

SEISMOLOGICAL DEPARTMENT  
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 SWEDEN

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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEÅ, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59 <sup>0</sup> 51.5'N,	17 <sup>0</sup> 37.6'E;	h = 14 m
Kiruna	(KIR)	67 <sup>0</sup> 50.4'N,	20 <sup>0</sup> 25.0'E;	h = 390 m
Umeå	(UME)	63 <sup>0</sup> 48.9'N,	20 <sup>0</sup> 14.2'E;	h = 16 m
Uddeholm	(UDD)	60 <sup>0</sup> 05.4'N,	13 <sup>0</sup> 36.4'E;	h = 240 m
Delary	(DEL)	56 <sup>0</sup> 28.2'N,	12 <sup>0</sup> 52.2'E;	h = 150 m
Myrviken	(MYR)	62 <sup>0</sup> 56.5'N,	14 <sup>0</sup> 20.8'E;	h = 345 m

JANUARY 1 - 31, 1986  
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1986					1986				
Jan.	1	UPP	iP	02 29 14.8	Jan.	1	UPP	iP	22 20 42.4
		KIR	iP	02 29 47.8			KIR	iP	22 19 42.6
		UME	iP	02 28 58.9				i	22 19 46.2
		Southwestern Ryukyu Islands (h = N).							micr sec
								i	Z' 0.2 1.2
		UME	iP				UME	iP	22 20 12.7
"	1	UPP	eP	04 47 02			Komandorsky Islands region (h = 25 km).		
		KIR	iP	04 46 07.2					
		UME	iP	04 46 35.6	"	2	UPP	iP	05 16 36.1
		Northwest Territories, Canada (h = 10 km).					KIR	iP	05 16 03.3
							UME	iP	05 16 17.2
"	1	UPP	iP	06 14 37.1			South of Honshu, Japan (h = 420 km).		
				micr sec					
				Z' 0.2 1.5					
		KIR	iP	06 15 24.4	"	2	UME	iP	06 15 27.2
				micr sec			South of Honshu, Japan (h = 330 km).		
				Z' 0.1 0.8					
		UME	iP	06 14 56.1	"	2	UPP	iP	09 42 41.7
		Turkey (h = 45 km). m = 5.5 (UPP,KIR).					KIR	iP	09 42 37.2
							UME	iP	09 42 34.9
"	1	UME	iP	13 22 41.4			India-Bangladesh border region (h = N).		
		South of Honshu, Japan (h = 340 km).			"	2	KIR	iP	14 48 20.1
"	1	UPP	iPKP1	17 28 35.2			UME	iP	14 48 30.2
		UME	iPKP1	17 28 03.5			Guerrero, Mexico (h = 110 km).		
		South of Kermadec Islands (h = N).			"	2	UME	iP	21 52 34.6
"	1	UPP	iP	17 57 15.8			West Australia (h = 10 km).		
		KIR	iP	17 58 30.8	"	3	UPP		micr sec
		UME	iP	17 57 54.8				Mx	Z 1.7 24
		Greece (h = 10 km).					KIR	eP	09 56 58
							UME	iP	09 57 03.5
							Molucca Sea (h = 40 km).		

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
Jan.	3	KIR eP UME iP Bonin Islands region (h = N).	11 31 03 11 31 18.4	Jan.	5	KIR iP UME iP North Territories, Canada (h = 10 km).	07 05 10.8 07 05 37.9
"	3	UME iP Kuril Islands (h = N).	11 43 02.9	"	5	UME iPKP Vanuatu Islands (h = 10 km).	07 10 53.0
"	3	UME iP 11 50 31.0	11 50 31.0	"	5	UPP iP UME iP Off coast of Hokkaido, Japan (h = 40 km).	09 32 33.6 09 32 09.3
"	3	UPP iP KIR iP i UME iP i Andaman Island region (h = 160 km).	16 09 26.3 16 09 27.8 16 10 07.9 16 09 21.4 16 10 02.2	"	5	UME eP 10 04 15	10 04 15
"	4	UME iP Near east coast of Honshu, Japan (h = 25 km).	06 59 20.2	"	5	UME iP Bonin Islands region (h = 480 km).	13 25 50.0
"	4	UPP iPKP KIR iPKP UME iPKP Vanuatu Islands (h = 25 km).	10 12 07.2 10 11 52.5 10 11 59.3	"	5	KIR iP iS UME iP Greenland Sea (h = 10 km).	13 39 27.1 13 40 41.2 13 40 17.3
"	4	KIR iPKP Vanuatu Islands (h = 25 km).	12 57 50.9	"	5	UPP iPKP UME ePKP South of Fiji Islands (h = N).	14 16 45.2 14 16 33
"	4	UME iPKP Vanuatu Islands (h = N).	13 04 55.6	"	5	KIR iPKP UME iPKP Vanuatu Islands (h = 10 km).	15 19 16.1 15 19 22.5
"	4	UME iP Sakhalin Island (h = 310 km).	13 16 37.5	"	6	UPP iP KIR iP UME iP Eastern Caucasus (h = N).	00 14 57.4 00 15 34.3 00 15 10.4
"	4	UPP Mx Z KIR iPKP UME iPKP Vanuatu Islands (h = 25 km).	micr sec 1.2 22 13 55 32.7 13 55 38.4	"	6	UPP iP KIR eP Nepal (h = 35 km).	10 00 13.8 10 00 13
"	4	KIR ePKP UME iPKP Vanuatu Islands (h = 30 km).	15 37 03 15 37 09.0	"	6	KIR iP Molucca Passage (h = 60 km).	12 42 04.3
"	4	UME iP Near east coast of Honshu, Japan (h = 55 km).	17 20 05.4	"	6	UME eP Celebes Sea (h = 320 km).	14 07 56
"	4	UME iPKP Vanuatu Islands (h = 10 km).	21 18 18.2	"	6	UPP iP KIR iP UME iP Pakistan (h = N).	17 45 47.9 17 46 08.6 17 45 53.9
"	5	KIR iPKP UME iPKP Vanuatu Islands (h = 10 km).	02 26 36.8 02 26 42.5	"	6	UPP iP KIR iP UME iP	19 26 08.7 19 27 32.6 19 26 49.5

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1986				1986			
Jan.	6	UME iPKP	23 10 30.0	Jan.	9	(cont.)	
		Vanuatu Islands (h = N).				UME iP	06 34 20.5
"	7	UPP ePKP	10 57 17			Near east coast of Kamchatka	(h = 280 km).
		KIR iPKP	10 57 07.8	"	9	UME iP	18 56 23.7
		UME iPKP	10 57 14.5			Tyrrhenian Sea (h = 10 km).	
"	7	Fiji Islands region		"	9	UME iP	21 52 27.5 C
		(h = 520 km).				Hokkaido, Japan region	(h = 70 km).
"	7	KIR iP	12 33 54.4	"	10	UPP iP	03 55 09.6
		Northwest Territories,				micr sec	
		Canada (h = 10 km).				P Z' 0.2 0.8	
"	7	KIR iP	13 25 00.9			KIR iP	03 55 56.0
		Halmahera (h = 250 km).				micr sec	
"	7	UPP iP	14 07 22.5			P Z' 0.2 0.8	
		KIR iP	14 07 25.3			UME iP	03 55 52.1
		Off w. coast of northern				Tibet (h = 55 km).	
		Sumatera (h = N).				m = 6.2 (UPP,KIR).	
"	7	UPP iP	20 29 44.7	"	10	UME iP	04 40 29.0
		UME iP	20 29 37.9			Yugoslavia (h = 15 km).	
		India-Bangladesh border		"	10	UME iP	06 14 49.7
		region (h = 70 km).				i 06 14 57.1	
"	8	UPP iP	00 31 23.1			Bonin Islands region	(h = 35 km).
		micr sec		"	10	UME iP	07 13 10.3
		Mx Z 0.9 7				Jan Mayen Island region	(h = 10 km).
		KIR iP	00 32 50.5				
		micr sec		"	10	KIR iP	07 16 52.5
		Mx Z 0.4 6				UME iP	07 16 24.8
		UME iP	00 32 07.9 C			Jan Mayen Island region	(h = 10 km).
		Adriatic Sea (h = 30 km).		"	10	UME iP	08 14 02.6
"	8	UPP iP	01 03 24.9			Jan Mayen Island region	(h = 10 km).
		UME iP	01 04 09.3	"	10	UPP iP	08 14 46.2
		Adriatic Sea (h = 20 km).				UME iP	08 14 24.1
"	8	KIR iP	05 30 24.3			Jan Mayen Island region	(h = 10 km).
		Afghanistan-USSR border		"	10	KIR iP	11 11 43.2
		region (h = N).				micr sec	
"	8	UME iP	13 56 16.4			P Z' 0.1 1.0	
		Yugoslavia (h = 10 km).				UME iP	11 12 29.2
"	8	UPP iP	15 09 07.7			North of Svalbard (h = 10 km).	
		UME iP	15 09 44.2	"	10	UME iP	18 03 10.7
		Southern Italy (h = 290 km).				Near east coast of Honshu,	Japan (h = 55 km).
"	8	UME eP	21 02 09				
		ipP	21 02 12.4				
		Yugoslavia (h = 15 km).					
"	9	UPP iP	06 34 49.9				
		KIR iP	06 33 54.4 C				
		micr sec					
		P Z' 0.1 0.7					
		(cont.)					

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1986				1986			
Jan.	11	KIR iPKP UME iPKP Vanuatu Islands (h = N).	05 32 29.2 05 32 37.8	Jan.	13	UPP iP KIR iP UME iP Southwestern Ryukyu Islands (h = 25 km).	12 09 17.3 12 08 49.3 12 09 01.5
"	11	UME iPKP Vanuatu Islands (h = N).	05 46 15.2	"	13	UPP iP UME iP i Albania (h = 25 km).	13 52 21.6 13 53 04.2 13 53 08.1
"	11	UME iPKP Vanuatu Islands (h = N).	06 45 42.3	"	13	UME eP Albania (h = 10 km).	20 04 35
"	11	KIR iPKP UME iPKP Vanuatu Islands (h = N).	07 45 04.2 07 45 10.6	"	13	UPP iP UME iP Bay of Bengal (h = 10 km).	23 09 26.6 23 09 25.7
"	11	UME iPKP i Vanuatu Islands (h = N).	11 05 47.7 11 05 57.7	"	13	UPP iP UME iP Bay of Bengal (h = 10 km).	23 09 26.6 23 09 25.7
"	11	UME iPKP Vanuatu Islands (h = N).	12 50 09.3	"	14	UPP iP ipP P Z' 0.2 0.8 KIR P Z' 0.2 0.9 UME iP ipP Afghanistan-USSR border region. h = 260 km (UPP,UME). m = 5.5 (UPP,KIR).	03 10 58.8 C 03 11 51.5 micr sec 0.2 0.8 micr sec 0.2 0.9 03 10 57.0 C 03 11 49.5
"	11	UME iP Banda Sea (h = 130 km).	14 04 04.7	"	14	UPP iP UME iP Luzon Philippine Islands (h = 45 km).	05 19 30.6 05 19 18.1
"	11	UPP iP UME iP Adriatic Sea (h = 20 km).	15 05 09.7 15 05 53.6	"	14	UPP iP UME iP Southwestern Ryukyu Islands (h = N).	12 09 39.2 12 09 21.2
"	12	UME iP Near coast of Guerrero, Mexico (h = N).	17 04 06.3	"	14	UPP iP UME iP Southwestern Ryukyu Islands (h = N).	12 09 39.2 12 09 21.2
"	12	UPP iP P Z' 0.1 0.9 Mx Z 8.9 20 KIR eP micr sec P Z' 0.1 0.9 Mx Z 4.4 10 UME iP Afghanistan (h = 25 km). m = 5.6, M = 5.7 (UPP,KIR).	20 22 44.5 micr sec 0.1 0.9 8.9 20 20 22 56 micr sec 0.1 0.9 4.4 10 20 22 44.4	"	14	KIR iP UME eP Taiwan region (h = N),	19 16 26.8 19 16 36
"	12	UME iP Kuril Islands (h = N).	21 57 20.8	"	14	UPP iP Andreanof Islands, Aleutian Is. (h = 160 km).	19 51 45.3
"	12	KIR iP UME iP Kuril Islands (h = N).	23 53 13.8 23 53 37.6	"	15	UME iP Southwestern Ryukyu Islands (h = N).	04 55 08.6
"	13	UPP iP UME iP Bonin Islands region (h = N).	08 00 33.7 08 00 14.7	"	15	KIR iP UME iP Taiwan region (h = N).	17 41 49.7 17 42 00.5

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1986				1986							
Jan.	15	UPP	e(PKP)	20 36 29	Jan.	16	UPP	iP	13 16 18.8		
			iPKP	20 36 33.4				ipP	13 16 22.5		
			iSKP1	20 39 56.9				iS	13 25 58		
				micr sec					micr sec		
		KIR	PKP Z'	0.1 1.0				pP Z'	0.2 1.2		
			i(PKP)	20 36 20.0			KIR	Mx Z	18.8 17		
			iPKP	20 36 23.4				iP	13 15 53.4		
			iSKP1	20 39 32.6				ipP	13 15 57.4		
				micr sec					micr sec		
		UME	PKP Z'	0.1 1.0				pP Z'	0.2 1.2		
			e(PKP)	20 36 20			UME	Mx Z	4.9 12		
			iPKP	20 36 28.5				iP	13 16 02.3		
			iSKP1	20 39 43.9				ipP	13 16 06.3		
				micr sec					micr sec		
		Loyalty Islands region (h = 150 km).					Taiwan region. h = 10 km (UPP,KIR,UME). m = 6.1, M = 6.3 (UPP,KIR).				
"	15	UPP	iPKP	20 36 48.4	"	16	UPP	iP	15 57 16.2		
			iSKP1	20 40 09.3					micr sec		
				micr sec				P Z'	0.1 0.7		
		KIR	PKP Z'	0.3 0.9			KIR	iP	15 56 58.1		
			iPKP	02 36 33.9					micr sec		
			iSKP1	20 39 43.9				P Z'	0.1 0.7		
				micr sec			UME	iP	15 57 04.3		
		UME	PKP Z'	0.8 1.0			Mindoro, Philippine Islands (h = 220 km). m = 5.7 (UPP,KIR).				
			iPKP	20 36 39.4			"	16	UME	iP	17 39 15.8
			iSKP1	20 39 58.3			Bonin Islands region (h = N).				
		Loyalty Islands region (h = 150 km).					"	16	UME	iPKP	23 25 51.8
"	15	UME	iP	21 32 47.6				iSKP1	23 28 31.9		
		Greece-Albania border region (h = 15 km).					Fiji Islands region (h = 480 km).				
"	16	UPP	eP	05 21 41	"	16	UME	iP	23 45 09.3		
			i	05 21 57.1			Northeast of Taiwan (h = N).				
		KIR	iP	05 21 23.5	"	17	UME	iP	02 17 24.3		
			i	05 21 27.4				i	02 17 29.3		
				micr sec			Turkey (h = 35 km).				
			i Z'	0.1 1.0			"	17	KIR	iP	08 05 56.9
		UME	iP	05 21 30.7				UME	iP	08 05 59.5	
		Mindanao, Philippine Islands (h = 80 km).					Celebes Sea (h = 540 km).				
"	16	UPP	iP	08 45 58.1	"	17	UME	iP	16 20 25.3		
			i	08 46 22.1			Bonin Islands region (h = N).				
				micr sec			"	17	UPP	iP	17 22 11.8
		KIR	P Z'	0.1 0.9				UME	iP	17 22 52.7	
			iP	08 45 25.4			Bonin Islands region (h = N).				
				micr sec			"	17	UPP	iPKP	17 40 40.0
		UME	P Z'	0.1 0.7						micr sec	
			iP	08 45 40.1				PKP Z'	0.1 0.9		
			i	08 46 02.8			(cont.)				
		South of Honshu (h = 440 km). m = 5.5 (UPP,KIR).					"	17	UPP	iPKP	17 40 40.0
"	16	KIR	iP	11 23 36.8						micr sec	
		UME	iP	11 23 50.8						micr sec	
		Bonin Islands region (h = N).								micr sec	

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1986				1986				
Jan.	17	(cont.)		Jan.	19	UPP	iP	05 52 27.5
		UME	iPKP			UME	iP	05 52 24.6
		Kermadec Islands region				Northern Sumatera (h = N).		
		(h = 230 km).						
"	18	UPP	iP	"	19	UPP	iP	06 48 12.3
			ipP			KIR	iP	06 47 39.7
						UME	iP	06 47 54.0
							i	06 47 58.5
						Bonin Islands region (h = N).		
		P	Z'					
		0.2	1.0			"	19	UPP
		KIR	iP					iP
			i					iP
								ipP
								UME
								iP
								ipP
								14 54 03.8
								14 54 17.6
								14 54 25.7
								14 54 04.9
								14 54 13.1
								Pakistan.
								h = 30 km (KIR,UME).
"	18	UPP	iP	"	19	UPP	eP	22 37 54
						KIR	iP	22 37 19.0
						UME	iP	22 37 33.4
						South of Honshu, Japan		
						(h = N).		
		P	Z'			"	20	KIR
		0.1	0.8					iP
		KIR	iP					13 50 16.0
		UME	iP			Bonin Islands region (h = N).		
		Burma (h = N).						
"	18	UPP	iPKP	"	20	UPP	eP	23 41 01
		KIR	iPKP				iS	23 42 55.3
		UME	iPKP			KIR	iP	23 42 40.3
		Vanuatu Islands (h = 150 km).				Germany (h = 10 km).		
"	18	KIR	iP	"	21	UPP	iP	03 27 39.7
			i			Greece (h = 10 km).		
		UME	iP			"	22	UPP
		Guerrero, Mexico (h = N).						iP
"	19	UPP	iSn			KIR	iP	02 09 20.4
			iSg1			UME	iP	02 09 39.8
		KIR	i			Pakistan (h = N).		
			iPg1			"	22	KIR
			i					iP
			iSg1			Norwegian Sea (h = 10 km).		
			iSg1			"	22	UPP
		UME	iPn					iPKP
			iPg1					
			iSn					micr sec
			iSg1					PKP
			iSg1					Z'
		UDD	iPg1					Z
			i					6.4 30
			iSg1			KIR	iPKP	12 45 18.9
			iSg1				i	12 45 23.9
			iSg1					micr sec
		DEL	iSg1					PKP
		MYV	iPg1					Z'
			iSg1					Z'
								Z
								3.9 25
						UME	iPKP	12 45 24.3
						Solomon Islands (h = 100 km).		
						M = 6.1 (UPP,KIR).		
						M uncorrected for focal depth.		

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1986				1986							
Jan.	22	UPP	iP	15 10 45.9	Jan.	25	UPP	iP	16 08 09.0		
		KIR	iP	15 10 31.7 C			KIR	iP	16 08 03.2		
			i	15 10 35.6					micr sec		
			P	Z' 0.2 1.0			UME	iP	16 07 59.4		
		UME	iP	15 10 36.0 C			Alma-Ata region (h = N).				
		Molucca Sea (h = 60 km).					"	25	UME	iP	19 54 18.9
"	22	UME	eP	20 29 35			Bonin Islands region (h = 35 km).				
"	23	UPP	iP	02 26 25.0			"	25	UPP	iP	21 39 25.1
"	23	UME	iP	17 28 34.6			KIR	iP	21 39 23.5		
		Pakistan (h = N).					UME	iP	21 39 20.1		
"	24	KIR	iPKP	01 16 57.6			Tibet (h = N).				
		UME	iPKP	01 17 03.5			"	25	UPP	iPg1	23 13 59.7
		Vanuatu Islands region (h = 660 km).							i	23 14 07.1	
"	24	UPP	iP	01 19 40.3					iSg1	23 14 25.2	
		UME	iP	01 19 25.6					i	23 14 29.1	
"	24	UPP	iP	22 41 35.3					i	23 14 32.4	
			i	22 41 45.4			KIR	iSg1	23 16 34.5		
		UME	iP	22 41 55.9			UME	iPn	23 14 06.8		
		Malawi (h = 10 km).						iPg1	23 14 10.1		
"	25	UPP	iSKP1	05 10 31.6				i	23 14 14.2		
		KIR	iSKP1	05 10 05.6				i	23 14 34.9		
		UME	ePKP	05 07 44				i	23 14 38.8		
			iSKP1	05 10 19.5				iSn	23 14 39.6		
		Fiji Islands region (h = 630 km).						iSg1	23 14 43.7		
"	25	UPP	iP	09 44 35.9			UDD	iPn	23 14 03.4		
			ipP	09 44 38.1				iPg1	23 14 08.0		
				micr sec				i	23 14 12.1		
			pP	Z' 0.2 1.0				iSn	23 14 32.1		
		KIR	iP	09 44 26.5				iSg1	23 14 41.0		
			i	09 44 30.7			DEL	iSg1	23 16 14.5		
				micr sec			MYV	iPg1	23 13 52.6		
			i	Z' 0.2 1.3				iSg1	23 13 13.0		
			Mx	Z 2.2 13			Hälsingland, Sweden 61.8°N, 16.9°E.				
		UME	iP	09 44 34.6			Origin time = 23 13 25.				
			ipP	09 44 36.5			M <sub>L</sub> (UPP) = 3.2 (0.22) 8.				
		Iceland region. h = 10 km (UPP, UME). m = 5.4 (UPP, KIR).					Felt.				
"	25	UME	iP	12 06 06.2			By combination with SKI and Finnish station readings.				
"	25	UPP	iP	14 01 18.3			"	26	UME	iP	07 38 45.0
		UME	iP	14 01 17.1			Adriatic Sea (h = 10 km).				
		Iceland region (h = 10 km).					"	26	UME	iPKP	17 48 07.1
"	25	UPP	iP	19 32 16.4			Fiji Islands region (h = 560 km).				
		UME	iP	19 32 36.7			"	26	KIR	iP	19 32 16.4
		Central California (h = 5 km).							UME	iP	19 32 36.7

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1986				1986									
Jan.	27	UPP	ipP	02 56	02.2	Jan.	28	UPP	iP	12 44	01.0		
		KIR	eP	02 55	31				ipP	12 44	09.0		
		UME	epP	02 55	46						micr sec		
		Southwestern Ryukyu Islands (h = 25 km).							P	Z'	0.1 0.9		
"	27	KIR	iP	03 10	08.2				pP	Z'	0.4 1.3		
		UME	iP	03 09	42.8				Mx	Z	8.3 24		
		Southern Iran (h = N).						KIR			micr sec		
"	27	UME	ePKP	07 54	21				P	Z'	0.2 1.0		
		Solomon Islands (h = 80 km).							Mx	Z	3.3 20		
"	27	UPP	iPKP	10 41	06.7			UME	iP	12 43	57.3		
		KIR	iPKP	10 40	58.1				ipP	12 44	06.0		
		UME	e(PKP)	10 40	54			Nicobar Islands region. h = 30 km (UPP,UME). m = 6.2, M = 5.9 (UPP,KIR).					
"	27	UPP	iPKP	10 40	54			"	28	UME	iP	18 34	05.1 C
		South of Fiji Islands (h = 180 km).								i	18 34	11.3	
"	27	UME	iP	13 33	36.3					Near s. coast of Honshu, Japan (h = 20 km).			
"	27	UPP	eP	16 41	41			"	28	UME	iPKP1	19 41	43.1
			i	16 41	55.9					Kermadec Islands region (h = 320 km).			
			i	16 42	18.2			"	28	UPP	iP	20 07	51.2
		KIR	iP	16 42	21.0					KIR	iP	20 08	53.0
			i	16 42	30.2					UME	iP	20 08	25.6
			i	16 43	14.4					Morocco (h = 20 km).			
					micr sec			"	29	UPP	iP	09 41	03.6
			P	Z'	0.2 0.8					KIR	iP	09 40	34.7
		UME	iP	16 41	55.7						i	09 40	39.3
			i	16 42	16.6					UME	iP	09 40	45.8 C
		N.W. Iran-USSR border region (h = 70 km).								South of Mariana Islands (h = 60 km).			
"	27	UME	iP	19 49	02.2			"	29	KIR	iP	10 29	07.3
		Near coast of Michoacan, Mexico (h = N).								South of Alaska (h = N).			
"	27	UPP	iP	20 42	08.7			"	29	UPP	iP	13 46	55.4
		UME	iP	20 41	56.7							micr sec	
		Tibet (h = N).								P	Z'	0.1 1.0	
"	28	UME	iP	07 04	50.2					KIR	iP	13 46	53.6
		Ecuador (h = 160 km).										micr sec	
"	28	UPP			micr sec					P	Z'	0.5 1.6	
			Mx	Z	4.4 12					UME	iP	13 46	56.6
		KIR	iP	09 36	05.2					Northern Colombia (h = 10 km). m = 6.2 (UPP,KIR).			
					micr sec			"	29	UPP	iP	15 44	13.3
			Mx	Z	2.5 12					KIR	iP	15 44	19.5
		UME	i	09 36	06.4					UME	iP	15 44	10.0
		Southern Xinjiang, China (h = 20 km). M = 5.5 (UPP,KIR).								Tajik SSR (h = N).			
"	28	UPP			micr sec			"	29	UME	iPKP1	21 48	21.9
					micr sec					South of Kermadec Islands (h = N).			



UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986			1986				
Jan.	30	UPP iP UME iP Ionian Sea (h = 10 km).	00 10 19.2 00 10 59.4	Jan.	31	UPP iSg1 KIR iSg1 UME iPg1 iSn iSg1 UDD eSg1 MYV iPg1 iSg1	06 03 25.9 06 02 44.1 06 01 33.8 06 02 14.7 06 02 30.1 06 03 01 06 01 04.6 06 01 40.2
"	30	UPP eP UME iP Afghanistan-USSR border region (h = 80 km).	04 22 22 04 22 20.5	"	31	Off coast of central Norway, near 65 1/4°N, 11°E. Origin time = 06 00 17. M <sub>L</sub> (UPP) = 3.0 (0.21) 4.	
"	30	KIR iP Northwest Territories, Canada (h = 10 km).	06 15 18.8	"	31	UPP iP KIR eP UME iP Ohio (h = 10 km).	16 56 42.9 16 56 23 16 56 39.1
"	30	UPP iP KIR eP UME iP Off coast of Oregon (h = 10 km).	07 27 03.7 07 26 23 07 26 47.9	"	31	UPP iP P Z' KIR iP UME iP Hokkaido, Japan region (h = 70 km).	17 59 00.6 micr sec 0.1 0.9 17 58 17.9 17 58 37.5
"	30	KIR iP Dodecanese Islands (h = 70 km).	11 46 50.6				
"	30	KIR iP UME iP Bonin Islands region (h = 25 km).	18 39 46.2 18 40 04.9				
"	30	KIR iP UME iP Central Mid-Atlantic Ridge (h = 10 km).	20 53 58.8 20 53 43.5				
"	30	UME ePKP Northern Colombia (h = 10 km).	22 33 31				
"	30	UME iP Northern Colombia (h = 10 km).	22 39 20.7				
"	30	KIR eP UME eP Northern Colombia (h = 10 km).	23 36 12 23 36 16				
"	31	KIR iP UME iP Kuril Islands (h = 55 km).	02 37 12.5 02 37 34.4			September 17, 1987	
"	31	UME iP Taiwan region (h = 30 km).	03 31 24.5			Ingrid Båth Conny Holmqvist Myung Soon Jun	

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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEÅ, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59 <sup>0</sup> 51.5'N,	17 <sup>0</sup> 37.6'E;	h = 14 m
Kiruna	(KIR)	67 <sup>0</sup> 50.4'N,	20 <sup>0</sup> 25.0'E;	h = 390 m
Umeå	(UME)	63 <sup>0</sup> 48.9'N,	20 <sup>0</sup> 14.2'E;	h = 16 m
Uddeholm	(UDD)	60 <sup>0</sup> 05.4'N,	13 <sup>0</sup> 36.4'E;	h = 240 m
Delary	(DEL)	56 <sup>0</sup> 28.2'N,	12 <sup>0</sup> 52.2'E;	h = 150 m
Myrviken	(MYV)	62 <sup>0</sup> 56.5'N,	14 <sup>0</sup> 20.8'E;	h = 345 m

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1986	Feb.	1	UPP	iP	00 37 48.0	1986	Feb.	2	(cont.)		
			KIR	eP	00 37 36				UME	iP	05 36 14.6
			UME	eP	00 37 47					ipP	05 36 20.1
									North Atlantic Ridge. h = 20 km (KIR,UME).		
"		1	UME	iP	03 02 04.5	"		3	UPP	iP	00 40 40.7
			Turkey (h = 25 km).						KIR	iP	00 40 47.7
"		1	UPP	iP	03 42 29.3				UME	iP	00 40 38.0
			KIR	iP	03 41 45.0 C				Afghanistan-USSR border region (h = 130 km).		
					micr sec						
				P	Z'	0.1 0.6			"	3	KIR
			UME	iP	03 42 04.0 C						iPg1
			Hokkaido, Japan region (h = 200 km).								iSg1
											08 11 50.0
"		1	UME	iP	15 10 34.5						08 11 54.6
			Oaxaca, Mexico (h = 20 km).								08 13 47.0
"		2	UPP	iP	00 23 25.8						Lappland, Sweden, 67.8 <sup>0</sup> N, 19.4 <sup>0</sup> E.
			KIR	iP	00 23 30.6						Origin time = 08 11 44.
			UME	iP	00 23 20.1						M <sub>L</sub> (UPP) = 2.7 1.
"		2	UPP		micr sec						By combination with TR0 and Finnish station readings.
				Mx	Z	2.5 23	"		3	UPP	ePKP1
			KIR	iPKP		02 02 54.5				UME	iPKP1
				i		02 02 58.8					09 05 30
					micr sec						09 05 20.5
				Mx	Z	1.7 22					Kermadec Islands (h = N).
			UME	iPKP		02 03 01.3	"		3	UPP	iSg1
			Vanuatu Islands (h = 30 km). M = 5.8 (UPP,KIR).							UME	eSn
"		2	UPP		micr sec					UDD	iPg1
				Mx	Z	1.4 20					i
			KIR	iP		05 36 24.2					iSg1
				ipP		05 36 30.0				DEL	i
			(cont.)								iSn
										MYV	e
											eSg1
											15 55 51
											Southern Norway, near 59 1/4 <sup>0</sup> N, 10 <sup>0</sup> E.
											Origin time = 15 53 35.
											M <sub>L</sub> (UPP) = 2.9 1.

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
Feb.	3	UPP KIR UME	iP eP eP	16 04 16 04 16 04	39.4 44 36		
		Hindu Kush region (h = N).					
"	3	UPP	iP	20 58	53.0	C	
			i	20 58	53.9		
			iS	21 08	12		
				micr sec			
			P	Z'	0.4	0.6	
			Mx	Z	5.3	18	
		KIR	iP	20 58	21.9	C	
			iS	21 07	14.6		
				micr sec			
			P	Z'	1.0	0.6	
			Mx	Z	2.4	17	
		UME	iP	20 58	35.3	C	
			i	20 58	50.1		
			iS	21 07	39.0		
		Bonin Islands region (h = 510 km). m = 6.9, M = 5.8 (UPP,KIR). M uncorrected for focal depth.					
"	3	UPP UME	eP eP	23 54 23 54	55 44		
		Mindanao, Philippine Islands (h = 65 km).					
"	4	UME	iP	05 08	42.3		
		Bonin Islands region (h = 75 km).					
"	4	UPP KIR UME	iP iP iP	08 14 08 13 08 14	41.0 52.2 15.0		
		Kuril Islands (h = 140 km).					
"	4	KIR	iP	16 02	17.1		
"	4	UPP	iP	19 51	20.6		
				micr sec			
			P	Z'	0.1	0.8	
		KIR	iP	19 51	29.7		
				micr sec			
			P	Z'	0.2	0.6	
		UME	iP	19 51	19.0		
		Hindu Kush region (h = 200 km). m = 5.6 (UPP,KIR).					
"	4	UME	iPKP1	22 53	05.7		
		Kermadec Islands (h = 90 km).					
"	4	UME	iPKP1	23 24	44.1		
		South of Kermadec Islands (h = N).					
Feb.	5	UME	eP	09 44	03		
		Bonin Islands region (h = 40 km).					
"	5	UPP	iPn	17 55	12.2		
			i	17 55	21.2		
			i	17 56	43.4		
			iSg1	17 57	00.7		
		KIR	iPn	17 55	35.0		
			iSn	17 57	04.8		
		UME	iPn	17 55	16.7		
			i	17 55	17.5		
			iSn	17 56	32.6		
		UDD	iPn	17 54	47.0		
			i	17 54	47.6		
			iPg1	17 54	55.2		
		DEL	iPn	17 55	23.6		
			i	17 55	25.7		
			i	17 55	30.1		
			iSn	17 56	49.0		
			i	17 57	09.6		
		MYV	iPn	17 54	40.4		
			iPg1	17 54	52.0		
		Off coast of southwestern Norway, near 62 3/4°N, 5°E. Origin time = 17 53 31. M <sub>L</sub> (UPP) = 4.6 (0.58) 2.					
"	5	UDD	iSg1	18 52	32.2		
		MYV	eSg1	18 52	13		
		Off coast of southwestern Norway, 62.7°N, 4.7°E. Origin time = 18 50 03. M <sub>L</sub> (UPP) = 2.8 1. Solution from Bergen bulletin.					
"	5	UDD	iSg1	20 25	44.1		
		MYV	eSg1	20 25	29		
		Off coast of southwestern Norway, 62.7°N, 4.6°E. Origin time = 20 23 16. M <sub>L</sub> (UPP) = 2.7 1. Solution from Bergen bulletin.					
"	5	UPP	iP	22 09	42.6		
				micr sec			
			P	Z'	0.1	0.8	
		KIR	iP	22 09	29.1		
				micr sec			
			P	Z'	0.1	0.8	
		UME	iP	22 09	30.8	D	
		Tibet (h = N). m = 6.0 (UPP,KIR).					
"	6	UPP	iP	13 11	29.8		
		KIR	iP	13 10	58.0		
		UME	iP	13 11	11.8		
		Bonin Islands region (h = 530 km).					

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1986				1986					
Feb.	6	KIR UME	iP iP	15 23 13.5 15 23 44.4	Feb.	9	UME North of Svalbard	eP (h = 10 km).	06 13 35
"	6	UPP KIR UME	iP iP iP	15 33 19.5 C micr sec P Z' 0.1 0.9 15 33 28.2 C micr sec P Z' 0.1 0.7 15 33 17.7 C	"	9	UPP PKP UME	iPKP Z' 0.1 0.9 ePKP	11 56 19.6 micr sec 11 56 09
				Afghanistan-USSR border region (h = 210 km). m = 5.4 (UPP,KIR).					South of Fiji Islands (h = 150 km).
"	7	UPP		04 11 micr sec Mx Z 1.1 20	"	9	UME	eP	12 04 37 12 04 28.6
				North Atlantic Ridge (h = 10 km).	"	9	UME	eP	12 52 18 Northeastern China (h = N).
"	7	UPP UME	iPKP ePKP	16 17 46.3 16 17 40	"	9	UPP UME	iPKP iPKP	16 38 37 Eastern Caucasus (h = N).
				South of Fiji Islands (h = 520 km).	"	9	UPP UME	iPKP iPKP	19 37 29.6 19 37 24.1
"	7	UME	iP	21 39 33.8					South of Fiji Islands (h = 600 km).
				Near coast of Guerrero, Mexico (h = 70 km).	"	9	UPP UDD DEL MYV	iSg1 iSg1 iSg1 eSg1	20 35 59.4 20 35 01.8 20 36 27.9 20 34 45
"	7	KIR UME	iP iP	22 59 34.6 22 59 09.9					Off coast of southwestern Norway, 62.6°N, 4.7°E. Origin time = 20 32 34. M <sub>1</sub> (UPP) = 2.6 1. Solution from Bergen bulletin.
"	8	UPP KIR UME	iP ipP eP ipP iP ipP i	00 39 15.9 00 39 26.1 00 39 10 00 39 20.7 00 39 07.2 00 39 19.2 00 39 22.7	"	9	UPP	iP	21 13 04.2
				India-Bangladesh border region. h = 40 km (UPP,KIR,UME).	"	9	UME	iPKP	23 50 56.8
"	8	UME	eP	00 43 59					Central Chile (h = 90 km).
				Azores Islands region (h = 10 km).	"	10	KIR UME	iP iP	07 02 39.3 07 02 49.5
"	8	KIR UME	iP iP	02 01 43.3 02 01 48.8					Samar, Philippine Islands (h = N).
"	8	UPP KIR UME	iP iP eP	17 00 11.8 16 59 51.1 16 59 58	"	10	UPP KIR UME	iPKP iSKP1 ePKP iSKP1 iPKP iSKP1	10 10 19.9 10 13 48.2 10 10 09 10 13 24.4 10 10 17.6 10 13 35.9
				Philippine Islands region (h = 55 km).					Loyalty Islands region (h = 100 km).

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1986				1986			
Feb.	10	UPP iP	13 40 44.9	Feb.	12	(cont.)	
		Andreanof Islands, Aleutian Is. (h = N).				KIR eP	03 10 21
							micr sec
"	10	UPP iP	18 45 03.9			P Z'	0.5 1.2
		iS	18 54 20			Mx Z	10.7 16
			micr sec			UME iP	03 10 38.2
		P Z'	0.1 0.9				Near east coast of Honshu, Japan (h = 30 km).
		Mx Z	7 16				m = 6.4, M = 6.2 (UPP,KIR).
		KIR iP	18 44 22.2	"	12	UPP iPKP	09 19 23.7
			micr sec			UME iPKP	09 19 41.4
		Mx Z	4.9 15				East Papua New Guinea region (h = 40 km).
		UME iP	18 44 40.0	"	12	UME iPKP	11 46 14.4
			Off east coast of Honshu, Japan (h = 35 km).				East Papua New Guinea region (h = 35 km).
			M = 6.0 (UPP,KIR).	"	12	UPP iP	23 52 51.5
"	10	UPP iP	19 14 07.5			KIR eP	23 53 01
		KIR iP	19 13 24.3			UME iP	23 52 59.9
		UME iP	19 13 44.8				Leeward Islands (h = 20 km).
			Off east coast of Honshu, Japan (h = N).	"	13	UPP iP	00 03 10.5
"	10	UME iP	20 27 48.2			UME eP	00 03 43
			Off east coast of Honshu, Japan (h = N).				Crete (h = 55 km).
"	10	UPP iP	20 47 40.9	"	13	UPP iPKP	00 43 28.1
		KIR eP	20 46 59			KIR ePKP	00 43 39
		UME iP	20 47 16.8			UME iPKP	00 43 43.3
			Off east coast of Honshu, Japan (h = 30 km).				Vanuatu Islands (h = 20 km).
"	11	UPP iP	01 27 36.1	"	13	UPP iP	08 53 50.9
		UME iP	01 27 18.6			KIR eP	08 52 56
			Off coast of northern California (h = 10 km).			UME eP	08 53 24
"	11	UPP eP	01 46 19				Alaska peninsula (h = N).
			Bonin Islands region (h = N).	"	13	UME iP	08 57 52.1
"	11	UPP iP	07 21 57.2				Bonin Islands region (h = N).
		KIR eP	07 22 06	"	13	UPP eP	13 20 12
		UME iP	07 21 55.5			UME iP	13 20 04.8
			Hindu Kush region (h = 120 km).				Burma (h = 120 km).
"	12	UPP iPKP	03 06 10.2	"	13	UPP iPKP	19 27 04.9
		UME iPKP	03 06 18.3			iSKP1	19 30 09.5
			South Sandwich Islands region (h = N).			KIR iPKP	19 26 41.2
							micr sec
"	12	UPP iP	03 11 00.0			PKP Z'	0.1 0.5
		i	03 11 01.0			UME iPKP	19 26 57.2
		iS	03 20 38			iSKP1	19 29 57.8
			micr sec				Vanuatu Islands (h = 210 km).
		P Z'	0.5 1.2	"	13	UPP iP	19 34 55.4
		Mx Z	12.1 18			UME iP	19 35 40.4
			(cont.)				Yugoslavia (h = 10 km).

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1986				1986				
Feb.	13	UPP	iP	20 46 22.3	Feb.	15	(cont.)	
		KIR	iP	20 45 30.3			UME	
		UME	iP	20 45 58.8			i(PP)	
		Northwest Territories, Canada					21 50 15.0	
		(h = 10 km).					21 53 35.3	
							Guatemala (h = 140 km).	
"	14	UME	eP	01 36 52	"	16	UPP	
		Near east coast of Honshu,					iP	
		Japan (h = 50 km).					02 56 59.2	
							KIR	
							iP	
							02 56 01.9	
							UME	
							iP	
							02 56 32.0	
							Northern Yukon Territory,	
							Canada (h = 25 km).	
"	14	KIR	eP	01 59 19	"	16	UPP	
		UME	iP	01 59 16.1			iPKP	
		Alma-Ata region (h = N).					09 09 51.0	
							UME	
							iPKP	
							09 09 39.5	
							iSKP1	
							09 12 34.3	
"	14	UME	iPKP	04 19 28.5			South of Fiji Islands	
		Vanuatu Islands (h = 220 km).					(h = 510 km).	
"	14	UME	iP	16 19 10.4	"	16	UPP	
		Greenland Sea (h = 10 km).					iPKP	
							09 27 57.7	
							UME	
							iPKP	
							09 27 50.1	
							Santa Cruz Islands	
							(h = 290 km).	
"	14	UPP	iPKP	18 19 30.3	"	16	UME	
			iSKP1	18 22 15.4			iP	
		KIR	ePKP	18 19 21			16 33 47.1	
			iSKP1	18 21 51.9	"	16	UME	
		UME	e(PKP)	18 19 16			iP	
			iPKP	18 19 24.1			22 54 38.6	
			iSKP1	18 22 04.2			Bonin Islands region (h = N).	
		Fiji Islands region		"	16	UPP	iP	
		(h = 610 km).				KIR	eP	
						UME	iP	
							23 47 45.4	
							23 47 54	
							23 47 43.8	
"	14	UPP	iP	18 29 42.4			Hindu Kush region (h = 180 km).	
		UME	iP	18 30 23.1	"	17	UPP	
		Greece (h = 65 km).					iP	
							12 43 57.4	
							UME	
							iP	
							12 43 55.7	
"	14	UPP	iP	20 23 12.4			Afghanistan-USSR border	
				micr sec			region (h = N).	
			P	Z' 0.1 0.8	"	17	UPP	
		KIR	iP	20 22 23.1			iP	
		UME	iP	20 22 46.1			12 56 07.4	
		Kuril Islands (h = N).					KIR	
							iP	
							12 55 14.9	
							UME	
							iP	
							12 55 44.2	
							Northwest Territories, Canada	
							(h = 10 km).	
"	15	UPP	iP	07 39 34.0	"	18	UPP	
		KIR	iP	07 40 42.1			iP	
		UME	iP	07 40 06.8			01 08 22.0	
		Crete (h = 40 km).					South of Honshu, Japan	
							(h = 400 km).	
"	15	UPP	iP	20 07 18.2	"	18	UME	
				micr sec			iP	
			P	Z' 0.1 1.0			03 10 12.7	
		KIR	eP	20 07 45			Puerto Rico region	
		UME	iP	20 07 28.5			(h = 20 km).	
		Carlsberg Ridge (h = 10 km).		"	18	UPP	iP	
						UME	iP	
							04 52 04.8	
							04 51 44.9	
"	15	UPP	iP	21 50 17.9			South of Honshu, Japan	
			i(PP)	21 53 42.0			(h = 200 km).	
		KIR	eP	21 50 08				
		(cont.)						

