

JUL 11 1961

Helwan Observatory, Egypt

Seismological Bulletin

January 1961

(HLW)



No.	Date	Comp	Phase	G.	N.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.	s.		Km.	
1	1	Z	eP	9	45	02.0				Very weak
		Z	eX		47	18				
2	1	NSZ	(eSn)	16	32	06				" "
3	1	Z	eiP	16	57	14.5				" "
		Z	iX			24.6				
4	1	Z	eX	19	43	44				" "
		Z	eX		45	58				
5	1	Z	ePn	21	27	44.0			644	
		NE	Sn		28	52				
		Z	eX		29	18				
6	1	Z	iPn	21	32	25.8			655	Compression
		Z	(PP)			32				
		Z	ePg			49.6				
		E	Sn		33	35				
7	2	Z	iPKP	10	31	03.0			15445	Compression h/≠ 150 Km.
		Z	iX			25				
		Z	eX		32	15				
		Z	eX		33	15				
		Z	PP		34	00				
		Z	SKP			27				
8	3	Z	ePn	14	33	49.0			611	
		E	eX		34	19.4				
		NE	Sn			54				
		E	Sg		35	24.6				
9	3	Z	eP	23	48	11				Very weak
		E	eX		51	40				
		E	eX		52	02				
10	4	Z	ePn	17	52	29.0			910	" "
		Z	eX			41				
		NE	eSn		54	03				
11	5	Z	ePn	11	45	28.0			522	
		Z	eX			35				
		NE	Sn		46	24				
		Z	S*			37				
12	5	Z	iP	14	19	51.5		10555		Compression
		Z	PP		23	45				
		Z	eX		27	27				
		Z	eX		31	51				
		Z	eX		32	42				
13	5	Z	iP	15	22	25.0				Dilatation
14	5	Z	eP	16	08	27			12445	h ≠ 100 Km.
		Z	eX		12	51				
		Z	PP		13	05				
		Z	eX		23	32				
15	5	Z	iPKP	18	17	16.0			15555	Dilatation h ≠ 100 Km.
		Z	PP		20	26				
		Z	eX		21	25				
16	5	Z	eiPKP	18	34	02.0			15555	h ≠ 100 Km.
		Z	PP		37	10				
		Z	eX		38	11				
17	6	Z	iP	00	17	17.0				Dilatation
		Z	eX			32.2				

add

add



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
18	6	Z	eP	1	34	07.0			Very weak	
		Z	eX			33				
19	6	Z	iP	7	18	29.6			Compression	
20	6	NEZ	(iSg)	14	35	22.0				
21	7	Z	iPn	10	32	32.5		710	Dilatation	
		Z	P*			46				
		NE	Sn		33	46.8				
22	7	Z	eP	15	55	38.0		1200		
		Z	PP			47				
		E	eX		56	04				
		E	S		57	41				
		E	SS			56				
23	10	Z	iP	14	35	02.4		9555	Compression	
		Z	eX		37	12				
		Z	PP		38	21				
		N	SKS		45	25				
24	11	Z	eP	12	13	24		10555		
		Z	PP		17	18				
		Z	eX		21	26				
25	11	Z	iPg	20	13	10.8		89	Compression	
		NE	iSg			21.3			(not felt)	
26	13	Z	iPn	15	30	18.7		577	Dilatation	
		E	Sn		31	20				
		E	eX			57				
27	13	Z	iP	19	30	32.0			Compression	
28	14	Z	ePg	13	37	50.4		24	Not felt	
		NE	iSg			53.4				
29	15	Z	eX	17	03	28				
		Z	iX		04	24				
		Z	iX		07	06				
		Z	iX			30				
30	16	Z	iP	7	32	56.0		9665	Compression	
		Z	iPP		36	24			h = 130 Km.	
		Z	S		43	20				
31	16	ZN	iPg	10	15	32.8		( Tura Blast )	Compression	
32	16	Z	iP	10	16	42.0		9610	Compression	
		Z	iPP		17	12			h = 130 Km.	
		Z	iPP		20	08				
		Z	iX		21	20				
33	16	Z	iP	11	32	23.2		9780	Compression	
		Z	iX			47			h = 150 Km.	
		Z	iPP		35	49				
34	16	Z	iP	11	53	57.0		9780	Compression	
		Z	iX		54	30				
		Z	iPP		57	24				
		Z	S	12	04	42				
35	16	Z	eP	12	25	15.6		9780	Replica	
		Z	iPP		28	39				
36	16	Z	eiP	14	16	43.0		9780	"	
		Z	iPP		20	09				
37	16	Z	eiP	15	53	57.0		9780	h = 150 Km.	
		Z	eX		55	48				
		Z	eX		56	18				
		Z	PP		57	32				
38	16	Z	eiPn	16	06	48.6			Very weak	
		Z	eX		07	58				
		Z	eX							



No.	Date	Comp	Phase	G.		W.		Per.	Amplitude	Dist.	Remarks	
				h.	n.	s.	s.					
39	17	Z	ePKP	23	25	15			15555	Very weak h = 100 Km.		
		Z	ePP								28	25
40	18	Z	eX	22	12	34.5				Very weak		
41	19	Z	ePKP	4	40	44			15555	" "		
		Z	PKS								44	15
		Z	eX									28
42	19	Z	e1P	17	35	02.0				" "		
43	20	Z	eP	17	22	33.4			10335	" "		
		Z	PP								26	16
44	22	Z	eX	2	20	29.0				" "		
		Z	eX								25	09
		Z	eX								26	19
		Z	eX								27	03
45	22	Z	e1PKP	3	43	42.0				" "		
		Z	eX;								44	10
		Z	eX								46	05
		Z	eX								51	39
		Z	eX								56	05
46	23	Z	eP	5	01	02				" "		
		Z	eX									12
		Z	1X									37
46	24	Z	e1PKP	7	44	09.0			15780	h = 200 Km.		
		Z	eX									48
		Z	1P								47	29
47	26	Z	eX	16	32	12				Confused with microseisms		
		Z	eX								35	56
		Z	eX								39	33
48	26	Z	e1P	20	13	35.0			" "	" "		
49	26	Z	eX	21	40	15			" "	" "		
50	28	Z	ePn	10	17	11.6			566	" "		
		Z	eX									35
		Z	Sn								18	12.6
		Z	1X									25
51	28	Z	ePn	14	16	08.7			655	" "		
		Z	Sn								17	17.6
52	28	Z	e1P	14	25	43.8				very weak		
53	30	Z	eX	3	11	44				" "		
		Z	eX								12	46
54	31	Z	eP	1	01	55.0			10335	" "		
		Z	1P								05	42
		Z	eX								13	39
		Z	eX								14	30
55	31	Z	eP	19	32	45.7				" "		
		Z	eX								33	36
		Z	eX								34	26



