.
		Ka	i(P)	22 10 19.4				
			i	22 10 22.0				
			iSg	22 10 48.4	"	7	Up	P i 07 02 28.0
		Ud	eSg	22 12 43				i(S*) 07 02 34.5
		Probably explosion in southern Baltic.						iLg1 07 02 39.5
"	6	Up	iP	23 27 09.3 C			Ki	iLg1 07 05 03.1
		Ki	iP	23 26 36.1 C				i 07 05 07.1
			ipP	23 27 15.2			Sk	A ePg 07 01 03
		Sk	iP	23 27 07.7 C				eSn 07 01 45
		(cont.)						iSg 07 02 11.1
							Gb	i 07 01 21.9
							(cont.)	

7
 GOT
 KLS
 West coast of Norway;
 59°29.3'N, 5°51.4'E.
 Origin time = 04 58 30.3
 (Bergen).
 Underwater explosion.

7
 Up P i 07 02 28.0
 i(S*) 07 02 34.5
 iLg1 07 02 39.5
 Ki iLg1 07 05 03.1
 i 07 05 07.1
 Sk A ePg 07 01 03
 eSn 07 01 45
 iSg 07 02 11.1
 Gb i 07 01 21.9
 (cont.)

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Year	Month	Day	Station	Phase	Time	Distance	Notes
1967	July	7	Up	iSg	07 01 25.1		
			Um	iSn	07 03 13.6		
				iLg1	07 03 41.9		
			Ka	iLg1	07 02 39.6		
				iSg	07 02 46.7		
			Ud	ePn	07 00 35		
				iSn	07 01 21.1		
				iLg1	07 01 35.2		
			West coast of Norway, 59° 29.3'N, 5° 51.5'E. Origin time = 06 59 30.3 (Bergen). Underwater explosion. This and the preceding case clearly demonstrate the great significance of the phase Lg1, also in studies of near events. The Sk arrivals are apparently too early, as compared with J.-B. tables (cf. July 3, 17 32).				
"	"	7	Up	iPKP	10 00 26.2		
			Um	iPKP	10 00 18.5		
				i	10 00 26.5		
			Ka	iPKP	10 00 37.3		
			Ud	iPKP	10 00 26.2		
			Fiji Islands (h = 540 km).				
"	"	7	Up	iP	13 41 24.0 C		
			Ki	iP	13 41 06.2 C		
					micr sec		
				P	Z' 0.2 1.5		
			Sk	iP	13 41 28.0 C		
			Gb	iP	13 41 39.0		
			Um	iP	13 41 12.2 C		
				i	13 41 14.3		
				iPP	13 44 48.4		
			Ka	iP	13 41 34.0 C		
			Ud	iP	13 41 32.0 C		
			Mindanao (h = 200 km).				
"	"	7	Ud	iPg	14 13 21.9		
				iSg	14 13 36.1		
"	"	7	Ki	iPn	15 02 37.0		
				i	15 03 15.0		
				iSn	15 03 25.1		
				iLg1	15 03 37.5		
			D = 440 km = 4.0°				
			Um	iSn	15 04 46.9		
				iS ^x	15 05 09.0		
				iLg1	15 05 18.5		
			(cont.)				
1967	July	7					Probably northwest Russia. Origin time = 15 01 33. Explosion?
"	"	7	Ka	iP	22 04 23.4		
				iSg	22 05 02.8		
			Probably south Baltic explosion.				
"	"	7	Ka	iP	22 48 43.9		
				iSg	22 49 15.8		
			Probably south Baltic explosion.				
"	"	7	Up	iP	23 06 25.7		
			Ki	eP	23 06 19		
			Sk	iP	23 06 42.4		
			Um	iP	23 06 17.7		
			Ka	iP	23 06 35.5		
			Ud	iP	23 06 39.9		
			India-China (h = 30 km).				
"	"	7	Ud	iP	23 12 13.5		
			Atlantic Ocean (h = 30 km).				
"	"	7	Up	iP	23 58 18.4		
			Ki	iP	23 58 10.5		
					micr sec		
				M	E 0.8 13		
				M	N 1.5 17		
				M	Z 1.0 16		
			Sk	iP	23 58 34.6		
			Um	iP	23 58 08.4		
				i	23 58 14.9		
				eS	00 05 21		
				eSS	00 08 57		
			Ud	iP	23 58 33.9		
			Tibet (h = 30 km).				
"	"	8	Up	iP	00 53 35.3		
			Ki	iP	00 52 54.5		
			Um	iP	00 53 12.5		
				ipP	00 53 30.7		
			Ud	iP	00 53 42.5		
				ipP	00 54 01.1		
			Japan. h = 70 km (Um,Ud).				
"	"	8	Up	iPKP	01 17 48.7		
				i	01 18 16.7		
				iSKP	01 21 02.1		
				i	01 21 12.8		
					micr sec		
				PKP	Z' 0.3 1.8		
				SKP	Z' 0.1 0.9		
			(cont.)				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
July 8 (cont.)				July 8 (cont.)			
Ki	iPKP	01 17	36.0 C	Ki	iSn	12 37	24.1
			micr sec		iLg1	12 37	38.7
	PKP	Z' 0.2	1.0	Sk	eSg	12 40	35
Sk	iPKP	01 17	46.5 C	Um	i	12 38	04.9
	iSKP	01 20	58.1		i	12 39	21.9
Gb	iPKP	01 17	56.5	" 8	Sk e(Sg)	13 06	00
	eSKP	01 21	14	" 8	Up iPKP	13 31	47.4
Um	e(PKP)	01 17	33		Fiji Islands (h = 520 km).		
	iPKP	01 17	41.8 C	" 8	Ki R ePn	13 48	13
	i	01 19	49.8		iSn	13 48	50.0
	iSKP	01 20	48.3		iSg	13 49	05.8
Ka	iPKP	01 17	57.1 C		D = 330 km = 3.0°		
	iSKP	01 21	15.4		Sk A iSg	13 51	30.7
Ud	ePKP	01 17	50		Um E iSn	13 49	32.0
New Hebrides Islands							
(h = 140 km).							
" 8	Up iP	01 30	09.9		iSg	13 50	01.8
	Um eP	01 29	47	Northern Finland, 67.2°N, 28.5°E. Origin time = 13 47 24. Explosion?			
	i	01 30	50.3	" 8	Up iP	19 29	46.9 C
" 8	Um iP	06 37	26.9 C		ipP	19 30	05.4
" 8	Up iPKP	06 42	06.7	Um	iP	19 29	24.3 C
	ipPKS	06 45	30		ipP	19 29	42.7
Ki	iPKP	06 41	51.6	Ud	iP	19 29	54.1
	ipPKP	06 42	05.4		ipP	19 30	12.2
			micr sec	Japan. h = 70 km (Up,Um,Ud).			
	PKP	Z' 0.1	1.3	" 8	Ki e(Sg)	20 56	58
Sk	iPKP	06 42	03.9	" 8	Ud e(P)	22 08	27
	ipPKP	06 42	17.8		i	22 08	32.1
Um	iPKP	06 41	58.2	Crete.			
	ipPKP	06 42	10.3	" 8	Um iP	23 12	11.7
	iPP	06 43	55		i	23 12	23.8
	ePKS	06 45	16	Japan (h = 70 km).			
Ud	iPKP	06 42	07.9	" 8	Ki iP	23 32	00.8
	ipPKP	06 42	21.1		Sk iP	23 32	24.1
New Hebrides Islands.					Um iP	23 31	58.0
h = 50 km (Ki,Sk,Um,Ud).					Ud iP	23 32	19.9
" 8	Um iP	07 09	25.6	Sinkiang.			
" 8	Up iP	07 56	35.9	" 8	Ki eP	03 10	41
" 8	Up iPKP	10 20	59.0 D		Sk eP	03 11	28
			micr sec		Um eP	03 10	46
	PKP	Z' 0.1	0.8		i	03 16	13.7
Um	iPKP	10 20	54.7	" 9	Ud iP	03 11	29.7
	iSKP	10 23	44.2				
Tonga-Kermadec Islands							
(h = 460 km).							
" 8	Ki iPn	12 36	37.7				
(cont.)							

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1967				1967							
July	9	Up	iP	03 19 51.1	C	July	9	Um	iP	20 50 20.7	
				micr	sec			Ud	iP	20 49 54.5	
				Z'	0.1 0.6			Atlantic Ocean (h = 30 km).			
		Ki	iP	03 19 06.9	C						
				micr	sec						
				Z'	0.1 1.0		"	9	Ki	eP	21 41 50
		Sk	iP	03 19 42.3	C			Um	iP	21 41 32.5	
		Gb	iP	03 20 12.7	C			Ud	iP	21 41 04.6	
		Um	iP	03 19 26.8	C			Atlantic Ocean (h = 20 km).			
		Ka	iP	03 20 12.9							
		Ud	iP	03 19 58.0	C						
		Japan (h = 100 km).					"	10	Ki	iP	03 26 24.7
		Magn. = 5.7 (Up,Ki).							Ud	iP	03 27 25.9
"	9	Ud	iP	05 24 36.2	C			Kamchatka (h = 30 km).			
			i	05 24 41.7			"	10	Up	iP	03 46 24.5
		Atlantic Ocean (h = 30 km).							Ki	iP	03 45 26.9
"	9	Um	i(P)	05 36 26.8					Ud	iP	03 46 27.5
								Kamchatka (h = 30 km).			
"	9	Ki	iP	05 46 17.5			"	10	Ud	iP	06 03 00.5
		South of Alaska (h = 30 km).							Japan (h = 30 km).		
"	9	Ud	iP	08 00 54.7			"	10	Ki	iP	06 11 46.1
			i	08 01 00.7					Um	iP	06 12 13.1
		Atlantic Ocean (h = 30 km).							Ud	iP	06 12 39.2
"	9	Ud	iP	09 33 50.8			"	10	Aleutian Islands (h = 30 km).		
		Atlantic Ocean (h = 30 km).							Ki	iP	06 22 11.3
"	9	Up	iP	13 03 37.4					Um	iP	06 22 36.4
			iS	13 06 45.4					Ud	iP	06 23 08.3
		Ki	iP	13 02 28.7			"	10	Kamchatka (h = 30 km).		
			eS	13 04 40					Ki	iPKP	06 47 35.5
		Um	i	13 07 46.7					Sk	iSKP	06 50 24.9
			i	13 10 10.8					Um	iPKP	06 47 42.4
		Ud	iP	13 03 58.4						iSKP	06 50 19.6
			iS	13 07 21.6					Ud	iPKP	06 47 46.4
		Probably region of northern Russia.								i	06 47 52.9
"	9	Ki	iPn	13 45 35.6			"	10		iSKP	06 50 34.1
			iSn	13 46 24.2					Fiji Islands (h = 530 km).		
			iLg1	13 46 38.9					Ka	iPKP	10 36 50.6
			D = 440 km = 4.0°.						Ud	iPKP	10 36 39.8
		Um	iSg	13 48 02.2			"	10	Fiji Islands (h = 620 km).		
		Northwest Russia.							Ki	iP	10 58 28.6
		Origin time = 13 44 33.							Um	iP	10 58 55.2
		Explosion?							Ud	iP	10 59 20.9
								Aleutian Islands (h = 25 km).			

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1967				1967					
July	10	Up	epP	12 16 13	July	11	Ki	eP	01 32 33
		Ki	iP	12 13 57.4			Um	iP	01 32 04.2
			ipP	12 16 05.7			Ud	eP	01 32 15
			iSKS	12 23 35				Iran.	
				micr sec					
			SKS	E 0.8 7	"	11	Up	iPKP	04 35 53.0
		Um	iP	12 13 58.7			Sk	iPKP	04 35 52.7
			epP	12 16 07			Um	iPKP	04 35 46.6
		Ud	iP	12 14 13.6			Ud	iPKP	04 35 55.7
			ipP	12 16 22.2				Solomon Islands (h = 90 km).	
			Java Sea. h = 590 km						
			(Ki,Um,Ud).		"	11	Um	iP	12 45 44.7
"	10	Gb	i(P)	14 02 23.7 C				i	12 45 57.7
								Yugoslavia.	
"	10	Up	iP	19 31 26.2	"	11	Ki	iPKP	13 36 04.4
			iS	19 42 31			Um	iPKP	13 36 15.5
				micr sec				New Zealand (h = 110 km).	
			M	E 1.2 24					
			M	N 1.1 19	"	11	Ki	e	16 18 11
			M	Z 1.7 25				iSg	16 18 33.4
		Ki	iP	19 31 08.3			Sk	e	16 18 09
			i	19 31 19.2				iSg	16 18 36.6
			eSKS	19 41 36			Um	iSg	16 18 59.7
			iS	19 42 06			Ud	eSg	16 20 22
				micr sec				Nordlands Fylke, Norway.	
			S	N 0.4 7	"	11	Ki	iP	18 56 09.5
			M	E 1.1 22	"	11	Up	iP	19 50 20.6
			M	N 1.2 24	"	11	Up	iP	20 03 17.0
			M	Z 2.1 25	"	11	Up	iP	20 03 17.0
		Sk	iP	19 31 30.3	"	12	Up	iP	01 58 29.0
		Um	iP	19 31 15.6			Ud	iP	01 58 28.7
			i	19 31 24.3				Aleutian Islands	
			iS	19 42 05				(h = 15 km).	
			eSP	19 43 26					
		Ud	iP	19 31 32.8	"	12	Up	iP	10 42 42.9
			i	19 31 42.3			Ki	iP	10 41 49.6
			i	19 31 50.8			Sk	iP	10 42 22.6
			Talau Islands (h = 120 km).				Gb	iP	10 43 06.6
"	10	Up	iP	19 56 30.8			Um	iP	10 42 17.1
		Um	iP	19 56 29.1				i	10 42 25.5
"	10	Up	iP	21 59 44.4			Ud	iP	10 42 41.8
"	10	Ka	iPn	23 19 37.2				i	10 42 54.2
			iSg	23 20 16.5				iPcP	10 43 11.3
			Probably south					Alaska (h = 30 km).	
			Baltic explosion.		"	12	Gb	iP	11 30 21.5
"	11	Ud	iP	00 25 11.5	"	12	Ud	i(Pg)	13 07 05.7
			Atlantic Ocean (h = 30 km).					i(Sg)	13 07 24.4

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1967				1967					
July	12	Ki	eP	15 24 21	July	13	Up	iP	02 16 00.9
			ipP	15 24 38.9					micr sec
			Alaska. h = 80 km (Ki).					M	E 0.4 13
"	12	Ki	i	19 30 05.3				M	N 0.6 13
			i(Sg)	19 30 22.4			Ki	M	Z 0.4 12
"	12	Up	iP	21 13 17.9				Ki	iP
			i	21 13 23.5					i
			eSKS	21 23 49					e
				micr sec					
			SKS	E 0.9 10				P	Z' 0.1 1.1
			SKS	N 0.8 10				M	E 1.2 12
			M	E 1.9 20				M	N 0.5 14
			M	N 2.1 21				M	Z 1.1 13
			M	Z 3.2 20			Gb	iP	02 15 31.4
		Ki	eP	21 13 23			Um	iP	02 16 35.5
			i	21 13 25.6				i	02 16 48.9
			iPP	21 17 05.3				iS	02 21 48
			eSKS	21 23 41			Ka	iP	02 15 27.5
				micr sec			Ud	iP	02 15 54.8 C
							Algeria (h = 15 km).		
			P	Z' 0.4 2.5	"	13	Um	iP	02 50 58.1
			PP	Z' 0.9 2.7	"	13	Ka	iP	06 31 23.1
			SKS	E 1.2 12	"	13	Um	iPKS	07 58 31
			SKS	N 0.6 12				iSP	08 07 29
			M	E 3.4 19			Fiji Islands (h = 50 km).		
			M	N 3.1 23	"	13	Ki	iPn	10 13 40.4
			M	Z 6.7 24				iSn	10 14 38.5
		Sk	iP	21 13 07.1				iSg	10 15 03.5
			i	21 13 14.3				D = 560 km = 5.0°	
		Gb	iP	21 13 16.4			Sk	iSg	10 17 27.5
		Um	iP	21 13 21.2			Um	iSg	10 15 49.1
			i	21 13 29.2			Northwest Russia, 67.2°N, 33.4°E. Origin time = 10 12 21. Explosion?		
			i	21 13 36.9					
			iSKS	21 24 01					
			iS	21 24 15					
		Ka	eP	21 13 27	"	13	Ki	ePKP	10 23 20
		Ud	eP	21 13 16				i	10 23 42.3
			i	21 13 18.7					micr sec
		South of Panama (h = 30 km). Magn. = 6.1 (Up,Ki). Multiple P (gradual beginning).						M	E 0.7 23
"	13	Up	iPKP	01 11 06.3				M	Z 0.9 23
		Sk	iPKP	01 10 59.8			Um	iPKP	10 23 27.2
		Um	iPKP	01 10 52.7				iPKS	10 26 52
		Ud	iPKP	01 11 04.6			New Hebrides Islands (h = 50 km).		
			i	01 11 18.0					
		South of Kermadec Islands (h = 30 km).							

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1967				1967			
July	13	Up		July	14		

			micr sec				
		M	E 0.5 17			Sk	iP 03 20 04.5
		M	N 0.4 12			Gb	eP 03 19 24
		M	Z 1.0 20			Ud	iP 03 19 43.5
							Red Sea (h = 30 km).
		Ki	iP 14 44 36.5	"	14	Ud	iP 04 31 29.5
			micr sec				Greece.
		M	E 0.6 15				
		M	N 0.5 13	"	14	Sk	iP 11 19 00.6
		M	Z 0.8 14			Ud	eP 11 18 27
		Sk	iP 14 44 01.8				Greece.
		Um	iP 14 43 59.6				
			i 14 44 18.7	"	14	Ki	iP 11 53 31.7
			i 14 46 29			Um	iSS 12 00 27
			iS 14 48 12			Ud	iP 11 53 04.4 C
		Ka	iP 14 42 38.7				Iran-Iraq (h = 60 km).
			iPP 14 42 54.4	"	14	Sk	e 12 27 27
		Ud	eP 14 43 24				i(Sg) 12 27 50.0
			Albania (h = 25 km).			Um	i(Sg) 12 26 21.3
"	13	Sk	iP 19 48 05.3	"	14	Up	iP 14 04 09.8 C
"	13	Ud	iPg 20 08 29.3			Sk	iP 14 03 46.9
			iSn 20 08 47.2			Um	iP 14 03 43.8 C
			iSg 20 08 50.2				iPcP 14 04 23.9
"	13	Ud	iP 20 51 36.3			Ud	iP 14 04 08.8 C
							Unimak Island (h = 30 km).
"	13	Um	iP 22 31 03.5	"	14	Up	iSn 14 53 34.5
			i 22 31 10.7				iSg 14 53 48.5
"	13	Ka	iPn 22 50 39.0			Ki	eLg1 14 56 20
			iPg 22 50 46.3				iSg 14 56 33.6
			iSg 22 51 17.7			Sk	eS ^x 14 55 17
			Probably south				iSg 14 55 41.7
			Baltic explosion.			Gb	eLg1 14 55 29
"	13	Ki	iP 23 16 31.9			Um	E iSg 14 54 22.0
"	13	Ki	iP 23 55 31.8				i 14 54 44.4
			Mariana Islands			Ud	D iSn 14 54 23.4
			(h = 80 km).				iS ^x 14 54 36.9
"	14	Up	iPKP 03 06 46.6				iSg 14 54 55.1
			micr sec				Southwest Finland,
		M	N 0.6 21				60.1°N, 23.4°E.
		Ki	iPKP 03 06 32.4				Origin time = 14 52 13.
		Sk	iPKP 03 06 43.5				Explosion?
		Um	iPKP 03 06 38.9	"	14	Ki	iSg 16 16 57.4
			eSP 03 18 07			Sk	iSg 16 17 02.4
		Ud	iPKP 03 06 48.4			Um	iSg 16 17 25.3
			ipPKP 03 07 06.7				i 16 17 30.4
			Santa Cruz Islands.				Nordlands Fylke, Norway.
			h = 60 km (Ud).	"	14	Um	iP 18 14 33.8
							EL Salvador (h = 150 km).

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1967				1967						
July	16	Up	iP	13 48 25.1	July	17	Up	iP	11 39 18.4	
			i	13 48 33.6			Ki	iP	11 38 26.1 D	
			iPP	13 52 38.3					micr sec	
			iSKS	13 59 03				P	Z' 0.1 1.3	
			iS	14 00 09			Sk	iP	11 38 56.5	
			iPS	14 01 49			Gb	iP	11 39 32.5	
				micr sec			Um	iP	11 38 51.6	
		S	N	0.8 14				i	11 38 52.8	
		M	E	9.4 22			Ka	iP	11 39 41.1 D	
		M	N	11 20			Ud	iP	11 39 17.8 D	
		M	Z	6.8 21			Aleutian Islands			
		D = 11450 km = 103°.					(h = 30 km).			
		Ki	iP	13 48 08.6		"	17	Up	iP	12 47 29.1 C
			i	13 48 24.2				Ki	iP	12 46 48.6 C
			iPP	13 52 06.8					ipP	12 47 01.3
			iSKS	13 58 45				Sk	iP	12 47 22.5
			iS	13 59 30				Um	iP	12 47 06.6 C
				micr sec					ipP	12 47 18.1
		PP	E	0.6 15				Ka	eP	12 48 04
		S	N	0.7 10				Ud	iP	12 47 36.6 C
		M	E	13 23					i	12 47 41.0
		M	N	7.3 19					ipP	12 47 47.1
		M	Z	5.9 17				Japan. h = 40 km		
		D = 11000 km = 99°.					(Ki, Um, Ud).			
		Sk	eP	13 48 34		"	17	Ki	iP	14 03 05.2
			iPP	13 52 58.7				Um	iP	14 03 31.7
		Gb	iPP	13 53 18.0				Ud	iP	14 03 57.2
		Um	iP	13 48 12.5				Aleutian Islands		
			i(PP)	13 52 10.8				(h = 30 km).		
			iPP	13 52 18		"	17	Sk	iP	15 13 02.4
			iSKS	13 58 53						
			iPS	14 01 25		"	17	Ud	iP	16 56 04.6
			iSS	14 06 57						
		Ka	iPP	13 53 05.1		"	17	Ki	iP	17 29 18.2
		Ud	iP	13 48 33.5 C				Um	iP	17 29 26.7
			iPP	13 53 05.7				Ud	eP	17 29 50
		New Guinea (h = 30 km).					Formosa (h = 40 km).			
		Magn. = 6.2 (Up, Ki).				"	17	Ki	iP	22 17 05.8
"	16	Um	iP	16 01 57.5		"	18	Up	eP	02 19 14
		Hindu Kush (h = 250 km).							i	02 19 22.7
"	16	Ki	iP	16 43 52.0		"	18	Gb	iPg	07 34 00.0
"	16	Up	iP	21 23 44.4					iSg	07 34 17.6
		Ki	iP	21 23 18.7				Ud	iPg	07 34 18.1
		Um	iP	21 23 28.3					iSg	07 34 49.4
		Ud	iP	21 23 53.9			Skagerrak explosion.			
			i	21 24 03.7						
"	17	Um	iP	03 39 35.5						
"	17	Um	iP	04 48 53.1						

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1967					1967						
July	18	Sk	iSg	07 45 02.2	July	18	Sk	eSg	09 25 33		
		Gb	iPg	07 42 27.8			Gb	iSg	09 23 16.2		
		Ud	iPg	07 42 44.9			Ud	iPg	09 23 21.7		
			iSg	07 43 15.0				iSg	09 23 55.2		
		Skagerrak explosion.					Skagerrak explosion.				
"	18	Gb	iPg	07 56 12.2	"	18	Ud	i(Sg)	12 42 05.0		
		Ud	ePg	07 56 31							
			iSg	07 57 05.0			"	18	Up	iP	13 28 41.7
			i	07 58 26.0					i	13 28 44.2	
		Skagerrak explosion.					"	18	Ki	iPn	13 45 09.2
		Sk	iSg	07 59 51.3					iSn	13 45 57.4	
		Gb	ePg	07 57 24					iLg1	13 46 13.2	
			iSg	07 57 40.8					Possibly northwest Russia. Origin time = 13 44 06. Explosion?		
		Skagerrak explosion.					"	18	Up	i(P)	16 16 27.2 C
"	18	Sk	eSg	08 10 50			Sk	e(P)	16 16 28		
		Gb	ePg	08 08 20			"	18	Ki	iP	16 24 33.1
		Ud	iPg	08 08 39.8					South of Alaska (h = 30 km).		
			i	08 08 54.2							
			i(Sg)	08 09 21.6							
		Skagerrak explosion.					"	18	Up	iP	17 10 31.7
"	18	Up	iSg	08 20 36.7			Ki	iP	17 09 50.1 C		
		Gb	iPg	08 18 55.1				ipP	17 10 03.3		
			iSg	08 19 09.6			Sk	epP	17 10 36		
		Ud	iPg	08 19 12.8			Gb	iP	17 10 53.1		
			iSg	08 19 43.9				ipP	17 11 06.7		
		Skagerrak explosion.					Um	iP	17 10 08.6		
"	18	Sk	i	09 06 42.0				ipP	17 10 20.0		
			iSg	09 06 49.2			Ud	iP	17 10 39.4		
		Gb	ePg	09 04 20				ipP	17 10 51.8		
			iSg	09 04 38.1				Japan, h = 50 km (Ki, Gb, Um, Ud).			
		Ud	iPg	09 04 41.9			"	19	Um	iP	03 50 55.7
			iSg	09 05 12.2							
		Skagerrak explosion.					"	19	Ki	iPn	04 36 00.2
"	18	Sk	i	09 11 38.5				iP ^x	04 36 08.4		
			iSg	09 11 59.0				iSn	04 36 46.5		
		Gb	iSg	09 09 27.2				iLg1	04 37 01.2		
		Ud	iPg	09 09 31.9				D = 420 km = 3.8°.			
			iSg	09 10 03.9				Possibly northwest Russia. Origin time = 04 35 00. Explosion?			
			i	09 10 23.2							
		Skagerrak explosion.					"	19	Sk	iP	08 15 05.9
"	18	Um	iP	09 10 50.2			"	19	Sk	iP	08 47 28.6
		Sk	eSg	09 16 42							
		Gb	iSg	09 14 27.0							
		Ud	iPg	09 14 33.2							
			iSg	09 15 01.7							
		Skagerrak explosion.									

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1967				1967			
July	19	Up	iP	09 11 22.9	July	19	(cont.)
			eS	09 15 32			Sk iP 17 36 17.8
			e	09 18 27			iPP 17 38 05.4
				micr sec			Gb iP 17 36 13.4
			P N	0.3 5			Um iP 17 35 50.4
			S E	0.5 10			Ka iP 17 35 56.7
			S N	1.1 8			Ud iP 17 36 08.8 C
			M E	1.4 19			Hindu Kush (h = 220 km).
			M N	1.6 20			
			M Z	0.7 14		"	19 Ki eSg 18 10 02
			D = 2550 km = 23°.				Sk eSg 18 10 04
		Ki	eP	09 12 30			Um iSg 18 10 28.3
			eS	09 17 33			Nordlands Fylke, Norway.
			i	09 19 51			
			i(Lg1)	09 22 45		"	20 Um iP 02 59 33.4
				micr sec			
			M E	2.1 10		"	20 Um iP 05 09 41.6
			M N	0.8 9			
			M Z	0.9 9		"	20 Ud eP 07 08 38
			D = 3400 km = 30 1/2°.				Kurile Islands
		Sk	iP	09 12 04.7			(h = 30 km).
		Gb	eP	09 11 15			
		Um	iP	09 11 56.7		"	20 Ki iP 09 12 22.6 C
			eS	09 16 28			i 09 12 29.3
			iLg1	09 20 05			Sk iP 09 12 49.9
		Ka	iP	09 10 56.8			Ud eP 09 13 12
		Ud	iP	09 11 34.9 C			i 09 13 24.0
			Turkey (h = 30 km).				Kodiak Island (h = 30 km).
			Magn. = 5.0 (Up,Ki).			"	20 Ki ePn 10 40 05
							eSn 10 41 04
							iSg 10 41 28.2
			Possibly northwest Russia.				Possibly northwest Russia.
			Origin time = 11 44 24.				Origin time = 10 38 45.
			Explosion?				Explosion?
		"	19 Up iPKP 12 59 48.3			"	20 Ki eP 11 54 59
			Ki iSKP 13 02 16.8				Um eSS 12 15 09
			Gb i(SKP) 13 02 34.4				New Guinea (h = 60 km).
			Ka iPKP 12 59 57.9			"	20 Ki iPP 13 30 55.0
			Ud iPKP 12 59 48.2				iSKS 13 36 30
			iSKP 13 02 42.1				eSP 13 40 13
			Fiji Islands (h = 520 km).				micr sec
							PP Z' 0.2 1.8
		"	19 Up iP 16 23 27.6				SKS E 0.4 6
			Sk eP 16 24 04				Um iPKP 13 29 55.1
			Ud eP 16 23 31				iSKS 13 36 25
			i 16 23 39.8				i 13 37 32
			Greece (h = 30 km).				iSP 13 40 09
							Argentina (h = 160 km).
		"	19 Up iP 17 35 51.8				
			Ki eP 17 36 01				
			iPP 17 37 42.1				
			(cont.)				

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1967						1967					
July	20	Up	iP	14 37 10.0		July	20	(cont.)			
			iPcP	14 37 36.8				Ki	iPP	15 53 19	
				micr sec					iSKS	15 59 56	
			P	Z' 0.2 0.9						micr sec	
			M	E 0.5 18				P	E 0.3 8		
			M	N 1.1 21				P	Z 1.3 9		
			M	Z 0.9 18				P	Z' 0.7 1.8		
		Ki	iP	14 36 18.1 C				PP	E 1.0 10		
			eS	14 44 28				PP	Z 1.8 12		
				micr sec				SKS	E 0.7 8		
			M	E 0.8 19				SKS	N 0.5 8		
			M	N 0.6 18				M	E 14 20		
			M	Z 1.5 18				M	N 10 20		
			D = 6650 km = 60°.					M	Z 17 19		
		Sk	iP	14 36 51.2				D = 10300 km = 92 1/2°.			
			iPcP	14 37 23.9			Sk	iP	15 49 53.6		
		Gb	iP	14 37 28.5				iPP	15 53 49.8		
		Um	iP	14 36 44.1			Gb	iP	15 50 08.4		
			iPcP	14 37 19.4				i	15 53 31.6		
			iS	14 45 15				iPP	15 54 20.0		
		Ka	iP	14 37 34.5			Um	iP	15 49 37.4 C		
		Ud	iP	14 37 12.6				i	15 49 39.3		
			ipP	14 37 22.7				i	15 49 44.9		
		Aleutian Islands.						i	15 52 29		
		h = 40 km (Ud).						iPP	15 53 19.8		
		Magn. = 5.6 (Up,Ki).						iSKS	16 00 20		
"	20	Ki	iPn	15 35 30.1				i	16 01 52		
			iSn	15 36 26.6			Ka	iP	15 50 02.7		
			iSX	15 36 40.0				i	15 50 11.5		
			iLg1	15 36 45.5			Ud	iP	15 49 59.4 C		
			D = 530 km = 4.8°.				Caroline Islands				
			Probably northwest Russia.					(h = 10 km).			
			Origin time = 15 34 14.					Magn. = 6.3 (Up,Ki).			
			Explosion?					Multiple P.			
"	20	Up	iP	15 49 52.0 C		"	20	Um	iP	16 19 26.2	
			i	15 50 09				"	20	Ki	iP
			iPP	15 53 45							19 09 07.7
			e	15 59 42							micr sec
			iSKS	16 00 23					M	E 0.5 15	
			iS	16 01 12					M	N 0.2 12	
				micr sec					M	Z 0.5 14	
			P	Z 0.4 4			Sk	iP	19 08 32.8		
			P	Z' 0.2 1.6				i	19 08 43.6		
			SKS	E 0.9 12			Um	iP	19 08 34.4		
			M	E 10 20			Ka	iP	19 07 09.0		
			M	N 14 22			Ud	iP	19 07 56.4		
			M	Z 14 20			Albania (h = 30 km).				
			D = 10850 km = 97 1/2°.			"	20	Up	eP	19 18 56	
		Ki	iP	15 49 28.5 C				i	19 19 28.7		
			i	15 49 30.9				"	20	Ki	iP
			i	15 49 38.5							20 12 01.6
		(cont.)					Pamir.				

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1967				1967								
July	20	Up	iPKP	23 31	21.7	D	July	22	Up	iPKP	04 17	50.0
			PKP							i	04 17	59.4
		Ki	iPKP	23 31	03.3					PKP	Z'	0.2 1.0
			iSKP	23 33	45.2					M	E	0.6 21
		Sk	iPKP	23 31	14.7					M	N	1.6 20
		Gb	iPKP	23 31	31.6					M	Z	1.3 20
			i!	23 31	36.1				Ki	iPKP	04 17	31.0
		Um	iPKP	23 31	09.4					ePP	04 20	38
		Ka	iPKP	23 31	32.4					i	04 21	39
			i!	23 31	37.4							
		Ud	iPKP	23 31	24.3							
		Tonga-Kermadec Islands								PKP	Z	0.8 10
		(h = 600 km).								PKP	Z'	0.4 2.2
										M	E	0.8 18
										M	N	0.7 18
										M	Z	1.9 20
"	21	Um	iP	05 55	33.3				Sk	i(PKP)	04 17	45.2
		Ud	iP	05 56	01.5					iPKP	04 17	47.1
		Japan (h = 290 km).							Gb	ePKP	04 18	00
"	21	Ki	iP	07 15	09.4					i	04 18	33.2
									Um	i(PKP)	04 17	40.0
			M	E	0.3 15					iPKP	04 17	40.9
			M	N	0.3 15					iPKS	04 21	20.2
			M	Z	0.4 15					eSKKS	04 27	57
		Um	eS	07 26	00				Ka	ePKP	04 17	53
		Ud	iP	07 15	26.9				Ud	iPKP	04 17	52.2
		Sumatra (h = 30 km).								i	04 18	03.7
"	21	Ki	iP	10 23	51.0	C			South of Kermadec Islands			
		Sk	iP	10 24	40.3				(h = 40 km).			
		Um	iP	10 24	45.0				Magn. = 5.8 (Up,Ki).			
		Ud	iP	10 25	21.2				(PKP) at Sk, Um are small-			
		Probably Arctic Ocean.							amplitude precursors.			
"	21	Up	iSn	11 46	52.5			"	22	Um	iP	04 48 30.3
			iSg	11 47	05.2			"	22	Ki	iPKP	05 47 15.2
			i	11 47	09.0					Sk	iPKP	05 47 25.8
		Sk	eSg	11 48	59					Um	iPKP	05 47 21.3
		Um	iSg	11 47	39.3					Ud	iPKP	05 47 31.2
		Southwest Finland.								Santa Cruz Islands		
		Origin time = 11 45 30.								(h = 60 km).		
		Explosion?						"	22	Up	iPKP	07 00 43.3
"	21	Ki	iPKS	13 08	15					i	07 00	51.9
										Sk	iPKP	07 00 38.8
			PKS	E	0.3 7					Um	iPKP	07 00 33.8
			PKS	N	0.2 7					Ud	iPKP	07 00 45.5
		Fiji Islands (h = 200 km).								South of Kermadec Islands		
"	21	Gb	iP	15 22	52.9					(h = 25 km).		
"	21	Ki	iP	20 55	12.5	C		"	22	Up	iPKP	08 08 30.7
		Cyprus (h = 110 km).								Um	iPKP	08 08 38.0
										(cont.)		

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1967				1967			
July	22	(cont.)		July	22	(cont.)	
		Ud	iPKP 08 08 29.5			Um	iSg 13 38 40.0
			South Sandwich Islands				i 13 38 55.9
			(h = 30 km).				North Finland. Explosion?
							Cf. July 8, 13 48.
"	22	Ki	iP 08 18 04.9	"	22	Um	iP 13 43 58.9
		Sk	eP 08 18 35				
		Ud	eP 08 18 57				
			Kodiak Island (h = 30 km).	"	22	Um	iPKP 14 06 26.9
						Ud	iPKP 14 06 18.3 C
							Argentina (h = 110 km).
"	22	Up	iP 11 02 05.6 C	"	22	Ud	iP 16 10 33.1
			iS 11 04 25.1				Kamchatka (h = 70 km).
			iSS 11 04 43.3				
			micr sec				
			P Z' 0.1 0.5				
		Ki	iP 11 03 31.0	"	22	Up	iP 17 01 36.4 D
		Sk	eP 11 02 25				iS 17 05 15
		Gb	iP 11 01 16.6 C				micr sec
		Um	iP 11 02 58.1			P	E 39 9
		Ka	iP 11 01 27.4 C			P	N 87 9
			e(S) 11 03 06			P	Z 120 9
		Ud	iP 11 01 48.4			P	Z' 7.0 1.5
			England.			S	E 410 14
			Chemical explosion.			S	N 140 10
						M	E 920 17
"	22		Karlskrona recorded a number			M	N 1070 17
			of explosions in the south			D	= 2300 km = 20 1/2°.
			Baltic, as follows:			Ki	iP 17 02 45.1 D
							i 17 02 46.9
							iS 17 07 29
							micr sec
						P	E 4.9 9
						P	N 5.7 7
						P	Z 9.4 8
						P	Z' 1.2 1.2
						S	E 110 17
						S	N 29 12
						M	E 290 15
						M	N 270 15
						M	Z 490 16
						D	= 3050 km = 27 1/2°.
						Sk	iP 17 02 23.3
							i 17 02 25.6
							i 17 02 27.7
"	22	Um	iP 12 59 52.5			Gb	iP 17 01 37.2 D
							i 17 01 40.1
"	22	Ki	iPn 13 36 53.5			Um	iP 17 02 09.1 D
			iSn 13 37 31.1				i 17 02 11.8
			iSg 13 37 44.4			Ka	iP 17 01 05.8
			D = 330 km = 3.0°.				i 17 01 08.4
		Sk	iSg 13 40 11.5			Ud	iP 17 01 50.6 D
		Um	e 13 38 18				i 17 01 53.2
			(cont.)				(cont.)

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1967				1967				
July	22	(cont.)		July	22	(cont.)		
		Ud	i 17 01 56.1			Sk	iP 17 53 33.1	
			iS 17 06 02.2			Gb	iP 17 52 47.3	
		Turkey (h = 5 km).				Um	iP 17 53 19.6	
		Magn. = 7.3 (Up, Ki).					iS 17 57 48.4	
		The maxima (M) and				Ka	iP 17 52 17.5	
		S-amplitudes at Up are				Ud	iP 17 53 01.8	
		measured on Wiechert in				Turkey (h = 25 km).		
		this case. Multiple P, with		"	22	Ki	iP 17 54 15.9	
		gradually bigger onsets;			22	Up	iP 17 56 33.6	
		particularly pronounced is			"	22	Ud	iP 17 57 02.6
		the time difference of 2.5 sec			"	22	Sk	iP 17 58 09.6
		between the first onset and			"	22	Sk	i(P) 17 58 26.9
		the next larger one.			"	22	Ki	iP 17 59 21.7
"	22	Up	eP 17 18 52	"	22	Up	eP 18 09 25	
		Turkey.				Sk	iP 18 10 11.7	
"	22	Up	iP 17 22 31.2			Um	iP 18 09 56.9	
			micr sec			Ud	eP 18 09 41	
		P	Z' 0.1 1.0			Turkey.		
"	22	Ud	iP 17 23 05.1			Origin time = 18 04.7.		
"	22	Um	iP 17 24 08.9	"	22	Ki	eP 18 10 56	
		Ud	iP 17 23 52.8			22	Um	iP 18 12 28.3
		Turkey.		"	22	Up	iP 18 13 20.6	
		Origin time = 17 18.9.				Sk	iP 18 14 08.7	
"	22	Ki	iP 17 25 33.2			Gb	iP 18 13 21.6	
"	22	Sk	iP 17 26 08.5			Um	iP 18 13 52.9	
"	22	Up	iP 17 34 50.9				i 18 14 00.3	
		Ki	iP 17 35 58.1			Ka	iP 18 12 54.6	
		Sk	iP 17 35 36.9			Ud	iP 18 13 34.8	
		Gb	iP 17 34 53.1				i 18 13 39.8	
		Um	iP 17 35 23.9			Turkey.		
		Ud	iP 17 35 03.9			Origin time = 18 08.6.		
		Turkey.		"	22	Up	iP 18 13 37.7	
		Origin time = 17 30.1.				Ki	iP 18 14 47.6	
"	22	Ki	iP 17 36 35.5			Turkey.		
"	22	Sk	iP 17 40 53.3			Origin time = 18 08.9.		
"	22	Up	iP 17 52 48.4	"	22	Up	iP 18 14 33.6	
			iS 17 56 28				micr sec	
			iLi 17 58 29			P	Z' 0.1 0.7	
			iLg1 17 59 11			Ki	iP 18 15 41.2	
			micr sec				micr sec	
		P	Z' 0.1 0.8			P	Z' 0.1 1.0	
		D = 2350	km = 21°			(cont.)		
		Ki	iP 17 53 55.2			(cont.)		
		(cont.)				(cont.)		

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1967				1967					
July				July					
"	22	(cont.)		"	22	Up	iP	21 26 16.2	
		Sk	iP	18 15 19.2		Ki	iP	21 27 23.6	
		Gb	iP	18 14 33.2		Sk	iP	21 27 02.6	
		Um	iP	18 15 04.7		Um	iP	21 26 48.5	
		Ka	iP	18 14 05.3			i	21 26 53.3	
		Ud	iP	18 14 47.5		Ud	iP	21 26 30.1	
		Turkey (h = 30 km).				Turkey (h = 15 km).			
		Magn. = 5.4 (Up, Ki).							
"	22	Ud	iP	18 17 54.7	"	22	Up	iP	22 13 12.5
							Sk	iP	22 13 58.9
							Um	iP	22 13 45.0
"	22	Up	iP	18 18 21.0			Ud	iP	22 13 26.5
		Um	iP	18 18 48.5			Turkey (h = 15 km).		
		Turkey.							
		Origin time = 18 13.6.		"	22	Um	iP	22 54 08.2	
"	22	Sk	iP	18 19 25.2	"	22	Up	iP	22 54 34.7
			i	18 19 35.0			Ud	iP	22 54 40.4
		Ud	eP	18 18 58					
		Turkey.		"	22	Up	iP	23 46 39.7	
		Origin time = 18 14.0.					i	23 46 43.2	
"	22	Ki	iP	18 22 58.0			i	23 46 47.2	
"	22	Ki ^R	iPg	19 23 18.7		Ki	iP	23 47 46.9	
			iSg	19 24 02.9			i	23 48 10.2	
		D = 390 km = 3.5°				Sk	iP	23 47 24.9	
		Sk ^A	eSg	19 25 51			i	23 47 37.7	
		Um ^E	iSg	19 24 09.7		Gb	iP	23 46 42.8	
		Northern Finland,				Um	iP	23 47 11.7 D	
		near 65.9°N, 27.7°E.					i	23 47 18.5	
		Origin time = 19 22 07.					eS	23 51 28	
		Explosion?				Ka	iP	23 46 12.6	
						Ud	iP	23 46 53.6	
							iPP	23 47 15.7	
							i	23 48 00.1	
"	22	Up	iP	19 52 04.5			Turkey (h = 30 km).		
		Ki	iP	19 53 11.5	"	22	Up	iP	23 50 14.3
		Sk	iP	19 52 50.0 C			Um	iP	23 50 35.8
		Gb	iP	19 52 03.4				i	23 51 35.6
		Um	iP	19 52 37.3				i	23 53 35.8
		Ud	iP	19 52 18.2 C			Ud	iP	23 50 20.0
		Turkey (h = 30 km).					i	23 52 08.3	
"	22	Um	iP	20 08 08.5	"	23	Up	iP	01 24 09.0
"	22	Up	iP	20 40 22.1				i	01 24 15.7
				micr sec			Um	iP	01 24 14.1
		P	Z'	0.1 1.0			Ka	iP	01 24 14.6 C
		Ki	iP	20 41 30.1				i	01 24 20.4
			i	20 41 49.2			Ud	iP	01 24 25.7
		Sk	iP	20 41 07.7				i	01 24 32.2
		Gb	iP	20 40 22.2			Hindu Kush (h = 180 km).		
		Um	iP	20 40 54.7 D	"	23	Up	eP	02 12 31
		Ka	eP	20 39 54			Ki	i(P)	02 13 54.9
		Ud	iP	20 40 35.9			(cont.)		
		Turkey (h = 15 km).							