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986					
Feb.	18	UPP	iP	14 38 28.0	Feb.	20	UME	eP	05 59 17
				micr sec					
			Mx	Z 1.3 12	"	20	UPP	iPKP	12 34 57.0
		UME	iP	14 39 08.9				iSKP1	12 37 44.6
				Greece (h = 20 km).			KIR	iPKP	12 34 48.7
								iSKP1	12 37 22.8
"	19	UME	iP	01 04 15.5			UME	iPKP	12 34 51.2
				Hokkaido, Japan region				i	12 34 57.5
				(h = 70 km).				iSKP1	12 37 33.5
							South of Fiji Islands		
"	19	UME	iP	08 28 28.4			(h = 600 km).		
				Afghanistan (h = N).	"	20	UME	iPKP	16 24 48.2
"	19	UPP	iP	11 05 21.0			South of Fiji Islands		
		KIR	eP	11 04 33			(h = 550 km).		
		UME	iP	11 04 54.1	"	21	KIR	iP	00 23 56.5
				Kuril Islands (h = 120 km).			UME	iP	00 24 24.6
"	19	UPP	iP	11 52 31.1 C			Alaska Peninsula (h = N).		
			ipP	11 52 42.0	"	21	UPP	iP	03 19 16.9
			iS	12 02 32			KIR	iP	03 18 33.9
				micr sec			UME	iP	03 18 52.8
		P	Z'	0.1 1.0			Hokkaido, Japan region		
		KIR	iP	11 52 10.5 C			(h = 65 km).		
			ipP	11 52 21.6	"	21	UPP	iP	05 43 55.8
				micr sec				iS	05 47 16
		P	Z'	0.3 0.9					micr sec
		Mx	Z	0.7 14				P	Z' 0.1 0.8
		UME	iP	11 52 17.4 C			KIR	iP	05 45 16.7
			ipP	11 52 27.4				i	05 45 45.9
				Luzon, Philippine Islands.			UME	iP	05 45 36.3
				h = 35 km (UPP,KIR,UME).			Bulgaria (h = 20 km).		
				m = 6.1 (UPP,KIR).	"	21	UPP	iP	06 22 38.8
"	19	UPP	iP	17 44 34.2			KIR	eP	06 33 55
				micr sec			UME	iP	06 23 17.1
		P	Z'	0.1 0.7			Bulgaria (h = 15 km).		
		KIR	iP	17 44 29.7	"	21	UPP	eP	12 27 20
				micr sec			KIR	iP	12 27 35.0
		Mx	Z	0.9 16			Mindanao, Philippine Islands		
		UME	iP	17 44 27.0			(h = N).		
				India-Bangladesh border	"	21	UDD	iSg1	14 18 30.8
				region (h = 20 km).			Coast of southern Norway,		
"	20	UME	iP	04 22 43.4			58.3°N, 6.0°E.		
				Afghanistan-USSR border			Origin time = 14 16 24.		
				region (h = 240 km).			Solution from Bergen bulletin.		
"	20	UPP	iPKP1	05 48 00.0	"	21	UPP	iP	17 29 46.4
			iPKP2	05 48 06.5			KIR	iP	17 30 53.7
		UME	iPKP1	05 47 49.2			Dodecanese Islands		
				Kermadec Islands region			(h = 150 km).		
				(h = 330 km).	"	22	UPP	iP	09 16 16.3
"	20	UPP	iPKP1	05 56 31.6			Greece (h = 10 km).		
				South of Fiji Islands					
				(h = 510 km).					

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1986				1986				
Feb.	22	UME	iP	17 19 04.2	Feb.	24	KIR Mx	20 42
"	22	UME	iP	17 48 14.6			Mx Z	2.6 23
		Hindu Kush region (h = 190 km).					Solomon Islands (h = 10 km).	
"	22	UPP	iPKP2	18 11 29.6	"	24	UPP iP	21 07 22.8
		Kermadec Islands region (h = N).					Northeast of Taiwan (h = 150 km).	
"	22	UPP	iP	21 16 36.5	"	26	UPP eP	05 06 28
		UME	iP	21 17 13.4			KIR iP	05 05 45.0
		Southern Greece (h = 60 km).					UME iP	05 06 04.1
"	23	UPP	eP	01 27 40			Hokkaido, Japan region (h = 70 km).	
		UME	iP	01 27 39.4	"	26	UPP eP	08 14 03.1
		Afghanistan-USSR border region (h = 90 km).					KIR iP	08 13 30.3
"	23	UPP	iPKP	18 47 58.0			UME eP	08 13 45
		KIR	iPKP	18 47 44.1			Bonin Islands region (h = 40 km).	
		UME	iPKP	18 47 50.2	"	27	UPP iP	06 35 00.0
		Vanuatu Islands (h = N).					iS	06 44 48
"	24	UPP		micr sec			P Z'	0.3 1.1
		Mx	Z	2.9 26			Mx Z	12.3 19
		KIR		micr sec			KIR iP	06 34 35.4
		Mx	Z	1.7 22				micr sec
		UME	iPKP	00 38 51.7			P Z'	0.2 0.9
		Fiji Islands region (h = 10 km).					Mx Z	2.4 17
		M = 5.8 (UPP,KIR).					Taiwan region (h = 45 km). m = 6.2, M = 5.9 (UPP,KIR).	
"	24	UPP	iP	00 35 08.5	"	27	UPP iP	07 48 44.4
		KIR	iP	00 35 16.6				micr sec
		UME	iP	00 35 05.5			Mx Z	2.3 21
		Hindu Kush region (h = 80 km).					KIR iP	07 48 20.3
"	24	UME	iP	02 29 24.8 C			UME iP	07 48 28.6
		Near east coast of Honshu, Japan (h = 55 km).			"	28	UPP iP	10 43 46.3
"	24	KIR	iP	02 44 34.4			KIR iP	10 43 17.5
		UME	iP	02 44 39.9			UME iP	10 43 30.1
		Halmahera (h = 120 km).					Volcano Islands region (h = 110 km).	
"	24	KIR	iP	19 03 51.3	"	28	UPP iP	17 17 17.6
		Central Alaska (h = 110 km).					UME iP	17 16 52.3
"	24	UPP	eP	19 13 47			Northeastern China (h = N).	
				micr sec	"	28	UPP iP	23 00 08.1
		Mx	Z	1.0 24			UME iP	22 59 50.6
		KIR	iP	19 14 12.0			Volcano Islands region (h = N).	
		UME	eP	19 14 03			October 14, 1987	
		North Atlantic Ridge (h = 10 km).					Ingrid Båth Conny Holmqvist Myung Soon Jun	



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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEÅ, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(KIR)	67°50.4'N,	20°25.0'E;	h = 390 m
Umeå	(UME)	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(UDD)	60°05.4'N,	13°36.4'E;	h = 240 m
Delary	(DEL)	56°28.2'N,	12°52.2'E;	h = 150 m
Myrviken	(MYV)	62°56.5'N,	14°20.8'E;	h = 345 m

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1986					1986						
Mar.	1	UPP	iP	00 28 43.8	Mar.	2	UPP	iP	03 25 02.6		
			ipP	00 29 16.5				iPcP	03 25 36.6		
		UME	iP	00 28 43.0			KIR	iP	03 24 11.5		
			ipP	00 29 15.2				iPcP	03 25 06.9		
		Hindu Kush region.					UME	iP	03 24 35.9		
		h = 140 km (UPP,UME).						i	03 24 48.8		
"	1	KIR	iSg1	09 32 43.7				iPcP	03 25 20.9		
		UME	iSg1	09 34 30.9			Kamchatka (h = 120 km).				
		Lapland, Sweden, 67.9°N,			"	2	UPP	iP	05 51 12.4 C		
		22.4°E.					KIR	iP	05 50 19.7		
		Origin time = 09 32 20.					UME	iP	05 50 45.5		
		M <sub>L</sub> (UPP) = 2.5 1.					Rat Islands, Aleutian Islands				
		By combination with Finnish					(h = N).				
		station readings.					"	2	UPP	iP	07 20 47.2
"	1	KIR	ePdiff	16 55 33			KIR	iP	07 20 06.6		
		UME	iPdiff	16 55 38.2					micr sec		
		Banda Sea (h = 80 km).						P	Z' 0.2 1.1		
"	1	UME	eP	20 44 43				Mx	Z 2.2 13		
		Honshu, Japan (h = 30 km).					UME	iP	07 20 24.5		
"	1	UME	iP	22 27 20.7				ipP	07 20 36.8		
		Yugoslavia (h = 10 km).					Near east coast of Honshu,				
"	1	UME	iPg1	22 33 47.5			Japan (h = 40 km).				
			iSg1	22 33 57.5	"	2	UPP	iP	09 10 59.5		
		Västerbotten, Sweden, 64.4°N,					KIR	iP	09 10 06.9		
		21.3°E.					UME	iP	09 10 36.5		
		Origin time = 22 33 34.					Northwest Territories,				
		M <sub>L</sub> (UPP) = 2.0 1.					Canada (h = 10 km).				
		By combination with Finnish			"	2	UPP	eP	20 53 25		
		station readings.					KIR	iP	20 52 32.4		
"	2	UME	iP	00 51 52.4			UME	iP	20 52 58.7		
		Tibet (h = N).						iPcP	20 53 32.7		
							Andreanof Islands, Aleutian				
							Is. (h = N).				

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1986				1986					
Mar.	3	UPP	eP	01 28 17	Mar.	5	UPP	iPKP	16 05 36.9
				micr sec				iSKP1	16 08 53.1
			Mx	Z 2.0 10			UME	e(PKP)	16 05 33
		KIR	iP	01 29 39.7				iPKP	16 05 42.3
			i	01 29 50.4				i	16 07 17.5
		UME	iP	01 28 58.5				iSKP1	16 08 39.2
		Albania (h = 20 km).					Vanuatu Islands (h = 290 km).		
"	3	UPP	iP	07 30 11.3	"	5	UME	iP	23 12 10.0 C
		KIR	iP	07 31 25.7 C					
		UME	iP	07 30 48.3 C		5	UPP	ePKP1	23 17 46
		Black Sea (h = 45 km).					UME	iPKP1	23 17 35.7
"	3	UME	iPKP1	11 25 50.9			South of Kermadec Islands (h = 40 km).		
		South of Kermadec Islands (h = N).			"	6	UPP	iP	00 11 32.7
"	3	UME	iP	12 40 44.2				i	00 11 34.0
		Albania (h = 5 km).						i	00 11 37.7
"	4	UPP	iP	08 58 16.9 D				iS	00 16 18
				micr sec					micr sec
			P	Z' 0.2 1.1					Z' 0.4 1.0
		UME	iP	08 57 50.3 D			KIR		Z 96 20
		Aleutian Islands region (h = N).							micr sec
"	4	UME	iP	09 01 08.9			UME	Mx	Z 29 16
		Aleutian Islands region (h = N).							00 11 42.2
"	4	UME	iPKP	09 16 11.0			Caspian Sea (h = N). m = 6.6, M = 6.3 (UPP,KIR).		
		North Islands, New Zealand (h = 270 km).			"	6	UME	iP	00 49 12.1
"	4	UME	iP	10 41 01.2 C			Caspian Sea (h = N).		
		Aleutian Islands region (h = N).			"	6	UPP	iP	03 52 07.1
"	4	UME	iPKP1	12 20 55.1			UME	iP	03 51 40.7 C
		South of Kermadec Islands (h = N).					Kodiak Island region (h = N).		
"	5	UME	iP	01 18 22.6	"	6	UPP	iP	04 18 49.0
		Kuril Islands (h = N).							micr sec
"	5	UPP	iPKP1	08 43 34.7				P	0.1 1.0
				micr sec			UME	iP	04 18 23.6 C
			PKP1	Z' 0.1 0.6			Kodiak Island region (h = N). m = 6.1 (UPP,KIR).		
		UME	i(PKP)	08 43 22.7	"	6	UPP	iPKP	12 50 03.8
			iPKP	08 43 30.6					micr sec
			iSKP1	08 46 08.5				PKP	Z' 0.1 0.7
		South of Fiji Islands (h = 610 km).					UME	iPKP	12 49 57.8
"	5	UME	iP	13 12 43.2			Solomon Islands (h = 70 km).		
					"	6	UPP	ePKP	12 54 03
								iSKP1	12 57 24.0
							UME	iPKP	12 53 55.9
								iSKP1	12 57 11.6
							Loyalty Islands region (h = 130 km).		
"	5	UME	iP	13 12 43.2	"	6	UPP	iP	13 00 23.0
							UME	iP	13 00 40.2



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1986				1986			
Mar.	11	(cont.) KIR ipP	23 15 53.8	Mar.	14	UME iP i	04 04 30.9 04 04 34.0
		P Z'	1.5 1.1	"	14	UPP iP i	04 27 16.3 04 27 26.7
		UME iP iPP	23 15 00.0 C 23 16 34.7			KIR eP UME iP i	04 28 01 04 27 38.6 D 04 27 49.1
		Hindu Kush region. h = 210 km (KIR). m = 6.4 (UPP,KIR).				Zaire Republic (h = 10 km).	
"	12	UPP iP UME iP	20 09 54.3 20 09 52.4	"	14	UPP i(P)	06 45 27.3
		Hindu Kush region (h = 200 km).		"	14	UME iP i	07 59 28.9 07 59 31.9
						Bonin Islands region (h = N).	
"	13	UPP iP KIR iP UME iP	02 58 31.3 02 58 11.6 C 02 58 18.1	"	14	UPP iP  P Z'	08 53 09.7 D micr sec 0.2 0.9
		Philippine Islands region (h = 50 km).				KIR iP P Z'	08 52 23.7 D 0.6 1.0
"	13	UPP iPKP i iPKKP	05 55 08.0 05 55 09.7 06 05 28.1			UME iP	08 52 44.6 D
		Mx Z	2.1 22			Kuril Islands (h = 80 km). m = 6.3 (UPP,KIR).	
		KIR iPKP iPKKP	05 54 57.1 06 05 32.4	"	14	UPP iP ipP	11 37 39.2 11 38 23.6
		Mx Z	1.6 21			KIR iP	11 36 46.1
		UME iPKP i iPKKP	05 55 02.1 05 55 03.1 06 05 39.9			Andreanof Islands, Aleutian Is. (h = 220 km).	
		Solomon Islands (h = 70 km). M = 5.7 (UPP,KIR). M uncorrected for focal depth.		"	14	UPP iPKP iPKP1	17 15 33.2 17 15 35.6
						KIR iPKP UME iPKP1	17 15 18.0 17 15 23.8
						Kermadec Islands region (h = 40 km).	
"	13	UPP iP  P Z'	08 51 53.7 D micr sec 0.1 1.0	"	14	UME iPKP1	17 33 59.6
		KIR iP	08 51 41.1 D			Kermadec Islands (h = N).	
		P Z'	0.2 1.0	"	15	UPP eP UME iP	01 14 11 01 14 20.9
		UME iP	08 51 42.8 D			Southern Iran (h = N).	
		Yunnan Province, China (h = 30 km). m = 6.1 (UPP,KIR).		"	15	UPP iPKP1 UME iPKP1	05 34 40.2 05 34 27.8
						Kermadec Islands (h = N).	
"	13	UME iPKP1	09 31 31.9	"	15	UPP iP UME iP	08 06 08.7 08 06 25.2
		South of Kermadec Islands (h = N).				Iran-Iraq border region (h = N).	
"	13	UPP iPKP1 UME iPKP1	10 56 23.4 10 56 11.0	"	15	UPP eP UME eP	08 51 20 08 52 00
		Kermadec Islands region (h = N).				Albania (h = 10 km).	
"	13	UPP i(P)	16 30 23.4				

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1986				1986								
Mar.	15	UME	iP	13 33	19.7	Mar.	18	UPP	iP	01 33	16.8	
"	15	UPP	eP	15 28	07	"	18	KIR	eP	01 33	03	
		Southern Iran (h = N).						UME	eP	01 33	06	
"	15	UME	iP	16 46	13.4			Yunnan Province, China (h = N).				
"	15	UPP	iPKP	18 50	51.7	"	18	UPP	iP	07 11	58.2	
		KIR	iPKP	18 51	06.3 C			KIR	iP	07 11	24.0	
					micr sec			UME	iP	07 11	38.6 D	
			PKP	Z'	0.2 1.0			South of Honshu, Japan (h = 410 km).				
		UME	iPKP	18 50	59.7 C	"	18	UPP	iP	09 25	21.1	
		South Sandwich Islands region (h = 90 km).						UME	iP	09 25	05.4	
"	15	UPP	iP	22 00	26.7			Southwestern Ryukyu Islands (h = N).				
		UME	iP	22 00	14.4	"	18	KIR	eP	23 34	43	
"	15	UME	iPKP1	22 51	33.5			UME	iP	23 35	11.8	
		Kermadec Islands (h = 210 km).						Kodiak Island region (h = 90 km).				
"	16	UPP	iP	11 26	54.9	"	19	UPP	iP	03 12	05.1	
		Southern Iran (h = N).									micr sec	
"	16	UPP	i(P)	13 48	48.2			Mx	Z	1.1	16	
								KIR			micr sec	
"	16	UPP	iP	14 35	13.0			Mx	Z	0.9	16	
					micr sec			UME	iP	03 11	51.3	
			P	Z'	0.1 1.0			Taiwan region (h = N). M = 5.2 (UPP,KIR).				
		KIR	iP	14 34	25.1	"	19	UME	iP	14 28	23.6	
		Kuril Islands region (h = N).						Mariana Islands region (h = 310 km).				
"	16	UPP	iP	15 20	55.3	"	19	UPP	iP	15 34	21.4	
		KIR	eP	15 20	26			UME	iP	15 34	54.0	
		Taiwan region (h = N).						Dodecanese Islands (h = 20 km).				
"	16	UPP	iP	18 48	44.1	"	19	UPP	iP	18 39	38.4	
		Romania (h = 140 km).						UME	iP	18 39	10.9	
"	16	UPP	iP	23 11	03.8			Near Islands, Aleutian Islands (h = N).				
		Kuril Islands region (h = N).					"	19	UPP	iP	21 41	21.1
"	17	UPP	iP	06 11	03.8			KIR	iP	21 40	55.8	
		Afghanistan-USSR border region (h = 80 km).						UME	iP	21 41	05.5	
"	17	UPP	iP	09 29	39.1 D			South of Mariana Islands (h = 45 km).				
			iPP	09 33	03.2							
			iS	09 39	15.2							
					micr sec							
			P	Z'	0.3 0.6	"	19	UPP	iP	22 17	21.0	
		KIR	iP	09 29	18.1 D			Greece-Albania Border region (h = N).				
					micr sec							
			P	Z'	0.5 0.9	"	20	UME	iP	09 56	23.5	
		Bonin Islands region (h = 480 km). m = 5.9 (UPP,KIR).						Near east coast of Kamchatka (h = N).				

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1986				1986			
Mar.	20	KIR eP UME iP Fox Islands, Aleutian Islands (h = N).	19 50 01 19 50 34.6	Mar.	22	(cont.) KIR i UME iP Taiwan region (h = N).	09 33 26.5 09 33 32.0
"	21	UPP iP KIR iP UME iP South of Honshu, Japan (h = 160 km).	21 10 41.5 21 10 06.4 21 10 21.0	"	22	UPP iP KIR eP UME iP Taiwan region (h = N).	09 45 04.2 09 44 40 09 44 48.5
"	21	UPP iPdiff KIR iPdiff UME iPdiff iPP Flores Sea (h = 610 km).	21 48 30.0 21 48 19.6 21 48 22.0 21 52 46.8	"	22	UPP iP Taiwan region (h = N).	09 55 01.0
"	21	UPP i(P)	21 52 15.9	"	22	UPP iP KIR iP UME iP Taiwan region (h = N).	09 59 51.7 09 59 26.9 09 59 35.7
"	22	UPP iP i i KIR eP i UME eP i British Colombia (h = 20 km).	00 06 37.0 00 06 43.5 micr sec i Z' 0.1 1.0 00 05 47 00 05 52.9 00 06 16 00 06 23.0	"	22	UPP iP KIR iP UME iP Taiwan region (h = 35 km).	10 09 33.3 10 09 08.9 10 09 17.9
"	22	UPP iP i i i Mx Z KIR iP i P Mx Z UME iP Taiwan (h = 45 km). m = 6.0, M = 6.1 (UPP,KIR).	04 57 19.9 04 57 21.0 04 57 36.5 micr sec i Z' 0.2 1.0 Mx Z 9.0 18 04 56 57.0 micr sec P Z' 0.1 1.0 Mx Z 4.7 15 04 57 05.5	"	22	UME iP Taiwan region (h = N).	10 17 31.1
"	22	UPP iP i i KIR iP P Mx Z UME iP Taiwan region (h = N). m = 5.8 (UPP,KIR).	04 57 19.9 04 57 21.0 04 57 36.5 micr sec i Z' 0.2 1.0 Mx Z 9.0 18 04 56 57.0 micr sec P Z' 0.1 1.0 Mx Z 4.7 15 04 57 05.5	"	22	UPP iP KIR iP UME iP Taiwan region (h = N).	10 42 52.3 micr sec P Z' 0.1 1.0 10 42 29.1 micr sec P Z' 0.1 1.0 10 42 37.7
"	22	UPP iP UME iP Taiwan region (h = 35 km).	08 44 39.5 08 44 24.1	"	22	UPP iP UME iP Taiwan region (h = N).	10 42 37.7 Taiwan region (h = N). m = 5.8 (UPP,KIR).
"	22	UPP iP UME iP Taiwan region (h = N).	08 44 39.5 08 44 24.1	"	22	UPP iP UME iP Taiwan region (h = N).	10 55 29.2 10 55 12.7
"	22	UPP iP UME iP Taiwan region (h = N).	09 15 52.1 09 15 36.0	"	22	UPP iP UME iP Taiwan region (h = N).	11 04 45.1 11 04 29.0
"	22	UPP iP UME iP Taiwan region (h = N).	09 32 15.4 09 32 03.9	"	22	UPP iP UME iP Taiwan region (h = N).	11 06 46.6 11 06 31.6
"	22	UPP iP i (cont.)	09 33 46.7 09 33 51.2	"	22	UPP iP UME eP Taiwan region (h = N).	11 13 05.1 11 12 49.3
"	22	UPP iP i (cont.)	09 33 46.7 09 33 51.2	"	22	UPP iP UME eP Taiwan region (h = N).	11 17 35.4 11 17 20

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986									
Mar.	22	UPP	iP	11 26	44.5	Mar.	22	UPP	iP	13 39	16.4		
		UME	iP	11 26	28.2			Southwestern Ryukyu Islands					
		Taiwan region (h = N).						(h = N).					
"	22	UPP	iP	11 31	21.5	"	22	UPP	iP	13 40	36.9		
				micr	sec			UME	iP	13 40	22.5		
			P	Z'	0.1 1.1			Taiwan region (h = N).					
		KIR	iP	11 31	01.7								
				micr	sec			"	22	UPP	iP	13 45	45.4
			P	Z'	0.1 1.3					UME	eP	13 45	30
		UME	iP	11 31	05.8			Southwestern Ryukyu Islands					
		Taiwan region (h = N).						(h = N).					
		m = 5.7 (UPP,KIR).											
"	22	UPP	iP	11 39	25.6	"	22	UPP	iP	14 14	11.8		
		Taiwan region (h = N).						UME	iP	14 13	55.2		
								Southwestern Ryukyu Islands					
								(h = N).					
"	22	UPP	iP	12 01	15.4	"	22	UPP	iP	14 39	03.1		
		Taiwan region (h = N).						UME	iP	14 38	49.3		
								Southwestern Ryukyu Islands					
								(h = N).					
"	22	UPP	iP	12 07	58.1	"	22	UPP	iP	14 57	48.9		
		Taiwan region (h = N).						UME	iP	14 57	33.2		
								Taiwan region (h = N).					
"	22	UPP	iP	12 09	57.9	"	22	UPP	iP	14 57	48.9		
		UME	iP	12 09	20.5			UME	iP	14 57	33.2		
								Taiwan region (h = N).					
"	22	UPP	iP	12 18	18.3	"	22	UPP	iP	15 28	16.8		
				micr	sec			KIR	iP	15 28	17.6		
			P	Z'	0.1 1.1			UME	iP	15 28	20.4		
		KIR	iP	12 17	54.1				i	15 28	27.5		
		UME	iP	12 18	02.4			North Atlantic Ocean					
		Taiwan region (h = N).						(h = 25 km).					
"	22	UPP	iP	12 28	20.0	"	22	UPP	iP	16 26	49.0 C		
		Taiwan region (h = N).								micr	sec		
"	22	UPP	iP	12 49	28.0				P	Z'	0.1 1.1		
		UME	iP	12 49	16.2			KIR	iP	16 26	15.0 C		
		Southwestern Ryukyu Islands						UME	iP	16 26	34.1 C		
		(h = N).						Southern Nevada.					
								Underground explosion.					
"	22	UPP	iP	13 01	25.5	"	22	UME	iP	20 59	54.1		
		UME	iP	13 01	10.7			Taiwan region (h = N).					
		Taiwan region (h = N).											
"	22	UPP	iP	13 02	25.1	"	23	KIR	iP	14 32	31.2		
		UME	eP	13 02	08			UME	iP	14 32	08.0		
		Taiwan region (h = N).						Caspian Sea (h = N).					
"	22	UPP	eP	13 08	49	"	24	UPP	iP	02 13	14.2		
		Taiwan region (h = N).								micr	sec		
									P	Z'	0.1 0.8		
"	22	UPP	iP	13 17	08.9			Mx	Z	33	17		
		UME	eP	13 16	54			KIR	iP	02 12	42.8		
		Southwestern Ryukyu Islands								micr	sec		
		(h = N).							P	Z'	0.1 0.8		
								Mx	Z	17	16		

(cont.)

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
Mar.	24	(cont.)		Mar.	25	(cont.)	
		UME	iP 02 12 55.8 C			KIR	iP 01 47 43.0
			Ryukyu Islands (h = 25 km).				i 01 47 45.4
			m = 5.9, M = 6.6 (UPP,KIR).				micr sec
"	24	UPP	iP 02 45 43.1				i Z' 0.7 1.5
		KIR	iP 02 45 20.5				Mx Z 12 14
		UME	iP 02 45 27.4			UME	iP 01 47 06.4
			i 02 45 33.0				i 01 47 09.9
			Taiwan region (h = 30 km).				Aegean Sea (h = 5 km).
							m = 6.0, M = 5.7 (UPP,KIR).
"	24	UME	iP 10 46 33.4	"	25	UPP	iP 04 11 51.9
			Guatemala (h = 70 km).				micr sec
							P Z' 0.1 0.8
"	24	UPP	iP 15 41 47.2			KIR	iP 04 11 12.3 C
		UME	i iP 15 41 22.1			UME	iP 04 11 29.7 C
			Kuril Islands (h = 80 km).				Honshu, Japan (h = 140 km).
"	24	KIR	iP 19 21 03.7	"	25	KIR	eP 10 29 03
		UME	iP 19 20 37.0			UME	iP 10 29 10.9
			Eastern Gulf of Aden				Taiwan region (h = N).
			(h = 10 km).				
"	24	UPP		"	25	KIR	i 11 32 03.2
			micr sec				Turkmen SSR (h = N).
			Mx Z 23 19				
		KIR	iPdiff 19 45 36.0	"	25	KIR	iP 13 25 25.6
			i 19 45 41.0			UME	iP 13 25 38.2
			micr sec				Volcano Islands region
			Mx Z 17 17				(h = N).
		UME	iPdiff 19 45 41.5	"	25	UPP	iP 17 24 10.7
			i 19 45 47.0			KIR	iP 17 24 09.4
			iPP 19 50 07.0				i 17 24 22.3
			West Irian (h = 30 km).			UME	iP 17 24 07.4
			M = 6.8 (UPP,KIR).				i 17 24 20.9
							Sunda Strait (h = 45 km).
"	24	KIR	eP 19 56 21	"	25	UPP	iP 23 56 19.9
		UME	iP 19 56 29.6				micr sec
			Revilla Gigedo Islands				P Z' 0.1 1.0
			region (h = 10 km).			KIR	iP 23 56 34.2
"	24	UME	iP 22 17 57.7				micr sec
			Yugoslavia (h = 10 km).				P Z' 0.1 1.0
"	24	UME	iP 22 22 17.7			UME	iP 23 56 20.0
			Taiwan region (h = N).				i 23 56 55.0
							Uzbek SSR (h = N).
"	25	UPP	iP 01 40 19.1				m = 5.7 (UPP,KIR).
		KIR	iP 01 40 54.0	"	26	UME	iP 13 53 40.6
		UME	iP 01 40 34.1				Off east coast of Honshu,
			Southern Iran (h = N).				Japan (h = N).
"	25	UPP	iP 01 46 30.4	"	26	KIR	iPKP 14 44 50.3
			i 01 46 33.4			UME	iPKP 14 44 56.9
			iS 01 50 30				Vanuatu Islands (h = 200 km).
			micr sec	"	26	KIR	iP 20 33 31.9
			i Z' 0.5 1.2			UME	iP 20 33 54.4
			Mx Z 15 12				Kuril Islands (h = N).
		(cont.)					



UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986						
Mar.	26	KIR	iPKP	22 08 50.9 D	Mar.	28	UME	iPdiff	16 21 31.0	
				micr sec					New Britain region (h = 90 km).	
			PKP	Z' 0.2 1.3		"	28	KIR	iP	17 56 30.7
		UME	iPKP	22 08 44.1				i	17 56 42.9	
				South Sandwich Islands			UME	iP	17 56 57.8	
				region (h = 110 km).					Off east coast of Kamchatka	
"	26	UPP	iP	22 19 20.0 D					(h = N).	
				micr sec	"	28	UPP	iP	18 34 48.5	
			P	Z' 0.2 1.2			KIR	iP	18 33 58.1	
		KIR	iP	22 19 29.1 D			UME	iP	18 34 22.0 D	
				micr sec					Kuril Islands (h = 90 km).	
			P	Z' 0.2 0.9	"	28	UME	iP	22 38 16.2	
		UME	iP	22 19 26.9 D					Aegean Sea (h = 10 km).	
				Western Brazil (h = 610 km).						
				m = 6.2 (UPP,KIR).						
"	27	UPP	iPKP	12 17 28.6	"	28	UME	iP	22 54 46.2	
				micr sec	"	29	UME	iP	03 09 49.9	
			Mx	Z 2.8 23				i	03 09 59.0	
		KIR	iPKP	12 17 16.7					Off east coast of Honshu,	
				micr sec					Japan (h = N).	
			Mx	Z 1.9 23	"	29	UPP	iP	10 01 26.9	
		UME	iPKP	12 17 24.1			KIR	iP	10 01 28.5	
				Fiji Islands region (h = N).			UME	iP	10 01 30.2	
				M = 5.9 (UPP,KIR).					Colombia (h = 160 km).	
"	27	UPP	iP	13 20 51.4	"	29	UME	iP	12 02 34.8	
		KIR	iP	13 20 32.4 D					Bonin Islands region (h = N).	
		UME	iP	13 20 38.7	"	29	UME	iPKP	14 36 05.4	
				Luzon, Philippine Islands			iSKP1	14 38 39.0		
				(h = 80 km).					Fiji Islands region	
"	27	UPP	iP	13 49 07.7					(h = 600 km).	
		KIR	iP	13 49 56.7	"	29	UPP	iP	17 40 56.0	
		UME	iP	13 49 21.9	"	29	UPP	iP	18 41 32.8 C	
"	28	UPP	iPn	02 59 19.0			iS	18 45 40		
			iSn	03 00 38.8				micr sec		
		KIR	iPn	02 59 57.7			P	Z' 0.2 1.0		
		UME	iPn	02 59 34.8			Mx	Z 6.3 12		
			iSn	03 01 06.6			KIR	iP	18 42 44.8	
		UDD	iPn	02 58 51.2					micr sec	
			iSn	02 59 49.8			P	Z' 0.1 1.0		
		DEL	iPn	02 59 17.4			Mx	Z 5.0 13		
		MYV	iPn	02 58 57.2			UME	iP	18 42 08.8	
			iSn	03 00 01.0					Aegean Sea (h = 10 km).	
				Norwegian Sea, near 61°N, 3°E.					m = 5.6, M = 5.3 (UPP,KIR).	
				Origin time = 02 57 30.	"	30	UME	iP	05 42 11.8	
				M <sub>L</sub> (UPP) = 3.9 (0.23) 3.					Halmahera (h = 40 km).	
"	28	KIR	iPKP	03 14 57.9	"	30	UPP	ePKP	09 12 52	
		UME	i(PKP)	03 14 54.9			UME	iPKP	09 12 50.2	
				South of Fiji Islands					South Australia (h = 10 km).	
				(h = 380 km).						
"	28	UME	iP	06 18 24.2						

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1986

Mar. 30 KIR iPdiff 18 17 20.5  
 UME iPdiff 18 17 26.0  
 Banda Sea (h = 70 km).

" 31 UME eP 01 20 32  
 Taiwan region (h = N).

" 31 UPP iP 01 31 40.0  
 KIR iP 01 31 43.2 C  
 micr sec  
 P Z' 0.1 1.0  
 UME iP 01 31 44.3  
 Northern Colombia  
 (h = 160 km).

" 31 KIR iPg1 10 11 01.5  
 iSg1 10 11 37.2  
 Off coast of northwestern  
 Norway, near 69 3/4<sup>0</sup>N,  
 14 1/2<sup>0</sup>E.  
 Origin time = 10 10 13.  
 M<sub>L</sub>(UPP) = 3.0 1.  
 By combination with Finnish  
 station readings.

" 31 UPP eP 12 07 36  
 iS 12 17 27  
 micr sec  
 Mx Z 1.7 16  
 KIR iP 12 06 59.6  
 i 12 07 07.3  
 micr sec  
 i Z' 0.1 1.4  
 Mx Z 1.5 16  
 UME iP 12 07 15.1  
 Central California  
 (h = 10 km).  
 M = 5.5 (UPP,KIR).

" 31 UME iP 21 08 35.4

" 31 UPP iP 22 01 45.0  
 KIR iP 22 01 48.9 D  
 micr sec  
 P Z' 0.1 0.7  
 UME iP 21 59 17.0  
 Tajik-Xinjiang border region  
 (h = N).

November 17, 1987

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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEÅ, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59 <sup>0</sup> 51.5'N,	17 <sup>0</sup> 37.6'E;	h = 14 m
Kiruna	(KIR)	67 <sup>0</sup> 50.4'N,	20 <sup>0</sup> 25.0'E;	h = 390 m
Umeå	(UME)	63 <sup>0</sup> 48.9'N,	20 <sup>0</sup> 14.2'E;	h = 16 m
Uddeholm	(UDD)	60 <sup>0</sup> 05.4'N,	13 <sup>0</sup> 36.4'E;	h = 240 m
Delary	(DEL)	56 <sup>0</sup> 28.2'N,	12 <sup>0</sup> 52.2'E;	h = 150 m
Myrviken	(MYV)	62 <sup>0</sup> 56.5'N,	14 <sup>0</sup> 20.8'E;	h = 345 m

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 .....

1986					1986				
Apr.	1	UPP	iP	04 00 15.0	Apr.	1	(cont.)		
		KIR	iP	04 01 29.1			UME	iPKP	10 31 53.1
		UME	iP	04 00 54.4 C				iSKP1	10 34 32.5
		Southern Italy (h = 290 km).					Fiji Islands region (h = 540 km).		
"	1	UPP	iPn	09 58 03.0	"	1	UPP	iP	13 51 03.4
			iPg	09 58 12.4					micr sec
			iSn	09 58 52.0				P	Z' 0.2 1.1
			iSg	09 59 08.5				Mx	Z 1.8 22
		KIR	iSn	10 02 56.9			KIR	iP	13 50 09.7 C
			iSg1	10 03 04.3					micr sec
		UME	iSg1	10 01 09.7				P	Z' 0.2 1.0
		UDD	iPn	09 57 52.0			UME	iP	13 50 35.7
			iPg1	09 58 00.6			Near east coast of Kamchatka (h = 35 km).		
			i	09 58 27.6			m = 6.1 (UPP,KIR).		
			eSg1	09 58 45					
		DEL	iPg1	09 57 11.0					
			iSg1	09 57 22.0					
		MYV	iPn	09 58 32.0	"	2	UME	iP	08 46 10.6
			iSn	09 59 43.8			Iceland region (h = 10 km).		
			iSg1	10 00 15.8					
		Off coast of Halland, Sweden, 56.5 <sup>0</sup> N, 12.3 <sup>0</sup> E.			"	2	UPP	eP	08 49 20
		Origin time = 09 56 56.					UME	iP	08 49 22.1
		M <sub>L</sub> (UPP) = 4.2 (0.15) 5.					Iceland region (h = 10 km).		
		Felt along the larger part of the coastal area of southwestern Sweden.			"	2	UPP	iP	08 51 21.1
		Maximum felt intensity						iS	08 55 14
		I <sub>0</sub> = IV <sub>+</sub> .							micr sec
								P	Z' 0.1 1.2
								Mx	Z 1.9 18
							KIR	iP	08 51 07.4
									micr sec
"	1	UPP	i(PKP)	10 31 49.9				P	Z' 0.1 1.0
			iSKP1	10 34 45.3				Mx	Z 1.5 13
		KIR	iPKP	10 31 46.2			UME	iP	08 51 19.6
			iSKP1	10 34 19.1			Iceland region (h = 10 km).		
				micr sec			m = 5.0, M = 4.5 (UPP,KIR).		
			PKP	Z' 0.1 0.6					
		(cont.)							

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986					
Apr.	2	UPP	eP	09 04 30	Apr.	3	UPP eP	03 07 42	
				micr sec			KIR eP	03 06 48	
			Mx	Z 1.7 18			UME iP	03 07 16.6	
		KIR	iP	09 04 19.3			Kodiak Island region (h = N).		
				micr sec		"	3	UPP eP	03 26 31
			Mx	Z 0.9 13			UME iP	03 26 33.2	
		UME	iP	09 04 27.3			Iceland region (h = 10 km).		
				Iceland region (h = 10 km).					
				M = 4.4 (UPP,KIR).		"	3	UPP iP	19 06 50.8
"	2	UPP	iP	15 30 55.8	"	3	UPP iP	23 37 16.9	
			iS	15 34 46			iS	23 41 15	
				micr sec				micr sec	
			P	Z' 0.2 1.5			P	Z' 0.1 1.3	
			Mx	Z 1.3 19			Mx	Z 3.6 12	
		KIR	iP	15 30 45.1			KIR eP	23 38 23	
				micr sec				micr sec	
			P	Z' 0.1 1.5			Mx	Z 2.0 13	
			Mx	Z 0.9 13			UME iP	23 37 51.1	
		UME	iP	15 30 55.8			Aegean Sea (h = 10 km).		
				Iceland region (h = 10 km).			M = 5.0 (UPP,KIR).		
				m = 5.1, M = 4.3 (UPP,KIR).		"	4	UPP eP	00 14 38
"	2	UPP	iS	17 48 30	"	4	UME eP	00 15 15	
				micr sec			Aegean Sea (h = 15 km).		
			Mx	Z 1.2 22		"	4	UPP iP	11 33 04.1 C
		KIR	iP	17 44 34.1			i	11 33 06.3	
				micr sec				micr sec	
			Mx	Z 0.7 14			i	Z' 0.1 0.9	
		UME	iP	17 44 40.9			KIR iP	11 32 52.0	
				Iceland region (h = 10 km).			UME iP	11 32 53.7	
				M = 4.3 (UPP,KIR).			Qinghai Province, China		
"	2	UPP	iP	17 54 24.2			(h = N).		
			i	17 54 30.5		"	4	UPP eP	20 22 52
			iS	17 58 18			KIR eP	20 22 35	
				micr sec			UME eP	20 22 40	
			P	Z' 0.1 1.0			Samar, Philippine Islands		
			Mx	Z 3.0 24			(h = 45 km).		
		KIR	iP	17 54 15.5		"	4	UPP iP	22 45 18.4
				micr sec				micr sec	
			P	Z' 0.5 1.9				Mx	Z 0.7 10
			Mx	Z 1.9 15			KIR iP	22 43 50.3	
		UME	iP	17 54 23.5			iS	22 44 48.4	
			i	17 54 27.7				micr sec	
				Iceland region (h = 10 km).				Mx	Z 1.3 10
				m = 5.0, M = 4.6 (UPP,KIR).			UME iP	22 44 34.2	
"	3	UME	iP	02 49 57.7			i	22 44 35.0	
				Costa Rica (h = 25 km).			iS	22 46 03.4	
"	3	KIR	iP	02 53 02.5			UDD iP	22 45 10.1	
		UME	iP	02 53 30.6			iS	22 47 04.6	
				Kodiak Island region (h = N).			DEL iP	22 45 57.4	
"	3	KIR	iP	02 57 54.0			MYV iP	22 44 33.0	
		UME	iP	02 57 32.6			(cont.)		
				Southern Iran (h = N).					

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1986				1986			
Apr.	4	(cont.) MYV iS	22 45 59.0	Apr.	7	UPP iP	23 08 58.4
		Norwegian Sea, near 70 1/2°N, 8°E.				Greece (h = 10 km).	
		Origin time = 22 42 33.		"	8	UPP iP	01 32 28.9
"	5	UPP iPKP	02 47 53.9			Hindu Kush region (h = 190 km).	
		KIR ePKP	02 47 38	"	8	UPP iPKP1	08 31 17.0 C
		UME iPKP	02 47 47.2			i	08 31 19.5
		i	02 48 02.9				micr sec
		Solomon Islands (h = 70 km).				PKP1 Z'	0.1 0.7
"	5	UPP eP	17 52 33	UME e(PKP)			08 31 02
		UME iP	17 52 12.8			South of Fiji Islands (h = 100 km).	
		Alaska Peninsula (h = N).		"	8	UPP iP	08 50 24.6
"	5	UPP iP	23 02 22.8			Red Sea (h = 10 km).	
"	5	UPP iP	23 10 00.9	"	8	UPP iPg1	10 31 08.0
		KIR iP	23 09 15.0			iSg1	10 32 11.2
		UME iP	23 09 35.6			KIR iPg1	10 30 42.8
		Kuril Islands (h = 90 km).				eSg1	10 31 29
"	6	UPP iP	04 49 21.1			UME iPg1	10 29 52.8
		iPP	04 52 55.4			iSg1	10 30 01.0
		KIR iP	04 49 20.9 C			UDD iSg1	10 32 29.8
			micr sec			MYV ePg1	10 30 39
		P Z'	0.1 0.8			iSg1	10 31 16.4
		UME iP	04 49 18.3			Västerbotten, Sweden, 64.5°N, 20.4°E.	
		Southern Sumatera (h = 70 km).				Origin time = 10 29 42.	
"	6	UPP e	07 57 11			M <sub>L</sub> (UPP) = 2.6 (0.19) 4.	
		KIR eP	07 55 28			Felt.	
		UME i	07 56 32.7	"	8	UPP iP	14 29 00.4
		Svalbard region (h = 10 km).		"	8	UPP iPKP1	14 52 09.9
"	7	UPP iP	03 20 10.2			KIR ePKP1	14 51 48
		Greece (h = 20 km).				UME iPKP1	14 52 00.2
"	7	UPP iP	19 13 30.3			Off e. coast of N. Island, N.Z. (h = N).	
		KIR eP	19 13 21	"	8	UPP iP	18 16 00.4
		Kirghiz-Xinjiang border region (h = N).				iS	18 26 18
"	7	UPP iP	22 56 13.3			KIR iP	18 16 06.2
		ipP	22 56 25.7				micr sec
		iS	23 06 49			P Z'	0.1 0.9
			micr sec			UME iP	18 16 05.8
		Mx Z	2.3 24			ipP	18 20 06.4
		KIR iP	22 56 01.2			Peru-Brazil border region (h = 170 km).	
		ipP	22 56 13.3	"	8	UME iP	18 10 01.9
			micr sec			Azores Islands region (h = 10 km).	
		P Z'	0.2 1.2	"	8	UME iP	22 08 19.2
		UME iP	22 56 09.7			Near east coast of Honshu, Japan (h = 25 km).	
		Near coast of Oaxaca, Mexico. h = 40 km (UPP,KIR).					