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No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude		Dist.	Remarks
				h.	m.	s.		h.	m.		
1	2	Z	eX	00	50	20				Very weak	
		Z	eX		55	00					
2	2	Z	eIn	3	36	03.7			633		
		NZ	Sn		37	11					
3	3	Z	eiP	2	36	50.8				" "	
4	3	Z	eIn	20	38	20.3			788		
		NZ	Sn		39	42.5					
		N	eX			54.5					
5	4	Z	iP	9	01	1879				Compression	
		Z	pP			46					
		Z	eX		02	10					
6	4	Z	eiP	13	02	05.8				Very weak	
7	4	Z	ePKP	15	49	09				" "	
		Z	eX			35					
8	4	Z	iP	19	21	22.6				Compression	
		Z	eX			33					
		Z	iX			50					
9	5	Z	eP	18	03	08.7					
		Z	eX			18					
		Z	eX		05	02					
		Z	eX		07	56					
10	6	Z	eiPKP	22	04	06.5			13610	Confused with microseisms	
		Z	eX			19					
		Z	PP		05	48					
11	7	Z	eP	3	03	29				" " "	
12	8	Z	iPKP	18	09	43.0			17780	Dilatation	
		Z	iPKP			55.6					
13	9	Z	ePKP	2	28	07			17335		
		Z	iX			17					
		Z	PKP			32					
		Z	PP		32	08					
14	9	Z	iPg	9	10	06.0				Tura Blast	
14	9	Z	iPg	9	30	05.0				" "	
15	11	Z	eiP	6	24	45.0					
		Z	eX		25	35					
		Z	eX		27	08					
16	11	Z	iP	17	05	56.6				Dilatation	
		Z	eX		06	10					
17	11	Z	iPKP	21	20	56.8			17055	Compression	
		Z	iX		21	03.8					
		Z	iPP		24	54.5					
18	11	Z	eIn	22	56	08.8			688		
		N	Sn		57	21.8					
19	12	Z	eiPKP	1	38	50.0				Very weak	
20	12	Z	eiP	9	04	26.8					
		NZ	iX			45.0					
		N	iX		05	18.4					
21	12	Z	eX	10	35	12					
		Z	eX		38	44					



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	Remarks
				h.	m.	s.				
22	12	Z	eX	12	28	48.7			Very	
		Z	eX			59				
23	12	Z	eX	13	18	19.0			" "	
		Z	eX			29				
24	12	Z	iP	22	06	26.0		9445	Compression	
		Z	iX			35				
		Z	PP		09	46				
		Z	SIS		16	48				
		Z	iX		17	13				
25	12	Z	eIP	23	39	17.8		9445	Coproression	
		Z	iX			28.8				
		Z	eX		40	46				
		Z	eX		43	35				
		Z	S		49	46				
26	13	Z	eIPKP	7	05	20.5		16780		
		Z	PKKP			35				
		Z	eX			54				
		Z	eX		06	49				
		Z	PP		09	12				
27	13	Z	eP	16	40	06.0		9755		
		Z	iX			18				
		Z	iX			48.8				
		Z	eS		50	55				
		Z	PPS		52	18				
28	14	Z	eIP	3	34	47.0		9555		
		Z	PP		38	06				
		Z	eX		39	22				
		Z	SIS		45	10				
		Z	eX		46	36				
29	15	Z	eIP	10	57	57.0		9665		
		Z	eX		58	08				
		Z	eX		59	13				
		Z	eS	11	08	35				
30	16	Z	eIn	3	23	31.0		588		
		ZH	Sn		24	34				
31	16	Z	eX	3	48	11				
		Z	eX			37				
		Z	eX		50	46				
32	16	Z	eIP	14	07	33.0				
		Z	eX			42				
		Z	eX			57.5				
33	17	Z	eIn	9	19	15		500		
		Z	iX			29				
		H	iSn		20	09				
34	18	Z	eIn	00	16	20		488		
		H	eSn		17	12				
35	18	Z	ePKP	12	25	10.0				
		Z	eX		26	00				
36	18	Z	eIP	17	11	42.4				
		Z	eX			49				
		Z	eX		19	30				
37	21	Z	eIP	3	04	12.0		944		
		Z	eX			23.0				
		H	iS		05	50				
38	22	Z	eIPKP	22	13	22		17555	h = 100 Km.	
		Z	pPKP			46				
		Z	eX		17	21				
		Z	SIS		23	42				