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1967				1967					
July	23	(cont.)		July	23	Up	iP	04 53 36.4	
		Sk	eP	02 13 20			i	04 53 39.8	
			iPP	02 13 51.8			iS	04 57 16.2	
		Um	eP	02 13 03				micr sec	
			i	02 13 08.1			M	E 0.3 11	
		Ud	iP	02 12 45.1			M	N 0.4 13	
		Turkey.				Ki	iP	04 54 43.6	
		Origin time =		02 07.8.				micr sec	
"	23	Up	iP	02 16 12.8			M	E 0.3 14	
		Ud	iP	02 16 46.5			M	N 0.3 14	
							M	Z 0.5 14	
"	23	Sk	eP	02 18 09		Sk	iP	04 54 20.7	
							i	04 54 42.8	
"	23	Ud	iP	02 30 32.7		Gb	iP	04 53 35.3	
		Turkey (h = 25 km).				Um	iP	04 54 07.8	
							i	04 54 16.7	
							iS	04 58 26.8	
"	23	Up	iPKS	03 31 14.9		Ud	iP	04 53 49.2	
				micr sec				Turkey (h = 30 km).	
		M	E	0.6 21					
		M	N	0.7 23	"	23	Um	iP	04 59 51.7
		M	Z	0.7 21	"	23	Um	iP	05 44 17.2
		Ki	iPKP	03 27 38.5	"	23	Um	iP	07 44 46.2
				micr sec	"	23	Up	iP	07 47 04.1
		M	E	0.5 19			iS	07 50 44.6	
		M	N	0.2 10				micr sec	
		M	Z	0.6 19			M	E 0.3 12	
		Sk	iPKP	03 27 50.1			M	N 0.5 16	
		Um	iPKP	03 27 45.3		Ki	eP	07 48 15	
			i	03 27 54.4		Sk	iP	07 47 53.6	
		Ud	iPKP	03 27 55.2		Um	iP	07 47 37.2	
		New Hebrides Islands					eS	07 51 58	
		(h = 30 km).				Ud	iP	07 47 18.1	
"	23	Up	iP	04 08 22.2			i	07 47 24.4	
			eS	04 12 11			eS	07 51 21	
		Ki	iP	04 09 30.5			i	07 51 30.9	
			i	04 10 01.9				Turkey (h = 20 km).	
		Sk	iP	04 09 08.9	"	23	Um	iP	07 52 15.1
		Um	iP	04 08 55.9	"	23	Ki	eL	07 59
		Ud	iP	04 08 36.0				micr sec	
			i	04 08 40.5			M	E 0.2 15	
		Turkey (h = 20 km).					M	N 0.2 15	
"	23	Um	i(P)	04 13 28.5			M	Z 0.4 15	
		Ud	iP	04 13 31.6				Ryukyu Islands	
"	23	Sk	iP	04 15 30.8				(h = 50 km).	
		Um	iP	04 15 36.3	"	23	Um	iP	09 44 37.1
"	23	Ki	iP	04 18 10.7			Ud	iP	09 44 18.4

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967										
July				July										
23	Um	iP	10 11 29.5	23	(cont.)									
	Ud	eP	10 11 11		Um	iP	23 24 28.1							
		Turkey.			Ud	iP	23 24 13.9							
		Origin time = 10 06.2.				Turkey (h = 15 km).								
"	23	Sk	iP	10 22 15.6	"	24	Up	iP	02 43 11.1	D				
							Ud	iP	02 43 19.7					
"	23	Ki	iP	11 00 40.8	"	24	Um	iP	03 28 45.7					
"	23	Um	iP	13 36 37.6	"	24	Up	iP	03 45 02.0					
"	23	Ki	iPn	13 40 30.1	"	24	Sk	iP	03 45 49.6					
			eSn	13 41 17			Um	iP	03 45 37.2					
			iSg	13 41 34.6			Ud	iP	03 45 20.2					
			D = 430 km = 3.9°				Turkey (h = 5 km).							
			Possibly northwest Russia.				"	24	Um	iSKS	08 03 23			
		Origin time = 13 39 27.				Flores Island								
		Explosion?				(h = 200 km).								
"	23	Up	ePKP	14 08 11	"	24	Ud	iP	08 12 50.1					
				micr sec										
			M	E						0.5	19			
			M	N						1.0	20			
			M	Z						1.0	21			
			Ki	ePKP2							14 08 39			
											micr sec			
										M	E	1.0	21	
			M	N						0.5	19			
			M	Z						1.0	18			
Um	iPKP		14 08 10											
		i	14 11 11											
		iPP	14 12 22											
		eSS	14 32 11											
		Macquarie Islands												
		(h = 30 km).												
"	23	Ki	iP	16 02 58.7	"	24	Um	iP	12 53 20.2					
			Sk	iP						16 02 34.4				
			i	16 02 39.9										
			Um	iP						16 02 23.5				
			Turkey (h = 30 km).							"	24	Um	iP	13 23 01.3
						i	13 24 01.3							
"	23	Ki	iP	16 02 58.7	"	24	Up	eP	15 39 35					
			Sk	iP						16 02 34.4	C			
			i	16 02 39.9						Ki		iP	15 38 58.7	
			Um	iP						16 02 23.5		Sk	iP	15 39 30.3
			Turkey (h = 30 km).							Um		iP	15 39 14.6	
				ipP	15 39 27.6									
				Ud	iP	15 39 42.7								
				ipP	15 39 55.2									
				Japan. h = 50 km										
				(Um,Ud).										
"	23	Um	iP	20 19 28.6	"	24	Sk	iP	18 05 33.1					
			Kodiak Island							i	18 05 42.2			
		(h = 30 km).												
"	23	Um	iP	23 12 11.1	"	25	Um	iP	00 44 30.6					
			Ud	eP						23 11 55	ipP	00 44 43.6		
			Turkey.							Ud	iP	00 44 58.3		
			Origin time = 23 06.9.							Japan.				
				h = 50 km (Um).										
"	23	Up	iP	23 23 57.0	"	25	Ud	iP	05 36 05.4					
			Ki	iPP						23 25 42.9	Atlantic Ocean			
			Sk	eP						23 24 41	(h = 30 km).			
			(cont.)											

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1967				1967							
July	25	Ki	eP	08 43 08	July	26	Ki	iP	09 20 01.8		
				micr sec			Sk	iP	09 19 43.9		
			M	E 0.3 10				e	09 19 49		
			M	Z 0.3 14			Um	eP	09 20 00		
		Sk	iP	08 42 23.3			Ud	iP	09 19 49.1		
		Um	iP	08 42 13.5			Venezuela (h = 30 km).				
			iS	08 46 19		"	26	Up	iP	09 20 49.9	
		Greece-Bulgaria						i	09 20 56.0		
		(h = 30 km).							micr sec		
"	25	Um	iP	11 36 51.5				M	E 0.3 12		
"	25	Up	iP	12 36 48.5				M	N 0.7 15		
			i	12 37 04.1				M	Z 0.7 14		
		Ki	iP	12 38 18.6			Ki	iP	09 21 58.7		
			i	12 38 39.2				i	09 22 16.2		
		Sk	iP	12 37 43.8					micr sec		
		Gb	iP	12 36 52.1 C				M	E 0.6 15		
		Um	iP	12 37 30.8				M	N 0.4 14		
		Ud	iP	12 37 04.1				M	Z 0.6 14		
		Rumania (h = 150 km).					Sk	iP	09 21 33.3		
"	25	Um	iP	12 42 48.6			Um	iP	09 21 17.8		
"	25	Up	eP	13 08 09				i	09 21 21.8		
		Ki	iP	13 08 43.7			Ud	iP	09 21 01.7		
		Ka	iP	13 08 02.0			Turkey (h = 30 km).				
		Ud	iP	13 08 24.8		"	26	Ki	iP	09 32 25.4	
		Iran (h = 30 km).						eT	09 37 14		
"	26	Ki	iP	02 12 12.8			Sk	iP	09 33 02.6		
		Sk	eP	02 11 42				iS	09 34 49.0		
"	26	Um	iP	06 04 22.0			Um	iP	09 33 13.4		
		Ud	iP	06 04 05.3			Ud	iP	09 33 50.5		
		Turkey.						i	09 34 04.4		
		Origin time = 06 59.1.					Norwegian Sea (h = 30 km).				
"	26	Up	iPKP	06 50 55.1		"	26	Up	iP	09 54 39.3 D	
			i	06 51 29.5			"	26	Um	iP	12 29 48.9 D
		Ki	iPKP	06 50 38.7			Sea of Japan (h = 560 km).				
		Sk	iPKP	06 50 49.4 C		"	26	Um	iP	16 41 32.0	
		Gb	iPKP	06 51 02.9		"	26	Up	iP	18 58 21.4 C	
		Um	iPKP	06 50 44.1 C				iS	19 02 43		
		Ka	iPKP	06 51 03.1				iSn	19 03 01		
		Ud	iPKP	06 50 57.1 C					micr sec		
		Kermadec Islands						P	E 1.5 5		
		(h = 40 km).						P	N 2.5 4		
"	26	Um	iPKS	08 37 35				P	Z 2.6 4		
			iSS	08 54 31				P	Z† 0.4 1.0		
		Loyalty Islands						S	E 7.6 8		
		(h = 30 km).						S	N 10 11		

(cont.)

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1967				1967			
July	26	(cont.)		July	27		
		Up			Up	iP	01 47 47.6
			micr sec			i	01 48 11.2
		S	Z 7.2 9		Ki	iP	01 48 26.1
		M	E 19 16		Sk	iP	01 48 23.8
		M	N 46 17		Gb	iP	01 47 59.0
		M	Z 19 17		Um	eP	01 48 02
		D = 2800 km = 25°.			Ka	iP	01 47 37.5
		Ki	iP 18 59 11.5 C		Ud	iP	01 48 03.3 C
			i(PP) 19 00 03		Iran (h = 70 km).		
			iS 19 04 11				
			iSS 19 05 40	"	27	Up	iP 05 00 22.4
			micr sec			Ki	eP 05 01 32
		P	E 0.4 5				iX 05 02 09.7
		P	N 0.7 5		Sk	eP	05 01 02
		P	Z 0.9 5				iX 05 01 39.6
		P	Z' 0.7 1.5		Um	iP	05 00 58.5
		(PP)	E 0.9 4		Ud	iP	05 00 29.7
		S	E 3.3 10				iX 05 01 09.1
		S	N 4.2 10		Crete (h = 50 km).		
		S	Z 1.9 8		The phase marked X		
		M	E 28 11		(Ki,Sk,Ud) could be P of		
		M	N 20 12		another shock in the same		
		M	Z 14 14		area, or <u>possibly</u> pP to		
		D = 3400 km = 30 1/2°.			the first shock.		
		Sk	iP 18 59 01.3	"	27	Up	eP 05 22 09
			iPP 18 59 45.3				iS 05 25 39
			iSn 19 04 41.4				micr sec
			i 19 05 59.0			S	N 1.1 9
		Gb	iP 18 58 31.3			M	E 0.7 12
			i 18 59 43.0			M	N 1.3 16
		Um	iP 18 58 41.6 C			M	Z 1.1 17
			iS 19 03 13			D = 2050 km = 18 1/2°.	
		Ka	iP 18 58 06.3		Ki	iP	05 21 50.2
		Ud	iP 18 58 36.7 C			eS	05 25 10
			iSn 19 03 37.3				micr sec
		Turkey (h = 30 km).				P	Z' 0.5 2.1
		Magn. = 6.2 (Up,Ki).				S	E 0.5 7
		Well developed Sn waves.				S	N 0.4 6
"	26	Ki	e(P) 22 03 20			S	Z 0.5 6
		Um	iP 22 03 24.7			M	E 2.3 15
			i 22 03 39.4			M	N 1.0 13
		Iceland (h = 30 km).				M	Z 1.8 17
						D = 1900 km = 17°.	
"	27	Ki	iP 00 13 26.4		Sk	eP	05 21 26
			micr sec		Um	iP	05 22 00.8
		M	E 0.7 17			i	05 22 08.6
		M	N 0.5 19			iS	05 25 19
		M	Z 0.9 17		Ud	iP	05 21 49.2 C
		Um	iS 00 24 20		Iceland (h = 30 km).		
		Revilla Gigedo Islands			Magn. = 5.1 (Up,Ki).		
		(h = 30 km).			PZ' has an exceptionally		
					long period.		

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1967				1967				
July	28	(cont.)		July	29	(cont.)		
		Sk	iP	17 40		Up	isS	10 47 59
			ipP	17 40			ePKKP	10 54 52
		Um	iP	17 39				micr sec
			ipP	17 40		P	E	0.6 4
		Ka	iP	17 40		P	Z	3.7 6
		Ud	iP	17 40		P	Z'	0.3 0.6
		Sumatra. h = 45 km				pP	Z'	0.5 0.6
		(Up,Sk,Um).				S	E	2.4 5
		Magn. = 5.7 (Up,Ki).				S	N	15 11
"	28	Sk	iSKP	18 53		M	E	1.8 19
		Fiji Islands (h = 380 km).				M	N	5.7 20
"	28	Ki	iP	20 43		M	Z	4.0 18
						(D = 9450 km = 85°).		
"	28	Up	iP	22 57		Ki	iP	10 36 43.1 C
		Ki	iP	22 56			i	10 37 09.8
		Sk	iP	22 57			ipP	10 37 26.7
		Um	iP	22 56			iS	10 46 53
		Ud	iP	22 57			ipS	10 47 52
		Ryukyu Islands (h = 15 km).					esS	10 48 05
							iP'P'	11 03 00.3
"	29	Up	eS	02 28			iSKPP'	11 06 01.3
								micr sec
			M	E	0.4	P	E	2.1 6
			M	N	0.7	P	N	0.7 5
			M	Z	0.8	P	Z	6.9 7
		Ki	eP	02 25		P	Z'	8.3 2.5
			i	02 25		pP	E	2.5 8
						pP	Z	4.5 7
						S	E	4.4 6
						S	N	13 8
			P	Z'	0.2	P'P'	Z'	0.2 1.5
			M	E	0.7	M	E	4.2 17
			M	N	0.3	M	N	9.2 21
			M	Z	0.5	M	Z	4.6 18
		Sk	eP	02 24		(D = 9450 km = 85°).		
		Um	iP	02 25		Sk	iP	10 36 27.1
			i	02 25			i	10 36 28.8
		Ud	eP	02 25			ipP	10 37 11.7
		Iceland (h = 30 km).					eSKS	10 46 29
							iPKKP	10 54 57.4
"	29	Up	iP	03 08			iP'P'	11 02 59.6
			ipP	03 08		Gb	iP	10 36 25.9
		Ki	iP	03 07			i	10 36 28.2
		Sk	e(pP)	03 08			ipP	10 37 11.6
		Ud	iP	03 08			eSKS	10 46 26
		Japan. h = 40 km (Up).				Um	iP	10 36 44.8 C
							i	10 36 46.4
"	29	Up	iP	10 36			ipP	10 37 28.8
			i	10 36			i	10 46 14
			ipP	10 37			iS	10 46 52
			eSKS	10 46		Ka	iP	10 36 39.0
			iS	10 46			ipP	10 37 17.6
			ipS	10 47		Ud	iP	10 36 29.9
		(cont.)				(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967								1967							
July	29	(cont.)						July	30	(cont.)					
		Ud	ipP	10	37	11.7				Ki			micr	sec	
			i	11	07	21.1					S	N	0.7	6	
		Colombia. h = 180 km									SKS	N	5.4	11	
		(Up, Ki, Sk, Gb, Um, Ka, Ud).									M	E	21	20	
		Magn. = 6.8 (Up, Ki).									M	N	6.6	18	
		Multiple P. Generally									M	Z	16	20	
		long-period PZ'.									D = 8900 km = 80°.				
"	29	Up	iP	11	31	07.1				Sk	iP		00	11	47.9 C
											i		00	11	56.0
"	29	Up	eP	14	16	14				Gb	iP		00	11	44.0
											i		00	11	52.4
"	29	Up	iP	14	19	49.6				Um	iP		00	12	07.0 C
		Ki	iP	14	19	59.8					i		00	12	14.7
		Um	iP	14	19	48.9					iPP		00	15	21
		Ud	iP	14	20	06.8					iS		00	22	04
		Hindu Kush (h = 190 km).									iSKS		00	22	21
"	29	Up	iPKP	14	37	41.7				Ka	iP		00	11	59.1
		Solomon Islands (h = 90 km).									i		00	12	06.8
											i		00	12	18.7
"	29	Ud	iP	20	12	27.6				Ud	iP		00	11	49.9 C
		Um	i(P)	21	27	55.9					i		00	11	57.9
		Ud	iP	21	27	31.5				Venezuela (h = 10 km).					
"	30	Up	iP	00	12	00.3				Magn. = 6.3 (Up, Ki).					
		i		00	12	05.9				Multiple P: the time					
		i		00	12	12.0				interval of about 7-8 sec					
		iPP		00	15	02				between the first small					
		iS		00	21	58				onset and the second large					
		iSKS		00	22	11				one is particularly					
										pronounced; this could be					
										due to a multiple shock.					
									"	30	Up	iPKP	01	21	04.3 C
											Sk	iPKP	01	20	59.5
											Um	iPKP	01	20	54.2 C
											Ud	iPKP	01	21	05.9 C
											South of Kermadec Islands				
											(h = 30 km).				
									"	30	Up	iP	01	24	10.9
											Ud	iP	01	24	24.5
											Turkey (h = 30 km).				
									"	30	Up	iP	01	35	42.1 D
											i		01	35	57.6
											iS		01	39	25.5
											i		01	39	32
											iLg1		01	41	40
											i		01	42	53
													micr	sec	
											P	E	0.8	4	
											P	N	2.9	4	
											P	Z	2.6	4	
											P	Z'	3.2	2.0	
											(cont.)				
											(cont.)				

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1967	July 30 (cont.)	1967	July 30 (cont.)
	Up		The three Turkish earth- quakes July 22, 17 01, July 26, 18 58, and July 30, 01 35, suggest an oscil- lation pattern, with gradually decreasing mag- nitudes. Note also that the magnitude of the present shock is 1.3 smaller than for the main shock, July 22, in the same area.
	S E 1.8 6		
	S N 2.6 6		
	M E 7.3 15		
	M N 15 14		
	M Z 13 15		
	D = 2300 km = 20 1/2°.		
	Ki iP 01 36 50.1 D		
	i 01 36 53.4		
	i(S) 01 41 51		
	iSn 01 42 17.3		
	iLi 01 44 55		
	iLg1 01 45 58		
	P N 0.5 6		
	P Z 0.8 5		
	P Z' 0.6 2.0		
	(S) N 1.3 12		
	M E 12 16		
	M N 5.1 14		
	M Z 7.6 15		
	D = 3100 km = 28°.		
	Sk iP 01 36 27.9 D		
	iPP 01 36 58.8		
	iSn 01 41 31.7		
	Gb iP 01 35 42.0 D		
	iS 01 39 31.8		
	Um iP 01 36 15.2 D		
	iS 01 40 22		
	iSn 01 40 37.0		
	iSS 01 41 27		
	iLg1 01 43 14		
	Ka iP 01 35 10.3 D		
	iS 01 38 42.5		
	Ud iP 01 35 55.8 D		
	iS 01 39 59.9		
	Turkey (h = 15 km).		
	Magn. = 6.0 (Up,Ki).		
	The initial PZ' is of long		
	period (around 2 sec) and is "		
	followed after 3-7 sec by an		
	onset of much shorter period:"		
	a possibility is that the		
	shock is double, with some		
	shift in the epicenter.--		
	The propagation of Sn to		
	some of our stations is		
	probably prevented by the		
	Carpathian mountains		
	(Gb,Ka,Ud), whereas for		
	others propagation is free		
	(Sk,Um,Ki).--		
	(cont.)		
		" 30 Up iP 02 02 01.2	
		Ki iP 02 03 07.5 C	
		Sk iP 02 02 45.4	
		Um iP 02 02 32.7	
		Ud iP 02 02 13.5	
		Turkey.	
		Origin time = 01 57.3.	
		" 30 Up iP 02 05 41.3	
		Sk e(P) 02 05 06	
		" 30 Gb iP 02 21 18.0	
		" 30 Up iP 02 30 56.7	
		iPP 02 31 15.9	
		Ud i(P) 02 31 06.3	
		(Turkey).	
		" 30 Up iP 03 49 55.3	
		Ki iP 03 49 25.8	
		Sk iP 03 49 52.9	
		Gb iP 03 50 12.8	
		Um iP 03 49 38.8	
		Ud iP 03 50 01.8	
		Volcano Islands	
		(h = 120 km).	
		" 30 Up iP 03 54 27.9	
		" 30 Up iP 05 27 29.9 D	
		i 05 27 37.0	
		Ud iP 05 27 32.0	
		i 05 27 39.9	
		Tonga-Kermadec Islands	
		(h = 120 km).	
		" 30 Up eSg 05 44 56	
		Ki eSn 05 41 41	
		iLg1 05 42 02.5	
		Sk eSg 05 44 29	
		(cont.)	

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1967					1967						
July 30 (cont.)					July 30						
		Um	iSg	05 42 57.3		Ki	iPn	14 10 43.3			
		Ud	eSg	05 45 31			iSn	14 11 32.1			
		Northwest Russia. Explosion?					iLg1	14 11 46.9			
							D = 460 km = 4.1°.				
						Um	iSg	14 13 16.7			
		Northwest Russia.				Origin time = 14 09 38.					
"	30	Um	iP	07 10 11.8		Explosion?					
		Ud	i(P)	07 10 51.2							
"	30	Up	iP	10 29 49.4	"	30	Up	iP	14 23 16.5		
			i	10 29 53.0			Ki	iP	14 22 51.3		
		Ki	eP	10 30 57			Um	iP	14 22 58.4		
		Sk	iP	10 30 35.5			Ud	iP	14 23 29.0		C
		Um	iP	10 30 22.5							
			i	10 30 28.7	"	30	Um	iP	15 39 42.3		
		Ud	iP	10 30 03.4	"	30	Up	iSKP	17 45 41.3		
		Turkey.									
		Origin time = 10 25 09.									
"	30	Up	iPKP	11 09 31.4			SKP	Z'	0.1 1.1		
			i	11 09 44.5		Ki	iSKP	17 45 16.4			
				micr sec							
		M	E	0.9 19			SKP	Z'	0.3 2.0		
		M	N	1.2 20		Sk	iSKP	17 45 33.9			
		M	Z	1.6 24		Um	iPKP	17 42 52.5			
		Ki	ePKP	11 09 27			i	17 45 20.9			
				micr sec			iSKP	17 45 28.5			
		M	E	1.4 19		Ud	ePKP	17 42 51			
		M	N	0.5 19			iSKP	17 45 43.3			
		M	Z	1.4 19		Fiji Islands (h = 560 km).					
		Sk	e(PKP)	11 09 39	"	30	Up	iP	19 03 24.4		
		Um	iPKP	11 09 25.4			i	19 03 39.5			
			i	11 09 28.4		Ki	iP	19 04 32.6			
		Ka	iPKP	11 09 31.4 D			i	19 04 51.9			
			i	11 09 40.9		Sk	iP	19 04 10.2			
		Ud	iPKP2	11 09 50.9		Gb	iP	19 03 24.5			
			i	11 10 01.4		Um	iP	19 03 57.3			
		West of Macquarie Islands (h = 30 km).				Ka	iP	19 02 56.7			
"	30	Up		---		Ud	iP	19 03 38.3			
				micr sec		Turkey (h = 30 km).					
		M	E	1.1 22	"	30	Sk	iP	19 11 14.3		
		M	N	1.5 19			Um	iP	19 11 01.4		
		M	Z	1.4 18		Turkey.					
		Ki	ePS	14 03 38		Origin time = 19 05.8.					
				micr sec	"	30	Um	iP	19 30 30.6		
		M	E	1.7 19	"	30	Up	iP	20 35 44.6		
		M	N	0.8 19			Ki	iP	20 35 24.3		
		M	Z	1.5 18			Sk	eP	20 35 50		
		Um	iPKP	13 53 46.6			Um	iP	20 35 30.0		
			i	13 54 22			Ud	iP	20 35 51.9		
			iPP	13 54 34		Luzon (h = 15 km).					
			iSKS	14 00 32							
			iPS	14 04 09							
		New Ireland (h = 50 km).									

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967	July	30	Ki	iPKP	22 40 35.8		1967	July	31	Sk	eP	15 10 43					
				ipPKP	22 41 03.6					"	31	Up P	iPg	16 20 47.5			
			Um	iPKP	22 40 27.0								iSg	16 21 14.5			
			South Sandwich Islands.											micr sec			
			h = 100 km (Ki).											Sg Z' 0.2 0.5			
"		30	Up	iP	23 14 13.4 C							Um E	iSg	16 22 21.4			
			Ki	iP	23 13 25.8 C							Ud D	ePg	16 21 24			
			Um	iP	23 13 47.8 C								iSg	16 22 17.7			
			Ud	iP	23 14 21.0												
				iPoP	23 14 43.0												
			Kurile Islands (h = 30 km).												Southwest of Finland, 59.7°N, 21.8°E. Origin time = 16 20 06. Probably explosion.		
"		31	Up	iP	01 48 42.6							"	31	Up P	iPg	16 21 18.8	
			Um	iP	01 48 20.9 C										iSg	16 21 45.9	
			Ud	iP	01 48 50.1										micr sec		
			Japan (h = 70 km).												Sg Z' 0.1 0.5		
"		31	Ki	---	---									Um E	iSg	16 22 55.5	
					micr sec											Southwest of Finland, 59.7°N, 21.8°E. Origin time = 16 20 38. Probably explosion.	
			M	E	0.4 12												
			Sk	iP	07 17 31.3												
			Um	eP	07 17 17												
				eS	07 21 37												
			Ud	eP	07 16 55												
			Turkey (h = 15 km).										"	31	Um	ePP	23 12 51
															eSS	23 33 12	
																Macquarie Islands (h = 30 km).	
"		31	Up P	iPg	13 57 14.1							"	31	Up	eP	23 57 28	
				iSg	13 57 40.9									Ki	eP	23 56 55	
				micr sec											i	23 57 07.7	
				Sg Z' 0.1 0.5										Um	iP	23 57 09.4	
			Um E	iPg	13 57 55.2									Ud	iP	23 57 34.7	
				iSg	13 58 49.4											Bonin Islands (h = 30 km).	
			Ud D	iSg	13 58 43.2												
			Southwest of Finland, 59.7°N, 21.8°E. Origin time = 13 56 33. Probably explosion.														
"		31	Up P	iPg	14 08 16.4												
				iSg	14 08 43.6												
				micr sec													
				Sg Z' 0.2 0.5													
			Um E	iPg	14 08 58.1												
				i	14 09 42.8												
				iSg	14 09 52.5												
			Ud D	iSn	14 09 26.6												
				iSg	14 09 47.3												
			Southwest of Finland, 59.7°N, 21.8°E. Origin time = 14 07 36. Probably explosion.														

Markus Båth
January 5, 1968

Seismological Institute
Uppsala

Handwritten signatures and initials

5 FEB 1968

SEISMOLOGICAL BULLETIN

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

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

AUGUST 1 - 31, 1967
.....

1967	Aug. 1	Up	iP	00 18 18.7	1967	Aug. 1	Up	----
			e	00 21 50				micr sec
			iS	00 21 57.9			M E	0.5 18
		Ki	eP	00 19 29			M N	0.8 20
		Um	iP	00 18 53.2			M Z	0.9 18
			iSn	00 23 55.3		Ki	iPKP2	09 26 27.0
		Ud	iP	00 18 28.1				micr sec
			e	00 21 27			M E	0.7 19
		Turkey (h = 30 km).					M N	0.5 20
							M Z	0.8 18
"	1	Up	iP	01 09 55.3		Um	ePKP2	09 26 30
		Ki	eP	01 11 05		Ka	iPKP	09 25 52.3
			i	01 11 16.1		Ud	iPKP2	09 26 38.8
			iPn	01 11 30.9		South of Macquarie Islands		
		Um	iP	01 10 29.5		(h = 30 km).		
			i	01 12 35.6		"	1	Ka recorded altogether about
		Ud	iP	01 10 04.6				175 stronger explosions in
		Turkey (h = 30 km).						the south Baltic area in the
"	1	Up	iP	01 27 48.9				daytime of Aug. 1-5, 8-9,
		Um	iSKS	01 38 17				11, 13, 19-20, 22-25, 28-31.
			iS	01 39 31				Several of these were also
		Peru (h = 70 km).						recorded at Up and Ud. Com-
"	1	Um	iP	02 31 51.3				pare remark on July 22, 1967.
"	1	Ki	iP	03 42 42.4 C	"	1	Up	iSg
		Um	iP	03 42 46.8			i	13 23 43.5
		Ud	iP	03 43 05.9			i	13 23 47.5
		Molucca Passage (h = 60 km).				Ki	eSg	13 26 13
"	1	Um	iP	07 13 28.0		Sk	iSg	13 25 34.6
						Um	iSg	13 24 14.6
						Ud	eSn	13 24 16
							iSg	13 24 43.9
						Gulf of Finland. Probably		
						underwater explosion.		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

Aug. 1 Up iP 14 10 58.0
Ud iP 14 11 04.9
Kurile Islands (h = 50 km).

" 1 Um iP 15 44 47.2 C

" 1 Ki iPn 15 46 17.3
iSn 15 47 03.3
iLg1 15 47 16.5
D = 420 km = 3.8°.
Possibly northwest Russia.
Origin time = 15 45 17.
Explosion?

" 1 Up iP 17 00 20.7
i 17 00 34.1
i 17 00 45.2
iSn 17 06 32.6
Ki eP 17 00 50
i 17 01 34.3
iPn 17 01 52.6
Um iP 17 00 38.2
i 17 01 07.5
i 17 05 54.1
iSn 17 06 29.9
Ka eP 17 00 20
Ud iP 17 00 37.3
Turkmen SSR (h = 30 km).

" 1 Up iPKP 19 37 28.2
Sk iPKP 19 37 23.6
Um iPKP 19 37 18.2
Ka ePKP 19 37 36
Ud iPKP 19 37 30.2 D
South of Kermadec Islands
(h = 230 km).

" 2 Up iP 00 55 23.1
i 00 55 49.6
micr sec
P Z' 0.1 0.5
Ki iP 00 54 37.7
Sk iP 00 55 14.7
Gb iP 00 55 45.0
Um iP 00 54 57.8
ipP 00 55 33.5
Ka iP 00 55 45.5
Ud iP 00 55 29.8
i 00 55 35.2
Kurile Islands.
h = 150 km (Um).

" 2 Up ---
micr sec
M N 1.2 20
(cont.)

1967

Aug. 2 (cont.)

Up M Z 0.9 18
micr sec

Ki ---
micr sec

M E 0.4 14
M Z 0.7 13

Um eP 06 45 50
i 06 46 09.6

Ud iP 06 46 15.3
Formosa (h = 40 km).

" 2 Ka iPKP 09 55 53.5 C
Ud iPKP 09 55 42.5
Fiji Islands (h = 590 km).

" 2 Ki iPn 10 50 43.3
iSn 10 51 42.7
iLg1 10 52 01.7
D = 560 km = 5.0°.

Um iSg 10 52 43.5
Northwest Russia.
Origin time = 10 49 25.
Explosion?

" 2 Up iP 11 10 12.1 C
iS 11 12 53
iSS 11 13 21
micr sec

P N 0.3 3

P Z' 0.1 0.7

S Z' 0.1 0.6

M E 15 19

M N 16 18

M Z 15 18

D = 1650 km = 15°.

Ki iP 11 09 05.3 C

iS 11 10 52.1

iSS 11 11 06

eT 11 16 54

micr sec

P E 1.6 11

P N 0.7 11

P Z 1.6 11

P Z' 0.6 1.0

M E 24 18

M N 18 18

M Z 11 17

D = 1100 km = 10°.

Sk iP 11 09 11.2

iS 11 11 07.7

Gb iP 11 10 21.3

Um iP 11 09 39.6

iS 11 11 54

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

Aug. 2 (cont.)
Ka iP 11 10 47.8
i 11 10 52.3
i 11 15 14.7
Ud iP 11 09 55.5
i 11 10 09.9
iS 11 12 27.9
Jan Mayen (h = 30 km).
Magn. = 5.0 (Up).

" 2 Up iP 14 02 26.5
Ki iP 14 03 01.7
Gb iP 14 02 39
Um iP 14 02 39.0
Ud iP 14 02 41.6
Iran (h = 30 km).

" 2 Up iP 14 09 52.7 C
iS 14 12 34.6
iSS 14 13 05
micr sec
P E 0.6 3
P Z 0.6 3
P Z' 0.3 0.8
S Z' 0.2 0.8
M E 6.4 18
M N 7.7 20
M Z 6.1 19
D = 1650 km = 15°
Ki iP 14 08 46.3
i(S) 14 10 50
e(T) 14 16 56
micr sec
P E 1.1 7
P N 0.3 9
P Z' 1.4 0.8
(S) N 1.4 10
(S) Z 0.6 7
M E 11 17
M N 6.8 16
M Z 6.5 16
Sk iP 14 08 51.3
Gb iP 14 09 59
i 14 10 06
iS 14 12 50
Um iP 14 09 20.0 C
iS 14 11 38.4
Ka eP 14 10 28
i 14 10 30.5
iS 14 13 55.9
Ud iP 14 09 35.3
iPP 14 09 46.7
(cont.)

1967

Aug. 2 (cont.)
Ud iS 14 12 09.3
Jan Mayen (h = 30 km).
Magn. = 5.1 (Up).
Comparing with the Jan Mayen earthquake about 3 hours earlier, we find that long-period waves have larger amplitudes in the first shock, whereas short-period waves have larger amplitudes in the second shock. This could be due to a different time-function of the source mechanism, or possibly a different focal depth.

" 2 Up iP 15 38 01.8
iPP 15 38 23.9
Ki iP 15 39 09.6
i 15 39 28.0
Sk iP 15 38 48.6
Gb eP 15 38 03
Um iP 15 38 34.6
Ud iP 15 38 15.3
Turkey (h = 30 km).

" 2 Ki iP 16 22 35.8
i 16 22 41.3
Sk iP 16 22 42.7
iS 16 24 39.1
Um eP 16 23 15
i 16 25 54.9
Jan Mayen, near 71°N, 8°W.
Origin time = 16 20 10.
Solution by combination with Finnish and Norwegian readings.

" 2 Ki iP 16 49 32.7
i 16 49 46.7
Sk iP 16 49 32.8
iS 16 51 28.8
Um iP 16 50 07.2
iS 16 52 25.2
i 16 52 51.6
Jan Mayen, near 71°N, 8°W.
Origin time = 16 47 03.

" 2 Up iP 18 30 31.5 D
micr sec
P Z' 0.1 0.7
(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967					
Aug.	2	(cont.)			Aug.	3	(cont.)			
		Ki	iP	18 30 30.3			Ki		micr sec	
				micr sec			M	E	0.4 17	
			P	Z' 0.1 1.0			M	Z	0.8 18	
		Sk	eP	18 30 44			Um	iP	21 47 53.4	
		Um	iP	18 30 27.8			Ud	iP	21 48 18.9	
			ipP	18 30 45.3			Aleutian Islands			
		Ud	iP	18 30 40.4			(h = 30 km).			
			iPP	18 34 28.9						
		Sumatra. h = 70 km (Um).				"	3	Up	iP	23 27 43.0
		Magn. = 6.0 (Up,Ki).							ipP	23 28 28.0
							Ki	iP	23 26 47.1	
"	3	Ud	ePKP	00 27 35				ipP	23 27 31.7	
		Tonga Islands (h = 40 km).					Um	iP	23 27 13.1	
								ipP	23 27 58.8	
"	3	Ki	iP	02 07 37.4 C			Ud	iP	23 27 38.8	
		Um	iP	02 07 42.5				ipP	23 28 24.3	
		Banda Sea (h = 160 km).					Aleutian Islands. h = 190 km			
							(Up,Ki,Um,Ud).			
"	3	Up	iP	09 05 09.2						
		Ki	iP	09 04 47.5		"	4	Ki	eP	02 53 16
		Um	iP	09 04 55.1						
		Ud	iP	09 05 18.7		"	4	Ki	iPKP	04 13 04.1
			i	09 05 28.8			South Sandwich Islands			
							(h = 150 km).			
"	3	Up	iP	10 16 39.2						
"	3	Up	eP	10 44 38		"	4	Up	iP	06 11 57.8
		Ud	i(P)	10 44 27.3				iS	06 20 39	
									micr sec	
"	3	Um	iPKP	11 10 41.1				M	E	0.5 19
			i	11 10 55.5				M	N	0.9 18
		Kermadec Islands						M	Z	0.9 19
		(h = 50 km).					D = 7400 km = 66 1/2°.			
"	3	Ki	e	11 41 03			Ki	iP	06 12 26.4	
			i(Sg)	11 41 52.7			Um	iP	06 12 16.0	
		Um	i(Sg)	11 39 41.8				eS	06 21 16	
							Ud	iP	06 11 44.6	
		Atlantic Ocean (h = 30 km).								
"	3	Um	iP	12 23 58.9		"	4	Up	iP	07 04 53.2 C
		Japan (h = 50 km).						i	07 05 34.6	
"	3	Ki	eP	14 44 05				iPn	07 05 58.3	
		Um	iP	14 44 50.4 D				iRg	07 18 45	
		Norwegian Sea (h = 30 km).							micr sec	
"	3	Ki	eL	19 56				P	Z' 0.1 0.6	
				micr sec			Ki	iP	07 04 37.7 C	
			M	E 0.3 13				iPn	07 05 34.2	
			M	Z 0.7 13					micr sec	
		Ryukyu Islands (h = 90 km).						Um	iP	07 04 38.1 C
"	3	Ki	iP	21 47 26.0				i	07 05 25.9	
			i	21 47 39.8				iPn	07 05 39.7	
		(cont.)						iPP	07 05 52.9	
							Ka	iP	07 05 08.7 C	
								i	07 05 33.5	
							(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Aug.				Aug.			
4	(cont.)			5	Ki	iPn	10 16 58.2
	Ud	iP	07 05 09.4 C			iP ^X	10 17 12.3
		iPn	07 06 22.1			iSn	10 17 54.3
	Kazakh SSR.					iLg1	10 18 15.1
	Origin time = 06 58 00.					D = 520 km = 4.7°	
	Magn. = 5.8 (Up, Ki).				Um	i(Sn)	10 18 40.6
	Underground explosion.					iSg	10 19 11.3
"	4	Ud	iP 08 15 03.4		Northwest Russia.		
		Afghanistan (h = 30 km).			Origin time = 10 15 46.		
		Explosion?					
"	4	Up	iP 14 58 32.2	"	5	Ki	e(Sn) 10 24 58
		i	14 58 35.2			i(Lg1)	10 25 21.5
		micr sec					
		P	Z' 0.1 1.0	"	5	Up	iPg 12 46 55.5
	Ki	iP	15 00 00.7			iSn	12 47 14.9
		micr sec				iSg	12 47 18.8
		M	E 0.4 14			D = 200 km = 1.8°	
	Um	iP	14 59 14.9		Ud	iPg	12 47 03.0
		i	14 59 18.6			iSg	12 47 29.5
	Ka	iP	14 57 46.4			D = 230 km = 2.1°	
	Ud	iP	14 58 35.6		Origin time = 12 46 20.		
	Adriatic Sea (h = 30 km).			"	5	Um	iP 13 43 12.4
"	4	Um	iP 19 01 29.6	"	5	Ki ^R	iPn 15 11 18.5
"	4	Up	iP 20 37 44.2 C			iSn	15 11 55.8
"	4	Um	iP 21 08 21.8			iSg	15 12 09.7
"	4	Um	iPKS 22 57 28			D = 330 km = 3.0°	
		Tonga Islands (h = 30 km).			Sk ^A	iSg	15 14 39.4
"	5	Up	iP 01 55 48.5 C		Um ^E	i	15 12 31.8
		Ki	iP 01 55 02.9			iSg	15 13 09.9
		Um	iP 01 55 23.4 C		Northern Finland, 67.5° N, 28.4° E.		
		Ka	iP 01 56 10.7		Origin time = 15 10 30.		
		Ud	iP 01 55 54.3 C		Explosion?		
		i	01 56 07.6	"	5	Um	iP 16 12 54.9
	Kurile Islands (h = 30 km).			"	6	Up	iP 03 41 10.4
"	5	Um	iP 02 54 28.7 C			i	03 42 12.3
"	5	Up	iP 05 40 26.9	"	6	Ki	iP 05 40 06.8
		Ki	iP 05 39 40.5	"	6	Up	iP 10 38 34.5
		micr sec				Ki	iP 10 38 37.7
		P	Z' 0.1 1.0			Sk	iP 10 38 58.2
	Um	iP	05 40 01.8 C			Ka	iP 10 38 41.4
	Ka	iP	05 40 48.3			Ud	iP 10 38 51.0 D
	Ud	iP	05 40 32.6 C		Tadzhik-Sinkiang (h = 220 km).		
		iPcP	05 40 58.2				
	Kurile Islands (h = 30 km).						

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967								1967		
Aug.	9	(cont.)				Aug.	10	Up	iP	20 44 49.7 C
		Ka	iP	13 36 30.8		"	10	Up	iP	20 50 23.8
		Ud	iP	13 36 08.6		"	10	Up	iP	21 28 27.0
		Colorado (h = 5 km).				"	11	Up	iP	04 19 13.2
"	9	Um	iPP	23 08 52.9		"	11	Ki	iPn	04 35 44.2
		South of Africa							iSn	04 36 30.8
		(h = 30 km).							iSg	04 36 48.8
"	9	Ki	e(P)	23 32 57					D = 430 km = 3.9°	
		Um	i(P)	23 33 44.3				Um	iSg	04 37 50.8
			i	23 33 56.9				Probably northwest Russia.		
"	10	Ud	eP	06 23 17				Origin time = 04 34 41.		
"	10	Um	iP	07 10 41.4				Explosion?		
			i	07 10 52.0		"	11	Sk	iP	10 54 06.7
"	10	Ki	iSg	10 04 09.3				Ud	iP	10 54 25.9
		Sk	eSg	10 04 13				Aleutian Islands		
			i	10 04 21.9				(h = 40 km).		
		Um	iSg	10 04 39.6		"	11	Up	iP	19 07 00.7
		Nordlands Fylke, Norway.						Ki	iP	19 06 31.4 D
"	10	Um	iP	11 10 47.2				Sk	iP	19 06 58.0
"	10	Up	iP	11 32 19.4				Gb	iP	19 07 20
			iPcP	11 32 44.7				Um	iP	19 06 44.0 D
				micr sec					iS	19 16 50
		M	E	0.9 19				Ud	iP	19 07 06.9
		M	N	2.7 22				Volcano Islands		
		M	Z	2.4 19				(h = 130 km).		
		Ki	iP	11 31 33.1		"	12	Ki	eP	03 15 46
			ipP	11 31 46.2		"	12	Um	iP	03 42 38.0
			iPcP	11 32 15.9				Ud	eP	03 42 57
			eScS	11 41 17		"	12	Up	iP	04 41 55.2
				micr sec						micr sec
		M	E	1.7 19					P	Z' 0.1 0.8
		M	N	0.9 19				Ki	iP	04 41 15.6 D
		M	Z	2.8 19					i	04 41 22.5
		Sk	iP	11 32 08.6						micr sec
			iPcP	11 32 37.9					P	Z' 0.1 1.0
		Gb	iP	11 32 40				Sk	iP	04 41 49.8
		Um	iP	11 31 54.2 C				Um	iP	04 41 33.0
			ipP	11 32 07.5					ipP	04 41 46.1
			i	11 32 44.3					iS	04 50 27
			ePa	11 35 58				Ka	eP	04 42 18
			iS	11 40 22				Ud	iP	04 42 03.0 D
		Ka	iP	11 32 41.7					i	04 42 10.0
		Ud	iP	11 32 24.9				Japan. h = 50 km (Um).		
			i	11 33 09.8				Magn. = 5.7 (Up, Ki).		
		Kurile Islands. h = 50 km								
		(Ki, Um). Magn. = 5.5								
		(Up, Ki).								

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Aug.	12	Um	iP	07 25 38.1	Aug.	12	(cont.)
"	12	Up	iPKP	09 58 59.1 C			Ki i 10 50 27.0
			ipPKP	09 59 36			Sk iP 10 50 52.5
			isPKP	10 00 00.7			Um iP 10 50 41.0
			iSKP	10 02 14.2			Ka iP 10 51 33.7
			i!	10 08 50			Ud iP 10 51 11.7 C
				micr sec			Kamchatka (h = 25 km).
			PKP	N 0.6 4	"	12	Up iP 12 05 40.9
			PKP	Z 1.9 4			
			PKP	Z' 0.4 1.0	"	12	Ud iP 12 44 12.3
			SKP	N 0.9 5			
			SKP	Z 1.6 5	"	12	Up iPKP 12 50 09.4
			SKP	Z' 0.8 1.8			iPKS 12 53 29.2
			M	E 1.6 21			micr sec
			M	N 5.0 22			M N 0.9 18
			M	Z 3.9 20			M Z 1.4 21
				(D = 15800 km = 142°).			Ki iPKP 12 49 50.0
		Ki	e(PKP)	09 58 37			Sk iPKP 12 50 01.8
			iPKP	09 58 48.6			Um iPKP 12 49 56.0
			ipPKP	09 59 28.9			Ud ePKP 12 50 14
			iPP	10 01 25.5			New Hebrides Islands
			iSKP	10 02 06.5			(h = 25 km).
				micr sec			
			PKP	Z' 1.3 2.5	"	12	Ki i(Sg) 13 45 16.5
			SKP	Z' 4.6 3.0			i 13 45 30.4
		Sk	i(PKP)	09 58 52.2			Um i(Sg) 13 45 58.5
			iPKP	09 58 58.1			
			ipPKP	09 59 38.8	"	12	Ud eP 14 07 32
			i	10 01 57.2			i 14 07 35.7
		Gb	iPKP	09 59 08	"	12	Up iP 14 55 40.2
			i	09 59 09			
			ipPKP	09 59 47	"	12	Up iLg1 15 57 18.9
			iSKP	10 02 31			Gb iPg 15 55 46
		Um	i(PKP)	09 58 48.0 C			iSg 15 56 07
			iPKP	09 58 57.2			Um iLg1 15 58 52.0
			i!	10 01 43			Ud iPg 15 55 58.9
			iSKP	10 02 18.7			iSg 15 56 24.0
			i!	10 08 23			South coast of Norway,
		Ka	iPKP	09 59 09.0 C			59.1° N, 10.3° E.
			ipPKP	09 59 49.7			Origin time = 15 55 21.
			iSKP	10 02 35.3			
		Ud	iPKP	09 59 00.8 C	"	12	Up iP 17 04 11.5
			ipPKP	09 59 41.2			iS 17 08 02.0
			iSKP	10 02 18.4			Ki iP 17 05 10.2 C
				South of Fiji Islands.			i 17 05 32.4
				h = 150 km (Up, Ki, Sk, Gb, Ka,			i 17 06 17.6
				Ud). (PKP) is a small-			Um iP 17 04 36.5
				amplitude precursor, which			iS 17 08 58
				in this case appears at			Ud eP 17 04 30
				distances short of 141°.			iPn 17 04 43.2
		"	12	Up iP 10 51 09.3			iS 17 08 31.0
				Ki iP 10 50 15.0			Turkey (h = 30 km).
				(cont.)			

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1967 Aug. 13 (cont.)

Um	E	ePg	17	55	43
		eSn	17	56	17
		iSg	17	56	32.0
Ud	D	iSg	17	56	51.0
Trøndelags Fylke, Norway, 64.4 N, 12.0 E. Origin time = 17 54 32.					

" 13 Um iP 20 14 23.9

" 13 Up iP 20 17 38.0 C
ipP 20 18 58.5
iPP 20 20 22.5
iS 20 26 27
iScS 20 26 57
iP'P' 20 45 11.6
micr sec

P	Z	1.9	2
P	Z'	0.9	0.8
S	E	2.3	8
S	N	1.7	7
S	Z	1.3	7
P'P'	Z'	0.2	1.5
M	E	1.4	18
M	N	2.2	18
M	Z	1.9	15

(D = 8100 km = 73°).

Ki iP 20 17 02.5 C
ipP 20 18 22.6
iPP 20 19 28
iS 20 25 22
iScS 20 26 19
iP'P' 20 45 28.4
micr sec

P	E	1.5	3
P	N	0.5	5
P	Z	1.7	6
P	Z'	1.8	1.0
PP	E	1.5	7
PP	N	0.9	7
PP	Z	2.0	6
PP	Z'	0.5	1.5
S	E	7.0	9
S	N	1.4	9
S	Z	2.6	9
P'P'	Z'	0.7	2.0
M	E	2.8	16
M	N	1.3	14
M	Z	2.7	17

(D = 7450 km = 67°).

Sk iP 20 17 34.8 C
ipP 20 18 56.1
iPP 20 20 16.4

(cont.)

1967 Aug. 13 (cont.)

Gb	iP	20	17	53	C
	ipP	20	19	12	
	isP	20	19	47	
	iPP	20	20	47	
Um	iP	20	17	17.5	C
	i	20	18	18.4	
	ipP	20	18	41	
	iPP	20	19	55	
	iS	20	25	50.1	
	iP'P'	20	45	20.7	
Ka	iP	20	17	56.4	C
	ipP	20	19	19.4	
	iPP	20	20	45.7	
Ud	iP	20	17	45.9	C
	ipP	20	19	07.9	
	iPP	20	20	36.5	
	iS	20	26	43.9	

Japan. h = 360 km (Up, Ki, Sk,
Gb, Um, Ka, Ud). Magn. = 6.6
(Up, Ki).

" 13 Up iP 22 12 23.7 C
i 22 12 33.2
iS 22 16 06
iSS 22 16 35.7
micr sec

S	N	0.9	9
M	E	1.5	7
M	N	2.3	6
M	Z	2.4	13

D = 2300 km = 20 1/2°.