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
Apr.	9	UPP iP	02 15 09.3	Apr.	11	UPP i	04 16 05.7
"	9	UPP iP	02 50 22.1			UME iP	04 16 18.5
		UME iP	02 51 00.8			i	04 16 36.2
		Greece (h = 35 km).				Turkey-USSR border region (h = 10 km).	
"	9	UPP iP	14 42 55.1 D	"	11	UPP iP	06 22 48.3
			micr sec				
		P	Z' 0.1 0.9	"	11	KIR i(P)	13 10 39.0
		KIR iP	14 42 02.3 D			Windward Islands (h = 55 km).	
			micr sec				
		P	Z' 0.1 0.9	"	11	UPP iP	17 33 06.3
		UME iP	14 42 27.5 D			iS	17 41 56
		Aleutian Islands region (h = N). m = 5.8 (UPP,KIR).				i	17 45 25
							micr sec
						P	Z' 0.1 1.4
						Mx	Z 8.7 19
"	9	KIR iSg1	21 49 02.8			KIR	micr sec
		Norrbotten, Sweden, 67.4°N, 23.4°E.				Mx	Z 2.2 15
		Origin time = 22 48 24.				UME iP	17 32 40.0 C
		By combination with Finnish station readings.				i	17 32 46.2
						Fox Islands, Aleutian Islands (h = N). M = 5.7 (UPP,KIR).	
"	9	UPP iP	22 09 17.2	"	12	UPP iP	12 00 44.4
		KIR iP	22 09 57.4				
		UME iP	22 09 03.3	"	12	UME iP	16 17 37.8
		Mindanao, Philippine Islands (h = 60 km).				Mid-Indian Rise (h = 10 km).	
"	9	UPP iPKP	22 29 02.2	"	12	UPP iP	17 02 11.9 D
		ipPKP	22 29 12.6			Greece-Albania border region (h = 10 km).	
		KIR iPKP	22 29 16.4	"	12	UPP iP	18 26 55.5
		ipPKP	22 29 28.0			Mindanao, Philippine Islands (h = 55 km).	
			micr sec				
		PKP	Z' 0.2 1.2	"	12	UPP iP	19 30 49.3
		UME iPKP	22 29 10.2			UME iP	19 30 33.1
		ipPKP	22 29 20.8			Mindanao, Philippine Islands (h = 55 km).	
		South Sandwich Islands region. h = 35 km (UPP,KIR,UME).					
"	10	KIR iP	02 34 41.9	"	12	UPP iP	22 00 37.5
		UME iP	02 34 46.9			UME iP	22 00 25.3
		Molucca Sea (h = 15 km).				Mindanao, Philippine Islands (h = 70 km).	
"	10	UPP eP	07 43 32	"	13	UPP iP	03 12 56.2
		UME iP	07 43 12.3			UME iP	03 12 40.5
		Bonin Islands region (h = 160 km).				Mariana Islands (h = 300 km).	
"	10	UME iP	14 20 03.7 C	"	13	UPP iP	07 51 06.0
		Southern Nevada. Underground explosion.				UME iP	07 51 45.6
						Greece (h = 15 km).	
"	10	UME iP	18 34 29.1	"	13	UPP iPKP1	18 14 59.0
		Northern Sumatera (h = 90 km).				South of Fiji Islands (h = 270 km).	

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986					
Apr.	13	UPP UME Tibet (h = 55 km).	iP eP	21 37 27.9 21 37 24	Apr.	16	UPP iS P Mx KIR P Mx UME South of Honshu, Japan (h = 30 km). m = 6.2, M = 5.6 (UPP,KIR).	iP iS Z' Z iP Z' Z iP South of Honshu, Japan (h = 30 km). m = 6.2, M = 5.6 (UPP,KIR).	01 43 44.7 C 01 53 40 micr sec 0.3 1.3 3.2 16 01 43 09.8 C micr sec 0.3 1.3 1.2 16 01 43 24.9 C
"	14	UPP iPKP iPP iSKP1 micr sec PKP Mx KIR Mx UME Vanuatu Islands (h = 30 km). M = 6.3 (UPP,KIR).	iPKP iPP iSKP1 Z' Z iPKP Mx Z	00 44 16.7 00 46 19 00 47 37 micr sec 0.2 1.2 10.5 22 micr sec 3.1 21 00 44 09.4 Vanuatu Islands (h = 30 km). M = 6.3 (UPP,KIR).	"	16	UPP i(P)	05 43 54.9	
"	14	KIR Molucca Sea (h = 45 km).	iP	09 57 31.5 Molucca Sea (h = 45 km).	"	16	UME i Hokkaido, Japan region (h = 170 km).	iP i 07 04 13.4 07 04 25.7	
"	14	UPP Fiji Islands region (h = 510 km).	iSKP1	10 58 30.7 Fiji Islands region (h = 510 km).	"	16	UPP iP i iS micr sec P Mx KIR i i micr sec P Mx UME Kuril Islands (h = 25 km). m = 6.4, M = 6.2 (UPP,KIR).	13 03 17.3 13 03 29.9 13 12 13 micr sec 0.3 0.9 16.6 22 13 02 31.1 13 02 46.6 micr sec 0.3 1.0 14.1 18 13 02 52.7 Kuril Islands (h = 25 km). m = 6.4, M = 6.2 (UPP,KIR).	
"	14	UPP iPKP iPP micr sec Mx Z KIR iPKP i micr sec PKP Mx Z South Sandwich Islands region (h = 10 km). M = 6.4 (UPP,KIR).	iPKP iPP Z iPKP i Z' Z	15 11 05.0 15 12 37 micr sec 9.9 18 15 11 22.3 15 11 35.1 micr sec 0.1 1.1 4.1 17 South Sandwich Islands region (h = 10 km). M = 6.4 (UPP,KIR).	"	16	UPP iP i P Z' KIR iP i micr sec P Z' UME iP i South of Honshu, Japan. h = 40 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).	19 07 31.6 19 07 42.8 micr sec 0.2 1.2 19 06 56.0 19 07 06.9 micr sec 0.1 0.9 19 07 11.2 C 19 07 23.0 South of Honshu, Japan. h = 40 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).	
"	14	UPP eP Greece (h = 10 km).	eP	20 01 03 Greece (h = 10 km).	"	16	UPP iP i P Z' KIR iP i micr sec P Z' UME iP i South of Honshu, Japan. h = 40 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).	19 07 31.6 19 07 42.8 micr sec 0.2 1.2 19 06 56.0 19 07 06.9 micr sec 0.1 0.9 19 07 11.2 C 19 07 23.0 South of Honshu, Japan. h = 40 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).	
"	14	UPP iP micr sec P Z' KIR iP Volcano Islands region (h = 30 km).	iP Z' iP Z	22 43 50.5 micr sec 0.1 1.2 22 43 19.2 Volcano Islands region (h = 30 km).	"	16	UPP iP i P Z' KIR iP i micr sec P Z' UME iP i South of Honshu, Japan. h = 40 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).	19 07 31.6 19 07 42.8 micr sec 0.2 1.2 19 06 56.0 19 07 06.9 micr sec 0.1 0.9 19 07 11.2 C 19 07 23.0 South of Honshu, Japan. h = 40 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).	
"	15	UPP iP KIR iP Mariana Islands (h = N).	iP iP	01 47 39.9 01 47 12.2 Mariana Islands (h = N).	"	17	UPP iP i KIR iP micr sec P Z' UME iP Southern Sumatera (h = 80 km).	10 18 30.9 10 18 43.8 10 18 31.0 micr sec 0.2 0.8 10 18 28.0 Southern Sumatera (h = 80 km).	
"	15	UPP iPKP1 South of Fiji Islands (h = 230 km).	iPKP1	10 05 16.5 South of Fiji Islands (h = 230 km).	"	17	UPP iP i KIR iP micr sec P Z' UME iP Southern Sumatera (h = 80 km).	10 18 30.9 10 18 43.8 10 18 31.0 micr sec 0.2 0.8 10 18 28.0 Southern Sumatera (h = 80 km).	
"	15	UME iPKP Tonga Islands (h = 90 km).	iPKP	13 34 04.6 Tonga Islands (h = 90 km).	"	17	UPP iP i KIR iP micr sec P Z' UME iP Southern Sumatera (h = 80 km).	10 18 30.9 10 18 43.8 10 18 31.0 micr sec 0.2 0.8 10 18 28.0 Southern Sumatera (h = 80 km).	
"	15	UPP iP UME iP	iP iP	19 47 34.5 19 47 09.6	"	17	UPP iP i KIR iP micr sec P Z' UME iP Southern Sumatera (h = 80 km).	10 18 30.9 10 18 43.8 10 18 31.0 micr sec 0.2 0.8 10 18 28.0 Southern Sumatera (h = 80 km).	

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
Apr.	17	UPP iP	13 26 15.1	Apr.	20	UPP iPdiff	07 17 47.2
		KIR iP	13 26 08.5			iPP	07 22 07.1
		UME iP	13 26 07.1				micr sec
		Burma-India border region (h = 90 km).				Mx Z	33 21
"	17	UME iP	16 15 57.2			KIR	micr sec
		Hokkaido, Japan region (h = 70 km).				Mx Z	11 18
"	18	UPP iP	00 27 13.8			UME iPdiff	07 17 33.6
		KIR iP	00 27 22.0			iPP	07 21 59.7
		UME iP	00 27 11.7			Near n. coast of West Irian (h = N).	
		Afghanistan-USSR border region (h = 200 km).		"	20	UPP Mx	09 21
"	18	KIR iP	01 34 14.4				micr sec
		UME iP	01 34 32.0			Mx Z	6.5 20
		iPP	01 34 51.7	"	21	KIR iP	03 40 20.6
		Hokkaido, Japan region. h = 80 km (UME).				Mariana Islands (h = 110 km).	
"	18	UME iP	03 59 07.3	"	21	UPP iP	23 49 47.7
"	18	UPP eP	09 08 01				micr sec
		KIR eP	09 07 45			Mx Z	1.9 23
		UME iP	09 08 25.6			KIR iP	23 49 33.1 C
		North of Ascension Island (h = 10 km).					micr sec
"	19	UPP iP	00 04 32.9			P Z'	0.1 1.0
		UME iP	00 04 13.1			UME iP	23 49 37.9
		Bonin Islands region (h = 35 km).				Molucca Passage (h = N).	
"	19	UPP eP	00 38 15	"	22	KIR iP	05 38 52.3
		iPP	00 38 26.1			Molucca Passage (h = N).	
		KIR iP	00 37 27.3	"	22	UPP iP	09 38 26.7
		UME iP	00 37 49.1			KIR iP	09 38 32.3
		iPP	00 38 00.5			UME iP	09 38 24.7
		Kuril Islands region. h = 40 km (UPP,UME).				Northern India (h = N).	
"	19	UPP iP	15 09 38.5	"	22	UPP iP	14 41 48.5
		UME iP	15 09 19.4			KIR iP	14 41 14.4
		i	15 09 31.1			UME iP	14 41 33.9
		Bonin Islands region (h = N).				Southern Nevada. Underground explosion.	
"	19	KIR iP	18 06 18.5	"	22	KIR eP	17 28 44
			micr sec			Beaufort Sea (h = 10 km).	
		P Z'	0.1 1.3	"	22	UPP iPKP1	18 55 16.1
		UME iP	18 06 43.8			iPKP2	18 55 17.2
		Off east coast of Kamchatka (h = N).					micr sec
						PKP2	0.2 0.9
						KIR ePKP	18 54 58
						UME iPKP1	18 55 03.8
						Kermadec Islands (h = 55 km).	
"	22	UPP iP	20 38 22.7	"	22	UPP iP	20 38 22.7
		KIR iP	20 39 43.6			KIR iP	20 39 43.6
		UME iP	20 39 08.0			UME iP	20 39 08.0
		Ionian Sea (h = 30 km).				Ionian Sea (h = 30 km).	



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1986				1986					
Apr.	23	UPP	iP1	09 23 56.7	Apr.	24	UPP iP	02 48 45.3	
			iP2	09 23 57.8			UME iP	02 48 24.5	
			ipP2	09 24 11.1			South of Honshu, Japan		
			iS	09 33 54			(h = 60 km).		
				micr sec					
			P2	Z' 0.1 1.1	"	24	KIR iPg1	19 12 55.4	
			Mx	Z 2.6 15			iSg1	19 13 12.3	
		KIR	iP1	09 23 21.9			UME iSg1	19 14 59.3	
			iP2	09 23 23.1			MYV iSg1	19 15 26.4	
			ipP2	09 23 35.9			Northern Norway, 68 1/2 <sup>0</sup> N,		
			P2	Z' 0.3 1.9			17 1/2 <sup>0</sup> E.		
			Mx	Z 2.1 17			Origin time = 19 12 33.		
		UME	iP1	09 23 36.8			M <sub>L</sub> (UPP) = 2.5 (0.35) 2.		
			iP2	09 23 37.9					
			ipP2	09 23 51.1	"	25	UPP iP	05 05 40.0	
			South of Honshu, Japan.				iS	05 09 40	
			h = 45 km (UPP,KIR,UME).					micr sec	
			m = 5.9, M = 5.6 (UPP,KIR).				Mx	Z 0.6 8	
"	23	UPP	iP	10 18 54.6			KIR iP	05 06 52.7	
		KIR	iP	10 17 58.8				micr sec	
				Kamchatka (h = 160 km).			Mx	Z 1.0 12	
"	23	UPP	iP	15 25 00.3 C			UME iP	05 06 17.8	
				micr sec			Aegean Sea (h = 30 km).		
			P	Z' 0.1 0.7	"	25	UPP iP	16 20 19.9	
			Mx	Z 0.8 12			iS	16 26 35	
		KIR	iP	15 24 38.7				micr sec	
				micr sec			P	Z' 0.1 1.3	
			P	Z' 0.2 1.0			Mx	Z 7.6 14	
			Mx	Z 0.5 10			KIR iP	16 20 17.8	
		UME	iP	15 24 43.2				micr sec	
				Northern Xinjiang, China			P	Z' 0.1 1.0	
				(h = N).			Mx	Z 5.7 18	
				m = 5.6, M = 4.8 (UPP,KIR).			UME iP	16 20 11.9	
"	23	UPP	iP	20 40 43.4			Kirghiz-Xinjiang border		
		KIR	iP	20 40 43.5			region (h = N).		
		UME	iP	20 40 46.4			m = 5.4, M = 5.6 (UPP,KIR).		
				Peru-Ecuador border region		"	25	KIR iP	23 19 14.8
				(h = 45 km).				UME iP	23 19 07.1
"	24	UME	eP	00 04 48			Afghanistan-USSR border		
				Northern Sumatera (h = N).			region (h = N).		
"	24	UPP	iP	00 30 08.2	"	25	UME iP	23 20 47.0	
			ipP	00 30 13.4					
				micr sec					
			Mx	Z 0.7 11	"	26	UPP iP	00 36 21.8	
		KIR	iP	00 30 46.4 C			ipP	00 36 49.0	
				micr sec			KIR iP	00 36 16.1	
			P	Z' 0.1 1.2			ipP	00 36 45.0	
			Mx	Z 0.4 11			UME iP	00 36 14.6	
		UME	iP	00 29 51.0 C			ipP	00 36 43.5	
			i	00 29 56.4			Burma.		
				Northern Xinjiang, China.			h = 130 km (UPP,KIR,UME).		
				h = 20 km (UPP,UME).		"	26	KIR eP	05 43 07
				M = 4.7 (UPP,KIR).				UME iP	05 42 57.7
							Tajik SSR (h = 130 km).		

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1986				1986						
Apr.	26	UPP	iP	07 43 47.2	Apr.	27	KIR iP	03 23 26.7		
			iS	07 50 36			UME iP	03 23 30.8		
				micr sec			Minahassa Peninsula (h = 160 km).			
			P	Z' 0.1 0.8						
			Mx	Z 2.0 10		"	27	UPP eP	03 37 27	
		KIR	iP	07 43 52.6				iS	03 48 42	
			i	07 43 57.8					micr sec	
				micr sec				P	Z' 0.2 1.9	
			P	Z' 0.1 0.8				Mx	Z 2.2 18	
			Mx	Z 3.3 13			KIR		micr sec	
		UME	iP	07 43 43.7				Mx	Z 0.9 19	
			i	07 43 45.0			South Atlantic Ridge (h = 10 km).			
		Kashmir-India border region (h = N). m = 5.8, M = 5.5 (UPP,KIR).					"	27	UPP iP	08 26 40.5
"	26	UPP	iP	14 22 34.1 C				KIR iP	08 26 49.7	
			ipP	14 23 14.0				UME iP	08 26 39.3	
			iS	14 28 30			Hindu Kush region (h = 230 km).			
				micr sec						
			P	Z' 0.3 0.8			"	27	UPP iP	09 32 31.5
		KIR	iP	14 22 42.5 C					micr sec	
			ipP	14 23 22.3				P	Z' 0.1 0.9	
			isP	14 23 42.1			KIR	iP	09 33 40.2	
				micr sec					micr sec	
			P	Z' 0.3 0.8				P	Z' 0.1 1.0	
			Mx	Z 1.7 10			UME	iP	09 33 05.0	
		UME	iP	14 22 32.3 C			Crete (h = 10 km). m = 5.4 (UPP,KIR).			
			ipP	14 23 10.6			"	27	UPP i(PKP)	09 41 50.6
		Afghanistan-USSR border region. h = 190 km (UPP,KIR,UME). m = 5.9 (UPP,KIR).							KIR iP(KP)	09 41 47.6
								UME i(PKP)	09 41 48.4	
"	27	UPP	iP	00 08 04.1			Fiji Islands region (h = 570 km).			
			i	00 08 06.5			"	27	UME iP(KP)	10 05 06.1
			i	00 08 11.3			Solomon Islands (h = 35 km).			
			iS	00 10 46.5						
			iLg1	00 12 33.3			"	27	UPP iP	16 26 47.7
				micr sec				KIR iP	16 26 18.3	
			i	Z' 0.1 0.8			Gulf of California (h = 10 km).			
			i	Z' 0.2 0.8						
			Mx	Z 5.2 12			"	27	UME iP(KP1)	22 05 14.1
		KIR	iP	00 09 31.8			Off e. coast of N. Island, N.Z. (h = 220 km).			
			i	00 09 32.9						
			iLg1	00 16 11.5			"	27	UPP iP	22 11 24.6
				micr sec				iPcP	22 11 49.7	
			i	Z' 0.1 0.7			KIR	iP	22 10 31.2	
			Mx	Z 2.2 14				iPcP	22 11 19.0	
		UME	iP	00 08 45.4			UME	iP	22 10 58.5	
			i	00 08 48.9				iPcP	22 11 34.8	
		Romaina (h = 40 km). M = 4.9 (UPP,KIR).					"	27	UPP iP	22 11 24.6
"	27	KIR	iP	02 33 11.9			Fox Islands, Aleutian Islands (h = N).			
		Mindanao, Philippine Islands (h = 200 km).								

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1986				1986			
Apr.	28	UPP eP	00 09 31.5	Apr.	28	UPP iP	19 33 28.9
		KIR iP	00 08 57.4			KIR iP	19 33 12.3
		UME iP	00 09 12.2			i	19 33 15.9
		South of Honshu, Japan (h = 160 km).				UME eP	19 33 18
"	28	UPP iP	03 59 57.4	"	29	UPP iSKP1	01 19 14.7
		UME eP	03 59 44			Vanuatu Islands (h = 100 km).	
		Luzon, Philippine Islands (h = 10 km).		"	29	UPP iP	02 56 54.2
"	28	UPP iP	04 18 46.0			North of Ascension Island (h = 10 km).	
		UME iP	04 18 20.9	"	29	UPP iP	03 51 47.7
		Sea of Okhotsk (h = 460 km).				KIR iP	03 50 53.8
"	28	UPP iPKP2	07 40 10.7			UME iP	03 51 19.8
		UME iPKP1	07 39 58.8			Off east coast of Kamchatka (h = N).	
		Kermadec Islands (h = N).		"	29	UME iP	06 17 59.7
"	28	UPP iPn	09 10 22.8			Yugoslavia (h = 10 km).	
		iSn	09 11 46.2	"	29	UPP iP	07 45 22.5
		KIR iPn	09 09 38.0			Northeast of Taiwan (h = 220 km).	
		iSn	09 10 28.8	"	29	UPP iP	08 29 57.5
		iSg1	09 10 44.2			KIR iP	08 29 22.2
		UME iPn	09 09 51.8			UME iP	08 29 37.7
		iSn	09 10 52.1			i	08 30 43.8
		iSg1	09 11 15.5			South of Honshu, Japan (h = 40 km).	
		UDD iPn	09 10 11.8	"	29	UPP iP	14 11 25.7
		iSn	09 11 24.9			KIR iP	14 11 27.9
		DEL ePn	09 10 59.5			micr sec	
		iSn	09 12 51.8			P	Z' 0.1 0.9
		i	09 13 07.7			UME iP	14 11 23.8 D
		MYV iPn	09 09 36.8			Off w. coast of northern Sumatera (h = 40 km).	
		i	09 09 44.8	"	29	UPP iP	15 32 32.1
		iSn	09 10 24.8			UME iP	15 32 24.6
		Norwegian Sea, near 66 3/4°N, 9 1/2°E. Origin time = 09 08 30. M <sub>L</sub> (UPP) = 3.9 (0.31) 5.		"	29	Tibet (h = N).	
"	28	UDD iSg1	15 55 10.4	"	29	UME iP	15 36 48.4
		Off coast of southwestern Norway, 60.2°N, 4.9°E. Origin time = 15 52 56. M <sub>L</sub> (UPP) = 2.8 1. Solution from Bergen bulletin.				Tonga Islands (h = 180 km).	
"	28	UME iPKP	16 13 35.4	"	30	UPP i	02 28 20.1
		Vanuatu Islands (h = N).				KIR iP	02 28 18.5
"	28	UME iP	16 17 22.5			i	02 29 09.3
		Lake Tanganyika region (h = 10 km).				UME iP	02 28 14.4 D
"	28	UPP iP	18 21 12.8			Northern Sumatera (h = 50 km).	
		UME iP	18 21 32.1				
		Tanzania (h = 10 km).					

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986						1986					
Apr.	30	UPP	iP	04 36 01.7 C		Apr.	30	UPP	iP	23 26 25.8 C	
				micr sec						micr sec	
			P	Z' 0.1 1.0					P	Z' 0.1 1.1	
		KIR	iP	04 35 26.5 C					Mx	Z 3.5 20	
				micr sec				KIR	iP	23 25 54.8 C	
			P	Z' 0.1 0.8						micr sec	
		UME	iP	04 35 40.6 C					P	Z 0.1 1.0	
				Sea of Japan (h = 35 km).					Mx	Z 2.3 18	
				m = 5.8 (UPP,KIR).				UME	iP	23 26 07.0 C	
										Ryukyu Islands (h = 45 km).	
										m = 5.7, M = 5.6 (UPP,KIR).	
"	30	UPP	iP1	07 20 08.3 C							
			iP2	07 20 10.1							
			iSKS	07 30 39							
			iS	07 30 49							
				micr sec							
			P2	Z' 0.3 1.4							
			Mx	Z 67 17							
		KIR	iP1	07 19 50.5							
			iP2	07 19 52.2							
				micr sec							
			P2	Z' 2.0 2.0							
			Mx	Z 32 14							
		UME	iP1	07 20 01.8							
			iP2	07 20 03.6							
				Michoacan, Mexico (h = 25 km).							
				m = 6.7, M 7.0 (UPP,KIR).							
				Double event; P2 has larger							
				amplitude than P1.							
"	30	KIR	iP	08 21 33.0							
		UME	iP	08 21 44.1 D							
				Near coast of Michoacan,							
				Mexico (h = N).							
"	30	KIR	eP	08 25 26							
		UME	iP	08 25 36.9 D							
				Michoacan, Mexico (h = N).							
"	30	UPP	iSg1	10 21 37.4							
		UME	iSg1	10 22 49.0							
		UDD	iSg1	10 20 34.4							
				Southern Norway, near							
				59 1/2°N, 7°E.							
				Origin time = 10 18 49.							
				M <sub>L</sub> (UPP) = 2.5 (0.27) 2.							
				By combination with							
				Bergen bulletin.							
"	30	KIR	ePKP1	16 54 31							November 23, 1987
		UME	iPKP1	16 54 40.6							Gerry Chouliaras
				South of Kermadec Islands							Conny Holmqvist
				(h = N).							Rutger Wahlström
"	30	KIR	iP	18 27 47.8							
		UME	iP	18 27 24.6							
				Southern Iran (h = N).							

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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEÅ, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59 <sup>0</sup> 51.5'N,	17 <sup>0</sup> 37.6'E;	h = 14 m
Kiruna	(KIR)	67 <sup>0</sup> 50.4'N,	20 <sup>0</sup> 25.0'E;	h = 390 m
Umeå	(UME)	63 <sup>0</sup> 48.9'N,	20 <sup>0</sup> 14.2'E;	h = 16 m
Uddeholm	(UDD)	60 <sup>0</sup> 05.4'N,	13 <sup>0</sup> 36.4'E;	h = 240 m
Delary	(DEL)	56 <sup>0</sup> 28.2'N,	12 <sup>0</sup> 52.2'E;	h = 150 m
Myrviken	(MYV)	62 <sup>0</sup> 56.5'N,	14 <sup>0</sup> 20.8'E;	h = 345 m

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 .....

1986					1986					
May	1	UPP	ipP	03 37 24.1	May	1	(cont.)			
		KIR	iP	03 37 45.0			UME	ipP	02 57 29.8	
		UME	iP	03 37 22.5			Northern Sumatera.			
		Caspian Sea (h = 50 km).					h = 130 km (UPP,KIR,UME).			
"	1	UPP	iPKP	19 50 53.5	"	2	UPP	iP	03 26 09.4	
			iSKP1	19 54 29.4				i	03 26 11.1	
				micr sec				iS	03 32 10	
		Mx	Z	4.0 28				i	Z' 0.2 1.0	
		KIR	ePKP	19 50 44			Mx	Z	1.7 16	
				micr sec		KIR	iP		03 26 46.2	
		Mx	Z	1.7 26			i		03 26 47.8	
		UME	iPKP	19 50 46.9					micr sec	
			iSKP1	19 54 15.1			i	Z'	0.2 1.0	
		Loyalty Islands region					Mx	Z	0.8 15	
		(h = 590 km).				UME	iP		03 26 22.9	
		M = 5.9 (UPP,KIR).					i		03 26 24.3	
"	2	UME	iP	00 48 52.2			Southern Iran (h = N).			
		Near east coast of Honshu,					m = 5.9, M = 4.9 (UPP,KIR).			
		Japan (h = 40 km).				"	2	UME	iPg1	08 19 32.4
"	2	UME	iP	00 54 24.8				iSg1	08 20 14.5	
		Near east coast of Honshu,					Southern Finland, 61.1 <sup>0</sup> N,			
		Japan (h = 40 km).					24.1 <sup>0</sup> E.			
							Origin time = 08 18 34			
"	2	UPP	iP	01 21 24.9			Felt.			
		KIR	eP	01 20 50			By combination with Finnish			
		UME	iP	01 21 05.0			station readings.			
		South of Honshu, Japan				"	2	UME	iP	08 59 45.0
		(h = 55 km).				"	2	UME	iP	10 24 16.2
"	2	UPP	iP	02 57 00.8			Yugoslavia (h = 15 km).			
			ipP	02 57 33.2						
		KIR	iP	02 57 01.0						
			ipP	02 57 33.0						
		UME	iP	02 56 58.0						
		(cont.)								

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986			1986						
May	2	UPP	iP	10 40 23.8	May	3	(cont.)		
			i	10 40 24.9			UME	iP	23 14 18.3
			iS	10 48 49			Northwest Territories, Canada (h = 10 km).		
			iP'P'	11 09 24.6					
				micr sec					
			i	Z' 0.4 1.0	"	4	UME	iP	00 35 02.3
			Mx	Z 13 19			Yugoslavia (h = 15 km).		
		KIR	iP	10 39 28.9	"	4	KIR	iSg1	01 59 32.3
				micr sec			UME	iSn	01 59 31.4
			P	Z' 0.5 1.0				iSg1	01 59 58.0
			Mx	Z 4.1 17			UDD	iSg1	02 02 22.7
		UME	iP	10 39 54.9			MYV	eSg1	02 01 21
			iP'P'	11 09 30.3			Northwestern USSR, 66.3°N, 31.5°E.		
		Off east coast of Kamchatka (h = 15 km).					Origin time = 01 57 10.		
		m = 6.5, M = 5.9 (UPP,KIR).					M <sub>L</sub> (UPP) = 2.8 (0.26) 3.		
"	2	KIR	iP	12 34 43.2			By combination with Finnish station readings.		
		Talaud Islands (h = N).							
"	2	UPP	iP	13 41 43.0	"	4	UPP	iP	09 47 19.0 C
									micr sec
"	2	UPP	iP	18 55 53.9				P	Z' 0.1 1.0
		KIR	eP	18 56 42			KIR	iP	09 46 43.2
		UME	iP	18 56 18.1					micr sec
		Zaire Republic (h = 10 km).						P	Z' 0.1 1.0
"	2	UME	iP	22 07 56.3			UME	iP	09 46 58.7 C
		Southern Iran (h = N).					South of Honshu, Japan (h = 30 km).		
"	3	UME	iP	04 42 17.9			m = 5.8 (UPP,KIR).		
		Yugoslavia (h = 5 km).			"	4	UPP	iP	12 37 50.2
"	3	UME	iP	06 01 45.9			UME	iP	12 37 31.1
							Bonin Islands region (h = 10 km).		
"	3	UPP	iP	06 26 30.5	"	4	UME	iP	12 46 10.5
			ipP	06 26 55.2			West Caroline Islands (h = 50 km).		
		KIR	iP	06 26 39.7	"	4	UME	iP	15 53 21.8
		UME	iP	06 26 29.3			Off coast of Oregon (h = 10 km).		
		Afghanistan-USSR border region (h = 100 km).			"	4	KIR	eP	23 44 42
"	3	UPP	iP	10 45 14.9 C			UME	iP	23 44 51.5
				micr sec			Leeward Islands (h = 45 km).		
			P	Z' 0.1 0.9	"	4			
		KIR	iP	10 45 51.8 C					
			P	Z' 0.2 1.0	"	5	UPP	iP	03 41 07.3
		UME	iP	10 45 28.4 C				i	03 41 09.6
		Southern Iran (h = 25 km).						iS	03 45 36
		m = 5.7 (UPP,KIR).							micr sec
"	3	UME	iP	15 15 56.0				i	Z' 0.6 1.0
		Fox Islands, Aleutian Islands (h = 240 km).						Mx	Z 12 14
"	3	UPP	iP	23 14 42.4			KIR	iP	03 42 01.4
		KIR	iP	23 13 50.3				i	03 42 04.1
		(cont.)					(cont.)		

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1986				1986			
May	5	(cont.)		May	6	UPP iP	15 55 09.0
		KIR				KIR iP	15 55 19.1
		i	Z'			UME iP	15 55 07.7
		Mx	Z			Hindu Kush region	
						(h = 100 km).	
		UME iP					
		i					
		Turkey (h = 10 km).		"	7	UME iP	07 51 16.4
		m = 6.3, M = 5.6 (UPP,KIR).					
"	5	KIR iP		"	7	KIR iP	15 24 42.1
		UME iP				UME iP	15 24 57.5
		Vanuatu Islands (h = 210 km).				South of Honshu, Japan	
						(h = 40 km).	
"	5	UPP iP		"	7	UPP eP	16 49 05
		iPP				KIR iP	16 49 13.9
		iS				Near coast of Venezuela	
						(h = 20 km).	
		Mx	Z	"	7	KIR eP	18 19 59
						UME iP	18 20 26.9
		KIR iP				Alaska Peninsula (h = N).	
		i		"	7	UPP iP	20 54 11.1
						KIR iP	20 53 18.0
						UME iP	20 53 44.4
		Mx	Z'			Andreanof Islands, Aleutian	
						Is. (h = N).	
		UME iP		"	7	UPP iP	20 54 32.5 C
		iPP				iP'P'	21 22 44.5
		Michoacan, Mexico				i	21 23 00.8
		(h = 40 km).					
		M = 5.9 (UPP,KIR).					
"	5	UPP iP					
		KIR iP				P	Z'
		UME iP				Mx	Z
		South of Honshu, Japan					
		(h = 480 km).				KIR iP	
						iP'P'	
"	5	UPP iP					
		KIR ePKP					
		UME iP					
		South Sandwich Islands					
		region (h = N).					
"	5	UPP ePKP					
		UME ePKP					
		South Sandwich Islands					
		region (h = N).					
"	5	UME iP					
		Near east coast of Honshu,					
		Japan (h = 80 km).					
"	5	UPP iP					
		Turkey (h = 10 km).					
"	6	UME i(P)					
		Near coast of Michoacan					
		(h = 55 km).					
"	6	UPP iP		"	7	UPP iP	22 58 10.5 C
		i				i	22 58 17.5
		(cont.)					

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986		1986	
May	7	May	7
	(cont.)		
UPP	iP'P'	UPP	iP
	23 26 05.0		23 15 51.0
	i		Andreanof Islands, Aleutian
	23 26 18.0		Is. (h = N).
	i		
	23 26 38.0	"	7
	micr sec	UPP	iP
	P Z' 0.8 1.0		23 17 32.2
	i Z' 1.9 0.8		Andreanof Islands, Aleutian
KIR	iP		Is. (h = N).
	22 57 17.1 C	"	7
	i	UPP	iP
	22 57 24.2		23 18 44.1
	iP'P'	UME	iP
	23 26 51.4		23 18 17.6
	micr sec		Andreanof Islands, Aleutian
	P Z' 0.5 1.0		Is. (h = N).
	i Z' 1.1 0.9	"	7
UME	Mx Z 120 17	UPP	iP
	iP		23 23 35.9
	22 57 42.9 C	UME	iP
	i		23 23 08.8
	22 57 49.7		Andreanof Islands, Aleutian
	iP'P'		Is. (h = N).
	23 26 36.4	"	7
	Andreanof Islands, Aleutian	UPP	iP
	Is. (h = N).		23 23 50.2
	m = 7.1 (UPP,KIR).		i
	A large number of events in		23 24 04.0
	the following aftershock	KIR	iP
	sequence exhibit extremely		23 22 56.3
	clear core-reflected waves,	UME	iP
	i.e. PcP, on the short period		23 23 23.9
	records. The large aftershock		Andreanof Islands, Aleutian
	of 8 May, 05 37 20, shows		Is. (h = N).
	also a very strong ScP phase.	"	7
	Epicentral distances are:	UPP	iP
	UPP 68.5 <sup>0</sup> , UME 64.5 <sup>0</sup> ,		23 26 04.6
	KIR 60.5 <sup>0</sup> . In some cases the	UME	iP
	PcP phases are stronger than		23 25 38.2
	the corresponding P phases.		Andreanof Islands, Aleutian
			Is. (h = N).
"	7	"	7
UPP	iP	UPP	iP
	23 06 05.0		23 31 06.5
	micr sec	"	7
	P Z' 0.1 0.9	UPP	iP
	Andreanof Islands, Aleutian		23 31 17.3
	Is. (h = N).	KIR	iP
			23 30 24.0
"	7	UME	iP
UPP	iP		23 30 50.4
	23 08 41.0		Andreanof Islands, Aleutian
	micr sec		Is. (h = N).
	P Z' 0.2 0.9	"	7
KIR	iP	UPP	iP
	23 07 49.6		23 32 48.7 C
	micr sec		iPP
	P Z' 0.2 1.0		23 34 24.2
UME	iP		micr sec
	23 08 15.3		P Z' 0.8 1.0
	Andreanof Islands, Aleutian	KIR	iP
	Is. (h = N).		23 32 57.5 C
	m = 6.2 (UPP,KIR).		micr sec
			P Z' 1.3 1.1
"	7		Hindu Kush region
UPP	iP		(h = 220 km).
	23 15 08.7		m = 6.2 (UPP,KIR).
	Andreanof Islands, Aleutian	"	7
	Is. (h = N).	UPP	iP
			23 37 58.8
			micr sec
			P Z' 0.1 1.0
			Andreanof Islands, Aleutian
			Is. (h = N).





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1986				1986										
May	8	UPP	iP	01 41	55.0	May	8	UPP	iP	03 27	34.2			
		KIR	eP	01 41	01			"	8	UPP	iP	03 29	05.6	
			iPcP	01 41	46.8					Andreanof Islands, Aleutian Is. (h = N).				
		UME	eP	01 41	28			"	8	UPP	iP	03 31	15.8	
			iPcP	01 42	02.9					KIR	iP	03 30	23.0	
		Andreanof Islands, Aleutian Is. (h = N).									iPcP	03 31	07.4	
"	8	UPP	eP	01 56	22					UME	iPcP	03 31	23.0	
		Andreanof Islands, Aleutian Is. (h = N).								Andreanof Islands, Aleutian Is. (h = N).				
"	8	UPP	iP	02 05	14.5			"	8	UPP	iP	03 34	41.2	
		Andreanof Islands, Aleutian Is. (h = N).								KIR	eP	03 33	48	
"	8	UPP	iP	02 15	00.7						iPcP	03 34	32.5	
			i	02 15	02.0					UME	iPcP	03 34	49.0	
				micr	sec					Andreanof Islands, Aleutian Is. (h = N).				
			P	Z'	0.1 1.0			"	8	UPP	iP	03 55	07.0	
		KIR	iP	02 14	08.1					KIR	iP	03 54	14.2	
			iPcP	02 14	52.3						iPcP	03 54	59.4	
		UME	iP	02 14	33.6					UME	iP	03 54	40.0	
			iPcP	02 15	08.6						iPcP	03 55	15.3	
		Andreanof Islands, Aleutian Is. (h = N).								Andreanof Islands, Aleutian Is. (h = N).				
"	8	UPP	iP	02 27	33.5			"	8	UPP	iP	04 03	52.6	
		UME	iP	02 27	06.9					KIR	iP	04 02	59.3	
		Andreanof Islands, Aleutian Is. (h = N).									iPcP	04 03	44.7	
"	8	UPP	iP	02 38	43.1					UME	iP	04 03	25.5	
		Andreanof Islands, Aleutian Is. (h = N).									iPcP	04 03	59.7	
"	8	UPP	iP	02 43	55.0			"	8	UPP	iP	04 14	51.0	
				micr	sec							micr	sec	
			P	Z'	0.1 0.8							P	Z'	0.2 1.1
		KIR	iP	02 43	02.4					KIR	iP	04 13	57.8	
			iPcP	02 43	47.2						iPcP	04 14	42.9	
		UME	iP	02 43	28.4						iScP	04 18	43.1	
			iPcP	02 44	03.2							micr	sec	
		Andreanof Islands, Aleutian Is. (h = N).									PcP	Z'	0.2 1.4	
"	8	UPP	iP	03 10	39.5					UME	iP	04 14	24.0	
		KIR	eP	03 09	47						iPcP	04 14	58.0	
		UME	iP	03 10	13.2					Andreanof Islands, Aleutian Is. (h = N).				
		Andreanof Islands, Aleutian Is. (h = N).								m = 6.1 (UPP,KIR).				
"	8	UPP	iP	03 25	27.5			"	8	UPP	iP	04 42	47.5	
		KIR	iP	03 24	34.5					Andreanof Islands, Aleutian Is. (h = N).				
		UME	iP	03 25	00.6			"	8	UPP	iP	04 43	18.9	
		Andreanof Islands, Aleutian Is. (h = N).								KIR	eP	04 42	26	
										UME	iP	14 42	54.5	
		Andreanof Islands, Aleutian Is. (h = N).								Andreanof Islands, Aleutian Is. (h = N).				

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986				
May	8	UPP	iP	04 56 18.0	May	8	UPP iP	07 39 48.6
				micr sec			Andreanof Islands, Aleutian Is. (h = N).	
			P	Z' 0.1 1.0				
		KIR	iP	04 55 25.0		8	UME iP	07 44 38.4
			iPcP	04 56 09.9				
		UME	iP	04 55 51.6		8	UPP iP	08 05 40.5
			iPcP	04 56 26.0				
		Andreanof Islands, Aleutian Is. (h = N).				8	UPP iP	08 22 58.5
"	8	UPP	iP	05 31 24.1			KIR iP	08 22 03.9
		Andreanof Islands, Aleutian Is. (h = N).					UME iP	08 22 31.7
							Andreanof Islands, Aleutian Is. (h = N).	
"	8	UPP	iP	05 43 08.2	"	8	KIR iP	09 10 30.2
		KIR	eP	05 42 16			UME iP	09 10 38.3
		Andreanof Islands, Aleutian Is. (h = N).					Taiwan (h = N).	
"	8	UPP	iP	05 48 21.8 C	"	8	UPP iP	09 16 14.8
			iScP	05 52 51.6			KIR iP	09 15 22.0
				micr sec			UME iP	09 15 47.9
			P	Z' 0.5 1.4			Andreanof Islands, Aleutian Is. (h = N).	
			Mx	Z 20 20	"	8	UPP iP	09 30 30.5
		KIR	iP	05 47 28.9 C			Andreanof Islands, Aleutian Is. (h = N).	
			iPcP	05 48 14.7				
			iScP	05 52 14.6	"	8	UPP iPcP1	10 36 05.6
				micr sec			UME iPcP1	10 35 54.2
			P	Z' 0.8 2.0			Kermadec Islands (h = N).	
			Mx	Z 3.8 18	"	8	UPP iP	11 20 12.3
		UME	iP	05 47 55.4 C			iS	11 23 11
			iPcP	05 48 30.4				micr sec
			iScP	05 52 32.4			Mx	Z' 5.8 18
			iP'P'	06 16 41.4			KIR iP	11 18 37.7
		Andreanof Islands, Aleutian Is. (h = 20 km).						micr sec
		m = 6.5, M = 6.0 (UPP,KIR).					Mx	Z 3.4 18
"	8	UPP	iP	06 15 20.5			UME iP	11 19 25.2
		KIR	iP	06 14 28.7			i	11 19 28.4
			iPcP	06 15 11.7			iS	11 21 16.0
		UME	iP	06 14 53.9			Greenland Sea (h = 10 km).	
			iPcP	06 15 28.1	"	8	UPP iP	11 34 56.3
		Andreanof Islands, Aleutian Is. (h = N).					KIR iP	11 34 03.3
"	8	UPP	iP	06 37 53.4			UME iP	11 34 29.5
		KIR	iP	06 36 59.9			Andreanof Islands, Aleutian Is. (h = N).	
		UME	iPcP	06 38 01.1	"	8	UPP eP	11 51 55
		Andreanof Islands, Aleutian Is. (h = N).					KIR iP	11 51 56.0
"	8	UPP	iP	06 52 58.6			UME iP	11 51 49.3
		Andreanof Islands, Aleutian Is. (h = N).					Kashmir-Xinjiang border region (h = N).	
"	8	UPP	iP	06 59 43.0	"	8	UME iP	12 02 40.4
		Andreanof Islands, Aleutian Is. (h = N).						