No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
39	23	Z	eSn	3	20	40.0		688		
		N	iSn		21	53				
40	23	Z	eP	3	21	06				
		Z	eX		26	15				
		Z	eX		27	12				
		Z	eX		28	12				
		Z	eX		31	06				
41	23	Z	eP	4	29	00		9665		
		Z	PP		32	24				
		Z	eS		39	51				
42	23	N	iPg	10	14	18.0			Pure blast	
43	23	N	(eSn)	12	08	38.5				
		N	iX			46				
44	23	Z	eX	21	48	26				
		Z	eX		49	50				
45	23	N	(eIn)	21	58	40		778		
		N	(eSn)	22	00	02				
46	24	Z	eP	3	16	27		9000		
		Z	PP		19	33				
47	25	Z	eX	5	08	04				
		N	eX		09	02				
48	25	Z	eIPKP	15	22	00				
		Z	eX		23	12				
49	26	Z	iPKP	6	08	30			Dilatation	
		Z	eX		11	21				
		Z	eX		12	03				
		Z	eX		13	12				
		Z	eX		21	09				
50	26	Z	iP	18	23	09.4			Compression	
51	26	Z	iP	21	13	28.0			Compression	
		ZX	eX			44				
52	27	Z	eIn	21	41	52.0		778		
		N	Sn		43	13				
53	27	Z	eIn	21	56	23.0		799		
		N	Sn		57	46				
54	28	Z	eIn	13	07	12.0		510		
		N	Sn		08	07				
		N	eX			29				
55	28	Z	eP	13	23	31				
		N	eX			54				
		N	eX		24	54				



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No.	Date	Comp	Phase	G. M. T.		Per.	Amplitude	Dist.	Remarks
				h.	m.				
1	3	Z	eiP	6	45	12.0		Very weak	
2	5	Z	eX	1	45	29.8		" "	
		Z	eX			40			
3	5	Z	ePn	20	35	04	768		
		N	eSn		36	26			
		N	iX			29		" "	
4	5	Z	eiP	21	45	50.0			
		Z	eX		45	04			
		Z	eX			56			
5	6	Z	ePn	5	11	30.6	688		
		N	eSn		12	42.6			
6	6	Z	eX	8	23	04			
		Z	eX		25	06			
		Z	eX			28		" "	
7	6	Z	eX	14	28	51.6			
		N	iX		29	05			
8	7	Z	iPKP	10	30	30.0	17390	Dilatation	
		Z	PP		34	40			
		Z	SKKS		40	58			
9	7	Z	eiP	19	20	55.0			
		Z	eX		21	06			
10	7	Z	iX	23	30	46.0			
11	9	NZ	eSn	00	10	41		Very weak	
12	9	Z	eX	4	10	24		" "	
		Z	eX			56			
13	11	Z	iP	8	45	54.0	2555	Dilatation	
		Z	PPP		46	35			
		Z	iX		47	00			
		Z	iS		50	00			
14	11	Z	ePg	13	44	38.4	67	Not felt	
		N	SG			47			
15	11	Z	eP	19	08	32.0			
16	12	Z	iPKP	23	41	30.0	17220	Dilatation	
		Z	pPKP			59		h = 100 Km	
		Z	eX		43	50			
		Z	PP		45	33			
17	13	Z	eX	00	02	26.0		Very weak	
18	13	Z	ePn	15	33	52.0	810		
		N	eX		34	06			
		N	Sn		35	16.6			
19	13	NZ	eSg	16	36	02			
20	13	Z	ePn	19	18	43.0	625		
		Z	Sn		19	50			
		Z	Sg		20	20			
21	13	Z	ePn	20	22	12	625		
		N	Sn		23	16.7			
22	13	Z	eX	21	35	15.2		" "	
23	14	Z	eX	1	31	51.7			
		Z	eX		33	04			



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
24	14	Z	ePg	14	24	02.4		67		
		N	sg			10				
25	15	Z	eiIn	7	28	57.0		622		
		Z	eSn		30	03				
26	15	Z	eX	10	34	52			Very weak	
27	15	Z	iP	23	32	27.4			Dilatation	
28	16	Z	eiP	11	37	36.6				
29	16	Z	eiP	13	58	51.0		10220		
		Z	eX	14	03	00				
		Z	PPP		05	33				
		Z	eX		12	06				
30	16	Z	eX	15	25	00			Near	
		Z	eX		26	28				
31	16	Z	eP	18	34	23			Very weak	
		Z	eX		43	05				
32	16	Z	eiIn	19	32	12.5		600		
		Z	eSn		33	16				
		Z	eX			26				
33	16	Z	eiP	20	25	38.0			" "	
		Z	eX			47				
34	17	Z	ePKP	14	26	45			" "	
		Z	eX		27	00				
35	17	Z	eP	16	37	17.4			" "	
		Z	eX			29.6				
36	17	Z	eP	20	30	27.0			" "	
		Z	eX			50				
		Z	eX		31	04				
		Z	eX		34	21				
37	17	Z	eX	22	41	14			" "	
		Z	eX			25				
38	18	Z	eX	2	12	10			" "	
39	18	Z	eiP	8	47	06.0			" "	
40	18	Z	eiP	15	14	27.0		15335		
		Z	iPP		17	20				
		Z	PKS		18	04				
41	19	Z	eiP	5	04	31.0			" "	
		Z	eX			50				
42	19	Z	eiP	5	11	18.0			" "	
		Z	eX		14	06				
43	19	Z	eP	7	34	24				
		Z	eX			32				
		Z	eX		37	09				
		Z	eX		38	00				
44	19	Z	ePKP	12	25	16.0		15335		
		Z	PP		28	10				
		Z	eX		29	03				
45	20	Z	eP	3	37	20.0				
		Z	iX		39	41.5				
46	20	Z	eX	6	44	55			" "	
47	20	Z	eP	8	22	47.0			" "	
48	20	Z	iP	12	50	25.6			Compression	
		Z	eX			47				