Ki iP 22 13 29.6 C
i 22 13 38.4
eSa 22 18 27
eLi 22 20 41
iLg2 22 22 43
micr sec

M	E	3.1	14
M	N	2.0	11
M	Z	3.0	11

Sk iP 22 12 42.7
i 22 12 53.4
i 22 13 39.7

Gb iP 22 11 37
i 22 11 47
i 22 15 23

Um iP 22 13 01.4 C
iS 22 17 18
iSS 22 18 19.0
iLg2 22 21 02

Ka iP 22 11 45.1
iLi 22 15 54.5
iLg1 22 16 36.6

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967									1967									
Aug.	13	(cont.)							Aug.	14	(cont.)							
			Ud	iP		22	12	09.3				Sk	i		10	20	27.2	
				i		22	12	14.2				Um	iP		10	20	38.7	
				iS		22	15	31.8				Ud	iP		10	19	29.8	
				iRg		22	19	18.7				Italy (h = 20 km).						
			Pyrenees (h = 15 km).															
			Multiple P; noteworthy is a phase following P after about 10 sec (Up, Ki, Sk, Gb).															
"	13		Up	eL		23	05			"	14	Sk ^A	iPg		11	32	00.2	
													iSg		11	32	50.6	
												Um ^E	iSg		11	34	31.1	
												Ud ^D	iSg		11	32	30.6	
												Southwest Norway, 60.7°N, 6.9°E. Origin time = 11 30 40.						
			M	E		2.8	21			"	14	Ki	iP		12	56	18.0	
			M	N		2.5	18					Sk	iP		12	56	12.5	
			M	Z		5.2	20					Gb	iP		12	56	24	
			Ki	eL		23	03					Mexico (h = 120 km).						
			M	E		4.8	20			"	14	Sk	iP		19	31	35.1	
			M	N		3.1	23					Um	iP		19	31	26.3	
			M	Z		6.4	21			"	14	Up	iP		20	14	04.6	
			New Britain (h = 30 km).															
			Magn. = 6.2 (Up, Ki).															
"	13		Up	iP		23	55	26.1		"	14	Ki	iP		20	15	12.6	C
			Ki	iP		23	56	08.6										
				ipP		23	56	17.5					P	Z'	0.1	1.2		
			Sk	iP		23	55	38.9				Sk	iP		20	14	50.8	
				ipP		23	55	46.5			Gb	iP		20	14	(01)		
			Gb	iP		23	55	12			Um	iP		20	14	37.5		
			Um	iP		23	55	50.1 D				eS		20	18	55		
				i		23	55	53.7			Ud	iP		20	14	18.8		
				ipP		23	55	57.6				i		20	14	21.3		
			Ka	iP		23	55	10.2			Turkey (h = 30 km).							
			Ud	iP		23	55	20.7 D		"	14	Ki	i(P)		21	31	03.1	
				ipP		23	55	28.0				Um	iP		21	31	14.3	
			Ascension Island. h = 30 km (Ki, Sk, Um, Ud).															
"	14		Ud	iP		01	50	49.9		"	15	Um	iP		02	49	53.0	
"	14		Um	eP		05	42	13		"	15	Sk	iP		03	34	55.6	
											Um	iP		03	35	16.4	C	
			North Atlantic Ocean (h = 40 km).															
"	14		Up	iP		06	53	51.6		"	15	Up	iP		04	40	59.0	C
			Ki	iP		06	53	52.2 C										
			Sk	iP		06	54	07.4				P	Z'	0.1	0.5			
			Um	iP		06	53	48.2 C			Sk	iP		04	41	37.0		
				i		06	53	54.2			Gb	iP		04	40	50		
			Ud	iP		06	54	02.9			Um	iP		04	41	40.9		
			Sumatra (h = 30 km).															
"	14		Ki	eP		10	21	07			Ka	iP		04	40	20.9		
											Ud	iP		04	41	03.7		
			M	E		0.5	8					i		04	41	50.5		
			Sk	eP		10	20	16			Ionian Sea (h = 30 km).							
			(cont.)															

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
Aug.	15	Up	i(P)	05 32 22.1	Aug.	15	(cont.)
		Ud	iP	05 33 04.1			Gb i 09 32 21
"	15	Up	iP	07 11 19.9			Um iP 09 30 34.1 C
			i	07 11 27.3			i 09 30 37.0
		Ki	---				iPcP 09 31 37.1
				micr sec			iS 09 38 17
		M	E	1.0 14			eSS 09 42 13
		M	N	0.3 13		Ka	iP 09 30 56.2
		M	Z	0.5 12			i 09 30 57.9
		Sk	eP	07 11 55		Ud	iP 09 30 58.1 C
		Um	iP	07 11 59.4			i 09 31 01.9
			i	07 12 15.3			Tibet (h = 30 km).
			eS	07 16 22			Multiple P: the records show
			iSS	07 17 17			a small P followed after
		Ka	iP	07 10 37.7			about 3 sec by a much larger
			i	07 10 57.1			phase.
		Ud	iP	07 11 17.1	"	15	Um iP 11 32 19.8
			i	07 11 31.3			Peru (h = 30 km).
				Tyrrhenian Sea (h = 30 km).			
"	15	Ka	iP	07 24 16.5	"	15	Up iP 15 46 30.0 C
"	15	Up	iP	07 47 53.2			iPcP 15 47 07.4
				micr sec			micr sec
		P	Z'	0.1 0.5			P Z' 0.1 0.5
		Sk	iP	07 48 19.1		Ki	---
		Gb	iP	07 48 14			micr sec
		Um	iP	07 47 51.7 C		M	E 0.6 15
		Ka	iP	07 47 57.5 C		M	N 0.4 15
			ipP	07 48 38.1		M	Z 0.6 14
		Ud	iP	07 48 09.7 C		Sk	iP 15 46 24.9 C
				Hindu Kush. h = 200 km (Ka).		Gb	iP 15 46 56
						Um	iP 15 46 06.3 C
							i 15 46 47.7
							Russia-China (h = 30 km).
"	15	Up	eP	09 30 44	"	15	Up iP 20 21 50.7
			i	09 30 48.0			Sk iP 20 21 47.5
			iS	09 38 35			Um iP 20 21 31.8
				micr sec			Ud iP 20 21 57.6
		P	Z'	0.6 1.0			Bonin Islands (h = 350 km).
		M	E	1.2 13	"	16	Ki iP 10 20 22.0 C
		M	N	1.9 14	"	16	Ud iP 10 37 09.9
		M	Z	2.0 13	"	16	Ki iPn 14 12 52.2
		D = 6300 km = 56 1/2°.					iSn 14 13 41.2
Ki			iS	09 38 20			iLg1 14 13 52.7
				micr sec			D = 460 km = 4.1°.
		S	E	0.4 7			Possibly northwest Russia.
		S	N	0.3 7			Origin time = 14 11 46.
		M	E	1.9 14			Explosion?
		M	N	1.0 11			
		M	Z	2.9 15			
		Sk	iP	09 30 58.8 C			
			i	09 31 02.0			
		Gb	iP	09 31 09			
			i	09 31 12			
				(cont.)			

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1967
Aug. 16 Ki iPKP 18 01 48.8 C
ipPKP 18 02 16.3
Um iPKP 18 01 41.8
South Sandwich Islands.
h = 100 km (Ki).

" 16 Up iP 19 31 30.7 D
ipP 19 31 53.7
iSKS 19 41 50
micr sec
pP Z' 0.1 0.6
Ki iP 19 31 31.4
ipP 19 31 50.5
iSKS 19 41 47
ipSKS 19 42 25
micr sec
pP Z' 0.1 0.8
SKS E 0.4 9
SKS N 0.7 8
Sk eP 19 31 46
i 19 31 46.9
ipP 19 32 06.7
Gb ipP 19 32 07
Um iP 19 31 27.7 D
ipP 19 31 47.3
iSKS 19 41 42
Ka iP 19 31 34.4
ipP 19 31 54.7
Ud iP 19 31 41.2 D
ipP 19 32 00.7
i 19 34 49.3

Sumatra. h = 80 km
(Up, Ki, Sk, Um, Ka, Ud).
An alternative but less likely interpretation is that pP instead is P of another shock in the same place, occurring about 20 sec after the first one and being somewhat bigger.

" 16 Ki iP 19 46 11.9

" 16 Ki iP 21 49 19.3

" 16 Up P iPg 22 45 31.7 C
iSn 22 45 55.7
iS^x 22 45 58.1
iSg 22 46 01.4
micr sec
~~Sg Z' 0.1 0.5~~
~~D = 260 km = 2.3°~~
~~Sk iLg1 22 47 07.2~~
~~Gb i 22 45 51~~
(cont.)

1967
Aug. 16 (cont.)
~~Um iLg1 22 47 42.4~~
~~Ka KLS iSg 22 46 35.7~~
~~Ud D ePn 22 45 06~~
~~iSg 22 45 16.8~~

Lake Vener, Sweden,
59.1°N, 13.3°E.
Origin time = 22 44 45.
Felt in Värmland, Sweden.

" 17 Ki iP 00 16 37.0
Kamchatka (h = 30 km).

" 17 Ki ---
micr sec
M E 0.3 15
M Z 0.5 14
Um iS 13 09 43
Ud iP 12 59 56.0
Atlantic Ocean (h = 40 km).

" 17 Um iP 13 16 51.1

" 17 Ki iP 14 42 25.6
i 14 42 38.0
Sk eP 14 42 57
Um iP 14 42 43.5
Japan (h = 80 km).

" 17 Up P iPg 15 29 10.8
iSg 15 29 38.9
~~D = 230 km = 2.1°~~
Sk A iSg 15 31 55.9
Ka KLS iPg 15 29 10.6
iSg 15 29 39.4

Baltic Sea, west of Gotland,
57.7°N, 18.2°E.
Origin time = 15 28 30.
Probably underwater explosion.

" 17 Up P iPg 15 29 21.4
iSg 15 29 50.1
~~D = 230 km = 2.1°~~

Sk A iSg 15 32 07.4
Ka KLS iSg 15 29 51.2
Baltic Sea, west of Gotland,
57.7°N, 18.2°E.
Origin time = 15 28 41.
Probably underwater explosion.

" 17 Ki iSg 18 20 52.3
Sk iSg 18 20 58.4
(cont.)

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1967				1967			
Aug.	17	(cont.)		Aug.	18	(cont.)	
		Um	iSg 18 21 20.9			Ka	iP 06 00 48.8
		Nordlands Fylke, Norway.					ipP 06 00 55.3
"	17	Up	iPKP 20 47 21.3			Alaska. h = 25 km (Up, Ki, Sk, Um, Ka).	
			i 20 47 36.7	"	18	Ud	iP 08 34 14.4
		Ki	iPKP 20 47 35.5	"	18	Ki	iP 09 49 25.5
			iPKS 20 51 01.7			Mindanao (h = 160 km).	
		Sk	iPKP 20 47 25.9	"	18	Ud	iP 10 15 26.5
		Um	iPKP 20 47 28.9 C	"	18	Up	iSg 14 25 48.2
		Ud	iPKP 20 47 20.9				micr sec
			i 20 47 33.9				Sg Z' 0.2 0.7
		South Sandwich Islands (h = 100 km).					Ud iSg 14 26 30.8
"	17	Up	iP 22 52 15.9			Probably blast near Uppsala.	
			i 22 52 26.0	"	18	Up	iP 16 04 50.4
		Ki	iP 22 51 20.5				i 16 04 52.9
			micr sec				micr sec
			P Z' 0.1 1.0	"	18		P Z' 0.1 0.8
		Sk	iP 22 51 47.8	"	19	Up	iP 01 42 14.0
		Gb	iP 22 52 32			Ki	iP 01 42 22.5
		Um	iP 22 51 49.6 C			Sk	iP 01 42 40.4
		Ka	iP 22 52 39.2			Um	iP 01 42 12.1
		Ud	iP 22 52 13.0				iPP 01 43 48.9
		Alaska (h = 60 km).				Ka	iP 01 42 20.5
"	18	Up	iP 03 47 14.9			Ud	iP 01 42 31.4 D
			iPcP 03 47 27.7				iPP 01 44 12.5
		Ki	iP 03 46 48.0			Hindu Kush (h = 130 km).	
			iPcP 03 47 06.6	"	19	Up	iP 07 07 46.6
		Sk	iP 03 47 17.0			Ki	iPn 07 06 01.6
		Gb	iP 03 47 41				iPg 07 06 09.2
		Um	iP 03 46 59.3				iSn 07 06 42.1
			iPcP 03 47 13.7				iSg 07 06 50.6
		Ud	iP 03 47 25.0			Sk	eS 07 08 22
			iPcP 03 47 34.5			Um	iP 07 06 55.8
		Ryukyu Islands (h = 90 km).					iS 07 08 11.5
"	18	Ki	iP 03 50 34.2 C			Norwegian Sea.	
			i 03 50 41.3			Origin time = 07 05 09.	
		Um	eP 03 50 47			Foreshock to the following.	
		Ud	iP 03 51 05.6	"	19	Up	iP 07 17 35.3
"	18	Up	iP 06 00 25.1				iS 07 19 30.0
			ipP 06 00 31.5				iLg1 07 20 47.4
		Ki	iP 05 59 28.3 C			Ki	iPn 07 15 52.4
			ipP 05 59 34.3				iPg 07 15 59.7
		Sk	iP 05 59 56.0				iSn 07 16 33.3
			ipP 06 00 01.9				iSg 07 16 41.2
		Um	iP 05 59 57.3			(cont.)	
			ipP 06 00 03.6			(cont.)	
		(cont.)				(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967						1967						
Aug.	19	(cont.)				Aug.	19	(cont.)				
		Ki		micr	sec			Up		micr	sec	
			Sg	Z'	0.1 0.5				M	N	3.6 22	
		Sk	iP		07 16 48.2				M	Z	4.3 19	
			iS		07 18 10.3				D = 9900 km = 89°			
			i		07 18 29.0			Ki	iP		15 40 43.2 C	
		Um	iP		07 16 45.5				i		15 40 53.5	
			iS		07 18 01.7				iPP		15 44 08.6	
		Ka	iP		07 18 40.9				iS		15 51 13	
		Ud	iP		07 17 33.5					micr	sec	
			iS		07 19 29.1				P	E	0.5 6	
		Norwegian Sea (h = 30 km).							P	Z	1.2 6	
									P	Z'	1.1 3.0	
"	19	Up	iPKP		08 41 08.0 C				S	E	0.8 8	
		Ud	iPKP		08 41 10.0 C				S	N	1.0 7	
			i		08 41 21.1				M	E	3.1 18	
		Kermadec Islands (h = 30 km).							M	N	0.9 16	
									M	Z	5.7 19	
"	19	Up	iP		12 25 30.6 C			Sk	iP		15 41 05.9	
			iPcP		12 25 54.8				iPP		15 44 49.1	
		Ki	iP		12 24 56.1			Gb	iP		15 41 18	
			i		12 25 02.4				i		15 41 28	
			e		12 28 28			Um	iP		15 40 49.2 C	
		Um	iP		12 25 14.6				iPP		15 44 17	
		Ud	iP		12 25 37.3				iSKS		15 51 08	
			iPP		12 28 26.6				eS		15 51 21	
		Japan (h = 50 km).						Ka	iP		15 41 12.6 C	
									i		15 41 21.2	
"	19	Ki	ePn		13 05 34			Ud	iP		15 41 10.0	
			iSn		13 06 21.6				i		15 41 17.4	
			iLg1		13 06 36.7				i		15 41 42.7	
					D = 440 km = 4.0°			Philippine Islands (h = 60 km). Magn. = 6.4 (Up, Ki).				
		Possibly northwest Russia. Origin time = 13 04 31. Explosion?					"	19	Up	iPKP		16 00 47.3
									ipPKP		16 01 13.0	
"	19	Up	iP		13 49 37.0 C			Ki	iPKP		16 00 34.4 C	
		Ki	iP		13 48 58.3 C				iPKKP		16 10 41.0	
		Sk	iP		13 49 32.5					micr	sec	
		Um	iP		13 49 15.3 C				PKP	Z'	0.1 1.0	
		Ud	iP		13 49 44.0 C			Sk	iPKP		16 00 44.9 C	
		Japan (h = 100 km).						Gb	iPKP		16 00 56	
								Um	iPKP		16 00 40.2 C	
"	19	Up	iP		15 41 01.4 C				ipPKP		16 01 04.1	
			iPP		15 44 42.2				iPKKP		16 10 29.1	
			iSKS		15 51 26				i		16 10 35.5	
			iS		15 51 41			Ud	iPKP		16 00 49.8	
					micr	sec			ipPKP		16 01 15.3	
			P	E	0.2 5			Santa Cruz Islands. h = 90 km (Up, Um, Ud).				
			P	Z'	0.1 0.7							
			SKS	E	0.4 9							
			M	E	2.8 21							
		(cont.)										

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967
Aug.

19 Ki^R iP 16 30 16.7
iS 16 32 02.7
iSg 16 33 16.9
D = 1060 km = 9.5°

Arctic Ocean,
near 77°N, 32°E.
Origin time = 16 27 58.
By combination with
Finnish readings.

" 19 Ki iP 23 41 36.4
micr sec
M E 0.3 13
M Z 0.3 14
Sk iP 23 42 10.3
Um iP 23 41 46.5
Ud iP 23 42 12.3
Szechwan, China (h = 40 km).

" 20 Ki iP 00 17 01.6
iPcP 00 18 03.2
Sk iP 00 17 29.5
Um iP 00 17 28.7
ipP 00 18 09.8
iPcP 00 18 18.1
Ud iP 00 17 53.3
Alaska. h = 170 km (Um).

" 20 Up iP 02 09 31.1
i 02 09 36.0
i 02 09 48.8
iS 02 15 27
iSa 02 17 42
iX 02 19 57
iLg1 02 22 14
i 02 22 22
micr sec
P Z' C.2 1.2
M E 3.8 10
M N 4.1 10
M Z 7.1 10
D = 4350 km = 39°
Ki iP 02 09 18.8
i 02 09 22.7
iPP 02 10 39.1
iS 02 15 07
iX 02 18 47
iLg1 02 21 31
micr sec
P Z' 0.2 1.3
M E 6.3 13
M N 4.0 10
M Z 7.7 12
D = 4200 km = 38°

(cont.)

1967
Aug.

20 (cont.)
Sk eP 02 09 48
i 02 09 51.5
iPP 02 11 21.3
iScS 02 19 41.7
iX 02 21 29.0
iLg1 02 23 30.4
Gb eP 02 10 08
iPP 02 11 43
iX 02 21 24
iLg1 02 24 15
Um iP 02 09 19.5
i 02 10 11.7
iPP 02 10 42.5
iS 02 14 58
iSa 02 16 57
i 02 17 47
iLg1 02 21 43
Ka eP 02 09 43
i 02 12 50.7
iX 02 20 15.1
iLi 02 21 51.0
eLg1 02 23 04
Ud iP 02 09 46.7
i 02 09 50.9
i 02 11 46.5
iX 02 21 22.6
iLg1 02 23 26.8

Kazakh-Sinkiang (h = 30 km).
Magn. = 5.8 (Up, Ki).
Multiple P: a small phase is followed after about 4-5 sec by a much larger phase. The phase marked X corresponds to an average group velocity of 4.06 km/sec, an integral part of the well developed higher mode wave train.

" 20 Ki^R iPn 04 58 22.4
~~i 04 58 36.8~~
iSn 04 59 22.8
~~iLg1 04 59 43.4~~
D = 570 km = 5.1°
Sk^A eSg 05 02 11
Um^E iSn 05 00 00.4
iSg 05 00 36.7

Northwest Russia,
67.3°N, 33.7°E.
Origin time = 04 57 03.
Explosion?

" 20 Ud iP 12 03 17.1

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
 Ka = Karlskrona, Ud = Uddeholm

1967 Aug. 21 Sk ~~A~~ i ~~14 21 30.0~~
 iSg 14 21 35.2
 Ud ~~D~~ iSg 14 22 05.0
 West coast of Norway,
 62.1°N, 5.5°E.
 Origin time = 14 19 35.
 By combination with
 Norwegian readings.

" 22 Up iP 06 35 47.6 D
 Ud iP 06 35 51.1
 Kamchatka (h = 30 km).

" 22 Ka iPg 10 09 38.2
 iSg 10 09 54.2

" 22 Um iP 11 45 53.6 D

" 22 Up ~~P~~ iSg 12 32 13.1
 Sk ~~eLg1~~ 12 33 32.1
 Gb ~~SOT~~ iPg 12 31 19
 iSg 12 31 35
 Ud ~~D~~ iPg 12 31 22.7
 iSg 12 31 43.4
 i 12 31 46.7
 Västergötland, Sweden,
 58.5°N, 13.8°E.
 Origin time = 12 30 54.
 By combination with
 Norwegian data.

" 22 Up iPKP 13 21 02.0
 i 13 21 07.7
 iPP 13 22 47
 iSKS 13 28 05
 iSKSP 13 32 54
 micr sec
 PKP Z' 0.1 0.8
 PP E 0.4 9
 PP N 1.3 8
 PP Z 3.7 8
 M E 7.3 21
 M N 17 18
 M Z 18 18
 (D = 13900 km = 125°).
 Ki iPKP 13 21 17.6
 iPP 13 23 38.2
 iPKS1 13 24 38
 iPKS2 13 24 45
 micr sec
 PKP N 0.3 8
 PKP Z 1.7 8
 PKP Z' 0.3 1.5
 PP E 0.5 8
 (cont.)

1967 Aug. 22 (cont.)
 Ki micr sec
 PP N 1.2 8
 PP Z 3.0 9
 PKS1 Z 5.6 10
 PKS2 E 5.6 9
 PKS2 N 7.1 9
 M E 18 19
 M N 12 17
 M Z 39 18
 (D = 14700 km =
 = 132 1/2°).
 Sk iPKP 13 21 05.6
 i 13 21 12.0
 iPP 13 23 14.3
 Gb iPKP 13 20 59
 ePP 13 22 38
 Um iP 13 18 04
 iPKP 13 21 08.3
 iPP 13 23 08.9
 iPKS 13 24 28
 iSS 13 40 31
 Ka iPKP 13 20 55.9
 ePP 13 22 19
 Ud iPKP 13 20 59.9
 iPP 13 22 42.0
 South Sandwich Islands
 (h = 30 km).
 Magn. = 6.9 (Up, Ki).

" 22 Up iPKP 13 35 57.8
 i 13 35 59.3
 micr sec
 PKP Z' 0.1 0.6
 Ki iPKP 13 36 13.4
 micr sec
 PKP Z' 0.1 1.7
 Sk iPKP 13 36 03.8
 Gb ePKP 13 35 53
 Um iPKP 13 36 07.4 C
 iPP 13 38 11.3
 Ud iPKP 13 35 57.7
 South Sandwich Islands
 (h = 20 km).

" 22 Um iP 14 12 34.9 C

" 22 Um iP 14 17 13.5
 i 14 17 35.8

" 22 Up iP 23 20 43.7
 micr sec
 M E 0.5 17
 M N 0.6 14
 (cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Aug.	22	(cont.)			Aug.	24	Ki	iPKP	05 48 04.7
		Up		micr sec			Ka	iPKP	05 48 24.7 C
		M	Z	0.8 16			Ud	iPKP	05 48 14.2
		Ki	iP	23 19 58.1			Fiji Islands (h = 670 km).		
			iPP	23 21 26.4					
				micr sec		"	24	Ud	ePg
		M	E	0.8 13					10 47 36
		M	N	0.4 13					10 47 56.1
		M	Z	1.1 17		"	24	Up	---
		Sk	iP	23 20 39.5					micr sec
		Um	iP	23 20 16.8 C				M	E
			i	23 20 22.2				M	N
			iPP	23 22 08				M	Z
			eS	23 26 40			Ki	iPKP	10 51 47.0 C
			eSS	23 29 46					micr sec
		Ka	iP	23 21 08.1				M	E
		Lake Baikal (h = 20 km).						M	N
								M	Z
"	23	Sk	iSg	01 33 09.0			Sk	ePKP	10 51 57
"	23	Gb	iPKP	17 27 17 D			Um	iPKP	10 51 53.4
		Ka	iPKP	17 27 18.5				ePP	10 53 42
		Ud	iPKP	17 27 05.1			Ud	iPKP	10 52 04.5
		South of Fiji Islands					New Hebrides Islands		
		(h = 640 km).					(h = 25 km).		
							Magn. = 5.8 (Up,Ki).		
"	23	Up	iSg	20 49 47.5	"	24	Up	iP	10 55 29.0
			i	20 49 51.2			Ki	iP	10 56 03.5
				micr sec				i	10 56 12.2
			Sg	Z' 0.1 0.5			Sk	iP	10 55 50.9
		Ud	iSg	20 50 39.3				i	10 56 01.3
		Probably blast near Uppsala.					Um	iP	10 55 43.8
								i	10 55 55.0
"	24	Ki	iP	01 25 57.8			Ud	iP	10 55 32.2
				micr sec				i	10 55 38.1
		M	E	0.3 12			Mozambique Channel		
		M	N	0.4 15			(h = 30 km).		
		M	Z	0.6 16		"	24	Up	iSn
		Sk	iP	01 26 22.5				iSg	12 38 46.0
		Ud	iP	01 26 20.6				i	12 39 00.1
		Tibet (h = 30 km).					Ki	i	12 41 34.0
"	24	Up	iP	03 32 16.6 C				iSg	12 41 41.6
				micr sec			Sk	eS ^x	12 40 33
		P	Z'	0.3 0.7				iSg	12 40 52.1
		Ki	iP	03 31 31.0			Gb	iSg	12 40 41
			i	03 31 42.5			Um	iSg	12 39 32.9
				micr sec			Ud	eSn	12 39 34
		P	Z'	0.2 1.0				iSg	12 40 01.3
		Sk	iP	03 32 06.6 C			Gulf of Finland. Origin		
		Um	iP	03 31 51.1 C			time = 12 37 05. Probably		
		Ka	iP	03 32 38.4 C			underwater explosion.		
		Ud	iP	03 32 22.9 C	"	24	Ki	iPKP	13 52 47.0
		Kurile Islands (h = 70 km).						iSKP	13 55 43.8
		Magn. = 6.2 (Up,Ki).					(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Aug.	24	(cont.)			Aug.	25	Ud	iP	13 22 52.8
		Gb	iPKP	13 53 06 C		"	25	Up	iP
		Ka	iPKP	13 53 06.7				i	15 14 19.0
		Ud	iPKP	13 52 55.5				Ki	iP
		South of Fiji Islands						Um	iP
		(h = 330 km).						Ud	iP
"	24	Up	i(P)	17 21 12.4				Aleutian Islands (h = 40 km).	
		Um	i(P)	17 21 35.2					
"	24	Ki	iP	17 26 13.9	"	25	Ki	R i	16 16 55.5
			ipP	17 26 57.6				iSg	16 17 16.1
		Sk	iP	17 26 39.5			Sk	A eSn	16 17 19
		Mariana Islands.						iSg	16 17 28.2
		h = 170 km (Ki).					Um	E iSg	16 17 41.6
							Ud	eLg1	16 19 16
"	24	Ki	R iSn	23 13 19.4			Norway-Sweden border region, 66.4°N, 15.2°E. Origin time = 16 15 54.		
			iSg	23 13 27.6					
		Sk	A eSg	23 14 02		"	25	Um	iP
		Um	E iPg	23 12 14.1					17 01 01.4 C
			iSg	23 12 28.3		"	25	Um	iP
		D = 120 km = 1.1°						i	17 28 15.7
		North Sweden, 65.0°N,						Ud	iP
		21.0°E.						17 28 42.3	
		Origin time = 23 11 52.						Unimak Island (h = 40 km).	
"	24	Up	iP	23 26 00.5 C	"	25	Ki	iP	20 40 28.5
		Ki	iP	23 26 44.4	"	25	Up	eP	21 31 12
		Um	iP	23 26 22.9	"	25	Ki	iP	23 07 13.1
		Ud	iP	23 26 04.1			Um	iP	23 07 22.8 D
		Congo (h = 20 km).					Caroline Islands (h = 30 km).		
"	24	Um	iP	23 48 50.7	"	25	Ki	iP	23 11 42.2
"	25	Ki	i(Sg)	05 14 54.2				i	23 11 52.2
"	25	Um	iP	06 12 18.0			Sk	iP	23 12 06.6
"	25	Up	i(P)	12 01 53.5			Um	iP	23 11 53.1 C
							Caroline Islands (h = 30 km).		
"	25	Ki	iP	12 33 49.4	"	26	Up	iP	00 50 00.9 D
			iPP	12 35 12.4				iX	00 53 00
		Sk	iP	12 33 46.8 C				iPP	00 53 53.8
		Um	iP	12 33 24.1				iSKS	01 00 34
		Ud	iP	12 33 26.1					micr sec
		Iran (h = 40 km).					P	Z'	0.4 1.3
"	25	Ki	i(Sn)	12 37 06.2			SKS	E	0.7 8
			i(Lg1)	12 37 29.4			SKS	N	1.3 8
		Sk	iSg	12 40 01.6			M	E	4.5 25
		Probably northwest Russia.					M	N	7.0 24
		Explosion?					M	Z	10 27
							(D = 10550 km = 95°).		

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967				
Aug.	26	(cont.)			Aug.	26	Up	eSKS	02 31 01
		Ki	iP	00 49 36.4 D					micr sec
			iPP	00 53 14.2			M	E	1.0 21
			iSKS	00 59 58			M	N	1.6 20
			iPS	01 01 31			M	Z	1.6 20
				micr sec		Ki	iP		02 20 04.0
		P	E	0.9 7					micr sec
		P	N	0.5 7			M	E	1.1 17
		P	Z	2.9 7			M	N	0.6 15
		P	Z'	0.9 1.4			M	Z	2.3 19
		SKS	E	1.7 7		Sk	eP		02 20 28
		SKS	N	1.6 7		Um	iP		02 20 14.0 D
		M	E	11 22		Ud	eP		02 20 36
		M	N	6.0 20					Caroline Islands (h = 30 km).
		M	Z	8.2 17					
				(D = 9900 km = 89°).	"	26	Ki	iP	02 42 45.9
		Sk	iP	00 50 00.3 D					Caroline Islands (h = 30 km).
		Gb	iP	00 50 17.8	"	26	Ki	eP	03 42 54
		Um	iP	00 49 46.7 D			Um	iP	03 43 03.9
			iX	00 52 28					Caroline Islands (h = 30 km).
			i	00 53 24	"	26	Ki	iP	05 59 45.2
			iPP	00 53 41.1				i	05 59 48.7
			iSKS	01 00 21					Caroline Islands (h = 30 km).
			iSKKS	01 00 31	"	26	Ki	eP	10 38 08
			iPS	01 01 59					Caroline Islands (h = 30 km).
		Ka	iP	00 50 14.4	"	26	Ki	eP	11 24 19.1
			iX	00 53 30.0					Caroline Islands (h = 30 km).
		Ud	iP	00 50 08.0 D	"	26	Ki	iP	11 24 19.1
				Caroline Islands					Caroline Islands (h = 30 km).
				(h = 30 km).					Ki is no doubt our most
				Magn. = 6.6 (Up, Ki).					sensitive station for this
				The wave marked X at Up,					series of Caroline Islands
				Um, Ka could represent an					shocks.
				unidentified phase; it	"	26	Ki	e(Sn)	12 36 53
				precedes PP and has a				i(Lg1)	12 37 16.8
				different slope of its	"	26	Ki ^R	iPn	14 22 06.1
				travel-time curve. A few				iP ^X	14 22 14.0
				similar observations have				iSn	14 22 51.3
				been made in other cases.				iSg	14 23 07.2
"	26	Up	iP	01 06 43.1				D = 410 km = 3.7°.	
		Ki	iP	01 06 15.1			Sk ^A	iSg	14 25 31.9
			ipP	01 06 20.1			Um ^E	eSg	14 24 00
				micr sec					Russia-Finland border region,
		P	Z'	0.1 1.2					67.4° N, 30.1° E.
		Sk	iP	01 06 39.2 C					Origin time = 14 21 06.
		Um	iP	01 06 25.0					Explosion?
			ipP	01 06 29.1	"	26	Up	iS	14 27 30
		Ud	iP	01 06 46.5			Sk	eP	14 23 51
				Caroline Islands,			Ud	eP	14 23 22
				h = 15 km (Ki, Um).					Turkey (h = 30 km).
"	26	Um	iP	01 54 53.9					
				Caroline Islands					
				(h = 30 km).					

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967
Aug. 26 Sk ePKP 18 39 06
Ud iPKP 18 39 17.8
i 18 39 25.8
Samoa Islands (h = 40 km).

26 Ki^R iP_n 19 01 00.7
iP^x 19 01 08.6
iSn 19 01 47.1
~~iLg1 19 02 01.7~~
~~D = 420 km = 3.8°~~
Sk^A eSg 19 04 50
Um^E iSg 19 03 34.9
Northwest Russia,
69.1°N, 30.3°E.
Origin time = 19 00 00.
Explosion?

" 26 Ki iP 21 54 40.2
ipP 21 54 54.7
Sk iP 21 55 09.2
Um iP 21 55 08.1
Ud iP 21 55 32.6
Alaska. h = 60 km (Ki).

" 26 Um iP 22 15 40.6
i 22 15 53.6

" 27 Ki iP 02 08 13.2 C
Java (h = 180 km).

" 27 Up iP 02 28 53.9
Ki iP 02 28 00.7
Ud iP 02 28 53.1
Aleutian Islands
(h = 30 km).

" 27 Up iP 04 57 23.9
Ki iP 04 57 32.4
Sk iP 04 57 49.3
Um iP 04 57 22.0
Ka iP 04 57 28.7
Ud iP 04 57 40.4
Hindu Kush (h = 230 km).

" 27 Ki eSn 09 47 40
iSg 09 48 02.7
Sk eSg 09 50 28
Probably Russia-Finland
border region. Explosion?

27 Ki^R iPn 09 59 48.5
iSn 10 00 33.4
(cont.)

1967
Aug. 27 (cont.)
~~Ka~~ iSg 10 00 47.7
~~D = 400 km = 3.6°~~
Sk^A eSg 10 03 12
Um^E iSn 10 01 15.7
iSg 10 01 45.7
Russia-Finland border region,
67.5°N, 29.8°E. Origin
time = 09 58 50. Explosion?

" 27 Ki iP 11 22 17.4
Sk iP 11 22 38.7
Um iP 11 22 15.6
Ud iP 11 22 35.7
Burma-India (h = 60 km).

" 27 Up iP 13 21 18.2
i 13 21 19.4
iX 13 21 39.5
ipP 13 22 01.4
iPP 13 24 41
eSKS 13 31 26
eS 13 31 34
ipS 13 32 44

micr sec
PP Z 0.6 5
M E 0.9 19
M N 1.0 25
M Z 1.0 20
(D = 9650 km = 87°).
Ki iP 13 21 10.2 C
iX 13 21 32.9
ipP 13 21 54.6
iPP 13 24 30.5
iSKS 13 31 15
iS 13 31 21
ipS 13 32 21
isS 13 32 41
micr sec
P E 0.3 6
P Z 0.5 6
P Z' 0.2 1.8
pP Z' 0.8 2.5
PP Z' 0.3 2.0
SKS E 0.8 9
S N 0.5 8
M E 0.7 19
M Z 0.9 17
(D = 9450 km = 85°).
Sk iP 13 21 00.3 C
iX 13 21 22.8
ipP 13 21 45.0
iPP 13 24 16.3

(cont.)

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Aug.	27	(cont.)		Aug.	27	(cont.)	
		Um	iP	13 21	16.5	C	
			i	13 21	19.6		
			iX	13 21	39.2		
			ipP	13 22	01.0		
			iPP	13 24	41.9		
			iSKS	13 31	21		
			ipS	13 32	41		
		Ka	iP	13 21	17.0	C	
			i	13 21	19.7		
			iX	13 21	40.3		
			ipP	13 22	01.8		
		Ud	iP	13 21	07.1		
			ipP	13 21	50.7		
		Nicaragua. h = 180 km (Up, Ki, Sk, Um, Ka, Ud).					
		Magn. = 5.9 (Up, Ki). The phase marked X is probably P of another shock in the same place, occurring 22.5 sec later and with about the same magnitude.					
"	27	Up	iP	13 45	45.6		
		Ki	iP	13 44	58.5		
			i	13 45	03.6		
		Sk	eP	13 45	17		
		Um	iP	13 45	24.1		
		Ka	iP	13 46	00.6		
			iPcP	13 46	25.5		
		Ud	iP	13 45	38.9		
		Vancouver Island (h = 25 km).					
"	27	Ki	iPn	13 59	04.3	D	
			iSn	13 59	53.2		
			iLg1	14 00	08.4		
		D = 460 km = 4.1°.					
		Sk	eSg	14 02	53		
		Probably northwest Russia.					
		Origin time = 13 57 59.					
		Explosion?					
"	27	Up	iP	14 30	29.5		
		Ki	iP	14 30	14.1		
			ipP	14 30	30.2		
		Sk	eP	14 30	38		
		Um	iP	14 30	20.5		
		Ud	eP	14 30	37		
			i	14 30	43.7		
		Molucca Passage. h = 60 km (Ki).					
"	27	Up	eP	16 47	45		
		Ki	eP	16 47	27		
		(cont.)					
		Ki	i	16 47	31.5		
		Ud	eP	16 47	56		
		Luzon (h = 130 km).					
"	27	Ki	iP	17 18	24.4		
		Caroline Islands (h = 30 km).					
"	27	Ki	iP	18 39	12.3		
		Sk	iP	18 39	30.0		
		Ud	iP	18 39	51.9		
		Vancouver Island (h = 30 km).					
"	28	Ki	iP	01 09	32.8		
		Sk	iP	01 09	16.0	C	
		Peru-Brazil (h = 610 km).					
"	28	Um	iP	02 54	37.5		
"	28	Sk	iP	03 44	37.2		
		Ud	iP	03 44	03.6		
		Aegean Sea (h = 25 km).					
"	28	Sk	eP	12 49	44		
		Vancouver Island (h = 40 km).					
"	28	Um	eP	13 14	31		
"	28	Up	eP	15 30	29		
		Ud	iP	15 31	11.2		
"	28	Up	iP	15 36	43.5		
					micr	sec	
			M	N	0.9	17	
			M	Z	1.1	23	
		Ki			---		
					micr	sec	
			M	E	0.7	17	
			M	N	0.8	22	
			M	Z	2.0	22	
		Sk	iP	15 36	14.4		
		Gb	iP	15 36	49.5		
		Um	iP	15 36	22.4		
		Ud	iP	15 36	36.7		
		Vancouver Island (h = 30 km).					
		Magn. = 5.2 (Up, Ki).					
"	28	Up			---		
					micr	sec	
			M	N	1.0	20	
			M	Z	1.6	24	
		Ki	eS	16 38	23		
					micr	sec	
			S	E	0.4	9	
			M	E	1.4	24	
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Aug.	28	(cont.)		Aug.	29	(cont.)	
			micr sec				micr sec
		Ki				Up	
		M	N 0.9 23			M	E 1.0 20
		M	Z 2.4 24			M	N 2.7 22
		Sk	eP 16 30 28			M	Z 1.9 20
		Ud	iP 16 30 52.3			Ki	iP 07 41 27.4
		Vancouver Island (h = 30 km).				i	07 41 33.3
		Magn. = 5.4 (Up,Ki).				eSKS	07 51 54
							micr sec
"	28	Up	iP 17 41 39.3 C			SKS	E 0.4 9
		i	17 42 06.2			M	E 1.8 18
		Sk	iP 17 42 18.3			M	N 0.8 20
		iPP	17 43 12.4			M	Z 2.3 22
		Um	eP 17 42 11			Sk	eP 07 41 47
		i	17 42 22.0			i	07 45 36.9
		Ka	iP 17 41 07.9			iPP	07 46 17.9
		iS	17 44 41.1			Um	iP 07 41 30.0
		e	17 44 48			i	07 41 36.3
		Ud	iP 17 41 47.5			iPP	07 45 45.2
		Dodecanese Islands				i	07 45 50.2
		(h = 170 km).				iSKS	07 52 06
						iS	07 53 00
"	28	Ud	iP 17 46 53.7			iPS	07 54 42
						iSS	08 00 17
"	28	Sk	eP 18 43 43			Ka	ePP 07 46 12
		Um	iP 18 43 05.0			Ud	eP 07 41 47
		i	18 43 12.7			e	07 45 45
		Ud	eP 18 43 16			iPKP	07 45 58.1
		West Pakistan.				iPP	07 46 11.4
						Banda Sea. Magn. = 5.9	
"	28	Up	iP 21 14 10.7 D			(Up,Ki).	
		Sk	iP 21 14 30.9	"	29	Ki	iP 08 42 52.2
		Gb	iP 21 14 33.6				
		Um	iP 21 14 03.1	"	29	Sk	iP 09 21 08.4
		Ud	iP 21 14 26.4 D			Um	iP 09 20 39.3
		Sinkiang (h = 30 km).				Japan (h = 40 km).	
"	28	Sk	iP 21 22 19.9	"	29	Ki	eL 11 49
		Um	iP 21 22 37.0				micr sec
		Ud	iP 21 21 55.0			M	E 0.7 20
		Morocco (h = 30 km).				M	Z 1.6 22
"	29	Up	iP 03 55 50.4			New Guinea (h = 40 km).	
		Sk	iP 03 55 46.3				
		Um	iP 03 55 29.9 D	"	29	Um	iP 19 10 33.4
		Japan (h = 350 km).					
"	29	Ki	i(P) 06 58 14.4	"	29	Ki	iPn 20 38 34.0
		i	06 58 16.3			iSn	20 39 21.4
						iLg1	20 39 34.7
						D = 430 km = 3.9°	
"	29	Up	ePP 07 46 05			Sk	iSg 20 42 19.2
		(cont.)				(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967				1967			
Aug.	29	(cont.)		Aug.	30	(cont.)	
		Um	iSn 20 40 31.7			Ki	iPa 04 35 05
			iSg 20 41 09.2				iS 04 39 46
			Northwest Russia. Origin				micr sec
			time = 20 37 32. Explosion?				
	"	29	Ki eP 21 54 19			P	E 7.3 7
			Sk iP 21 54 50.6			P	N 1.1 7
			Um iP 21 54 14.3			P	Z 11 7
			i 21 54 25.1			P	Z' 3.3 2.0
			Ud iP 21 54 39.0			PP	E 4.8 7
			Tien-Shan.			PP	Z 7.2 8
						S	E 11 11
						S	N 2.7 9
	"	29	Up iP 22 03 55.5 C			M	E 49 15
			i 22 04 01.5			M	N 97 20
			Sk iP 22 04 36.6			M	Z 61 17
			Um iP 22 04 32.5				D = 6400 km = 57 1/2°.
			i 22 04 34.6			Sk	iP 04 32 18.9 D
			Ud iP 22 04 02.1				iPP 04 34 36.8
			Greece.			Um	iP 04 31 54.2 D
							i 04 31 58.0
	"	29	Um iP 22 29 12.3				iPP 04 34 04
							iS 04 39 44
	"	30	Up iP 02 17 37.8			Ka	iP 04 32 19.7
			Ki iP 02 16 59.3				i 04 32 23.5
			ipP 02 17 19.0				i 04 32 54.0
			Sk iP 02 17 32.5			Ud	iP 04 32 19.9 D
			Um iP 02 17 16.0				i 04 32 23.8
			ipP 02 17 34.4				Szechwan, China (h = 5 km).
			iPcP 02 17 40.9				Magn. = 7.0 (Up, Ki). Multiple
			Ud iP 02 17 45.0				P: in average 3.7 sec between
			Japan. h = 70 km (Ki, Um)				the first small and the
							second larger onset.
	"	30	Up iP 04 32 07.7 D		"	30	Up iP 05 07 44.5
			i 04 32 10.8				i 05 07 48.5
			iPP 04 34 21				micr sec
			iPa 04 35 37				P Z' 0.1 0.5
			iS 04 40 14			Ki	iP 05 07 28.3
			micr sec			Sk	iP 05 07 56.1
			P E 2.4 4			Um	iP 05 07 31.6
			P N 1.8 7				i 05 07 37.0
			P Z 7.3 4			Ka	iP 05 07 57.0
			P Z' 0.8 0.7			Ud	iP 05 07 58.3
			PP E 1.9 7				Szechwan, China (h = 30 km).
			PP Z 3.9 7			"	30
			S E 5.5 10			Ki	eP 05 33 38
			S N 4.3 11				i 05 33 40.5
			M E 45 19			"	30
			M N 95 19			Up	iP 08 21 04.0
			M Z 80 19			Ki	iP 08 20 26.0 C
			D = 6650 km = 60°.			Sk	iP 08 20 58.7
			Ki iP 04 31 51.1 D			Um	iP 08 20 42.5
			i 04 31 55.0			Ud	iP 08 21 11.3
			iPP 04 34 02				Japan (h = 80 km).
			(cont.)				

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Ka = Karlskrona, Ud = Uddeholm

1967						1967						
Aug.	30	Ud	iP	10 28 49.5		Aug.	30	(cont.)				
"	30	Up	iP	11 18 51.2				Up		micr	sec	
			iPa	11 21 56.8				P	Z'	0.3	0.9	
			iS	11 27 05				M	E	2.0	18	
								M	N	4.0	22	
				micr	sec			M	Z	4.3	19	
			P	Z'	0.1 0.6			Ki	iP	13 43 38.7	C	
			M	E	1.3 14				i(S)	13 52 09		
			M	N	1.8 18				i(ScS)	13 53 43		
			M	Z	1.8 14					micr	sec	
			D = 6600 km = 59 1/2°.					P	N	0.3	6	
		Ki	iP	11 18 36.5	C			P	Z	0.5	6	
			ePP	11 20 40				P	Z'	0.4	1.0	
			iS	11 26 31				(S)	E	0.4	10	
				micr	sec			M	E	5.4	24	
			P	Z	0.4 5			M	N	2.8	18	
			P	Z'	0.1 1.5			M	Z	9.5	20	
			S	E	0.6 9			Sk	iP	13 44 13.8		
			S	N	0.5 9				iPcP	13 44 44.9		
			M	E	2.7 13			Um	iP	13 44 00.1		
			M	N	4.0 20				iPcP	13 44 36.1		
			M	Z	3.4 13				iPa	13 47 54		
			D = 6400 km = 57 1/2°.						iS	13 52 34		
		Sk	iP	11 19 03.1					eSS	13 57 00		
			i	11 19 07.6				Ka	iP	13 44 47.3		
		Um	iP	11 18 39.2				Ud	iP	13 44 31.0	C	
			i	11 19 50.5				Kurile Islands (h = 30 km).				
			iPP	11 20 47				Magn. = 6.0 (Up,Ki).				
			iS	11 26 33				"	30	Up	iP	13 45 47.9
		Ka	iP	11 19 05.1						Sk	iP	13 45 35.5
		Ud	iP	11 19 05.8						Um	iP	13 45 22.7
		Szechwan, China (h = 30 km).								Ud	iP	13 45 53.7
		Magn. = 5.7 (Up,Ki).								Kurile Islands. Origin		
										time = 13 34 49.		
"	30	Up	iPKP	12 15 16.1								
				micr	sec							
			PKP	Z'	0.1 0.5		"	30	Ki	eP	15 53 11	
		Ki	iPKP	12 14 55.0						i	15 54 54.7	
		Sk	iPKP	12 15 10.3								
			i	12 15 12.8			"	30	Um	iP	16 56 27.8	
		Um	iPKP	12 15 04.9	D							
		Ka	iPKP	12 15 24.9			"	30	Ki	i(Sg)	17 15 36.2	
			i	12 15 36.2								
		Ud	iPKP	12 15 18.4			"	30	Ki	iSg	17 48 31.1	
			i	12 15 24.4					Sk	eSg	17 48 35	
		Kermadec Islands								i	17 48 40.6	
		(h = 160 km).							Um	iSn	17 48 45.2	
										iSg	17 48 58.8	
									Nordlands Fylke, Norway.			
"	30	Up	iP	13 44 25.8	C							
			iPcP	13 44 52.8								
			iScS	13 54 20		"	30	Um	iP	18 25 20.0		
		(cont.)										