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1986				1986					
May	8	UPP	iP	12 33 28.6	May	9	UME	iPKP	00 07 09.7
		KIR	iP	12 32 34.9			Vanuatu Islands (h = 170 km).		
		UME	iP	12 33 02.0					
		Andreanof Islands, Aleutian Is. (h = N).			"	9	UPP	iP	01 16 30.8
									micr sec
"	8	UPP	iP	12 45 46.5			P	Z'	0.1 1.0
		KIR	iP	12 44 53.6			Mx	Z	3.3 22
		UME	iP	12 45 20.2			KIR	iP	01 15 38.4
		Andreanof Islands, Aleutian Is. (h = N).						iPcP	01 16 22.9
									micr sec
							Mx	Z	1.4 15
"	8	UPP	iP	14 50 38.0			UME	iP	01 16 04.1
			iSKS	15 00 54				iPcP	01 16 37.8
				micr sec			Andreanof Islands, Aleutian Is. (h = N).		
		Mx	Z	2.7 17			M = 5.4 (UPP,KIR).		
		KIR	iP	14 50 22.1					
				micr sec	"	9	UPP	iP	01 19 11.0
		P	Z'	0.1 1.0					micr sec
		Mx	Z	0.7 14			P	Z'	0.2 1.0
		UME	iP	14 50 27.3			KIR	iP	01 18 18.3
		Talaud Islands, Aleutian Is. (h = 170 km).						iPcP	01 19 02.7
		M = 5.6, (UPP,KIR).							micr sec
"	8	UPP	iP	16 16 50.8			P	Z'	0.1 1.1
		KIR	eP	16 15 57.8			UME	iP	01 18 43.4
		UME	iP	16 16 24.4				iPcP	01 19 18.6
		Andreanof Islands, Aleutian Is. (h = N).					Andreanof Islands, Aleutian Is. (h = N).		
							m = 6.0 (UPP,KIR).		
"	8	UME	iP	16 18 30.9	"	9	UPP	iP	06 15 54.5
		Shikoku, Japan (h = 45 km).					KIR	iP	06 15 00.4
"	8	UPP	iP	16 47 01.5			UME	iP	06 15 27.8
				micr sec			Andreanof Islands, Aleutian Is. (h = N).		
		P	Z'	0.1 1.0	"	9	UPP	iPKP2	07 47 46.0
		KIR	iP	16 46 09.4			KIR	iPKP1	07 47 13.6 D
				micr sec			UME	iPKP1	07 47 22.2 D
		P	Z'	0.1 1.3				iPKP2	07 47 31.8
		UME	iP	16 46 34.9			Off e. coast of N. Island, N.Z. (h = 55 km).		
		Andreanof Islands, Aleutian Is. (h = N).			"	9	KIR	iP	09 23 00.8
		m = 5.8 (UPP,KIR).						iPcP	09 24 17.1
"	8	UPP	iPKP1	19 38 37.3			UME	eP	09 23 58
		South of Fiji Islands (h = 580 km).						iPcP	09 24 33.6
"	8	UPP	iP	23 01 52.3			Andreanof Islands, Aleutian Is. (h = N).		
		Andreanof Islands, Aleutian Is. (h = N).			"	9	UPP	Mx	17 17
									micr sec
							Mx	Z	2.7 24
"	8	UPP	iP	23 22 11.6			Bolivia (h = 15 km).		
		KIR	iP	23 21 18.1	"	9	UPP	iP	19 15 28.5
		UME	iP	23 21 44.7				i	19 15 30.0
		Andreanof Islands, Aleutian Is. (h = N).					(cont.)		

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1986								1986	
May	9	(cont.)		May	10	UPP	Mx	10 48	
		UPP							
			micr sec						
		i	Z' 0.3 1.0				Mx	Z 1.7 21	
		Mx	Z 4.6 21						
		KIR	iP 19 14 34.8						Off coast of Mexico
			i 19 14 36.4						(h = 10 km).
			iPcP 19 15 21.2		"	10	UPP	iP 11 24 38.5	
			micr sec				KIR	iP 11 23 45.8	
		i	Z' 0.2 1.0				UME	iP 11 24 11.7	
		Mx	Z 1.5 18						Andreanof Islands, Aleutian
		UME	iP 19 15 01.3						Is. (h = N).
			iPcP 19 15 36.8		"	10	UPP	iP 15 12 49.1	
			Andreanof Islands, Aleutian						Andreanof Islands, Aleutian
			Is. (h = N).						Is. (h = N).
			m = 6.3, M = 5.5 (UPP,KIR).						
"	9	UPP	iP 19 35 42.0	"	10	UPP	iP 21 48 06.7		
			micr sec			KIR	iP 21 47 13.6		
		P	Z' 0.1 1.0						Andreanof Islands, Aleutian
		KIR	iP 19 34 49.6						Is. (h = N).
		UME	iP 19 35 15.2	"	10	UME	eP 21 48 02		
			Andreanof Islands, Aleutian						Bonin Islands region (h = N).
			Is. (h = N).						
"	9	UPP	eP 20 10 12	"	10	UPP	iP 23 19 30.8		
		KIR	iP 20 10 43.5	"	11	UPP	iP 01 35 49.0 D		
		UME	iP 20 10 30.7				i 01 35 55.7		
			Central Mid-Atlantic Ridge				ipP 01 36 41.3		
			(h = 10 km).				iS 01 45 13		
"	9	UPP	iP 22 03 10.3						
			iPcP 22 03 35.4						
		KIR	eP 22 02 17						
			iPcP 22 03 01.9			KIR	iP 01 35 22.6 D		
		UME	iP 22 02 43.1						
			iPcP 22 03 18.0						
			Andreanof Islands, Aleutian						
			Is. (h = N).						
"	9	UPP	iP 23 12 57.0						
			ipP 23 13 20.9						
		KIR	iP 23 12 52.5						
		UME	iP 23 12 50.1						
			Burma.	"	11	UPP	iP 04 19 46.8		
			h = 90 km (UPP).			KIR	iP 04 18 52.9		
"	10	UPP	iP 01 44 47.7			UME	iP 04 19 20.8		
		UME	iP 01 44 20.6						Alaska Peninsula (h = N).
			Andreanof Islands, Aleutian	"	11	KIR	i 04 54 21.3		
			Is. (h = N).			UME	iP 04 54 05.6		
							i 04 54 16.3		
"	10	UPP	iP 09 24 26.0						Andaman Islands region
		KIR	iP 09 23 32.9						(h = N).
		UME	iP 09 24 00.4	"	11	UPP	iP 10 57 24.6		
			Andreanof Islands, Aleutian						Andreanof Islands, Aleutian
			Is. (h = N).						Is. (h = N).



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1986						1986	
May	13	(cont.) UME i	08 49 46.3	May	14	UPP iP	04 13 29.3
		Turkey-USSR border region (h = 10 km).				P	Z' 0.1 1.0
		m = 6.3, M = 5.6 (UPP,KIR).				KIR iP	04 12 36.8
						iPcP	04 13 21.5
"	13	KIR iP	14 25 03.9			UME iP	04 13 02.1
		Andreanof Islands, Aleutian Is. (h = N).				Andreanof Islands, Aleutian Is. (h = N).	
"	13	UPP iP	17 26 22.8	"	14	UPP iP	04 44 24.1
		KIR eP	17 25 31			UME iP	04 44 03.6
		iPcP	17 26 13.2			South of Honshu, Japan (h = 35 km).	
		UME iPcP	17 26 29.8				
		Andreanof Islands, Aleutian Is. (h = N).		"	14	UPP iP	08 10 50.5
						KIR iPcP	08 10 40.4
						UME iP	08 10 20.0
"	13	UPP iP	22 11 57.1			Andreanof Islands, Aleutian Is. (h = N).	
		ipP	22 12 09.7				
		iS	22 21 44				
			micr sec	"	14	KIR iP	09 58 32.7
		P	Z' 0.1 1.2			Alaska Peninsula (h = 100 km).	
		Mx	Z 5.1 18				
		KIR iP	22 11 21.3				
			micr sec	"	14	UPP iSg1	11 06 06.6
		P	Z' 0.2 2.0			UDD iSg1	11 05 04.8
		Mx	Z 3.0 15			Southern Norway, 59.3°N, 7.0°E.	
		UME iP	22 11 36.7			Origin time = 11 03 19.	
		ipP	22 11 49.2			M <sub>L</sub> (UPP) = 2.5 (0.13) 2.	
		South of Honshu. h = 45 km (UPP,UME).				Solution from Bergen bulletin.	
		m = 5.8, M = 5.9 (UPP,KIR).		"	14	KIR iPKP	14 14 48.6
"	14	UPP iP	02 09 30.7			UME iPKP	14 14 55.5
		KIR iP	02 08 37.4			Vanuatu Islands (h = 140 km).	
		iPcP	02 09 22.6	"	14	UPP iP	15 09 24.5
		UME iP	02 09 04.2			Andreanof Islands, Aleutian Is. (h = N).	
		iPcP	02 09 38.8				
		Andreanof Islands, Aleutian Is. (h = N).		"	14	UME iP	21 32 51.1
"	14	KIR iP	02 53 32.4			Near east coast of Honshu, Japan (h = N).	
		UME iP	02 54 22.1				
		Svalbard region (h = 10 km).		"	15	UPP iP	03 41 11.3
"	14	UPP eP	03 06 17			Andreanof Islands, Aleutian Is. (h = N).	
		UME iP	03 06 48.5				
		Turkey (h = 10 km).		"	15	UPP iP	06 49 32.5
"	14	KIR iP	03 17 19.4			iS	06 58 30
		UME iP	03 17 24.8			iP'P'	07 17 46.7
		Halmahera (h = 80 km).					micr sec
"	14	UPP iP	04 05 24.4			P	Z' 0.2 1.0
		KIR iP	04 04 31.6			Mx	Z 14 23
		UME iP	04 04 58.1			KIR iP	06 48 39.8
		Andreanof Islands, Aleutian Is. (h = N).				(cont.)	

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1986								1986		
May	15	(cont.)						May	16	
				micr	sec				(cont.)	
		KIR						UPP		
			P	Z'	0.3	1.0			i	
			Mx	Z	8.6	17			Mx	
		UME	iP		06 49	06.6		KIR	iP	
			iP'P'		07 17	58.4			i	
		Andreanof Islands, Aleutian Is. (h = N).								micr sec
		m = 6.3, M = 6.1 (UPP,KIR).								i
					Z'	0.1			Mx	
					Z	2.7		UME	iP	
									17 01	
									40.4	
								Kuril Islands (h = 25 km).		
								m = 6.2, M = 5.8 (UPP,KIR).		
"	15	UPP	iP		08 29	43.0		"	16	
			i		08 29	45.7		UPP	iP	
		KIR	iP		08 28	49.0		KIR	iP	
		UME	iP		08 29	18.6			17 08	
		Andreanof Islands, Aleutian Is. (h = N).								33.1
										44.3
								Kuril Islands (h = N).		
"	15	UPP	iP		09 45	01.7		"	16	
					micr	sec		KIR	iP	
			Mx	Z	1.0	18			17 41	
		KIR	iP		09 44	10.1		Andreanof Islands, Aleutian Is. (h = N).		
					micr	sec				
			Mx	Z	0.8	15		"	17	
		UME	iP		09 44	35.2		UPP	iP	
		Andreanof Islands, Aleutian Is. (h = N).							KIR	iP
		M = 5.1 (UPP,KIR).							UME	eP
									03 31	
									22.4	
									03 32	
									00.8	
									03 31	
									36	
									Iran (h = 80 km).	
"	15	UME	iP		11 35	49.2		"	17	
								UME	iPcP	
									08 11	
									20.0	
								Andreanof Islands, Aleutian Is. (h = N).		
"	15	UPP	iP		14 46	31.2		"	17	
					micr	sec		UPP	iP	
			Mx	Z	2.7	17		KIR	iP	
		KIR	iP		14 46	47.7		UME	iP	
					micr	sec			13 30	
			Mx	Z	1.0	12			22.1	
		UME	iP		14 46	32.6			13 29	
		Pakistan (h = 20 km).								51.1
		M = 5.2 (UPP,KIR).								04.7
								Bonin Islands region (h = 480 km).		
"	16	KIR	iP		08 28	30.8		"	17	
		UME	iP		08 28	42.3		UDD	iSg1	
		Bonin Islands region (h = N).								16 03
									07.2	
								Off coast of southwestern Norway, 62.9°N, 4.9°E.		
								Origin time = 16 00 39.		
								M <sub>L</sub> (UPP) = 2.4 1.		
								Solution from Bergen bulletin.		
"	16	KIR	iP		11 42	24.3		"	17	
		South Atlantic Ridge (h = 10 km).							UPP	iP
									16 31	
									18.2	
									16 31	
									22.1	
									16 31	
									25.4	
									16 40	
									20.0	
									16 59	
									39.0	
									micr sec	
									i	
									Z'	
									0.3	
									1.0	
									Mx	
									Z	
									25	
									21	
		KIR	iP		16 30	24.8				
			i		16 30	28.2				
			i		16 30	38.1				
			iP'P'		15 59	44.9				
					micr	sec				
					i	Z'				
					0.6	1.5				
					(cont.)					



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1986				1986			
May	17	(cont.)		May	18	UME iP	23 38 24.3
		KIR i	Z' 0.5 1.0			Near coast of Michoacan,	
		Mx	Z 15 17			Mexico (h = N).	
		UME iP	16 30 52.0		19	UPP iP	02 48 29.7
		i	16 30 59.8				micr sec
		Andreanof Islands, Aleutian				Mx Z	0.8 19
		Is. (h = 25 km).				KIR iP	02 47 36.9 C
		m = 6.5, M = 6.4 (UPP,KIR).					micr sec
		Multiple event.				P Z'	0.1 1.0
"	17	UPP iP	16 42 55.8			UME iP	02 48 03.5
		KIR iP	16 42 02.3			Andreanof Islands, Aleutian	
		UME iPP	16 42 34.3			Is. (h = N).	
		Andreanof Islands, Aleutian			19	UPP iP	02 59 32.6
		Is. (h = N).					
"	18	KIR iP	00 11 50.9		19	UPP iP	03 30 01.0
		Carlberg Ridge (h = 10 km).				KIR iP	03 29 07.9
"	18	KIR iP	04 18 33.9			UME iP	03 29 34.2
		Northwest Territories,				Andreanof Islands, Aleutian	
		Canada (h = 10 km).				Is. (h = N).	
"	18	KIR iP	11 05 58.2		19	UPP iP	08 18 55.3 C
		UME iP	11 05 47.6			i	08 19 01.0
		Hindu Kush region					micr sec
		(h = 90 km).				P Z'	0.1 0.9
"	18	UPP iP	14 33 38.6			Mx Z	1.2 18
		KIR iP	14 32 45.5			KIR iP	08 18 05.8
		UME iP	14 33 11.1				micr sec
		Andreanof Islands, Aleutian				Mx Z	0.5 15
		Is. (h = N).				UME iP	08 18 29.3
"	18	UPP iP	15 37 38.8		19	UPP iP	08 24 32.8
		KIR iP	15 36 45.6			Kuril Islands (h = N).	
		UME iP	15 37 11.4				
		Andreanof Islands, Aleutian			19	KIR iP	13 21 32.8
		Is. (h = N).				UME iP	13 21 39.0
"	18	UPP iP	19 24 59.1			Santa Cruz Islands (h = N).	
		KIR iP	19 24 05.7		19	KIR iP	13 58 08.4
		Andreanof Islands, Aleutian				UME iP	13 59 39.8
		Is. (h = N).				Near coast of Central Siberia	
"	18	UPP iP	19 45 18.5			(h = 10 km).	
		i	19 45 29.0		19	UME iP	17 08 17.4
		KIR eP	19 44 54				
		UME iP	19 45 02.1		19	UPP iP	20 32 51.0
		Southwestern Ryukyu Islands				KIR eP	20 31 58
		(h = N).				UME iP	20 32 24.1
"	18	UPP eP	21 39 36			Andreanof Islands, Aleutian	
		i	21 39 45.1			Is. (h = N).	
		KIR iP	21 39 37.3		19	UPP iP	21 03 49.7
		UME i	21 39 16.2			KIR iP	21 02 56.7
		Off east coast of Kamchatka				iPcP	21 03 42.0
		(h = N).				(cont.)	

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1986				1986			
May	19	(cont.) UME iP	21 03 23.5	May	20	UPP iP	07 15 22.1
		Andreanof Islands, Aleutian Is. (h = N).				KIR iP	07 15 17.4 C
						UME iP	07 15 13.6
						Kirghiz-Xinjiang border region (h = 55 km).	
"	19	UPP iPKP	21 13 03.6	"	20	KIR iP	07 39 52.8
			micr sec			Kirghiz-Xinjiang border region (h = 10 km).	
		Mx Z	1.9 20				
		KIR iPKP	21 12 50.4				
		UME iPKP	21 12 56.6				
		Santa Cruz Islands (h = 50 km).		"	20	UPP iP	12 01 17.4
						Andreanof Islands, Aleutian Is. (h = N).	
"	19	UPP iP	23 37 42.7	"	20	UPP iP	13 59 36.3
		KIR eP	23 36 50			Andreanof Islands, Aleutian Is. (h = N).	
		Andreanof Islands, Aleutian Is. (h = N).					
"	20	UPP iP	04 21 35.8 C	"	21	UPP iP	01 54 44.2
			micr sec			i	01 54 56.7
		P Z'	0.1 0.8			KIR iP	01 55 30.4
		KIR iP	04 21 03.6 C			i	01 55 42.7
			micr sec			UME iP	01 55 10.2
		P Z'	0.1 0.9			i	01 55 22.0
		UME iP	04 21 17.1 C			North Atlantic Ocean (h = 10 km).	
		South of Honshu, Japan (h = 520 km).		"	21	UPP iP	03 26 48.0
		m = 5.3 (UPP,KIR).				UME iP	03 26 16.6
"	20	UPP iP	05 37 33.9			Arctic Ocean (h = 10 km).	
		i	05 37 44.8	"	21	UPP iP	05 58 14.4
		iPP	05 40 24			i	05 58 26.4
		iS	05 47 14			iS	06 07 15
			micr sec				micr sec
		i Z'	0.2 1.1			P Z'	1.2 1.2
		Mx Z	92 19			Mx Z	42 17
		KIR iP	05 37 09.9 C			KIR iP	05 57 27.9
			micr sec				micr sec
		P Z'	2.2 2.1			P Z'	0.7 1.0
		Mx Z	32 12			Mx Z	27 17
		UME iP	05 37 18.3 C			UME iP	05 57 48.1
		Taiwan (h = 20 km).				Kuril Islands region (h = 40 km).	
		m = 6.4, M = 7.0 (UPP,KIR).				m = 6.7, M = 6.7 (UPP,KIR).	
"	20	UPP iP	05 49 16.1	"	21	UPP iP	06 27 13.7
		KIR iP	05 48 52.2				micr sec
			micr sec			P Z'	0.1 1.0
		P Z'	0.1 1.0			KIR iP	06 26 33.7
		UME iP	05 49 00.6			UME iP	06 25 55.6
		Taiwan (h = 30 km).				Kuril Islands region (h = 40 km).	
"	20	UPP iP	06 09 50.3				
		KIR iP	06 09 44.9 C				
		UME iP	06 09 40.9				
		Southern Xinjiang, China (h = 25 km).					

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1986				1986										
May	21	UPP	iP	07 03	12.3	May	22	UPP	iP	13 39	55.0			
			i	07 03	23.1			KIR	iP	13 39	09.5			
					micr			UME	iP	13 39	29.9			
			P	Z'	0.1	1.0		Sea of Okhotsk (h = 370 km).						
		KIR	iP	07 03	26.9		"	22	UPP	iP	14 20	41.0		
					micr	sec			KIR	iP	14 19	47.6		
			P	Z'	0.1	1.0			UME	iP	14 20	13.7		
		UME	iP	07 02	47.4			Off east coast of Kamchatka (h = N).						
		Kuril Islands region (h = 40 km).						"	22	UPP	eP	17 59	11	
		m = 5.8 (UPP,KIR).										micr	sec	
"	21	UPP	iP	10 17	00.5				Mx	Z	1.1	14		
		KIR	iP	10 16	59.7				KIR	iP	17 58	47.9		
		UME	iP	10 16	57.5				Mx	Z	0.8	12		
		Southern Sumatera (h = 70 km).						Taiwan (h = 30 km).						
		M = 5.3 (UPP,KIR).						"	22	UPP	iP	19 57	50.1	
"	21	UPP	iP	10 44	34.6				i		19 57	52.5		
		KIR	iP	10 43	37.6				iS		20 02	28		
		Kamchatka (h = N).										micr	sec	
"	21	UPP	iP	17 41	02.3				Mx	Z	9.8	16		
		KIR	eP	17 40	10				KIR	iP	19 58	57.1		
		UME	iP	17 40	36.2							micr	sec	
		Andreanof Islands, Aleutian Is. (h = N).							P	Z'	0.4	1.5		
									Mx	Z	3.3	13		
"	21	UPP	iP	18 02	46.6				UME	iP	19 58	21.5		
		KIR	iP	18 02	00.7				Crete (h = 45 km).					
		UME	iP	18 02	22.0			M = 5.4 (UPP,KIR).						
		Kuril Islands region (h = N).						"	22	UPP	iSg1	20 20	02.5	
"	21	UPP	iP	22 23	14.3				UDD	iSg1	20 19	09.7		
		KIR	iP	22 22	21.0				Southern Norway, 59.3°N, 6.7°E.					
		UME	iP	22 22	46.9				Origin time = 20 17 25.					
		Andreanof Islands, Aleutian Is. (h = N).							M <sub>L</sub> (UPP) = 2.4 1.					
								Solution from Bergen bulletin.						
"	21	KIR	iP	23 37	06.2			"	22	UME	iP	23 53	19.2	
		UME	iP	23 37	34.9				South of Honshu, Japan (h = N).					
		Southeastern Alaska (h = 15 km).						"	23	KIR	iP	01 46	05.6	
"	22	UPP	iP	05 57	21.0				UME	eP	01 46	19		
			i	05 57	25.8				South of Honshu, Japan (h = 20 km).					
					micr	sec								
			Mx	Z	0.4	8			"	23	UPP	iP	10 00	35.7
		KIR	eP	05 58	34						iS	10 08	00	
		UME	eP	05 57	56							micr	sec	
		Greece (h = N).								P	Z'	0.2	1.4	
"	22	UPP	iP	10 40	52.5				Mx	Z	3.2	15		
		KIR	iP	10 40	07.3				KIR	eP	10 01	17		
		UME	iP	10 40	28.5							micr	sec	
		Kuril Islands region (h = 40 km).							P	Z'	0.1	1.4		
									Mx	Z	1.7	17		

(cont.)

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
May	23	(cont.) UME iP	10 00 55.1	May	25	UPP iP	23 43 08.0
		Eastern Gulf of Aden (h = 10 km). m = 5.8, M = 5.4 (UPP,KIR).				KIR iP	23 42 15.1
						UME iP	23 42 42.4
						Andreanof Islands, Aleutian Is. (h = N).	
"	23	UME iP	11 07 33.7	"	26	KIR ePKP	00 35 39
						UME iPKP	00 35 43
"	23	KIR iP	23 27 53.4			Samoa Islands region (h = N).	
		UME iP	23 28 23.8				
		Kodiak Island region (h = 80 km).		"	26	KIR iP	02 21 57.5
						UME iP	02 22 03.2
"	24	UPP iP	10 09 59.5			Mindanao, Philippine Islands (h = 50 km).	
		Mx Z	0.9 13				
		KIR	micr sec	"	26	KIR iP	03 10 05.4
		Mx Z	0.5 11			UME iP	03 10 23.5
		Taiwan (h = 25 km). M = 5.2 (UPP,KIR).				Near east coast of Honshu, Japan (h = 10 km).	
"	24	UPP iP	10 13 56.4	"	26	UME iP	03 22 20.7
		KIR eP	10 13 33			Near east coast of Honshu, Japan (h = 10 km).	
		Taiwan (h = 25 km).					
"	24	UPP Mx	11 58	"	26	UPP iP	03 43 21.5
			micr sec			KIR eP	03 42 35
		Mx Z	1.4 21			UME iP	03 42 55.1
		Tonga Islands (h = N).				East of Lake Baikal (h = N).	
"	24	UPP iP	15 39 28.3	"	26	UME iP	08 24 25.4
		i	15 39 32.2			Bonin Islands region (h = N).	
			micr sec	"	26	UPP iPKP	18 59 00.3
		i Z'	0.3 1.3			iSKKP	19 10 20.5
		Mx Z	1.6 12				micr sec
		KIR iP	15 39 39.6			PKP Z'	0.4 1.2
		i	15 39 43.9			KIR i(PKP)	18 58 41.8
			micr sec			iPKP	18 58 53.2
		i Z'	0.2 1.3			iSKP1	19 01 26.5
		Mx Z	0.9 11				micr sec
		UME iP	15 39 27.3			PKP Z'	0.5 0.9
		i	15 39 31.9			UME i(PKP)	18 58 46.1
		Hindu Kush region (h = 45 km). m = 5.8, M = 5.0 (UPP,KIR).				iPKP	19 58 59.8
"	25	UPP iP	00 44 02.8			iSKP1	19 01 37.2
		KIR iP	00 43 09.3			iSKKP	19 10 40.9
		UME iP	00 43 35.7			Fiji Islands region (h = 580 km).	
		Andreanof Islands, Aleutian Is. (h = N).		"	26	UPP iPKP	19 24 29.8
"	25	UME iPKP	12 44 42.0			iSKP1	19 27 23.1
		Tonga Islands region (h = N).				iSKKP	19 35 57.2
							micr sec
						PKP Z'	0.7 1.1
						KIR i(PKP)	19 24 10.9
						iPKP	19 24 27.5
						(cont.)	

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1986			1986		
May 26	(cont.)		May 29	UPP Mx	12 06
	KIR iPP	19 26 43.3			micr sec
	iSKP1	19 26 59.5		Mx Z	1.0 15
		micr sec		North Atlantic Ridge	
	PKP Z'	1.2 1.1		(h = 10 km).	
	UME i(PKP)	19 24 17.7	" 29	UME iP	18 52 47.0
	iPKP	19 24 32.3		Near s. coast of Honshu,	
	iSKP1	19 27 08.7		Japan (h = 310 km).	
	South of Fiji Islands				
	(h = 540 km).		" 29	UPP iP	19 29 41.9
" 26	UPP iPKP1	20 06 43.9		KIR iP	19 28 48.9
	iSKP1	20 09 29.0		Andreanof Islands, Aleutian	
	KIR iPKP	20 06 37.6		Is. (h = N).	
	UME iPKP	20 06 45.5	" 29	UPP iP	20 08 04.5
	iSKP1	20 09 17.4		KIR iP	20 08 13.4
	South of Fiji Islands			UME iP	20 08 03.5
	(h = 620 km).			Hindu Kush region (h = 120 km).	
" 27	UME iPKP1	04 44 09.1	" 29	UPP ipP	20 44 17.9
	South of Kermadec Islands			KIR ipP	20 44 02.6
	(h = N).			UME ipP	20 44 12.3
" 27	UPP iPP	09 11 11.3		Near coast of Guerrero,	
	KIR iPdiff	09 06 52.9		Mexico (h = 35 km).	
	i	09 06 55.1	" 30	UPP iPKP1	02 43 10.0
		micr sec		iPKP2	02 43 14.0
	i Z'	0.3 1.0		UME iPKP1	02 42 58.2
	UME iPdiff	09 06 58.7		Kermadec Islands (h = 55 km).	
	Banda Sea (h = 630 km).		" 30	UPP eP	04 23 20
" 27	UPP iP	09 44 41.5		KIR iP	04 23 03.9
	UME iP	09 44 04.6		Northern Xinjiang, China	
	Jan Mayen Island region			(h = N).	
	(h = 10 km).		" 30	UPP iP	08 51 02.3
" 27	KIR iP	10 34 51.9			micr sec
	UME iP	10 35 30.7		Mx Z	0.3 12
" 28	KIR iP	06 25 02.7		KIR iP	08 49 46.5
	UME iS	06 28 05.1			micr sec
	Jan Mayen Island region			Mx Z	0.4 13
	(h = 10 km).			UME iP	08 50 25.7
" 28	KIR iP	13 46 29.5		Jan Mayen Island region	
		micr sec		(h = 10 km).	
	P Z'	0.3 1.6	" 30	UPP iP	16 21 12.2
	UME iP	13 46 43.1		KIR iP	16 21 44.6
	East Central Pacific Ocean		" 30	KIR iPKP	17 44 15.1
	(h = 10 km).			UME iPKP	17 44 22.7
" 28	KIR iP	14 54 48.8		Tuamotu Archipelago region.	
	Mindanao, Philippine Islands			Underground explosion.	
	(h = 55 km).		" 29	KIR iP	02 49 24.0
" 29		Southern Alaska (h = 60 km).			

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1986

May 31 UPP iP 03 51 02.1 C  
 ipP 03 51 22.6  
 micr sec  
 P Z' 0.5 1.1  
 KIR iP 03 50 17.2 C  
 micr sec  
 P Z' 0.2 1.0  
 UME iP 03 50 37.8 C  
 ipP 03 50 58.7

Hokkaido, Japan region.

h = 80 km (UPP,UME).

m = 6.2 (UPP,KIR).

" 31 UPP iPKP2 23 50 27.2  
 UME iPKP1 23 50 08.6  
 Kermadec Islands region  
 (h = N).

December 7, 1987

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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEÅ, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59 <sup>0</sup> 51.5'N,	17 <sup>0</sup> 37.6'E;	h = 14 m
Kiruna	(KIR)	67 <sup>0</sup> 50.4'N,	20 <sup>0</sup> 25.0'E;	h = 390 m
Umeå	(UME)	63 <sup>0</sup> 48.9'N,	20 <sup>0</sup> 14.2'E;	h = 16 m
Uddeholm	(UDD)	60 <sup>0</sup> 05.4'N,	13 <sup>0</sup> 36.4'E;	h = 240 m
Delary	(DEL)	56 <sup>0</sup> 28.2'N,	12 <sup>0</sup> 52.2'E;	h = 150 m
Myrviken	(MYV)	62 <sup>0</sup> 56.5'N,	14 <sup>0</sup> 20.8'E;	h = 345 m

JUNE 1 - 30, 1986  
 .....

1986					1986				
June	1	KIR	iP	20 27 07.0	June	2	UPP		micr sec
		UME	eP	20 27 05			Mx	Z	1.3 19
		Mindanao, Philippine Islands				KIR	iP		06 32 13.6
		(h = 120 km).							micr sec
"	1	KIR	eP	22 26 27			Mx	Z	0.5 11
		UME	eP	22 27 12		UME	eP		06 31 46
		North of Svalbard				Iran-Iraq border region			
		(h = 10 km).				(h = 25 km).			
						M = 4.6 (UPP,KIR).			
"	2	UPP	iP	00 53 21.7	"	2	KIR	ePKP	13 24 09
		KIR	eP	00 52 30			UME	iPKP	13 24 07.8
		Andreanof Islands, Aleutian					i		13 24 12.4
		Is. (h = N).					i		13 24 24.0
						Kermadec Islands region			
"	2	UPP	ePKP	01 49 55					(h = N).
			i	01 50 09.4	"	2	UPP	iP	14 33 23.8
				micr sec					micr sec
		Mx	Z	1.4 21			P	Z'	0.1 1.4
		KIR	ePKP	01 49 45			Mx	Z	1.1 17
				micr sec		KIR	iP		14 32 59.9
		Mx	Z	1.9 23		UME	iP		14 33 08.6
		UME	ePKP	01 49 50		Southwestern Ryukyu Islands			
			i	01 50 03.3		(h = 40 km).			
		Solomon Islands (h = 15 km).							
		M = 5.6 (UPP,KIR).			"	2	KIR	iPKP	15 05 51.0
"	2	UPP	iP	04 08 00.7			UME	iPKP	15 05 57.4
				micr sec		Vanuatu Islands (h = 140 km).			
		Mx	Z	4.3 16					
		KIR	iP	04 07 28.9	"	2	UPP	eP	15 22 54
				micr sec			KIR	iP	15 22 50.6
		Mx	Z	2.7 17			UME	iP	15 22 05.2
		UME	iP	04 07 43.5		Eastern Caucasus (h = N).			
		Ryukyu Islands (h = 55 km).							
		M = 5.8 (UPP,KIR).							

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1986				1986			
June	2	UPP	iP	18 03 28.1	June	3	(cont.)
			iS	18 12 56			KIR iP 12 22 36.3
				micr sec			UME iP 12 22 26.2
			P	Z' 0.2 0.9			Hindu Kush region
			Mx	Z 0.9 14			(h = 200 km).
		KIR	iP	18 03 29.7	"	3	UPP iSg1 14 33 38.7
				micr sec			UME iSg1 14 34 07.7
			P	Z' 0.3 1.0			UDD iSg1 14 32 36.1
			Mx	Z 1.1 18			DEL eSg1 14 33 46
		UME	iP	18 03 25.6			MYV iSg1 14 32 39.2
		Nicobar Islands region					Off coast of southwestern
		(h = 80 km).					Norway, near 61 3/4°N, 4°E.
		M = 6.0, M = 5.3 (UPP,KIR).					Origin time = 14 30 05.
		M uncorrected for focal depth.					M <sub>L</sub> (UPP) = 2.8 (0.03) 2.
"	2	UPP	iP	19 10 50.0			By combination with Finnish
		KIR	iP	19 11 30.0			station readings.
		UME	iP	19 11 04.9	"	3	UPP iP 14 53 02.2
		Iran (h = 60 km).					iS 15 03 42
"	2	UPP	iP	19 39 46.5 D			micr sec
				micr sec			P Z' 0.1 0.7
			P	Z' 0.2 0.6			Mx Z 3.6 19
		KIR	iP	19 39 00.3 D			KIR iP 14 52 44.0
				micr sec			micr sec
			P	Z' 0.3 0.9			Mx Z 2.1 19
		UME	iP	19 39 21.4 D			UME iP 14 52 50.1
		Sea of Okhotsk (h = 450 km).					Leyte, Philippine Islands
		m = 5.8 (UPP,KIR).					(h = 70 km).
"	3	UPP	Mx	02 02			M = 5.7 (UPP,KIR).
				micr sec			M uncorrected for focal depth.
			Mx	Z 0.9 22	"	3	UPP iP 23 16 23.3
		New Britain region					KIR iP 23 15 29.9
		(h = 70 km).					UME iP 23 15 56.4
"	3	UPP	iP	02 45 46.7			Andreanof Islands, Aleutian
		UME	eP	02 44 28			Is. (h = N).
		Northern China (h = N).		"	3	UPP iP 23 16 28.5	
"	3	UPP	iP	06 21 24.0			micr sec
				micr sec			P Z' 0.2 1.0
			Mx	Z 1.4 12			Mx Z 1.7 24
		KIR	iP	06 22 36.9			KIR iP 23 15 35.7
				micr sec			micr sec
			P	Z' 0.2 1.0			P Z' 0.2 1.0
			Mx	Z 0.6 9			UME iP 23 16 02.3
		UME	iP	06 21 59.2			Andreanof Islands, Aleutian
		Aegean Sea (h = 10 km).					Is. (h = N).
"	3	UPP	ePKP	08 18 36.3			m = 6.2 (UPP,KIR).
		UME	iPKP	08 18 27.0	"	4	UPP iP 08 12 01.0
		Kermadec Islands (h = N).					UME iP 08 11 33.0
"	3	UME	eP	10 19 14			Aegean Sea (h = 5 km).
		Turkey (h = 10 km).		"	4	UPP eP 15 57 51	
"	3	UPP	iP	12 22 27.6			KIR iP 15 56 51.6
		(cont.)					UME iP 15 57 21.2
							Alaska (h = 10 km).



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1986				1986				
June	4	UPP	iP	16 32 49.6	June	6	UPP eP	13 59 36
				micr sec			KIR iP	13 59 39.3
			Mx	Z 2.9 13			UME iP	13 59 09.4
		KIR	iP	16 32 24.4			Kuril Islands (h = N).	
				Taiwan (h = 20 km).				
"	4	UPP	iP	19 36 43.1	"	6	KIR iP	17 53 45.3
				Andreasof Islands, Aleutian Is. (h = N).			UME iP	17 53 39.7
"	5	KIR	iPKP	09 41 20.8	"	6	UPP iP	21 55 28.5
		UME	iPKP	09 41 41.2			P	Z' 0.1 0.7
"	5	UPP	iP	15 15 48.5			KIR iP	21 55 02.2
				micr sec			P	Z' 0.2 1.0
			P	Z' 0.1 1.0			UME iP	21 55 11.9
		KIR	iP	15 15 14.7			Northeast of Taiwan (h = 170 km). m = 5.7 (UPP,KIR).	
				micr sec				
			P	Z' 0.1 1.0	"	7	UPP iP	01 52 48.0
		UME	iP	15 15 34.2			i	01 53 15.3
				Southern Nevada. m = 5.9 (UPP,KIR). Underground explosion.			i	01 58 44.1
"	5	UPP	iP	20 38 02.6				micr sec
				micr sec			Mx	Z 1.3 19
			P	Z' 0.2 0.9			KIR iP	01 53 12.0
		KIR	iP	20 37 09.6			P	Z' 0.2 0.6
		UME	iP	20 37 36.0			Mx	Z 0.5 10
				Andreasof Islands, Aleutian Is. (h = N).			UME iP	01 52 55.9
							Turkmen SSR. (h = 35 km). M = 4.6 (UPP,KIR).	
"	6	UPP	iP	00 59 42.2	"	7	UPP iP	16 09 59.4
				micr sec			KIR iP	16 09 06.2
			Mx	Z 1.5 14			UME iP	16 09 32.9
		KIR	iP	00 59 20.8			Andreasof Islands, Aleutian Is. (h = N).	
		UME	iP	00 59 28.3	"	7	UME iP	20 11 32.1
				Taiwan region (h = 40 km).			Albania (h = 10 km).	
"	6	UPP	iP	04 23 31.6	"	7	UME iP	20 12 31.8
		KIR	iP	04 22 45.3			i	20 12 36.0
		UME	iP	04 23 06.6	"	7	UPP iP	21 17 40.1
				Kuril Islands (h = 50 km).				micr sec
"	6	UPP	iP	10 45 15.9			P	Z' 0.1 0.9
			iS	10 49 46			KIR iP	21 16 47.6
				micr sec			UME iP	21 17 13.6
			P	Z' 0.5 1.2			Rat Islands, Aleutian Islands (h = N).	
			Mx	Z 9.0 11	"	8	UPP iP	04 36 38.4
		KIR	iP	10 46 09.5				micr sec
				micr sec			Mx	Z 4.4 15
			P	Z' 0.6 1.1			KIR iP	04 36 00.7
			Mx	Z 7.4 12				micr sec
		UME	iP	10 45 38.9			Mx	Z 0.9 13
				Turkey (h = 10 km). m = 6.3, M = 5.6 (UPP,KIR).			(cont.)	

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1986		1986	
June	8	(cont.) UME iP 04 36 18.3 Off East-coast of Honshu, Japan (h = 20 km). M = 5.6 (UPP,KIR).	June 11 UPP iP 07 22 32.8 KIR iP 07 21 45.5 micr sec P Z' 0.1 0.9 UME iP 07 22 07.3 Northwest of Kuril Islands (h = 390 km).
"	8	UPP iP 05 00 13.5 micr sec P Z' 0.1 0.9 KIR iP 05 01 25.5 micr sec P Z' 0.4 1.4 UME eP 05 00 48 Southern Greece (h = 25 km). m = 5.7 (UPP,KIR).	" 11 UPP Mx 07 31 micr sec Mx Z 2.4 28 Fiji Islands region (h = 20 km).
"	8	UPP iP 05 28 58.0 KIR iP 05 28 04.9 Andreanof Islands, Aleutian Is. (h = N).	" 11 UPP iP 07 56 38.1 Mediterranean Sea (h = 10 km).
"	8	UPP iP 11 13 25.6 C iS 11 20 24 micr sec P Z' 0.9 0.9 Mx Z 4.2 27 KIR iP 11 12 40.7 micr sec P Z' 0.9 0.9 Mx Z 2.1 19 UME iP 11 13 00.9 Kuril Islands (h = 55 km). m = 6.8, M 5.5 (UPP,KIR).	" 11 UPP iP 13 59 48.1 ipP 13 59 52.6 iS 14 09 30 micr sec Mx Z 5.6 18 KIR iP 13 59 57.9 ipP 14 00 02.3 micr sec Mx Z 1.2 16 UME iP 13 59 56.8 ipP 14 00 01.3 Near coast of Venezuela. h = 15 km (UPP,KIR,UME). M = 5.7 (UPP,KIR).
"	8	UPP iP 21 45 43.4 UME iP 21 45 23.5 South of Honshu, Japan (h = N).	" 11 UPP iP 14 12 34.3
"	9	UPP iP 02 28 25.1 KIR iP 02 27 24.3 UME iP 02 27 57.7 Fox Islands, Aleutian Islands (h = N).	" 11 UPP iP 20 21 37.1 micr sec P Z' 0.1 1.0 Mx Z 0.9 17 KIR iP 20 22 07.5 micr sec P Z' 0.1 0.6 UME iP 20 21 46.6 Caspian Sea (h = 45 km). m = 5.6 (UPP,KIR).
"	10	UPP iP 15 20 27.1 KIR eP 15 20 47 Chagos Archiipelago region (h = 10 km).	" 11 KIR iP 21 52 15.0 ipP 21 52 29.0 UME iP 21 52 25.4 ipP 21 52 39.8 Guerrero Mexico. h = 50 km (KIR,UME).

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1986				1986			
June	12	UPP eP KIR eP Tunisia (h = 10 km).	01 16 01 01 16 15	June	14	UPP iP UME iP Northern Sumatra (h = 65 km).	15 03 24.6 15 03 21.8
"	12	UPP iP KIR iP UME iP Near E. coast of eastern USSR (h = 350 km).	06 02 21.2 06 01 40.1 06 01 58.0	"	14	UPP iP UME iP Java Sea (h = 560 km).	15 46 25.2 15 46 20.5
"	12	UPP iP ipP KIR iP ipP UME iP ipP Luzon, Philippine Islands. h = 20 km (UPP,KIR,UME).	09 39 20.5 09 39 27.5 09 39 02.9 09 39 09.3 09 39 08.9 09 39 15.1	"	14	UPP iP UME eP Southern Greece (h = 50 km).	17 55 35.6 17 56 11
"	12	UPP iP South of Fiji Islands (h = 550 km).	10 53 25.3	"	14	UPP Mx Mx Z Vanuatu Islands (h = 15 km).	24 36 1.7 30
"	12	KIR iP UME iP Banda Sea (h = 120 km).	13 54 34.7 13 54 40.0	"	15	UPP iPKP2 Mx Z KIR Mx Z UME iPKP Kermadec Islands region (h = 10 km). M = 5.8 (UPP,KIR).	03 30 45.0 1.4 20 1.7 19 03 30 32.9
"	12	UPP iP KIR iP UME iP	20 04 19.1 20 04 21.5 20 04 16.9	"	15	UPP iP Turkey (h = 10 km).	09 24 03.6
"	12	UME iP Ryukyu Islands (h = 55 km).	21 15 58.7	"	15	UPP eP Turkey (h = 10 km).	10 07 52
"	12	UPP iP Mx Z KIR iP Mx Z UME iP Northern Xinjiang, China (h = N). M = 4.6 (UPP,KIR).	22 27 54.9 0.5 13 22 27 39.1 0.4 12 22 27 40.6	"	15	UPP i iSg1 UME iSg1 UDD iPn iSn iSg1 DEL iSg1 MYV ePn i iSg1	15 04 15.9 15 04 38.2 15 05 02.8 15 02 16.5 15 03 11.5 15 03 36.7 15 04 50.6 15 02 18 15 02 33.2 15 03 36.0
"	13	UME iP Unimak Islands region (h = N).	09 36 15.6			Off coast of southwestern Norway, near 62°N, 4 1/2°E. Origin time = 15 01 09. M <sub>L</sub> (UPP) = 3.1 (0.16) 4.	
"	14	UPP iPKP UME iPKP South Sandwich Islands region (h = N).	04 09 15.2 04 09 22.7	"	15	UPP iP UME iP La Rioja Province, Argentina (h = 150 km).	15 06 56.0 15 07 53.8
"	14	UPP iP UME iP Afghanistan-USSR border region (h = 200 km).	07 02 24.3 07 02 22.3	"	15	UPP iP UME iP Southern Sumatra (h = 80 km).	15 18 56.1 15 18 53.2

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1986				1986			
June	15	UME iP	17 25 02.9	June	17	(cont.)	
		Honshu, Japan (h = 270 km).				UME iP	00 52 30.2
"	16	UPP iP	00 09 44.3			Near east coast of Kamchatka (h = N).	
		Central Mid-Atlantic Ridge (h = 10 km).				m = 6.2 (UPP,KIR).	
"	16	UPP iP	10 36 33.8	"	17	UPP iP	08 59 14.4
		UME iP	10 36 41.6			KIR eP	08 59 49
		Chagos Archipelago region (h = 10 km).				UME eP	08 59 35
						Central Mid-Atlantic Ridge (h = 10 km).	
"	16	UPP iPKP	11 06 45.7	"	17	UPP iP	10 51 33.3
		iSKP1	11 09 40.7			iSKS	11 01 58
		i	11 09 56.6			iS	11 02 38
		micr sec				micr sec	
		PKP Z'	0.8 0.8			P Z'	0.1 0.8
		UME iPKP	11 06 32.2			Mx Z	0.9 16
		iSKP1	11 09 26.4			KIR iP	10 51 17.7
		South of Fiji Islands (h = 550 km).				micr sec	
						P Z'	0.3 1.1
"	16	UPP iP	11 43 01.9			Mx Z	1.3 19
		P Z'	0.1 0.9			UME iP	10 51 22.8
		KIR iP	11 42 30.0			Mindanao, Philippine Islands (h = N).	
		micr sec				m = 6.4, M = 5.4 (UPP,KIR).	
		P Z'	0.1 1.0	"	17	UPP iP	12 32 19.6
		UME iP	11 42 44.2			UME iP	12 32 30.3
						Mid-Indian Rise (h = 10 km).	
"	16	UPP iP	14 12 18.1	"	17	UPP iP	17 59 15.2
		KIR iP	14 12 23.1			iS	18 03 14
		UME iP	14 12 16.7			micr sec	
		Afghanistan-USSR border region (h = N).				Mx Z	6.3 12
						KIR	micr sec
"	16	UPP iP	16 05 30.5			Mx Z	3.2 11
		Vancouver Islands region (h = 30 km).				UME iP	17 59 51.8
						Aegean Sea (h = 10 km).	
"	16	UPP Mx	18 14			M = 5.3 (UPP,KIR).	
		micr sec		"	17	UPP iP	18 26 24.0
		Mx Z	1.3 24			micr sec	
		South Atlantic Ridge (h = 10 km).				P Z'	0.1 1.0
						Mx Z	27 20
"	16	UPP iPKP1	23 23 33.6			KIR	micr sec
		i	23 23 49.7			Mx Z	11 17
		UME iPKP1	23 23 22.1			UME iP	18 26 13.4
		Kermadec Islands (h = 10 km).				Mindanao, Philippine Islands (h = 30 km).	
						M = 6.6 (UPP,KIR).	
"	17	UPP iP	00 52 57.3	"	17	UPP iPKP1	20 31 59.4
		micr sec				UME iPKP1	20 31 47.4
		P Z'	0.2 1.0			Kermadec Islands (h = N).	
		Mx Z	1.0 24				
		KIR iP	00 52 05.5				
		micr sec					
		P Z'	0.3 1.0				
		(cont.)					