No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.	s.		Km.	
49	20	Z	eiPKP	16	12	45.0			16665	 Station h = 100 Km
		Z	iPKP		13	07				
		Z	eX			44				
		Z	PP		16	33				
50	21	Z	eiPKP	00	02	30.0			17665	
		Z	PKP		03	02				
		Z	PKS		06	21				
		Z	PP			51				
51	21	Z	eX	5	39	11.2				Very weak
53	21	Z	eP	20	14	20.0				" "
		Z	eX			54				
54	22	Z	eiP	21	47	40.0				" "
		Z	eX			50				
55	23	Z	eP	2	00	27.5				" "
56	23	Z	eX	2	21	43.5				" "
		Z	eX		22	05				
		Z	eX		27	22				
		Z	eX		28	10				
57	24	Z	eP	10	39	40.0				
		Z	eX		42	24				
58	24	Z	eP	11	15	43.0				
		Z	eX		16	05				
		Z	eX		22	27				
59	24	Z	eiPn	2	37	12.0			866	
		Z	eSn		38	32				
60	24	Z	eiP	23	09	53.0			9665	h = 100 Km
		Z	PP		10	17				
		Z	PP		13	17				
		Z	eX		14	09				
61	24	Z	eIn	23	31	24.0			700	
		Z	eSn		32	38				
62	26	Z	eIn	17	38	52				Very weak
		Z	eX		40	05				
63	28	Z	iP	9	48	57.0				Compression
64	28	Z	eP	12	42	31.0			1033 5	
		Z	iX			45				
		Z	PP		46	16				
		Z	iX		51	00				
65	28	Z	eP	21	21	42.0				
		Z	eX		22	12				
		Z	eX		23	26				
		Z	eX		26	46				
		Z	eX		30	00				
		Z	eX		31	00				
66	30	Z	eP	9	09	46.0				
		Z	eX		13	33				
67	30	Z	ePg	13	28	31.0				Very weak
68	30	Z	eIn	15	26	50			577	
		Z	eSn		27	53				





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No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
1	1	Z	eiP	15	25	53.0			4335	
		Z	PP		27	22				
		Z	S		31	54				
2	2	Z	eiP	12	56	52.2				Very weak
		Z	eX		57	16.6				
3	2	Z	eX	15	06	05				" "
4	3	Z	eX	16	23	21				" "
		Z	eX		24	23				
5	3	Z	eiP	16	29	42.8				" "
6	4	Z	eiP	1	25	24.0				" "
		Z	eX		33	35				
7	4	Z	eiP	9	54	06.0			4335	
		Z	eX			36				
		Z	ePP		55	34				
		Z	eX		57	09				
8	4	Z	eP	12	03	13.0			1945	" "
		Z	ePP			26				
		Z	eX		08	48				
		Z	eX		09	12				
9	6	Z	iPn	1	33	34.2			778	
		Z	eSn		34	55				
10	6	Z	eiP	1	41	14.8				" "
		Z	eX		43	25.8				
11	6	Z	eX	7	47	48				" "
		Z	eX		48	52				
12	6	Z	eP	14	16	00				" "
		Z	eX			25.5				
13	6	Z	eP	18	17	30			2555	h = 100 Km.
		Z	eS		21	36				
		Z	eX		25	00				
14	6	Z	eX	21	29	25.5				" "
15	6	Z	iP	22	37	25.5				Dilatation
		Z	eX			41				
16	7	Z	eiP	20	07	25.6				Very weak
		Z	eX			40				
17	7	Z	iP	21	24	39.8				Compression
		Z	iX			54.2				
		Z	eX		25	21.8				
18	8	Z	eX	17	57	39.0				Very weak
		Z	eX		58	22				
19	8	Z	ePKP	18	18	31.0			13055	
		Z	PP		19	48				
		Z	PKS		22	06				
		Z	eX		24	18				
		Z	eX		29	39				
		Z	eX		32	09				
		Z	eX		36	30				
20	8	Z	eiP	21	50	27.0				" "
		Z	eX		54	39				



No.	Date	Comp	Phase	G/M.T.			Per.	Amplitude	Dist. Km.	Remarks
				h.	m.	s.				
21	9	Z	ePKP	9	40	07.0				
		Z	eX			23.6				
		Z	eX		41	12				
		Z	eX		42	52				
22	9	Z	eiP	15	47	11.0		8780		
		Z	PP		50	15				
		Z	eX		52	09				
		Z	S		57	09				
		Z	PPS		58	09				
23	12	Z	eX	17	34	34.6			Very weak	
		Z	eX		40	33.6			" "	
24	12	Z	eX	18	25	50.8			" "	
		Z	eX		26	16				
		Z	eX		27	20				
25	12	Z	eX	19	20	19.0		Local	" "	
		Z	Sn			24.8			" "	
26	12	Z	eX	22	39	49.6			" "	
27	12	Z	ePn	23	03	21.5		444		
		Z	P*			30				
		Z	eSn		04	09			" "	
28	13	Z	eiP	15	38	11.6			" "	
		Z	iX			17.0				
29	13	Z	iP	16	42	06.0		4335	Compression	
		Z	PP		43	39.0				
		Z	S		48	05				
		Z	eX			54				
30	14	Z	eiPn	17	09	17.2				
		Z	eX			25.2				
		Z	eX			38.2				
		Z	eX			53.2				
31	16	Z	eiP	11	53	17.0		9445		
		Z	eX			27.0				
		Z	PP		56	36				
32	16	NEZ	iSn	13	05	55.0				
33	17	Z	eiP	16	31	50.0			Very weak	
		Z	iX			59				
		NE	M	17	01					
34	18	Z	eiPn	1	35	23.0		688		
		NE	Sn		36	36				
35	19	NEZ	iPg	10	15	12.3			Tura Blast	
36	19	Z	eiP	16	25	10.0		9500		
		Z	eX			24				
		NE	S		35	42				
		H	eX		36	02				
37	19	Z	iP	18	26	34.0			Dilatation	
		Z	eX		27	24				
38	19	Z	eiP	20	32	36.0		9720		
		Z	eX			48				
		H	eS		43	21				
39	19	Z	eP	22	20	37.0				
		Z	eX			52				
40	19	NE	(Sn)	22	33	29.0			Very weak	
41	20	NEZ	(Sn)	3	45	06			" "	
42	20	Z	ePKP	19	39	24.0			" "	
43	20	Z	ePKP	21	59	08			" "	
		Z	iX			20				
		Z	eX	22	03	09				