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967					1967			
Aug.	30	Up	iP	20 14 31.4	Aug.	31	(cont.)	
		Ki	iP	20 13 44.7			Um	iPKP 19 12 06.5
		Um	iP	20 14 05.9 D				iX 19 12 28.7
		Ud	iP	20 14 36.6				iSKP 19 15 12.3
		Kurile Islands (h = 30 km).					Ud	e(PKP) 19 12 03
								iPKP 19 12 15.4
"	30	Um	iP	20 43 42.0				iSKP 19 15 25.5
		Japan (h = 40 km).					Tonga Islands (h = 280 km).	
"	30	Ud	iP	23 13 17.7				
"	30	Um	iP	23 30 00.4				
"	31	Ud	eP	05 25 14				Markus Båth
			i	05 25 26.9				February 2, 1968
"	31	Um	iP	07 01 33.3				
			i	07 01 40.5				
"	31	Up	iLg1	13 40 02.4				
		Sk	iLg1	13 40 44.7				
		Um	iLg1	13 41 44.0				
		Ka <i>KS</i>	eSg	13 39 47				
			i	13 39 51.8				
		Ud	iPg	13 38 38.4				
			iSg	13 39 13.6				
				D = 300 km = 2.7°				
		Skagerrak, 58.1°N, 9.8°E.						
		Origin time = 13 37 45.						
"	31	Ki	iP	13 50 34.5				
		Um	iP	13 50 41.4				
		Ud	iP	13 51 03.9				
		Luzon (h = 100 km).						
"	31	Um	iP	15 18 45.4				
"	31	Ki	iP	15 28 47.3				
		Mariana Islands (h = 590 km).						
"	31	Um	iP	18 40 42.4				
		Ud	iP	18 40 58.5				
		Volcano Islands (h = 80 km).						
"	31	Ki	iPKP	19 11 59.7				
			iX	19 12 22.2				
			iSKP	19 14 58.5				
		Sk	e(PKP)	19 11 57				
			iPKP	19 12 09.2				
			iSKP	19 15 17.3				
		(cont.)						



26 FEB 1968

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

SEPTEMBER 1 - 30, 1967

1967					1967				
Sep.	1	Ud	eP	01 16 47	Sep.	1	Ud	eP	14 05 20
"	1	Um	iP	02 03 40.1				i	14 05 39.8
"	1	Ki	iP	03 01 37.8	"	1	Ud	iP	17 41 48.4
		Sk	iP	03 01 22.8				Aleutian Islands	
		Um	i(pP)	03 02 21.7				(h = 30 km).	
				Colombia (h = 150 km).	"	1	Up	iP	22 52 44.4
"	1	Ud	iP	03 30 09.7				ipP	22 53 11.7
"	1	Ud	iP	03 46 18.0				iS	23 01 30
"	1	Ki	iPKP	03 49 17.0				P Z' 0.1 0.5	
		Sk	iPKP	03 49 27.2				D = 7350 km = 66°.	
		Um	iPKP	03 49 21.3			Ki	iP	22 51 58.8
		Ud	iPKP	03 49 31.4				i	22 52 10.3
				New Guinea (h = 180 km).				iX	22 53 23.4
"	1	Up	iSg	05 47 11.9				eScS	23 01 26
				micr sec				micr sec	
		Sg	Z'	0.1 0.7			P	Z'	0.1 1.0
		Ud	eSg	05 47 55			M	E	0.8 19
				Probably blast near			M	N	0.4 17
				Uppsala.			Sk	iP	22 52 34.7 C
"	1	Sk	ePKP	07 25 54				i	22 52 54.1
		Um	iPKP	07 25 49.2			Um	iP	22 52 19.7
		Ud	iPKP	07 26 01.9				iX	22 53 52.5
		i		07 26 20.1				iS	23 00 42
				South of Kermadec Islands				iScS	23 01 58
				(h = 30 km).			Ud	iP	22 52 50.5
									Kurile Islands.
									h = 110 km (Up).
									Magn. = 6.0 (Up,Ki).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967

Sep. 1 Up ePKP 23 58 42
Sk ePKP 23 58 37
Um iPKP 23 58 31.5
Ud iPKP 23 58 43.9
South of Kermadec Islands
(h = 25 km).

" 2 Ka recorded altogether about 101 stronger explosions in the south Baltic area in the daytime of Sep. 2, 4-6, 8, 10-11. Several of these were also recorded at Up and Ud. Compare remarks on July 22 and Aug. 1, 1967.

" 2 Up iPKP 01 43 58.0
i 01 44 11.1
Ki ePKP 01 43 40
Sk iPKP 01 43 55.0
Um iPKP 01 43 50.6
Ud iPKP 01 44 02.1
South of Kermadec Islands
(h = 130 km).

" 2 Up i(S) 03 53 20.6
Ki iP 03 48 43.2
i 03 48 54.6
i(S) 03 50 49.4
Sk iP 03 48 48.9
i 03 48 50.9
iS 03 50 47.5
Um eP 03 49 27
i(S) 03 52 08.8
Ud eP 03 49 37
i(S) 03 52 45.7
Jan Mayen (h = 30 km).
The phases marked (S) are too late compared to S by varying amounts; the delay seems to increase with epicentral distance, and there is almost better agreement with SS.

" 2 Ki R iPn 04 41 13.3
iP^x 04 41 21.4
iSn 04 41 59.7
~~iLg1 04 42 12.1~~
~~D = 430 km = 3.9°~~
Sk A eSn 04 44 06
iSg 04 45 02.2
(cont.)

1967

Sep. 2 (cont.)
Um E iSg 04 43 48.9
Northwest Russia, 69.1°N,
30.6°E. Origin time =
04 40 11. Explosion?

" 2 Up iPKP 05 56 54.7
i 05 56 58.2
PKP Z' 0.1 0.8
Ki ePKP 05 56 38
Sk iPKP 05 56 48.2 D
Um iPKP 05 56 42.4
Ud iPKP 05 56 53.8
i 05 56 56.6
Kermadec Islands
(h = 310 km).

" 2 Sk iPKP 07 16 37.8
Um iPKP 07 16 25.7
i 07 16 37.8
Ud iPKP 07 16 41.3
South of Kermadec Islands
(h = 100 km).

" 2 Ki iP 08 09 13.2
iPP 08 10 27.1
Sk eP 08 09 18
iPP 08 10 38.2
Ud eP 08 09 00
Iran (h = 30 km).

" 2 Ki iP 08 28 38.0 C
" 3 Ki iP 00 29 22.2
Formosa (h = 50 km).

" 3 Ud iP 04 57 22.7
Japan (h = 170 km).

" 3 Sk iP 07 51 50.8 C
Ud iP 07 51 12.8
Greece (h = 50 km).

" 3 Ki eP 09 25 59
Sk iP 09 25 17.7
Ud iP 09 24 46.6
Greece (h = 40 km).

" 3 Up iP 11 40 48.4
ipP 11 41 07.4
Ki iP 11 39 51.5
ipP 11 40 11.0
(cont.)

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Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Sep.	3	(cont.)		Sep.	3	(cont.)	
		Sk	eP	11	40	23	
		Um	ipP	11	40	40.2	
		Ud	iP	11	40	46.8	
		Alaska. h = 80 km (Up,Ki).					
"	3	Ki	iPn	13	57	37.1	
			iSn	13	58	26.0	
			iLg1	13	58	37.4	
		D = 460 km = 4.1°					
		Possibly northwest Russia.					
		Origin time = 13 56 30.					
		Explosion?					
"	3	Sk	iP	14	44	57.1	
		Colombia (h = 190 km).					
"	3	Up	iP	21	21	20.1	
			i	21	21	28.1	
			iX	21	25	16.6	
			ipP	21	25	35	
			iSKS	21	32	07	
				micr		sec	
		P	E	0.5		4	
		P	Z	1.6		5	
		P	Z'	0.1		1.0	
		PP	E	1.7		7	
		PP	Z	4.7		8	
		SKS	E	4.1		13	
		M	E	24		23	
		M	N	20		22	
		M	Z	53		23	
		Ki	iP	21	21	28.1	
			i	21	21	31.9	
			iX	21	24	35.8	
			i	21	24	53	
			ipP	21	25	44	
			iSKS	21	32	15	
			iPKKP	21	37	23.1	
				micr		sec	
		P	E	1.5		13	
		P	Z'	0.1		1.1	
		PP	E	6.0		8	
		PP	N	1.6		7	
		SKS	E	9.2		15	
		M	E	30		21	
		M	N	13		22	
		Sk	iP	21	21	17.5	C
			i	21	22	08.8	
			iX	21	24	31.3	
			iPKKP	21	37	32.9	
		Um	iP	21	21	31.5	
			iX	21	25	13.0	
		(cont.)					
		Um	ipP	21	25	42	
			iSKS	21	32	15	
			iS	21	33	11	
			i	21	34	52.3	
		Ka	eP	21	21	19	
			i	21	24	05.7	
		Ud	iP	21	21	18.1	
			ipP	21	25	21.5	
		Peru (h = 40 km).					
		Magn. = 6.9 (Up,Ki).					
		X is an unidentified phase,					
		which precedes PP. See re-					
		mark on Aug. 26, 1967,					
		00 50, concerning another					
		observation of probably					
		the same phenomenon.					
"	4	Um	iPKP	01	00	41.7	C
			i	01	00	57.8	
		Ud	ePKP	01	00	54	
		Kermadec Islands					
		(h = 30 km).					
"	4	Up	iPKP	01	02	01.7	
		Sk	iPKP	01	01	51.6	
		Um	iPKP	01	01	45.0	
		Ud	iPKP	01	02	03.9	
		Kermadec Islands. Origin					
		time = 00 42.2.					
"	4	Ki	eP	03	30	39	
		Sk	eP	03	30	12	
		Ud	iP	03	29	56.7	
		Atlantic Ocean					
		(h = 30 km).					
"	4	Up	iPKP	04	11	19.0	
			i	04	11	24.9	
			ipPKP	04	12	20.7	
				micr		sec	
				PKP	Z'	0.4	0.8
		Ki	iPKP	04	10	56.3	
			i	04	11	01.8	
			ipPKP	04	12	01.4	
			iSKP	04	14	16.2	
			ipPP	04	15	02.7	
				micr		sec	
				PKP	Z'	0.1	1.1
		Sk	iPKP	04	11	11.1	C
			i	04	11	13.1	
			ipPKP	04	12	12.5	
			iSKP	04	14	29.2	
		(cont.)					

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1967				1967			
Sep.	4	(cont.)		Sep.	5	(cont.)	
		Um	iPKP 04 11 07.5 C			Um	iSg 12 56 53.7
			ipPKP 04 12 07.0			Northern Esthonia or Gulf of Finland. Probably explosion.	
			iSKP 04 14 24.2				
			ipPP 04 15 22.0				
			iSS 04 32 53				
		Ka	iPKP 04 11 28.3 C	"	5	Ki	iSg 17 44 28.7
			i 04 11 41.3			Sk	eSg 17 44 31
			ipPKP 04 12 27.2			Probably Nordlands Fylke, Norway.	
		Ud	iPKP 04 11 20.4				
			i 04 11 27.9				
			ipPKP 04 12 21.1			"	6
			ipPP 04 15 54.5			Up	iP 01 53 48.3
		Kermadec Islands.					i 01 53 58.2
		h = 240 km (Up, Ki, Sk, Um, Ka, Ud).					i 01 54 05.7
"	4	Ud	eP 04 21 45			Ki	eP 01 53 44
"	4	Um	iP 07 29 37.4				i 01 53 54.0
"	4	Up	iP 16 33 16.9			Sk	iP 01 54 03.0
"	4	Ka	i(P) 16 34 10.9				i 01 54 14.8
"	4	Sk	eP 17 59 57			Um	iP 01 53 41.7
		Japan (h = 25 km).					i 01 53 51.1
"	4	Up	iP 19 06 25.4			Ka	iP 01 53 55.1
"	4	Sk	iP 19 07 05.7				i 01 54 05.6
"	4	Ud	iP 19 06 32.6			Ud	iP 01 54 01.7
		Ionian Islands.					i 01 54 10.9
"	4	Up	iP 19 40 12.8	"	6	Sk	iP 02 08 57.9
			i 19 40 22.9			Um	i(P) 02 08 40.6
		Ki	iP 19 39 18.8	"	6	Up	iP 03 30 08.4
		Sk	eP 19 39 56				micr sec
		Um	iP 19 39 44.3 C				P Z' 0.2 1.3
		Ka	iP 19 40 37.4			Ki	iP 03 29 19.9 C
		Ud	iP 19 40 16.6 C			Sk	iP 03 29 56.2
			ipP 19 40 54.1			Um	iP 03 29 42.6 C
		Kamchatka, h = 160 km (Ud).					i 03 29 46.2
"	4	Ka	iP 20 11 23.8				ipP 03 29 53.4
"	5	Ki	iP 08 37 23.7			Ud	iP 03 30 13.6
			micr sec			Kurile Islands.	
		M	E 0.7 12			h = 40 km (Um).	
		Ud	iP 08 36 29.0	"	6	Up	iP 05 04 45.6
		Turkey (h = 25 km).					i 05 04 48.4
"	5	Ki	eSg 12 58 53				iS 05 09 07.4
"	5	Sk	eSg 12 58 14				micr sec
		(cont.)					S N 1.3 13
							M E 1.0 20
						(cont.)	

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1967				1967			
Sep.	6	(cont.)		Sep.	6	(cont.)	
		Up	micr sec			Ka	iP 07 41 28.3
		M	N 0.9 17				ipP 07 41 38.9
		M	Z 1.3 17			Ud	iP 07 41 34.5 D
		D = 2800 km = 25°					ipP 07 41 45.8
		Ki	iP 05 05 55.0				i 07 43 45.3
			i 05 05 58.6			Andaman Islands. h = 40 km	
			micr sec			(Up, Ki, Sk, Um, Ka, Ud).	
		M	E 1.0 12			Magn. = 5.8 (Up, Ki). (P)	
		M	N 0.4 12			at Up and Ki are small-	
		M	Z 0.9 13			amplitude phases.	
		Sk	iP 05 05 24.0				
			i 05 05 26.5	"	6	Ki	eP 08 12 07
		Um	iP 05 05 23.0			Um	iP 08 12 24.5
			iS 05 10 04			Ud	iP 08 12 52.2
		Ka	iP 05 04 10.3			Japan (h = 70 km).	
			i 05 04 13.9				
			iS 05 08 05.9	"	6	Ud	iP 09 36 28.8
		Ud	iP 05 04 51.8			Aleutian Islands	
			i 05 04 55.2			(h = 40 km).	
		Crete (h = 30 km).					
		Multiple P: in average 3.2		"	6	Up	iP 14 59 48.1
		sec between the first small					
		and the second larger onset.		"	6	Up	iP 17 35 36.0
"	6	Up	i(P) 07 41 18.4			Ki	iP 17 34 42.6 C
			iP 07 41 22.5				micr sec
			ipP 07 41 33.5				P Z' 0.1 0.9
			micr sec			Sk	iP 17 35 12.7 C
		P	Z' 0.3 0.7			Um	iP 17 35 09.6 C
		M	E 1.3 17				ipP 17 35 20.8
		M	N 2.6 21			Ud	iP 17 35 35.0 C
		M	Z 1.5 19			Aleutian Islands.	
		Ki	iP 07 41 21.2			h = 40 km (Um).	
			ipP 07 41 32.5	"	7	Sk	eP 00 37 29
			e 07 50 11			Um	eP 00 37 32
			eS 07 50 28			Ka	iP 00 36 06.2
			micr sec			Ud	iP 00 36 53.1
		P	Z' 0.1 1.0			Albania (h = 30 km).	
		S	N 0.4 9				
		M	E 3.0 20	"	7	Ki	iP 02 11 44.1
		M	N 1.6 22			Gulf of California	
		M	Z 4.4 20			(h = 10 km).	
		D = 7800 km = 70°					
		Sk	e(P) 07 41 37	"	7	Ud	iP 06 18 38.0
			iP 07 41 39.8				
			ipP 07 41 49.9	"	7	Up	iP 07 25 32.3
		Um	iP 07 41 17.5 D				i 07 28 21.2
			ipP 07 41 29.5				iSKS 07 35 36
			e 07 50 10				iS 07 36 15
			iS 07 50 20				micr sec
		(cont.)				S	N 0.6 3
						M	N 1.6 16
						(cont.)	

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1967						1967						
Sep.	7	(cont.)				Sep.	7	(cont.)				
		Ki	iP	07 25 17.0				Ka	iPKP	09 54 05.8		
			epP	07 26 21					i	09 54 12.8		
			i	07 26 27.2				Ud	iPKP	09 53 57.0		
			epPP	07 30 08					i	09 54 05.0		
			iSKS	07 35 20				Kermadec Islands				
			iS	07 35 51				(h = 25 km).				
			ipS	07 37 09		"	7	Up	iPKP	11 27 09.7 D		
			isS	07 37 37					i	11 27 16.7		
				micr sec					ipPKP2	11 29 10.3		
		P	Z'	0.3 1.7						micr sec		
		SKS	E	2.0 6					PKP	Z' 0.2 0.5		
		SKS	N	0.7 4				Ki	iPKP	11 26 48.3		
		S	E	1.6 7					ipPKP	11 28 36.7		
		S	N	0.6 6				Sk	iPKP	11 27 04.3		
		M	E	1.4 17					ipPKP	11 28 53.6		
		M	N	0.8 17					isPKP	11 29 44.9		
		M	Z	2.0 18				Um	iPKP	11 26 59.3 D		
				(D = 10200 km = 92°).					i	11 29 20.4		
		Sk	iP	07 25 37.9 C				Ka	iPKP	11 27 19.3		
			iSKS	07 35 48.5					i	11 27 31.4		
		Um	iP	07 25 21.5				Ud	iPKP	11 27 11.9 D		
			ipP	07 26 26.5					i	11 27 19.7		
			iSKS	07 35 25				Kermadec Islands.				
			iS	07 35 59				h = 470 km (Ki,Sk).				
			iSP	07 37 20				"	7	Sk	iPg	11 49 37.6
		Ud	iP	07 25 40.5 C						iSg	11 49 45.2	
			i	07 26 00.9						iRg	11 49 49.9	
			ipP	07 26 53.5							D = 70 km = 0.6°.	
		Celebes Sea. h = 280 km									Origin time = 11 49 26.	
		(Ki,Um,Ud). Magn. = 6.3									Possibly blast.	
		(Up,Ki).										
"	7	Up	iPKP	08 19 13.8		"	7	Ka	iP	13 00 46.6		
		Sk	e(PKP)	08 18 58								
		Um	i(PKP)	08 18 52.5		"	7	Ud	iP	13 56 40.9 D		
			iPKP	08 19 02.9								
			i	08 19 15.0								
		Ud	i(PKP)	08 19 07.0		"	7	Sk	iPg	14 04 39.5		
			iPKP	08 19 15.6					iSg	14 04 46.8		
		Kermadec Islands							iRg	14 04 50.6		
		(h = 40 km).								D = 70 km = 0.6°.		
										Origin time = 14 04 28.		
"	7	Up	iPKP	09 53 54.4						Possibly blast.		
			i	09 54 03.7								
				micr sec		"	7	Um	iP	14 13 09.4		
			PKP	Z' 0.2 0.7					i	14 13 49.6		
		Ki	ePKP	09 53 35								
		Sk	iPKP	09 53 48.5 C		"	7	Up	eP	14 14 02		
			i	09 53 58.2				Ki	---			
		Um	iPKP	09 53 43.5 C				(cont.)				
			i	09 53 51.5								
		(cont.)										

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1967				1967			
Sep.	7	(cont.)		Sep.	8	(cont.)	
		Ki	micr sec			Ka	iP 02 08 32.8 C
		M	E 0.4 14			iPP	02 08 47.5
		M	N 0.4 13			Ud	iP 02 09 18.9
		M	Z 0.8 14			i	02 09 22.0
		Sk	iP 14 14 29.3			Greece-Albania (h = 30 km).	
		Um	iP 14 14 38.5				
		Ka	iP 14 13 22.4	"	8	Um	iP 03 50 06.3
		Ud	eP 14 13 55			Banda Sea (h = 110 km).	
		Sicily (h = 50 km).					
"	7	Ki	iP 16 04 35.3	"	8	Ud	iP 05 17 01.9
		Aleutian Islands (h = 40 km).				Dodecanese Islands.	
"	8	Up	iP 00 33 35.3				
		P	Z' 0.1 0.5				
		Ki	iP 00 33 42.6	"	8	Ki	iP 05 31 19.0
		Sk	iP 00 34 00.4			Um	iP 05 31 06.8
		Gb	iP 00 33 57.2			Ka	iP 05 31 14.8
		Um	iP 00 33 33.0 C			Ud	iP 05 31 26.6
		Ka	iP 00 33 41.1 C			Pamir (h = 15 km).	
		Ud	iP 00 33 52.2 C				
			ipP 00 34 20.0				
		Hindu Kush. h = 130 km (Ud).					
"	8	Um	iP 02 05 38.6				
		i	02 05 45.9	"	8	Sk	eSg 11 50 41
		Ud	iP 02 04 59.9			Um	iSg 11 49 19.7
		Greece-Albania.				Probably northern Esthonia or Gulf of Finland.	
"	8	Up	iP 02 09 13.8 C			Explosion?	
		i	02 09 26.7	"	8	Ki	iP 12 50 37.9
		iS	02 12 55			Arctic Ocean (h = 30 km).	
			micr sec				
		M	E 1.3 17	"	8	Ki	iPg 13 54 06.3 C
		M	N 0.6 12			iSg	13 54 23.6
		M	Z 0.7 12			iRg	13 54 29.7
		D = 2150 km = 19 1/2°.				D = 140 km = 1.3°.	
		Ki	eP 02 10 32			Um	iSg 13 55 26.6
			micr sec			Probably Swedish Lapland.	
		M	E 1.6 15			Origin time = 13 53 40.	
		M	N 0.3 10			Explosion?	
		M	Z 0.8 14	"	8	Up	iP 15 53 20.2
		Sk	eP 02 09 56			i	15 53 24.8
		Gb	eP 02 08 59	"	8	Up	iP 20 25 44.0
			iPP 02 09 16.9			i	20 25 47.6
		Um	iP 02 09 55.1 C	"	8	Up	iP 20 25 44.0
		i	02 10 00.4			i	20 25 47.6
		iPcP	02 13 54			micr sec	
		iS	02 14 06.5			P	Z' 0.1 0.7
		(cont.)					

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1967									1967										
Sep.	8	Up	iP	22 04	17.1				Sep.	9	Um	iP	06 28	06.8					
		Ki	iP	22 03	23.9	C													
		Ud	iP	22 04	17.6														
				Aleutian Islands (h = 250 km).							"	9	Up	iP	08 50	28.7			
													Ki	iP	08 50	00.6			
"	8	Up	iP	22 50	59.6							Um	iP	08 50	13.6	C			
			iX	22 54	38									Mariana Islands (h = 240 km).					
			eSKS	23 01	29														
				micr sec															
			SKS	E	0.7	9					"	9	Up	eP	09 03	24			
			SKS	N	0.8	10							Ki	iP	09 03	57.5			
			M	E	1.8	19							Um	iP	09 03	38.0			
			M	N	3.1	19							Ud	eP	09 03	39			
			M	Z	3.4	21													
		Ki	iP	22 50	34.8						"	9	Up	iP	10 20	07			
			i	22 50	43.9									iPKP	10 24	08.3			
			iSKS	23 00	56									iPP	10 24	44.1			
				micr sec										ipPP	10 26	35.9			
			P	E	0.3	8								i	10 27	21.6			
			P	Z	1.1	5								iSKS	10 29	49			
			P	Z'	0.2	1.1								iS	10 31	25			
			SKS	E	1.3	13								iPKKP	10 35	18.4			
			SKS	N	0.7	11								i	10 35	32.6			
			M	E	3.0	19									micr sec				
			M	N	1.3	17								P	Z	0.5	5		
			M	Z	6.3	20								PP	Z	0.7	6		
		Sk	iP	22 50	59.5									PP	Z'	0.2	1.5		
		Gb	iP	22 51	15.3									S	N	0.7	7		
		Um	iP	22 50	43.6									(D = 12200 km = 110°).					
			i	22 50	49.1							Ki	iP	10 20	26				
			i	22 50	54.5									iPKP	10 24	16.0			
			iX	22 54	04									iPP	10 25	07			
			iPP	22 54	30									iS	10 32	01			
			iSKS	23 01	14									iSP	10 33	52			
		Ud	iP	22 51	06.5									ipS	10 35	01			
				Caroline Islands (h = 25 km). Magn. = 6.0 (Up,Ki). X is an unidenti- fied phase, preceding PP. Cf similar remark to Sep. 3, 21 21.										iPKKP	10 35	15.9			
				micr sec										PKP	Z'	0.1	1.0		
														PP	E	1.2	7		
														PP	N	0.6	7		
														PP	Z	2.2	8		
														PP	Z'	0.2	1.2		
														S	N	1.0	7		
"	9	Up	iP	04 37	30.9	C								M	E	2.6	20		
			i	04 37	42.0									M	N	2.4	22		
														M	Z	4.4	20		
				(D = 12650 km = 114°).															
"	9	Ki	iPn	05 01	22.9									Sk	eP	10 20	10		
			iSn	05 02	11.7										iPKP	10 24	08.0		
			iLg1	05 02	24.8										iPP	10 24	39.7		
				D = 460 km = 4.1°.											Gb	iP	10 19	55.1	
		Um	iSg	05 03	55.8										iPKP	10 23	52.9		
				Probably northwest Russia. Origin time = 05 00 17. Explosion?															

(cont.)

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1967				1967			
Sep.	9	(cont.)		Sep.	9	(cont.)	
		Um	iP 10 20 19 D			Up	micr sec
			iPKP 10 24 13.5			M E	1.4 19
			isP 10 23 25			M N	2.3 19
			iPP 10 24 57.0			M Z	2.4 19
			i 10 25 40.5		Ki	eP	14 56 51
			isPP 10 27 58			iPP	15 00 38
			i 10 28 26.5			eSKS	15 07 24
			iSKS 10 30 02				micr sec
			iS 10 31 48			P Z'	0.1 1.8
			iSP 10 33 33			PP Z	0.6 10
			iPKKP 10 35 20.9			SKS E	0.5 8
			i 10 35 30.8			SKS N	0.4 9
		Ud	iP 10 20 03.2			M E	2.5 21
			iPKP 10 24 04.0			M N	1.0 17
			iPP 10 24 33.4			M Z	3.2 20
			iPKKP 10 35 40.3		Um	iP	14 57 02.3
			Argentina (h = 580 km).			i	14 57 11.5
			Magn. = 6.4 (Up,Ki).			iPP	15 00 46
						iSKS	15 07 40
"	9	Up	iP 10 37 29.1			iPS	15 09 17
			i 10 37 37.2		Ud	eP	14 57 18
		Um	iP 10 37 25.9			Caroline Islands	
			i 10 37 47.6			(h = 30 km). Magn. = 5.8	
		Ud	iP 10 37 44.9			(Up,Ki).	
"	9	Ki	ePn 13 34 06	"	9	Up	iPKP2 17 13 00
			iSn 13 34 50.9			i	17 22 48
			eLg1 13 35 05				micr sec
			D = 410 km = 3.7°			M E	2.8 21
		Sk	eSg 13 37 29			M N	4.1 20
		Um	iSn 13 35 32.0			M Z	7.1 20
			iSg 13 36 03.0		Ki	ePKP2	17 12 51
			Russia-Finland border			eSS	17 36 52
			region, 67.5° N, 30.0° E.				micr sec
			Origin time = 13 33 06.			M E	4.1 20
			Explosion?			M N	1.3 20
"	9	Up	iSg 13 39 40.9			M Z	6.4 21
		Ki	iLg1 13 36 38.9		Sk	ePKP2	17 12 53
		Sk	iSg 13 39 01.7		Um	iPKP	17 12 04
		Um	iSn 13 37 03.8			i	17 12 19.5
			iSg 13 37 32.4			iPKP2	17 13 17.0
			Russia-Finland border			i	17 16 15
			region, 67.5° N, 30.0° E.			iPPS	17 30 28
			Origin time = 13 34 38.			iSS	17 37 14
			Explosion?			South Pacific Ocean	
"	9	Ud	iP 14 54 25.4			(h = 30 km).	
"	9	Up	iSKS 15 08 00			Magn. = 6.3 (Up,Ki).	
			i 15 08 11	"	9	Um	iP 17 27 39.0 C
			iSS 15 15 05	"	9	Ki	iPn 18 38 42.0
		(cont.)				iSn	18 39 28.7
						(cont.)	

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1967				1967			
Sep.	11	Up	iPKP	10 13 41.1	Sep.	11	(cont.)
			i	10 13 47.7			Um iP 20 06 38.3 C
			i	10 13 49.6			Ud iP 20 06 24.7 C
		Sk	iPKP	10 13 36.6			Red Sea (h = 30 km).
			i	10 13 50.6			
		Um	iPKP	10 13 32.2 C	"	11	Up i(S) 23 49 07.2
		Ud	iPKP	10 13 43.9			Ki iP 23 44 41.7 C
		South of Kermadec Islands					micr sec
		(h = 40 km).					P Z' 0.1 1.0
							M E 0.3 13
"	11	Sk	ePKP	10 33 51			M N 0.2 15
		Um	iPKP	10 33 46.0		Sk	iP 23 44 46.9
		New Hebrides Islands					iS 23 46 37.8
		(h = 30 km).				Um	iP 23 45 15.2
							iS 23 47 27.7
"	11	Up	iP	11 53 38.6			i 23 47 55.8
"	11	Um	iP	12 31 03.8		Ud	iP 23 45 34.1
							iS 23 48 13.7
"	11	Up	iP	13 02 15.9		Jan Mayen (h = 30 km).	
			i	13 02 20.8	"	12	Up iP 00 36 04.3
		Ki	eP	13 01 49			iS 00 46 26
			i	13 01 54.3			D = 9500 km = 85 1/2°.
			eLg2	13 18 08		Ki	-----
				micr sec			micr sec
			P	Z' 0.1 1.2			M E 0.6 20
			M	E 0.8 14			M N 0.4 17
			M	Z 0.9 11			M Z 0.9 17
		Sk	iP	13 02 23.3		Sk	eP 00 36 11
			i	13 02 28.4		Gb	iP 00 35 47.3
		Um	iP	13 01 56.9 C		Um	iP 00 36 23.1 C
			i	13 02 01.7			iS 00 47 14
			eS	13 08 42		Ud	iP 00 35 59.3
			eSS	13 12 07		South Atlantic Ocean	
			eLg1	13 17 29		(h = 30 km).	
		Ka	eP	13 02 34	"	12	Um iP 02 09 46.3
			i	13 02 38.6	"	12	Up iP 02 54 34.9 D
		Ud	eP	13 02 29			micr sec
			i	13 02 33.9			P Z' 0.1 0.8
		Mongolia (h = 30 km).				Ki	iP 02 53 47.9
		Multiple P: average 4.9					iPcP 02 54 29.2
		sec between the first					micr sec
		small and the second					M E 0.7 17
		larger onset.					M N 0.4 17
"	11	Ki	ePKP	15 57 11			M Z 1.0 18
		Um	iPKP	15 57 20.2		Sk	iP 02 54 24.7
		New Zealand (h = 60 km).					iPcP 02 54 52.5
"	11	Up	iP	16 32 18.5 C		Gb	iP 02 54 56.3
"	11	Ki	iP	20 07 07.2 C		Um	iP 02 54 09.4 D
		Sk	iP	20 06 50.5			iPcP 02 54 43.5
		(cont.)				Ka	iP 02 54 57.2
						(cont.)	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967				
Sep.	12	(cont.)		Sep.	12	Up	iP	14 51 21.7
		Ka	i 02 55 09.1			Ki	iP	14 52 38.0 C
		Ud	iP 02 54 40.7			Um	iP	14 52 04.7
		Kurile Islands (h = 25 km).					iS	14 56 27
"	12	Sk	eP 08 26 04			Ud	iP	14 51 28.9
							i	14 51 32.5
						Greece (h = 15 km).		
"	12	Sk	iP 09 09 44.8	"	12	Up	iSg	18 07 54.6
								micr sec
"	12	Ki	iP 11 23 17.5 C				Sg	Z' 0.1 0.5
			micr sec			Probably near blast.		
			P Z' 0.1 1.2	"	12	Up	iPP	22 09 24
		Sk	iP 11 22 45.0					micr sec
			i 11 22 54.3			M	E	0.9 19
		Um	iP 11 22 57.3			M	N	2.1 21
		Ud	iP 11 22 27.2			M	Z	2.9 22
		Ascension Island (h = 30 km).				Ki		---
								micr sec
"	12	Up	P iSg 12 05 59.2			M	E	2.0 19
"		Gb	iPg 12 04 26.3			M	N	1.2 22
"		GOT	i 12 04 31.4			M	Z	4.2 21
		KLS	iSg 12 04 35.0			Sk	ePKP	22 08 25
		Ka	eSg 12 05 49			Um	iPKP	22 08 18.2
		Ud	iPn 12 04 45.0				iPP	22 09 06
			eSg 12 05 13				iSKS	22 15 12
		Southwest Sweden, 58.4° N, 12.2° E.					iPS	22 18 34
		Origin time = 12 04 13.				Ud	ePKP	22 08 28
						New Britain (h = 50 km). Magn. = 5.9 (Up, Ki).		
"	12	Up	iP 12 55 37.7	"	13	Up	iP	05 32 36.9
		Ki	iP 12 55 57.9			Um	iP	05 32 30.1
"	12	Up	iSg 14 37 04.2				i	05 32 50.3
			i(Rg) 14 37 30.2			Ud	iP	05 32 49.6
		Sk	eSg 14 39 14				i	05 33 13.7
			i 14 39 40.9	"	13	Um	iP	09 02 43.8 C
		Ka	iSg 14 38 23.1	"	13	Up	i(Sg)	15 11 29.7
		Ud	iSg 14 38 11.5			Sk	e(Pg)	15 09 03
		Baltic Sea, at the entrance to the Gulf of Finland. Origin time = 14 35 48. Probably underwater explosion.					iSg	15 09 23.2
"	12	Up	iSg 14 38 59.0	"	13	Ud	eP	16 43 02
			i(Rg) 14 39 21.8				i	16 44 06.7
		Ud	iSg 14 40 04.6	"	13	Gb	e(P)	17 07 47
		Baltic Sea, probably same location as for the pre- vious event. Origin time = 14 37 41. Probably under- water explosion.				Ka	i(P)	17 07 26.8
"	13	Up	eP 18 20 36	"	13	Up	eP	18 20 36
			i 18 20 38.8				i	18 20 38.8
		Ud	iP 18 20 50.3			Ud	iP	18 20 50.3

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967			1967							
Sep.	13	Up	iP	18 51 58.6 C	Sep.	14	Um	iPKP	01 04 02.1	
				micr sec			Ud	ePKP	01 04 14	
			P	Z' 0.4 1.0			South of Kermadec Islands.			
			M	E 0.9 19			Origin time = 00 44 25.			
			M	N 1.1 18						
			M	Z 1.2 19		"	14	Up	iPKP	02 04 01.3
		Ki	iP	18 51 05.2 C				i	02 04 04.9	
			i	18 51 31.4			Sk	ePKP	02 03 54	
				micr sec			Um	iPKP	02 03 49.1	
			P	Z' 0.3 1.0			Ud	iPKP	02 04 02.5	
			M	E 1.6 21			Kermadec Islands			
			M	N 1.8 21			(h = 340 km).			
			M	Z 3.5 21						
		Sk	iP	18 51 39.5		"	14	Um	iP	07 57 10.5
			i	18 52 28.7				i	07 57 17.6	
		Gb	iP	18 52 17.1 C			Ud	iP	07 57 23.1	
		Um	iP	18 51 31.2 C		"	14	Ki	---	
			i	18 51 47.8					micr sec	
			iPcP	18 52 11.9				M	E 1.1 17	
		Ka	iP	18 52 22.7 C				M	N 1.1 18	
		Ud	iP	18 52 00.2 C			Um	iP	10 49 38.1	
			i	18 52 11.6			Ud	eP	10 50 08	
			iPP	18 54 32.1						
		Aleutian Islands				"	14	Ki	iP	13 38 52.6
		(h = 30 km).					Ud	iP	13 39 06.5	
		Magn. = 5.9 (Up,Ki).					Pamir.			
"	13	Up	iPKP	20 16 21.7		"	14	Up	iSg	14 11 38.2
		Ki	iPKP	20 16 36.4			Ud	i	14 11 07.5	
			ipPKP	20 17 08.5				iSg	14 11 11.5	
				micr sec						
			PKP	Z' 0.2 1.2		"	14	Up	iP	14 37 39.4
		Sk	iPKP	20 16 26.2			Sk	eP	14 38 13	
		Um	iPKP	20 16 29.7			Um	i(P)	14 38 35.7	
		Ud	iPKP	20 16 20.0				iRg	14 50 17	
			iPKKP	20 26 27.0			Ka	iP	14 37 03.6	
		South Sandwich Islands.						i	14 37 10.7	
		h = 120 km (Ki).					Ud	iP	14 37 40.7	
"	13	Ud	iP	21 59 05.7				i	14 37 50.9	
							Greece (h = 100 km).			
"	13	Up	iPn	23 10 29.8		"	14	Up	iP	14 57 25.4
			iSn	23 11 27.8			Ki	iP	14 57 54.8	
			iLg1	23 11 44.4			Sk	iP	14 57 58.3	
				D = 530 km = 4.8°.				i	14 58 09.4	
		Origin time = 23 09 14.					Ud	iP	14 57 40.2	
"	14	Up	iPKP	01 01 28.5			Iran (h = 30 km).			
		Sk	iPKP	01 01 24.1		"	14	Ki	iPKP	15 53 56.8
		Um	iPKP	01 01 18.2			Sk	ePKP	15 54 07	
			i	01 01 26.9			Um	iPKP	15 54 03.5	
		Ud	iPKP	01 01 30.1			New Hebrides Islands			
		South of Kermadec Islands					(h = 140 km).			
		(h = 40 km).								

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1967				1967					
Sep.	14	Ki	iSg	16 18 35.4	Sep.	15	Up	iP	08 15 27.6
		Sk	iSg	16 18 40.3				i	08 15 48.2
		Um	iSg	16 19 03.3					micr sec
			i	16 19 09.0				P	Z' 0.2 0.5
		Nordlands Fylke, Norway.					Ki	iP	08 14 56.1 D
									micr sec
"	14	Up	iP	19 03 31.5				P	Z' 0.1 0.7
		Sk	eP	19 04 10			Sk	iP	08 15 24.6 D
		Gb	iP	19 03 21.2			Gb	iP	08 15 45.6
		Um	iP	19 04 15.9			Um	iP	08 15 09.5
		Ka	iP	19 02 54.7			Ka	iP	08 15 44.1
		Ud	iP	19 03 37.3			Ud	iP	08 15 34.7 D
			i	19 03 46.6			Bonin Islands (h = 440 km).		
		Greece.					Magn. = 5.8 (Up,Ki).		
"	14	Up	iP	21 05 11.2	"	15	Up	iP	10 42 42.5
"	14	Ki	iP	22 39 15.1				ipP	10 42 47.6
"	15	Up	iP	00 40 08.4				i	10 43 20.0
			iPP	00 42 52.8					micr sec
			iS	00 49 34				P	Z' 0.4 0.8
				micr sec				M	E 3.1 14
			P	Z' 0.1 1.0				M	N 2.7 15
			M	E 1.2 16				M	Z 6.1 14
			M	N 1.4 17			Ki	iP	10 42 36.1 C
			M	Z 1.9 23				ipP	10 42 41.8
			D = 8100 km = 73°					iPP	10 44 44.4
								eLg2	11 04 08
		Ki	iP	00 39 30.5					micr sec
			iS	00 48 23				P	Z' 0.4 1.3
			iSS	00 53 03				PP	Z' 0.1 1.3
				micr sec				M	E 9.4 14
			P	Z' 0.1 1.0				M	N 1.5 14
			S	E 0.7 8				M	Z 11 14
			S	N 0.6 8			Sk	iP	10 42 58.8 C
			M	E 1.5 16				ipP	10 43 04.2
			M	N 1.7 20				i	10 43 14.6
			M	Z 3.8 20				iPcP	10 43 47.1
			D = 7450 km = 67°				Gb	iP	10 43 03.0 C
		Sk	iP	00 40 03.4				ipP	10 43 08.4
			ipP	00 40 17.1			Um	iP	10 42 34.5 C
		Gb	iP	00 40 28.7				ipP	10 42 40.0
		Um	iP	00 39 47.1				iS	10 50 23
			i	00 39 54.9				iSS	10 54 24
			ipP	00 40 01.4			Ka	iP	10 42 51.0 C
			iS	00 48 53				ipP	10 42 56.7
			i	00 52 55			Ud	iP	10 42 56.1 C
			iSS	00 53 35				ipP	10 43 02.1
		Ka	iP	00 40 27.7			Bhutan. h = 20 km (Up,Ki, Sk,Gb,Um,Ka,Ud).		
		Ud	iP	00 40 15.9 C			Magn. = 6.1 (Up,Ki).		
			i	00 40 22.9					
		Japan. h = 50 km (Sk,Um).			"	15	Up	iP	13 47 06.6
		Magn. = 5.9 (Up,Ki).							

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1967				1967				
Sep.	15	Up	iP	14	56	15.9	Sep. 16 (cont.)	
"	15	Ki ^R	iPg	17	10	16.9	Ki iP 04 10 34.8 C	
			iSg	17	10	32.2	iPcP 04 13 19.0	
		Sk ^A	iSg	17	12	11.6	micr sec	
		Um ^E	iSg	17	11	33.6	P Z' 0.2 0.5	
			i	17	11	37.4	Sk iP 04 11 06.4 C	
		Swedish Lapland, 66.8° N, 19.0° E. Origin time = 17 09 52. Explosion?						iPP 04 12 28.0
							Gb iP 04 11 19.9	
							iPn 04 12 37.8	
							Um iP 04 10 35.4 C	
							iPP 04 11 49.8	
"	15	Sk	iP	22	11	21.9	Ka iP 04 11 06.4	
		Um	iP	22	11	10.5	Ud iP 04 11 07.0 C	
		Ud	iP	22	10	57.1	Kazakh SSR. Magn. = 6.0 (Up,Ki). Underground explosion.	
"	15	Um	iP	22	33	31.5		
"	16	Up	iP	00	09	11.4	" 16 Ki iPn 05 30 16.9	
			ipP	00	09	21.6	iSn 05 31 05.5	
							iLg1 05 31 21.9	
			P	Z'	0.1	1.0	D = 460 km = 4.1°	
		Ki	iP	00	08	48.0	Um iSg 05 32 51.9	
			ipP	00	08	57.7	i 05 32 58.9	
							Probably northwest Russia. Origin time = 05 29 12. Explosion?	
			P	Z'	0.1	1.0		
			M	E	0.6	15		
			M	Z	1.0	16		
		Sk	iP	00	09	15.4	" 16 Up iP 06 26 27.9	
		Gb	iP	00	09	32.1	" 16 Up iP 08 42 51.5	
			ipP	00	09	41.5	ipP 08 43 05.5	
		Um	iP	00	08	56.3	micr sec	
			ipP	00	09	05.5	M N 1.1 21	
		Ud	iP	00	09	21.6	M Z 1.0 20	
			ipP	00	09	31.1	Ki iP 08 41 59.8	
		Formosa. h = 35 km (Up,Ki, Gb,Um,Ud). Magn. = 5.7 (Up,Ki).						ipP 08 42 16.5
							Um iP 08 42 28.5	
							ipP 08 42 39.5	
"	16	Up	iP	03	54	45.7	Ud iP 08 42 50.5	
		Ki	iP	03	54	30.2	Aleutian Islands. h = 50 km (Up,Ki,Um).	
			ePS	04	07	25		
			M	E	0.8	18	" 16 Um iP 10 31 53.1	
		Um	iP	03	54	34.4	i 10 31 59.5	
			ipP	03	54	50.3		
			iPS	04	07	39	" 16 Ud iP 10 49 02.2	
		Ud	iP	03	54	54.1	" 16 Um iP 11 05 10.1	
		Ceram Sea. h = 60 km (Um).						Ud e(P) 11 05 32
"	16	Up	iP	04	10	50.5 C	" 16 Ki iPcP 15 30 05.7 C	
			iPn	04	11	50.5	Sk ePKP 15 30 16	
							Um iPcP 15 30 11.3	
			P	Z'	0.1	0.5	i 15 30 16.8	
		(cont.)						New Hebrides Islands (h = 70 km).

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1967				1967				
Sep.	16	Up	iP	16 02 34.1 D	Sep.	17	(cont.)	
"	16	Sk	iP	18 37 35.0		Ud	eP 08 08 45	
		Um	iP	18 37 50.3			ipP 08 08 56.1	
		South of Panama (h = 30 km).				Mexico. h = 50 km (Up, Ki, Sk, Um).		
"	16	Um	iPKP	19 30 59.2	"	17	Up	iP 09 59 04.0
			i	19 31 15.6			Um	iP 09 58 43.6
		Solomon Islands (h = 30 km).						ipP 09 58 55.8
"	16	Up	iPKP	23 50 29.0			Ud	iP 09 59 11.5
			i	23 50 35.8				ipP 09 59 23.6
		Sk	ePKP	23 50 24			Japan. h = 45 km (Um, Ud).	
		Um	iPKP	23 50 18.8 D	"	17	Ka	iP 10 30 21.0
		Ud	iPKP	23 50 31.5	"	17	Ki	iP 10 58 35.5
			i	23 50 38.4				i 10 59 16.3
		Kermadec Islands (h = 380 km).					Um	iP 10 58 46.0
								i 10 59 32.2
"	17	Up	iP	01 21 26.3	"	17	Up	iP 18 17 15.6
			i	01 21 40.6				
		Ki	eP	01 20 51	"	17	Sk	iP 19 29 27.5
			i	01 20 58.1			Um	iP 19 29 44.8
		Um	iP	01 21 07.7 C			Panama-Colombia (h = 30 km).	
		Ud	iP	01 21 30.0	"	18	Up	eP 02 11 27
			i	01 21 48.6				i 02 11 31.5
		Bonin Islands (h = 30 km).					Ki	iP 02 12 18.2
"	17	Um	iP	04 01 24.9				i 02 12 21.9
"	17	Up	iP	08 08 57.6			Sk	iP 02 12 02.4
			ipP	08 09 11.2				i 02 12 05.4
			iSKS	08 19 17			Um	iP 02 11 51.0
				micr sec				i 02 11 53.7
			pP	Z' 0.1 0.5			Ud	iP 02 11 36.7
		Ki	iP	08 08 44.3			Ethiopia (h = 30 km).	
			ipP	08 08 58.1			Multiple P: the two phases are of about equal ampli- tude.	
			iPP	08 12 05.6				
			eS	08 19 00				
				micr sec	"	18	Ki	iP 07 07 16.6
		M	E	0.8 19			Um	iP 07 07 30.4
		M	Z	1.0 20			Gulf of California (h = 30 km).	
		D = 9150 km = 82 1/2°.						
		Sk	iP	08 08 38.5	"	18	Up	iP 08 34 07.7
			ipP	08 08 52.1				i 08 34 13.3
			iPP	08 11 57.9			Ki	iP 08 34 17.7 C
		Gb	iP	08 08 49.9			Sk	iP 08 34 37.1
		Um	iP	08 08 53.8			Um	eP 08 34 07
			ipP	08 09 07.1			Ka	iP 08 34 12.6
			i	08 09 23.4			Ud	iP 08 34 24.8
			iPP	08 12 20.9			Hindu Kush (h = 140 km).	
			iS	08 19 14				
		(cont.)						