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1986				1986				
June	18	UPP	iP	04 12 19.0	June	19	UPP iP	15 19 51.9
				micr sec			UME iP	15 20 28.6
			Mx Z	0.6 16			Southern Greece (h = 45 km).	
		UME	iP	04 12 36.6	"	19	UPP iP	18 24 02.0
		North Atlantic Ridge					i	18 24 17.4
		(h = 10 km).					iS	18 33 30.8
"	18	UPP	iSKP1	04 32 28.6				micr sec
		Vanuatu Islands (h = 200 km).					P Z'	0.8 1.2
"	18	UPP	iP	08 16 10.2			UME iP	18 23 58.7
			iS	08 25 04			Nicobar Islands region	
			iP'P'	08 44 25.6			(h = 160 km).	
				micr sec	"	19	UPP iPKP	20 21 22.1
			P Z'	0.2 0.9			iPKP1	20 21 26.1
			Mx Z	25 18			iPKP2	20 21 29.7
		KIR		micr sec			UME iPKP1	20 21 14.4
			Mx Z	17 21			i	20 21 18.6
		UME	iP	08 15 43.6			Kermadec Islands region	
			iP'P'	08 44 39.3			(h = N).	
		Andreanof Islands, Aleutian			"	19	UME iP	21 33 14.8
		Is. (h = 25 km).			"	19	UPP Mx	22 53
		M = 6.4 (UPP,KIR).						micr sec
"	18	UPP	iPKP	22 21 29.0			Mx Z	0.8 20
		UME	iPKP	22 21 32.8			Bolivia (h = 20 km).	
"	18	UPP	iP	23 28 35.0	"	19	UPP iPKP1	23 38 16.2
		UME	iP	23 28 08.1				micr sec
		Rats Islands, Aleutian					Mx Z	3.3 22
		Islands (h = 170 km).				KIR		micr sec
"	18	UPP	iP	23 29 21.2			Mx Z	2.4 20
"	19	UPP	ipP	04 52 44.9			UME iPKP	23 38 01.7
		UME	ipP	04 52 38.6			Kermadec islands (h = 10 km).	
		Guerrero, Mexico					M = 6.1 (UPP,KIR).	
		(h = 70 km).		"	20	UPP iPKP1	02 57 42.9	
"	19	UME	iPKP	07 17 29.8			UME iPKP1	02 57 32.4
		Vanuatu Islands (h = 70 km).				South of Kermadec Islands		
						(h = 10 km).		
"	19	UPP	iP	09 19 40.6	"	20	UME iP	04 46 32.8
			iS	09 28 18.0			Kodiak Island region (h = N).	
			iP'P'	09 48 35.0	"	20	UPP iP	11 08 05.5
				micr sec	"	20	UPP iP	17 22 03.3
			P Z'	0.3 1.1			iS	17 29 32.0
			Mx Z	8.4 19				micr sec
		KIR		micr sec			P Z'	0.2 0.9
			Mx Z	10 20			Mx Z	15 15
		UME	iP	09 19 15.9			KIR	micr sec
			iP'P'	09 48 48.2			Mx Z	12 13
		Kodiak Island region					UME iP	17 21 55.7
		(h = 15 km).				Tibet (h = N).		
"	19	UPP	iP	11 42 20.9			M = 6.2 (UPP,KIR).	
		UME	iP	11 42 02.8				
		Bonin Islands region						
		(h = 410 km).						

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1986				1986			
Month	Day	Station	Time	Month	Day	Station	Time
June	20	UPP	iPKP 19 00 20.8	June	24	(cont.)	
		UME	iPKP 19 00 29.2			UPP	iPKKP 03 40 50.4
		South Sandwich Island region (h = N).					micr sec
"	21	UPP	ePKP 19 52 05	"	24		Mx Z' 57 20
		UME	ePKP 19 52 15			KIR	iP 03 25 31.3
		South Sandwich Islands region (h = N).					03 25 37.4
"	22	UPP	iP 05 39 52.3	"	24		iPKP 03 29 45.2
		UME	iP 05 39 27.0				iPKKP 03 41 01.6
		Andreanof Islands, Aleutian Is. (h = N).					micr sec
"	23	UPP	iP 08 17 58.2	"	24		P Z' 0.3 1.3
		UME	i 08 18 31.5			UME	iP 03 25 40.6
		Crete (h = 45 km).					03 25 46.4
"	23	UPP	iP 09 00 36.1	"	24		iPKP 03 29 49.6
		UME	iP 09 00 27.5				iPKKP 03 40 59.2
		Burma (h = N).				Papua New Guinea (h = 100 km).	
"	23	UPP	eP 17 28 48	"	24	UPP	iP 07 07 39.4
			Tibet (h = N).				i 07 07 45.6
"	23	UME	iPg1 20 14 19.8	"	24		iS 07 16 26.4
			iSg1 20 14 35.4				micr sec
		Gulf of Bothnia, 64.7°N, 22.1°E.					P Z' 0.1 0.9
		Origin time = 20 13 59.					Mx Z 11 28
		M <sub>L</sub> (UPP) = 1.7 1.				UME	iP 07 08 03.8
		By combination with Finnish station readings.				North of Ascension Islands (h = 20 km).	
"	23	UPP	iP 21 07 25.2	"	24	UME	iPKP 08 52 40.4
		UME	iP 21 07 03.7				Kermadec Island (h = N).
		Near east coast of Honshu, Japan (h = 45 km).					08 52 40.4
"	24	UPP	iP 03 04 44.7	"	24	UPP	iPKP1 17 44 09.7
			i 03 05 06.9				i 17 44 14.0
			iPP 03 07 31.2			Kermadec Islands region (h = 10 km).	
			iS 03 14 14.1				UPP
			micr sec				iPKP1 17 54 53.8
			P Z' 0.6 1.4				micr sec
		KIR	iP 03 04 06.7				Mx Z 1.8 22
			micr sec			Kermadec Islands region (h = 10 km).	
			P Z' 0.4 1.0				UPP
		UME	iP 03 04 23.1				iPKP 17 58 57.9
		Near east coast of Honshu, Japan (h = 65 km).					i 17 59 08.2
		m = 6.3 (UPP,KIR).					micr sec
"	24	UPP	iP 03 25 55.0	"	24		Mx Z 1.1 20
			i 03 25 58.5			UME	iPKP1 17 58 55.7
			iPKP 03 29 53.3			Kermadec Islands region (h = 10 km).	
		(cont.)					UPP
							iP 18 57 04.3
							micr sec
							P Z' 0.1 0.9
						KIR	iP 18 56 26.5
						UME	iP 18 56 43.3
						Near east coast of Honshu, Japan (h = 65 km).	

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1986				1986							
June	24	UPP	iPKP	19 50 47.0	June	26	UPP	iPKP1	20 18 28.7		
			i	19 50 50.6			KIR	iPKP	20 18 19.0		
			i	19 50 52.8			UME	iPKP	20 18 18.3		
				micr sec			Kermadec Islands region				
			Mx	Z 2.4 22			(h = 15 km).				
		KIR		micr sec		"	26	UPP	eP	20 48 44	
			Mx	Z 1.4 20				UME	iP	20 49 26.2	
		UME	iPKP1	19 50 54.4			Albania (h = 10 km).				
		Kermadec Islands region					"	27	UPP	iP	03 23 30.7
		(h = 10 km).							UME	iP	03 23 21.8
		M = 5.9 (UPP,KIR).					Flores Sea (h = 230 km).				
"	24	KIR	eP	20 54 30		"	27	UPP	iP	07 30 28.4	
		UME	iP	20 54 57.7							
		Alaska (h = 10 km).					"	27	UPP	iP	11 30 06.7
"	24	UPP	iP	23 45 46.4				KIR	iP	11 29 36.4	
		UME	iP	23 46 12.1				UME	iP	11 29 44.1	
		North of Ascension Islands					Honshu, Japan (h = 30 km).				
		(h = 10 km).					"	27	UPP	iPKP	17 08 38.6
"	25	UPP	iPKP	12 05 30.3				iPKP1	17 08 42.9		
		Kermadec Islands region						iPKP2	17 08 47.6		
		(h = 10 km).						UME	iPKP	17 08 31.4	
"	25	UME	iP	16 44 53.6			Kermadec Islands (h = 25 km).				
		Poland (h = 10 km).					"	28	UPP	iPKP	01 36 56.5
"	25	UPP	iP	20 39 33.6					micr sec		
				micr sec				PKP	Z' 0.1 0.8		
			P	Z' 0.1 1.1			South of Fiji Island				
		KIR	iP	20 38 59.4			(h = 580 km).				
		UME	iP	20 39 19.1			"	28	UPP	iPKP	05 22 40.9
		Southern Nevada.						iSKP1	05 25 40.5		
		Underground explosion.							micr sec		
"	26	UPP	iP	02 44 54.1				PKP	Z' 0.1 0.9		
				micr sec				Mx	Z 0.8 19		
			Mx	Z 1.1 16			KIR	iPKP	05 22 33.7		
		KIR	iP	02 44 43.3				iSKP1	05 25 40.1		
				micr sec			UME	iPKP	05 22 39.3		
			P	Z' 0.2 0.9				iSKP1	05 25 52.7		
		UME	iP	02 44 20.8			Fiji Islands region				
		Jan Mayen Islands region					(h = 210 km).				
		(h = 10 km).					"	29	UPP		micr sec
"	26	KIR	iP	02 57 11.8				Mx	Z 0.9 22		
		UME	iP	02 57 49.0			KIR	iP	04 40 05.9		
		Jan Mayen Islands region					Andreanof Islands, Aleutian				
		(h = 10 km).					Islands (h = N).				
"	26	KIR	iP	03 07 07.1			"	29	UPP	iP	10 06 59.4
		UME	iP	03 07 44.4					micr sec		
		Jan Mayen Islands region						Mx	Z 1.8 19		
		(h = 10 km).					KIR	iP	10 06 57.2		
				micr sec					micr sec		
							Mx	Z 1.0 17			
							(cont.)				

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1986						1986					
June	29	(cont.)				June	29	UPP	iP	21 58 45.5	
		UME	iP	10 06 53.6					i	21 58 52.0	
				South Burma (h = 15 km).						micr sec	
				M = 5.3 (UPP,KIR).					Mx	Z 1.7 18	
"	29	UME	iP	10 45 12.5				KIR	ipP	21 59 39.2	
				Volcano Island region						micr sec	
				(h = N).					Mx	Z 0.9 16	
								UME	iP	21 59 06.7	
"	29	UPP	iPKP1	12 17 22.4						Lake Tanganyika region	
				micr sec						(h = 20 km).	
			Mx	Z 5.1 22						M = 5.3 (UPP,KIR).	
		KIR	iPKP1	12 17 11.5		"	30	UPP	iP	06 34 47.0	
				micr sec				UME	eP	06 34 16.2	
			Mx	Z 1.4 20						Andreanof Islands , Aleutian	
		UME	iPKP1	12 17 17.8						Is. (h = N).	
				Kermadec Islands region		"	30	UPP		micr sec	
				(h = 10 km).					Mx	Z 4.1 18	
				M = 6.0 (UPP,KIR).				KIR		micr sec	
"	29	UPP	iP	12 42 36.7					Mx	Z 3.1 16	
		KIR	iP	12 42 33.4				UME	iP	23 04 51.7	
		UME	iP	12 42 30.9						Near cost of Nicuaraga	
				South Burma (h = 15 km).						(h = 65 km).	
										M = 5.9 (UPP,KIR).	
"	29	UPP	iPKP1	14 06 20.0							
				Kermadec Islands region							
				(h = 10 km).							
"	29	UPP	iPKP1	14 28 43.2							
		UME	iPKP1	14 28 41.5							
				Kermadec Islands region							
				(h = 20 km).							
"	29	UPP	iPKP1	15 19 53.4							
				Kermadec Islands region							
				(h = 10 km).							
"	29	UPP	iP	19 50 49.0							
		KIR	iP	19 49 38.2							
		UME	iP	19 50 13.9							
				North of Severnaya Zemlya							
				(h = 10 km).							
"	29	UPP	iP	20 24 06.5							
				micr sec							
			P	Z' 0.1 0.8							
		KIR	iP	20 24 10.2							
				micr sec							
			P	Z' 0.2 0.9							
		UME	iP	20 24 11.6							
				Northern Colombia							
				(h = 160 km).							
				m = 5.8 (UPP,KIR).							

December 17, 1987

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1986				1986			
July		(cont.)		July	5	(cont.)	
	2	KIR	iPKP	04 35	05.4	Mx	Z 1.7 18
			iSKP1	04 37	38.2	KIR	iP 03 11 38.0
		UME	iPKP	04 35	07.1		i 03 11 39.3
			iSKP1	04 37	50.0		ipP 03 11 51.5
		South of Fiji Islands					micr sec
		(h = 600 km).					i Z' 0.2 1.0
							Mx Z 1.0 17
"	2	UPP	ePKP	13 11	59	UME	iP 03 12 04.0
		KIR	ePKP	13 12	16		ipP 03 12 17.2
		UME	ePKP	13 12	06	Andreanof Islands, Aleutian Islands.	
		South Sandwich Islands region (h = 55 km).				h = 50 km (UPP,KIR,UME). m = 6.2, M = 5.2 (UPP,KIR).	
"	2	UPP	iP	13 34	30.1	"	5 UPP iP 09 57 33.8
		Kuril Islands (h = 45 km).					KIR eP 09 58 47
"	2	KIR	iPKP	21 05	02.1		UME iP 09 58 12.5
		Easter Island region (h = 10 km).				Southern Greece (h = 90 km).	
"	3	UME	iPKP	00 31	16.3	"	5 UPP iP 10 32 54.1
		South Sandwich Islands region (h = N).					KIR iP 10 33 39.5
							UME iP 10 33 19.6
		North of Ascension Island (h = 10 km).					
"	3	UME	iP	01 02	30.8	"	5 UPP micr sec
"	3	UPP	iP	01 55	02.9		Mx Z 1.1 17
			ipP	01 55	15.0	KIR	iP 14 24 12.1
		KIR	iP	01 54	34.5		micr sec
			ipP	01 54	50.4		P Z' 0.1 1.0
		UME	iP	01 54	47.4	UME	iP 14 24 22.4
			ipP	01 55	00.7	West Caroline Islands (h = 40 km).	
		Mariana Islands. h = 50 km (UPP,KIR,UME).				"	5 UPP micr sec
"	3	UME	iP	05 11	10.2		Mx Z 2.1 22
		Hokkaido, Japan region (h = 70 km).				KIR	iPKP2 20 18 14.5
"	3	UPP	iP	15 01	47.7		micr sec
		KIR	iP	15 01	55.7		Mx Z 1.4 20
		UME	iP	15 01	45.6	West of Macquarie Island (h = 10 km). M = 5.9 (UPP,KIR).	
		Hindu Kush region (h = 250 km).				"	5 KIR iPKP 21 39 03.6
"	3	UPP	iP	23 40	09.6		iSKP1 21 42 18.1
		KIR	eP	23 39	32	UME	iPKP 21 38 58.1
		UME	iP	23 39	49.3	South Sandwich Islands region (h = N).	
		Near s. coast of Honshu, Japan (h = 150 km).				"	5 UPP iP 22 22 08.4
"	5	UPP	iP	03 12	30.8		i 22 22 11.3
			i	03 12	36.3		iS 22 32 24
			ipP	03 12	44.2		micr sec
			iS	03 21	29		Mx Z 4.4 26
						KIR	iP 22 21 57.8
							micr sec
			P	Z' 0.3	0.9		P Z' 0.1 1.0
		(cont.)					Mx Z 3.5 24
						(cont.)	

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1986				1986						
July				July						
	5	(cont.)			7	UPP	iP	13 38	50.7	
		UME	iP			UME	iP	13 38	31.6	
			i			South of Honshu, Japan				
			i			(h = 410 km).				
			i							
		Mexico-Guatemala border region (h = 110 km). M = 5.8 (UPP,KIR). M uncorrected for focal depth.			"	7	UPP	iP	14 23	08.2
						KIR	iP	14 24	07.3	
						UME	iP	14 23	36.0	
						Cyprus (h = 50 km).				
"	6	UME	iPKP	24 00	"	7	UPP	iP	16 36	45.6 C
		South of Kermadec Islands (h = N).					ipP	16 36	53.4	
							iPPP	16 40	14.4	
							iS	16 44	38	
									micr sec	
"	6	UPP	iP	09 53			P	Z'	1.0	1.5
		Hindu Kush region (h = N).					pp	Z'	1.0	1.3
							Mx	Z	22	24
"	6	UME	iP	13 27		KIR	iP	16 37	19.7	
							ipP	16 37	28.2	
"	6	UPP	iP	19 32			iP'P'	17 06	33.5	
			iPP	19 34					micr sec	
			iS	19 39			P	Z'	2.2	1.5
							Mx	Z	17	19
						UME	iP	16 37	00.0 C	
							ipP	16 37	07.9	
							iP'P'	17 06	41.3	
						Carlsberg Ridge. h = 30 km (UPP,KIR,UME). m = 6.9, M = 6.2 (UPP,KIR).				
					"	7	KIR	iPKP	16 52	03.6
						UME	iPKP	16 52	09.9	
						Vanuatu Islands (h = 25 km).				
"	6	KIR	iP	20 48	"	7	UME	iP	19 36	01.1
		Tibet (h = N).				Poland (h = 15 km).				
"	6	KIR	iP	21 53	"	7	UPP	iP	21 35	18.8
		Tibet (h = N).				KIR	eP	21 35	16	
						UME	iP	21 35	18.2	
						Near west coast of Colombia (h = 20 km).				
"	6	UPP	iPKP1	23 15	"	7	UME	iP	23 55	12.0
		Kermadec Islands region (h = N).								
"	7	UPP	iPKP1	03 16	"	8	UPP	iP	04 40	34.9
			iPKP2	03 16		KIR	iP	04 40	21.3 D	
		UME	iPKP1	03 16			i	04 40	24.3	
		Kermadec Islands (h = 260 km).							micr sec	
							P	Z'	0.2	0.7
						UME	iP	04 40	25.8 D	
"	7	KIR	iP	05 22		Minihassa Peninsula (h = 250 km).				
		Philippine Islands region (h = N).								
"	7	UPP	iP	12 06						

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986						1986			
July	8	UPP	iP	09 32 49.2 C	July	10	UPP iP	01 25 58.5	
			ipP	09 32 54.5			UME iP	01 25 47.3 C	
			iS	09 42 50			Sichuan Province, China (h = N).		
				micr sec					
			P	Z' 0.2 1.5					
			Mx	Z 7.5 17	"	10	UPP iP	01 43 09.2	
		KIR	iP	09 32 16.7 C			iS	01 53 40	
			ipP	09 32 22.3				micr sec	
				micr sec			Mx	Z 10 24	
			P	Z' 0.3 1.5			KIR	micr sec	
			Mx	Z 2.9 14			Mx	Z 3.0 19	
		UME	iP	09 32 35.9 C			UME iP	01 42 56.0	
			ipP	09 32 40.9			Molucca Passage (h = N). M = 6.0 (UPP,KIR).		
		Southern California.				"	10	UPP iP	02 21 10.8
		h = 15 km (UPP,KIR,UME).						UME iP	02 21 48.8
		m = 6.0, M = 6.0 (UPP,KIR).						Near east coast of Honshu, Japan (h = 80 km).	
"	8	UPP	iP	16 20 01.0	"	10	UPP iP	07 04 00.8	
		UME	iP	16 20 41.5				micr sec	
			ipP	16 20 52.3				P	Z' 0.1 1.0
		Ionian Sea (h = 50 km).						UME eP	07 04 20
"	8	KIR	iP	16 28 51.4			Central Mid-Atlantic Ridge (h = 10 km).		
		UME	iP	16 29 07.1					
		Near s. coast of Honshu, Japan (h = 35 km).				"	10	UPP iP	16 25 30.5
"	8	KIR	iP	20 44 35.3			UME iP	16 25 11.3	
		Kuril Islands (h = 80 km).					Bonin Islands region (h = N).		
"	8	UME	iP	21 10 01.9 C					
"	9	UPP	iP	03 26 45.4	"	10	UME iPKP	18 53 55.8	
		South of Fiji Islands (h = 540 km).					Tonga Islands (h = 230 km).		
"	9	UPP	iP	17 21 17.8	"	10	UPP iP	19 03 04.2	
			i	17 21 31.8			N.W. Iran-USSR border region (h = N).		
				micr sec					
			Mx	Z 1.4 20	"	10	UPP iPKP2	20 56 04.3	
		UME	iP	17 20 52.8			UME iPKP1	20 55 41.4	
		Andreanof Islands, Aleutian Is. (h = 50 km).					i	20 55 47.4	
"	9	UPP	iP	20 35 47.7			Off e. coast of N. Island, N.Z. (h = 250 km).		
		Andreanof Islands, Aleutian Is. (h = 55 km).				"	11	UME iP	00 24 42.1
"	9	UPP	iP	23 24 25.1 C				i	00 24 52.9
			iS	23 34 59			South of Honshu, Japan (h = N).		
				micr sec					
			P	Z' 0.2 1.1	"	11	UME iPKP	07 36 56.4	
			Mx	Z 32 23			South Australia (h = 10 km).		
		KIR		micr sec	"	11	UPP iPKP2	08 48 09.0	
			Mx	Z 27 23			i	08 48 17.0	
		UME	iP	23 24 14.3 C			UME iPKP1	08 47 38.1	
		Molucca Passage (h = 30 km). m = 6.7, M = 6.7 (UPP,KIR).					iPKP2	08 47 46.5	
							(cont.)		

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986	
July	11	(cont.)		July	12
		UME	iPKP1	08 47 43.2	KIR iP 17 07 22.0
			iPKP2	08 47 56.1	N.W. Iran-USSR border region
					(h = 35 km).
					" 13
					KIR iP 00 56 38.8
					Southern Iran (h = 10 km).
"	11	UPP	iP	17 14 02.7	" 13
					UPP iP 09 24 47.0
					iSKS 09 35 05
					iS 09 35 20
					micr sec
					P Z' 0.2 0.7
					Mx Z 4.4 26
		KIR	eP	17 13 36	KIR iP 09 24 34.0
			ipP	17 13 45.2	i 09 24 57.5
					micr sec
					P Z' 1.3 1.6
					Mx Z 3.1 25
					UME iP 09 24 43.2
					Chipas, Mexico (h = 80 km).
					m = 6.5, M = 5.7 (UPP,KIR).
					M uncorrected for focal depth.
					" 13
					KIR iP 09 30 39.9
					Near coast of Chiapas,
					Mexico (h = N).
					" 13
					UPP iPKP 10 04 05.4
					South of Fiji Islands
					(h = 470 km).
					" 13
					UPP iP 13 59 22.1
					micr sec
					P Z' 0.1 1.0
					Mx Z 4.5 22
					KIR iP 13 58 48.8
					micr sec
					P Z' 0.2 0.9
					Mx Z 2.5 15
					UME iP 13 59 08.0
					California-Mexico border
					region (h = 10 km).
					m = 6.0, M = 5.8 (UPP,KIR).
					" 14
					KIR iP 09 19 53.4
					Nicobar Islands region
					(h = N).
					" 14
					UPP iSg1 11 23 25.1
					KIR iPg1 11 20 43.6
					iSg1 11 21 18.2
					UME iPn 11 20 51.3
					iPg1 11 20 58.9
					iSn 11 21 33.2
					iSg1 11 21 46.4
					UDD iSg1 11 23 16.9
					MYV iPn 11 20 55.4
					(cont.)
					" 12
					UPP iPKP1 13 55 36.8
					South of Tonga Islands
					(h = N).
					" 12
					UPP micr sec
					Mx Z 4.4 26
					KIR iP 16 18 29.0
					micr sec
					P Z' 0.1 1.0
					Mx Z 1.5 18
					UME iP 16 18 35.6
					Molucca Passage (h = 40 km).
					M = 5.7 (UPP,KIR).

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1986			1986		
July	14	(cont.) MYV iSn 11 21 34.4 Central Norway, near 66 1/2°N, 14 1/2°E. Origin time = 11 19 55. M <sub>L</sub> (UPP) = 3.0 (0.09) 3.	July	14	UPP iPn 14 46 09.6 iPg1 14 46 15.2 iSg1 14 46 40.0 KIR iSg1 14 50 38.6 UME iSg1 14 48 40.7 UDD iPg1 14 46 00.0 D i 14 46 09.8 iSg1 14 46 22.4 i 14 46 31.0 DEL iPg1 14 46 05.4 i 14 46 14.3 iSg1 14 46 30.0 MYV iPn 14 46 42.6 i 14 47 28.4 iSg1 14 47 50.4 Västergötland, Sweden, 58.5°N, 14.0°E. Origin time = 14 45 32. M <sub>L</sub> (UPP) = 3.4 (0.35) 6. Aftershock. Felt.
"	14	UPP iPn 13 51 13.7 iPg1 13 51 18.9 iSg1 13 51 43.6 KIR iPn 13 52 53.8 iSn 13 54 48.9 iSg1 13 55 37.6 UME iPn 13 52 11.1 i 13 52 15.7 iPg1 13 52 24.8 i 13 52 32.8 iSn 13 53 11.6 iSg1 13 53 44.3 UDD iPg1 13 51 04.0 D iSg1 13 51 26.0 DEL iPg1 13 51 09.2 i 13 51 15.5 i 13 51 18.0 iSg1 13 51 33.9 MYV iPn 13 51 42.4 iPg1 13 51 50.4 eSn 13 52 32 eSg1 13 52 51 Västergötland, Sweden, 58.5°N, 14.0°E. Origin time = 13 50 37. M <sub>L</sub> (UPP) = 4.5 (0.29) 6. Felt in a large part of southern Sweden. Maximum intensity I <sub>0</sub> =VI and the area of perceptibility A = 62.000 km <sup>2</sup> . Minor damages reported from several localities. From Jul. 16 to Sep. 9 the Seismological Department was operating a mobile network in the epicentral area. A total of 21 aftershocks were recorded: see Holmqvist and Wahlström (1987): The July-September 1986 Skövde aftershock sequence, Seismol. Dept., Uppsala, Technical Rept., 12 pp. Our monthly bulletins contain only the events which were recorded by permanent stations.	"	14	UDD i 15 29 13.9 iSg1 15 29 26.9 i 15 29 35.0 Västergötland, Sweden, 58.4°N, 14.0°E. Origin time = 15 28 36. Aftershock. Solution from FOA station readings.
"	14	KIR iP 17 22 49.0 UME iP 17 22 55.5	"	14	KIR iP 20 27 49.8 micr sec P Z' 0.1 1.0 UME iP 20 28 00.6 South of Mariana Islands (h = 25 km).
"	15	UPP iP 02 33 04.1 UME iP 02 33 16.4 Arabian Sea (h = 10 km).	"	15	UPP iSn 18 48 44.7 iSg1 18 49 26.1 UME iPn 18 46 43.7 i 18 46 49.7 iSn 18 47 33.2 iSg1 18 47 48.7 UDD iPn 18 47 17.7 iSn 18 48 34.5 iSg1 18 49 10.0 DEL iSg1 18 50 57.4 (cont.)

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1986					1986						
July	15	(cont.)			July	16	(cont.)				
		MYV	iPn	18 46 40.4			UPP		micr sec		
			iSg1	18 47 42.4			P	Z'	0.3 0.8		
		Off coast of northern Norway, near 67°N, 13°E.					Mx	Z	1.3 11		
		Origin time = 18 45 35.					KIR		micr sec		
		$M_L$ (UPP) = 3.7 (0.22) 8.					Mx	Z	1.1 13		
		Felt.					UME	iP	22 11 52.2 C		
							Northern India (h = N).				
"	15	UPP	iP	23 46 28.9	"	16	UME	iP	23 16 14.3		
		UME	iP	23 46 08.8			North of Svalbard (h = 10 km).				
		South of Honshu, Japan (h = 370 km).					"	17	UPP	iPKP	03 05 28.9
		"	16	UPP	iPg1	01 43 29.2			South of Fiji Island (h = 540 km).		
					iSg1	01 43 35.4					
		UDD	iSg1	01 44 28.3			"	17	UPP	i	03 20 42.7
			iRg	01 44 39.1					iSg1	03 21 03.0	
		Uppland, Sweden, 60.1°N, 17.5°E.							UME	iSg1	03 23 03.5
		Rockburst at the Dannemora iron ore mine.							UDD	iPg1	03 20 22.3
		"	16	UPP	i(PKP)	13 00 27.1			i	03 20 32.1	
					iPKP	13 00 35.9			iSg1	03 20 43.8	
					iPP	13 03 04.3			i	03 20 53.1	
					iSKP1	13 03 55.5			DEL	i	03 20 36.8
						micr sec			iSg1	03 20 54.3	
					PKP	Z' 0.4 1.5			Västergötland, Sweden, 58.5°N, 14.0°E.		
					Mx	Z 14 30			Origin time = 03 19 53.		
		KIR				micr sec			$M_L$ (UPP) = 2.8 1.		
		Mx	Z	2.9 22					Aftershock.		
		UME	i(PKP)	13 00 17.1	"	17	UPP	iP	05 11 47.4		
			iPKP	13 00 26.7			UME	iP	05 12 00.6		
			iSKP1	13 03 41.9			Carlsberg Ridge (h = 10 km).				
		Vanuatu Islands (h = 110 km).					"	17	UPP	iP	15 54 16.6
		M = 6.3 (UPP,KIR).							i	15 56 09.3	
		M uncorrected for focal depth.								micr sec	
"	16	UPP	iSg1	17 52 16.9			P	Z'	0.1 0.9		
		UME	iSg1	17 53 29.3			UME	iP	15 54 15.7		
		UDD	iSg1	17 51 15.1			Afghanistan-USSR border region (h = 45 km).				
		Southern Norway, 59.3°N, 6.8°E.					m = 5.6 (UPP,KIR).				
		Origin time = 17 49 29.					"	17	UPP	iP	18 48 20.7
		$M_L$ (UPP) = 2.5 1.							UME	iP	18 47 53.7
		Solution from Bergen bulletin.					Andreanof Islands, Aleutian Is. (h = N).				
"	16	UPP	iPKP1	21 44 17.4	"	17	UPP	iP	21 11 48.3 C		
		South of Fiji Islands (h = 500 km).								micr sec	
		"	16	UPP	iP	22 11 55.1 C			P	Z' 0.1 1.2	
					iS	22 18 55			UME	iP	21 11 33.8 C
		(cont.)					Southern Nevada.				
							m = 5.8 (UPP,KIR).				
							Underground explosion.				

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1986				1986			
July	17	UPP iP UME iP Carlsberg Ridge (h = 10 km).	23 05 24.1 23 05 37.9	July	19	UPP iP UME iP Fox Islands, Aleutian Islands (h = N).	05 14 59.0 05 14 32.3
"	18	UDD iSg1 Västergötland, Sweden, 58.5°N, 14.0°E. Origin time = 02 30 31. Aftershock.	00 31 21.3	"	19	UPP iP iPcP i iS micr sec P Z' 0.2 0.8 Mx Z 5.6 19	06 10 11.3 D 06 10 40.1 06 10 53.1 06 18 48
"	18	UME iP	03 27 11.7	"	19	KIR Mx Z 3.1 17	micr sec
"	18	UPP iP North of Ascension Island (h = 10 km).	05 56 28.1	"	19	UME iP iPcP Kuril Islands (h = 140 km). m = 6.2, M = 5.7 (UPP,KIR). M uncorrected for focal depth.	06 09 45.7 D 06 10 23.6
"	18	UPP iP UME iP Luzon Philippine Islands (h = 190 km).	06 39 33.6 06 39 22.0	"	19	UPP iP ipP micr sec Mx Z 4.5 22 KIR Mx Z 2.1 17 UME iP Fox Islands, Aleutian Islands (h = N). M = 5.5 (UPP,KIR).	07 04 06.7 07 04 15.9
"	18	UPP iP ipP micr sec KIR pP Z' 0.1 1.2 iP 15 20 23.2 ipP 15 20 27.0 micr sec P Z' 0.1 1.2 pP Z' 0.1 1.3 UME iP 15 20 02.7 ipP 15 20 06.6 Zambia. h = 10 km (UPP,KIR,UME). m = 5.8 (UPP,KIR).	15 19 42.1 15 19 45.6	"	19	UPP eP UME iP	07 32 36 07 32 45.4
"	18	UPP iP KIR iP UME iP Afghanistan-USSR border region (h = 110 km).	15 40 34.8 15 40 41.1 15 40 31.7	"	19	UPP iP P Z' 0.1 0.8 UME iP Fox Islands, Aleutian Islands (h = N).	08 08 15.2 C micr sec
"	18	UPP iP micr sec P Z' 0.2 1.5 KIR iP micr sec P Z' 0.3 1.3 UME iP Venezuela (h = 5 km). m = 6.0 (UPP,KIR).	17 34 44.9 17 34 50.3 17 34 51.5	"	19	UPP iP UME iP Mindoro, Philippine Islands (h = 120 km).	08 38 18.1 08 38 06.3
"	19	UPP iP micr sec P Z' 0.1 1.0 UME iP Fox Islands, Aleutian Islands (h = N). m = 6.0 (UPP,KIR).	04 42 45.8 D 04 42 19.6	"	19	UPP iP UME iP Southern Iran (h = 70 km).	09 20 00.8 09 20 13.4
"	19	UPP iP micr sec P Z' 0.1 1.0 UME iP Fox Islands, Aleutian Islands (h = N). m = 6.0 (UPP,KIR).	04 42 45.8 D 04 42 19.6	"	19	UME iP Molucca Passage (h = 80 km).	09 56 21.3
"	19	UPP iP micr sec P Z' 0.1 1.0 UME iP Fox Islands, Aleutian Islands (h = N).	04 42 45.8 D 04 42 19.6	"	19	UME iP Fox Islands, Aleutian Islands (h = N).	11 41 30.2



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1986				1986					
July	19	UPP	iP	20 22 11.8	July	21	UPP	iPKP	04 36 07.7
		UME	iP	20 22 04.5			UME	iPKP	04 35 49.9
		Tibet (h = N).							
"	19	UME	iP	21 31 06.0	"	21	UPP	iPKP	12 30 38.6
		North of Ascension Island (h = 10 km).					KIR	iPKP	12 30 26.7
							UME	iPKP	12 30 32.8
		Tonga Islands (h = 35 km).							
"	19	UPP	iP	22 43 25.1	"	21	UPP	iP	14 54 17.1 C
				micr sec			ipP	14 54 19.0	
		Mx	Z	3.5 20			iS	15 04 04	
		KIR		micr sec				micr sec	
		Mx	Z	2.1 17			pP	Z' 0.3 1.0	
		UME	iP	22 42 59.0			Mx	Z 14 16	
		Fox Islands, Aleutian Islands (h = N).					KIR	iP	15 53 42.1 C
		M = 5.5 (UPP,KIR).					ipP	15 53 44.1	
								micr sec	
"	19	UPP	iP	22 47 56.8			pP	Z' 0.5 1.2	
		UME	iP	22 47 38.2			Mx	Z 6.0 15	
"	19	UPP	iP	23 11 50.1			UME	iP	14 54 02.2 C
		UME	iP	23 12 00.8			ipP	14 54 04.0	
"	20	UME	eP	02 09 32			California-Nevada border region. h = 5 km (UPP,KIR,UME). m = 6.5, M = 6.2 (UPP,KIR).		
		Fox Islands, Aleutian Islands (h = N).			"	21	UPP	iP	15 02 59.2
"	20	UPP	iP	14 41 39.9 C			KIR	iP	15 02 25.0
			iS	14 51 22			UME	iP	15 02 44.4
				micr sec			California-Nevada border region (h = 10 km).		
		P	Z'	0.2 1.0	"	21	UPP	iP	15 35 14.9
		Mx	Z	5.4 19			KIR	iP	15 34 20.4
		KIR		micr sec					micr sec
		Mx	Z	2.8 16			P	Z' 0.1 0.9	
		UME	iP	14 41 24.5			UME	iP	15 34 49.0
		California-Nevada border region (h = 10 km).					Kodiak Island region (h = N).		
		m = 6.2, M = 5.8 (UPP,KIR).			"	21	KIR	iP	15 56 23.8
"	20	UPP	iP	16 03 39.1			UME	iP	15 56 46.1
		Southern Iran (h = 10 km).					Northwest of Kuril Islands (h = 320 km).		
"	20	UPP	iPKP1	17 47 29.5	"	21	KIR	iP	22 12 04.8
		South of Fiji Islands (h = 660 km).					UME	iP	22 12 26.0
"	20	UPP	iPKP	18 27 52.0			Sea of Okhotsk (h = 480 km).		
		UME	iPKP	18 28 00.2	"	21	UPP	iP	22 19 07.7
		South Atlantic Ridge (h = 10 km).					ipP	22 19 10.7	
"	20	UME	iP	19 54 24.0				micr sec	
		Kodiak Island region (h = 90 km)					pP	Z' 0.1 1.1	
							Mx	Z 1.1 16	
"	20	UPP	eP	21 37 56			KIR	iP	22 18 33.2
		UME	iP	21 37 33.1			ipP	22 18 36.0	
		Alaska Peninsula (h = N).							micr sec
							pP	Z' 0.1 1.2	
							Mx	Z 0.7 13	

(cont.)

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1986				1986			
July	21	(cont.)		July	24	KIR iP	03 15 07.0
		UME iP	22 18 53.0				Kodiak Island region (h = N).
		ipP	22 18 55.7	"	24	KIR iPKP	06 32 46.2
		California-Nevada border region.				UME iPKP	06 32 53.0
		h = 10 km (UPP,KIR,UME).					Vanuatu Islands (h = 140 km).
		m = 5.8, M = 5.2 (UPP,KIR).		"	24	UPP iP	14 14 25.6
"	22	UPP iP	01 02 15.1			KIR eP	14 13 32
		KIR eP	01 03 03				Andreanof Islands, Aleutian Is. (h = N).
		UME iP	01 02 48.5	"	24	UPP iP	16 21 58.3
		Madeira Islands region (h = 10 km).				KIR iP	16 21 26.6
"	22	UPP iPKP1	02 32 36.2			UME iP	16 21 40.4
		KIR iPKP1	02 32 15.7				Bonin Islands region (h = 510 km).
		UME iPKP1	02 32 26.8	"	24	UPP iP	17 49 23.9
		South of Kermadec Islands (h = N).				ipP	17 49 34.5
"	22	UME iSn	07 51 37.6			KIR eP	17 50 44
		Lake Ladoga, USSR, 66.2°N, 31.1°E.					Ionian Sea (h = N).
		Origin time = 07 48 59.		"	25	UPP iP	09 12 32.8
		M <sub>L</sub> (UPP) = 2.4 1.				iS	09 21 32
		Solution from Finnish station readings.					micr sec
"	22	UPP ePKP1	16 09 57			P	Z' 0.1 0.9
		UME iPKP1	16 09 48.6			Mx	Z 2.6 16
		South of Kermadec Islands (h = N).				KIR iP	09 11 39.2
"	22	UPP iP	23 45 49.3			iPcP	09 12 24.3
		Ionian Sea (h = 30 km).					micr sec
"	23	UPP iP	00 19 42.6			Mx	Z 2.1 16
		Andreanof Islands, Aleutian Is. (h = N).				UME iP	09 12 06.1
"	23	UPP iP	03 58 41.5			iPcP	09 12 41.1
		KIR eP	03 57 48				Andreanof Islands, Aleutian Is. (h = N).
		Andreanof Islands, Aleutian Is. (h = N).					M = 5.5 (UPP,KIR).
"	23	KIR iPKP2	07 56 10.5	"	25	UPP iP	09 15 17.0
		Balleny Islands region (h = 10 km).					micr sec
"	23	UPP eP	08 24 20			P	Z' 0.1 0.9
			micr sec			KIR iP	09 14 26.0
		Mx Z	0.9 10			iPcP	09 15 08.9
		KIR eP	08 25 43				micr sec
			micr sec			P	Z' 0.1 1.0
		Mx Z	0.6 10			UME iP	09 14 50.3
		UME iP	08 24 57.8			iPcP	09 15 25.1
		Southern Italy (h = 15 km).					Andreanof Islands, Aleutian Is. (h = N).
"	23	UPP eP	08 24 20				m = 5.9 (UPP,KIR).
			micr sec	"	25	UPP iP	10 15 52.8
		Mx Z	0.9 10			iPP	10 17 31.6
		KIR eP	08 25 43			KIR iP	10 16 22.6
			micr sec			iPP	10 18 18.1
		Mx Z	0.6 10			UME iP	10 16 03.1
		UME iP	08 24 57.8				Southern Iran (h = 35 km).
		Southern Italy (h = 15 km).					