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No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
44	21	Z	eP	20	23	28.0		9710		
		Z	eX		24	26				
		N	S		34	06				
45	21	Z	eiP	21	40	08.8		10555		
		Z	eX			21.5				
		N	SKS		50	42				
		N	SKKS		51	00				
46	23	Z	iP	5	26	55.0		9335	Dilatation	
		Z	PP		30	12				
		N	S		37	18				
47	23	Z	iP	9	14	28.0		9665	Compression	
		Z	PP		17	49				
		N	SKS		24	50				
		Z	S		25	09				
		N	PS		26	06				
48	23	Z	eX	12	30	41			Very weak	
		Z	iX			55				
49	23	Z	ePg	12	47	31.8		37	( Not felt )	
		NE	iSg			36.0				
50	23	Z	eiP	17	03	46.0			Very weak	
		Z	iX		04	02				
51	24	Z	eX	12	40	25.0			" "	
		Z	eX			36				
		Z	eX		41	09				
52	25	Z	eX	00	41	26.0			" "	
		Z	eX		42	17				
53	25	Z	eiP	1	30	24.3		9665		
		Z	PP			42				
		Z	S		41	12				
54	25	Z	ePKP	11	36	30			" "	
		Z	iX			39				
		Z	eX		44	12				
55	26	Z	iP	7	51	42.2		9665	Compression	
		Z	eX		54	04				
		Z	eX		55	39				
		N	SKS	8	02	06				
		Z	S			21				
56	26	Z	eX	19	45	33.0			Very weak	
		Z	eX			45				
57	27	Z	eiPg	6	54	10.8		39	Not felt	
		NE	Sg			15.2				
58	27	NEZ	eX	17	47	16			Very weak	
59	28	Z	eP	7	01	16.3		2955		
		Z	PP			51				
		Z	S		05	50				
		Z	eX		09	16				
60	29	Z	iP	9	37	41.0		5165	Compression	
		Z	eX		39	24				
		NE	S		44	30				
		N	iX		48	06				
61	30	Z	eiP	7	42	54.2		5610		
		Z	eX		44	09				
		Z	eS		50	12				
		Z	iX		51	12				
62	30	Z	eP	11	28	03		9555		
		Z	eX			17				
		N	eSKS		38	30				
		I	iX			57				





No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.	s.		km.	
63	30	Z	ePKP	15	08	14			18335	
		Z	eX		10	45				
		Z	ePP		13	00				





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No.	Date	Comp	Phase	G.	M. T.			Per.	Amplitude	Dist.	Remarks
					h.	m.	s.				
1	1	Z	eP		1 42	56.0				Very weak	
2	2	Z	eX		1 38	49				" "	
3	2	Z	eP		3 20	17.6				" "	
		Z	eX			28					
4	2	Z	ePn		5 03	26			377		
		NE	Sn			04	07.3				
		N	Sg				22				
5	2	Z	eX		19 11	00				" "	
6	2	Z	ePKP		19 58	06			17335		
		Z	(PKKP)			31					
		Z	eX			59	02				
		Z	PP		22 02	20					
7	2	Z	eX		21 09	24				" "	
		Z	eX			42					
8	2	Z	eiPKP		23 04	36.0			17110		
		Z	eX			47					
		Z	PP			08	36				
		Z	eX			17	28				
		Z	PPS			21	38				
9	3	Z	iP		00 36	37.0				Compression	
10	3	NEZ	eSg		13 08	39.5				Very weak	
11	4	Z	eiPKP		3 51	54.3				" "	
12	4	Z	eX		14 05	41				" "	
		Z	iX			46					
13	4	Z	eiP		15 34	34.0				" "	
14	5	Z	eX		14 03	39.0				" "	
		Z	eX			50					
15	6	Z	eP		16 08	53.0					
		Z	iX			09	11				
16	6	Z	eP		19 47	36			6280	" "	
		Z	1PeP			48	33				
		Z	eS			55	28				
17	6	Z	eiPKP		23 32	49			15000	h = 100 K	
		Z	eX			33	04				
		Z	PP			35	33				
		Z	ePKS			36	24				
18	7	Z	ePKP		00 44	49					
		Z	eX			46	00				
		Z	eX			55	50				
19	7	Z	1P		4 44	46.0			9555	Compression	
		Z	pP			45	15			h ≠ 100 K	
		Z	sPS			56	45				
20	7	Z	eiP		10 35	47.8			10000	h ≠ 100 K	
		Z	iX			51					
		Z	eP			36	22				
		Z	pS			47	00				
		Z	PS				45				
21	7	Z	1P		12 26	41.5				Compression	
		Z	iX			45					
22	8	NEZ	eSn		12 37	02				Very weak	
		Z	iX			09					



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
23	8	Z	ePKP	19	42	15				
		Z	iX			50				
		Z	eX		45	18				
24	8	Z	ePn	20	32	10.6		577		
		NE	Sn		33	13				
25	9	NEZ	iX	13	21	25.5			"	"
26	10	Z	eP	17	11	21.0		1555		
		Z	PPP			40				
		NE	S		13	58				
27	11	Z	iX	1	04	06.6			"	"
		Z	eX			45				
28	11	Z	eiPn	5	03	46.0		366		
		NE	iSn		04	27				
29	11	Z	ePKP	8	57	15.0		13000		
		Z	eX			49				
		Z	PP		58	29				
		NE	eX	9	08	30				
30	12	Z	eX	3	51	25			"	"
		Z	eX			35				
31	13	Z	eX	14	02	19			"	"
32	13	Z	eX	14	38	48.8		17555		
		Z	PKKP		39	05				
		Z	PP		42	54				
33	13	Z	eiPKP	15	11	43.0		16665		h = 550 Km
		Z	eX		13	02				
		Z	pPKP			58				
		Z	eX		15	20				
34	13	Z	eiP	16	02	16				Very weak
		Z	eX			51				
35	13	Z	iP	19	31	15.0				Dilatation
36	14	Z	eP	00	32	19				Very weak
		Z	iX			38				
37	14	Z	ePn	00	37	31.0		600		
		NE	Sn		38	35				
38	14	Z	eX	3	03	42			"	"
		Z	eX			57				
39	14	Z	eX	15	46	45			"	"
		Z	eX		48	39				
40	15	ENZ	iPg	9	30	15.2			( Tura Blast )	Comp.
		EN	iSg			17.7				
41	15	Z	eiPKP	19	31	31.0		15220		Very weak
		Z	PP		34	20				
42	15	Z	iPKP	21	12	48.8				Dilatation
		Z	eX			59				
		Z	eX		14	00				
		Z	eX			45				
43	16	Z	iP	21	57	55.0		9220		Dilatation
		NE	eS	22	08	12				
		NE	eX			42				
44	17	Z	iP	19	42	30.0		10165		Dilatation
		Z	PP		46	12				
		Z	PPP		48	06				
		N	SKS		53	00				
		Z	PS		54	42				