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1967				1967			
Sep.	18	Up	iP	09 45 49.9	Sep.	19	(cont.)
"	18	Up	iPP	15 52 38		Um	iPKP 01 04 42.9
				micr sec		Ka	iPKP 01 04 56.9
		M	E	0.5 19		Ud	iPKP 01 04 47.3
		M	N	1.1 21		Tonga-Kermadec Islands.	
		M	Z	1.6 20		h = 140 km (Gb).	
		Ki	eP	15 47 25	"	19	Up iP 03 40 21.1
			i	15 52 33.6		Ki	eP 03 39 41
				micr sec			micr sec
		M	E	1.2 18			M E 0.4 16
		M	N	1.1 23		Sk	eP 03 40 15
		M	Z	2.5 20		Um	iP 03 39 58.8 C
		Sk	i	15 52 17.8		Ud	iP 03 40 27.8
			iPP	15 52 38.0			ipP 03 40 40.8
		Um	iPP	15 52 07		Japan. h = 50 km (Ud).	
			iPS	16 01 27		"	19 Up iP 11 07 04.8 C
		Ud	i	15 52 18.6			ipP 11 07 28.0
			iPP	15 52 47.6			iS 11 15 56
		New Guinea (h = 40 km).					iP'P' 11 35 11
"	18	Up	iP	16 12 19.8			i 11 35 37
			i	16 12 27.7			micr sec
		Ka	i(P)	16 12 56.2		P	N 2.0 3
"	18	Sk	iP	19 09 48.9		P	Z 4.4 3
			ipP	19 09 57.3		P	Z' 0.5 0.8
		Um	iP	19 10 04.8		S	E 2.8 6
			ipP	19 10 13.2		S	N 4.1 7
		Ud	iP	19 09 54.2		P'P'	Z 0.6 4
			ipP	19 10 04.7		M	E 3.3 15
		South of Panama.				M	N 5.7 19
		h = 30 km (Sk, Um, Ud).				M	Z 5.7 18
"	18	Up	iP	20 49 23.1 D		Ki	iP 11 06 20.7 C
		Gb	iP	20 50 41.4			ipP 11 06 43.7
"	18	Up	eP	23 44 11			iS 11 14 37
		Ki	iP	23 45 18.7			iP'P' 11 35 33.1
		Sk	eP	23 44 58			micr sec
		Gb	iP	23 44 12.0		P	E 1.6 7
		Um	iP	23 44 44.9		P	N 1.6 6
		Ka	iP	23 43 40.0		P	Z 4.8 7
		Ud	iP	23 44 26.7		P	Z' 2.0 1.5
		Turkey (h = 30 km).				S	E 7.0 9
"	19	Up	iPKP	01 04 45.2		S	N 5.2 9
				micr sec		S	Z 3.2 8
			PKP	0.1 0.9		M	E 3.0 16
		Sk	iPKP	01 04 39.5		M	N 2.5 15
		Gb	iPKP	01 04 54.8		M	Z 6.8 17
			ipPKP	01 05 32.3		D = 6900 km = 62°.	
		(cont.)			Sk	iP 11 06 55.2 C	
						i 11 07 12.8	
						isP 11 07 34.1	
						iPP 11 09 21.7	
					(cont.)		

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Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Sep.	22	(cont.)		Sep.	22	(cont.)	
		Sk	iPn	05	12	08.9	
			iPP	05	12	27.6	
		Um	iP	05	10	34.8 C	
			iPP	05	11	47.6	
		Ka	eP	05	11	06	
		Ud	iP	05	11	06.5 C	
			iPn	05	12	16.1	
			iPP	05	12	28.3	
		Kazakh SSR. Magn. = 6.0 (Up,Ki). Underground explosion.					
"	22	Up	iP	08	18	55.1	
						micr sec	
			P	Z'	0.1	0.6	
		Ki	iP	08	19	38.0	
			i	08	19	44.3	
			iS	08	29	11	
						micr sec	
			P	Z'	0.2	1.5	
			S	E	0.3	7	
			M	E	0.5	19	
			M	N	0.4	17	
			M	Z	0.8	16	
						D = 8200 km = 74°	
		Sk	iP	08	19	04.7 C	
		Gb	iP	08	18	33.5	
		Um	iP	08	19	19.5 C	
			iS	08	28	37	
		Ud	iP	08	18	48.0	
		Atlantic Ocean (h = 30 km). Magn. = 5.9 (Up,Ki).					
"	22	Up	iP	10	28	57.9	
			eS	10	37	53	
						micr sec	
			P	Z'	0.2	0.6	
			M	E	3.2	19	
			M	N	12	19	
			M	Z	11	20	
						D = 7550 km = 68°	
		Ki	iP	10	28	09.8 C	
			ipP	10	28	26.3	
			i	10	28	42.0	
			iPa	10	32	01	
			iS	10	36	28	
			iScS	10	37	58	
						micr sec	
			P	E	0.3	7	
			P	N	0.5	7	
			P	Z	1.0	7	
			P	Z'	0.1	1.0	
			S	E	1.6	15	
		(cont.)					
		Ki				micr sec	
			S	N	0.3	10	
			S	Z	1.0	14	
			M	E	13	20	
			M	N	4.8	22	
			M	Z	17	23	
						D = 6700 km = 60 1/2°	
		Sk	iP	10	28	47.0	
			ipP	10	29	06.3	
		Gb	iP	10	29	19.5	
		Um	iP	10	28	32.5 C	
			i	10	29	27.9	
			iS	10	37	07	
		Ka	iP	10	29	20.9	
			i	10	29	25.4	
		Ud	iP	10	29	03.0 C	
		Kurile Islands. h = 70 km (Ki,Sk). Magn. = 6.1 (Up,Ki).					
"	22	Ud	iP	11	30	28.2	
			ipP	11	30	43.2	
		Kurile Islands. h = 60 km (Ud).					
"	22	Ki	eSg	11	52	36	
		Sk	eSg	11	51	53	
		Um	iSg	11	50	39.6	
		Ud	eSg	11	51	09	
		Southwest Finland. Probably explosion.					
"	22	Up	iP	12	45	51.8	
						micr sec	
			P	Z'	0.1	0.5	
		Ki	iP	12	45	04.2	
		Sk	iP	12	45	40.6	
		Um	iP	12	45	24.0	
		Ud	iP	12	45	56.4	
		Kurile Islands (h = 50 km).					
"	22	Um	iP	13	14	16.0	
			i	13	14	29.6	
"	22	Um	iP	15	14	23.7	
		Ud	i(P)	15	14	32.8	
"	22	Up	iP	19	53	12.5	
"	22	Up	iP	20	18	55.8	
		Ki	iP	20	18	41.3	
		Sk	iP	20	19	07.2	
		Um	iP	20	18	41.7	
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967					1967				
Sep.	22	(cont.)			Sep.	23	(cont.)		
		Ud	iP	20 19 07.0			Sk	ePKP2	07 22 37
		Tibet (h = 30 km).					Um	ePKP	07 21 53
"	22	Up	iP	20 41 28.7				iPKP2	07 22 22.9
"	22	Ud	iP	22 16 16.4				iPP	07 25 55
		Kurile Islands (h = 30 km).					Ud	iPKP2	07 22 41.5
"	22	Up	iP	22 19 22.7		"	23	Ki	iSKP
			i	22 19 39.1				Sk	ePKP
			i	22 19 53.7					iSKP
		Ki	iP	22 19 31.5				Gb	iPKP
		Sk	iP	22 19 48.2				Fiji Islands (h = 600 km).	
		Um	iP	22 19 21.0		"	23	Ki	iP
		Ud	iP	22 19 39.9				Aleutian Islands (h = 50 km).	
		Hindu Kush (h = 130 km).				"	23	Up	iPKP
"	23	Up	iP	00 37 42.3				Sk	iPKP
"	23	Up	iP	03 31 43.8				Gb	iPKP
				micr sec				Um	iPKP
		P	Z'	0.1 0.7				Ud	iPKP
"	23	Ki	iPn	04 42 52.5					ipPKP
			iSn	04 43 56.4				Kermadec Islands. h = 380 km (Ud).	
			iLg1	04 44 10.9		"	24	Up	iP
			iSg	04 44 28.5				Ki	iP
		Possibly northwest Russia. Explosion?							ipP
"	23	Ki	iPKP	07 14 49.1				Um	iP
			iSKP	07 17 24.1				Ud	iP
				micr sec					ipP
			SKP	Z' 0.1 1.0				North of Halmahera. h = 40 km (Ki,Ud).	
		Sk	iPKP	07 14 51.9 C		"	24	Up	iPKP
			iSKP	07 17 41.0					micr sec
		Gb	iPKP	07 15 08.7					PKP
		Um	iPKP	07 14 50.7					Z' 0.1 0.6
			i	07 14 58.5				Ki	iPKP
			iSKP	07 17 35.2				Sk	iPKP
		Ka	iPKP	07 15 09.7				Gb	iPKP
		Ud	iPKP	07 15 00.2				Um	iPKP
			iSKP	07 17 47.8				Ud	iPKP
		Fiji Islands (h = 600 km).						Kermadec Islands (h = 90 km).	
"	23	Ki	iPKP	07 22 02.7		"	24	Sk	eP
			i	07 22 15.6				Halmahera (h = 230 km).	
				micr sec		"	24	Up	iP
			PKP	Z' 0.2 2.0				Ki	iP
		(cont.)						(cont.)	

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1967				1967						
Sep.	24	(cont.)		Sep.	25	Sk	eSg	11 13 03		
		Um	iP				i	11 13 11.1		
		Ud	iP			Um	iSg	11 11 43.5		
			i			Ud	iSg	11 12 13.4		
		Bonin Islands (h = 30 km).				Southwest Finland. Probably explosion.				
"	24	Up	iP	"	25	Um	i(P)	12 18 42.0		
		Ki	iP			Ud	iP	12 19 18.2		
		Sk	iP			"	25	Ki	iP	13 16 11.4
			i			Ud	iP	13 16 35.9		
		Um	iP			Talaud Islands (h = 80 km).				
		Ka	iP			"	25	Up	iP	17 17 08.4
			i			Ki	iP	17 16 52.4		
		Ud	iP					micr sec		
			i				P	Z' 0.1 1.0		
		Albania (h = 15 km).				Sk	iP	17 17 13.8		
"	25	Um	e			Um	iP	17 16 57.5		
			i(Sg)			Ud	iP	17 17 16.6		
						Talaud Islands (h = 120 km).				
"	25	Ki	eP			"	25	Um	iP	17 59 51.4
		Sk	eP			South of Japan (h = 30 km).				
		Um	iP			"	25	Ki	iP	19 54 41.1
		Ud	iP			Um	iP	19 55 11.2 C		
			i			Alaska (h = 70 km).				
		Mindanao (h = 30 km).				"	26	Up	iP	05 09 50.4
"	25	Ki	iP			Sk	iP	05 10 37.3		
		Sk	iP			Um	iP	05 10 33.3		
		Um	iP				i	05 10 43.8		
		Ud	iP			Ka	iP	05 09 10.9		
							i	05 09 14.3		
		Leeward Islands (h = 30 km).				Ud	eP	05 09 56		
"	25	Ki	iP				i	05 10 00.9		
		Sk	iP			Yugoslavia (h = 40 km).				
		Um	iP			"	26	Up	iP	06 57 48.4
		Ud	iP					iPcP	06 58 16.7	
		Leeward Islands (h = 50 km).				Ki	iP	06 57 00.9		
"	25	Up	iP					iPcP	06 57 43.9	
		Ki	iP					micr sec		
							P	Z' 0.1 1.0		
						Sk	iP	06 57 37.4		
		Sk	iP			Um	iP	06 57 22.2		
		Um	iP				i	06 57 29.6		
		Ud	iP				iPcP	06 58 00.1		
		Mariana Islands (h = 250 km).				(cont.)				

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1967				1967			
Sep.	26	(cont.)		Sep.	26	(cont.)	
			Um i 06 58 06.6				Ka ePKP 16 29 56
			Ud iP 06 57 53.9				ePKKP 16 40 45
			iPoP 06 58 20.5				Ud iPKKP 16 40 47.1
			Kurile Islands				Chile (h = 60 km).
			(h = 140 km).				
"	26	Ud	eP 07 16 03	"	26	Gb	eP 17 01 13
"	26	Ud	eP 07 17 56	"	26	Up	iPKP 17 24 32.6 C
			i 07 18 16.4				iPKKP 17 34 50.5
							PKP Z' 0.1 0.5
"	26	Um	iP 07 29 53.1			Sk	iPKP 17 24 31.3 C
		Ud	eP 07 29 28			Gb	iPKP 17 24 40.1
			i 07 30 09.3			Um	iPKP 17 24 25.9
"	26	Um	e(P) 07 33 32			Ka	iPKP 17 24 39.0 C
		Ud	iP 07 33 58.2			Ud	iPKP 17 24 35.0 C
			e 07 34 29				Solomon Islands
							(h = 90 km).
"	26	Ud	iP 09 14 18.6	"	26	Ki	iSg 17 41 46.2
						Sk	iSg 17 41 50.3
"	26	Um	iPKP 11 30 05.3			Um	iSg 17 42 13.7
			ipPKP 11 30 28.1				Nordlands Fylke, Norway.
		Ud	iPKP 11 29 56.1	"	26	Up	i(P) 21 36 30.2
			Chile-Argentina.	"	27	Um	iP 00 36 13.9
			h = 80 km (Um).			Ud	iP 00 36 43.1
"	26	Ki	iP 15 04 07.0				Aleutian Islands
		Um	iP 15 04 23.9				(h = 30 km).
			Japan (h = 50 km).	"	27	Up	iP 07 30 02.3
"	26	Up	iP 16 15 51.0			Ki	iP 07 31 09.8
"	26	Up	iPP 16 31 03.6				PKP Z' 0.1 1.0
			eS 16 38 39			Sk	iP 07 30 42.3
			iPKKP 16 40 40.0				i 07 30 46.7
			micr sec			Um	iP 07 30 35.6
		M	E 2.9 19				i 07 30 44.1
		M	N 3.2 20				i 07 31 10.4
		M	Z 5.5 19			Ka	eP 07 29 32
		Ki	iPKP 16 30 13.7			Ud	iP 07 30 10.8
			iSKS 16 36 55				Crete (h = 20 km).
			iPS 16 41 10	"	27	Up	i(P) 15 08 20.0
			micr sec	"	27	Up	iPg 15 16 43.2
		M	E 3.3 20				iSg 15 16 58.5
		M	N 0.8 20				i 15 17 10.5
		M	Z 6.3 22				PKP Z' 0.1 0.5
		Gb	e(PP) 16 30 34			Sk	eSg 15 19 18
			iPKKP 16 40 56.3			Um	iSg 15 19 00.1
		Um	iPKP 16 30 03.4				(cont.)
			iPP 16 31 16				
			iS 16 38 59				
			iPS 16 40 53				
			iSS 16 47 23				
			(cont.)				

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1967								1967		
Sep.	27	(cont.)				Sep.	28	Ki	iP	03 02 49.6
		Ka	iPn	15 17 04.2				California (h = 2 km).		
			iSg	15 17 51.0						
		Ud	iPg	15 17 11.6		"	28	Up	iP	03 11 26.7
			iSg	15 17 46.0					i	03 11 44.9
		Baltic Sea. Origin time =						Ki	iP	03 10 32.2
		15 16 12. Probably ex-						Sk	iP	03 11 03.6
		plosion.							iPcP	03 11 31.6
									i	03 16 34.5
"	27	Up	iP	17 11 48.5 C				Um	iP	03 10 59.7
				micr sec				Ud	eP	03 11 25
			P	Z' 0.3 1.2				Aleutian Islands		
		Ki	iP	17 11 14.5 C				(h = 50 km).		
				micr sec						
			P	Z' 0.4 1.5		"	28	Up	iPKP	05 15 37.1
		Sk	iP	17 11 22.5 C					i	05 15 42.2
		Gb	iP	17 11 48.4 C					iPP	05 16 43
		Um	iP	17 11 34.0 C						micr sec
		Ka	iP	17 12 02.0 C					PP	Z 1.5 7
		Ud	iP	17 11 40.8 C					M	E 2.6 22
		Nevada. Origin time =							M	N 3.2 22
		17 00 00. Magn. = 6.3 (Up,							M	Z 4.0 24
		Ki). Underground explosion.					Ki	eP		05 11 25
								iPKP		05 15 26.3
"	27	Up	iPg	19 20 34.5				i		05 15 51.9
			iSg	19 20 48.3						micr sec
		Sk	eSg	19 23 02					M	E 4.1 20
		Ka	iPn	19 21 13.1					M	N 2.4 22
			iSg	19 21 58.2					M	Z 6.9 23
		Baltic Sea. Probably					Sk	iPKP		05 15 37.4
		explosion.					Gb	iPKP		05 15 45.9
							Um	iPKP		05 15 30.9
"	28	Ka	iP	00 34 16.1				iPP		05 16 23.0
			i(Sg)	00 34 47.9				iSKS		05 22 19
								iSKKS		05 23 20
"	28	Up	eP	03 01 30				iPS		05 25 59
			i	03 01 39.0				Ka	iPKP	05 15 43.6
			i	03 02 24.8				Ud	iPKP	05 15 40.2
			iLg1	03 15 15				iPP		05 16 54.4
				micr sec				New Britain (h = 40 km).		
		M	E	0.9 10				Magn. = 6.4 (Up,Ki).		
		M	N	7.6 18						
		M	Z	1.5 12		"	28	Up	iP	15 55 02.6
		Ki	iP	03 01 22.9						micr sec
				micr sec					M	E 1.6 21
			M	E 2.7 10					M	N 4.3 21
			M	N 7.9 13					M	Z 4.1 21
			M	Z 2.3 10			Ki	iP		15 54 07.8
		Sk	iP	03 01 49.1				i		15 54 26.6
		Um	iP	03 01 29.5				i(S)		16 01 46
			i	03 01 44.6						micr sec
		Ud	eP	03 01 46				(S)	N	1.6 6
			i	03 01 51.1				M	E	3.3 20
		Alma-Ata (h = 30 km).						M	N	3.2 22
								M	Z	3.4 19
								(cont.)		

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1967						1967					
Sep.	28	(cont.)				Sep.	30	Up	iP		09 24 49.7 C
		Sk	eP	15 54 37					i		09 24 54.7
		Gb	iP	15 55 14.5							micr sec
		Um	iP	15 54 36.6 C					P	Z'	0.1 0.5
			iS	16 02 25							
			i	16 04 13		"	30	Up	iP		19 32 45.4 C
		Ka	eP	15 55 21							
		Ud	iP	15 54 59.1 C							
		Alaska (h = 30 km).									
		Magn. = 5.9 (Up,Ki).									
"	29	Up	iP	05 31 41.4						Markus Båth	
			i	05 31 49.2						February 23, 1968	
		Sk	iP	05 31 24.0							
		Gb	iP	05 31 31.9							
		Um	iP	05 31 38.5							
		Ud	iP	05 31 31.9 C							
		Central America (h = 30 km).									
"	29	Um	i(P)	09 44 07.4							
		Ud	eP	09 44 45							
			i	09 44 53.5							
"	29	Ki	iP	11 17 31.8							
"	30	Ud	iP	02 38 43.4							
			i	02 38 54.5							
		Iceland (h = 30 km).									
"	30	Up	iP	08 09 01.7							
				micr sec							
			P	Z' 0.1 0.8							
			M	E 2.4 16							
			M	N 2.7 17							
			M	Z 3.8 15							
		Ki	iP	08 08 31.9							
			i	08 08 50.0							
				micr sec							
			M	E 3.9 15							
			M	N 2.3 14							
			M	Z 6.8 17							
		Sk	iP	08 09 01.5							
		Gb	iP	08 09 22.1							
		Um	iP	08 08 44.4 D							
		Ka	eP	08 09 18							
		Ud	iP	08 09 10.4							
		Ryukyu Islands (h = 30 km).									
		Magn. = 5.9 (Up,Ki).									

Handwritten signatures and initials

11 8 MAR 1968

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

NOTE: Skalstugan: the pendulum clock has been replaced by a quartz clock. Uddeholm: the Grenet seismometer was replaced on Oct. 20, 1967, by a portable Benioff seismometer with variable reluctance ($T_0 = 1.0$ sec, $T_g = 0.7$ sec, $V_{max} = 50'000$). At the same time, the marine chronometer was replaced by a quartz clock.

OCTOBER 1 - 31, 1967

1967					1967			
Oct.	1	Up	eP	06 06 42	Oct.	2	(cont.)	
			i	06 06 49.4		Ki	iPKP	00 30 46.2
		Ki	i(P)	06 07 31.6			i	00 30 57.3
			i	06 07 34.6			iSKP	00 33 30.3
		Ud	iP	06 07 05.5				micr sec
"	1	Ki	e(Sn)	06 44 24		SKP	Z' 0.2	1.6
			i(Lg1)	06 44 46.5		Sk	iPKP	00 30 57.2
							i	00 31 08.0
"	1	Up	iSg	07 02 42.4			iSKP	00 33 47.1
		Ki	ePn	06 58 32		Gb	iPKP	00 31 14.7 D
			iSn	06 59 28.7		Um	iPKP	00 30 51.2
			iLg1	06 59 50.5			i	00 30 59.2
			D = 530 km = 4.8°				iSKP	00 33 41.9
		Sk	eSg	07 02 18		Ka	iPKP	00 31 17.0
		Um	i	07 00 31.3		Fiji Islands (h = 600 km).		
			iSg	07 00 41.0		Multiple PKP: the second phases appearing at Ki, Sk, Um around 10 sec after the first onset are bigger. Clear, large-amplitude SKP at all stations, except at Gb and Ka, where they are absent.		
		Northwest Russia, 67.2°N, 32.8°E. Origin time = 06 57 18. Explosion?						
"	2	Up	iPKP	00 31 04.3				
			iSKP	00 33 53.3				
				micr sec				
			SKP	Z' 0.1				1.0
		(cont.)						

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1967				1967			
Oct.	2	Um	iPKP	11 47 54.0	Oct.	3	(cont.)
				South of Kermadec Islands (h = 30 km).			Ki M E 11 18
							M N 3.6 19
							M Z 17 18
"	2	Up	eP	17 37 31			D = 9550 km = 86°.
		Ki	eP	17 37 29		Sk	eP 18 28 33
			i	17 37 41.4			iX 18 28 56.3
		Ud	iP	17 37 42.0			iPP 18 31 51.1
				Sunda Strait (h = 30 km).		Um	iP 18 28 50.7 C
							i 18 28 55.4
"	2	Up	i(P)	20 59 24.4			i(PP) 18 32 07.2
							iPP 18 32 15
"	3	Up	eL	03 46			iSKS 18 39 15
				micr sec			iS 18 39 25
		M	N	0.9 15		Ud	iP 18 28 40.4
		Ki	eL	03 43			iX 18 28 58.4
				micr sec			Costa Rica (h = 20 km).
		M	E	0.8 16			Magn. = 6.5 (Ki).
		M	Z	1.4 15			
"	3	Ud	iPKP	15 05 07.3	"	3	Sk eP 21 30 43
				Fiji Islands (h = 550 km).			Kodiak Island (h = 40 km).
"	3	Sk	iPKP	16 43 43.8	"	4	Up iP 00 37 44.6
		Um	iPKP	16 43 38.8 C			Ki eP 00 37 34
		Ud	i(PKP)	16 43 52.1	"	4	Ki e(Sn) 04 53 21
			iPKP	16 43 56.9			i(Lg1) 04 53 39.8
				Kermadec Islands (h = 360 km).	"	4	Ki eP 04 58 38
							Ud iP 04 58 11.1
"	3	Ki	iSg	17 36 06.3			Turkey (h = 40 km).
		Sk	iSg	17 36 11.1	"	4	Up iP 10 31 46.1
			i	17 36 19.9			Ki iP 10 31 13.1
		Um	eSg	17 36 34			i 10 31 18.2
				Nordlands Fylke, Norway.			Um iP 10 31 31.9
"	3	Up	iX	18 29 12.0			Ud iP 10 31 37.9
			iS	18 39 20			Utah (h = 20 km).
				micr sec	"	4	Up iPKP 17 40 03.8
		P	Z'	0.1 1.3			iPP 17 41 06.4
		M	E	3.1 20			iPKKP 17 50 27.4
		M	N	4.1 20			i 17 50 32.8
		M	Z	6.1 21			micr sec
		Ki	eP	18 28 41			M E 11 25
			iX	18 29 07.1			M N 15 25
			i(PP)	18 31 52			M Z 25 25
			iPP	18 32 12.3		Ki	ePKP 17 39 56
			iS	18 39 11			i 17 40 26.2
				micr sec			iPP 17 40 34.4
		P	Z	2.1 10			iSKS 17 46 23
		(PP)	E	0.7 10			iPS 17 49 47
		(PP)	Z	2.0 13			i(PKPP) 17 50 52.9
		PP	Z'	0.2 1.7			(cont.)
		S	E	2.9 13			(cont.)
				(cont.)			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
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1967					1967						
Oct.	4	(cont.)			Oct.	5	(cont.)				
		Ki		micr sec			Ki	iP	12 07 01.4		
		M	E	23 23				i	12 07 13.3		
		M	N	13 23					micr sec		
		M	Z	38 23			P	Z'	0.1 1.5		
		Sk	iPKP	17 40 02.2			M	E	1.5 16		
			i	17 40 39.9			M	N	0.6 16		
			ePKKP	17 50 35			M	Z	1.2 16		
			i	17 50 42.2			Sk	iP	12 06 27.2		
		Um	iP	17 36 02				i	12 06 35.1		
			iPKP	17 40 03.6			Gb	iP	12 05 33.3 C		
			iPP	17 40 43.7			Um	iP	12 06 26.9		
			iSKS	17 46 33				iS	12 11 05		
			iPS	17 50 21				iSS	12 12 33		
			iSS	17 56 27			Ka	iP	12 05 10.6 C		
		Ka	iPKP	17 40 15.8			Ud	iP	12 05 53.8		
		Ud	iPKP	17 40 08.3				i	12 06 01.3		
			i(PP)	17 41 08.8			Ionian Sea (h = 15 km).				
			i	17 41 52.5			Magn. = 5.5 (Up, Ki).				
			iPKKP	17 50 24.8							
		New Ireland (h = 50 km).					"	5	Up	i(P)	12 34 01.1
		Magn. = 6.8 (Up, Ki).							Sk	i(P)	12 34 54.6
		The surface waves have a pronounced long-period character.							Ud	i(P)	12 34 16.1
"	4	Ud	iP	21 30 57.6			"	5	Ki	iP	13 23 50.8
"	4	Up	iP	21 52 13.4					Ud	iP	13 23 25.0
		Ki		---					Iran.		
				micr sec			"	5	Up ^P	iPg	14 26 05.5
		M	E	2.3 16					iSg	14 26 26.3	
		M	N	1.0 17				Sk	eLg1	14 28 47	
		M	Z	1.6 16				KaKLS	iPg	14 26 35.7	
		Um	iP	21 51 55.1					iSg	14 27 14.2	
		Iceland (h = 30 km).							Ud ^D	iPg	14 26 31.3
									iSg	14 27 08.9	
"	5	Ki	iP	02 25 14.8				Baltic Sea, 58.5° N, 18.6° E.			
		Sk	iP	02 25 36.6				Origin time = 14 25 36.			
		Mindanao (h = 60 km).						Probably underwater explosion.			
"	5	Sk	iP	09 39 23.5			"	5	Up	iP	16 06 00.2
		Ud	iP	09 39 32.0					Ki	iP	16 05 13.8
"	5	Ud	eP	09 49 36					Ud	iP	16 06 05.4
		Ionian Sea.							i	16 06 08.7	
									i	16 06 26.0	
"	5	Up	iP	12 05 47.4 C				Kurile Islands (h = 30 km).			
			iS	12 09 47			"	5	Sk	iP	17 32 26.7
				micr sec			"	5	Ud	iPKP	18 46 36.8
		P	Z'	0.2 0.6				Tonga Islands (h = 210 km).			
		M	N	2.8 14			"	5	Ki	eP	19 17 02
		M	Z	2.2 14					i	19 17 32.2	
		D = 2500 km = 22 1/2°.						(cont.)			
		(cont.)						(cont.)			

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1967						1967				
Oct.	5	(cont.)				Oct.	6	(cont.)		
		Um	iP	19 17 52.7				Ud	e	11 34 09
		Norwegian Sea (h = 30 km).							iSg	11 34 58.2
"	6	Up	iP	04 11 58.4 C				Lake Ladoga. Origin time = 11 29 55. Explosion?		
				micr sec		"	6	Up	iP	14 26 23.7 C
		Ki	iP	04 12 22.2				Ki	i(P)	14 26 13.4
				micr sec				Um	i(P)	14 26 17.5
				P Z' 0.1 1.0			"	6	Um	iP
		Sk	iP	04 12 21.3 C					i	17 49 57.4
		Gb	iP	04 12 04.4 C						17 50 07.3
		Um	iP	04 12 07.4 C			"	6	Up	i(P)
		Ud	iP	04 12 08.1 C					i	20 13 09.5
				iScS 04 22 41.7						20 13 39.2
		Indian Ocean (h = 30 km).					"	7	Up	iPP
		Magn. = 5.6 (Up, Ki).								01 33 34.6
		On Ki Z' a small-amplitude precursor appears already at 04 12 14.5.								Chile (h = 40 km).
"	6	Up	iP	07 05 19.1		"	7	Um	iPKP	02 57 45.3
				iPn 07 05 25.8				Samoa Islands (h = 30 km).		
				micr sec		"	7	Ud	iP	06 42 07.4
		Ki	iP	07 04 57.8		"	7	Up	iP	08 38 45.9
				iPP 07 05 23.0					ipP	08 38 56.7
				micr sec						micr sec
				P Z' 0.1 0.8					P	Z' 0.1 1.0
		Sk	eP	07 05 34					M	E 0.7 16
				iPn 07 05 44.6					M	N 2.2 18
		Um	iP	07 04 58.3					M	Z 2.2 17
				i(S) 07 09 18.5				Ki	eP	08 37 54
		Ka	iP	07 05 39.2						micr sec
				iPn 07 05 52.7					M	E 0.9 15
		Ud	iP	07 05 34.9					M	N 0.9 16
				iPn 07 05 48.2					M	Z 1.8 17
				e 07 11 26				Sk	iP	08 38 31.8
		Central Russia. Magn. = 5.5 (Up, Ki). Artificial?						Um	iP	08 38 19.4 C
		Clear Pn, corresponding to the homogeneous paths; average group velocity = 8.27 km/sec.							i	08 38 40.6
"	6	Ud	iP	10 23 48.6		"	7	Ud	iP	08 38 50.8
"	6	Ud	iP	10 38 18.2				ipP		08 39 00.6
"	6	Up	iSg	11 33 54.9				Kurile Islands. h = 40 km (Up, Ud). Magn. = 5.5 (Up, Ki).		
		Ki	iSg	11 34 29.5				Up	iP	09 17 37.4
		Sk	eS ^x	11 34 48						micr sec
				iSg 11 35 11.7					M	E 0.8 17
		Um	iSg	11 33 14.4					M	N 1.7 17
		(cont.)							M	Z 1.4 18
								Ki	eP	09 16 47
									ipP	09 16 56.6
										micr sec
									M	E 0.6 15
								(cont.)		

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1967				1967			
Oct.	7	(cont.)		Oct.	8	(cont.)	
		Ki	micr sec			Up	iLg1 05 03 02.2
		M	N 0.6 16			Ki	ePn 04 58 48
		M	Z 1.1 15				iSn 04 59 39.8
		Ud	iP 09 17 41.8				iSg 05 00 01.2
			i 09 19 30.0				D = 490 km = 4.4°
		Kurile Islands. h = 40 km (Ki).				Um	iLg1 05 00 54.8
							iSg 05 01 07.4
						Northwest Russia. Origin time = 04 57 37. Explo- sion?	
"	7	Up	iPg 10 09 55.4				
			iSg 10 10 23.2				
			D = 230 km = 2.1°			"	8
		Ka	iSg 10 10 38.5			Ki	iPn 10 51 13.4
		Ud	iSg 10 11 15.0				iSn 10 52 12.9
		Baltic Sea, near Fårö, Gotland. Explosion?					iSg 10 52 36.8
							D = 560 km = 5.0°
						Probably northwest Russia. Origin time = 10 49 54. Explosion?	
"	7	Up	ePKP 10 51 13			"	8
		Ki	iPKP 10 51 10.3			Up	iP 11 34 26.1
			eSKP 10 53 38			Sk	i(P) 11 35 15.5
		Sk	ePKP 10 51 09				
			i 10 51 21.8			"	8
		Um	iPKP 10 51 12.0			Ki	iPn 13 55 06.4
			i 10 51 18.2				iSn 13 55 52.1
			iSKP 10 53 30.1				iSg 13 56 07.9
		Ud	iPKP 10 51 14.8				D = 420 km = 3.8°
			i 10 51 25.7			Probably northwest Russia. Origin time = 13 54 04. Explosion?	
			iSKP 10 54 07.8				
		Fiji Islands (h = 560 km).				"	8
						Ki	---
"	7	Ki	i(Sn) 14 05 48.6				
			i(Lg1) 14 06 08.4				
							micr sec
"	7	Up	iP 14 47 33.1			M	E 0.8 18
		Ki	iP 14 46 39.9			M	Z 1.3 20
			ipP 14 46 51.5			Sk	iPKP 17 18 20.9
						New Guinea (h = 15 km).	
			micr sec				
		M	E 0.5 14			"	8
		M	Z 0.6 13			Ki	eL 19 00
		Sk	eP 14 47 14				
		Um	iP 14 47 07.0				micr sec
		Ud	iP 14 47 37.2			M	E 1.8 22
		Kamchatka. h = 40 km (Ki).				M	N 1.2 22
						M	Z 2.3 22
						Solomon Islands (h = 70 km).	
"	7	Up	iP 17 41 31.5			"	8
		Sk	iP 17 42 13.7			Up	iP 21 19 57.5
		Ud	iP 17 41 42.0			Ki	eP 21 19 06
		Greece.					ipP 21 19 16.3
						Ud	iP 21 20 03.9
"	7	Ki	iP 21 48 31.5			Kurile Islands. h = 40 km (Ki).	
			i 21 48 52.8				
"	8	Up	i 05 02 56.1			"	8
		(cont.)				Ud	iP 23 25 04.9

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1967				1967			
Oct.	9	Ki iP	04 18 02.1	Oct.	9	(cont.)	
		Halmahera (h = 130 km).				Um i	14 20 43.0
"	9	Ki iPKP	05 14 25.2			Ka iP	14 20 57.6
		Scotia Sea (h = 30 km).				Ud iP	14 20 39.0
"	9	Ki iP	08 37 33.7			Kamchatka (h = 390 km).	
		Ud iP	08 37 00.1	"	9	Up i(PKP)	17 39 55.9
		Atlantic Ocean				iPKP	17 39 57.1
		(h = 30 km).				ipPKP	17 42 33
"	9	Up iP	10 50 05.4			iSKP	17 42 40
		i	10 50 08.5			iPP	17 43 06
		Sk iP	10 50 52.6 C			iPKS	17 43 39
		Ud iP	10 50 16.3			ipPP	17 45 16.6
		i	10 50 19.4			iSKS	17 46 18.4
		Greece.				iSKKP	17 51 16.6
"	9	Ki ^R ePg	13 30 07				micr sec
		iSg	13 30 39.2			PKP Z'	0.7 0.5
		Sk ^A iSg	13 31 47.5			SKP N	6.0 6
		Um ^E iSg	13 30 17.8			SKP Z	25 7
		Ud iLg1	13 32 47.1			PP E	4.4 5
		Northern Gulf of Bothnia,				PKS E	3.1 3
		65.5°N, 22.4°E. Origin				SKS Z'	2.6 2.3
		time = 13 29 17.				SKKP Z'	1.8 1.8
"	9	Up eL	14 20			M E	5.0 20
			micr sec			M N	15 20
		M E	0.9 19			M Z	9.0 20
		M N	1.1 18			Ki iP	17 36 46
		M Z	1.8 19			i(PKP)	17 39 34.4
		Ki eL	14 15			iPKP	17 39 38.0
			micr sec			iX	17 39 50.4
		M E	2.3 22			i(SKP)	17 42 09.4
		M N	1.1 21			iSKP	17 42 15.7
		M Z	1.9 20			iPKS	17 43 16
		Solomon Islands (h = 40 km).				ipPKS	17 45 38
		Magn. = 5.8 (Up,Ki).				iSKS	17 46 00
"	9	Up iP	14 20 33.8 D			isPKS	17 46 46
		iS	14 28 21			i!	17 48 09
			micr sec				micr sec
		P Z'	0.3 1.0			P Z	0.7 9
		S E	0.2 2			PKP N	0.6 6
		S N	0.7 4			PKP Z	6.4 6
		Ki iP	14 19 42.5 D			PKP Z'	3.9 1.8
		i	14 20 10.0			SKP E	7.0 7
			micr sec			SKP N	12 6
		P Z'	0.4 1.2			SKP Z	57 6
		Sk iP	14 20 19.0			SKP Z'	18 1.7
		Gb iP	14 20 55.6 D			PKS E	15 7
		Um iP	14 20 06.6 D			PKS N	14 7
		(cont.)				SKS N	11 7
						M E	6.7 20
						M N	2.5 17
						M Z	4.5 17
						(cont.)	

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1967 Oct. 10 (cont.)				1967 Oct. 11 (cont.)			
Ud	ePn	08 14 12		Ki	iP	16 03 44.9	
	iSn	08 15 43.6			eS	16 13 10	
	eSg	08 16 33				micr sec	
West of Lake Ladoga, 61.4°N, 29.4°E. Origin time = 08 12 15. Explosion?					P	Z' 0.1	1.4
					S	E 0.3	8
					S	N 0.4	11
					M	E 0.8	16
					M	N 0.5	14
					M	Z 0.5	14
						D = 8100 km = 73°.	
"	10	Ki i(P)	08 23 47.3	Sk	iP	16 04 15.6	
		Um i(P)	08 25 38.9	Gb	iP	16 04 38.5	
"	10	Um iP	12 23 53.0	Um	iP	16 04 00.3	D
"	10	Ki iPg	14 37 34.5		ipP	16 04 10.2	
		iSn	14 37 55.3		iS	16 13 41	
		iSg	14 37 58.6	Ka	iP	16 04 37.0	
		D = 200 km = 1.8°.		South of Japan. h = 40 km (Um). Magn. = 6.0 (Up,Ki).			
		Sk eSg	14 39 51				
		Origin time = 14 36 59.		"	11	Up iP	16 37 03.8
"	10	Ki iPg	15 11 49.6			Ki iP	16 36 28.1
		iSn	15 12 10.8			Um iP	16 36 44.1
		iSg	15 12 13.8	South of Japan. (h = 30 km).			
		D = 200 km = 1.8°.		"	11	Up iP	19 31 20.7
		Sk eSg	15 14 02			Gb i(P)	19 31 26.3
		Origin time = 15 11 14.		"	11	Ki iP	20 40 54.4
		Same location as for the preceding event.				Sk iP	20 40 38.1
"	11	Up iP	07 44 58.7	Peru-Brazil. (h = 590 km).			
"	11	Up iP	07 54 01.7	"	11	Sk iP	23 51 26.9
		Ki iP	07 55 09.0	"	11	Up iP	23 55 10.3
		i	07 55 17.6	"	12	Up iP	04 01 19.3
		micr sec				Ki iP	04 00 51.0
		M E 0.4	12	China Sea (h = 230 km).			
		Dodecanese Islands (h = 40 km).		"	12	Up i(PKP)	06 53 15.9
"	11	Sk iPg	09 22 26.8			iPKP	06 53 23.3
		iSg	09 22 28.8			iSKP	06 56 00.4
"	11	Up iSg	12 05 43.1			i	06 56 15
		Ki iSg	12 06 11.0			iPP	06 56 24.4
		Um iSg	12 04 52.1			micr sec	
		Lake Ladoga region. Explosion?				PKP Z'	0.1 0.5
"	11	Up iP	16 04 20.1			SKP Z'	0.3 1.3
		iS	16 14 18			PP Z'	0.4 1.5
		micr sec		Ki	i(PKP)	06 52 56.1	
		P Z' 0.2	1.0		iPKP	06 53 08.8	
		D = 8800 km = 79°.			iSKP	06 55 37.2	
		(cont.)			iPKS	06 56 44.9	
		(cont.)					

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1967					1967				
Oct.	12	(cont.)			Oct.	12	(cont.)		
		Ki		micr sec			Ka	iP	13 03 46.7 D
			PKP	Z' 0.1 1.0				i(PcP)	13 04 08.5
			SKP	Z' 1.9 1.5				i	13 06 09.2
		Sk	e(PKP)	06 53 08			Ud	iP	13 03 28.2 D
			i	06 53 09.6				i	13 03 42.9
			iPKP	06 53 19.1				ipP	13 05 02.5
			iSKP	06 55 53.3				i	13 05 37.8
		Gb	iPKP	06 53 25.5 D				iS	13 11 09.8
			iSKP	06 56 08.6				i	13 11 22.5
			iPP	06 56 36.4			Okhotsk Sea. h = 480 km		
		Um	i(PKP)	06 53 04.0			(Up,Um,Ud).		
			i	06 53 10.5			Magn. = 5.9 (Up,Ki).		
			iPKP	06 53 15.2					
			iSKP	06 55 48.6	"	12	Sk	iP	15 01 15.0
			iPKS	06 56 48					
			ipPKS	06 59 12					
			isPKS	07 00 14	"	12	Up	iP	18 45 49.9
		Ka	iPKP	06 53 28.0 D				i	18 46 20.8
			iSKP	06 56 09.7				iPKP	18 49 58.1
			iPP	06 56 48.1				iPP	18 50 17.5
		Fiji Islands (h = 640 km).						iSKS	18 56 18
		Multiple PKP: compare							micr sec
		remark to Oct. 9, 17 39.						M	E 0.6 16
								M	N 1.2 20
								M	Z 1.8 22
"	12	Up	iP	13 03 23.4 D			Ki	iP	18 45 34.0 C
			iPcP	13 03 56.2				i	18 45 46.5
			ipP	13 05 03.8				iX	18 49 29.7
			iPP	13 05 45.8				iPP	18 49 54.9
			i	13 06 34.0				iSKS	18 55 59
				micr sec				i	18 56 45
			P	Z' 2.0 1.3				ePS	18 59 02
		Ki	iP	13 02 31.9 D					micr sec
			i	13 02 32.9				P	Z' 0.3 1.5
			i	13 03 03.6				PP	Z' 0.5 1.8
			iPP	13 04 36.9				SKS	E 0.8 6
			iS	13 09 38				M	E 1.9 20
				micr sec				M	N 0.5 19
			P	N 0.4 7				M	Z 1.4 19
			P	Z 0.9 5			Sk	iP	18 45 55.7
			P	Z' 1.6 1.2				iPKP	18 50 01.9
			PP	Z' 0.3 1.3			Gb	iPKP	18 50 05.1
			S	E 0.7 6				iX	18 50 23.2
		Sk	iP	13 03 09.2 D			Um	iP	18 45 39.3 C
			i	13 03 19.0				i	18 46 01.4
			i	13 03 32.0				i	18 49 19.8
		Gb	iP	13 03 44.3 D				iPKP	18 49 54.9
			i	13 03 56.7				i	18 50 39.7
			i	13 06 10.6				iSKS	18 56 10
		Um	iP	13 02 56.2 D				iPKKP	19 01 22.4
			ipP	13 04 28.9			Ka	iP	18 46 06.8
			iPP	13 05 12				iPKP	18 50 03.9
			iS	13 10 18			Ud	iP	18 45 57.4
			iScS	13 11 49				i	18 46 12.1
			isS	13 13 12			(cont.)		
		(cont.)					(cont.)		

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1967				1967			
Oct.	12	(cont.)		Oct.	13		
		Ud	iPKP 18 50 02.8		Ki	iP	19 59 32.0
			iX 18 50 13.5			M E	1.3 16
			iPP 18 50 32.6			M N	0.5 15
			iPKKP 19 01 10.1		Sk	iP	20 00 09.3
		Banda Sea (h = 50 km).			Um	iP	19 59 49.0 D
		Magn. = 6.5 (Up,Ki).			Japan (h = 30 km).		
		The phases marked X (Ki, Gb,Ud) form a continuation of the apparently early PP-phases mentioned in remarks to Aug. 26, 1967, 00 50, and Sep. 3, 1967, 21 21.		"	13	Up	iPg 20 30 51.5
							iSg 20 30 55.8
							micr sec
						Sg	Z' 0.1 0.5
					Ud	i	20 31 45.7
					Dannemora, Sweden. Origin time = 20 30 46. Explosion of 4 ton explosives in the Dannemora mines.		
"	12	Um	iP 20 44 17.8				
		Ud	iP 20 44 57.3				
"	12	Up	iP 20 56 38.0	"	14	Up	iP 00 24 27.8
		Ud	iP 20 56 39.6			i	00 25 15.2
"	12	Um	iP 22 50 32.5	"	14	Ki	iP 03 42 21.3
		Ud	iP 22 50 07.0			ipP	03 42 31.4
			i 22 50 13.7				micr sec
		South Atlantic Ocean (h = 30 km).				pP	Z' 0.1 0.9
						M E	1.0 19
"	13	Up	iP 03 32 21.7		Sk	iP	03 41 56.2
		Ki	iP 03 32 24.3 D			ipP	03 42 09.3
		Sk	iP 03 32 48.4			i	03 42 27.3
		Gb	iP 03 32 46.4		Ud	iP	03 41 59.4 C
		Um	iP 03 32 17.2 D			ipP	03 42 11.1
		Ka	iP 03 32 30.7		Leeward Islands. h = 40 km (Ki,Sk,Ud).		
		Ud	iP 03 32 39.0 D	"	14	Ki	iPn 04 51 12.3
		Sinkiang (h = 30 km). The dilatation at Ud is preceded by a small compression.					ip ^X 04 51 21.2
							iSn 04 52 01.5
							iLg1 04 52 13.9
							D = 470 km = 4.2°.
"	13	Gb	iP 10 41 28.1		Possibly northwest Russia. Origin time = 04 50 05. Explosion?		
"	13	Up	iSg 11 21 00.7	"	14	Up	iP 05 19 58.6
			micr sec				
			Sg Z' 0.1 0.5	"	14	Ki	iPKP 16 27 11.5
		Ud	iSg 11 21 47.2		New Hebrides Islands (h = 15 km).		
		Probably blast near Uppsala.		"	14	Ki	eP 23 40 55
"	13	Up	i(P) 15 13 55.2		Ud	eP	23 40 23
		Um	iP 15 14 34.0		Kenya (h = 30 km).		
"	13	Ka	eP 19 10 22	"	15	Ki	iP 03 39 07.0
"	13	Up	iP 19 33 44.4		Kamchatka (h = 40 km).		
		Greece (h = 60 km).					