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986							
Month	Day	Station	Time	Month	Day	Station	Time				
July	25	UPP	iPKP1	22 12 09.3	July	26	UPP	iPKP1	06 23 39.5		
			iPKP2	22 12 15.2				iPKP2	06 23 47.0		
		KIR	ePKP1	22 11 54				UME	iPKP1	06 23 27.7	
		UME	iPKP1	22 11 57.0				Kermadec Islands (h = N).			
		Kermadec Islands region (h = N).					26	UPP	iPKP2	08 22 23.6	
						UME		iPKP1	08 22 03.9		
	"	25	UPP	iP		23 38 23.0		Kermadec Islands region (h = N).			
			KIR	ipP		23 38 14.2		26	UPP	iP	09 23 47.0
		South of Mariana Islands (h = N).					Southern Greece (h = 60 km).				
	"	25	UPP	iP		23 52 54.6	"	26	UPP	iPKP1	12 02 55.0
				ipP		23 53 06.6				iPKP2	12 03 03.1
				iS		24 02 36				KIR	ePKP1
				micr sec		UME			iPKP1	12 02 43.5	
			Mx	Z	24 13				Kermadec Islands (h = N).		
			KIR	iP	23 52 29.1				26	KIR	iP
			ipP	23 52 39.2							micr sec
				micr sec						P	Z' 0.1 0.6
		Mx	Z	17 14		UME		iP		14 55 56.0 D	
		UME	iP	23 52 38.2		Near e. coast of eastern USSR (h = 310 km).					
			ipP	23 52 49.9		26		KIR		iPKP	15 09 07.1
		Northeast of Taiwan. h = 40 km (UPP,KIR,UME). M = 6.6 (UPP,KIR).						UME	iPKP1	15 09 10.6	
"	26	UPP	ePKP	00 35 12		Kermadec Islands (h = N).					
		UME	ePKP	00 34 56		26	UME	iPKP1	18 27 16.2		
"	26	UPP	iPKP1	01 39 31.0			Kermadec Islands (h = N).				
			iPKP2	01 39 40.1		26	UPP		micr sec		
		UME	iPKP1	01 39 19.7			Mx	Z	1.1 17		
	Kermadec Islands (h = N).				KIR	iP	20 35 08.4				
"	26	UPP	iSg1	01 40 42.6			ipP	20 35 15.4			
		UDD	iSg1	01 41 09.4				micr sec			
		Södermanland, Sweden, 58.9°N, 16.6°E.					Mx	Z	1.5 18		
		Origin time = 01 40 11.				UME	iP	20 35 07.1			
		By combination with Finnish station readings.				Burma-India border region (h = 25 km). M = 5.2 (UPP,KIR).					
							27	UME	iPKP1	04 50 09.6	
	"	26	UPP	ePKP1	01 48 18			Kermadec Islands (h = N).			
			UME	ePKP1	01 48 05			27	UME	iP	06 24 46.7
		Kermadec Islands (h = N).				Near s. coast of Honshu, Japan (h = 130 km).					
	"	26	UPP	iPKP1	01 48 32.8			27	UME	iPKP1	06 49 48.8
			KIR	iPKP	01 48 18.4				South of Kermadec Islands (h = N).		
			UME	iPKP1	01 48 21.6		27	KIR	ePKP	11 02 24	
	Kermadec Islands (h = N).					i		11 02 28.4			
"	26	UME	iPKP1	02 11 11.2			iSKP1	11 05 55.0			
		Kermadec Islands region (h = N).				(cont.)					
"	26	UPP	iPKP2	04 52 53.3							
		UME	iPKP1	04 52 40.4							
	Kermadec Islands (h = N).										

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1986		1986	
July	27	July	28
	(cont.)		(cont.)
	UME iPKP 11 02 29.1		Near coast of central Chile
	i 11 02 32.3		(h = 40 km).
	iSKP1 11 06 05.1		M = 5.7 (UPP,KIR).
	South of Fiji Islands		
	(h = 150 km).	"	28 UPP iP 22 08 10.8
"	27 KIR iPKP1 13 17 46.0		micr sec
	UME iPKP1 13 17 56.6		P Z' 0.1 0.9
	South of Kermadec Islands		Mx Z 1.4 20
	(h = N).		KIR iP 22 07 17.8
"	27 KIR iP 15 47 31.4		micr sec
	UME iP 15 47 34.1		P Z' 0.1 0.8
	Dominican Republic region		UME iP 22 07 44.1
	(h = 45 km).		Andreanof Islands, Aleutian
"	28 KIR iPKP1 24 07 03.9		Is. (h = N).
	UME iPKP1 24 07 12.7		m = 5.9 (UPP,KIR).
	South of Kermadec Islands	"	28 UPP iP 23 40 16.8
	(h = N).		KIR iP 23 39 23.4
"	28 KIR iP 01 28 13.7		Andreanof Islands, Aleutian
	Tibet (h = N).		Is. (h = N).
"	28 KIR iP 04 16 56.2 D	"	29 UPP eP 03 23 37
	iPcP 04 17 41.7		KIR iP 03 24 25.0
	micr sec		Iran-Iraq border region
	P Z' 0.1 0.9		(h = 15 km).
	UME iP 04 17 22.6 D	"	29 UPP iPKP 08 34 08.3
	iPcP 04 17 57.9		KIR iPKP 08 34 01.0
	Andreanof Islands, Aleutian		UME iPKP 08 34 08.9
	Is.		Tonga Islands (h = 110 km).
	m = 6.0 (UPP,KIR).	"	29 KIR iPKP 12 15 50.1
"	28 KIR iP 05 11 59.1		Fiji Islands region
	Fox Islands, Aleutian		(h = 560 km).
	Islands (h = N).	"	29 UPP iP 18 36 44.8
"	28 UPP iP 08 15 39.5		KIR iP 18 35 59.1
"	28 UPP eP 20 58 24		UME iP 18 36 19.0
	micr sec		Kuril Islands (h = 70 km).
	Mx Z 2.2 18	"	30 UPP iP 02 18 40.5
	KIR iP 20 57 16.7		micr sec
	micr sec		P Z' 0.1 0.8
	P Z' 0.1 0.6		Mx Z 0.9 13
	Mx Z 1.2 12		KIR iP 02 19 38.8
	UME iP 20 57 51.7		micr sec
	Jan Mayen Islands region		P Z' 0.1 0.7
	(h = 10 km).		Mx Z 0.8 12
"	28 UPP 21 39		UME eP 02 19 05
	micr sec		Cyprus (h = 35 km).
	Mx Z 1.5 19		m = 5.7, M = 4.6 (UPP,KIR).
	KIR 21 46	"	30 UME iP 03 17 09.6
	micr sec		Banda Sea (h = 150 km).
	Mx Z 1.1 18	"	30 KIR iP 04 11 53.2
	(cont.)		UME iP 04 11 45.8
			Eastern Kashmir (h = N).

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1986						1986			
July	30	KIR	iP	06 07 58.3		July	31	(cont.)	
		UME	iP	06 08 09.9				KIR	iP
		Mariana Islands (h = 80 km).						UME	iP
								Taiwan region (h = N).	
"	30	UPP	iP	11 43 33.4	C	"	31	UPP	iP
				micr	sec			UME	iP
			P	Z'	0.3 1.0			Bonin Islands region	
			Mx	Z	13 16			(h = 50 km).	
		KIR	iP	11 43 08.8					
				micr	sec				
			P	Z'	0.2 1.1				
			Mx	Z	2.0 14				
		UME	iP	11 43 17.6					
		Taiwan (h = N).							
		m = 6.2, M = 6.0 (UPP,KIR).							
"	30	KIR	iPKP	15 37 27.3					
		UME	iPKP	15 37 33.9					
		Santa Cruz Islands (h = N).							
"	30	UPP	iSg1	22 32 03.4					
		UME	eSg1	22 33 18					
		UDD	iPg1	22 30 41.2					
			i	22 30 45.1					
			iSg1	22 31 01.1					
		DEL	iSg1	22 32 19.1					
		MYV	iSg1	22 31 58.6					
		Southern Norway, near 60°N, 10 1/2°E.							
		Origin time = 22 30 14.							
		M <sub>L</sub> (UPP) = 21. 1.							
"	30	KIR	ipP	23 14 15.5					
		UME	ipP	23 14 19.7					
		Dominican Republic region (h = 90 km).							
"	30	UPP	Mx	24 09					
				micr	sec				
			Mx	Z	1.9 20				
		Southwest of Africa (h = 10 km).							
"	31	UPP	iP	07 34 32.1				March 7, 1988	
				micr	sec				
			Mx	Z	2.2 18			Conny Holmqvist	
		KIR	iP	07 33 56.7				Fekadu Kebede	
				micr	sec			Ota Kulhánek	
			P	Z'	0.1 1.0				
		UME	iP	07 34 16.6					
		California-Nevada border region (h = 5 km).							
"	31	UPP	iP	11 48 18.7					
				micr	sec				
			Mx	Z	3.3 13				
		(cont.)							



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1986				1986			
Aug.	3	(cont.)		Aug.	5	UPP iP	05 28 09.7
		UPP	micr sec			New Siberian Islands	
		Mx	Z 3.8 23			(h = 10 km).	
		KIR iP	13 39 17.2	"	5	UPP iP	06 01 32.9
		iPcP	13 40 02.5	"	5	UPP iP	10 55 51.7
		UME iPcP	13 40 18.0			micr sec	
		Andreanof Islands, Aleutian				Mx Z 0.7 11	
		Is. (h = N).				Ionian Sea (h = 10 km).	
"	3	UPP iP	20 19 21.6	"	5	UME iP	16 10 02.5
		Andreanof Islands, Aleutian				Carlsberg Ridge (h = 10 km).	
		Is. (h = N).				Lake arrival when compared	
"	4	UPP iP	10 59 16.5			with the NEIC solution.	
		UME iP	10 55 47.0 C	"	5	KIR iP	16 10 17.3
		Hokkaido, Japan region					
		(h = 35 km).		"	5	UPP iP	17 52 28.0
"	4	UPP iP	13 39 08.0 C			KIR iP	17 52 14.5 C
		micr sec				micr sec	
		P Z' 0.1 1.0				P Z' 0.2 1.1	
		KIR iP	13 38 15.6 C			UME iP	17 52 23.0
		micr sec				Chiapas, Mexico (h = 140 km).	
		P Z' 0.1 1.0		"	5	KIR iP	17 59 45.5
		UME iP	13 38 40.2 C			UME iP	17 59 31.3
		Off east coast of Kamchatka				Carlsberg Ridge (h = 10 km).	
		(h = N).		"	5	UME iP	18 40 41.7
		m = 5.8 (UPP,KIR).				Banda Sea (h = 130 km).	
"	4	UME iP	14 46 51.6	"	5	UPP iP	20 04 13.8
"	4	KIR iSn	19 58 19.7			UME iP	20 04 37.3
		iSg1	19 58 35.7			Turkey (h = 10 km).	
		UME iSn	19 58 27.2	"	5	UPP iP	21 08 54.9
		MYV iPn	19 56 52.4			KIR iP	21 08 03.8
		iSn	19 57 45.6			UME iP	21 08 27.3
		Norwegian Sea, near 66 1/4°N,				Sea of Okhotsk (h = 510 km).	
		11 1/2°E.		"	6	UPP iPKP1	00 34 20.1
		Origin time = 19 55 40.				UME iPKP1	00 34 09.4
		M <sub>L</sub> (UPP) = 2.6 1.				South of Kermadec Islands	
"	4	KIR iP	21 29 09.4			(h = N).	
"	4	UPP iP	22 45 34.6 C	"	6	UPP iPKP	10 13 18.4
		i	22 45 45.6			South of Fiji Islands	
		micr sec				(h = 550 km).	
		P Z' 0.2 0.9		"	6	UPP iP	20 05 32.3
		Mx Z 2.0 21				i	20 05 36.1
		KIR iP	22 44 46.7			micr sec	
		micr sec				i Z' 0.3 1.3	
		P Z' 0.1 0.9				Mx Z 2.3 19	
		UME iP	22 45 08.4 C			UME i	20 05 23.8
		Kuril Islands (h = N).				Sichuan Province, China	
		m = 6.1 (UPP,KIR).				(h = 35 km).	

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1986				1986			
Aug.	7	UPP iPKP1 UME iPKP1 Kermadec Islands (h = N).	07 08 50.5 C 07 08 38.6 C	Aug.	8	UPP iP KIR iP UME iP Turkey (h = 10 km).	18 57 12.9 18 58 06.2 18 57 32.3
"	7	UPP iP P Z' KIR iP UME iP Andaman Islands region (h = N). Late arrivals when compared with NEIC solutions.	12 21 58.5 micr sec 0.2 1.2 12 21 58.5 12 21 54.5	"	8	UPP iP KIR iP UME iP Andreanof Islands, Aleutian Is. (h = N).	21 54 58.6 21 54 05.7 21 54 32.3
"	7	UPP iP KIR iP Tibet (h = N).	18 27 41.5 18 27 40.8	"	9	UPP iP P Z' KIR iP UME iP Luzon, Philippine Islands (h = 80 km).	01 05 35.4 C micr sec 0.2 0.8 01 05 18.7 01 05 24.0 C
"	7	UPP iP KIR iP UME eP Tibet (h = N).	18 29 06.2 18 29 05.5 18 28 59	"	9	UPP iP	05 05 44.6
"	7	UPP iP iSKS Mx Z KIR iP UME iP Panama (h = 10 km).	22 45 43.6 22 56 06 micr sec 2.0 19 22 45 42.3 22 45 43.7	"	9	UPP iP P Z' KIR iP P Z' UME iP Southern Iran (h = N). m = 5.6 (UPP,KIR).	06 45 10.7 micr sec 0.1 1.4 06 45 46.1 C micr sec 0.2 1.3 06 45 24.4
"	8	UME iPKP Vanuatu Islands (h = 160 km).	03 27 34.9	"	9	KIR iP Bonin Islands region (h = 25 km).	15 55 38.2
"	8	UPP iP KIR iP UME iP Southern Iran (h = N).	08 39 18.1 08 39 48.3 08 39 27.6	"	10	KIR iSn iSg1 Northern Finland, 69.2 <sup>o</sup> N, 27.2 <sup>o</sup> E. Origin time = 04 30 08. M <sub>L</sub> (UPP) = 2.6 1. Solution from Finnish station readings.	04 31 16.7 04 31 20.2
"	8	UPP iP Carlsberg Ridge (h = 10 km).	16 29 11.3	"	10	UPP iP i(PP) iPP P Z' Mx Z KIR iP iPP P Z' Mx Z	04 54 15.9 C 04 58 03.1 04 58 22.2 micr sec 0.4 1.3 1.8 17 04 53 59.3 C 04 57 53.2 micr sec 1.5 1.5 1.1 13
"	8	UPP iSg1 KIR eSg1 UME iSg1 UDD iPg1 iSg1 DEL iSg1 MYV i iSg1 Southwestern Norway, near 61 <sup>o</sup> N, 6 1/2 <sup>o</sup> E. Origin time = 17 06 35. M <sub>L</sub> (UPP) = 2.8 (0.44) 2. Felt.	17 09 29.5 17 11 26 17 10 14.2 17 07 38.6 17 08 24.8 17 09 36.2 17 07 55.8 17 08 46.6	"	10		

(cont.)



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1986				1986			
Aug.	10	(cont.)		Aug.	11	(cont.)	
		UME	iP 04 54 05.3 C			UME	iP 08 17 25.7
			i(PP) 04 57 16.3			Taiwan region (h = 120 km).	
			iPP 04 57 58.8			m = 6.0 (UPP,KIR).	
		Halmahera (h = 100 km).			"	11	UPP iP 09 47 53.1
		m = 7.0, M = 5.6 (UPP,KIR).					KIR iP 09 47 32.4
		(PP) denoted early PP					UME iP 09 47 40.3
		arrivals.				Philippine Islands region	
		M uncorrected for focal				(h = N).	
		depth.					
"	10	UPP	iP 05 47 52.5	"	11	UPP	iP 10 50 03.4 C
		KIR	iP 05 47 54.5				micr sec
		Kashmir-Xinjiang border					P Z' 0.1 1.0
		region (h = N).					Mx Z 2.4 15
"	10	KIR	iPKP 06 00 39.4			KIR	iP 10 49 42.6 C
		Solomon Islands (h = N).					micr sec
							P Z' 0.3 1.2
							Mx Z 1.0 14
"	10	KIR	iSg1 06 44 28.1			UME	iP 10 49 49.6 C
		Northern Norway, near 69°N,				Philippine Islands region	
		24°E.				(h = N).	
		Origin time = 06 43 33.				m = 6.0, M = 5.5 (UPP,KIR).	
		By combination with Finnish		"	11	KIR	eP 17 14 07
		station readings.				Molucca Passage (h = 120 km).	
"	10	UPP	iP 09 01 48.7	"	11	UPP	iP 19 53 59.8
		KIR	iP 09 01 05.4			KIR	iP 19 54 43.0
		UME	iP 09 01 23.6			UME	iP 19 54 24.4
		Honshu, Japan (h = 20 km).				North of Ascension Island	
"	10	KIR	iP 11 20 57.9			(h = 10 km).	
		Southern Sumatera		"	11	KIR	iP 20 08 57.0
		(h = 120 km).					micr sec
"	10	UPP	eP 14 25 35				P Z' 0.1 1.0
		UME	iP 14 25 14.9			Sichuan Province, China	
		South of Honshu, Japan				(h = 45 km).	
		(h = 60 km).		"	11	KIR	iP 23 47 05.4
"	10	UPP	i 17 53 38.6				i 23 47 08.2
		KIR	iP 17 54 19.6			Southern Sumatera	
			i 17 54 27.6			(h = 55 km).	
		Turkey (h = 45 km).		"	12	UPP	micr sec
"	11	KIR	iP 02 39 39.0			Mx	Z 1.5 22
		Sichuan Province, China				UME	iP 04 20 24.4
		(h = N).				South of Panama (h = 10 km).	
"	11	KIR	iPKP 03 09 35.7			Late arrival when compared	
		Vanuatu Islands (h = 25 km).				with the NEIC solution.	
"	11	UPP	iP 08 17 40.1	"	12	UPP	iP 05 21 44.0
			micr sec				micr sec
			P Z' 0.3 0.8				P Z' 0.1 1.5
		KIR	iP 08 17 18.0			KIR	iP 05 21 44.2
			micr sec				micr sec
			P Z' 0.2 1.0				P Z' 0.1 1.5
		(cont.)				(cont.)	

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1986				1986			
Aug.	12	(cont.) UME iP	05 21 41.6	Aug.	14	KIR eP UME iP	07 18 20 07 18 39.5
		Northern Sumatera (h = 45 km). m = 5.9 (UPP,KIR).				Hokkaido, Japan region (h = 100 km).	
"	12	UDD iSg1	08 49 22.9	"	14	UPP iPKP2 UME iPKP1	13 10 38.4 13 10 21.8
		Southern Norway, 59.3°N, 6.7°E. Origin time = 08 47 35. Solution from Bergen bulletin.				Kermadec Islands (h = N).	
"	12	UPP iP	10 56 22.6	"	14	KIR iP	14 38 57.6
			micr sec	"	14	KIR iP	16 08 24.0
		P	Z' 0.1 0.9	"	14	KIR iP	16 17 54.8
		Mx	Z 1.2 18	"	14	KIR iP	16 17 54.8
		Sichuan Province, China (h = 10 km).		"	14	UPP iP	19 52 45.5
"	12	UPP iP	12 49 20.0	"	14	i	19 52 49.8
		KIR iP	12 48 27.6			iSKS	20 03 19
		Northwest Territories, Canada (h = 10 km).				iS	20 04 04
"	13	KIR iP	00 39 16.4				micr sec
		Sichuan Province, China (h = N).				P	Z' 0.5 1.4
"	13	KIR iP	02 42 14.2			Mx	Z 218 26
		Sichuan Province, China (h = N).				KIR iP	19 52 30.6 C
"	13	UPP i	04 24 47.7			i	19 52 35.2
		KIR iP	04 24 37.9			iS	20 03 45.2
		UME iP	04 24 44.8				micr sec
		South of Panama (h = 10 km).				P	Z' 0.5 1.3
"	13	UPP iP	04 48 13.4			i	Z' 1.4 1.5
			micr sec			Mx	Z 102 26
		P	Z' 0.1 1.1			UME iP	19 52 35.0
		Mx	Z 1.2 18			i	19 52 38.6
		KIR iP	04 47 19.4			Molucca Passage (h = N). m = 7.0, M = 7.4 (UPP,KIR). Double P, small and large, in average 4.1 s apart. The second arrival, when interpreted as pP, provides a focal depth of 15 km.	
		UME iP	04 47 44.5	"	14	KIR iP	20 25 09.8
		Off east coast of Kamchatka (h = N).					micr sec
"	13	UPP iP	11 21 47.3			P	Z' 0.1 1.0
		UME iP	11 22 29.1			Molucca Passage (h = N).	
		Ionian Sea (h = 40 km).		"	14	UPP iPKP1	21 07 55.3
"	13	UPP ipP	15 40 03.7			KIR iPKP	21 07 35.2
		KIR iP	15 39 51.8			UME iPKP1	21 07 44.5
		ipP	15 40 07.1			South of Kermadec Islands (h = N).	
		UME iP	15 39 53.7	"	14	KIR eP	21 21 19
		ipP	15 40 09.7			Molucca Passage (h = N).	
		Northern Colombia. h = 55 km (KIR,UME).					

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1986				1986			
Aug.	14	KIR iP	21 29 30.7	Aug.	15	(cont.)	
		Molucca Passage	(h = N).			UME iP	20 29 59.8 C
						Northeastern China	(h = N).
"	14	KIR eP	22 54 21	"	15	UPP i(PKP)	23 53 20.6
		Molucca Passage	(h = N).			iPKP	23 53 22.5
"	14	KIR iP	23 08 22.3			KIR iPKP	23 53 10.6
			micr sec			UME i(PKP)	23 53 03.4
		P Z'	0.1 1.4			iPKP	23 53 19.0
		UME i	23 08 37.8			South of Fiji Islands	
		Molucca Passage	(h = N).			(h = 550 km).	
"	14	KIR iP	23 33 11.0	"	16	KIR iP	00 19 28.7 C
		i	23 33 22.7			UME iP	00 19 23.3
		Molucca Passage	(h = N).			Southern Xinjiang, China	
						(h = N).	
"	14	UME iPKP1	23 45 09.7	"	16	UPP iP	06 44 51.0
		Kermadec Islands region				KIR iP	06 46 13.8
		(h = N).				i	06 46 20.3
"	15	UPP iPKP1	00 51 28.3			UME iP	06 45 33.3
		KIR iPKP1	00 51 07.6			Romania (h = 160 km).	
		UME iP	00 51 17.8 C	"	16	KIR iP	14 53 33.8
		South of Kermadec Islands				Molucca Passage	(h = N).
		(h = N).					
"	15	KIR iP	00 55 07.6	"	16	UME iP	16 43 39.4
		Timor (110 km).				Honshu, Japan	(h = 230 km).
"	15	KIR iP	01 30 25.5	"	16	UPP iP	17 32 56.4
		Molucca Passage	(h = N).			iS	17 43 34
"	15	KIR iP	06 48 22.9			micr sec	
		Molucca Passage	(h = N).			Mx Z	7.3 26
"	15	KIR iP	07 26 28.9			KIR iP	17 32 39.4
		Molucca Passage	(h = N).			micr sec	
						P Z'	0.4 2.2
						Mx Z	3.8 18
"	15	UPP iP	07 54 19.0			UME iP	17 32 46.5
			micr sec			Molucca Passage	(h = N).
		Mx Z	4.5 25			M = 6.0 (UPP,KIR).	
		KIR iP	07 54 00.9	"	16	UPP iPKP1	20 43 36.3 C
			micr sec			PKP1 Z'	0.2 0.8
		P Z'	0.2 1.3			KIR i(PKP)	20 43 17.8
		Mx Z	2.4 17			iPKP	20 43 24.6
		UME iP	07 54 05.9			UME i(PKP)	20 43 22.9
		Molucca Passage	(h = N).			South of Fiji Islands	
		M = 5.8 (UPP,KIR).				(h = 600 km).	
"	15	KIR iP	16 33 33.5	"	16	UPP iP	21 22 00.4
		Molucca Passage	(h = N).			micr sec	
"	15	UPP iP	20 30 24.1			Mx Z	4.0 28
		KIR iP	20 29 41.1 C			KIR iP	21 21 44.8 C
		iPP	20 31 38.4			micr sec	
			micr sec			P Z'	0.1 1.0
		P Z'	0.1 1.0			Mx Z	1.7 19
		(cont.)				(cont.)	

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1986				1986			
Aug.	16	(cont.) UME iP	21 21 50.1 C	Aug.	17	KIR iP	16 28 06.5
		Molucca Passage (h = N).				Molucca Passage (h = N).	
		M = 5.7 (UPP,KIR).		"	17	KIR iP	16 34 16.4
"	16	KIR eP	22 52 38			P Z'	0.1 1.1
		Molucca Passage (h = N).				Molucca Passage (h = N).	
"	16	KIR eP	22 55 10	"	17	KIR iP	17 12 03.9
		Burma (h = 100 km).				Molucca Passage (h = N).	
"	17	UPP iP	04 10 36.7	"	17	KIR iP	18 47 48.0
		Dodecanese Islands				Molucca Passage (h = N).	
		(h = 150 km).		"	17	KIR iP	21 32 58.0
"	17	KIR iP	04 46 29.9			Luzon, Philippine Islands	
		Molucca Passage (h = N).				(h = 45 km).	
"	17	KIR iP	06 20 59.5	"	18	UPP iPKP	02 19 23.0
		UME iP	06 20 39.2			Mx Z	3.3 20
		North of Ascension Island				KIR iPKP	02 19 06.7
		(h = 10 km).				Mx Z	2.6 21
"	17	KIR iP	10 39 52.2			UME iPKP	02 19 14.8
		UME iP	10 39 58.0			Tonga Islands (h = 20 km).	
		Molucca Passage (h = N).				M = 6.0 (UPP,KIR).	
"	17	UPP iP	11 06 02.6	"	18	UPP iP	14 29 47.5
		KIR iP	11 05 26.4			Mx Z	2.0 21
		UME iP	11 06 42.3			KIR iP	14 29 31.0
		Near s. coast of Honshu,				P Z'	0.1 1.4
		Japan (h = 130 km).				UME iP	14 29 39.5
"	17	UPP iP	15 41 12.9			Molucca Passage (h = N).	
		iS	15 52 35	"	19	UPP iP	00 40 42.0
		micr sec				KIR iP	00 40 23.8
		Mx Z'	9.4 21			P Z'	0.2 1.2
		KIR iP	15 40 56.9			UME iP	00 40 29.8
		micr sec				Mindanao, Philippine Islands	
		P Z'	0.2 1.0			(h = N).	
		Mx Z	9.6 23				
		UME iP	15 41 02.7	"	19	UPP iP	02 36 22.5
		Molucca Passage (h = 30 km).				KIR iP	02 35 52.9
		M = 6.3 (UPP,KIR).				Ryukyu Islands (h = N).	
"	17	UPP iP	15 44 51.9	"	19	UPP iP	22 54 12.1
		KIR iP	15 44 36.1			KIR iP	22 53 54.7
		micr sec				UME iP	22 54 01.0
		P Z'	0.2 1.2			Samar, Philippine Islands	
		UME iP	15 44 41.3			(h = 100 km).	
		Molucca Passage (h = N).		"	20	KIR iP	04 58 29.9
"	17	KIR iP	16 05 24.6			Unimak Island region (h = N).	
		micr sec					
		P Z'	0.1 1.2				
		UME iP	16 05 29.6				
		Molucca Passage (h = N).					

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1986				1986				
Aug.	20	UPP	iP	05 33	06.7	Aug.	20	(cont.)
		KIR	iP	05 33	04.3			Mx Z 40 13
		Southern Xinjiang, China (h = N).						UME iP 21 32 59.1
"	20	UPP		micr	sec			Qinghai Province China, (h = N). m = 6.0, M = 6.9 (UPP,KIR).
		Mx	Z	0.9	17			
		KIR		micr	sec	"	20	UPP iP 22 13 24.0
		Mx	Z	0.4	16			i 22 13 47.4
		UME	iPKP	07 23	28.2			KIR iP 22 12 47.8
		New Britain region (h = 80 km). M = 5.7 (UPP,KIR). M uncorrected for focal depth.						i 22 13 12.2
"	20	UPP	iP	07 34	09.7			UME iP 22 13 03.6
		KIR	iP	07 34	42.3			i 22 13 27.1
		UME	iP	07 34	30.8			South of Honshu, Japan. h = 90 km (UPP,KIR,UME).
"	20	UME	iP	08 14	17.7	"	20	UPP iP 22 41 20.1
"	20	UPP	i(PKP)	10 28	41.8			KIR eP 22 41 11
		UME	iPKP	10 28	43.2			UME iP 22 41 12.2
		Tonga Islands (h = N).						Qinghai, Province, China (h = N).
"	20	UPP	iP	12 50	22.1	"	21	KIR iP 01 35 53.5
"	20	UPP	iP	18 29	09.3			Northern Colombia (h = 10 km).
		KIR	iP	18 28	54.0	"	21	UPP iP 01 41 39.4 C
		UME	iP	18 28	59.3			micr sec
		Molucca Passage (h = N).						P Z' 0.1 0.7
"	20	KIR	iP	19 02	53.6			KIR iP 01 41 48.0 C
		Northwest Territories, Canada (h = 10 km).						micr sec
"	20	UPP	iP	21 28	03.7			P Z' 0.4 1.1
			i	21 28	15.5			UME iP 01 41 37.4 C
			i	21 28	22.1			i 01 42 25.9
		KIR	iP	21 28	14.4 C			i 01 51 03.1
			i	21 28	24.7			Afghanistan-USSR border region (h = 240 km). m = 5.6 (UPP,KIR).
			i	21 28	31.3	"	21	UPP iP 03 12 02.4
		UME	iP	21 28	06.1 C			Bonin Islands region (h = 470 km).
			i	21 28	17.0	"	21	UME iPdiff 03 12 43.7
			i	21 28	23.2			Salta Province, Argentina (h = 190 km).
		South Indian Ocean (h = 10 km).						"
"	20	UPP	iP	21 33	10.3	"	21	UPP iPKP2 04 28 40.5
			iS	21 40	38			KIR iPKP1 04 28 12.1
				micr	sec			UME iPKP1 04 28 19.1
		P	Z'	0.2	1.0			South of Kermadec Islands (h = N).
		Mx	Z	88	13	"	21	UPP iP 06 47 32.8
		KIR	iP	21 32	59.1			UME iP 06 47 03.6 C
			iPP	21 35	03.9			Near east coast of Kamchatka (h = N).
				micr	sec			
		P	Z'	0.2	1.4			
		(cont).						

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1986				1986										
Aug.	21	UPP	iP	18 37	11.5	Aug.	24	UPP	iPKP1	00 07	38.5			
		KIR	iPn	18 35	27.2				Mx	Z	12 25			
			iTPg	18 40	28.7			KIR	iPKP1	00 07	21.9			
			iTSg	18 41	01.3						micr sec			
		UME	iP	18 36	17.0				Mx	Z	4.7 21			
			iSn	18 38	08.2			UME	iPKP1	00 07	28.5			
			iTSg	18 43	02.1				i	00 07	35.6			
		Greenland Sea (h = 10 km). Distinct T-phases in KIR and UME records.							South of Kermadec Islands (h = 30 km). M = 6.5 (UPP,KIR).					
"	22	UPP	iP	13 48	49.3	"	24	KIR	iP	02 01	41.2			
			Mx	Z	0.9 11			Eastern Caucasus (h = N).						
		KIR			micr sec			"	24	KIR	iP	02 45	46.1	
			Mx	Z	0.7 13					UME	iP	02 46	02.6	
		Qinghai Province, China (h = 10 km). M = 5.0 (UPP,KIR).									Honshu, Japan (h = 25 km).			
"	22	KIR	iP	14 41	57.2	"	24	UPP	iP	11 00	10.0			
		Fox Islands, Aleutian Islands (h = N).							"	24	UPP	iPKP1	13 23	11.8
								Kermadec Islands region (h = N).						
"	22	UPP	iP	23 40	26.8	"	24	UPP	iP	17 45	37.4			
		KIR	iP	23 40	35.6				Mx	Z	0.9 12			
		UME	iP	23 40	24.5			KIR	iP	17 45	44.1			
		Hindu Kush region (h = 140 km).									micr sec			
"	23	UPP	iP	12 02	21.9				Mx	Z	0.8 12			
"	23	UPP	iP	12 06	01.4			UME	iP	17 45	32.2			
		KIR	iP	12 05	07.7			Pakistan (h = 45 km). M = 4.9 (UPP,KIR).						
		UME	eP	12 05	35			"	24	KIR	iP	19 44	07.9	
		Fox Islands, Aleutian Islands (h = N).							South of Mariana Islands (h = 90 km).					
"	23	UPP	eP	17 20	22	"	24	KIR	ePKP	19 57	26			
			iS	17 27	19			South of Fiji Islands (h = N).						
					micr sec			"	25	KIR	iP	00 00	07.2	
			Mx	Z	1.1 16			Molucca Passage (h = N).						
		KIR	iP	17 20	45.5			"	25	KIR	iP	01 28	39.6	
					micr sec			Iran-Iraq border region (h = 10 km).						
			P	Z'	0.1 1.5			"	25	KIR	iP	17 37	12.6	
			Mx	Z	0.8 15			Near coast of Venezuela (h = 10 km).						
		UME	i	17 20	44.9			"	25	KIR	iP	18 31	47.0	
		North Atlantic Ridge (h = 10 km). M = 4.9 (UPP,KIR).							Bonin Islands region (h = 25 km).					
"	23	KIR	eP	17 32	22									
		North Atlantic Ridge (h = 10 km).												

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1986				1986					
Aug.	25	KIR	iP	23 36 49.6	Aug.	27	KIR	iP	14 29 57.4
			i	23 36 58.8				Near east coast of	
				Southern Alaska (h = 45 km).				Kamchatka (h = N).	
"	26	UPP	iP	09 52 35.1 C	"	27	KIR	iP	18 49 30.7
			iPP	09 54 39.7				Sunda Strait (h = 80 km).	
			iS	10 00 19					
				micr sec					
			P	Z' 0.4 0.9	"	29	KIR	iSg1	06 04 59.9
			Mx	Z 8.6 10				Norrbottn, Sweden, 67.7°N,	
		KIR	iP	09 52 13.4				23.4°E.	
			iPP	09 54 13.4				Origin time = 06 04 26.	
				micr sec				By combination with Finnish	
			P	Z' 1.4 1.9				station readings.	
			Mx	Z 8.2 11	"	29	UPP	iSg1	07 41 55.0
		UME	iP	09 52 19.2			UME	iSn	07 41 59.2
			iPP	09 54 21.2				iSg1	07 42 37.1
				Qinghai Province, China			UDD	iPg1	07 39 48.0
				(h = 10 km).				i	07 40 22.3
				m = 6.5, M = 6.1 (UPP,KIR).				iSg1	07 40 49.8
"	26	UPP	iP	10 39 34.7 C			DEL	iSg1	07 41 53.2
				micr sec			MYV	iSg1	07 41 08.4
			P	Z' 0.1 0.9					Off coast of southwestern
		KIR	iP	10 39 13.4					Norway, near 61°N, 4°E.
		UME	iP	10 39 18.2					Origin time = 07 38 24.
				Qinghai Province, China					M <sub>L</sub> (UPP) = 2.9 (0.21) 2.
				(h = 10 km).	"	29	UPP	iP	15 00 23.6
"	26	UPP	iP	13 20 59.5				iS	15 03 01.0
		KIR	iP	13 20 38.2			KIR	iP	15 02 57.6
		UME	iP	13 20 43.5					micr sec
				Qinghai, Province, China				P	Z' 0.2 1.8
				(h = 25 km).			UME	iP	15 01 13.7
"	26	KIR	iP	16 11 38.0				i	15 06 40.4
				Kashmir-Xinjiang border					Northern Italy (h = 10 km).
				region (h = N).	"	30	KIR	iP	14 17 00.1
"	26	UPP	iP	18 18 10.8					Southern Iran (h = N).
		KIR	iP	18 18 19.5 C	"	30	UPP	iP	21 32 01.5
		UME	iP	18 18 08.9 C				iS	21 34 52
				Hindu Kush region			KIR	iP	21 33 24.3
				(h = 230 km).			UME	iP	21 32 41.4
"	26	KIR	iPKP	22 11 31.5					Romania (h = 130 km).
		UME	iPKP	22 11 37.2	"	30	UPP	iPKP1	23 16 02.3
			i	22 13 31.3			UME	iPKP	23 15 51.8
				Tonga Islands (h = 20 km).					Kermadec Islands region
				Late arrivals when compared					(h = 260 km).
				with NEIC solutions.	"	31	KIR	iP	02 56 35.3
"	27	UPP	iPKP2	11 01 53.7					Philippine Islands region
		KIR	iPKP1	11 01 23.3					(h = 50 km).
				micr sec					
			PKP1	Z' 0.2 1.4					
				South of Kermadec Islands					
				(h = N).					

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1986

Aug. 31 KIR iPKP 08 57 22.2  
Tonga Islands (h = 210 km).

" 31 UPP iP 09 35 43.0  
iSKS 09 46 04  
micr sec  
Mx Z 5.1 16  
KIR iP 09 35 13.2  
micr sec  
P Z' 0.2 1.3  
Mx Z 5.2 15  
UME iP 09 35 25.8  
Volcano Islands region  
(h = 45 km).  
M = 6.1 (UPP,KIR).

" 31 KIR eP 09 49 29  
Volcano Islands region  
(h = N).

March 30, 1988

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

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

D E L A R Y and M Y R V I K E N

Uppsala	(UPP)	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(KIR)	67°50.4'N,	20°25.0'E;	h = 390 m
Umeå	(UME)	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(UDD)	60°05.4'N,	13°36.4'E;	h = 240 m
Delary	(DEL)	56°28.2'N,	12°52.2'E;	h = 150 m
Myrviken	(MYV)	62°56.5'N,	14°20.8'E;	h = 345 m

S E P T E M B E R 1 - 30 , 1986  
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1986									1986										
Sep.	1	UDD	iSg1	13	39	10.7			Sep.	1	(cont.)								
				Off coast of southwestern Norway, 60.2°N, 5.0°E. Origin time = 13 36 50. Solution from Bergen Bulletin.								Origin time = 22 11 25. M <sub>L</sub> (UPP) = 4.1 (0.20) 8.							
"	1	UPP	iP	21	58	11.7			"	2	UPP	iP	02	04	19.5				
			iPcP	21	58	39.6					KIR	iP	02	05	38.3				
		KIR	iP	21	57	23.7					UME	iP	02	05	57.1				
			i	21	58	04.8			"	2	UME	iPKP1	06	07	31.3				
			iPcP	21	58	10.9							Kermadec Islands (h = N).						
				micr		sec			"	3	KIR	iPn	04	07	39.9				
			P	Z'	0.1	0.9						iSn	04	08	49.5				
		UME	iP	21	57	45.7						iSg1	04	09	07.2				
			i	21	57	47.0						Norwegian Sea, 74°N, 11 1/2°E. Origin time = 04 06 00. By combination with Finnish and TRO station readings.							
			iPcP	21	58	23.0						Turkey-USSR border region (h = 10 km).							
		Kuril Islands (h = 150 km).																	
"	1	UPP	iPn	22	13	10.6			"	3	UPP	iP	09	33	41.4				
			iSn	22	14	30.9					KIR	iP	09	34	20.3				
			iSg1	22	15	15.8					UME	iP	09	33	55.5				
		KIR	iPn	22	13	50.5					Volcano Islands region (h = N).								
			iSn	22	15	40.9			"	3	KIR	iP	15	49	26.1				
			iSg1	22	16	41.8					UME	iP	15	49	40.0				
		UME	iPn	22	13	25.8					Volcano Islands region (h = N).								
			iSn	22	14	58.3			"	3	KIR	iP	18	19	39.4				
			iSg1	22	15	55.5					Volcano Islands region (h = N).								
		UDD	iPn	22	12	42.7			"	3	UME	iPKP1	20	34	24.1				
			i	22	12	49.3					Kermadec Islands region (h = N).								
			iPg1	22	13	06.0			"	3	UME	iPKP1	20	34	24.1				
			iSn	22	13	49.8					Kermadec Islands region (h = N).								
			iSg1	22	14	14.8			"	3	UME	iPKP1	20	34	24.1				
		DEL	iPn	22	13	13.9					Kermadec Islands region (h = N).								
			iSg1	22	15	14.0			"	3	UME	iPKP1	20	34	24.1				
		MYV	iPn	22	12	50.4					Kermadec Islands region (h = N).								
		Norwegian Sea, near 61°N, 2 1/2°E.								"	4	UME	iP	18	58	15.2			
		(cont.)										Malawi (h = 10 km).							

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1986		1986	
Sep.	4	KIR iP	23 00 36.9
		Near east coast of Kamchatka (h = 60 km).	
"	4	UPP iPKP	23 20 10.7
		Fiji Islands region (h = 610 km).	
"	5	UPP iPKP	03 06 13.3
			micr sec
		Mx Z	3.8 20
		KIR iPKP	03 06 32.4
			micr sec
		Mx Z	3.1 21
		UME iPKP	03 06 21.7
		South Sandwich Islands region (h = 30 km). M = 6.1 (UPP,KIR).	
"	5	UPP iP	05 39 09.3
		UME iP	05 40 00.0
		Poland (h = 10 km).	
"	5	UME iPKP	06 25 02.0
		S. Chile-Argentina border region (h = 90 km).	
"	5	UME iP	10 43 34.1
		North of Ascension Island (h = 10 km).	
"	5	UPP iP	14 34 33.7
		Gulf of California (h = 10 km).	
"	5	UPP iP	16 23 39.7
"	5	UPP iP	19 58 41.7
		KIR iP	19 59 47.7
		UME iP	19 59 13.7
		Turkey (h = 80 km).	
"	5	UME iSg1	20 49 12.3
		Off coast of southwestern Finland, 62.0°N, 21.0°E. Origin time = 20 48 14. By combination with Finnish station readings.	
"	5	UPP iP	22 52 19.2
		KIR iP	22 52 20.7
		UME iP	22 52 16.2
		Nicobar Islands region (h = N).	
Sep.	6	UPP iPKP	00 29 27.1
		KIR iPKP	00 29 13.5
		UME iPKP	00 29 20.1
		Fiji Islands region (h = 440 km).	
"	6	UPP iPKP	02 42 39.1
		KIR iPKP	02 42 22.0
		UME iPKP	02 42 30.1
		Fiji Islands region (h = 380 km).	
"	6	UPP iP	04 26 02.5
"	6	UPP iPKP	09 11 38.4
		KIR iPKP	09 11 29.9
			iSKP1 09 14 53.3
		UME iPKP	09 11 31.0
			i 09 11 37.8
		South of Fiji Islands (h = 120 km).	
"	6	UPP iP	15 38 39.6
			micr sec
		P Z'	0.1 1.0
		KIR iP	15 38 48.2
		UME iP	15 38 37.7
		Afghanistan-USSR border region (h = 80 km).	
"	6	KIR iPg1	19 48 25.0
			i 19 48 31.1
			iSg1 19 48 42.8
		Northern Norway, 68.9°N, 23.2°E. Origin time = 19 48 01. M <sub>L</sub> (UPP) = 2.2 (0.31) 2. By combination with Finnish and TRO station readings.	
"	6	UPP i(PKP)	20 22 36.5
			i 20 22 37.8
			iSKP1 20 25 27.0
		KIR iPKP	20 22 29.6
			iSKP1 20 25 02.3
		UME i(PKP)	20 22 30.2
			iPKP 20 22 36.8
			iSKP1 20 25 15.0
		Fiji Islands region (h = 590 km).	
"	6	KIR iP	23 19 35.4
		Mindanao, Philippine Islands (h = 110 km).	