No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks	
				h.	m.	s.					s.
45	18	Z	iPn	15	58	19.8			667	Compression	
		NE	iSn		59	29.8					
46	18	NEZ	iSn	23	28	13				Very weak	
47	19	Z	eiP	2	40	24.0				" "	
		Z	eX			34					
48	19	Z	iP	16	49	35.6			8890	Compression	
		Z	eX			49.0					
		N	eS		59	39					
49	20	Z	eiP	17	59	05.0				Very weak	
		Z	eX	18	06	16				" "	
50	21	Z	eX	8	00	28					
		Z	eX		02	12					
51	21	Z	eP	19	49	11.0					
		Z	eX			36					
		N	eX		56	53					
52	22	Z	iPKP	14	04	24.5			17665	Dilatation h = 100 Km.	
		Z	iX			34					
		Z	ipPKP			51					
		Z	ePKKP		05	15					
		Z	epPKKP			45					
		Z	eX		10	18					
		E	eX		15	24					
53	22	Z	eiPKP	17	52	14.0					
		Z	eX			36					
		Z	eX		53	11					
		Z	eX		54	48					
		E	eX	18	03	00					
54	23	Z	iPn	2	47	02.0			722	Dilatation	
		E	Sn		48	18					
55	23	Z	iPg	8	48	39.0			26	Not Felt	
		NE	Sg			42					
56	23	Z	ePg	12	34	47.0				Very weak	
57	23	Z	eX	17	03	36				" "	
58	24	Z	eX	9	30	42					
59	25	Z	iP	13	13	40.6			910	Dilatation	
		Z	iX			30					
		NE	(S)		15	15					
60	25	Z	iP	19	44	50.0				Dilatation	
61	25	Z	eiP	21	26	36.0					
		Z	iX		28	09					
62	26	Z	iP	3	41	49.0				Compression	
63	26	Z	eiP	4	55	47.8					
		Z	eX		56	26					
64	27	Z	eiP	5	21	16.0					
65	27	Z	iP	7	30	36.0				Compression	
66	27	Z	eiP	17	03	27.0					
		Z	iX			35					
		Z	eX		04	36					
67	27	Z	eX	17	37	46.3				Very weak	
68	27	Z	eP	22	50	45.6				" "	
		Z	eX		51	02					
69	28	Z	eX	17	44	41				" "	



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No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	Remarks				
				h.	m.	s.								
70	29	Z	eiP	5	04	25.0								
		N	eX		08	38								
		Z	eX		09	47								
		N	eX		10	54								
71	29	Z	iP	10	56	45.6			Compression					
		E	eX	11	00	48								
		E	eX		03	00								
72	29	Z	(iP)	11	18	54.0			Dilatation					
73	29	Z	iP	11	44	37.0			Compression					
		Z	eX		49	48								
		E	eX		51	00								
74	29	Z	eiP	15	42	53.2								
		Z	eX		43	09								
75	29	Z	iP	19	28	48.0		2490	Compression					
		NE	S		32	50								
		NE	eX		35	00								
76	29	Z	eX	19	50	00			Confused with the preceding shock					
		N	iX		51	42								
77	29	Z	eP	20	19	30								
		Z	iX		20	09								
78	29	Z	eP	21	22	52								
		79	29		Z	eiP				21	44	36.0		
					Z	eX					50	49		
		Z	eX		52	45								
80	30	Z	eX	6	19	18								
		Z	eX							48				
		Z	eX			25				49				
81	30	Z	eX	12	48	26.3								
		Z	eX							33				
82	30	Z	eiP	13	16	03.0		2665						
		N	(S)		20	18								
		N	iX		22	25								
83	30	Z	eX	15	18	39.0								
		Z	iX							57				
		Z	eX			19				12				
84	30	Z	eX	19	58	42.0								
		Z	eX			59				04				
85	31	Z	eiP	14	52	04.8								
		Z	eX							24				
86	31	Z	eX	20	42	51								
		Z	eX			44				19				



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No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
1	1	Z	iPg	9	00	15.5				Tura Blast
2	1	Z	eX	11	02	57				
		Z	eX		03	10				
3	1	Z	eX	11	39	17				
		Z	iX			24				
		Z	iX			37				
4	1	Z	eX	14	29	12				
		Z	eX			24				
		Z	eX			34				
5	1	Z	eX	15	44	06				
		Z	eX			22				
		Z	eX		45	04				
6	1	Z	eP	16	33	51.8 <sup>y</sup>			955	
		E	eS		35	31				
		E	SS			45				
7	1	Z	eP	19	34	02				
		NE	eX		40	03				
8	1	Z	eP	21	12	26 <sup>y</sup>				
		NE	eX		18	05 <sup>y</sup>				
		E	iX			24				
		E	iX		19	09				
9	1	Z	eX	22	12	45				
		Z	eX			56				
10	1	Z	ePn	22	40	23.6			722	
		NE	eSn		41	40				
11	1	Z	eip	23	34	04.0 <sup>y</sup>			2535	
		E	iS		38	10				
12	2	E	(iS)	00	19	54				Confused with the preceding shock
13	2	Z	eP	1	01	50				" " " " "
		Z	eX		02	03				
		Z	eX			40				
		E	iX		09	22				
14	2	Z	eP	1	20	58.5				" " " "
		E	iX		27	06				
15	2	Z	eP	1	43	56			2535	
		E	eS		48	00				
16	2	Z	eip	2	40	19.0				
		E	eX		46	36				
17	2	Z	eP	3	24	26.2				
		Z	eX		30	41				
18	2	Z	eP	3	54	02 <sup>y</sup>				
		Z	eX	4	00	12				
19	2	Z	iP	4	56	00.0 <sup>y</sup>			2555	Dilatation
		EZ	eS	5	00	06				
20	2	E	iX	5	33	12				Confused with the preceding shock
21	2	Z	eP	5	49	39				" " " " "
		E	iX		55	30				
22	2	Z	eP	6	53	32.0				