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1967						1967				
Oct.	15	Up	iP	08 13 16.1	C	Oct.	15	(cont.)		
			ipP	08 13 52.4				Sk	iP'P'	08 39 20.1
			iX	08 16 16.6				Gb	iP	08 13 04.5 C
			iPP	08 16 41.3					ipP	08 13 43.7
			iSKS	08 23 21					iX	08 15 55.9
			iS	08 23 27					iPP	08 16 18.1
			ipS	08 24 36					iPKKP	08 31 17.3
			i	08 30 59.1					i	08 31 31.6
			iPKKP	08 31 11.7				Um	iP	08 13 14 C
			iP'P'	08 39 15.1					ipP	08 13 51
				micr sec					iX	08 16 08.9
			P	E 0.9 4					iPP	08 16 37.2
			P	Z 4.7 5					i	08 18 39
			PP	Z' 2.9 1.7				Ka	iP	08 13 16.7 C
			S	E 10 16					ipP	08 13 54.8
			S	N 4.8 7					iPP	08 16 37.8
			PKKP	Z' 0.1 1.3				Ud	i(P)	08 13 04.5 C
			P'P'	Z' 0.2 1.3					iP	08 13 06.6
			M	E 8.0 20					ipP	08 13 45.0
			M	N 9.5 22					i(sP)	08 14 10.8
			M	Z 13 20					iPP	08 16 25.1
				(D = 9550 km = 86°).					i	08 30 52.4
		Ki	i(P)	08 13 08.1					iPKKP	08 31 17.2
			iP	08 13 10.1 C						
			ipP	08 13 49.1						
			iX	08 16 05.9						
			iPP	08 16 27.9						
			iS	08 23 14.4						
			ipS	08 24 19						
			i	08 30 31.7						
			iP'P'	08 39 15.0						
			iSKPP'	08 42 23.2						
				micr sec						
			P	E 3.2 6						
			P	N 1.4 6						
			P	Z 8.6 6			"	15	Ki	iP 17 48 47.9
			P	Z' 2.9 1.5					Um	iP 17 49 14.1
			PP	E 3.7 6					Ud	eP 17 49 40
			PP	N 1.8 6						Aleutian Islands
			PP	Z 5.4 6						(h = 30 km).
			PP	Z' 6.0 2.2						
			S	E 21 15			"	15	Ud	iP 18 01 18.5
			S	N 6.2 8						Japan (h = 140 km).
			P'P'	Z' 1.0 2.5						
			M	E 6.4 18			"	15	Ki	iP 18 48 34.4
			M	N 4.4 18						Mexico (h = 80 km).
			M	Z 8.1 18						
				(D = 9450 km = 85°).			"	15	Up	iP 21 53 43.7 C
		Sk	iP	08 12 59.3						micr sec
			ipP	08 13 37.3						
			i(sP)	08 13 58.8					P	Z' 0.1 0.6
			iPP	08 16 15.6					Ki	iP 21 53 19.8 C
			iPKKP	08 31 20.1					Um	iP 21 53 27.0 C
		(cont.)						(cont.)		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå
Ka = Karlskrona, Ud = Uddeholm

1967						1967						
Oct.	15	(cont.)				Oct.	17	(cont.)				
			Ka	iP	21 53 58.9 C				Ud	iP	05 11 09.1 C	
			Ud	iP	21 53 56.0 C					iPP	05 12 23.8	
			China (h = 30 km).						Kazakh SSR. Magn. = 6.1 (Up, Ki). Underground explosion.			
"	16		Ud	iP	13 38 30.9	"	17		Gb	iP	07 10 39.6	
			Vancouver Island (h = 30 km).									
"	16		Um	iP	13 59 34.8	"	17		Up	iPKP	14 27 07.0	
									Ki	ePKP	14 27 00	
"	16		Ki	iP	17 11 09.3				Sk	ePKP	14 27 05	
				i	17 11 31.0				Gb	iPKP	14 27 17.7	
				ipP	17 11 45.6				Um	iPKP	14 27 01.5	
					micr sec					i	14 27 06.7	
				P	Z' 0.1 1.2				Ka	iPKP	14 27 19.3	
			Ud	iP	17 11 40.5				Ud	iPKP	14 27 09.2 C	
				ipP	17 12 13.1				Fiji Islands (h = 640 km).			
			Halmahera. h = 140 km (Ki, Ud).			"	17		Up	iP	21 17 41.6	
"	16		Um	iP	17 37 32.2					ipP	21 17 56.7	
			Ud	iP	17 38 01.1						micr sec	
			Japan (h = 140 km).							P	Z' 0.1 0.9	
"	16		Um	iP	21 20 54.6				Ki	iP	21 17 22.0	
			Ud	iP	21 21 15.8				Sk	iP	21 17 45.4	
			Philippine Islands (h = 40 km).						Gb	iP	21 18 01.0	
"	16		Um	iP	23 42 03.8				Um	iP	21 17 26.1	
			Ud	iP	23 42 09.3					ipP	21 17 40.1	
			Kurile Islands (h = 30 km).						Luzon. h = 50 km (Up, Um).			
"	17		Up	iP	05 10 52.7 C	"	18		Up	iP	01 05 34.8 C	
				i	05 11 41.8					ipP	01 05 50.6	
				iPn	05 12 00.2						micr sec	
					micr sec					P	Z' 0.1 0.5	
				P	Z' 0.1 0.5				Ki	iP	01 05 28.5 C	
			Ki	iP	05 10 37.1 C				Sk	iP	01 05 50.4 C	
				iPn	05 11 37.3				Gb	iP	01 05 54.6	
				iPP	05 11 50.5				Um	iP	01 05 27.4	
					micr sec				Burma-India. h = 60 km (Up).			
				P	Z' 0.4 0.5	"	18		Up	iP	01 16 20.7 D	
			Sk	iP	05 11 08.4 C					i	01 16 25.3	
				iPn	05 12 08.9					iS	01 19 58	
				iPP	05 12 29.5					iLg2	01 23 14	
					micr sec						micr sec	
			Gb	iP	05 11 21.9				P	N	8.3 7	
				iPn	05 12 44.0				P	Z	3.1 5	
			Um	iP	05 10 37.6 C				P	Z'	0.4 1.0	
				iPn	05 11 38.7				S	E	32 22	
			Ka	iP	05 11 08.9 C				S	N	14 16	
				iPP	05 12 30.2				M	E	6.8 18	
			(cont.)						M	N	25 19	
									M	Z	24 19	
									D = 2300 km = 20 1/2°.			
									(cont.)			

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1967					1967						
Oct.	18	(cont.)			Oct.	18	(cont.)				
		Ki	iP	01 14 46.1 D			Sk	iPKP	22 26 09.1 D		
			i	01 15 36			Gb	iPKP	22 26 13.7		
			iS	01 17 20				i	22 26 20.7		
				micr sec			Um	i(PKP)	22 26 00.9		
		P	N	8.8 7				iPKP	22 26 04.0		
		P	Z	6.4 5			Ka	iPKP	22 26 22.8		
		P	Z'	2.6 1.5				i	22 26 34.6		
		M	E	24 20			South of Kermadec Islands				
		M	N	15 19			(h = 25 km).				
		M	Z	32 20							
		D = 1450 km = 13°.				"	18	Ki	iPKP	23 53 53.8	
		Sk	iP	01 15 34.6			Sk	ePKP	23 54 07		
		Gb	iP	01 16 42.0			Um	iPKP	23 54 00.4		
		Um	iP	01 15 36.7 D			New Hebrides Islands				
			iS	01 18 36			(h = 90 km).				
			iSS	01 18 56.5							
			i	01 19 27		"	19	Up ^P	iSg	08 56 54.9	
		Ka	iP	01 16 56.8			Sk ^A	iSg	08 56 53.2		
		Greenland Sea (h = 30 km).					Um ^E	iPg	08 56 11.7		
		Magn. = 6.1 (Up).						iSg	08 56 37.5		
							Medelpad, Sweden, 62.4° N, 17.0° E. Origin time = 08 55 32.				
"	18	Up	iP	03 19 00.2		"	19	Up	iPg	10 49 10.6	
		Ki	iP	03 18 37.2				iSg	10 49 36.6		
		Sk	iP	03 19 05.1		"	19	Ki	eP	10 51 47	
		Gb	iP	03 19 21.6				i	10 51 55.9		
		Formosa (h = 40 km).					Tanganyika (h = 30 km).				
"	18	Up	iP	14 41 48.6		"	20	Up	iPKP	01 21 38.9	
			i	14 42 36.1					micr sec		
				micr sec				M	N	1.9 19	
		P	Z'	0.1 0.8			Ki	iPKP	01 21 55.1 C		
		Ki	iP	14 41 14.5					micr sec		
			iPcP	14 41 32.9				PKP	Z'	0.2 1.5	
				micr sec			Sk	iPKP	01 21 43.4		
		P	Z'	0.4 1.5			Um	ePKP	01 21 47		
		Sk	iP	14 41 22.4 C			South Sandwich Islands				
		Gb	iP	14 41 48.5			(h = 10 km).				
		Um	iP	14 41 33.7		"	20	Up	iP	02 02 37.0	
			i	14 41 43.2				Ki	i(P)	02 02 25.8	
		Ka	iP	14 42 01.7 C		"	20	Up	eP	02 10 16	
		Nevada. Origin time =				"	20	Up	i(PKP)	22 26 08.1	
		14 30 00. Magn. = 6.1							iPKP	22 26 13.7 D	
		(Up,Ki). Underground							micr sec		
		explosion.							PKP	Z'	0.2 0.5
"	18	Ka	iP	16 13 59.5		"	20	Ki	iPKP	22 25 53.7	
"	18	Up	i(PKP)	22 26 08.1					micr sec		
			iPKP	22 26 13.7 D					PKP	Z'	0.2 1.5
				micr sec					Turkey (h = 30 km).		
			PKP	Z'	0.2 0.5	"	20	Up	i(Sg)	11 57 48.0	
		Ki	iPKP	22 25 53.7					i	11 58 14.0	
				micr sec							
			PKP	Z'	0.2 1.5						
		(cont.)									

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1967				1967			
Oct.	20	Ki	i(P)	15 12	20.3	Oct.	21 (cont.)
		Um	iP	15 11	25.0		Ki M Z 1.8 6
"	20	Up	iPKP	16 14	48.1		D = 1350 km = 12°
		Ki	iPKP	16 14	42.7	Gb	iP 05 05 03.7 C
		Gb	iPKP	16 14	58.1		eS 05 09 12
		Um	iPKP	16 14	42.8	Um	iP 05 03 33.1 C
			i	16 14	48.9		iPP 05 03 43
			iSKP	16 17	28.4		iS 05 06 15
		Ka	iPKP	16 15	00.9		iSS 05 06 40
		Ud	iPKP	16 14	50.3		iLg2 05 08 12
			i	16 14	57.4	Ka	iP 05 05 06.8 C
		Fiji Islands	(h = 560 km).				iS 05 09 13.7
"	20	Gb	i(P)	18 04	18.4	Ud	iP 05 04 35.2
"	20	Ki	eP	19 46	51		i 05 04 37.7
		Um	i(P)	19 46	51.1		iS 05 08 10.2
"	21	Um	iP	01 45	07.3	✓ Novaya Zemlya. Underground explosion. P exhibits a small compression, followed by a large dilatation, which explains why some stations may show an initial apparent dilatation.	
"	21	Ki	iP	02 15	44.4	"	21 Gb iP 06 57 56.1
		Um	iP	02 14	13.3	"	21 Up i(P) 10 27 07.6
"	21	Um	iPP	02 55	02.2		i(Sg) 10 27 32.1
			iPS	03 04	34	"	21 Up iP 11 10 37.6
			iPPS	03 05	50		Ki iP 11 10 22.3 C
			eSS	03 10	54		micr sec
		Chile	(h = 15 km).				P Z' 0.1 1.0
"	21	Up	iP	05 04	25.9	Szechwan, China (h = 30 km).	
			iS	05 07	59	"	21 Ki ePn 15 22 57
			i	05 10	42		iSn 15 23 31.1
			micr sec				iSg 15 23 42.0
		P	Z' 1.3 0.6				D = 300 km = 2.7°
		M	E 0.8 6			Um	i(Sg) 15 24 45.2
		M	N 1.7 8			"	21 Ki iP 17 00 20.0
		M	Z 1.2 8				Um iP 16 59 34.9 D
		D = 2100 km = 19°					Ud iP 16 59 01.0
		Ki	iP 05 02 55.3 C			Yugoslavia (h = 30 km).	
			iS 05 05 07.9			"	21 Up iPKP 18 58 58.8
			iSS 05 05 25				Ki iPKP 18 58 48.5
			iSSS 05 05 41				Gb iPKP 18 59 08.3
			micr sec				Um iPKP 18 58 56.5
		P	E 1.1 3				i 18 59 06.6
		P	N 0.7 2			Ka	iPKP 18 59 10.3
		P	Z 0.7 2			Ud	iPKP 18 59 00.2
		P	Z' 1.7 0.9			Tonga-Kermadec Islands (h = 110 km).	
		S	E 6.6 2				
		S	N 5.4 2				
		S	Z 1.8 3				
		S	Z' 3.3 1.0				
		M	E 1.0 10				
		M	N 1.7 9				

(cont.)

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1967				1967			
Oct.	23	(cont.)		Oct.	24	(cont.)	
		Ki	micr sec			Ud	iP 11 04 16.3 C
		P	Z' 0.1 1.8			ipP	11 04 30.2
"	23	Um	iP 12 54 15.1			Sumatra.	h = 50 km (Ki, Sk, Ud).
"	23	Um	iP 18 55 20.8	"	24	Um	iP 11 52 00.9
"	23	Ki	iP 19 57 56.5	"	24	Up	iP 19 16 34.1
"	24	Long-period microseisms (periods around 15 sec) on Um LP records, especially on the N component.		"	24	i	19 17 44.2
"	24	Up	iPKP 03 32 43.5	"	24	i	19 18 36.9
		i	03 32 49.5			Regional?	
			micr sec				
		PKP	Z' 0.2 0.6	"	25	Up	i(P) 19 43 00.9
		Ki	iPKP 03 32 20.7			i	19 43 16.9
		Sk	iPKP 03 32 37.8 D	"	25	i	19 43 26.7
		Gb	iPKP 03 32 51.9			i	19 43 36.7
		Um	iPKP 03 32 33.0				
		Ka	iPKP 03 32 53	"	25	Ki	iP 00 47 00.3
		i	03 33 05			Mindanao	(h = 100 km).
		Ud	iPKP 03 32 45.2 D	"	25	Up	iP 01 11 03.4 C
		i	03 32 52.7			i	01 11 06.4
		Kermadec Islands (h = 250 km).				iPP	01 13 56.0
"	24	Up	iP 06 19 25.9			iPa	01 15 54
		Sk	iP 06 20 08.6			iS	01 20 40
		i	06 20 10.4				micr sec
		Ud	iP 06 19 34.2			P	E 1.7 6
		Greece (h = 30 km).				P	N 1.3 6
"	24	Ki	iSg 08 25 04.8			P	Z 4.9 6
		Sk	iSn 08 25 06			P	Z' 0.3 0.5
		iS ^X	08 25 11.1			PP	Z' 0.2 1.0
		iSg	08 25 18.2			S	E 7.8 14
		Um	iSg 08 25 33.1			S	N 12 15
		Ud	i 08 26 58.4			M	E 60 18
		iSg	08 27 09.0			M	N 240 25
		Nordlands Fylke, Norway.				M	Z 130 20
"	24	Up	iP 11 04 06.7 C			D = 8350 km = 75°	
		Ki	iP 11 04 06.5 C			Ki	iP 01 10 39.2 C
		ipP	11 04 21.4			i	01 10 41.7
			micr sec			iPP	01 13 21.8
		P	Z' 0.2 1.0			iPa	01 15 01
		Sk	iP 11 04 20.2			iS	01 19 54
		ipP	11 04 35.4			iPS	01 20 37
		Um	iP 11 04 04.0			iLg	01 37 49
		(cont.)					micr sec
						P	E 4.8 7
						P	N 1.2 8
						P	Z 10 7
						P	Z' 0.8 1.0
						S	E 7.8 12
						S	N 7.3 10
						M	E 91 22
						M	N 28 17
						(cont.)	

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1967 Oct. 25 (cont.)
 Ki micr sec
 M Z 45 17
 D = 7900 km = 71°
 Sk iP 01 11 07.0 C
 i 01 11 09.6
 Gb iP 01 11 24.0 C
 i 01 11 26.8
 Um iP 01 10 47.9 C
 i 01 10 50.7
 iPP 01 13 44.1
 iPa 01 15 15
 iS 01 20 10
 Ka iP 01 11 17.8 C
 i 01 11 20.3
 Ud iP 01 11 13.0 C
 i 01 11 15.8
 iPP 01 14 12.2
 Formosa (h = 70 km).
 Magn. = 6.8 (Up, Ki).
 Multiple P: average 2.7 sec between the first small and the second large onset. - Average group velocity of Pa is 8.43 km/sec (Up, Ki, Um); this phase is definitely not PPP.

" 25 Up iP 02 09 04.9
 micr sec
 P Z' 0.1 1.0
 Ki iP 02 08 40.5
 micr sec
 P Z' 0.1 1.4
 Sk iP 02 09 08.2
 Gb iP 02 09 24.7
 Um iP 02 08 49.0
 Ud iP 02 09 14.4
 Formosa (h = 70 km).
 Magn. = 5.7 (Up, Ki).

" 25 Ud iP 09 06 31.2
 Formosa (h = 60 km).

" 25 Up iP 09 32 43.9
 micr sec
 P Z' 0.1 1.0
 Ki iP 09 31 50.9
 Sk iP 09 32 23.5
 Um iP 09 32 15.5
 Ud iP 09 32 44.8 C
 Aleutian Islands
 (h = 30 km).

" 25 Up iP 09 35 50.4
 (cont.)

1967 Oct. 25 (cont.)
 Up i 09 36 04.8
 Ki iPKP 09 35 33.3 C
 micr sec
 PKP Z' 0.1 0.8
 Sk iPKP 09 35 46.8 C
 Um iPKP 09 35 41.7
 Ud ePKP 09 35 51
 New Zealand (h = 190 km).

" 25 Up P iPn 11 56 08.3
~~i 11 56 49.8~~
~~iSn 11 57 19.8~~
~~iLg1 11 57 51.1~~
~~D = 700 km = 6.3°~~
 Ki R iPn 11 56 25.5
~~i 11 56 36.6~~
~~iSn 11 57 50.7~~
~~iLg1 11 58 27.0~~
~~D = 830 km = 7.5°~~
 Sk A iPn 11 56 38.9
~~iLg1 11 59 00.6~~
~~D = 940 km = 8.5°~~
 Um E iP^x 11 55 56.5
 iPg 11 56 08.5
 iSg 11 57 11.7
~~D = 530 km = 4.8°~~
 Ka KLS iPn 11 56 44.9 C
~~iSn 11 58 25.5~~
~~i(Sg) 11 59 19.4~~
~~D = 990 km = 8.9°~~
 Ud D iPn 11 56 32.9 C
~~iSn 11 58 05.3~~
~~iSg 11 58 53.0~~
~~D = 890 km = 8.0°~~
 Lake Ladoga region, 61.4° N,
 29.8° E. Origin time =
 11 54 32. Explosion?

" 25 Ud i 15 37 10.5
 i(Sg) 15 37 34.3

" 25 Sk iP 15 48 45.8
 Mexico (h = 60 km).

" 25 Ki R iPg 16 20 57.6
~~iSg 16 21 34.3~~
 Sk A e(Pg) 16 20 59
~~iSg 16 21 38.4~~
 Um E iPg 16 21 13.0
~~iSn 16 21 47.6~~
~~iSg 16 22 00.8~~
 Ud D iSn 16 23 03.9
~~iLg1 16 23 27.6~~
 Nordlands Fylke, Norway,
 66.4° N, 14.6° E. Origin
 time = 16 20 06.

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1967					1967				
Oct.	25	Up	iSg	20 31 26.6	Oct.	26	Um	iP	08 04 16.0
				micr sec					
			Sg	Z' 0.1 0.7	"	26	Ki	eP	12 32 50
		Ud	iSg	20 32 18.9					Leeward Islands (h = 30 km).
				Probably blast near					
				Uppsala.	"	26	Ki	iP	13 00 09.9
"	25	Ud	iP	23 33 47.9					Japan (h = 30 km).
"	26	Up	iP	00 34 03.7	"	26	Ki	eP	13 56 00
				micr sec				iPcP	13 56 23.0
			P	Z' 0.1 1.0					micr sec
			M	E 1.7 18				M	E 1.2 18
			M	N 3.7 20				M	Z 1.5 18
			M	Z 3.0 19					Leeward Islands (h = 40 km).
		Ki	iP	00 33 38.6	"	26	Ki	eP	17 35 25
				micr sec					micr sec
			P	Z' 0.3 1.5				P	Z' 0.1 1.3
			M	E 1.0 13				M	E 1.2 18
			M	N 1.0 15				M	Z 1.3 18
			M	Z 1.4 13			Sk	eP	17 35 52
		Sk	iP	00 34 07.1			Um	iP	17 35 34.6
		Gb	eP	00 34 22			Ud	iP	17 35 48.1
		Um	iP	00 33 47.5 C					Molucca Sea (h = 40 km).
			i	00 33 54.0					
			i	00 34 20.0	"	27	Up	iP	08 03 19.6
			iS	00 43 10				i	08 03 29.4
		Ud	iP	00 34 13.3				iS	08 05 57.4
				Formosa (h = 60 km).			Ki	iP	08 04 46.2
				Magn. = 6.0 (Up,Ki).			Sk	iP	08 04 22.2
"	26	Ud	iP	01 46 48.1			Ud	iP	08 03 37.3
								iS	08 06 28.0
"	26	Up	iP	05 00 47.9					Carpathian Mountains.
			i	05 00 54.0	"	27	Ki	iP	08 12 17.6
				micr sec				i	08 12 24.9
			M	E 4.5 16			Sk	iP	08 12 11.8
			M	N 2.6 13			Ud	iP	08 11 45.9
			M	Z 3.1 14					Iran (h = 70 km).
		Ki	iP	05 01 54.2	"	27	Ud	iP	20 53 24.0
				micr sec					Formosa (h = 70 km).
			P	Z' 0.2 1.2	"	28	Ud	iP	07 02 16.8
			M	E 1.6 11					Hindu Kush.
			M	N 0.7 11	"	28	Ud	iP	18 51 34.9
			M	Z 1.8 11					Atlantic Ocean
		Sk	iP	05 01 29.4					(h = 30 km).
		Gb	iP	05 00 44.3	"	29	Ud	iPKP	03 17 46.7
			i	05 00 56.8					Tonga-Kermadec Islands
		Um	iP	05 01 18.4					(h = 550 km).
			i	05 01 22.6					
			iSa	05 06 11					
		Ud	iP	05 00 59.3 D					
			i	05 01 04.2					
				Turkey (h = 40 km).					



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1967
Oct. 29 Up iPKP 12 56 17.3
i 12 56 25.8
Ki

micr sec
M E 0.7 17
M N 0.7 18
M Z 1.4 17
South Sandwich Islands
(h = 30 km).

" 29 Ki i(Sn) 16 18 26.9
i(Lg1) 16 18 43.3

" 30 Up iP 06 10 52.4 C
i 06 11 53.0
iPn 06 11 59.7
micr sec
P Z' 0.1 0.5
Ki iP 06 10 36.9 C
iPn 06 11 37.1
micr sec
P Z' 0.2 0.5
Sk iP 06 11 08.1 C
iPn 06 12 03.5
i 06 12 18.0
Um iP 06 10 37.4 C
i 06 11 20.2
iPn 06 11 38.7
Ka iP 06 11 08.6 C
Ud iP 06 11 08.7 C
iPP 06 12 31.0
Kazakh SSR. Magn. = 6.0
(Up,Ki). Underground
explosion.

" 30 Ki iLg1 12 37 04.0
Sk iPn 12 35 15.2
iLg1 12 37 36.8
Um iSg 12 35 47.0
Ud iSn 12 36 42.6
iSg 12 37 31.1
Lake Ladoga region.
Origin time = 12 33 09.
Explosion?

" 31 Um iP 01 02 44.6
Ud iP 01 03 16.0
Japan.

" 31 Um iPKP 10 33 53.4
Fiji Islands (h = 40 km).

" 31 Up i(P) 19 22 18.4
i 19 22 23.3
(cont.)

1967
Oct. 31 (cont.)
Ki i(P) 19 22 17.1

" 31 Up iP 21 12 57.9 C
i 21 13 01.3
iS 21 17 01
micr sec
P N 0.5 5
P Z' 0.3 0.8
S E 0.6 7
S N 3.6 12
M E 2.0 15
M N 5.9 13
M Z 5.7 13
D = 2450 km = 22⁰.
Ki iP 21 14 15.4
eS 21 19 17
iSS 21 21 00
eLg2 21 24 33
micr sec
P Z' 0.2 1.6
S N 0.9 13
M E 2.9 13
M N 3.2 12
M Z 4.8 12
D = 3350 km = 30⁰.
Sk iP 21 13 35.6
i 21 13 42.3
Gb iP 21 12 38.3
i 21 12 39.8
Um iP 21 13 38.8
i 21 13 40.8
i 21 15 40.8
iS 21 18 08
Ka iP 21 12 18.6
i 21 12 21.8
i 21 12 28.3
Ud iP 21 12 59.7
i 21 13 01.7
Sicily (h = 30 km).
Magn. = 5.5 (Up,Ki).
Multiple P.

Markus Båth
March 15, 1968

16 APR 1968

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

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

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
Göteborg	{Gb}	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	{Um}	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	{Ka}	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	{Ud}	60°05.4'N,	13°36.4'E;	h = 240 m

N O V E M B E R 1 - 30, 1967
.....

1967					1967				
Nov.	1	Ki	iPn	12 47 59.6	Nov.	1	(cont.)		
			iSn	12 48 46.3			Um	iP	16 19 36.9
			iLg1	12 49 01.3			Ud	iP	16 20 08.5
			D = 420 km = 3.8°					iPcP	16 20 36.0
		Um	iSg	12 50 39.4			Kurile Islands (h = 50 km).		
		Probably northwest Russia.							
		Origin time = 12 47 00.			"	1	Up	iP	16 41 43.6
		Explosion?						iPcP	16 42 12.5
									micr sec
"	1	Up	iSg	12 50 50.2			P	Z'	0.1 0.5
		Ki	eSg	12 54 00			Ki	iP	16 40 55.2
		Um	iSg	12 51 55.8			Sk	iP	16 41 31.0
		Esthonia. Explosion?					Gb	iP	16 42 04.7
							Um	iP	16 41 16.8
"	1	Up	i(P)	15 05 15.0				i	16 41 18.3
		Ki	e(P)	15 05 07				ipP	16 41 29.5
								i	16 41 51.5
"	1	Up	iPKP	15 19 08.2			Ka	iP	16 42 07.4
		Ki	iPKP	15 18 59.7			Ud	iP	16 41 48.7
		Gb	iPKP	15 19 17.7				i	16 42 08.1
		Um	iPKP	15 19 07.7			Kurile Islands.		
			i	15 19 15.6			h = 40 km (Um).		
			iSKP	15 22 28.5					
		Ka	iPKP	15 19 20.5	"	1	Ud	iPg	17 39 24.1
		Tonga Islands (h = 140 km).						iSg	17 39 31.7
								i	17 39 37.0
"	1	Up	iP	16 20 03.9	"	1	Up	iSKP	17 41 13.6
		Ki	iP	16 19 15.3			Ki	iSKP	17 40 50.3
				micr sec			Sk	eSKP	17 41 10
		M	E	1.2 21			Um	iSKP	17 41 01.8
		M	N	0.8 20			Ud	iSKP	17 41 15.2
		M	Z	1.9 20			Fiji Islands		
		Sk	eP	16 19 51			(h = 660 km).		
		Gb	iP	16 20 25.1 C					
		(cont.)							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967						
Nov.	1	Ki	iP	19 10 55.7	Nov.	2	(cont.)			
				New Guinea (h = 15 km).			Um	iP	03 08 19.7	
								iS	03 10 10.8	
"	1	Up	ipP	19 28 59.6				i	03 10 38.4	
		Ki	eP	19 28 07			Ud	iP	03 08 59.9	
			ipP	19 28 20.0				eS	03 11 20	
				micr sec			Norwegian Sea (h = 30 km).			
		M	E	1.5 20			Clear T phase at Ki.			
		M	Z	1.9 20						
		Sk	ipP	19 28 53.2	"	2	Ki	iPn	04 55 37.8	
			i	19 29 03.7				iSn	04 56 26.7	
		Um	iP	19 28 24.5 C				iLg1	04 56 41.3	
			ipP	19 28 37.3				D = 460 km = 4.1°.		
		Ud	iP	19 28 54.0			Sk	iSg	04 59 32.3	
			ipP	19 29 06.1			Probably northwest Russia.			
		Japan. h = 50 km (Ki,Um, Ud).					Origin time = 04 54 32.			
		In cases like this where the pP-amplitude is much larger than the P-amplitude, there is great risk that pP is misread as P (at least at less sensitive stations).				"	2	Up	iP	06 53 56.1
"	1	Sk	e(Sn)	21 34 19	"	2	Up	iPKP	07 11 35.5	
			i(Sg)	21 34 59.7				i	07 11 40.0	
		Ud	i(Pg)	21 33 29.7			Sk	i(PKP)	07 11 25.2	
			i(Sn)	21 34 23.3				iPKP	07 11 31.3	
			i(Sg)	21 35 02.5			Um	iPKP	07 11 24.7 D	
							Ka	iPKP	07 11 40.9	
							Ud	i(PKP)	07 11 32.8	
								iPKP	07 11 38.8	
							Kermadec Islands (h = 80 km).			
"	1	Ki ^R	iP	23 06 14.8	"	2	Ki	iP	12 58 25.8	
			i	23 06 33.5	"	2	Up ^P	iSg	13 09 44.7	
			iS	23 07 30.2			Sk ^A	iSg	13 09 56.8	
			iT	23 11 18.9			Gb^{GOT}	iSg	13 08 57.4	
			i	23 11 44.9			Ka^{KLS}	eSg	13 10 10	
			D = 730 km = 6.6°.				Ud ^D	iPg	13 08 19.8	
		Sk ^A	iP	23 06 53.6				iSg	13 08 43.0	
			iS	23 08 38.0			D = 190 km = 1.7°.			
			D = 1030 km = 9.3°.				South Norway, near the Oslo Fjord, 59.8°N, 10.3°E. Origin time = 13 07 47.			
		Norwegian Sea, 73.2°N, 7.7°E. Origin time = 23 04 35.								
"	1	Up	iP	23 59 57.2	"	2	Ki	iP	17 43 21.0	
"	2	Ki	iP	03 07 31.1	"	2	Ki	iP	18 50 15.9	
			iS	03 08 44.9				i	18 50 20.7	
			iT	03 12 22.6			Ud	iP	18 50 17.8	
				micr sec						
		M	E	1.0 21	"	2	Up	iSg	20 30 26.6	
		M	Z	1.1 17					micr sec	
		D = 730 km = 6.6°.					Sg	Z'	0.1 0.5	
		Sk	iP	03 08 10.5			(cont.)			
			iS	03 09 54.1			(cont.)			
		(cont.)					(cont.)			

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1967				1967			
Nov.	2	(cont.)		Nov.	3	(cont.)	
		Ud iSg	20 31 18.9			Sk ePKP	22 56 28
		Probably blast near Uppsala.				Um iPKP	22 56 30.4
						Ka iPKP	22 56 16.5
"	3	Up iP	04 41 48.1			Ud iPKP	22 56 21.6
		Um iP	04 41 27.2			iPKKP	23 06 28.9
		Ud iP	04 41 55.5			South Sandwich Islands (h = 160 km).	
		i	04 42 20.5				
		South of Japan (h = 150 km).		"	4	Up iP	00 49 54.0
						Um iP	00 49 35.3
						Ryukyu Islands (h = 40 km).	
"	3	Up iSKP	07 54 48.3	"	4	Up iP	02 32 08.9
		i	07 54 54.0			Ki iP	02 31 59.4
			micr sec			Ud iP	02 32 21.1
		SKP Z'	0.1 0.6				
		Ki iPKP	07 51 26.0	"	4	Up iP	05 18 59.0
		Sk iPKP	07 51 37.9				micr sec
			iSKP 07 54 47.4			P Z'	0.1 0.9
		Um iPKP	07 51 32.4			Ki iP	05 18 35.1
			iSKP 07 54 36.7				micr sec
		Ka i(PKP)	07 51 53.0			P Z'	0.1 1.1
		Ud iPKP	07 51 44.6			Sk iP	05 19 02.5
		i	07 51 58.2			Um iP	05 18 43.3 D
		i	07 53 45.4			i	05 18 51.0
		New Hebrides Islands (h = 230 km).				Ka iP	05 19 08.6
						Ud iP	05 19 08.7 D
"	3	Ki iP	12 27 21.2			Formosa (h = 80 km). Magn. = 5.8 (Up,Ki).	
"	3	Sk e(Sg)	12 44 19	"	4	Up i(PKP)	10 35 21.5 C
		Ud i(Sg)	12 44 19.1			iSKP	10 38 14.0
							micr sec
"	3	Ka iPg	18 21 54.1			SKP Z'	0.3 1.2
		iSg	18 22 24.5			Ki iPKP	10 35 17.6 C
		Ud iSg	18 24 37.5			iSKP	10 37 48.9
		Probably explosion in the South Baltic region.					micr sec
						PKP Z'	0.1 1.0
"	3	Up i	20 30 56.5			SKP Z'	0.4 1.5
		iSg	20 30 59.1			Sk i(PKP)	10 35 16.9
			micr sec			iPKP	10 35 27.5
		Sg Z'	0.1 0.5			iSKP	10 38 05.9
		Ud iSg	20 31 47.9			Gb i(PKP)	10 35 30.5
		Probably blast near Uppsala.				iPKP	10 35 41.2
						iSKP	10 38 23.8
"	3	Up iP	21 28 07.8			Um i(PKP)	10 35 22.1
		Gb i(P)	21 28 13.8			iPKP	10 35 24.7
						iSKP	10 38 00.7
"	3	Up iPKP	22 56 22.6			Ka i(PKP)	10 35 32.7 C
		iPKKP	23 06 26.6			iSKP	10 38 25.3
		Ki iPKP	22 56 38.3			Ud i(PKP)	10 35 21.9
			micr sec			iPKP	10 35 35.2
		PKP Z'	0.2 1.0			iSKP	10 38 15.7
		(cont.)				Fiji Islands (h = 570 km). (PKP) is generally used to denote small-amplitude precursors.	

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1967				1967			
Nov.	4	Up	iP	13 38 11.8 C	Nov.	4	(cont.)
			ipP	13 38 23			Ki iScS 14 50 44
			i	13 39 56.1			micr sec
			eS	13 47 23			P Z' 0.4 1.8
				micr sec			S E 2.8 9
			P Z	0.6 5			S N 3.2 10
			P Z'	0.4 1.5			M E 68 17
			M E	2.4 18			M N 29 17
			M N	3.2 20			M Z 27 20
			M Z	4.5 20			D = 6800 km = 61°
			D = 8050 km	= 72 1/2°			Gb iP 14 41 56.5
		Ki	iP	13 37 32.1 C			ipP 14 42 12.7
			iS	13 46 16			Um iP 14 41 09.8 C
			iPS	13 46 38			iS 14 49 47
				micr sec			Ka iP 14 41 56.1 C
			P Z'	0.2 1.5			ipP 14 42 12.4
			S E	0.8 6			Ud iP 14 41 41.1
			S N	1.3 9			Japan. h = 60 km (Up,Ki, Gb,Um,Ka). Magn. = 6.4 (Up,Ki).
			M E	6.2 21			" 4 Up iP 14 56 58.9
			M N	2.4 19			micr sec
			M Z	9.4 22			P Z' 0.1 1.0
			D = 7350 km	= 66°			Ki iP 14 56 14.5
		Gb	iP	13 38 32.4			micr sec
			ipP	13 38 44.5			P Z' 0.4 1.9
		Um	iP	13 37 49.5 C			Gb iP 14 57 21.4
			ipP	13 38 01.5			Um iP 14 56 33.7
			iS	13 46 52			Ka iP 14 57 21.3
			iPS	13 47 14			Ud iP 14 57 05.1
			iSS	13 50 55			Japan (h = 30 km). Magn. = 6.0 (Up,Ki).
		Ka	iP	13 38 30.1			" 4 Ki eP 16 11 35
			ipP	13 38 43.6			i 16 11 42.2
		Ud	iP	13 38 19.1 C			Ud iP 16 12 26.2
			ipP	13 38 31.6			Gulf of Alaska (h = 30 km).
			Japan. h = 45 km (Up,Gb, Um,Ka,Ud). Magn. = 6.0 (Up,Ki).				" 4 Up iP 16 14 26.1
		"	4	Up	iP	14 41 34.5 C	Ud iP 16 14 33.1
						ipP 14 41 50.7	Japan (h = 30 km).
						iS 14 50 31	" 4 Up iP 16 40 00.9
						micr sec	iSKS 16 50 22
			P E	0.5 5			Ki iP 16 40 02.9
			P N	0.5 4			iSKS 16 50 32
			P Z	0.6 4			iSP 16 52 32
			P Z'	0.8 1.5			micr sec
			S E	1.8 10			P Z' 0.2 2.0
			S N	2.4 10			SKS E 1.5 7
			M E	29 16			Gb iP 16 39 47.4
			M N	31 16			Um iP 16 40 04.5
			M Z	17 17			iSKS 16 50 30
			D = 7550 km	= 68°			(cont.)
		Ki	iP	14 40 50.4			
			ipP	14 41 06.0			
			i	14 42 16.7			
			iS	14 49 11			
		(cont.)					

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1967				1967			
Nov.		(cont.)		Nov.		(cont.)	
	4	Um iSP	16 52 28		6	Ud ePKP	21 51 11
		Ud iP	16 39 52.0			Fiji Islands (h = 550 km).	
		ipP	16 40 14.4				
		Peru-Ecuador. h = 90 km (Ud).		"	7	Ki ePKP	04 08 14
						Um iP	04 08 24.2
"	4	Ud e(P)	20 23 19			Samoa Islands (h = 40 km).	
		i(Sg)	20 23 41.9	"	7	Ki ePg	06 33 12
						iSg	06 33 52.4
"	5	Up iP	00 31 03.8			Um iSg	06 34 05.7
		Ud iP	00 31 11.1			Northern Finland.	
		Greece (h = 30 km).		"	7	Up i(Sg)	13 57 55.8
"	5	Up eP	08 56 41			i	13 57 56.8
		i	08 56 54.2			Local blast?	
		Ud eP	08 56 50	"	7	Ki iSg	17 31 47.0
		South of Japan (h = 30 km).				Um iSg	17 32 14.3
"	5	Ki eP	14 36 58			Probably Nordlands Fylke, Norway.	
		Colombia (h = 40 km).		"	7	Up iP	20 04 57.4 C
"	6	Up i(P)	03 44 40.1				micr sec
		i	03 44 47.7			P	Z' 0.1 0.5
"	6	Ki iP	04 15 01.9			Ki iP	20 05 04.2
		Um iP	04 15 18.8			Gb iP	20 05 18.9 C
		Iceland (h = 40 km).				Um iP	20 04 54.3 C
"	6	Ki iP	05 53 18.8			Ka iP	20 05 02.8 C
		Um iP	05 53 37.0			Ud iP	20 05 13.9 C
		Ud iP	05 53 34.9			Hindu Kush (h = 140 km).	
		Iceland (h = 30 km).		"	8	Um iP	02 07 24.2
"	6	Um iP	08 21 21.9			Japan (h = 60 km).	
"	6	Up iP	10 37 40.9	"	8	Ki iP	02 50 50.8
		i	10 37 45.2			Alaska (h = 30 km).	
		Ki	---	"	8	Up iP	03 23 12.5
			micr sec			ipP	03 23 25.1
		M E	1.4 17			i	03 23 42.1
		Um i(P)	10 38 30.2			Ki iP	03 23 03.8 D
		Ud eP	10 37 48			ipP	03 23 17.2
		i	10 37 50.8			iS	03 33 16
		Greece-Albania (h = 40 km).					micr sec
"	6	Um iP	12 14 27.1			P	Z' 0.1 1.2
						pP	Z' 0.2 1.5
"	6	Ki iP	19 14 56.9			S	N 0.3 10
						M	E 0.8 17
"	6	Ki iP	21 47 38.1			M	Z 1.1 17
		Alaska (h = 30 km).				D = 9000 km = 81°.	
"	6	Um iSKP (cont.)	21 53 45.0			Um iP	03 23 11.7
						ipP	03 23 25.7
						Ud iP	03 23 01.6
						(cont.)	

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1967				1967			
Nov.	8	(cont.)		Nov.	8	(cont.)	
	Ud	ipP	03 23 12.3		Ud	iP	17 33 35.6
		Caribbean Sea. h = 50 km				i	17 33 53.2
		(Up,Ki,Um,Ud). Magn. = 5.6 (Ki).				Aleutian Islands. h = 50 km (Up,Gb,Um). Magn. = 5.8 (Up,Ki).	
"	8	Ud	iP 15 11 41.0 C	"	8	Up	iP 20 04 54.4
		Nevada. Origin time = 15 00 00. Underground explosion.				ipP	20 05 01.4
						Ki	eP 20 04 01
						Ud	iP 20 04 55.7
						Aleutian Islands. h = 25 km (Up).	
"	8	Up	iP 17 14 03.0	"	8	Up	i(P) 20 47 46.2
		Ki	iP 17 13 09.5			i	20 48 16.4
		Ud	iP 17 14 03.5			Gb	i(P) 20 48 38.4
		Aleutian Islands (h = 40 km).				"	9
						Ki	iP 02 31 37.5 D
						ipP	02 35 57.8
						ipS	02 45 11
							micr sec
						P	Z' 0.2 1.0
						Um	iP 02 31 40.5
						ipP	02 35 59.4
						iSKS	02 41 23
						Ud	iP 02 31 57.4
						isP	02 35 13.8
						ipP	02 36 33.0
						ipPP	02 38 22.0
						Banda Sea (h = 560 km).	
"	8	Up	iP 17 20 25.0	"	9	Up	eP 07 57 55
		iS	17 29 19			i	07 58 19.6
						Ki	iP 07 57 03.3
						Um	iP 07 57 31.1
						Ud	iP 07 57 55.8 D
						i	07 58 14.8
						Alaska (h = 40 km).	
						"	9
						Ud	iP 09 03 58.8
						"	9
						Gb	iSg 09 43 36.4
						Ud	iSg 09 44 52.8
						An event probably near Gb.	
"	8	Up	iP 17 33 34.5	"	9	Ud	i(P) 10 55 59.4
		ipP	17 33 47.5			"	9
						Ki	iP _n 12 35 08.0
						ipP _x	12 35 16.7
						iSn	12 35 54.8
						iLg1	12 36 09.8
						D = 430 km = 3.9°.	
						Possibly northwest Russia.	
						Origin time = 12 34 06.	
						Explosion?	
						P	Z' 0.2 1.0
		Ki	iP 17 32 41.4			P	Z' 0.1 1.0
						Gb	iP 17 33 51.4
						ipP	17 34 05.4
						Um	eP 17 33 06
						ipP	17 33 18.4
		Ka	iP 17 33 57.5			Ka	iP 17 33 57.5
		(cont.)				(cont.)	

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1967				1967			
Nov.	9	Ud	iP	13 01	29.8	Nov.	10 (cont.)
"	9	Ud	iP	14 54	13.6	Ki	i 05 57 10.7
		Dodecanese Islands (h = 50 km).					North Atlantic Ocean (h = 30 km).
"	9	Ud	e	17 16	48	"	10 Up iP 06 14 13.5 D
			i(Sg)	17 17	08.1		Ki iP 06 14 08.3
"	9	Up	iP	18 31	02.9 C		Um iP 06 14 06.6 D
			ipP	18 31	18.2		Ka iP 06 14 21.0
					micr sec		Ud iP 06 14 27.7 D
			P	Z'	0.1 0.7		India-East Pakistan (h = 60 km).
		Ki	iP	18 30	25.0 C	"	10 Gb iSg 07 42 40.0
					micr sec		Ud eSg 07 44 05
			P	Z'	0.1 1.0		An event probably near Gb; resembles Nov. 9, 09 43.
		Gb	iP	18 31	23.0	"	10 Ud iP 08 05 58.8
		Um	iP	18 30	41.3 C	"	10 Gb iSg 08 25 38.9
			i	18 30	51.7	"	10 Up P iPg 09 39 28.9
		Ka	iP	18 31	21.1 C		i 09 39 43.5
		Ud	iP	18 31	10.0 C		iSg 09 39 56.0
		Japan. h = 60 km (Up).					micr sec
		Magn. = 5.8 (Up, Ki).					Sg Z' 0.1 0.5
"	9	Ud	iP	19 30	09.8	Ki R	iSg 09 43 14.8
		Philippine Islands (h = 40 km).				Um E	ePg 09 40 14
"	9	Ud	iP	22 22	24.4		iSg 09 41 06.5
"	10	Ud	iP	00 14	26.1 D		i 09 41 09.9
			i	00 14	38.3	Ka	ePn 09 39 58
"	10	Ud	iP	00 34	17.9	KLS	i 09 40 29.3
"	10	Up	iPP	02 58	39.2		iSg 09 41 20.4
		Ki	ePP	02 59	24	Ud D	ePg 09 40 06
					micr sec		iSg 09 40 58.2
			M	E	0.6 13	Central Baltic, 59.5° N, 21.4° E. Origin time = 09 38 47. Probably under- water explosion.	
			M	N	0.6 14	"	10 Ud eP 10 28 27
			M	Z	0.8 12		i 10 28 37.8
		Ud	iP	02 57	47.7	"	10 Ki iP 11 42 29.0
		Iran (h = 30 km).					Ud iP 11 42 56.2
"	10	Ki	eP	04 46	57		Philippine Islands (h = 40 km).
		North Atlantic Ocean (h = 30 km).				"	10 Ki iP 13 29 18.1
"	10	Ki	eP	05 18	40		Sk iP 13 29 24.3
			i	05 18	43.5		Um i(PKP) 13 29 25.0
		North Atlantic Ocean (h = 30 km).				"	10 Ki iP 13 29 18.1
"	10	Ki	eP	05 57	07		Sk iP 13 29 24.3
		(cont.)					Um i(PKP) 13 29 25.0
							Fiji Islands (h = 590 km).