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1986				1986			
Sep.	7	UPP iSKP1	02 04 36.3	Sep.	9	UPP	micr sec
		KIR iPKP	02 01 59.3			Mx Z	2.4 20
		UME iPKP	02 02 05.9			KIR iP	16 11 44.9
		Santa Cruz Islands region				i	16 11 51.9
		(h = 670 km).					micr sec
"	7	KIR iPKP	02 32 45.3			P Z'	0.1 1.0
		South of Fiji Islands				Mx Z	1.4 20
		(h = 190 km).				UME iP	16 11 50.2
						Halmahera (h = N).	
						M = 5.6 (UPP,KIR).	
"	7	UPP iPKP	20 30 01.5	"	9	UPP iP	16 33 35.3
		KIR iPKP	20 30 16.2			ipP	16 33 38.4
		UME iPKP	20 30 10.0				micr sec
		South Sandwich Islands				P Z'	0.1 1.0
		region (h = N).				pP Z'	0.1 1.0
"	7	KIR iPKP	22 39 37.8			KIR iP	16 33 31.8
		Vanuatu Islands region				ipP	16 33 35.3
		(h = N).					micr sec
"	8	UPP iPKP	00 54 11.7			pP	0.1 1.0
		iSKP1	00 56 33.9			UME iP	16 33 28.4
		KIR iPKP	00 53 56.7			ipP	16 33 31.0
		UME iPKP	00 54 03.9			Tibet.	
		Santa Cruz Islands region				h = 10 km (UPP,KIR,UME).	
		(h = 640 km).				m = 5.7 (UPP,KIR).	
"	8	KIR iP	01 08 17.9	"	9	KIR iP	17 32 22.3
		Kuril Islands (h = 55 km).				Kuril Islands (h = 180 km).	
"	8	UPP	micr sec	"	10	UME iSg1	02 33 21.9
		Mx Z	2.7 20	"	10	UPP iP	03 36 28.6
		KIR iP	02 51 44.3	"	10	UPP iP	05 02 46.4
			micr sec	"	10	UPP iP	08 00 33.5
		Mx Z	1.7 19			ipP	08 00 45.7
		UME iP	02 51 39.3			KIR iP	08 00 28.1
		Northern Sumatera (h = 40 km).				ipP	08 00 40.4
		M = 5.6 (UPP,KIR).				UME iP	08 00 25.6
"	8	UPP iPKP	12 42 48.9			ipP	08 00 38.2
		UME iPKP	12 42 32.8			India-Bangladesh border region.	
"	8	KIR iPKP	17 14 08.5			h = 45 km (UPP,KIR,UME).	
		Solomon Islands (h = 50 km).		"	10	KIR iP	13 54 20.5
"	8	UME iP	22 26 11.5			Kashmir-Xinjiang border region	
		Southern Italy (h = 270 km).				(h = N).	
"	9	UPP iP	07 44 12.9	"	10	KIR iP	13 59 33.7
		KIR iP	07 43 41.5			UME iP	13 59 30.9
		UME iP	07 43 55.1			Southern Sumatera (h = 80 km).	
		Bonin Islands region		"	10	KIR iP	19 01 08.7
		(h = 540 km).				Kamchatka (h = 150 km).	
"	9	UPP iP	09 01 27.1				
		KIR iP	09 01 37.1				
		UME iP	09 01 25.4				
		Afghanistan-USSR border					
		region (h = 140 km).					

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1986				1986			
Sep.	11	UPP	iP	00 37 03.6	Sep.	13	(cont.)
				micr sec		KIR	micr sec
			Mx	Z 10.2 19			i Z' 0.6 1.1
		KIR	iPKP	00 36 52.4			Mx Z 5.1 17
				micr sec		UME	iP 00 07 21.7 C
			Mx	Z 3.8 18			iP'P' 00 36 48.0
		UME	iPKP	00 36 57.4			Kodiak Islands region
				New Britain region			(h = 30 km).
				(h = 50 km).			m = 6.4, M = 6.0 (UPP,KIR).
				M = 6.3 (UPP,KIR).			
"	11	KIR	iP	04 31 11.7	"	13	KIR iP 03 20 51.7
				Kashmir-Tibet border region			UME iP 03 21 25.6
				(h = N).			Kodiak Island region (h = N).
"	10	KIR	iP	04 40 31.9	"	13	KIR iP 07 28 49.0
				Jan Mayen Islands region			UME iP 07 29 02.4
				(h = 10 km).			Volcano Islands region
							(h = N).
"	11	UPP	iP	15 39 39.0	"	13	UPP iPKP 09 47 28.0
		UME	iP	15 39 32.1			i 09 47 33.0
							micr sec
"	11	UPP		micr sec			Mx Z 3.9 17
			Mx	Z 2.2 23		KIR	iPKP 09 47 40.7
		KIR	iP	18 07 25.3			i 09 47 48.7
		UME	iP	18 07 35.4			micr sec
				Molucca Passage (h = N).			Mx Z 3.0 19
						UME	iPKP 09 47 37.2
"	12	UPP	iP	00 24 03.9			Scotia Sea (h = 10 km).
		KIR	iP	00 24 06.7 C			M = 6.1 (UPP,KIR).
				micr sec			
			P	Z' 0.1 0.9	"	13	UPP iP 10 11 24.5
		UME	iP	00 24 01.0			KIR iP 10 11 56.0
				Northern Sumatera			UME iP 10 11 09.1
				(h = 35 km).			Mariana Islands (h = 200 km).
"	12	UPP	iPKP	11 36 42.6	"	13	UPP iP 14 22 18.7 C
		KIR	iPKP	11 36 32.2			micr sec
				South of Fiji Islands			Mx Z 0.9 13
				(h = 550 km).		KIR	iP 14 22 28.0 C
							micr sec
"	12	UPP	iP	14 18 09.5			P Z' 0.3 1.3
				Qinghai Province, China		UME	iP 14 22 17.1 C
				(h = N).			Hindu Kush region (h = 200 km).
"	13	UPP	iP	00 07 47.2	"	13	UPP iPKP 15 36 39.0
			i	00 07 50.5			iPKP1 15 36 44.2
			iS	00 16 21			micr sec
			iP'P'	00 36 47.1			Mx Z 2.1 22
				micr sec		KIR	iPKP 15 36 22.3
			i	Z' 0.2 1.0			micr sec
			Mx	Z 15.2 18			Mx Z 2.4 20
		KIR	iP	00 06 53.3		UME	iPKP 15 36 32.1
			i	00 06 57.2			iPKP1 15 36 33.5
			iP'P'	00 37 05.2			Kermadec Islands region
				micr sec			(h = 220 km).
			P	Z' 0.2 1.1			M = 6.0 (UPP,KIR).
				(cont.)			M uncorrected for focal depth.

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1986				1986				
Sep.	13	UPP	iP	17 29 37.0	Sep.	14	UPP iP	03 08 58.3
			ipP	17 29 39.9			UME iP	03 08 32.4
			iS	17 33 44				
				micr sec	"	14	UPP iP	03 51 47.6
			Mx	Z 27.1 11			KIR iP	03 51 46.2
		KIR	iP	17 30 48.1			Sunda Strait (h = N).	
			ipP	17 30 51.6				
				micr sec	"	14	UPP iP	11 32 57.5
			P	Z' 0.3 1.6			iS	11 37 46
			pP	Z' 0.6 0.9			KIR iP	11 32 54.3
			Mx	Z 10.9 10			UME iP	11 33 00.8
		UME	iP	17 30 11.6			North Atlantic Ocean	
			ipP	17 30 14.8			(h = 10 km).	
		Southern Greece.			"	14	UPP iP	12 43 25.5
		h = 10 km (UPP,KIR,UME).					UME iP	12 43 00.4
		M = 5.9 (UPP,KIR).						
"	13	UME	iP	20 38 06.6	"	14	UPP iP	12 55 02.6
		Afghanistan-USSR border					KIR iP	12 54 31.4
		region (h = 110 km).					UME iP	12 54 44.4
"	13	UPP	iP	21 05 42.5			Volcano Islands region	
				micr sec			(h = N).	
			Mx	Z 1.9 13	"	14	KIR iP	13 35 12.0
		KIR	iP	21 06 56.1			Southern Sumatera (h = 55 km).	
			ipP	21 07 04.4				
				micr sec	"	14	UPP iP	14 05 41.8
			Mx	Z 1.2 14			UME iP	14 05 16.6
		UME	iP	21 06 20.0			Kuril Islands (h = 50 km).	
		Ionian Sea (h = 50 km).			"	14	UPP iP	17 07 16.2
		M = 4.8 (UPP,KIR).					UME iP	17 06 50.0
"	13	UPP	iP	21 48 52.0			Kuril Islands (h = N).	
		KIR	iP	21 48 24.3	"	14	UPP iP	17 58 00.0
				micr sec			KIR iP	17 57 10.5
			P	Z' 0.1 0.9			UME iP	17 57 34.3
		UME	iP	21 48 35.8			Kuril Islands (h = N).	
		Mariana Islands (h = 400 km).			"	14	UPP eP	17 58 54
"	13	UPP	iP	22 07 10.4			KIR iP	17 59 56.3
		KIR	iP	22 06 32.6			UME eP	17 59 21
		UME	iP	22 06 48.6			ipP	17 59 31.5
		Sea of Japan (h = 380 km).					Crete (h = 55 km).	
"	14	UPP	iPKP	00 24 17.4	"	14	UPP iPKP	21 17 03.3
			iSKP1	00 27 08.0				micr sec
		KIR	iPKP	00 24 07.9			Mx	Z 2.4 20
			iSKP1	00 26 46.3			KIR	micr sec
		UME	i(PKP)	00 24 05.1			Mx	Z 2.1 21
			iPKP	00 24 16.2			UME iPKP	21 16 56.6
			iSKP1	00 26 57.0			Solomon Islands (h = 60 km).	
			i	00 27 05.3			M = 5.8 (UPP,KIR).	
		South of Fiji Islands			"	14	KIR iP	22 24 59.9
		(h = 550 km).					UME iP	22 25 02.2
"	14	KIR	iP	01 21 07.6			Panama-Colombia border region	
		Kodiak Island region					(h = 45 km).	
		(h = N).						

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1986				1986			
Sep.	15	UPP	iP	06 40 27.9	Sep.	15	(cont.)
		KIR	iP	06 39 40.1			Afghanistan-USSR border region
				Andreanof Islands, Aleutian			(h = 90 km).
				Is. (h = N).			M = 5.1 (UPP,KIR).
							M uncorrected for focal depth.
"	15	KIR	iP	08 00 30.8	"	16	UME
				North Atlantic Ridge			iP
				(h = 10 km).			13 37 39.9
"	15	UPP		micr sec	"	16	KIR
		Mx	Z	2.2 23			iP
		KIR	iPKP	09 07 26.2			14 22 29.6
				micr sec			Iceland region (h = 10 km).
		Mx	Z	1.5 18	"	16	UPP
				Tonga Islands region			iP
				(h = N).			18 33 15.3 D
"	15	KIR	iP	09 23 56.4			iPP
				Kuril Islands (h = N).			18 36 52
"	15	UPP	iP	11 46 34.4			iSKS
				micr sec			18 43 41
		Mx	Z	4.3 17			micr sec
		KIR	iP	11 47 44.8			P
				micr sec			Z'
		P	Z'	0.1 1.0			0.7 1.2
		Mx	Z	3.0 19			Mx
		UME	iP	11 47 09.0			Z
				Southern Greece (h = 10 km).			30.6 21
				M = 5.0 (UPP,KIR).			KIR
"	15	KIR	iP	14 29 04.5			iP
"	15	UPP	iP	17 04 47.3			18 32 46.6 D
		KIR	iP	17 03 59.4			i
				Kuril Islands (h = N).			18 32 02.5
"	15	UPP	iP	17 11 25.5			iPP
		KIR	iP	17 10 37.0			18 36 00.1
				Kuril Islands (h = N).			micr sec
"	15	KIR	iP	20 18 08.3			P
				Northern Colombia			Z'
				(h = 70 km).			1.6 1.2
"	15	UPP	iP	21 50 03.9 D			Mx
		ipP		21 50 26.0			Z
		iPP		21 51 41.5			19.6 26
		iS		21 56 08			UME
				micr sec			iP
		Mx	Z	2.6 14			18 33 02.0 D
		KIR	iP	21 50 12.2 D			iPP
		ipP		21 51 52.1			18 36 23.1
				micr sec			Mariana Islands region
		P	Z'	0.5 1.1			(h = 50 km).
		Mx	Z	1.0 12			m = 6.9, M = 6.6 (UPP,KIR).
		UME	iP	21 50 01.8 D			"
		ipP		21 51 36.8			16
				(cont.)			UPP
							iP
							19 09 28.4
							KIR
							iP
							19 09 00.4
							Mariana Islands region
							(h = 70 km).
"	15	UPP	iP	21 50 03.9 D	"	16	UPP
		ipP		21 50 26.0			iP
		iPP		21 51 41.5			20 21 00.0
		iS		21 56 08			micr sec
				micr sec			P
		Mx	Z	2.6 14			Z'
		KIR	iP	21 50 12.2 D			0.1 0.9
		ipP		21 51 52.1			KIR
				micr sec			iP
		P	Z'	0.5 1.1			20 20 38.3
		Mx	Z	1.0 12			micr sec
		UME	iP	21 50 01.8 D			P
		ipP		21 51 36.8			Z'
				(cont.)			0.2 1.9
							UME
							iP
							20 20 43.9
							Qinghai Province, China
							(h = 20 km).
							m = 5.8 (UPP,KIR).
"	15	UPP	iP	21 50 03.9 D	"	16	UPP
		ipP		21 50 26.0			iP
		iPP		21 51 41.5			21 07 53.3
		iS		21 56 08			micr sec
				micr sec			P
		Mx	Z	2.6 14			Z'
		KIR	iP	21 50 12.2 D			0.1 0.9
		ipP		21 51 52.1			KIR
				micr sec			iP
		P	Z'	0.5 1.1			21 06 59.3
		Mx	Z	1.0 12			ipP
		UME	iP	21 50 01.8 D			21 07 09.6
		ipP		21 51 36.8			micr sec
				(cont.)			P
							Z'
							0.2 0.7
							UME
							iP
							21 07 26.7
							Kodiak Island region (h = N).
							m = 6.1 (UPP,KIR).

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1986				1986					
Sep.	16	UPP	iP	22 02 09.7	Sep.	17	UPP	iP	20 08 12.5
				micr sec			UME	iP	20 08 05.2
			P	Z' 0.1 0.8			Burma (h = 50 km).		
		KIR	iP	22 01 48.1	"	17	UPP	iP	21 35 03.6
				micr sec				ipP	21 35 05.6
			P	Z' 0.1 0.9				iS	21 42 52
		UME	iP	22 01 53.5					micr sec
		Qinghai Province China						P	Z' 0.2 0.9
		(h = 20 km).						Mx	Z 7.5 18
		m = 5.8 (UPP,KIR).					KIR	iP	21 35 37.2
"	16	UPP	iP	23 59 23.6				ipP	21 35 39.2
		KIR	iP	23 59 02.0					micr sec
		UME	iP	23 59 07.7				P	Z' 0.4 1.0
		Qinghai Province, China						Mx	Z 3.7 16
		(h = 10 km).					UME	iP	21 35 15.3
"	17	UPP	iP	04 54 20.8				ipP	21 35 17.2
		KIR	iP	04 53 52.1			Carlsberg Ridge.		
		Ryukyu Islands (h = 40 km).					h = 5 km (UPP,KIR,UME).		
"	17	KIR	iP	06 56 06.2			m = 6.4, M = 5.8 (UPP,KIR).		
		Ceram (h = 25 km).			"	18	UPP	ipP	00 20 00.7
"	17	KIR	iP	06 58 37.4			KIR	iP	00 20 27.2
				micr sec			UME	iP	00 20 03.7
			P	Z' 0.1 1.0			Southern Iran (h = N).		
		UME	iP	06 58 43.0	"	18	UPP	iP	05 18 51.6
		Ceram (h = N).					KIR	iP	05 18 19.3
"	17	UPP	iP	11 13 10.0			UME	iP	05 18 32.2
				micr sec			Kyushu, Japan (h = 140 km).		
			P	Z' 0.1 0.9	"	18	KIR	iPKP	06 19 30.7
			Mx	Z 2.6 14			UME	iPKP	06 19 29.7
		KIR	iP	11 12 41.0				i	06 19 37.6
				micr sec	"	18	UPP	iP	06 32 41.5
			P	Z' 0.1 1.0			KIR	iP	06 31 52.4
			Mx	Z 1.1 15			UME	iP	06 32 15.0
		UME	iP	11 12 52.3			Northwest of Kuril Islands		
		Ryukyu Islands (h = 35 km).					(h = 400 km).		
		m = 5.8, M = 5.5 (UPP,KIR).			"	18	UPP	iPKP1	06 59 35.0
"	17	UPP	iP	12 15 39.9			Kermadec Islands region		
			i	12 16 07.7			(h = N).		
				micr sec	"	18	UPP	iP	07 08 14.0
			P	Z' 0.2 0.7			KIR	iP	07 07 51.0
			Mx	Z 1.5 10	"	18	UPP	iP	08 35 41.5
		KIR	iP	12 15 46.5	"	18	UPP	iP	19 17 38.8
			i	12 16 13.5	"	18	KIR	iP	21 05 00.6
				micr sec			Southern Alaska (h = 55 km).		
			P	Z' 0.2 0.8	"	19	UPP	iP	00 25 04.1
			Mx	Z 0.6 10			Romania (h = 150 km).		
		UME	iP	12 15 36.5					
			i	12 16 04.3					
		Afghanistan-USSR border							
		region.							
		h = 130 km (UPP,KIR,UME).							
		m = 5.9, M = 5.0 (UPP,KIR).							
		M uncorrected for focal detph.							

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1986				1986			
Sep.	19	UPP UME	iP iP	03 24 03 24	28.8 04.3		
		Kuril Islands (h = N).					
"	19	KIR	iP	13 53	53.5		
		Near east coast of Kamchatka (h = N).					
"	19	KIR UME	iPKP iPKP	19 29 19 29	14.4 10.5		
"	20	UPP KIR	iP iP	01 42 01 42	21.4 57.0		
					micr sec		
			P	Z'	0.1 1.0		
		UME	iP	01 42	42.6		
		Central-Mid Atlantic Ridge (h = 10 km).					
"	20	KIR	iP	02 35	53.4		
		Alaska Peninsula (h = N).					
"	20	UPP KIR	iP iP	03 16 03 15	21.8 43.1		
					micr sec		
			P	Z'	0.1 1.0		
		UME	iP	03 16	00.3		
		Near east coast of Honshu, Japan (h = 80 km).					
"	20	UPP KIR UME	iP iP iP	10 16 10 16 10 16	15.2 15.1 11.2		
		Andaman Islands region (h = 80 km).					
"	20	UPP KIR UME	iP iP iP	12 35 12 34 12 34	07.6 34.4 48.4		
		South of Honshu, Japan (h = 490 km).					
"	20	UPP	iPg1 iSg1	22 15 22 15	16.0 24.6		
		KIR	iSg1	22 19	13.6		
		UME	iPg1 i iSg1	22 16 22 16 22 17	20.0 26.5 15.9		
		UDD	iPg1 iSg1	22 15 22 15	27.9 D 45.0		
		DEL	iPg1 i iSg1	22 16 22 16 22 16	08.6 10.2 56.5		
		MYV	iPg1 iSg1	22 15 22 16	59.0 39.4		
		Västmanland, Sweden, 60.0°N, 16.2°E. (cont.)					
Sep.	20					(cont.)	
		Origin time = 22 15 04. M <sub>L</sub> (UPP) = 3.6 (0.12) 7. Felt in the area of Sala, about 70 km west of Uppsala, with maximum intensity I <sub>0</sub> = IV.					
"	21	UPP KIR UME	iP iP iP	12 31 12 30 12 30	17.0 49.2 58.9		
		Mariana Islands region (h = 50 km).					
"	21	UPP KIR UME	iP iP iP	23 48 23 47 23 48	44.3 50.4 15.2		
		Off east coast of Kamchatka (h = 50 km).					
"	22	UPP KIR	iP iP	12 41 12 40	08.5 15.0		
		Off east coast of Kamchatka (h = N).					
"	22	KIR	iP	16 28	54.1		
		Banda Sea (h = 120 km).					
"	23	KIR	iP	06 10	08.5		
		Banda Sea (h = 140 km).					
"	23	UPP KIR	iP ipP iP	11 52 11 52 11 51	03.0 11.5 07.1		
			i ipP	11 51 11 51	11.4 16.0		
		UME	ipP	11 51	42.1		
		Komandorsky Islands region. h = 30 km (UPP,KIR).					
"	23	UPP	iPKP iSKP1 i	13 49 13 52 13 53	27.6 53.6 07.7		
					micr sec		
			Mx	Z	2.8 25		
		KIR	iPKP	13 49	13.5		
		UME	iPKP	13 49	19.9		
		Vanuatu Islands (h = 20 km).					
"	23	UPP	iP i	15 39 15 40	52.4 00.5		
"	23	UPP KIR	iP iP	16 53 16 52	06.4 13.6		
		Near east coast of Kamchatka (h = N).					
"	23	UME	iP	20 25	23.7		
		Philippine Islands region (h = 50 km).					



UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986											
Sep.	24	UPP	iP	02 02	56.4	Sep.	27	UPP	iP	19 50	58.7				
		KIR	iP	02 03	03.7				ipP	19 51	09.8				
		UME	iP	02 02	49.1			KIR	iP	19 50	25.0				
"	24	UME	iP	06 12	10.9			UME	iP	19 50	40.2				
		East of Labrador (h = 10 km).							i	19 50	43.0				
									ipP	19 50	50.7				
"	24	KIR	iPKP	14 37	24.9			Bonin Islands region. h = 35 km (UPP,UME).							
		UME	iPKP	14 37	31.2			"	28	UPP	iP	00 14	48.9		
		Fiji Islands region (h = 620 km).						Philippine Islands region (h = 30 km).							
"	24	KIR	iPKP	16 37	24.3			"	28	KIR	iP	09 00	08.3		
		UME	iPKP	16 37	17.5					UME	iP	09 00	35.0		
		South Sandwich Islands region (h = N).						Unimak Island region (h = 110 km).							
"	25	KIR	iPKP	01 13	28.4			"	29	KIR	iPKP	06 50	13.4		
		Vanuatu Islands region (h = 630 km).						Vanuatu Islands (h = 120 km).							
"	25	UPP	iS	06 39	08			"	29	UPP	iP	07 20	26.0		
					micr sec					KIR	iP	07 20	59.2		
			Mx	Z	7.5 16					UME	iP	07 20	39.1		
		KIR	iP		06 28 21.5			Carlsberg Ridge (h = 10 km).							
					micr sec			"	29	UPP	iPKP1	10 59	57.5		
			Mx	Z	1.7 14			South of Fiji Islands (h = 490 km).							
		UME	iP		06 28 35.6			"	29	UPP	iP	12 31	44.7		
		Gulf of California (h = 10 km). M = 5.9 (UPP,KIR).										micr sec			
"	25	UPP	iP	18 33	20.9						P	Z'	0.1 1.0		
"	25	UPP	iP	20 19	38.6			KIR	iP	12 30	51.8	Andreasof Islands, Aleutian Is. (h = N).			
					micr sec					"	29	UPP	iP	15 49	45.1
			Mx	Z	2.9 18							KIR	iP	15 50	19.6
		KIR	iP		20 19 20.6							UME	iP	15 49	58.4
					micr sec			Carlsberg Ridge (h = 10 km).							
			Mx	Z	2.1 19			"	30	UPP	iP	12 49	25.9		
		UME	iP		20 19 29.3			Mindoro, Philippine Islands (h = 130 km).							
		Talaud Islands (h = 45 km). M = 5.8 (UPP,KIR).						"	30	UPP	iP	22 41	48.6 C		
"	26	KIR	eP	01 20	25							micr sec			
		Talaud Islands (h = 70 km).										P	Z'	0.1 1.1	
"	26	UPP	iP	04 19	57.3			KIR	iP	22 41	14.2 C				
		KIR	iP	04 19	01.9						micr sec				
		UME	iP	04 19	30.1						P	Z'	0.1 1.1		
		Fox Islands, Aleutian Islands (h = N).						UME	iP	22 41	33.4 C				
"	26	UPP	iP	18 17	51.5			Southern Nevada. m = 5.9 (UPP,KIR).							
		KIR	iP	18 18	58.3			Underground explosion.							
		UME	iP	18 18	23.1			"	27	UPP	iP	06 11	52.7		
		Crete (h = 40 km).													

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SEISMOLOGICAL BULLETIN  
 UPPSALA, KIRUNA, UMEA, UDDEHOLM  
 DELARY and MYRVIKEN

Uppsala	(UPP)	59°51.5'N,	17°37.6'E;	h = 14 m
Kiruna	(KIR)	67°50.4'N,	20°25.0'E;	h = 390 m
Umeå	(UME)	63°48.9'N,	20°14.2'E;	h = 16 m
Uddeholm	(UDD)	60°05.4'N;	13°36.4'E;	h = 240 m
Delary	(DEL)	56°28.2'N,	12°52.2'E;	h = 150 m
Myrviken	(MYV)	62°56.5'N,	14°20.8'E;	h = 345 m

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1986					1986				
Oct.	1	UPP	iPKP1	06 00 07.9	Oct.	2	UPP	iP	10 18 16.6
				micr sec				iS	10 22 43.0
			PKP1	Z' 0.1 0.6				P	Z' 0.2 1.1
		KIR	iPKP	05 59 57.5			KIR	iP	10 19 20.9
		UME	iPKP	06 00 04.6					micr sec
		South of Fiji Islands						P	Z' 0.6 0.6
		(h = 140 km).					UME	iP	10 18 45.1
"	1	UPP	iP	07 04 06.4			Eastern Mediterranean Sea		
				micr sec			(h = 45 km).		
			P	Z' 0.2 1.4			m = 6.1 (UPP,KIR).		
		KIR	iP	07 03 47.3	"	2	UPP	iP	12 48 41.4
		UME	iP	07 03 53.7	"	2	KIR	iP	13 43 42.6
		Luzon, Philippine Islands							micr sec
		(h = 10 km).						P	Z' 0.1 0.7
"	1	UPP	iP	07 52 04.9			UME	iP	13 44 16.6
		KIR	iP	07 51 46.0			Jan Mayen Islands region		
		Luzon, Philippine Islands					(h = 10 km).		
		(h = 10 km).			"	2	UPP	iP	17 17 58.7
"	1	UPP	iPKP	13 37 08.0			KIR	iP	17 16 32.8
		South of Tonga Islands					UME	iP	17 17 19.3
		(h = N).					North of Svalbard (h = 10 km).		
"	1	UPP	iP	16 07 01.0	"	2	UPP	iP	17 23 27.0
		Andreanof Islands, Aleutian					KIR	iP	17 22 01.6
		Islands (h = N).					UME	iP	17 22 48.6
"	1	UPP	iP	18 20 30.5			North of Svalbard (h = 10 km).		
"	1	UPP	iP	19 12 43.5	"	2	UPP	iP	19 39 12.7
"	1	UPP	iP	19 57 30.3	"	3	KIR	iP	07 19 12.8
		UME	eP	19 58 17			Northern Sumatera		
			ipP	19 58 23.3			(h = 130 km).		
		Northern Italy (h = 30 km).							

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1986				1986			
Oct.	4	KIR	iP	02 13 12.5	Oct.	7	(cont.)
				micr sec			South of Honshu, Japan
			P	Z' 0.2 1.0			(h = 400 km).
		UME	iP	02 13 18.1	"	7	UPP iPKP 14 22 57.6
				Halmahera (h = 110 km).			UME ePKP 14 22 50
"	5	UPP	iP	03 36 59.7			Vanuatu Islands (h = 10 km).
				Andreanof Islands, Aleutian	"	7	UPP iPKP 14 26 25.7
				Is. (h = N).			Near coast of central Chile
"	5	UPP	iP	05 17 44.0			(h = 10 km).
				micr sec	"	8	UPP iP 00 14 09.2
			P	Z' 0.1 1.0			UME iP 00 13 28.5
		KIR	iP	05 18 52.8			North of Svalbard (h = 10 km).
		UME	iP	05 18 16.6	"	8	UPP iPKP1 02 24 59.5
				Crete (h = 15 km).			UME iPKP1 02 24 48.1
"	5	KIR	iPg1	21 27 31.7			South of Kermadec Islands
			iSg1	21 27 51.6			(h = 150 km).
		UME	eSg1	21 29 04	"	8	UPP iP 05 56 02.1
				Northwestern Finland,	"	9	UPP iP 03 39 43.6 D
				67.3°N, 24.2°E.			KIR iP 03 39 42.8 D
				Origin time = 21 27 04.			UME iP 03 39 40.7 D
				M <sub>L</sub> (UPP) = 2.1 1.			Southern Sumatera (h = 200 km).
				By combination with Finnish	"	9	UME iPKP 14 18 24.3
				station readings.			Kermadec Islands region
"	5	UPP	iP	22 08 51.7			(h = 340 km).
		KIR	iP	22 08 12.9	"	10	UPP iP 05 34 43.6
		UME	iP	22 08 33.3			UME iP 05 34 47.0
				Off coast of Oregon			Pakistan (h = 10 km).
				(h = 10 km).	"	10	UPP iP 17 19 58.1
"	6	UPP	iP	02 29 26.7			UME iP 17 19 39.1
		KIR	iP	02 30 05.7			Romania (h = 130 km).
		UME	iP	02 29 44.9	"	10	UPP iP 18 01 44.5
				Southern Iran (h = 60 km).			KIR iP 18 01 41.7
"	6	UPP	iP	04 32 41.9			UME iP 18 01 40.5
		KIR	iP	04 31 49.7			Java (h = 80 km).
				Andreanof Islands, Aleutian	"	10	UPP iP 18 02 10.9
				Is. (h = 45 km).			micr sec
"	6	UPP	iPKP	07 29 45.0			Mx Z 4.3 30
				South Sandwich Islands			UME iP 18 02 10.2
				region (h = 90 km).			El Salvador (h = 5 km).
"	6	UPP	iP	23 38 53.5	"	10	UPP iP 21 15 50.0
				micr sec			UME iP 21 15 35.2
			P	Z' 0.1 0.6			Philippine Islands region
		UME	iP	23 38 42.7			(h = 130 km).
				Yunnan Province, China			
				(h = 10 km).			
"	7	UPP	iP	11 52 00.8			
		KIR	i	11 51 55.6			
		UME	iP	11 51 41.1			
				(cont.)			

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1986				1986							
Oct.	11	UPP	iP	03 10 26.4	Oct.	13	(cont.)				
		KIR	iP	03 10 35.1			KIR	iP	16 19 24.0		
		UME	iP	03 10 25.2					micr sec		
		Hindu Kush region						P	Z' 0.3 1.0		
		(h = 100 km).						UME	iP	16 19 12.5	
							Hindu Kush region				
"	11	UPP	iP	09 05 16.3			(h = 120 km).				
			iS	09 09 28			m = 5.9 (UPP,KIR).				
				micr sec			"	13	UPP	iP	21 29 12.5 C
			P	Z' 0.2 1.2							micr sec
			Mx	Z 16.3 12					P	Z' 0.2 1.2	
		KIR	iP	09 06 23.5			KIR	iP	21 28 33.2 C		
				micr sec							micr sec
			P	Z' 0.2 1.0					P	Z' 0.2 1.0	
			Mx	Z 6.7 11					UME	iP	21 28 50.5 C
		UME	iP	09 05 47.5			Near east coast of Honshu,				
		Turkey (h = 5 km).					Japan (h = 65 km).				
		m = 5.8, M = 5.7 (UPP,KIR).					m = 6.0 (UPP,KIR).				
"	11	UPP	iP	13 27 45.4	"	14	UPP	iP	05 04 08.8		
			ipP	13 27 58.5			KIR	iP	05 03 14.3		
				micr sec			UME	iP	05 03 40.9		
			P	Z' 0.1 0.7			Fox Islands, Aleutian				
		KIR	iP	13 27 01.5			Islands (h = N).				
			ipP	13 27 13.8	"	14	UPP	Mx	14 12		
		UME	iP	13 27 21.2					micr sec		
			ipP	13 27 32.8				Mx	Z 3.5 20		
		Hokkaido, Japan region.					KIR	Mx	14 17		
		h = 45 km (UPP,KIR,UME).							micr sec		
"	12	UME	iP	04 08 10.0				Mx	Z 1.4 17		
		Near east coast of Kamchatka					Prince Edward Islands region				
		(h = N).					(h = 40 km).				
"	12	UPP	iP	15 54 48.1			M = 5.8 (UPP,KIR).				
"	12	UPP	iP	18 52 12.1	"	14	UPP	iPKP	17 11 47.8		
		Near east coast of Kamchatka							micr sec		
		(h = N).						Mx	Z 11.3 24		
"	12	UPP	iP	20 12 57.4			KIR		micr sec		
			ipP	20 13 09.3				Mx	Z 6.3 21		
		UME	iP	20 12 33.1			UME	iPKP	17 11 40.1		
		East coast of Honshu,					New Ireland region (h = 40 km).				
		Japan (h = 60 km).					M = 6.3 (UPP,KIR).				
"	12	UPP	ePKP2	22 11 23	"	14	KIR	iPn	17 28 52.6		
		UME	iPKP1	22 11 05.1				iSn	17 30 17.5		
		Kermadec Islands region					Greenland Sea (h = 10 km).				
		(h = 420 km).			"	14	UPP	iPKP1	21 37 42.0		
"	13	UPP	iP	09 35 11.1			UME	iPKP1	21 37 30.6		
							Kermadec Islands region				
							(h = 65 km).				
"	13	UPP	iP	16 19 14.6 C	"	15	KIR	iPn	10 00 33.0		
			i	16 19 16.4			Greenland Sea (h = 10 km).				
				micr sec							
			P	Z' 0.2 1.0							
		(cont.)									

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1986				1986					
Oct.	15	UPP	iP	13 28 44.7	Oct.	19	KIR eSg1	03 57 08	
			ipP	13 28 55.7			Coast of Norrbotten, Sweden, 65.8 <sup>o</sup> N, 23.4 <sup>o</sup> E.		
		KIR	iP	18 28 21.4			Origin time = 03 55 59.		
			ipP	13 28 35.0			Solution from Finnish station readings.		
		UME	ipP	13 28 40.9					
		Philippine Islands region. h = 40 km (UPP,KIR).							
"	15	UPP	iP	15 07 50.1	"	19	UPP	iP	18 40 37.5
								ipP	18 40 43.4
		KIR	iP	19 09 11.8			KIR	iP	18 39 36.1
								ipP	18 39 44.9
		KIR	iP	19 09 48.3			UME	iP	18 40 13.3
		UME	iP	19 09 25.2			Bering Sea. h = 25 km (UPP,KIR).		
		Southern Iran (h = N).							
"	16	UPP	iP	19 36 49.1	"	20	KIR	iP	06 43 38.0
		KIR	iP	19 36 14.5			Molucca Passage (h = 40 km).		
		UME	iP	19 36 33.8					
		Southern Nevada. Underground explosion.			"	20	UPP	iPdiff	07 03 28
								iPKP	07 05 48.5
								iPP	07 09 30.7
"	16	UPP	iP	20 02 32.0				i	07 15 20.8
		UME	iP	20 02 35.6			KIR	iPKP	07 05 28.9
		Pakistan (h = 45 km).							micr sec
							Mx	Z	331 22
"	17	UPP	iP	07 46 58.5			UME	iPKP	07 05 35.7
			i	07 51 27.1			Kermadec Islands region (h = 30 km).		
		KIR	iP	07 46 40.4					
		UME	iP	07 46 46.0	"	20	UPP	iP	07 36 50.9
		Banda Sea (h = 65 km).					KIR	eP	07 35 57
"	17	UPP	iP	09 49 56.7			Andreanof Islands, Aleutian Is. (h = N).		
		KIR	eP	09 49 12					
		Kuril Islands (h = N).			"	20	UPP	iPKP1	07 46 11.7
"	17	UPP	iP	10 37 48.1			Kermadec Islands region (h = N).		
			i	10 41 31.6					
		Turkey (h = 10 km).			"	20	UPP	iPKP1	08 24 00.2
"	18	UPP	iP	01 13 49.8			Kermadec Islands region (h = N).		
		KIR	eP	01 12 57					
		UME	iP	01 13 23.5	"	20	UPP	iPKP1	08 31 06.7
		Andreanof Islands, Aleutian Is. (h = N).					Kermadec Islands region (h = N).		
"	18	UPP	iP	10 00 05.4					
		KIR	iP	09 59 39.2	"	20	UPP	iP	08 42 02.6
				micr sec					
			P	Z' 0.1 1.0	"	20	UPP	iPKP1	08 42 56.5
		UME	iP	09 59 49.4			Kermadec Islands region (h = N).		
		South of Mariana Islands (h = 50 km).			"	20	UPP	iPKP1	08 59 53.9
"	18	UPP	iP	15 18 20.8			Kermadec Islands region (h = N).		
		Greece-Albania border region (h = 15 km).			"	20	UPP	iP	09 08 31.8

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1986				1986			
Oct.	20	UPP iPKP1 Kermadec Islands region (h = N).	09 10 18.0	Oct.	20	UPP iPKP1 KIR ePKP Kermadec Islands region (h = N).	12 21 19.1 12 21 03
"	20	UPP iPKP1 Kermadec Islands region (h = N).	09 22 09.0	"	20	UPP iPKP1 KIR ePKP Kermadec Islands region (h = N).	12 52 22.8 12 52 06
"	20	UPP iPKP1 Kermadec Islands region (h = N).	09 36 15.8	"	20	UPP iPKP1 Kermadec Islands region (h = N).	13 03 18.4
"	20	UPP iPKP1 Kermadec Islands region (h = N).	10 02 26.7	"	20	UPP iPKP Kermadec Islands region (h = N).	13 45 34.4
"	20	UPP iPKP1 Kermadec Islands region (h = N).	10 18 11.7	"	20	UPP iPKP1 Kermadec Islands region (h = N).	15 01 04.7
"	20	UPP iPKP1 Kermadec Islands region (h = N).	10 46 45.3	"	20	UPP iPKP1 KIR Mx Z Kermadec Islands region (h = N). M = 5.9 (UPP,KIR).	micr sec 2.6 19 micr sec 1.7 22
"	20	UPP iPKP1 Kermadec Islands region (h = N).	10 49 28.6	"	20	UPP iPKP1 Kermadec Islands region (h = N).	16 12 27.9
"	20	UPP iPKP South of Tonga Islands (h = N).	10 51 26.2	"	20	UPP iP Kermadec Islands region (h = N).	16 21 11.3
"	20	UPP iPKP1 Kermadec Islands region (h = N).	11 26 41.5	"	20	UPP iPKP1 Kermadec Islands region (h = N).	16 26 36.0
"	20	UPP iPKP1 Kermadec Islands region (h = N).	11 27 50.1	"	20	UPP iP Kermadec Islands region (h = N).	16 46 37.1
"	20	UPP iPKP1 Kermadec Islands region (h = N).	11 30 12.8	"	20	UPP iPKP1 Kermadec Islands region (h = N).	17 33 14.8
"	20	UPP iPKP1 Kermadec Islands region (h = N).	11 32 12.9	"	20	UPP iPKP1 KIR Mx Z Kermadec Islands region (h = N). M = 5.9 (UPP,KIR).	18 35 40.9 micr sec 2.9 21 micr sec 1.0 17
"	20	UPP iPKP1 Kermadec Islands region (h = N).	11 51 01.6	"	20	UPP iP Kermadec Islands region (h = N).	18 40 05.6
"	20	UPP iPKP1 Kermadec Islands region (h = N).	11 56 32.6				

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1986				1986			
Oct.	20	UPP iPKP1 Kermadec Islands region (h = N).	18 51 16.8	Oct.	21	UPP iPKP1 UME iPKP Kermadec Islands region (h = N).	06 11 36.2 06 11 25.3
"	20	UPP iPKP1 Kermadec Islands region (h = N).	19 58 52.7	"	21	UPP iPKP1 Kermadec Islands region (h = N).	06 23 23.1
"	20	UPP iP	21 23 17.0	"	21	UPP iPKP1 UME iPKP Kermadec Islands region (h = N).	07 10 26.3 07 10 15.1
"	20	UPP iPKP1 UME iPKP Kermadec Islands region (h = N).	21 42 47.4 21 42 37.3	"	21	UPP iP	07 44 35.8
"	20	UPP iPKP1 KIR ePKP UME ePKP Kermadec Islands region (h = N).	21 45 54.5 21 45 39 21 45 47	"	21	UPP iP	08 03 13.4
"	20	UPP iPKP1 Kermadec Islands region (h = N).	22 09 52.8	"	21	UME iP Iceland region (h = 10 km).	09 04 28.2
"	20	UPP iPKP1 Kermadec Islands region (h = N).	22 39 07.2	"	21	UPP iPKP1 Kermadec Islands region (h = N).	09 39 24.2
"	20	UPP iPKP1 Kermadec Islands region (h = N).	23 10 56.8	"	21	UPP iP	09 40 35.5
"	21	UPP iPKP1 UME iPKP Kermadec Islands region (h = N).	01 03 18.7 01 03 06.1	"	21	UPP iPKP1 Kermadec Islands region (h = N).	09 52 02.6
"	21	UPP iPKP1 Kermadec Islands region (h = N).	01 58 13.7	"	21	UPP iPKP iPKP1 micr sec Mx Z 1.6 17 KIR ePKP 11 22 20 UME ePKP 11 22 29 Kermadec Islands region (h = N).	11 22 35.4 11 22 37.9
"	21	UPP iPKP1 Kermadec Islands region (h = N).	02 08 31.8	"	21	UPP iP Kermadec Islands region (h = N).	11 46 59.1
"	21	UPP iPKP1 Kermadec Islands region (h = N).	02 52 24.0	"	21	UPP iPKP1 UME iPKP Kermadec Islands region (h = N).	12 49 20.5 11 49 11.8
"	21	UPP iPKP1 Kermadec Islands region (h = N).	03 03 52.0	"	21	UPP iPKP1 UME iPKP Kermadec Islands region (h = N).	12 53 20.2 12 53 10.6
"	21	UPP iP	04 40 58.6	"	21	UPP iP	05 24 07.2

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1986				1986									
Oct.	21	UPP	iP	13 02	29.7	Oct.	23	UPP	iPKP	02 37	44.0		
"	21	UPP	iPKP1	15 31	19.0				iSKP1	02 40	53		
		UME	iPKP	15 31	11.2			KIR	iPKP	02 37	29.9		
		Kermadec Islands region (h = N).						UME	iPKP	02 37	36.2		
		Vanuatu Islands (h = 160 km).						"	23	UPP	iP	05 01	50.8
"	21	UPP	eP	16 09	36			KIR	iP	05 01	15.0		
		KIR	eP	16 09	48			UME	iP	05 01	29.6		
		Near coast of Venezuela (h = 40 km).						South of Honshu, Japan (h = 210 km).					
"	21	UPP	iPKP1	17 43	10.2	"	23	UPP		micr	sec		
		Kermadec Islands region (h = N).							Mx	Z	8.0 18		
								KIR		micr	sec		
"	21	UPP	iPKP1	19 38	31.0				Mx	Z	2.7 15		
		Kermadec Islands region (h = N).						UME	ePKP	16 07	38		
		Santa Cruz Islands (h = 20 km). M = 6.3 (UPP,KIR).						"	23	UPP	iPKP	19 03	55.6
"	22	UPP	iPKP1	00 13	05.1			KIR	iPKP	19 03	41.8		
		Kermadec Islands region (h = N).						UME	iPKP	19 03	47.5		
		Santa Cruz Islands (h = 40 km).						"	24	UPP	Mx	04 07	
"	22	UPP	iPKP1	02 58	22.5				Mx	Z	5.2 25		
		UME	iPKP	02 58	12.1			KIR	Mx	04 07			
		Kermadec Islands region (h = N).							Mx	Z	3.3 20		
"	22	UPP	ePKP1	09 06	31			New Ireland region (h = 50 km). M = 6.0 (UPP,KIR).					
		South of Fiji Islands (h = N).						"	24	UPP	iPKP1	10 32	21.0
"	22	UPP	iPKP	09 18	09.8			Kermadec Islands region (h = 45 km).					
		KIR	iPKP	09 17	56.0								
			PKP	Z'	0.1 1.0			"	24	UPP	iP	11 11	46.8
		UME	iPKP	09 18	02.1			UME	iP	11 11	19.4		
		Santa Cruz Islands (h = 170 km).						Andreanof Islands, Aleutian Islands (h = N).					
"	22	UPP	iPKP1	17 43	14.3			"	24	UPP	iP	20 40	12.1
		Kermadec Islands region (h = N).						"	24	UPP	iPKP1	22 55	10.4
"	22	UPP	iPKP1	20 00	26.5			Kermadec Islands region (h = 45 km).					
		UME	iPKP	20 00	15.9			"	25	UPP	iPKP1	02 07	02.0
		Kermadec Islands region (h = N).						Kermadec Islands region (h = N).					
"	22	UPP	iPKP1	22 40	02.4			"	25	UPP	iPKP1	07 25	26.4
		Kermadec Islands region (h = N).						Kermadec Islands region (h = N).					
"	23	UPP	iP	01 53	26.9			"	25	UPP	iP	07 36	37.8
		KIR	iP	01 52	33.9			Kermadec Islands region (h = N).					
		UME	iP	01 53	00.4			"	25	UPP	iP	07 36	37.8
		Fox Islands, Aleutian Islands (h = N).											