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	Remarks
				h.	m.	s.				
23	2	Z	e1P	7	07	39.5		2580		
		Z	eS		11	48				
24	2	Z	eP	7	26	30				
25	2	Z	eP	8	32	38				
		NE	iX		38	41				
26	2	Z	eP	9	28	04.2				
		NE	eX		35	00				
		NE	iX		36	10				
27	2	Z	eP	9	46	52				
28	2	Z	eX	10	22	20				
29	2	Z	eX	11	18	35				
		Z	eX			58				
		Z	eX		19	09				
30	2	Z	eX	13	15	03				
31	2	Z	eX	13	32	08				
		Z	eX			46				
32	2	Z	eX	14	50	06				
		Z	eX			21				
		Z	iX			36				
		Z	eX		52	27				
33	2	Z	eX	18	29	18				
		Z	eX			35				
34	2	Z	eX	20	16	19				
		Z	eX		17	05				
35	2	Z	eP	22	24	18.6				
		NEZ	iX		30	30				
		Z	iX		32	06				
		Z	iX		33	00				
36	2	Z	e1P	23	37	23.2				
		Z	(S)		43	33				
37	3	Z	eP	00	27	24.0				
		NEZ	(S)		33	35				
38	3	Z	eP	2	10	22.0				
		Z	(S)		16	35				
39	3	Z	eX	3	23	54				
		NE	eX		24	11				
40	3	Z	eP	6	18	30.0				
		Z	eX			39.3				
		N	eX		20	35				
41	3	Z	eX	7	26	27				
		Z	eX			43				
42	3	Z	e1P	15	25	12.3				
		NE	(S)		31	07				
43	3	Z	e1P	15	28	04.0				
		NE	(S)		34	00				
44	3	Z	e1P	16	30	38.0				
		NE	(S)		36	54				
45	3	NEZ	eX	19	46	28				
46	4	Z	eP	00	52	06				
		Z	eX		53	09				
		Z	eX		54	06				



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
47	4	Z	iP	7	41	04.0		4610	Dilatation	
		Z	PP		42	42				
		NZ	S		47	21				
		NZ	eX		50	48				
48	5	Z	eP	3	35	33.0				
		E	(eS)		39	24				
49	5	Z	eP	6	16	05				
50	5	Z	eX	8	37	00				
		Z	eX			54				
51	5	Z	eP	23	38	40				
		NEZ	eX			44				46
		Z	eX			46				27
52	6	Z	eX	1	39	20				
		Z	eX			33				
53	6	Z	eX	5	51	16				
		Z	eX			56				24
54	6	Z	eX	8	31	44				
		NEZ	eX			38				20
55	6	Z	eP	9	50	29				
		NE	eX			56				52
56	6	Z	eiP	17	51	22.4	4280			
		Z	eX			52				11
		NEZ	(S)			57				18
57	6	Z	eP	19	16	55.5				
		Z	iX			17				15
58	6	Z	eiP	21	03	41.0				
59	7	Z	eX	00	46	39				
		Z	iX			45				
		Z	eX			48				27
60	7	Z	eX	1	46	42				
		Z	eX			56				
		Z	eX			47				33
		Z	eX			49				00
61	7	Z	eiP	3	27	38.0				
62	7	Z	eiP	6	57	19.0				
		NEZ	eX			7				03
63	7	Z	eX	10	06	52				
		Z	eX			08				51
64	7	Z	iP	14	24	47.0	6055	Compression		
		NEZ	S			32				24
65	7	Z	eP	15	05	58		Confused with the preceding shock		
		Z	eX			12				05
		Z	eX			26				
66	8	Z	eX	6	47	55				
		NE	eX			48				17
67	8	Z	ePn	8	42	49.8	833			
		NE	Sn			44				17
68	9	Z	eP	9	41	10.5				
69	10	Z	ePKP	20	51	34.5				
		Z	eX			41				
70	11	Z	iP	5	15	02.6	2345	Compression		
		NE	iS			18				54
71	11	Z	eX	6	15	19.2				



No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
72	11	Z	eiP	6	24	00.0				
		Z	iX			05.6				
		Z	iX			54				
73	11	Z	eiP	6	36	38.0				
74	11	Z	iP	6	51	26.5				Dilatation
75	11	Z	eP	6	56	06				
		Z	iX		58	22				
		Z	iX			52				
76	11	Z	eP	8	08	47.5				
		Z	iX		09	03.8				
77	11	Z	eP	8	43	20.4				
78	11	Z	eP	9	26	16.5				
79	11	Z	eP	10	05	12.8				
80	11	Z	iP	10	07	45.0				Dilatation
		Z	eX			58				
81	11	Z	eiP	11	28	45.5				
		Z	eX		29	10				
82	11	Z	iP	12	34	58.8				Dilatation
83	11	Z	iP	12	36	03.0		2280		Compression
		NE	S		39	48				
84	11	Z	iP	14	02	37.0		2335		Compression
		NE	S		06	27				
85	11	Z	eiP	15	10	50.2				
		Z	eX		12	02				
		Z	eX		18	00				
86	11	NEZ	(Sn)	16	38	58.5				
87	11	Z	eiP	17	25	33.0				
88	11	Z	eiP	19	00	59.4				
89	11	Z	eP	21	02	11				
90	11	Z	eiP	22	15	19.0				
		Z	iX		17	03.0				
91	11	Z	eiP	22	41	22.8				
92	11	Z	eiP	23	17	45.8				
93	12	Z	eP	3	56	37.5				
94	12	Z	eP	10	09	06.0				
95	12	Z	eP	13	05	53				
96	12	Z	eP	15	33	50				
97	12	Z	eiP	17	09	40.0		2490		
		Z	iX			50				
		E	eS		13	42				
98	12	Z	eiP	21	07	16.0				
		Z	eX			31				
99	12	Z	eiP	21	53	11.0				
		Z	eX			26				
		Z	eX	22	00	00				
		Z	eX			37				
100	12	Z	eiP	23	00	25.0				
101	12	Z	eP	23	45	24				
102	13	Z	iP	1	14	44.0				Dilatation