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1967				1967					
Nov.	10	Ki	iP	18 38 42.7 C	Nov.	11	Up	iP	11 54 40.8
				Alaska (h = 90 km).			Ki	eP	11 54 24
							Philippine Islands (h = 50 km).		
"	10	Up	iP	18 50 34.3					
			ipP	18 50 42.1					
			iS	19 00 25	"	11	Up	iP	12 07 51.5
			D = 8650 km = 78°.					i	12 07 57.4
		Ki	iP	18 50 54.2			Ki	iP	12 08 11.5
				micr sec					micr sec
			P	Z' 0.4 2.0				P	Z' 0.2 1.5
			M	E 0.9 15			Sk	eP	12 08 19
			M	N 0.7 18			Um	eS	12 17 53
			M	Z 1.4 19				iScS	12 18 21
		Sk	iP	18 50 56.7				iSS	12 23 09
			i	18 51 00.4			Chagos Islands (h = 40 km).		
		Gb	iP	18 50 41.6					
			ipP	18 50 49.9	"	11	Up	eP	12 14 47
		Um	iP	18 50 45.0				i	12 14 49.5
			iS	19 00 45					
			iSS	19 05 58	"	11	Up	iP	12 26 52.8 D
		Ka	e(P)	18 50 36				eSKS	12 37 02
			ipP	18 50 39.9					micr sec
		Chagos Islands. h =						M	E 3.2 19
		30 km (Up,Gb).						M	N 4.3 21
								M	Z 6.5 20
"	10	Up	iP	20 59 15.4			Ki	iP	12 27 14.5
				micr sec					micr sec
			P	Z' 0.1 0.5				P	Z' 0.3 1.5
		Ki	eP	20 58 26				M	E 3.0 20
		Sk	eP	20 59 03				M	N 2.4 19
		Um	iP	20 58 50.1				M	Z 3.2 17
		Kurile Islands (h = 100 km).					Sk	iP	12 27 15.3
							Um	iP	12 27 04
"	11	Up	iP	00 32 49.2 C			Ud	iP	12 27 03.5
				micr sec				i	12 27 42.6
			P	Z' 0.1 0.5			Chagos Islands (h = 30 km).		
		Ki	iP	00 32 18.4 C			Magn. = 6.0 (Up,Ki).		
				micr sec					
			P	Z' 0.1 1.0	"	11	Ud	iP	12 46 04.1
		Sk	iP	00 32 47.1 C					
		Gb	iP	00 33 07.9	"	11	Up	iP	13 44 20.7
		Um	iP	00 32 31.6 C			Aleutian Islands (h = 50 km).		
		Bonin Islands (h = 530 km).							
		Magn. = 5.7 (Up,Ki).			"	11	Sk	i(Sg)	14 36 18.4
"	11	Ki	iP	02 39 29.5					
		Um	iP	02 39 05.6	"	11	Ki	iP	15 17 28.2
		Uganda (h = 30 km).					Sk	iP	15 17 29.9
							Chagos Islands (h = 30 km).		
"	11	Up	i(Sg)	03 48 29.6					
"	11	Gb	iPKP	06 58 19.0					
		Tonga-Kermadec Islands (h = 470 km).			"	11	Up		----
									micr sec
							M	E 1.8 19	

(cont.)

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1967					1967				
Nov.	11	(cont.)			Nov.	12	Ud	i(P)	17 19 49.2
		Up		micr sec				i	17 20 20.6
		M	Z	1.9 20					
		Ki	iP	18 12 18.7	"	12	Ud	iP	19 11 31.2
		P	Z'	0.2 1.3					
		M	E	1.1 20	"	12	Ki	eP	21 31 26
		M	N	0.7 16				Luzon (h = 60 km).	
		M	Z	1.2 16					
		Sk	iP	18 12 20.0	"	12	Up	iPKP	22 18 58.5 C
		Um	iS	18 22 05			Ud	iPKP	22 18 59.6
			iSS	18 27 17				Tonga-Kermadec Islands	
		Ud	eP	18 12 19				(h = 230 km).	
				Chagos Islands (h = 30 km).					
				Magn. = 5.7 (Up,Ki).	"	13	Um	iP	06 46 58.7
							Ud	e(P)	06 47 11
"	11	Ki	iP	20 30 29.2	"	13	Ud	iP	06 55 55.7
				micr sec				Turkey (h = 50 km).	
		P	Z'	0.1 1.2					
				Chagos Islands (h = 20 km).	"	13	Up	i(Sg)	07 48 11.6
"	12	Up	iP	02 38 15.6				micr sec	
				micr sec				(Sg) Z'	0.1 0.6
		P	Z'	0.1 0.5				Local blast?	
		Ki	iP	02 37 28.3 C	"	13	Um	iP	08 08 14.8
		Sk	iP	02 38 04.8	"	13	Ki	iP	10 17 25.5
		Ud	iP	02 38 20.8	"	13	Um	iP	10 17 01.3
				Kurile Islands (h = 40 km).					
"	12	Up	iP	10 48 14.5	"	13	Ud	iP	11 50 28.8 C
			ePP	10 49 51	"	13	Ki	iP	16 03 16.6
		Ki	iP	10 48 22.9 C			Ud	iP	16 03 41.4 D
		Um	iP	10 48 11.6				Philippine Islands	
		Ka	iP	10 48 19.9				(h = 80 km).	
		Ud	iP	10 48 31.1					
				Hindu Kush (h = 100 km).	"	13	Up	iSg	20 35 41.4
"	12	Up		---				micr sec	
		M	N	2.6 21				Sg Z'	0.1 0.6
		M	Z	2.9 22			Ud	iSg	20 36 33.7
		Ki	iPKP	10 55 56.2				Probably blast near Uppsala.	
				micr sec	"	13	Ud	iP	22 20 39.9
		M	E	1.5 20	"	14	Up	iP	00 14 34.7
		M	N	1.5 21			Sk	iP	00 14 49.3
		M	Z	3.5 21			Um	iP	00 14 25.8
		Um	iPKS	10 59 32				i	00 14 44.3
		Ud	iPKP	10 56 01.9			Ud	iP	00 14 46.5
				Tonga Islands (h = 30 km).				ipP	00 14 56.6
				Magn. = 6.1 (Up,Ki).				India-East Pakistan.	
"	12	Ki	iP	12 44 37.8 D				h = 40 km (Ud).	
				Nicobar Islands	"	14	Up	iPKP	05 46 49.1
				(h = 110 km).				i	05 46 53.0
"	12	Ud	iP	16 27 37.3				(cont.)	

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1967				1967			
Nov.	14	(cont.)		Nov.	15	(cont.)	
		Ki	iPKP 05 46 40.7			Up	i 22 01 52.5
		Sk	iPKP 05 46 52.4				micr sec
		Gb	iPKP 05 47 00.2			M	E 6.5 19
		Um	iPKP 05 46 44.8			M	N 5.7 23
		Ka	iPKP 05 46 57.3			M	Z 8.9 21
		Ud	iPKP 05 46 53.5			Ki	iPKP 21 50 35.4
		New Guinea (h = 200 km).				i	21 50 51.3
"	14	Ka	iPg 12 37 14.9			i(PP)	21 51 35.5
			iSg 12 37 47.7			eSKS	21 57 19
		Ud	iSg 12 39 56.9			iPKKP	22 01 01.1
		Probably explosion in the South Baltic region; cf Nov. 3, 18 21.				ePS	22 01 20
						eSKSP	22 01 32
							micr sec
						SKS	E 1.0 11
						M	E 6.6 21
"	14	Ki	iP 13 47 57.9			M	N 1.8 19
		Aleutian Islands (h = 120 km).				M	Z 10 23
						Sk	iPKKP 22 01 19.6
"	15	Ki	iPn 04 32 45.2			Um	iPKP 21 50 34.9
			eSn 04 33 33			ePP	21 51 45
			iLg1 04 33 47.4			iSKS	21 57 12
			D = 440 km = 4.0°.			iPKKP	22 01 04.8
		Possibly northwest Russia.				iPS	22 01 17
		Origin time = 04 31 41.				eSKSP	22 01 29
		Explosion?				Ud	iPKP 21 50 30.3
						iPKKP	22 01 26.8
						i	22 01 45.4
"	15	Ki	iP 07 48 32.4			Chile (h = 15 km). Magn. = 6.4 (Up,Ki).	
		Sk	iP 07 48 53.6				
		Um	iP 07 48 37.2	"	16	Up	iP 00 48 57.4
		Ud	iP 07 48 56.5			Ud	eP 00 49 10
		Mindanao (h = 570 km).				Hindu Kush (h = 30 km).	
"	15	Ud	iP 09 49 47.8	"	16	Ki	iP 02 31 27.5
"	15	Ud	iP 10 11 41.0				micr sec
"	15	Ki	iPn 12 36 49.2			P	Z' 0.1 1.2
			iSn 12 37 35.4			Sk	iP 02 31 11.4
			iSg 12 37 50.5			Gb	iP 02 30 35.5
			D = 420 km = 3.8°.			Ud	iP 02 30 46.1
		Possibly northwest Russia.				Ethiopia (h = 30 km).	
		Origin time = 12 35 47.		"	16	Ki	iP 03 56 31.6
		Explosion?		"	16	Up	iP 06 23 19.9
"	15	Up	iP 19 43 02.3			i	06 23 23.4
		Ki	eP 19 43 33			Ud	iP 06 23 25.6
		Ud	iP 19 43 10.2	"	16	Up	iP 07 52 24.7
		Iran (h = 10 km).				i(Sg)	07 53 33.8
"	15	Up	ePP 21 51 34	"	16	Ud	iP 11 53 47.0
			iPS 22 01 05				
			iPKKP 22 01 18.5				
		(cont.)					

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1967									1967									
Nov.	16	Up	i(Sg)	12 01 49.0					Nov.	17	(cont.)							
				micr sec								Ud	iSg	11 27 57.9				
			(Sg) Z'	0.1 0.5										D = 190 km = 1.7°.				
			Local blast?											Origin time = 11 27 00.				
"	16	Ud	i(Sg)	12 20 58.7					"	17	Up	iP		14 10 22.7				
														micr sec				
"	16	Ud	iP	15 13 11.7								M	E	1.4 18				
			Aleutian Islands									M	N	1.1 19				
			(h = 40 km).									M	Z	1.7 18				
"	17	Up	iP	05 08 08								Ki	iP	14 09 58.6				
			iS	05 15 22								Sk	eP	14 10 26				
				micr sec								Ud	iP	14 10 31.7				
			S	E 0.6 7										Formosa (h = 40 km).				
			S	N 0.7 6					"	17	Ki	iP	14 59 23.1	C				
			M	E 0.8 14										Formosa (h = 50 km).				
			M	N 0.9 12														
			M	Z 2.0 16					"	17	Up	iP	15 16 22.2					
			D = 5800 km = 52°.									i	15 16 25.1					
		Ki	eP	05 08 29								Um	iP	15 16 09.2				
			iS	05 15 59								Ka	iP	15 16 30.5				
				micr sec								Ud	iP	15 16 23.9				
			S	N 0.6 8										These could be PKP phases				
			M	E 1.1 20										instead.				
			M	N 0.7 16														
			M	Z 2.0 18					"	17	Ud	iP	20 30 52.9					
			D = 6050 km = 54 1/2°.															
		Um	iP	05 08 17					"	17	Up	iP	20 38 58.5					
			iS	05 15 44								Ud	iP	20 39 12.0				
			North Atlantic Ocean															
			(h = 30 km). Magn. =															
			5.3 (Up,Ki). It is															
			noteworthy that this															
			earthquake was not re-															
			corded on any of the															
			short-period instruments,															
			the probable reason being															
			absence of short-period															
			components in the P-wave															
			spectrum.															
"	17	Ud	iP	08 23 30.8					"	18	Ki	iP	01 18 58.4					
														Molucca Passage				
														(h = 80 km).				
"	17	Ki	iPKP	10 28 33.5	D				"	18	Up	iP	02 36 55.5	C				
			iPP	10 30 12.5								iS	02 41 16					
		Sk	iPKP	10 28 44.6									micr sec					
		Um	iPKP	10 28 39.5	D							M	E	2.2 17				
		Ud	iPKP	10 28 49.6								M	N	2.1 15				
			New Hebrides Islands									M	Z	2.0 16				
			(h = 220 km).											D = 2800 km = 25°.				
"	17	Ud	ePg	11 27 35								Ki	eP	02 38 04				
			iSn	11 27 54.7										micr sec				
			(cont.)											M	E	2.4 18		
														M	N	0.9 14		
														M	Z	1.7 13		
												Sk	iP	02 37 32.9				
												Um	iS	02 42 16				
												Ka	iP	02 36 20.4				
														iPP	02 36 41.1			
												Ud	iP	02 37 01.0				
														Crete (h = 40 km).				

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1967				1967			
Nov.	19	Up	e(PKP)	17 48 40	Nov.	20	(cont.)
			iPKP	17 48 47.3			Ka iP 10 25 51.1 D
			iPP	17 51 41			i 10 26 02.5
			iPKS	17 52 15			Ud iP 10 25 33.3 D
			iSKSP	18 01 32			i 10 25 38.9
				micr sec			Sea of Okhotsk
			PP N	0.4 5			(h = 430 km).
			PKS E	0.9 7	"	20	Ka iP 10 33 10.9 C
			PKS N	1.5 7	"	20	Up iP 11 00 19.7 D
			M E	4.7 22			ipP 11 00 38.2
			M N	9.5 22			micr sec
			M Z	7.9 22			P Z' 0.1 0.9
		Ki	iPKP	17 48 30.9			Ki iP 10 59 44.3
			iPP	17 50 45			micr sec
			iPKS	17 51 54			P Z' 0.1 1.0
				micr sec			Sk iP 11 00 15.6
			PP Z	1.3 9			Gb iP 11 00 38.6
			PKS E	1.8 9			Um iP 10 59 59.2
			PKS N	2.1 10			ipP 11 00 16.8
			M E	5.7 21			Ud eP 11 00 28
			M N	3.3 20			South of Japan. h = 70 km
			M Z	6.3 20			(Up,Um). Magn. = 5.8 (Up,
		Sk	e(PKP)	17 48 37			Ki).
			iPKP	17 48 42.1	"	20	Ud i(Sg) 12 35 09.2
		Gb	e(PKP)	17 48 45	"	20	Ka iPg 15 04 40.4
			iPKP	17 48 49.5			iSg 15 05 17.7
		Um	e(PKP)	17 48 35			Ud eSg 15 07 21
			iPKP	17 48 40.6			i 15 07 33.6
			iPP	17 50 59			Probably explosion in the
			iPKS	17 52 06			South Baltic area; cf
			iSKSP	18 01 10			Nov. 3, 18 21, and Nov. 14,
		Ud	e(PKP)	17 48 37			12 37.
			iPKP	17 48 49.1			
				Loyalty Islands			
				(h = 30 km). Magn. =			
				6.6 (Up,Ki).			
"	19	Ki	eP	20 45 51	"	21	Ud iP 07 47 19.3
"	19	Ud	iP	21 49 23.7	"	21	Up eP 09 04 03
"	19	Ud	i(Sg)	22 27 19.3			Ki iP 09 04 46.6 C
"	20	Ud	iP	06 50 20.8			ipP 09 04 57.5
				Greece.			Sk iP 09 04 13.8
							ipP 09 04 24.5
"	20	Up	iP	10 25 28.2 D			Um iP 09 04 27.6 C
			i	10 25 36.6			ipP 09 04 38.2
				micr sec			Ud iP 09 03 55.5 C
			P Z'	0.1 0.5			ipP 09 04 07.8
		Sk	iP	10 25 14.7 D			North of Ascension Island.
		Gb	iP	10 25 49.1 D			h = 40 km (Ki,Sk,Um,Ud).
		Um	iP	10 25 01.5 D	"	21	Ka iP 14 22 14.2
			i	10 25 13.0	"	21	Up iP 15 11 59.3
				(cont.)			(cont.)

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1967					1967				
Nov.	21	(cont.)			Nov.	21	(cont.)		
			Ud	iP				Sk	iS
			Iran	(h = 30 km).				Um	iP
								Norwegian Sea (h = 30 km).	
"	21	Up	eP	17 05 30	"	22	Up	eP	04 10 51
			i	17 05 31.9			Ki	iP	04 10 35.0
			i!	17 08 42.7			Kazakh SSR. Underground explosion.		
			iT	17 12 45.6					
				micr sec					
			P	Z' 0.1 0.5			"	22	Um
			M	E 5.7 17					iP
			M	N 12 18					Ud
			M	Z 9.1 19					i
		Ki	iP	17 03 56.6				Kurile Islands.	
			i	17 03 57.7			"	22	Up
			iS	17 04 59.2					----
			iT	17 09 10.7					micr sec
				micr sec				M	N 2.6 21
			P	E 2.6 7				M	Z 3.4 21
			P	N 2.3 9			Um	iPKP	15 38 44.2
			P	Z 2.1 7				ePKS	15 42 14
			P	Z' 0.5 0.7			Loyalty Islands (h = 40 km).		
			M	E 4.6 11			"	23	Um
			M	N 6.6 15					iP
			M	Z 8.9 16					Ud
				D = 700 km = 6 1/2°.					eP
		Sk	iP	17 04 37.1			"	23	Ud
			i	17 04 38.2					iP
			iS	17 06 13.5			"	23	Up
		Gb	iP	17 05 54.9					iP
			iS	17 08 34.9			"	23	Up
			i	17 09 30.9					iP1
		Um	iP	17 04 44.5 D					iP2
			iS	17 06 31.2					iP3
			iT	17 11 02.6					i
		Ka	iP	17 06 17.5					iS
			iS	17 09 14.8					i
			i	17 10 23.3					micr sec
		Ud	iP	17 05 24.4				P3	E 1.3 5
			i	17 05 39.3				P3	N 2.5 5
			iSS	17 08 12.9				P3	Z 3.9 5
			iT	17 13 00.3				P3	Z' 1.0 1.0
				Norwegian Sea (h = 30 km).				S	E 6.4 7
				Remarkably strong T phases,				S	N 9.9 7
				especially at Ki and Um.				S	Z 8.4 10
				T phases or traces of them				M	E 39 16
				were recorded at all our				M	N 56 16
				stations. - Multiple P				M	Z 64 16
				phases (Up,Ki,Sk).				D = 5800 km = 52°.	
							Ki	iP1	08 45 38.5
								iP2	08 45 40.3
								iP3	08 45 47.2
								iS	08 53 37
								micr sec	
								P3	N 3.0 5
"	21	Ki	iP	19 21 07.1			(cont.)		
"	21	Ki	iP	19 45 22.7 C					
		Sk	eP	19 46 04					
		(cont.)							

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1967					1967				
Nov.	23	(cont.)			Nov.	23	(cont.)		
		Ki		micr sec		Up	iP2	13 46 54.5	
		P3	Z	4.6 5		i		13 48 53	
		P3	Z'	1.5 1.8		iS		13 50 40	
		S	E	10 7				micr sec	
		S	N	7.1 10		P2	N	4.2 3	
		S	Z	11 13		P2	Z	2.6 3	
		M	E	100 17		P2	Z'	0.9 1.5	
		M	N	92 15		S	E	10 10	
		M	Z	130 16		S	N	15 11	
		D = 6400 km = 57 1/2°.				S	Z	1.9 5	
		Sk	iP1	08 45 32.6		M	E	7.5 18	
			iP2	08 45 35.6		M	N	29 18	
			iP3	08 45 41.5		M	Z	35 21	
			iP4	08 45 52.7		D = 2350 km = 21°.			
		Gb	iP1	08 45 04.6		Ki	iP1	13 45 16.0 D	
			iP2	08 45 07.3			iP2	13 45 23.0	
			iP3	08 45 13.7			i	13 45 51.2	
			iP4	08 45 27.3			iS	13 47 54	
		Um	iP1	08 45 11.3			iSS	13 48 12	
			iP2	08 45 14.2				micr sec	
			i	08 45 18.5		P2	E	3.1 8	
			iP3	08 45 20.8		P2	N	9.1 5	
			iPa	08 48 28		P2	Z	11 5	
			iS	08 52 31		P2	Z'	11 2.3	
		Ka	iP1	08 44 46.6		S	E	23 13	
			iP2	08 44 49.9		M	E	15 18	
			iP3	08 44 57.1		M	N	20 20	
		Ud	iP1	08 45 09.4		M	Z	55 20	
			iP2	08 45 12.9		D = 1500 km = 13 1/2°.			
			iP3	08 45 18.6		Sk	iP	13 46 01.1 D	
			iPcP	08 46 27.7		Gb	iP1	13 47 05.8 D	
			iPP	08 47 07.5			iP2	13 47 15.3	
		Gulf of Aden (h = 5 km).				Um	iP	13 46 04.9 D	
		Magn. = 6.8 (Up,Ki).					iS	13 49 15	
		This is a pronounced case					iSS	13 49 56	
		with multiple P phases,				Ka	iP	13 47 22.2	
		with successively larger					i	13 47 45.4	
		amplitudes. Corresponding				Ud	iP	13 46 41.6 D	
		phases have been marked				Svalbard-Greenland			
		P1, P2, P3, P4. The				(h = 10 km). Magn. = 6.2			
		average time differences				(Up). Multiple P: two			
		are: P2 - P1 = 3.1 sec,				phases P1 and P2 can be			
		P3 - P1 = 9.6 sec,				distinguished on all short-			
		P4 - P1 = 21 sec. P4 has				period records; Average			
		a longer period than				time difference P2 - P1 is			
		P1-P3.				equal to 8.3 sec. The			
						periods on Z' are long			
						everywhere. - The initial			
						dilatation (D) for P is			
						probably preceded by a			
						small compressional motion,			
						as evidenced by Um and Ud.			
"	23	Um	eP	13 21 00					
			i	13 21 02.9					
"	23	Up	iP1	13 46 46.2					
			i	13 46 47.7					
		(cont.)							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967				1967				
Nov.	23	Ki	e(P) i(Sg)	13 58 08 13 59 53.6	Nov.	24	(cont.) Ki iP	18 59 44.0 micr sec
"	23	Gb Ud	i(Sg) ePg iSn iSg	14 59 34.0 14 59 15 14 59 35.4 14 59 38.9	"	24	P Z' Um eP i Ud iP	0.1 1.0 18 59 49 18 59 52.9 19 00 09.1
			D = 200 km = 1.8° Origin time = 14 58 39.				Mindanao (h = 110 km).	
"	23	Ud	iP	18 40 03.8 D	"	24	Ud iP	21 12 51.9
"	24	Up Ud	i(Sg) i(Sg)	02 34 03.7 02 33 38.7	"	24	Up iP	21 50 11.1 C
			Probably blast.		"	24	Up iPKP	22 24 42.9 micr sec
"	24	Um	iP	03 37 48.2			PKP Z' Ud iPKP	0.1 0.6 22 24 45.3
			Japan (h = 50 km).				Tonga Islands.	
"	24	Sk Um	iSKP iPKP	06 03 28.1 06 00 35.7	"	24	Ud eP	23 32 05
			iSKP	06 03 22.6	"	25	Ki iP	08 57 53.5
		Ud	i(PKP) iPKP	06 00 35.5 06 00 46.5	"	25	Ki ePn iSn iLg1	10 34 41 10 35 39.0 10 35 58.0
			Fiji Islands (h = 430 km).				D = 530 km = 4.8° Possibly northwest Russia. Origin time = 10 33 26. Explosion?	
"	24	Ki ^R	iPn iPg iSn iSg	11 26 45.7 11 26 54.5 11 27 16.0 11 27 22.4	"	25	Ud iPKP	10 51 01.7
			D = 260 km = 2.3°				Tonga-Kermadec Islands (h = 570 km).	
		Sk ^A Um ^E	iSg iSg	11 29 04.3 11 29 01.4	"	25	Ki eP i	14 34 19 14 34 23.5
			Northwest coast of Norway, near Lofoten, 69°N, 15°E. Origin time = 11 26 07.		"	25	Up iP Ki eP Um iP Ud iP	16 10 51.8 C 16 11 31 16 11 07.3 16 11 03.6 C
"	24	Ud	eP	11 27 10			Gulf of Aden (h = 40 km).	
			Samar (h = 100 km).		"	25	Ki iP	20 36 33.1 C
"	24	Ud	iP	12 26 04.5	"	25	Ud iP	22 52 44.1
"	24	Ka^{KS}	iPg eSg iSg	15 38 04.3 15 38 35 15 40 42.0			Ryukyu Islands (h = 30 km).	
			Probably explosion in the South Baltic area; cf Nov. 3, 18 21, Nov. 14, 12 37, and Nov. 20, 15 04.		"	26	Up iP i e(S)	00 19 53.0 00 19 55.1 00 29 41
"	24	Ud	iP	18 43 25.2			micr sec P Z' (cont.)	0.1 0.6
			Aleutian Islands (h = 30 km).					
"	24	Up	iP	19 00 00.8				
			(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967						1967					
Nov.	26	(cont.)				Nov.	26	(cont.)			
		Up		micr	sec			Ki iSg	05 06 58.3		
		M	E	3.8	20			D = 520 km = 4.7			
		M	N	6.2	18			Um e	05 07 27		
		M	Z	7.5	17			iSg	05 07 52.4		
		D = 8450 km = 76°						Northwest Russia, 67.6° N,			
		Ki	iP	00 19	23.8			32.8° E. Origin time =			
				micr	sec			05 04 24. Explosion?			
		P	Z'	0.1	1.0						
		M	E	5.4	19	"	26	Ki	e(Sn)	06 39 24	
		M	N	3.6	19				i(Sg)	06 39 49.5	
		M	Z	9.7	18						
		Gb	iP	00 20	13.7	"	26	Up	iP	08 21 35.1	
			i	00 20	15.7				ipP	08 21 42.2	
		Um	iP	00 19	35.4			Ki	iP	08 20 42.1	
			eS	00 29	07				ipP	08 20 49.2	
			eSS	00 34	05					micr sec	
		Ka	iP	00 20	10.3			P	Z'	0.1 1.0	
		Ud	iP	00 20	02.6			Gb	iP	08 21 47.3 C	
			i	00 20	09.0				ipP	08 21 55.6	
		Ryukyu Islands (h = 30 km).						Um	iP	08 21 09.3	
		Magn. = 6.0 (Up,Ki).							ipP	08 21 17.4	
"	26	Up	iP	03 07	32.8			Ka	iP	08 21 56.7	
			eX	03 10	42			Ud	iP	08 21 31.7	
			i	03 11	21.6			Kodiak Island. h = 30 km			
			iPP	03 11	31.1			(Up,Ki,Gb,Um).			
		Ki	iP	03 07	25.7 C	"	26	Ki	iP	11 06 59.6	
			iPP	03 11	18.9			Ud	iP	11 07 23.5	
		Um	iP	03 07	27.3			Halmahera (h = 10 km).			
			iSKS	03 17	45						
		Ud	iP	03 07	41.7	"	26	Ki	eP	11 34 58	
			iX	03 10	53.5				i	11 35 21.0	
			iPP	03 11	41.1			Svalbard-Greenland			
		Java (h = 80 km).						(h = 30 km).			
		X at Up,Ud is another				"	26	Ki	iP	22 11 38.4	
		instance of the unidenti-				"	27	Up	iP	04 37 01.7	
		fied phase arriving before						Ki	iP	04 36 07.6	
		PP, which has been mention-								micr sec	
		ed a number of times in						P	Z'	0.1 1.3	
		earlier bulletins.						Sk	iP	04 36 32.2 C	
"	26	Up	iP	03 29	33.7 C				i	04 36 37.8	
				micr	sec			Um	iP	04 36 35.6	
		P	Z'	0.2	0.5			Ka	iP	04 37 24.5	
		Ki	iP	03 30	51.0			Ud	iP	04 36 57.0	
		Um	iP	03 30	13.8			Alaska (h = 15 km).			
		Ud	iP	03 29	40.0						
		Greece-Albania (h = 40 km).					"	27	Up	iP	05 20 35.5
"	26	Up	P	iSg	05 09 50.9			Ki	iP	05 20 04.5 C	
		Ki	R	ePn	05 05 37			Ud	iP	05 20 25.6	
				iSn	05 06 34.4			Colorado (h = 5 km).			
				iLg1	05 06 53.9						
		(cont.)									

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1967				1967				
Nov.	27	Ud	iP	06 05 48.7	Nov.	28	Ki iP	03 06 39.1
"	27	Up	iP	09 26 47.1	"	28	Turkey.	
		Ud	iP	09 26 50.6	"	28	Up iP	04 24 07.8
		Kamchatka (h = 30 km).			"	28	Um iP	04 23 49.3
					"	28	Ud iP	04 24 15.2 D
"	27	Up	iP	13 13 24.3	"	28	South of Japan.	
			ipP	13 13 32.7	"	28	(h = 500 km).	
		Ki	eP	13 14 02	"	28	Ki iP	13 00 41.8 C
			ipP	13 14 09.9	"	28	Ki iP	20 29 13.0 C
		Sk	eP	13 13 56	"	28	Sk iP	20 29 40.0
			ipP	13 14 04.8	"	28	Kodiak Island (h = 15 km).	
		Um	iP	13 13 38.7	"	29	Ud iP	05 26 38.4
			ipP	13 13 46.5	"	29	Hindu Kush (h = 230 km).	
		Ud	iP	13 13 34.0	"	29	Ud iP	07 32 14.9
			ipP	13 13 44.1	"	29	Kurile Islands	
		Gulf of Aden. h = 35 km			"	29	(h = 290 km).	
		(Up, Ki, Sk, Um, Ud).			"	29	UpP iPg	09 25 39.5
"	27	Up	eP	18 28 35	"	29	i	09 25 42.6
		Um	iP	18 28 16.5	"	29	iSg	09 25 48.5
		Ud	eP	18 28 29	"	29	iSn	09 25 51.5
"	27	Ki	eP	21 06 13	"	29	D = 100 km = 0.9	
		Ud	eP	21 06 16	"	29	Sk A eSn	09 27 11
"	27	Up	iP	21 57 47.6	"	29	iSg	09 27 28.7
		Ki	iP	21 57 17.4	"	29	Um E iSg	09 27 06.3
		Sk	iP	21 57 53.5	"	29	Ka KL iSg	09 27 50.4
		Gb	iP	21 58 08.4	"	29	Ud D iPg	09 26 02.2
		Um	iP	21 57 29.9	"	29	iSn	09 26 22.6
		Ud	iP	21 57 57.0	"	29	iSg	09 26 29.4
		Ryukyu Islands (h = 15 km).			"	29	D = 230 km = 2.1	
"	27	Ud	iP	22 02 40.4	"	29	Off northern Baltic coast	
"	28	Up	iP	02 48 11.3 C	"	29	of Uppland, Sweden, 60.7° N,	
			ipP	02 48 44.1	"	29	17.8° E. Origin time =	
				micr sec	"	29	09 25 18. Felt at Skutskär.	
			P	Z' 0.3 0.9	"	29	Ud	iPKP 13 43 14.4
		Ki	iP	02 47 38.3 C	"	29	Tonga-Kermadec Islands	
			ipP	02 48 10.7	"	29	(h = 530 km).	
				micr sec	"	29	Up	iSg 20 30 15.8
			P	Z' 0.2 1.3	"	29	Ud	iSg 20 31 08.3
		Sk	iP	02 48 10.0 C	"	29	Probably blast near	
			ipP	02 48 45.6	"	29	Uppsala.	
		Gb	iP	02 48 32.1 C	"	30	Ud	i(Sg) 03 11 27.8
			ipP	02 49 05.1	"	30	Up	iP 07 28 06.8
		Um	iP	02 47 51.7 C	"	30	iS	07 31 29
			ipP	02 48 27.6	"	30	iSS	07 31 53
		Ud	iP	02 48 19.2 C	"	30	(cont.)	
			i	02 48 32.8	"	30		
			ipP	02 48 52.6	"	30		
		Japan. h = 140 km (Up, Ki,			"	30		
		Sk, Gb, Um, Ud). Magn = 5.9			"	30		
		(Up, Ki).			"	30		

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1967

Nov. 30 (cont.)

Up	iLg1	07 33 38	
	i	07 34 40	
		micr	sec
	P E	2.0	5
	P N	19	5
	P Z	19	6
	P Z'	0.5	0.5
	S E	10	7
	S N	8.9	10
	S Z	32	12
	M E	85	9
	M N	140	9
	M Z	130	9
	D = 2050 km = 18 1/2°.		
Ki	iP	07 29 26.4 C	
	iS	07 33 54	
	i	07 36 10	
	iLg2	07 38 12	
		micr	sec
	P N	3.2	9
	P Z	4.5	10
	P Z'	0.7	1.0
	S E	8.0	9
	S N	4.9	9
	S Z	18	13
	M E	160	12
	M N	92	10
	M Z	84	10
	D = 2900 km = 26°.		
Sk	iP	07 28 50.7	
	i(S)	07 33 01.2	
Gb	iP	07 27 49.6	
	i	07 27 52.4	
Um	iP	07 28 48.5 C	
	iS	07 32 51	
Ka	iP	07 27 23.7	
	i	07 27 27.1	
	iS	07 30 21.5	
	i	07 30 28.2	
Ud	iP	07 28 12.7	
	i	07 28 15.7	
	iS	07 31 29.5	

Albania-Yugoslavia
(h = 30 km). Magn. = 6.5
(Up,Ki). Multiple P:
about 3 sec between the
first small and the second
large onset; the second
onset has generally
shorter periods than the
first one. Ka exhibits
the same features also
for S. -
(cont.)

1967

Nov. 30 (cont.)

- A consequence is that
in small aftershocks
with the same character-
istics, the first small
motion may be missed
as being too small to be
recorded.

"	30	Up	iP	07 47 08.2
			i	07 47 15.9
		Sk	eP	07 47 53
		Gb	iP	07 46 54.3
		Um	iP	07 47 50.2
		Ka	iP	07 46 29.1
		Ud	iP	07 47 16.0
		Albania-Yugoslavia (h = 30 km).		
"	30	Sk	iP	07 58 48.7
		Ka	iP	07 57 25.3
		Ud	iP	07 58 12.7
		Albania-Yugoslavia (h = 30 km).		
"	30	Sk	iP	08 16 31.8
		Ud	iP	08 15 55.5
		Albania-Yugoslavia. Origin time = 08 11 33.		
"	30	Up	iP	08 17 33.8
		Sk	iP	08 18 19.3
		Um	iP	08 18 16.0
			i	08 18 20.9
		Ka	iP	08 16 55.2
		Ud	iP	08 17 41.7
		Albania-Yugoslavia (h = 30 km).		
"	30	Ud	iP	09 25 09.2
		Albania-Yugoslavia.		
"	30	Ud	iP	09 55 47.7
		Albania-Yugoslavia.		
"	30	Ud	iP	09 59 52.8
		Albania-Yugoslavia.		
"	30	Ka	iP	10 17 28.2
		Ud	iP	10 18 15.1
		Albania-Yugoslavia (h = 30 km).		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
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1967	Nov.	30	Up	iPg	11 47 55.2	1967	Nov.	30	Ud	iP	17 11 24.7
				i	11 47 58.6						
				iSn	11 48 17.9		"	30	Ud	iP	22 57 33.2
				iSg	11 48 20.9						
					micr sec		"	30	Ud	iP	23 46 23.0
				Sg	Z' 0.1 0.5						
					D = 230 km = 2.1°						
			Sk	i	11 49 15.1						
				iLg1	11 49 35.8						
			Gb	iPn	11 47 43.5						
			GOT	iPg	11 47 46.8						
				i	11 47 59.2						
				iSg	11 48 03.9						
					D = 180 km = 1.6°						
			Um	iLg1	11 50 08.9						
			Ka	i	11 48 45.6						
			KL5	eSg	11 48 48						
			Ud	D iPg	11 47 33.2 D						
				iSg	11 47 46.7						
					D = 120 km = 1.1°						
					Lake Vener, Sweden, 59.0°N,						
					13.9°E. Origin time =						
					11 47 12.						

Markus Båth
April 9, 1968

"	30	Ki	iP	11 52 08.7
		Sk	iP	11 52 29.6
		Ud	iP	11 52 25.7
				Alma Ata (h = 20 km).
"	30	Ud	iP	12 01 54.3
				Albania-Yugoslavia.
"	30	Gb	iP	12 36 25.8
"	30	Um	iP	13 20 43.4
"	30	Ud	iP	13 23 12.9
"	30	Up	i(PKP)	16 05 48.6
		Ki	ePKP	16 05 39
			iSKP	16 08 06.0
		Um	iSKP	16 08 18.3
		Ud	iPKP	16 05 47.4
				Fiji Islands
				(h = 630 km).

14 MAY 1968

Seismological Institute
Uppsala

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, GÖTEBORG,
UMEÅ, KARLSKRONA and UDDEHOLM

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
Göteborg	(Gb):	57°41.9'N,	11°58.7'E;	h = 66 m
Umeå	(Um):	63°48.9'N,	20°14.2'E;	h = 16 m
Karlskrona	(Ka):	56°09.9'N,	15°35.5'E;	h = 11 m
Uddeholm	(Ud):	60°05.4'N,	13°36.4'E;	h = 240 m

DECEMBER 1 - 31, 1967
.....

1967	Dec. 1	Ud	iP	08 43 04.9	1967	Dec. 1	Ud	iP	16 50 08.0
									Sunda Strait (h = 30 km).
	" 1	Ki	iPn	12 38 03.0	" 1	Ud	iP	17 02 10.0	North Atlantic Ocean
			iSn	12 38 40.6					(h = 30 km).
			iSg	12 38 54.3	" 1	Ud	eP	18 35 24	
			D = 330 km = 3.0°			Ka	iP	18 34 36.8	Albania-Yugoslavia.
			Origin time = 12 37 14.		" 1	Up	iP	20 12 08.0	
" 1	Up	iP	14 07 31.5 C		" 1	Um	iP	20 12 49.0	
		iPcP	14 07 59.8				i	20 12 55.3	
		isS	14 16 03			Ka	iP	20 11 28.8	
		i	14 16 41			Ud	iP	20 12 16.2	Albania-Yugoslavia
		i	14 17 09						(h = 30 km).
			micr sec		" 1	Um	iP	20 27 56.6	
		P	Z 2.2 3		" 1	Up	iPg	20 43 53.1	
		P	Z' 0.4 0.5				iSg	20 43 57.3	
		M	E 5.7 26					micr sec	
		M	N 7.1 26				Sg	Z' 0.2 0.6	
		M	Z 9.2 25			Ud	iSg	20 44 45.6	Probably blast near
	Ki	iP	14 06 41.5 C						Uppsala.
		ipP	14 07 21.3		" 1	Up	iPg	20 43 53.1	
			micr sec				iSg	20 43 57.3	
		P	Z' 1.6 1.5					micr sec	
		M	Z 7.1 18				Sg	Z' 0.2 0.6	
	Sk	iP	14 07 17.5			Ud	iSg	20 44 45.6	Probably blast near
	Gb	iP	14 07 53.0						Uppsala.
		iPcP	14 08 16.2		" 2	Up	eP	00 28 32	
	Um	iP	14 07 04.6 C			Um	iP	00 29 14.2	
		ipP	14 07 44.2				i	00 29 19.5	
		iS	14 15 11			Ka	iP	00 27 53.4 C	
	Ka	iP	14 07 54.4 C			Ud	iP	00 28 40.5	
	Ud	iP	14 07 36.1 C						Albania-Yugoslavia
			Kurile Islands. h = 160 km						(h = 30 km).
			(Ki,Um). Magn. = 6.5 (Up,Ki).						

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå,
Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Dec.	2	Um iP	00 43 51.0	Dec.	2	(cont.)	
		Gulf of California				Ki iP	20 15 47.1
		(h = 30 km).					micr sec
"	2	Up iP	09 31 28.7			P Z'	0.2 1.4
		Ka iP	09 30 46.3			Um eP	20 15 52
		Ud iP	09 31 33.1			i	20 15 58.5
		i	09 31 41.9			i	20 16 17.8
		Albania-Yugoslavia				Ud iP	20 16 21.9
		(h = 30 km).				China (h = 15 km).	
						Magn. = 6.0 (Up,Ki).	
"	2	Ud iP	11 52 23.6 C	"	2	Up iP	23 11 55.6 C
							micr sec
"	2	Up iP	12 48 59.8 C			P Z'	0.1 0.5
		i	12 49 32.0			Ud iP	23 12 02.6 C
			micr sec			Greece.	
		P Z'	0.4 1.0				
		M E	2.2 17	"	3	Ki ePn	12 39 55
		M N	4.2 9			iSn	12 40 39.6
		M Z	5.3 10			iSg	12 40 55.9
		Ki iP	12 50 20.4			D = 410 km = 3.7°.	
			micr sec			Possibly northwest Russia.	
		P Z'	0.3 1.1			Origin time = 12 38 55.	
		Sk iP	12 49 45.1 C	"	3	Ud iP	15 11 35.5
		Gb iP	12 48 46.7 C	"	3	Um iP	18 04 28.8
		Um iP	12 49 42.5 C			Albania-Yugoslavia.	
		Ka iP	12 48 20.5	"	3	Sk iP	19 54 29.1
		Ud iP	12 49 05.5			Um iP	19 54 32.7
		Albania-Yugoslavia				Italy (h = 20 km).	
		(h = 15 km).		"	3	Sk iP	21 34 49.8
		Magn. = 5.8 (Up,Ki).				Italy (h = 30 km).	
"	2	Up iP	14 22 21.3	"	3	Sk iP	03 07 28.0
		Um iP	14 23 04.5			i	03 07 33.8
		Ka iP	14 21 38.7	"	4	Up iP	03 51 53.1
		Ud iP	14 22 26.4			Greece.	
		Albania-Yugoslavia		"	4	KiR iPg	04 59 35.2
		(h = 30 km).				iSg	04 59 57.0
"	2	Up iP	14 23 23.1			D = 190 km = 1.7°.	
		Um iP	14 24 07.5			SkA iSg	05 01 57.7
		Ka iP	14 22 41.2 C			UmE iSg	05 00 40.2
		Ud iP	14 23 28.3			Tornedalen, Sweden,	
		Albania-Yugoslavia.				66.6° N, 23.4° E.	
		Origin time = 14 19 07.				Origin time = 04 59 02.	
"	2	Um iPKP	17 42 09.0	"	4	Gb iP	06 19 18.6
		New Zealand (h = 170 km).				Up i(P)	11 59 17.5
"	2	Up iP	20 16 16.9				
		i	20 16 46.8				
			micr sec				
		M E	5.3 20				
		M N	12 18				
		M Z	1.6 20				
		(cont.)					

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå,
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1967									1967									
Dec.	4	Up	iP	12 08 53.3					Dec.	6	Up	iP	00 06 13.4					
			ipP	12 09 00.8							Um	iP	00 06 52.3					
		Ki	iP	12 08 01.3							Ud	iP	00 06 19.1					
		Ud	iP	12 08 54.2							Albania-Yugoslavia (h = 30 km).							
		Aleutian Islands. h = 30 km (Up).																
"	4	Up	iP	12 28 55.9					"	6	Up	iP	04 54 05.7					
		Ki	iP	12 28 33.3							Ki	iP	04 54 04.8					
											Um	iP	04 54 02.7					
											Ud	iP	04 54 15.7					
											Sumatra (h = 80 km).							
"	4	Up	iP	15 43 07.6					"	6	Up	iPKP	05 21 57.3					
		Ki	iP	15 43 16.1							i		05 22 07.3					
		Um	iP	15 43 05.9							Ki	iPKP	05 21 51.0					
		Ud	iP	15 43 24.7							iSKP		05 24 26.2					
		Hindu Kush (h = 140 km).																
"	4	Up	iPKP	22 23 53.5							Gb	iPKP	05 22 07.8					
		Ud	iPKP	22 23 55.2							Um	i(PKP)	05 21 45.7					
		Tonga-Kermadec Islands (h = 520 km).																
"	4	Up	iP	22 29 40.1							i		05 21 51.4					
			i(PcP)	22 30 02.6							iPKP		05 21 56.9					
		Ki	iP	22 28 45.6							iSKP		05 24 38.3					
		Ud	iP	22 29 37.4 C							Ka	iPKP	05 22 09.9 D					
			iPcP	22 30 06.6							Ud	iPKP	05 21 59.0					
		Aleutian Islands (h = 50 km).																
"	5	Up	iP	05 25 06.9					"	6	Ud	i(Pg)	07 41 55.4					
			ipP	05 25 33.8							iSg		07 42 21.0					
			P	Z'	0.3	0.6					"	6	Up	iP	08 13 48.1 C			
		Ki	iP	05 26 13.4							Ki	iP	08 13 16.7					
		Sk	iP	05 25 46.1							Um	iP	08 13 30.3					
		Gb	iP	05 25 00.7							Ud	iP	08 13 54.9					
		Um	iP	05 25 43.0							Bonin Islands (h = 460 km).							
			isP	05 26 26.3							"	6	Ud	i(Sg)	08 57 07.8			
		Ka	iP	05 24 35.1 C							"	6	Ki	iPg	10 49 14.7			
		Ud	iP	05 25 14.7 C							iSg		10 49 39.0					
		Dodecanese Islands. h = 140 km (Up,Um).																
"	5	Up	iP	09 16 13.6					"	6	Ud	iPg	12 57 49.6					
											iSg		12 58 10.6					
			P	Z'	0.1	0.5												
		Ki	iP	09 15 18.8														
			iPcP	09 16 03.9							"	7	Ki	iP	03 16 31.2			
		Um	iP	09 15 46.5							"	7	Ud	eP	06 59 45			
		Ud	iP	09 16 11.5 C							"	7	Ki	iP	07 34 28.9			
		Aleutian Islands (h = 40 km).																
"	5	Um	iP	21 59 56.3							Um	iP	07 34 56.1					
											i		07 35 12.7					
											(cont.)							