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1986				1986								
Oct.	25	UPP	iPKP1	14 10	31.8	Oct.	26	(cont.)				
				South of Fiji Islands					iSn	11 38 35.2		
				(h = N).					i	11 38 56.4		
"	25	UPP	iP	20 09	27.6			UME	iPn	11 36 33.8		
			iS	20 11	00.5				iPg1	11 36 42.1		
		KIR	iP	20 11	13.5				iSn	11 38 00.6		
		UME	iP	20 10	23.2				iSg1	11 38 40.0		
			iS	20 12	40.3			DEL	iPn	11 36 28.4		
		Poland (h = 20 km).							iSn	11 37 49.1		
									iSg1	11 38 34.2		
"	25	UPP	iPKP	21 06	14.1			MYV	iPn	11 35 56.2		
		KIR	iPKP	21 06	00.5				iPg1	11 36 13.6		
		UME	iPKP	21 06	07.0			Off coast of southwestern Norway, near 61°N, 6 1/2°E.				
		Vanuatu Islands (h = 30 km).						Origin time = 11 34 35.				
"	26	UPP	iPKP1	03 19	09.7			M <sub>L</sub> (UPP) = 4.6 (0.20) 5.				
		KIR	iPKP	03 18	53.3	"	26	UPP	iSg1	12 00 47.0		
		UME	iPKP	03 18	58.9			Norwegian Sea, 61.7°N, 3.3°E.				
		Kermadec Islands region						Origin time = 11 57 04.				
		(h = 45 km).						Solution from Finnish bulletin.				
"	26	UPP	iP	03 44	55.5			"	26	UPP	iSg1	23 47 02.5
		KIR	iP	03 44	01.8					UME	iSg1	23 47 22.3
			ipP	03 44	11.8					DEL	iSg1	23 47 15.9
		UME	iP	03 44	29.2					MYV	iPg1	23 44 53.4
			ipP	03 44	39.9						iSg1	23 45 57.2
		Unimak Island region.						Off coast of southwestern Norway, near 62 1/4°N, 4°E.				
		h = 35 km (KIR,UME).						Origin time = 23 43 27.				
"	26	UPP	iP	04 53	55.0 C			"	27	UPP	iP	00 15 40.7
			ipP	04 54	45.0							micr sec
			iPPP	04 58	05.5						Mx	Z 1.6 23
			iP'P'	05 22	14.0					KIR	iP	00 16 06.3
												micr sec
			P	Z'	0.1 1.1						Mx	Z 1.0 17
		KIR	iP	04 53	01.7 C				North Atlantic Ridge			
			ipP	04 53	50.6				(h = 10 km).			
			iPPP	04 57	28.9				M = 4.6 (UPP,KIR).			
			iP'P'	05 22	41.5							
			P	Z'	0.2 1.1			"	27	KIR	iPKP	04 44 46.7
		UME	iP	04 53	28.2 C					UME	iPKP1	04 44 54.5
			ipP	04 54	17.4				North Islands, New Zealand			
			iPPP	04 57	46.0				(h = 140 km).			
			iP'P'	05 22	21.9							
		Fox Islands, Aleutian Islands.					"	27	UPP	eSg1	05 48 36	
		h = 230 km (UPP,KIR,UME).							KIR	iPg1	05 47 07.4	
		m = 5.5 (UPP,KIR).								iSg1	05 47 54.6	
"	26	UPP	iP	05 12	57.2				UME	iPg1	05 46 17.0 C	
										iSg1	05 46 25.0	
"	26	UPP	iPn	11 36	23.0				MYV	iPg1	05 47 22	
			i	11 36	30.4					iSg1	05 47 44.0	
			iSn	11 37	42.3			Near coast of Västerbotten, Sweden, 64.3°N, 21.0°E.				
			iSg1	11 38	22.3			Origin time = 05 43 05.				
		KIR	iPn	11 36	51.9			(cont.)				
		(cont.)						(cont.)				

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1986				1986			
Oct.	27	(cont.) M <sub>f</sub> (UPP) = 2.6 (0.04) 2. Felt. By combination with Finnish station readings.		Oct.	30	UPP	i(PKP) 01 47 54.3 iPKP 01 47 58.7 micr sec PKP Z' 0.5 0.7 Mx Z 13.6 20 KIR i(PKP) 01 47 35.3 iPKP 01 47 47.6 micr sec PKP Z' 2.2 2.0 Mx Z 4.4 17 UME iPKP) 01 47 42.7 iPKP 01 47 47.4 Fiji Islands region (h = 190 km). M = 6.5 (UPP,KIR). M uncorrected for focal depth.
"	27	UPP iP 14 22 47.6 micr sec P Z' 0.1 1.0 KIR iP 14 23 18.1 UME iP 14 23 06.6 Central Mid-Atlantic Ridge (h = 10 km).		"	31	UPP iP 07 18 08.8 Northern Colombia (h = 170 km).	
"	27	UPP iP 22 36 31.9 micr sec Mx Z 1.1 12 KIR micr sec Mx Z 1.3 9 UME iP 22 37 14.9 Albania (h = 20 km).		"	31	UPP eP 12 25 22 KIR iP 12 26 34.0 Southern Greece (h = 50 km).	
"	28	UPP ePKP1 00 10 14 Kermadec Islands region (h = N).					
"	28	UPP iPKP1 04 22 23.0 Kermadec Islands region (h = N).					
"	28	UPP ePKP1 11 25 49 Kermadec Islands region (h = 35 km).					
"	29	UPP iP 02 26 11.4 C micr sec P Z' 0.3 1.0 KIR iP 02 25 22.9 micr sec P Z' 1.0 0.9 UME iP 02 25 44.9 Kuril Islands (h = N). m = 6.7 (UPP,KIR).					
"	29	KIR eP 15 41 41 Mindanao, Philippine Islands (h = N).					
"	29	KIR eP 20 24 32 Mindanao, Philippine Islands (h = 70 km).				March 31, 1988 Gerry Chouliaras Conny Holmqvist Myung Soon Jun	
"	30	UPP iPKP1 00 51 40.4 Kermadec Islands region (h = N).					



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1986				1986			
Nov.	3	UPP iPKP1 UME ePKP1 Kermadec Islands region (h = N).	02 25 56.1 02 25 46	Nov.	6	UPP iP KIR iP UME iP Northwest of Kuril Islands (h = 390 km).	23 32 48.9 23 31 57.3 23 32 21.6
"	3	UME iP	03 12 03.6 C	"	7	KIR eP Mindanao, Philippine Islands (h = 40 km).	00 37 08
"	3	UPP iP	14 32 19.8	"	7	KIR eP UME eP North of Franz Josef Land (h = 10 km).	13 31 34 13 32 16
"	3	UPP iPKP1 Kermadec Islands region	15 38 46.7	"	7	UPP iP KIR iP Mariana Islands (h = 70 km).	16 08 48.7 16 08 19.8
"	3	UPP iPKP1 Kermadec Islands region (h = N).	18 38 49.2	"	7	UPP iPKP1 i Mx Z KIR ePKP1 micr sec Mx Z UME iP USSR-Mongolia border region (h = 10 km). M = 5.5 (UPP,KIR).	20 08 38.0 20 08 39.1 micr sec 6.4 19 20 08 25 micr sec 1.4 20 20 08 26.5 20 08 30.0 20 08 40.6
"	4	KIR iP Southern Alaska (h = 100 km).	06 23 07.8	"	7	UPP iPKP1 i Mx Z KIR ePKP1 micr sec Mx Z UME iP USSR-Mongolia border region (h = 10 km). M = 5.5 (UPP,KIR).	20 08 38.0 20 08 39.1 micr sec 6.4 19 20 08 25 micr sec 1.4 20 20 08 26.5 20 08 30.0 20 08 40.6
"	4	UPP iP micr sec Mx Z KIR iP micr sec Mx Z UME iP USSR-Mongolia border region (h = 10 km). M = 5.5 (UPP,KIR).	16 26 48.6 7.4 12 16 26 23.5 micr sec 1.8 11 16 26 28.7 C	"	7	UPP iP KIR iP Mariana Islands (h = 70 km).	16 08 48.7 16 08 19.8
"	4	UPP iP micr sec Mx Z KIR iP micr sec Mx Z UME iP USSR-Mongolia border region (h = 10 km). M = 5.5 (UPP,KIR).	16 26 48.6 7.4 12 16 26 23.5 micr sec 1.8 11 16 26 28.7 C	"	7	UPP iPKP1 i Mx Z KIR ePKP1 micr sec Mx Z UME iP USSR-Mongolia border region (h = 10 km). M = 5.5 (UPP,KIR).	20 08 38.0 20 08 39.1 micr sec 6.4 19 20 08 25 micr sec 1.4 20 20 08 26.5 20 08 30.0 20 08 40.6
"	5	UPP iP KIR iP UME iP Nicobar Islands region (h = 130 km).	02 33 45.6 02 33 48.0 02 33 42.5	"	7	UPP i(P)	20 33 12.3
"	5	UME iP	03 45 18.3 D	"	7	UPP iPKP1 KIR ePKP1 UME iPKP1 Kermadec Islands region (h = N).	21 18 31.1 21 18 18 21 18 21.8
"	5	UPP iP	08 08 15.3	"	7	UPP iP	23 17 35.7
"	5	UPP iP KIR iP UME iP Luzon, Philippine Islands (h = 100 km).	17 44 58.0 17 45 09.2 17 44 45.3	"	8	UPP iPKP1 Kermadec Islands region (h = N).	00 29 03.5
"	6	UPP iP KIR iP micr sec P Z' UME iP Mindanao, Philippine Islands (h = 60 km).	03 01 22.4 03 01 04.5 micr sec 0.1 1.2 03 01 10.8	"	8	UPP eP	02 17 07
"	6	UPP iP KIR iP UME iP Andreanof Islands, Aleutian Is. (h = N).	18 37 59.4 18 37 06.9 18 37 36.1	"	8	UPP iP i	03 59 49.8 04 00 00.9
"	6	UPP iP KIR iP UME iP Andreanof Islands, Aleutian Is. (h = N).	18 37 59.4 18 37 06.9 18 37 36.1	"	8	UPP iPKP1 Kermadec Islands region (h = N).	04 42 15.8
"	6	UPP iP KIR iP UME iP Andreanof Islands, Aleutian Is. (h = N).	18 37 59.4 18 37 06.9 18 37 36.1	"	8	UPP iPKP1 Kermadec Islands region (h = N).	05 17 22.5

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1986				1986			
Nov.	8	UPP iPKP1	15 14 22.9	Nov.	11	KIR iSn	21 43 24.7
		Kermadec Islands region (h = N).				Barents Sea, 76.2°N, 26.8°E. Origin time = 21 39 53. Solution from Finnish station readings.	
"	8	UDD iSg1	16 36 34.8	"	12	UPP iP	10 13 45.2
		Southwestern Norway, 61.9°N, 7.1°E. Origin time = 16 34 51. Solution from Bergen bulletin.				KIR iP	10 13 48.6 D
"	9	UPP iPKPK1	12 24 36.9			ipP	10 14 13.8
		Kermadec Islands region (h = N).				i	10 15 10.9
"	9	UPP iP	12 27 21.5				micr sec
		KIR iP	12 26 27.7			P Z'	0.3 1.0
			micr sec			UME iP	10 13 40.5 D
		P Z'	0.1 0.8			ipP	10 14 06.8
		UME iP	12 26 54.6			i	10 15 17.9
		Fox Islands, Aleutian Islands (h = N).				Tajik-Xinjiang border region. h = 100 km (KIR,UME).	
"	9	UPP iP	14 20 24.0	"	12	KIR eP	14 49 58
		KIR eP	14 20 12			Talaud Islands (h = 100 km).	
		Qinghai Province, China (h = 10 km).		"	12	UPP iPKP1	21 14 06.2
"	9	UPP iPKP1	15 45 31.4			UME iPKP1	21 13 55.6
		Kermadec Islands region (h = N).				Kermadec Islands region (h = 35 km).	
"	10	UPP iP	19 48 43.1	"	13	UPP ipP	12 55 04.2
		Aegean Sea (h = 20 km).					micr sec
"	9	UPP iPKP1	15 45 31.4			Mx Z	1.7 14
		Kermadec Islands region (h = N).				KIR iP	12 54 15.7
"	10	UPP iP	19 48 43.1			UME iP	12 54 34.3
		Aegean Sea (h = 20 km).				ipP	12 54 39.4
"	10	UPP iPKP1	20 58 25.2			Hokkaido, Japan region. h = 15 km (UME).	
		KIR ePKP	20 58 11	"	13	UPP iPKP1	13 27 51.8
		Kermadec Islands region (h = N).				Kermadec Islands region (h = 30 km).	
"	11	UPP iP	00 16 02.7	"	13	UPP i(P)	14 56 41.9
		KIR eP	00 15 41	"	14	UPP iP	00 57 38.2
		ipP	00 16 03.8			KIR iP	00 57 01.4
		Molucca Passage (h = 80 km).					micr sec
"	11	UPP ePKP1	03 02 41			P Z'	0.1 0.7
		South of Fiji Islands (h = 470 km).				UME iP	00 57 16.5
"	11	UPP iP	14 16 16.7			Southern Honshu, Japan (h = 270 km).	
		Andreanof Islands, Aleutian Is. (h = N).		"	14	UPP iP	04 29 02.5
"	11	UPP iPKP1	19 52 12.3			i	04 29 08.9
		ipPK2	19 52 15.3			KIR iP	04 29 12.1
		UME iPKP1	19 51 59.8			UME iP	04 29 00.9
		Kermadec Islands region (h = 280 km).				Hindu Kush region (h = 100 km).	
"	11	UPP iPKP1	19 52 12.3	"	14	UPP iPKP	06 52 17.4
		ipPK2	19 52 15.3			UME iPKP	06 52 24.8
		UME iPKP1	19 51 59.8			South Sandwich Islands region (h = 20 km).	
		Kermadec Islands region (h = 280 km).					

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1986				1986			
Nov.	14	UPP eP	07 08 37	Nov.	14	UPP iP	23 16 23.5
		Mediterranean Sea				i	23 16 26.2
		(h = 40 km).					micr sec
"	14	UPP iP	12 19 33.6			i Z'	0.1 0.9
		Greece (h = 10 km).			KIR iP		23 16 00.1
					i		23 16 14.6
							micr sec
"	14	UPP iPKP1	13 19 07.6			P Z'	0.3 1.0
		UME iPKP1	13 18 56.8			i Z'	1.0 1.5
		Kermadec Islands region			UME iP		23 16 09.5
		(h = 45 km).			i		23 16 17.9
							Taiwan (h = N).
"	14	UPP iP	16 11 48.8 C				m = 6.2 (UPP,KIR).
		KIR iP	16 11 14.7 C				
			micr sec	"	15	UPP iP	00 29 31.0
		P Z'	0.1 1.0				micr sec
		UME iP	16 11 34.1 C			Mx Z	9.4 14
		Southern Nevada.			KIR iP		00 29 05.8
		Underground explosion.					micr sec
						Mx Z	6.1 12
"	14	UPP iP	21 31 51.1			UME iP	00 29 16.6
		i	21 31 56.9				Taiwan (h = N).
		i	21 31 59.9				M = 6.2 (UPP,KIR).
		iS	21 41 34				
			micr sec	"	15	UPP eP	01 11 53
		i Z'	0.1 0.7			i	01 12 01.5
		i Z'	0.3 0.7				micr sec
		Mx E	330 11			Mx Z	6.0 15
		Mx N	170 11		KIR iP		01 11 25.7
		KIR iP	21 31 27.1				micr sec
		i	21 31 34.0			Mx Z	2.5 12
			micr sec				Taiwan (h = N).
		i Z'	3.7 2.0				M = 5.9 (UPP,KIR).
		Mx Z	1.3 19	"	15	UPP iP	03 36 46.0
		UME iP	21 31 35.8				micr sec
		Taiwan h = 35 km.				Mx Z	2.8 14
		m = 6.7, M = 7.8 (UPP,KIR).			KIR iP		03 36 22.9
		Unusual large difference			i		03 36 38.4
		between body- and surface					micr sec
		wave magnitudes. Uppsala				Mx Z	2.2 12
		surface wave magnitude					Taiwan (h = N).
		from Wiechert records.					M = 5.7 (UPP,KIR).
"	14	UPP iP	21 53 44.1	"	15	UPP iP	06 18 11.7
		KIR iP	21 52 50.6			KIR iP	06 17 32.9
			micr sec			UME iP	06 17 49.8
		P Z'	0.2 1.4				Near east coast of Honshu,
		UME iP	21 53 17.4				Japan (h = 55 km).
		Andreanof Islands, Aleutian					
		Is. (h = N).		"	15	UPP iP	07 35 54.4
"	14	UPP iP	22 46 09.2				micr sec
		KIR iP	22 45 46.1			Mx Z	9.2 16
		UME eP	22 45 54		KIR iP		07 35 30.9
		Taiwan (h = N).			i		07 35 44.0
							micr sec
					P Z'		0.1 1.0

(cont.)

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1986				1986			
Nov.	15	(cont.)		Nov.	19	UPP iP	00 46 57.4
		i	Z' 0.2 1.1			UME iP	00 46 39.0 D
		Mx	Z 4.4 13			Ryukyu Islands region (h = N).	
		UME iP	07 35 39.8				
		i	07 35 52.5	"	19	UPP iPKP1	05 13 06.1
		Taiwan (h = 30 km).				Kermadec Islands region	
		M = 6.1 (UPP,KIR).				(h = N).	
"	15	KIR iP	16 24 13.3	"	19	UPP iPKP1	06 41 12.8
		UME iP	16 24 22.9			Kermadec Islands region	
		i	16 24 38.1			(h = N).	
		Taiwan region (h = N).		"	19	UPP iPKP1	09 40 39.5 C
"	16	UPP iP	18 36 21.3			KIR iPKP	09 40 29.3
		KIR iP	18 35 51.7			iSKP1	09 43 09.9
		UME iP	18 36 04.0			UME iSKP1	09 43 20.9
		Ryukyu Islands (h = 30 km).				South of Fiji Islands	
						(h = 520 km).	
"	17	UPP iSKP1	00 56 10.5	"	19	UPP iPKP1	14 29 21.8
		KIR iPKP	00 52 24.6			Kermadec Islands region	
		UME iPKP	00 52 34.7			(h = N).	
		Vanuatu Islands (h = 35 km).		"	20	UPP iP	02 48 27.1
"	17	UPP i(P)	02 48 43.1			KIR iP	02 48 14.9
"	17	UPP iP	21 25 42.7			Northern Xinjiang, China	
		KIR iP	21 25 18.5			(h = 50 km).	
		Taiwan region (h = N).		"	20	UPP eP	11 25 21
"	18	UPP iP	09 01 04.1			KIR ipP	11 24 59.5
		i	09 01 20.0			UME iP	11 24 58.4
		KIR iP	09 00 36.5			Near east coast of Honshu,	
		Taiwan (h = N).				Japan (h = 60 km).	
"	18	UPP iPKP1	10 35 20.0	"	20	UPP iP	12 41 19.2
		iPKP2	10 35 33.3			KIR eP	12 41 08
		KIR iPKP1	10 35 01.7			UME iP	12 41 08.1
		UME iPKP1	10 35 11.6			Tibet (h = N).	
		Off e. coast of N. Island,		"	20	UPP iP	13 13 47.1
		N.Z. (h = 280 km).				KIR iP	13 13 34.9
"	18	UPP iPKP	12 21 14.1			UME iP	13 13 32.1
		ipPKP	12 21 31.3			Tibet (h = N).	
		KIR iPKP	12 21 29.1	"	20	UPP iP	13 14 37.5
		ipPKP	12 21 46.2			KIR iP	13 14 25.8
		South Sandwich Islands				UME iP	13 14 26.6
		region.				Probably Tibet.	
		h = 60 km (UPP,KIR).		"	20	KIR iPKP	13 33 15.5
"	18	UPP i(P)	14 49 51.5			UME iPKP	13 33 22.8
"	18	UPP iPKP1	23 06 56.9			Vanuatu Islands (h = 60 km).	
		UME iPKP	23 06 51.0	"	20	KIR iP	15 06 47.7
		South of Fiji Islands				UME iP	15 06 40.4
		(h = 510 km).				North Atlantic Ridge	
"	18	UPP iP	23 42 25.1			(h = 10 km).	

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986						1986		
Nov.	20	UPP	iP	20 15 13.6		Nov.	22	(cont.)
		KIR	iP	20 15 51.8 C				UME i(PKP) 17 27 14.4
				micr sec				iPKP 17 27 24.4
			P	Z' 0.1 1.0				Vanuatu Islands (h = 160 km).
		UME	iP	20 15 28.1		"	22	UME eP 21 09 27
				Southern Iran (h = 30 km).				Tibet (h = N).
"	21	UME	iP	08 21 03.3		"	23	UPP iP 01 52 36.9
				Near s. coast of Honshu,				ipP 01 53 09.6
				Japan (h = 10 km).				micr sec
"	21	UME	iP	08 23 58.4				Mx Z 19.0 23
				Near s. coast of Honshu,				KIR iP 01 52 39.9
				Japan (h = 10 km).				iPP 01 56 38.2
"	21	UPP	iP	23 44 44.4				micr sec
			i	23 46 01.0				P Z' 0.2 1.3
				micr sec				Mx Z 4.8 30
			P	Z' 0.1 0.9				UME iP 01 52 41.7
		KIR	iP	23 44 05.3				iPP 01 56 33.7
				micr sec				Peru-Ecuador border region
			P	Z' 0.1 1.0				(h = 110 km).
		UME	iP	23 44 27.0				M = 6.2 (UPP,KIR).
			i	23 44 37.7		"	23	UPP iP 02 52 57.2
				Near coast of northern				micr sec
				California (h = 15 km).				Mx Z 7.3 20
				m = 5.9 (UPP,KIR).				KIR iP 02 52 39.3
"	21	UPP	iP	23 46 00.8				micr sec
		KIR	iP	23 45 22.5				P Z' 0.7 1.8
		UME	iP	23 45 43.6				Mx Z 3.3 15
				Near coast of northern				UME iP 02 52 50.1
				California (h = 15 km).				Iceland (h = 10 km).
"	22	UPP	iP	00 53 22.8		"	23	KIR iP 03 32 17.5
			ipP	00 53 25.6				UME iP 03 33 13.7
			iS	01 02 50				Greenland Sea (h = 10 km).
				micr sec		"	23	KIR iP 04 44 01.2
			pP	Z' 0.1 1.0				iS 04 49 05.8
			Mx	Z 6.1 18				i 04 49 39.7
		KIR	iP	00 52 44.8		"	24	UDD iSg1 01 16 43.2
			ipP	00 52 47.9				MYV eSn 01 16 43
				micr sec				Off coast of southwestern
			pP	Z' 0.2 1.1				Norway 61.5°N, 4.3°E.
			Mx	Z 5.5 19				Origin time = 01 14 20.
		UME	iP	00 53 00.1				M <sub>L</sub> (UPP) = 2.5 1.
			ipP	00 53 04.3				Solution from Bergen bulletin.
				Near s. coast of Honshu,		"	25	UPP i(P) 08 05 49.1
				Japan.		"	25	UPP iP 14 03 21.2
				h = 10 km (UPP,KIR,UME).				i 14 03 26.7
				m = 6.0, M = 5.9 (UPP,KIR).				iS 14 06 20
"	22	UPP	iPKP	17 27 32.0				micr sec
		KIR	e(PKP)	17 27 16				P Z' 0.1 1.0
			iPKP	17 27 17.9				i Z' 0.3 1.0
				micr sec				(cont.)
			PKP	Z' 0.1 0.7				(cont.)
				(cont.)				



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1986						1986			
Nov.	25	(cont.)				Nov.	30	(cont.)	
		Mx	Z	20.7	11			Near east coast of Honshu,	
		KIR	iP	14 04	54.7			Japan (h = 35 km).	
			i	14 05	00.8				
					micr sec				
			P	Z'	0.4 1.4				
			i	Z'	4.2 2.5				
		Mx	Z	22.1	10				
		UME	iP	14 04	13.1				
			i	14 04	18.0				
		Yugoslavia (h = 30 km).							
		m = 5.9 (UPP,KIR).							
"	26	KIR	iP	04 53	35.4				
		UME	iP	04 53	51.0				
		South of Honshu, Japan							
		(h = 80 km).							
"	27	UPP	iP	03 40	01.5				
			i	03 40	12.0				
					micr sec				
			i	Z'	0.1 1.0				
		KIR	iP	03 39	17.5				
			i	03 39	28.8				
					micr sec				
			i	Z'	0.1 1.1				
		UME	iP	03 39	37.1 D				
		Hokkaido, Japan region							
		(h = 45 km).							
		m = 5.9 (UPP,KIR).							
"	28	UPP	i(P)	11 39	09.1				
"	28	UPP	iP	22 41	03.7				
					micr sec				
			P	Z'	0.1 1.0				
		KIR	iP	22 40	24.6				
		UME	iP	22 40	42.1				
		Near east coast of Honshu,							
		Japan (h = 40 km).							
"	29	UPP	iP	20 50	14.9				
		Kuril Islands (h = 100 km).							
"	29	UPP	iP	23 01	56.4				
		Taiwan region (h = 35 km).							
"	20	UPP	iP	03 15	37.7			April 13, 1988	
		Taiwan (h = 35 km).							
"	30	UPP	iP	20 26	47.7 C			Ingrid Båth	
			i	20 27	03.7			Conny Holmqvist	
					micr sec			Klaus Meyer	
			P	Z'	0.6 1.3				
		KIR	eP	20 26	06				
		UME	iP	20 26	24.9 C				
		(cont.)							



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1986				1986								
Dec.	7	UPP	iP	05 52 13.8	C	Dec.	10	UPP	iP	19 49 11.8		
				micr	sec			KIR	eP	19 48 56		
			P	Z'	0.2 0.9			Talaud Islands (h = 80 km).				
		KIR	iP	05 52 14.4	C	"	11	UPP	iP	00 06 54.6	D	
				micr	sec				i	00 07 21.0		
			P	Z'	0.2 1.0					micr	sec	
		UME	iP	05 52 10.6	C				P	Z'	0.2 0.9	
			i	05 52 26.1				KIR	iP	00 06 30.1	D	
			ipP	05 52 58.5						micr	sec	
		Nicobar Islands region							P	Z'	0.2 1.2	
		(h = 220 km).						UME	iP	00 06 38.9		
		m = 5.8 (UPP,KIR).						Taiwan (h = 100 km).				
"	7	UPP	iP	14 21 09.0				m = 5.9 (UPP,KIR).				
			iS	14 24 15		"	11	UPP	iP	04 57 15.8		
				micr	sec			KIR	iP	04 57 24.0		
			P	Z'	0.3 1.0			UME	iP	04 57 23.9		
			Mx	Z	60.5 18			Leeward Islands (h = 55 km).				
		KIR	iP	14 22 30.9		"	11	UPP	iPKP1	09 50 21.4		
			i	14 22 47.5				UME	iPKP1	09 50 05.2		
				micr	sec			Kermadec Islands (h = 50 km).				
			P	Z'	0.3 1.2			"	11	UPP	iPKP1	16 48 58.1
			Mx	Z	21.9 13			South of Fiji Islands				
		UME	iP	14 21 49.6	C			(h = 100 km).				
		Bulgaria (h = 20 km).						"	11	UPP	iP	19 09 28.6
"	7	UPP	iP	14 53 37.9				KIR	eP	19 09 02		
		KIR	iP	14 53 23.7	C			UME	iP	19 09 12.2		
				micr	sec			Southwestern Ryukyu Islands				
			P	Z'	0.4 1.4			(h = 130 km).				
		UME	iP	14 53 28.5	C			"	11	UPP	ePKP	20 15 03
		Minahassa Peninsula						Solomon Islands (h = 60 km).				
		(h = 220 km).						"	11	UPP	iP	22 39 44.7
"	7	UPP	iP	17 30 08.0				KIR	iP	22 39 16.5		
		KIR	eP	17 31 30					i	22 39 21.9		
			i	17 31 39.1				UME	iP	22 39 28.4		
		UME	iP	17 30 48.4				Mariana Islands (h = 50 km).				
		Bulgaria (h = 10 km).						"	11	UPP	iP	22 42 36.2
"	8	KIR	eP	03 09 54					i	22 42 46.0		
		North Atlantic Ridge								micr	sec	
		(h = 10 km).							P	Z'	0.1 1.1	
"	8	UPP	iP	14 48 30.7					i	Z'	0.2 1.3	
		KIR	iP	14 49 48.9				KIR	iP	22 41 48.5		
		Bulgaria (h = 30 km).							i	22 41 56.2		
"	9	UPP	iP	14 22 03.1				UME	iP	22 42 09.7		
		KIR	eP	14 21 47					i	22 42 19.3		
		Mindanao, Philippine Islands						Kuril Islands region (h = N).				
		(h = 550 km).						"	11	UPP	i(P)	23 17 03.5
"	10	KIR	iP	00 01 12.9				"	12	UPP	iP	01 05 53.8
		Nicaragua (h = 120 km).						Pakistan (h = N).				

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1986				1986					
Dec.	12	UPP	iPKP i	01 15 24.8 01 15 28.1	Dec.	13	UPP	iPKP1	08 08 53.4
				South of Fiji Islands (h = N). Large residual in comparison to PDE solution.					Kermadec Islands region (h = N).
"	12	UPP	iPKP1	01 24 24.0	"	13	UPP	iPKP1	15 28 52.7
				Kermadec Islands region (h = N).					South of Fiji Islands (h = N).
"	12	UPP	iPKP1 i	02 32 40.9 03 32 45.7	"	13	UPP	iP	18 01 53.4 C
				South of Fiji Islands (h = N).			KIR	iP	18 01 18.6 C
							UME	iP	18 01 38.8 C
									Southern Nevada. Underground explosion.
"	12	UPP	iP	02 43 19.2	"	13	UPP	iPKP1	18 21 54.2
				Kuril Islands (h = N).					South of Fiji Islands (h = N).
"	12	UPP	iP	03 21 35.7	"	14	UPP	iP	00 22 37.6 D
									micr sec
								P	Z' 0.1 0.7
"	12	UPP	iPKP1 i	03 37 27.7 03 37 30.9			KIR	iP	00 22 02.0 D
				micr sec					micr sec
				i Z' 0.1 1.0				P	Z' 0.1 0.9
				South of Fiji Islands (h = N).			UME	iP	00 22 17.6 D
									South of Honshu, Japan (h = 350 km). m = 5.6 (UPP,KIR).
"	12	UPP	iPKP1 i	03 52 24.3 03 52 29.4	"	14	UDD	iSn	00 45 05.9
				South of Fiji Islands (h = N).					Off coast of southern Norway, 58.0°N, 6.7°E. Origin time = 00 43 18. Solution from Bergen bulletin.
"	12	UPP	iPKP1 i i	04 47 58.3 04 48 03.1 04 48 15.8	"	14	UPP	iPKP1	05 12 15.5
				South of Fiji Islands (h = 70 km).					South of Fiji Islands (h = 210 km).
"	12	UPP	iPKP1 i	07 18 25.6 07 18 29.3	"	14	UPP	iP	07 45 24.3
				South of Fiji Islands (h = N).					Greece (h = 30 km).
"	12	UPP	iPKP1	10 49 23.8	"	14	UPP	iPKP1	23 54 43.1
				South of Fiji Islands (h = N).					South of Fiji Islands (h = N).
"	12	UPP	iPKP1 i	16 10 19.2 16 10 33.3	"	15	UPP	eP	02 22 27
				South of Fiji Islands (h = 50 km).				iS	02 25 07.9
							KIR	iP	02 21 20.1 C
								iS	02 23 21.7
"	12	KIR	iP	16 35 17.2			UME	iP	02 21 55.2
		UME	iP	16 36 05.5				iS	02 24 14.9
				Norwegian Sea (h = 10 km).					Jan Mayen Island region (h = 10 km).
"	12	UPP	iPKP1	19 14 15.9	"	15	UPP	iP	15 00 32.6
				South of Fiji Islands (h = N).			KIR	iP	15 01 40.9
"	12	UPP	iP	19 33 52.7					Mediterranean Sea (h = 45 km).
		KIR	iP	19 35 14.0					
		UME	iP	19 34 33.9					
				Bulgaria (h = 10 km).					

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1986				1986									
Dec.	16	UPP	iSg1	01 31	54.5	Dec.	17	UPP	iP	21 23	06.0		
		UME	eSg1	01 32	58			KIR	iP	21 24	24.3		
		UDD	iPg1	01 30	34.4			UME	iP	Z' 21 24	46.4		
			iSg1	01 30	53.1			Greece-Albania border region (h = 45 km).					
		MYV	iSg1	01 31	35.4			"	17	UPP	iP	22 05	46.0
		Southeastern Norway, near 60 3/4°N, 11°E. Origin time = 01 30 09. M <sub>L</sub> (UPP) = 2.5 (0.49) 2. Felt.								KIR	iP	22 07	07.2
										UME	iP	22 06	26.8
										Bulgaria (h = 25 km).			
"	16	UPP	iPKP1	04 22	16.3	"	18	UPP	iP	02 05	11.4		
		South of Fiji Islands (h = 480 km).						KIR	iP	02 04	18.1		
								Andreanof Islands, Aleutian Is. (h = N).					
"	16	UPP	iP	06 26	26.1	"	18	UPP	iP	03 57	22.1		
		KIR	iP	06 27	56.9			KIR	eP	03 56	31		
		UME	iP	06 27	14.7			Rat Islands, Aleutian Islands (h = 70 km).					
		Yugoslavia (h = 10 km).						"	18	UPP	iP	07 30	57.5 D
"	16	UPP	iP	10 38	19.7			KIR	iP	07 31	05.8		
		KIR	eP	10 37	28			UME	iP	07 30	55.4 D		
		Andreanof Islands, Aleutian Is. (h = N).						Afghanistan-USSR border region (h = 180 km).					
"	16	UPP	iSg1	17 39	43.1	"	18	UME	iP	15 50	49.0		
		KIR	iSg1	17 37	42.6			"	18	UPP	eP	17 20	20
		UME	iSg1	17 38	13.3			KIR	eP	17 21	37		
		UDD	eSg1	17 39	30			UME	eP	17 20	59		
		MYV	iSg1	17 37	56.0			Bulgaria (h = 5 km).					
		Northwestern coast of Norway, near 66 3/4°N, 12 1/2°E. Origin time = 17 36 04. M <sub>L</sub> (UPP) = 2.6 (0.05) 2. By combination with Finnish station readings.						"	19	UPP	iSKS	04 06	36
										iS	04 07	43	
								Sumba Island region (h = 25 km).					
"	16	UPP	iP	22 37	22.3	"	19	UPP	Mx	04 48			
		KIR	iP	22 38	44.3				Mx	Z 10.5	19		
		UME	iP	22 38	02.6			KIR	Mx	04 50			
		Romania (h = 150 km).									micr sec		
"	17	UPP	iPKP1	01 31	11.6				Mx	Z 2.6	19		
		South of Fiji Islands (h = N).						Sumba Island region (h = 25 km). M = 6.1 (UPP,KIR).					
"	17	UPP	iP	08 38	52.7	"	19	UPP	iP	08 00	43.6		
		KIR	iP	08 39	00.4			KIR	iP	08 00	25.9		
		UME	iP	08 38	50.9			UME	iP	08 00	31.2		
			ipP	08 39	38.2			Luzon, Philippine Islands (h = 80 km).					
		Afghanistan-USSR border region (h = 230 km).						"	20	UPP	iPKP1	08 18	38.0
"	17	KIR	iP	17 23	22.2			Kermadec Islands region (h = N).					
		UME	iP	17 23	37.8								
		Sea of Japan (h = 360 km).											

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986				1986			
Dec.	20	KIR ePKP	08 40 43	Dec.	21	KIR eP	20 30 36
		UME iPKP1	08 40 49.3			Mindanao, Philippine Islands	(h = N).
		i	08 40 55.4				
		Kermadec Islands region					
		(h = 45 km).		"	22	KIR eP	04 15 24
"	20	UPP iPKP1	21 46 39.5			Taiwan region (h = 35 km).	
		i	21 46 53.5	"	22	UPP i(PKP)	14 37 28.3
		KIR ePKP	21 46 26				micr sec
		UME iPKP1	21 46 26.7			Mx Z	5.4 20
		Kermadec Islands region				KIR iPKP	14 37 56.9
		(h = 35 km).				i	14 38 07.1
"	20	UPP iP	23 17 26.2				micr sec
			micr sec			i Z'	0.1 1.3
		P Z'	0.1 1.0			Mx Z	2.1 21
		KIR iP	23 17 11.2 C			UME iPKP	14 37 51.6
			micr sec			i	14 38 01.9
		P Z'	0.2 1.5			Scotia Sea (h = 10 km).	
		UME iP	23 17 13.1 C			M = 6.1 (UPP,KIR).	
		Qinghai Province, China		"	22	UPP ePKP1	23 27 19
		(h = N).				KIR ePKP	23 27 10
		m = 5.8 (UPP,KIR).				iSKP1	23 29 43.1
"	20	UPP iP	23 54 21.5			UME iPKP	23 27 18.8
		KIR iP	23 55 00.0 C			iSKP1	23 29 54.7
		i	23 55 11.3			South of Fiji Islands	
			micr sec			(h = 600 km).	
		P Z'	0.2 1.0	"	24	UPP iP	05 09 36.3
		UME iP	23 54 36.0			UME iP	05 09 19.3
		Southern Iran (h = 25 km).				Ryukyu Islands (h = 55 km).	
"	21	KIR iP	00 19 42.1 C	"	24	UPP iSg1	09 59 57.9
		UME iP	00 19 19.1			KIR iSg1	10 01 18.2
		Southern Iran (h = 25 km).				UME iSg1	10 00 24.2
"	21	UPP iPKP1	01 30 31.4 C			UDD iPn	09 57 46.6
		i	01 30 32.0			iPg1	09 57 52.5
		KIR iPKP	01 30 09.8			iSn	09 58 28.6
		UME iPKP1	01 30 19.2			iSg1	09 58 59.5
		i	01 30 26.5			DEL iSn	09 59 37.2
		Kermadec Islands region				MYV iPg1	09 57 51.6
		(h = 15 km).				iSn	09 58 28.8
"	21	UPP iP	02 54 03.3			iSg1	09 58 52.8
			micr sec			Off coast of southwestern	
		P Z'	0.1 0.7			Norway, near 62°N, 4°E.	
		KIR iP	02 53 37.6			Origin time = 09 56 25.	
		UME iP	02 53 46.9 C			M <sub>L</sub> (UPP) = 3.3 (0.02) 4.	
		Taiwan region (h = 280 km).		"	24	UPP iP	16 51 48.7
"	21	UPP iP	11 48 07.4				micr sec
		KIR iP	11 47 51.9			P Z'	0.1 0.8
			micr sec			Mx Z	2.9 11
		P Z'	0.1 1.0			KIR iP	16 53 18.2
		UME iP	11 47 57.4				micr sec
		Talaud Islands (h = 130 km).				P Z'	0.2 1.1
						Mx Z	1.4 11

(cont.)

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

1986		1986	
Dec. 24	(cont.) UME iP 16 52 35.3 i 16 52 40.2 Yugoslavia (h = 30 km).	Dec. 29	UME iP 16 02 06.8 C Luzon, Philippine Islands (h = 55 km). m = 6.3 (UPP,KIR).
" 26	UPP iPKP1 03 01 02.0 Kermadec Islands region (h = 30 km).	" 30	UPP iP 00 49 55.2 UME iP 00 49 32.5 D Honshu, Japan (h = 10 km).
" 26	KIR iPg1 16 16 33.5 iSg1 16 16 43.2 UME iSg1 16 18 15.7 Norrbotten-Lappland, 67.4°N, 22.1°E. Origin time = 16 16 20. M <sub>L</sub> (UPP) = 2.1 1. By combination with Finnish station readings.	" 30	UME iPKP 06 31 12.4 Fiji Islands region (h = 560 km).
" 27	UPP iP 18 31 08.6 micr sec P Z' 0.1 0.8 KIR iP 18 30 39.7 micr sec P Z' 0.2 1.0 UME iP 18 30 52.1 Mariana Islands (h = 440 km). m = 5.7 (UPP,KIR).	" 30	UPP i(PKP) 15 51 29.9 iPKP 15 51 41.4 micr sec PKP Z' 0.1 1.1 Mx Z 1.6 20 KIR iPKP 15 51 24.4 i 15 51 36.8 micr sec PKP Z' 0.3 1.7 UME i(PKP) 15 51 22.5 iPKP 15 51 31.6 Tonga Islands (h = 25 km).
" 28	UPP iPKP1 01 04 30.8 Kermadec Islands region (h = N).	" 31	UPP iP 06 11 28.6 KIR eP 06 12 34 UME eP 06 12 00 Dodecanese Islands (h = 40 km).
" 28	UPP Mx 21 10 micr sec Mx Z 5.1 23	" 31	UPP iP 12 18 44.1 KIR iP 12 18 01.3 UME iP 12 18 20.0 C Hokkaido, Japan region (h = 60 km).
" 29	UPP iPKP1 03 14 47.0 iPKP2 03 14 51.0 UME iPKP1 03 14 35.1 C Kermadec Islands (h = N).	" 31	UME eP 12 28 17 Off coast of Oregon (h = 10 km).
" 29	UME iP 04 04 37.3 Albania (h = 10 km).	" 31	UPP ePKP1 13 08 10 UME iPKP1 13 08 00.7 Kermadec Islands (h = N).
" 29	KIR eP 12 50 59 i 12 51 11.2 UME iP 12 50 37.4 Central Mid-Atlantic Ridge (h = 10 km).	" 31	UPP iP 15 59 57.3 C KIR iP 15 59 50.6 UME iP 15 59 49.3 C Eastern India (h = 50 km).
" 29	UPP iP 16 02 19.0 C micr sec P Z' 0.4 1.2 KIR iP 16 02 01.2 C micr sec P Z' 0.6 1.0 (cont.)	" 31	KIR iP 17 05 40.8 UME iP 17 05 23.5 i 17 05 30.6 Pakistan (h = N).

UPP = Uppsala, KIR = Kiruna, UME = Umeå, UDD = Uddeholm, DEL = Delary, MYV = Myrviken

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Dec.	31	UME	eP	18 34 40
		Kuril Islands (h = 45 km).		
"	31	UPP	iP	19 32 21.0
		KIR	iP	19 32 19.9
				micr sec
		P	Z'	0.1 0.9
		UME	iP	19 32 17.8
		Southern Sumatera (h = 90 km).		

May 31, 1988

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