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1967				1967			
Dec.		(cont.)		Dec.		(cont.)	
7	Ud	iP	07 35 20.7 C	7	Sk	ePKP	20 47 41
		Aleutian Islands			Gb	iPKP	20 47 56.7
		(h = 30 km).			Um	iPKP	20 47 36.9
"	7	Ud	eP 08 29 07		Ud	iPKP	20 47 50.5
		Venezuela (h = 40 km).				Kermadec Islands	
						(h = 370 km).	
"	7	Ud	iP 08 34 56.9	"	8	Ud	iP 03 43 11.2
"	7	Ud	iP 09 07 42.8	"	8	Up	iP 06 10 52.5
"	7	Ki ^R	iPg 09 37 17.4			iPn	06 11 58.3
			iSg 09 37 47.1			iPP	06 12 11.1
			D = 260 km = 2.3°				micr sec
			Sk ^A iSg 09 39 05.0			P	Z' 0.1 0.5
			Um iLg1 09 39 09.7			Sk	iP 06 11 08.0 C
			Lofoten, near 68.4° N,			Gb	iP 06 11 21.8
			14.4° E.			iPn	06 12 37.3
			Origin time = 09 36 31.			Um	iP 06 10 37.3 C
"	7	Up	iSKP 10 11 37.6			Ud	iP 06 11 09.0 C
		Ki	iPKP 10 08 14.2 C			iPn	06 12 23.7
		Sk	iPKP 10 08 26.5			iPP	06 12 34.2
		Um	iPKP 10 08 21.9				Kazakh SSR.
		Ud	iPKP 10 08 31.0				Underground explosion.
			iSKP 10 11 42.9	"	8	Um	iP 06 32 24.2
			New Hebrides Islands			i	06 32 37.1
			(h = 150 km).	"	8	Ud	iP 10 12 46.8
"	7	Ud	iP 10 26 28.9				Aleutian Islands
"	7	Um	iP 10 51 24.8				(h = 30 km).
"	7	Ud	iP 12 12 59.2	"	8	Ki	iP 11 21 30.2
"	7	Ud	iP 13 42 58.2				Aleutian Islands
"	7	Ud	iP 13 58 17.9				(h = 15 km).
"	7	Ki	iP 18 09 10.6	"	8	Um	iP 11 43 43.7
		Sk	iP 18 08 36.8	"	8	Sk	iP 13 14 05.0
		Ka	iP 18 07 13.6	"	8	Ud	iP 18 36 47.6 D
		Ud	iP 18 07 59.6	"	8	Ud	eP 19 11 24
			Albania-Yugoslavia			i	19 11 30.9
			(h = 30 km).	"	8	Um	ePg 19 34 12
"	7	Ud	iP 20 03 03.9			iSn	19 34 44.7
"	7	Ud	iP 20 17 13.7			iSg	19 35 01.0
							D = 400 km = 3.6°
							Origin time = 19 33 02.
"	7	Up	iPKP 20 47 48.1	"	8	Ud	iP 22 35 26.6
			i 20 47 53.1	"	8	Sk	iP 22 56 39.2
			i 20 47 56.4				
			(cont.)				

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1967				1967			
Dec.	8	Ud	iP	23 07 11.3	Dec.	9	(cont.)
"	9	Up	iP	01 20 44.3			Ud iP _{PKP} 11 09 51.9
		Ud	iP	01 20 46.3			Santa Cruz Islands (h = 30 km).
"	9	Ud	iP	01 31 01.8 D	"	9	Ki iP _n 12 39 32.1
"	9	Up	iP	03 14 01.7			iP ^x 12 39 40.6
			i	03 14 06.8			iS _n 12 40 18.7
				micr sec			iLg ₁ 12 40 31.3
			P	Z' 0.1 0.8			D = 430 km = 3.9°.
			M	N 0.9 11			Um iS _g 12 42 05.9
			M	Z 0.9 11			Probably northwest Russia.
		Ki	iP	03 15 22.6			Origin time = 12 38 30.
			i	03 15 30.8			Explosion?
		Sk	iP	03 14 42.1	"	9	Up iP 13 50 22.5
			i	03 14 47.8			Ud iP 13 50 32.0
		Gb	iP	03 13 45.2 C			i 13 50 34.3
		Um	iP	03 14 43.7			Formosa (h = 30 km).
			i	03 14 50.1	"	9	Ud iP 14 41 56.1
		Ka	iP	03 13 18.5	"	9	Um iP 14 57 52.9 C
			i	03 13 23.8	"	9	Ud iP 17 23 31.5
		Ud	iP	03 14 04.1	"	9	Ud iP 18 42 38.1 C
			i	03 14 09.8			Vancouver Island
		Adriatic Sea (h = 30 km).					(h = 30 km).
		Multiple P.					
"	9	Ki	iP	05 04 02.6	"	9	Ud iP _g 19 33 04.0
		Ud	iP	05 03 52.5			iS _g 19 33 34.7
		Hindu Kush (h = 230 km).					D = 260 km = 2.3°.
"	9	Ki	eP	05 22 44			Origin time = 19 32 19.
		Ud	iP	05 23 29.4 D	"	9	Up iP 22 22 04.3
"	9	Up	iPKP	05 46 55.3			Ki iP 22 21 10.3
			iSKP	05 49 44.2			Gb iP 22 22 17.8
		Sk	ePKP	05 46 49			Um iP 22 21 38.7
		Gb	iPKP	05 47 05.5 D			Ud iP 22 22 02.7 C
		Um	iPKP	05 46 49.5			Unimak Island (h = 15 km).
			iSKP	05 49 33.3	"	10	Up ^P i(S _g) 05 45 02.4
		Ka	iPKP	05 47 07.6			Ki ^R iP _n 05 40 55.5
		Ud	iPKP	05 46 57.3			iS _n 05 41 57.5
			iSKP	05 49 46.5			iLg₁ 05 42 19.6
		Tonga-Kermadec Islands (h = 590 km).					D = 580 km = 5.2°.
"	9	Up	---	---			Sk ^A iS _g 05 44 46.7
				micr sec			Um ^E iS _n 05 42 35.1
		M	E	0.8 18			iS _g 05 43 08.9
		M	N	1.0 20			Ud ^D e(S _g) 05 45 39
		M	Z	1.7 18			Northwest Russia, 67.1° N,
		Ki	ePKP	11 09 34			33.9° E.
		Sk	iPKP	11 09 46.3			Origin time = 05 39 36.
		Um	iPKP	11 09 41.7			Explosion?
		(cont.)					

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1967				1967					
Dec.	10	Ud	iP	06 30 27.1	Dec.	10	(cont.)		
"	10	Um	i(P)	07 00 41.0			Magn. = 6.0 (Up,Ki).		
			i	07 03 33.6			Multiple P: three phases		
"	10	Ud	iP	07 23 31.7			can be distinguished,		
"	10	Ud	iP	07 45 29.8	"	10	✓ Ki R	ePn 14 12 44	
"	10	Ud	eP	08 00 07			iSn	14 13 28.5	
"	10	Up	iP	08 04 49.1			iSg	14 13 44.4	
		Ud	iP	08 05 05.2			D = 410 km = 3.7°.		
"	10	Ud	iP	08 35 42.8			Sk A	eSg 14 16 16	
"	10	Ki	iPP	11 01 09.8			Um E	iSg 14 14 41.8	
		Um	iP	10 59 37.1			Northwest Russia-Finland		
		Ud	iP	10 59 42.9			border region, 67.6°N,		
		Iran	(h = 50 km).				30.1°E.		
"	10	Up	iP	12 18 34.3	"	10	Up	eP 15 42 25	
			i	12 18 39.5			i	15 42 27.1	
			i	12 18 43.0			Ki	iP 15 42 12.8	
			iS	12 28 16			Sk	iP 15 42 41.7	
				micr sec			Um	iP 15 42 10.5	
		P	Z'	0.2 1.0			i	15 42 13.3	
		M	E	2.5 19			i	15 42 34.4	
		M	N	3.7 17			Ud	eP 15 42 39	
		M	Z	2.9 18			Kazakh SSR (h = 50 km).		
		D	= 8350 km = 75°.		"	10	Ud	iP 18 52 34.5	
Ki		iP		12 17 57.2	"	10	Up	iP 18 53 54.4 ✓	
		i		12 18 04.2			i	18 54 13.9	
		iS		12 27 06			ipP	18 54 31.9	
				micr sec				micr sec	
		P	Z'	0.1 1.0			P	Z'	0.1 1.0
		S	E	1.5 6			Ki	iP	18 53 48.9 ✓
		S	N	0.9 6			ipP		18 54 22.5
		M	E	2.5 17			Sk	iP	18 54 09.8 C
		M	N	1.0 17			Gb	iP	18 54 13.7
		M	Z	4.2 21			Um	iP	18 53 47.2 C
		D	= 7600 km = 68 1/2°.				ipP		18 54 23.4
Sk		iP		12 18 08.0			Ka	iP	18 54 02.5
		i		12 18 14.5			Ud	iP	18 54 07.3 ✓
Gb		iP		12 18 37.2			ipP		18 54 43.8
		i		12 18 45.2			Burma. h = 150 km (Up,Ki,		
Um		iP		12 18 17.6			Um,Ud).		
		i		12 18 22.1	"	10	Up	iP	19 41 34.5
		i		12 18 26.0			Ki	iP	19 41 04.6
		iS		12 27 39			Um	iP	19 41 23.0
Ka		e(P)		12 19 01			Ka	iP	19 41 46.1
Ud		iP		12 18 28.2			New Mexico. Underground		
		i		12 18 32.4			nuclear explosion.		
California (h = 5 km).									
(cont.)									

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1967				1967						
Dec.	10	Um	iP	19 45 57.9	Dec.	11	Ki	iP	09 28 02.5	
				South of Japan (h = 50 km).				i	09 28 15.3	
"	10	Ud	iP	20 05 14.9	"	11	Ki	iP	14 28 49.7	
"	10	Up	iP	23 01 15.2 D	"	11	Um	iP	16 50 38.8	
			iS	23 09 11				i	16 51 14.9	
				micr sec	"	11	Um	iP	17 45 44.3	
		P	Z	0.9 4				i	17 45 47.6	
		P	Z'	0.1 0.5						
		S	E	1.0 8	"	11	Up	iP	19 14 24.0	
		S	N	2.0 10			Um	iP	19 14 37.3	
		S	Z	1.6 10					Arabian Sea (h = 30 km).	
		M	E	41 19	"	11	Up	iP	19 57 54.2	
		M	N	63 21				i	19 58 00.1	
		M	Z	59 20			Ki	iP	19 58 32.6	
				D = 6450 km = 58°.				i	19 58 35.6	
		Ki	iP	23 01 32.5			Sk	eP	19 58 25	
			iS	23 09 46			Um	iP	19 58 09.8 C	
				micr sec			Ud	iP	19 58 05.8	
		P	E	1.1 5				iPP	20 00 10.3	
		P	Z	2.0 5					Gulf of Aden (h = 30 km).	
		P	Z'	0.4 1.0						
		S	E	3.0 10	"	11	Up	iP	20 59 44.4	
		S	N	2.1 10			Ki	iP	21 00 00.7	
		M	E	33 16			Sk	iP	21 00 09.9	
		M	N	24 16			Um	iP	20 59 48.3	
		M	Z	39 16			Ud	iP	20 59 58.7	
				D = 6700 km = 60 1/2°.					India (h = 10 km).	
		Sk	iP	23 01 41.2	"	11	Ud	iP	21 31 18.5	
			i	23 02 34.0						
			i	23 04 19.6	"	11	Up	iP	22 39 28.8	
		Gb	iP	23 01 30.9				i	22 39 38.9	
		Um	iP	23 01 19.6 D	"	11		iS	22 47 02	
			iPP	23 03 21.4					micr sec	
			i	23 09 01						
			iS	23 09 21						
		Ka	iP	23 01 14.5				P	Z'	0.1 0.7
		Ud	iP	23 01 29.9				M	E	1.8 19
				India (h = 30 km).				M	N	3.3 18
				Magn. = 6.5 (Up,Ki).				M	Z	2.6 20
										D = 5900 km = 53°.
"	10	Um	iP	23 15 18.0			Ki	iP	22 40 07.3 C	
"	11	Ki	iP	00 02 29.2				iPa	22 43 40	
		Um	iP	00 02 16.3				eS	22 47 54	
		Ud	iP	00 02 25.4					micr sec	
				India (h = 30 km).						
								P	Z'	0.2 1.0
								M	E	1.8 15
								M	N	1.9 15
								M	Z	1.8 17
"	11	Um	eP	02 44 30						D = 6400 km = 57 1/2°.
			i	02 44 31.8			Sk	iP	22 40 00.8	
"	11	Ud	iP	06 57 26.5			Gb	iP	22 39 33.5	
"	11	Um	e(Sg)	08 22 20			Um	iP	22 39 44.6 C	
								iS	22 47 16	

(cont.)

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1967						1967					
Dec.	11	(cont.)				Dec.	12	Um	iP		12 51 31.7
		Um	iPS	22 47 37		"	12	Ki	eP		14 31 31
			iSS	22 51 11				Um	eP		14 31 41
		Ka	iP	22 39 13.9				Ud	iP		14 31 57.7
		Ud	iP	22 39 40.3							
		Gulf of Aden (h = 30 km).									
		Magn. = 5.8 (Up, Ki).									
"	11	Ki ^R	iP	23 11 45.6		"	12	Um	iP		15 51 57.8
		i	i	23 11 52.4		"	12	Up	eP		15 58 49
			iS	23 13 40.1							micr sec
		D = 1110 km = 10.0°							M	N	1.3 21
		Sk ^A	iP	23 11 52.5				Ki	iP		15 59 05.1
			iS	23 13 45.3				Sk	iP		15 59 14.8
		Um ^E	iP	23 12 21.4				Um	iP		15 58 52.1
			iS	23 14 35.8					ipP		15 59 00.5
		Jan Mayen, 71° N, 8° W.						Ud	iP		15 59 02.7
		Origin time = 23 09 26.									India. h = 30 km (Um).
		Solution checked by									
		Finnish and Norwegian									
		data.					"	12	Um	i	16 53 34.7
									i(Sg)		16 53 47.8
"	12	Up	iP	06 28 30.0		"	12	Ki ^R	iSg		18 04 45.0
		Ki	iP	06 28 46.8 D				Sk ^A	iSg		18 04 48.8
		Sk	iP	06 28 55.8				Um ^E	iPg		18 04 24.0
		Um	iP	06 28 34.2					iSg		18 05 12.2
		Ud	iP	06 28 43.8				Ud ^D	iSg		18 06 41.2
		India (h = 30 km).						Nordlands Fylke, Norway, 66.4° N, 14.8° E. Origin time = 18 03 15.			
"	12	Up		---							
				micr sec							
		M	E	0.8 21			"	12	Ud	iP	20 08 47.4
		M	N	1.1 22							
		M	Z	1.4 22			"	13	Gb	eP	02 57 29
		Ki		---							
				micr sec			"	13	Up	i(P)	10 26 10.1 C
		M	E	0.8 18							
		M	N	0.8 20			"	13	Up	iP	10 49 01.5 C
		M	Z	1.3 18					ipP		10 49 29.5
		Um	iPP	08 28 05							micr sec
			i	08 28 50					P	Z'	0.6 0.9
			iPKS	08 29 03				Ki	iP		10 48 12.8 C
		Loyalty Islands							iPcP		10 49 04.6
		(h = 40 km).							iPP		10 50 18.3
"	12	Up	iP	10 22 24.6							micr sec
			i	10 22 27.8					P	Z'	0.3 0.8
		Ki	iP	10 22 00.7				Sk	iP		10 48 48.9 C
		Sk	eP	10 22 28				Gb	iP		10 49 22.3 C
		Ud	iP	10 22 34.2					iPP		10 51 53.8
		Ryukyu Islands (h = 50 km).						Um	iP		10 48 35.4 C
									isP		10 49 13.0
"	12	Ki	iP	10 35 49.7				Ka	iP		10 49 24.5 C
		Ud	iP	10 36 02.5					iPcP		10 49 46.8
		Pamir.						(cont.)			

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Ka = Karlskrona, Ud = Uddeholm

1967				1967			
Dec.	13	(cont.)		Dec.	13	(cont.)	
		Ud	iP 10 49 06.8 C			Up	micr sec
		Kurile Islands. h = 110 km				M N	3.2 30
		(Up,Um).				M Z	3.1 30
		Magn. = 6.3 (Up,Ki).				Ki	iPKP 19 26 12.8
							micr sec
"	13	Up	iP 11 08 51.1			PKP Z'	0.2 0.9
			micr sec			M E	1.4 22
		P	Z' 0.1 0.7			M N	0.9 21
		Ki	iP 11 08 01.4 C			M Z	2.6 23
		Sk	iP 11 08 37.6			Sk	i(PKP) 19 26 13.6
		Um	iP 11 08 24.1				iPKP 19 26 23.7
		i	11 09 31.6			Gb	i(PKP) 19 26 23.7
		Ka	iP 11 09 15.0				iPKP 19 26 35.1
		Ud	iP 11 08 55.7			Um	i(PKP) 19 26 11.3
		i	11 08 57.5				iPKP 19 26 19.1
		Kurile Islands					iPKS 19 29 38
		(h = 140 km).				Ka	ePKP 19 26 35
						Ud	i(PKP) 19 26 21.3
"	13	Up	iSg 13 16 07.3				iPKP 19 26 30.1
		Ki	eSg 13 18 36				iPKS 19 29 51.5
		Sk	eSg 13 17 58			New Hebrides Islands (h = 50 km). Magn. = 6.1 (Up,Ki).	
		Um	iSg 13 16 37.6				
		Ud	iSg 13 17 12.3				
		Esthonia. Explosion?		"	13	Ud	iP 21 39 04.8
"	13	Sk	eP 15 02 09	"	13	Ki	iPKP 21 53 14.6
"	13	Um	iP 15 32 54.5			Um	iPKP 21 53 21.4
"	13	Ki	iP 15 48 51.9			Ud	i(PKP) 21 53 21.3
		Ud	eP 15 49 16				iPKP 21 53 31.8
		ipP	15 49 42.7			Fiji Islands (h = 560 km).	
		Mindanao. h = 100 km (Ud).		"	14	Up	eP 01 58 22
"	13	Up	i(Sg) 16 03 42.3	"	14	Up	iP 02 29 38.5
			micr sec			iS	02 37 04
		(Sg) Z'	0.1 1.0				micr sec
		Ud	e 16 03 19			S E	0.4 8
		i(Sg)	16 03 29.9			M E	0.7 15
		Probably blast.				M N	1.6 16
						M Z	1.3 16
"	13	Up	iP 17 58 00.9			D = 5850 km = 52 1/2°.	
		Ki	iP 17 57 15.1 D			Ki	iP 02 30 14.5
		Sk	iP 17 57 51.4			eS	02 38 12
		Gb	eP 17 58 22				micr sec
		Um	iP 17 57 35.5			S E	0.6 9
		Ud	iP 17 58 07.1			S N	0.5 9
		Sea of Okhotsk				M E	1.0 14
		(h = 310 km).				M N	1.0 15
						M Z	2.0 16
"	13	Ud	eP 18 57 45			D = 6400 km = 57 1/2°.	
"	13	Up	iPKP 19 26 27.2			Sk	iP 02 30 14.8
			micr sec			Um	iP 02 29 52.0
		M E	0.7 19			iS	02 37 29
		(cont.)				Ka	eP 02 29 29
						(cont.)	

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1967				1967			
Dec.	14	(cont.)		Dec.	14	(cont.)	
		Ud	iP 02 29 50.7			Up	i 19 24 16.3
			i 02 29 55.5			Ki	iP 19 23 58.7
		Arabian Sea (h = 30 km).				Sk	iP 19 24 30.3
		Magn. = 5.4 (Up,Ki).				Ud	iP 19 24 27.7
						Tsinghai, China (h = 30 km).	
"	14	Up	iP 03 00 19.5				
			i 03 00 25.2				
		Ki	iP 03 01 26.9	"	14	Ud	iPKP 20 47 14.2
		Sk	eP 03 01 01				i 20 47 23.6
			i 03 01 14.1			Tonga-Kermadec Islands (h = 110 km).	
		Um	iP 03 00 56.9				
		Ka	iP 02 59 49.5	"	15	Up	iPKP 06 21 11.4
		Ud	iP 03 00 27.7			Ud	iPKP 06 21 12.2 D
		Crete (h = 5 km).					i 06 22 20.4
"	14	Ud	eP 08 40 56			Kermadec Islands (h = 30 km).	
		Crete (h = 80 km).					
"	14	Up	i 11 50 19.6	"	15	Up	iPKP 20 06 49.8
			i(Sg) 11 50 48.4				micr sec
		Ka	i 11 49 28.2				PKP Z' 0.2 0.9
			i(Sg) 11 50 00.4			Ki	ePKP 20 06 37
						Sk	iPKP 20 06 42.4 C
"	14	Ki	iPn 12 57 03.9			Gb	iPKP 20 06 58.4
			iSn 12 57 50.2				i 20 07 05.0
			iLg1 12 58 03.1			Um	iPKP 20 06 37.8
			D = 420 km = 3.8°.			Ka	iPKP 20 06 59.5 C
		Possibly northwest Russia.				Ud	iPKP 20 06 51.6 C
		Origin time = 12 56 03.				Kermadec Islands (h = 60 km).	
		Explosion?					
"	14	Um	iP 13 13 11.5	"	15	Up	iSg 20 45 58.2
							micr sec
"	14	Um	iP 13 40 45.9				Sg Z' 0.1 0.7
						Ud	iSg 20 46 50.3
"	14	Ki	iP 17 42 00.6			Probably blast near Uppsala.	
"	14	Up	iP 18 35 34.6	"	15	Ud	i(P) 21 52 10.2
			iPcP 18 36 14.3				i 21 53 01.8
		Ki	iP 18 34 40.2				i 21 58 00.8
			iPcP 18 35 43.7				
		Sk	iP 18 35 18.6	"	16	Ud	iP 11 50 13.2
			iPcP 18 36 04.8				
		Gb	iP 18 35 53.8	"	16	Up	iPKP 13 32 59.7 C
		Um	iP 18 35 05.7				i 13 33 05.5
			iPcP 18 35 57.4				micr sec
		Ka	iP 18 35 58.8				PKP Z' 0.1 0.7
		Ud	iP 18 35 38.2			Um	iPKP 13 32 48.4
			i 18 35 40.6			Ud	iPKP 13 33 01.5 C
			iPcP 18 36 16.7			Kermadec Islands (h = 400 km).	
		Kamchatka (h = 30 km).					
		Pronounced PcP.					
"	14	Up	iP 19 24 12.4	"	16	Up	eP 21 04 35
		(cont.)				(cont.)	

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1967				1967			
Dec.	Day	(cont.)		Dec.	Day	(cont.)	
			Up i 21 05 18.3				Sk eP 17 57 30
			micr sec				Ud iP 17 57 39.4
			M E 3.2 19				
			M N 7.7 22	"	17	Um iP	18 29 20.5
			M Z 7.9 22				
			Ki iP 21 03 42.9	"	18	Ud iP	02 46 11.7
			i 21 04 13.1				
			iPP 21 05 47.7	"	18	Ud iP	03 51 02.5 C
			micr sec				
			M E 6.8 22	"	18	Ud iP	05 07 38.4
			M N 3.6 22				
			M Z 5.1 20	"	18	Um iPKP 06 43 34.4	
			Sk eP 21 04 20			Ud iPKP 06 43 40.0	
			Gb iP 21 04 55.9			Loyalty Islands	
			iPcP 21 05 21.2			(h = 30 km).	
			Um iP 21 04 03.0	"	18	Ud iP	08 14 31.1
			i 21 04 09.1				
			iPcP 21 04 45.8	"	18	Up ^P iSg 09 54 34.2	
			iPa 21 07 50			Um ^E iSg 09 56 00.5	
			i 21 08 14			Ud ^D iPg 09 54 40.8	
			Ud iP 21 04 39.4			iSg 09 54 57.3	
			iPcP 21 05 11.6			Probably Gästrikland, Sweden, 60.7°N, 16.7°E. Origin time = 09 54 03.	
			Kamchatka (h = 25 km).				
			Magn. = 6.0 (Up,Ki).				
"	17	Up	iP 00 32 53.1	"	18	Up iP	10 29 39.2
			micr sec			Sk eP	10 29 29
			P Z' 0.2 0.7			Um iP	10 29 23.2
			Ki iP 00 33 00.8			i	10 29 27.3
			i 00 33 11.4			Ud iP	10 29 36.9
			micr sec				
			P Z' 0.2 1.0	"	18	Ki iP	10 34 53.6
			Sk iP 00 33 18.5			Um iP	10 35 04.4
			Gb iP 00 33 14.8			Mariana Islands (h = 40 km).	
			i 00 33 15.9	"	18	Ki iP	10 43 38.7
			i 00 33 41.6			Mariana Islands (h = 100 km).	
			Um iP 00 32 51.2 D				
			iPP 00 34 24.9	"	18	Up iP	11 00 44.0
			Ka iP 00 32 58.5			micr sec	
			Ud iP 00 33 10.0			P Z' 0.1 0.6	
			ipP 00 33 32.6			Ki iP	11 00 45.6
			Hindu Kush.			Sk iP	11 01 04.9
			h = 110 km (Ud).			Gb iP	11 01 05.3
			Magn. = 6.2 (Up,Ki).			Um iP	11 00 39.3
"	17	Um	iP 10 29 44.7			Ud iP	11 00 59.1
						i	11 01 02.7
"	17	Up	iP 16 16 24.8			Nepal (h = 40 km).	
			Ki iP 16 16 03.5	"	18	Ud iPg	13 52 30.3 D
			Ud iP 16 16 32.2			iSg	13 53 04.6
			i 16 16 43.6				
			Samar (h = 5 km).				
"	17	Up	iP 17 57 37.2				
		(cont.)					

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1967				1967			
Dec.	18	Ud	iPg iSg	13 54 13.0 13 54 55.1	Dec.	19	(cont.) Up iX 03 32 13.2 iPP 03 32 55.5 micr sec P Z' 0.1 0.5 Ki iP 03 31 28.7 iX 03 32 12.5 Sk iP 03 31 47.7 iPP 03 33 24.5 Gb iP 03 31 45.4 Um iP 03 31 19.9 Ka iP 03 31 28.5 iX 03 32 20.2 Ud iP 03 31 39.3 Tadzhik SSR (h = 90 km).
"	18	Up	iP i M E M N M Z Ki iP micr sec P Z' M E M N M Z Sk e(P) i Um iP Ud iP China (h = 30 km).	14 17 53.1 14 18 26.0 1.2 16 0.9 12 1.4 15 14 17 22.4 micr sec 0.1 1.2 1.0 14 0.6 14 0.8 12 14 18 07 14 18 10.4 14 17 31.7 14 18 04.5	"	19	Up iP 06 07 07.4 Um iP 06 06 48.4 Ud iP 06 07 14.4 South of Japan (h = 360 km).
"	18	Up Ud	eP iP	14 17 49 14 17 54.1	"	19	Up iP 08 36 46.8 micr sec P Z' 0.1 0.6 Ki iP 08 38 07.2 C Sk iP 08 37 32.1 Gb iP 08 36 32.6 Um iP 08 37 27.9 Ka iP 08 36 08.0 Ud iP 08 36 53.9 Albania-Yugoslavia (h = 20 km).
"	18	Up	iP	15 17 00.6	"	19	Ki iPn 10 56 53.6 iSn 10 57 39.1 iSg 10 57 55.3 D = 410 km = 3.7° Um iSg 10 58 57.4 Northwest Russia-Finland border region. Origin time = 10 55 54. Explosion?
"	18	Ud	iP	17 36 23.9 California (h = 10 km).	"	19	Ki iP 12 21 49.3
"	18	Um	iP	19 13 45.0 C	"	19	Ud eP 14 51 37 Aleutian Islands (h = 60 km).
"	18	Up	iP i	19 23 35.1 19 22 50.5 19 23 10.7 19 23 41.8 Kurile Islands.	"	20	Um iP 00 17 40.6
"	18	Up	iP	21 49 44.6 C 21 49 48.6	"	20	Sk eP 01 47 29 Ud iP 01 47 39.4 China.
"	18	Up	iP	21 53 20.8	"	20	Up iP 02 05 56.6
"	18	Up	iP	22 01 12.4	"	20	Ud iP 02 28 21.2 C
"	18	Ki Ud	iP iP	22 56 39.9 22 56 11.6 Iran-Iraq (h = 40 km).	"	20	
"	18	Um	eP	23 41 51	"	20	
"	19	Um	iP	00 46 25.8	"	20	
"	19	Up	iP (cont.)	03 31 22.7	"	20	

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1967				1967				
Dec.	20	Up	iP	11 45 47.0	Dec.	21	(cont.)	
			iX	11 45 54.5			Ki iP	00 15 09.0
			iS	11 55 01				micr sec
			iPS	11 55 29			M E	0.9 12
				micr sec			M N	0.3 12
			P Z'	0.1 0.7			Sk iP	00 14 32.5 D
			M E	0.9 23			Gb iP	00 13 34.4
			M N	1.8 22			Um iP	00 14 29.4
			M Z	1.4 22			Yugoslavia (h = 20 km).	
			D = 8000 km = 72°.					
		Ki	iP	11 45 47.8	"	21	Up iP	02 39 41
			iX	11 45 55.5			iX	02 43 08.2
			eS	11 55 06			i(PP)	02 44 02
			iPS	11 55 34			iPP	02 44 10
				micr sec			iS	02 51 45
			S E	0.7 7			iPS	02 53 32
			M E	0.8 21			i(PKKP)	02 55 28.7
			M N	0.6 15				micr sec
			M Z	0.9 19			P Z	1.5 8
			D = 8000 km = 72°.				PP E	1.2 4
		Sk	iP	11 46 04.1			PP Z	4.2 8
			ipP	11 46 22.1			PP Z'	0.4 1.5
			i	11 47 05.8			M E	150 24
		Gb	iP	11 46 03.7			M N	74 25
			iX	11 46 11.3			M Z	200 23
			ipP	11 46 21.4			(D = 12000 km = 108°).	
		Um	iP	11 45 43.3			Ki iP	02 39 52
			ipP	11 46 01.3			iX	02 43 44.9
			iS	11 54 57			ePKP	02 43 59
			iPS	11 55 27			iPP	02 44 23
		Ka	iP	11 45 51.7			iSKS	02 50 28
			iX	11 45 59.8			iS	02 52 08
			Andaman Islands. h = 70 km				iPS	02 53 53
			(Sk, Gb, Um). Magn. = 6.1				iPKKP	02 54 53.8
			(Up, Ki). Multiple P: X-P =				i	02 55 03.4
			7.7 sec in average.					micr sec
"	20	Up	iP	12 12 34.5			P E	0.4 9
"	20	Um	eP	13 00 22			P Z	1.9 9
"	20	Ka	iP	14 12 11.9			PP E	2.2 7
"	20	Up	iPKP	17 26 43.3			PP Z	3.6 8
			iPKS	17 29 57.4			PP Z'	0.6 2.0
		Ki	iPKP	17 26 29.5			SKS E	4.5 16
		Sk	iPKP	17 26 40.2			S N	6.2 15
		Um	iPKP	17 26 36.3			M E	130 23
			i	17 26 41.0			M N	46 22
			New Hebrides Islands				M Z	240 24
			(h = 140 km).				(D = 12200 km = 110°).	
"	20	Um	iP	19 56 17.8			Sk iP	02 39 37.7
"	21	Up	iP	00 13 47.6			i	02 40 28.0
		(cont.)					iX	02 43 23.8
							iPP	02 44 09.3
							iPKKP	02 55 07.9
							i	02 55 25.9
							Gb iP	02 39 30.6
							(cont.)	

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1967	Dec. 21	(cont.)				1967	Dec. 21	Um	iP	17 03 04.6			
		Gb	i	02 42 42.8			"	21	Ki ^R	iSg	17 47 38.2		
			iPP	02 43 48.0					Sk ^A	ePg	17 47 05		
			i(PKKP)	02 55 39.1						iSg	17 47 42.7		
		Um	iP	02 39 47 C					Um ^E	iPg	17 47 17.3		
			iX	02 43 36.2						iSn	17 47 50.9		
			iPP	02 44 21						iSg	17 48 05.6		
			iS	02 52 01					Nordlands Fylke, Norway, 66.4°N, 14.8°E. Origin time = 17 46 11.				
			iPKKP	02 54 56.3			"	21	Up	iPKP	18 05 43.1		
		Ka	iPKP	02 43 41.9							micr sec		
			i	02 43 52.8							PKP Z' 0.1 0.7		
		Chile (h = 30 km).							Sk	iPKP	18 05 41.6		
		Magn. = 7.3 (Up,Ki).							Um	i(PKP)	18 05 29.1		
		The phase marked X may be								iPKP	18 05 33.3		
		the unidentified phase							Kermadec Islands (h = 25 km).				
		arriving before PP in this						"	21	Um	iP	18 29 46.9	
		distance range, which has							"	21	Up	iP1	23 54 35.5
		been mentioned several									iP2	23 54 44.2	
		times in earlier bulletins.									iP3	23 54 52.5	
	"	21	Um	iP	03 51 25.7							micr sec	
				i	03 51 33.7						P3 Z' 0.1 0.7		
	"	21	Um	iP	04 57 16.2				Ki	iP1	23 54 37.0		
	"	21	Um	iP	05 19 50.7					iP2	23 54 44.6		
	"	21	Um	iP	05 45 12.7					iP3	23 54 54.7		
	"	21	Up	iP	11 49 49.5				Sk	iP2	23 54 59.5		
			Ki	iP	11 49 53.9 C				Um	iP1	23 54 32.7		
					micr sec					iP2	23 54 41.4		
				P	Z' 0.1 1.3					iP3	23 54 50.2		
			Sk	iP	11 49 37.6 C				Ka	i(P1)	23 54 35.8		
			Gb	iP	11 49 35.8					iP3	23 54 55.6		
			Um	iP	11 49 55.0 C				Andaman Islands (h = 30 km).				
				i	11 49 58.2				Multiple P: P2-P1 = 8.3 sec and P3-P1 = 17.4 sec (averages); some of these phases could be pP.				
		Colombia (h = 30 km).						"	22	Um	iP	02 33 29.4	
	"	21	Gb	iPKP	12 00 46.5				"	22	Up	iPKP	05 30 01.5 C
			Um	iPKP	12 00 30.6						Um	iPKP	05 30 09.1 C
			Ka	iPKP	12 00 48.8				South Sandwich Islands (h = 30 km).				
		Fiji Islands (h = 610 km).						"	22	Up	iP	10 11 39.3 C	
	"	21	Up	iP	16 23 14.0							micr sec	
					micr sec						P	Z' 0.1 0.6	
			M	N	1.4 17				"	22	Um	iP	13 00 27.3
			M	Z	2.2 17								
			Ki	iP	16 22 22.4				Kurile Islands (h = 50 km).				
	"	21	Up	iP	16 27 24.5 D								
		Kurile Islands (h = 50 km).											

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1967						1967						
Dec.	22	Gb	iP	18 36 39.4		Dec.	24	(cont.)				
"	22	Up	iPKP	23 28 42.7				Sk	iP	04 24 19.5		
			i	23 28 45.2					iS	04 26 03.5		
				micr sec				Um	iP	04 24 42.5	C	
			PKP	Z' 0.2 1.0					iS	04 26 44		
		Ki	ePKP	23 28 24				Jan Mayen (h = 30 km).				
		Sk	iPKP	23 28 35.5	D	"	24	Ki	ePn	04 50 51		
			i	23 28 42.6					iSn	04 51 44.2		
		Gb	iPKP	23 28 52.1					iSg	04 52 06.2		
			i	23 28 55.6					D = 500 km = 4.5°.			
		Um	iPKP	23 28 29.6				Um	iSg	04 53 01.9		
		Ka	iPKP	23 28 52.4				Probably northwest Russia.				
			i	23 28 57.3				Origin time = 04 49 39.				
		Kermadec Islands						Explosion?				
		(h = 20 km).										
"	23	Up	iP	16 15 31.8		"	24	Up	iP	08 44 02.6		
		Ki	iP	16 14 41.5					M	E 1.5 16		
		Um	iP	16 15 04.5					M	N 1.8 15		
			ipP	16 15 10.5					M	Z 3.4 18		
		Kurile Islands.						Ki	eP	08 43 09		
		h = 20 km (Um).								micr sec		
"	23	Um	eP	17 27 18					M	E 2.2 17		
		Samar (h = 150 km).							M	N 1.5 14		
"	23	Ki	iPn	18 58 25.7				Um	iP	08 43 34.6		
			iSn	18 59 12.2					i	08 43 40.0		
			iLg1	18 59 24.6				Sakhalin (h = 30 km).				
			D = 420 km = 3.8°.			"	24	Um	iP	12 27 44.5		
		Um	iSg	19 01 05.9								
		Probably northwest Russia.						"	24	Ki	ePn	13 18 50
		Origin time = 18 57 25.								i	13 19 10.8	
		Explosion?								iSn	13 19 34.6	
"	24	Up	iPKP	02 43 28.3					iSg	13 19 50.9		
		Ki	iPKP	02 43 20.5					D = 410 km = 3.7°.			
			iSKP	02 46 06.4				Um	iSn	13 20 17.1		
		Gb	iPKP	02 43 37.6					iSg	13 20 44.2		
		Um	iPKP	02 43 23.0				Northwest Russia-Finland				
			iSKP	02 46 18.6				border region.				
		Fiji Islands (h = 430 km).						Origin time = 13 17 50.				
								Explosion?				
"	24	Up	iP	04 25 19.8		"	24	Um	iP	15 21 59.8		
		Ki	iP	04 24 03.2				Gulf of Alaska				
			i	04 24 12.0				(h = 30 km).				
			eT	04 30 43		"	24	Um	iP	19 34 04.3		
			i	04 31 07.3								
				micr sec		"	24	Up	iP	20 14 18.1		
		P	Z'	0.6 2.0					i	20 14 21.2		
		M	E	4.2 17					iS	20 23 26		
		M	N	2.3 15				(cont.)				
		M	Z	6.4 17								
		(cont.)										

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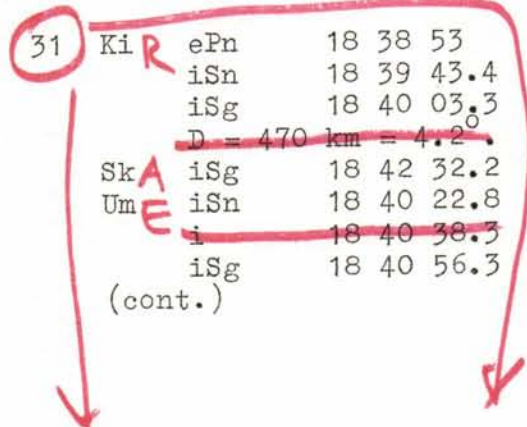
1967					1967					
Dec.	24	(cont.)			Dec.	24	(cont.)			
		Up		micr sec			Gb	i	21 43 24.7	
		P	E	1.2 5			Um	iP	21 43 47.0	
		P	Z	1.9 4			Ka	iP	21 43 32.9	
		P	Z'	0.8 1.5			Leeward Islands			
		S	E	2.6 6			(h = 20 km).			
		S	N	5.4 11			Magn. = 6.1 (Up,Ki).			
		M	E	13 23						
		M	N	16 20		"	24	Up	iP	23 59 47.5
		M	Z	14 22			-25	Ki	iP	00 00 03.8
		D = 7700 km = 69 1/2°.						Sk	iP	00 00 12.9
		Ki	iP	20 14 27.0				Um	iP	23 59 51.0
		i		20 14 30.5				India (h = 30 km).		
		i		20 14 39						
		iS		20 23 42		"	25	Up	eP	01 38 26
		iScS		20 24 33				i		01 38 33.2
				micr sec				iPKP		01 42 11.6
		P	Z'	2.1 2.0				i(PP)		01 43 02.2
		S	E	6.3 16				iPP		01 43 12
		S	N	2.9 8				iSKKS		01 50 12
		M	E	16 19				iPKKP		01 52 42.5
		M	N	4.7 18				iX		01 55 29.1
		M	Z	17 20						micr sec
		D = 7900 km = 71°.						M	E	36 22
		Sk	iP	20 14 05.4				M	N	61 22
		i		20 14 08.6				M	Z	72 25
		Gb	iP	20 14 00.4				(D = 12900 km = 116°).		
		i		20 14 03.2			Ki	iP		01 38 02.0
		Um	iP	20 14 26.4				iPKP		01 42 04.9
		i		20 14 30.3				iPP		01 42 34.0
		iS		20 23 37				iSKKS		01 49 34
		Ka	iP	20 14 11.7				ePKKP		01 53 07
		i		20 14 14.2						micr sec
		Leeward Islands (h = 25 km).						PP	E	3.1 18
		Magn. = 6.5 (Up,Ki).						PP	Z	3.6 12
		Multiple P: in average 3.2						PP	Z'	0.3 1.7
		sec between the first						M	E	52 22
		smaller and the second						M	N	52 24
		larger onset.						M	Z	180 26
								(D = 12200 km = 110°).		
"	24	Up	iP	21 43 39.5			Sk	iPKP		01 42 13.3
				micr sec				iPP		01 43 14.0
		P	Z'	0.2 0.9				e		01 53 17.6
		M	E	2.2 19			Gb	e(P)		01 39 02
		M	N	2.5 18				iPKP		01 42 18.4
		M	Z	2.2 17				iPP		01 43 38.3
		Ki	iP	21 43 48.3 D				iPKKP		01 52 31.0
				micr sec				iX		01 55 24.0
		P	Z'	0.5 1.0			Um	eP		01 38 07
		M	E	2.4 18				iPKP		01 42 05.6
		M	Z	3.2 17				iPP		01 42 49
		Sk	iP	21 43 25.1				iPKKP		01 53 00.5
		i		21 43 38.0				iX		01 55 29.8
		Gb	iP	21 43 21.2			Ka	iPKP		01 42 20.7
		(cont.)					(cont.)			

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1967				1967					
Dec.	27	(cont.)		Dec.	27	Um	iP	16 53 43.9	
		Um	eP	09 32 02					
			iPKP	09 36 08.4	"	27	Um	iP	22 40 12.5
			iPP	09 36 32.3					
			iSKS	09 42 28	"	28	Up	eP	06 37 46
			iSP	09 45 35				i	06 37 49.7
			i	09 47 19.6				iS	06 47 09
			iPKKP	09 47 32.6					micr sec
			iSS	09 51 38				S	E 1.0 4
		Chile-Bolivia						M	E 1.7 18
		(h = 140 km).						M	N 3.1 19
		Magn. = 6.6 (Up,Ki).						M	Z 2.7 17
								D = 8050 km = 72 1/2°.	
"	27	Ka	iP	09 51 23.9 C		Ki	iP	06 37 01.8	
							iS	06 45 48	
"	27	Ki	eSg	13 17 54			iSa	06 53 03	
			i	13 18 06.3				micr sec	
		Um	iSg	13 15 53.5			P	Z' 0.7 2.5	
			i	13 16 13.3			S	E 1.0 9	
		Ka	eSg	13 16 34			S	N 1.0 10	
		Esthonia. Explosion?					M	E 2.1 18	
							M	N 1.8 19	
"	27	Up	i(PKP)	16 42 10.3			M	Z 4.1 18	
			iPKP	16 42 17.9			D = 7350 km = 66°.		
			iPKS	16 45 45.1		Sk	iP	06 37 22.0	
			iSS	17 03 53		Um	iP	06 37 24.8 C	
				micr sec			iS	06 46 36	
			M	E 2.3 20			iSa	06 54 05	
			M	N 5.7 23			Off coast of Oregon		
			M	Z 5.3 23			(h = 30 km).		
		Ki	e(PKP)	16 42 02			Magn. = 6.1 (Up,Ki).		
			iPKP	16 42 04.7	"	28	Ki	iP	07 12 23.6
			iPP	16 44 32			Sk	eP	07 12 40
			iPKS	16 45 33			Um	iP	07 12 43.8
				micr sec			Off coast of Oregon		
			PKP	Z' 0.4 2.0			(h = 30 km).		
			PKS	N 2.5 8	"	28	Up	iP	12 57 27.1
			PKS	Z 2.5 10			Ki	iP	12 57 21.6
			M	E 2.2 20			Sk	iP	12 57 41.9
			M	N 2.4 19			Um	iP	12 57 20.3 C
			M	Z 4.6 18					
		Sk	i(PKP)	16 42 06.4	"	28	Um	iP	13 13 37.9
			iPKP	16 42 14.6					
		Gb	i(PKP)	16 42 19.3 C	"	28	Ki	iP	16 59 42.6
			iPKP	16 42 23.4				i	16 59 55.4
		Um	i(PKP)	16 42 00.5	"	28	Sk	iP	16 59 59.2
			iPKP	16 42 12.5 C				i	17 00 05.2
			iPP	16 44 57			Um	iP	17 00 22.2
			iPKS	16 45 42			Jan Mayen (h = 30 km).		
			iSS	17 03 03					
		Ka	i(PKP)	16 42 23.0	"	28	Up	iP	17 45 50.2
			iPKP	16 42 24.7			(cont.)		
		Tonga Islands (h = 30 km).							
		Magn. = 6.3 (Up,Ki).							

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1967					1967					
Dec.	30	(cont.)			Dec.	30	Um	iP	20 36 17.5	
		Ki	iL(3.27)	04 32 35	"	30	Up	eP	21 31 46	
				micr sec			Um	eP	21 32 28	
		P	N	0.7 5			Ud	eP	21 31 55	
		P	Z	1.0 4			Greece (h = 50 km).			
		P	Z'	0.5 1.4						
		S	E	0.9 7		"	31	Ud	iP	02 02 20.2 C
		S	N	0.8 12		"	31	Ud	iP	02 11 18.4 C
		S	Z	0.7 8						
		M	E	9.6 16		"	31	Up	iP	02 40 39.1
		M	N	2.9 13			Ki	iP	02 39 46.3	
		M	Z	4.3 13			Sk	eP	02 40 22	
		D = 2600 km = 23 1/2°.					Um	eP	02 40 12 C	
		Sk	iP	04 23 40.0				ipP	02 40 26.1	
			i	04 23 53.0			Ud	iP	02 40 38.8	
			i	04 26 34.4				ipP	02 40 51.8	
			iLg2	04 29 56.5			Aleutian Islands.			
		Gb	iP	04 22 24.2			h = 50 km (Um,Ud).			
			i	04 22 37.2						
			i	04 25 19.6		"	31	Ki	iPn	05 05 23.7
		Um	iP	04 23 49.2				iSn	05 06 10.1	
			iS	04 27 16				iSg	05 06 27.8	
			i	04 27 27				D = 420 km = 3.8°.		
			iLi	04 29 02			Um	iSg	05 07 57.1	
			iLg1	04 29 24.2			Probably northwest Russia.			
			iL(3.27)	04 30 28			Origin time = 05 04 23.			
		Ka	iP	04 22 05.5			Explosion?			
			i	04 22 11.2		"	31	Ki	iP	05 27 36.7
			iS	04 24 11.2			Um	e(P)	05 28 07	
			i(Lg2)	04 25 31.6				i	05 28 10.6	
		Ud	iP	04 22 57.0		"	31	Up	iP	07 04 32.5
			i	04 23 01.0			Um	iP	07 05 09.5	
			iLi	04 27 00.3			Ka	iP	07 03 56.0	
		Italy (h = 30 km).					Ud	iP	07 04 39.0	
		Magn. = 5.7 (Up,Ki).						i	07 04 48.7	
		Multiple P.					South of Greece.			
"	30	Ki	eP	09 41 48		"	31	Sk	iP	10 54 31.3
		Um	iP	09 42 33.5				i	10 55 49.7	
"	30	Ud	iP	12 23 12.0 C		"	31	Sk	iP	18 38 53
		(Albania).						iSn	18 39 43.4	
"	30	Um	i(P)	13 27 34.8				iSg	18 40 03.3	
			i(Sg)	13 27 58.4				D = 470 km = 4.2°.		
"	30	Ki	iP	14 57 11.6			Sk	iSg	18 42 32.2	
"	30	Um	iP	15 57 24.0			Um	iSn	18 40 22.8	
			i	15 57 37.6				i	18 40 38.3	
"	30	Up	iP	19 53 20.8				iSg	18 40 56.3	
			i	19 53 26.2			(cont.)			



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1967
Dec. 31 (cont.)
Ud **D** iSg 18 43 29.8
Northwest Russia, 67.5° N,
31.5° E.
Origin time = 18 37 45.
Explosion?

" 31 Up iP 19 13 48.8 C
Ki eP 19 12 57
Um iP 19 13 21.4
Ud iP 19 13 53.1

Markus Båth
May 10, 1968