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
103	13	Z	ePKP	21	57	32				
		Z	iX			40.5				
		Z	eX			54.5				
		Z	eX		58	24				
		Z	eX	22	00	53				
		Z	eX		01	31				
104	14	Z	eiP	00	29	04				
		Z	eX		30	04				
		N	eX		36	00				
105	14	Z	eP	00	50	46				
		Z	iX		51	07				
106	14	Z	iP	1	47	08.4				Dilatation
107	14	Z	eP	4	47	36.0				
108	15	Z	eP	8	17	25				
		Z	eX			50				
		Z	eX		18	14				
		E	eX			54				
		E	eX		19	10				
109	14	Z	eiP	9	07	14.0				
		Z	iX		08	06				
		ZN	eX		15	13				
110	14	Z	eiP	9	40	15.8				
111	14	Z	eiP	20	37	00		2555		
		Z	eX			48				
		Z	eX		38	00				
		Z	eX			36				
		E	iS		41	06				
		Z	eX			24				
		E	iX		43	00				
112	15	Z	ePn	4	38	58		488		
		NE	oSn		39	51				
113	15	Z	eP	6	26	12				
		Z	eX			45				
		Z	iX		33	24				
		Z	iX			57				
114	15	Z	eP	23	37	26.8				
		Z	eX			39				
116	16	Z	ePKP	7	28	36				
117	16	Z	eP	10	45	39				
		Z	eX			54				
		Z	eX		49	03				
		Z	eX		50	12				
		Z	iX		58	10				
		Z	iX	11	03	34				
118	16	Z	ePn	15	01	13.9		600		
		Z	eX			34.9				
		NEZ	Sn		02	17				
119	17	Z	iP	8	10	30.0		2390		Compression
		Z	(S)		14	25				
		Z	iX		17	45				
120	17	Z	ePKP	11	15	38				
121	18	Z	eP	10	14	54				
		E	eX		18	48				
		N	iX		22	48				
122	18	Z	eX	11	03	39				
		Z	eX			57				



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
123	18	Z	eX	14	14	18				
		Z	eX		16	09				
124	18	Z	ePKP	22	33	21.0		16720		
		Z	iPKKP			30				
		Z	iPP		37	08				
125	19	Z	eX	1	57	54				
126	19	Z	eX	7	51	06				
		Z	eX		54	24				
127	19	Z	iPg	15	27	24.4		22		Dilatation
		NE	iSg			26.9				(Not felt)
128	19	Z	eiP	17	11	00				
		Z	eX			41				
		N	eX		16	06				
129	19	Z	eP	21	32	29				
		Z	iX		34	17				
		Z	eX		35	06				
130	20	Z	iP	3	26	21.0		2500		Compression
		Z	eX		27	15				
		NE	iS		30	24				
131	20	NE	eiPg	9	00	05				Tura Blast
132	20	E	eX	10	20	25.0				
133	21	Z	eiP	6	44	00		2555		
		Z	PP			30				
		E	eX		47	54				
		E	S		48	08				
134	21	Z	eiPn	9	31	51.0		877		
		Z	iX		32	24.7				
		N	eSn		33	22				
		N	eX			36				
135	21	Z	ePn	16	06	45.0		877		
		NEZ	Sn		08	16				
136	21	Z	eX	18	18	33				
		Z	iX		22	45				
		Z	eX		23	12				
		Z	eX			45				
137	21	E	eP	19	19	14.0				
		NZ	eX		26	27				
		N	eX			48				
		E	iX		28	36				
138	21	NEZ	iP	20	37	19.0		9045		Dilatation
		Z	eX			45				
		Z	eX		38	06				
		Z	eX		39	12				
		Z	eX		40	15				
		N	S		47	30				
		Z	PS		48	18				
139	22	Z	eP	00	59	48				
		E	eX	1	02	26				
		Z	eX		03	52				
140	23	Z	eP	16	41	08.0		2335		
		Z	PPP			42				
		Z	eX		42	09				
		NE	S		44	57				
		N	iX		48	12				





No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
141	24	Z	eP	9	46	46 ✓				
		Z	eX		57	27				
142	24	Z	eP	15	10	00				
		N	(S)		15	11				
		N	iX			36				
143	24	Z	eP	18	53	57				
		N	eX		54	04				
144	25	Z	eiP	12	44	51.7 ✓				
		Z	iX		45	16				
		N	eX		51	40				
145	25	Z	eP	17	00	04				
		Z	(S)		04	04				
146	25	Z	eX	23	09	54.0				
		Z	eX		10	10				
147	26	Z	eX	11	03	37				
		Z	eX			57				
		Z	eX		04	14				
148	26	Z	eP	15	00	34.0		9610		
		Z	eX		04	15				
		N	(S)		11	10				
149	27	Z	eiP	7	13	44.0 ✓				
		Z	eX		14	12				
		Z	eX			44				
		E	eX		21	47				
		N	iX		23	30				
150	27	Z	iP	8	04	56.0			Dilatation	
151	27	Z	eP	10	55	54.8 ✓				
152	27	Z	eiP	14	55	25.0				
		Z	eX		56	06				
153	28	Z	ePn	00	30	54.0		776		
		E	Sn		32	15				
154	29	Z	ePKP	9	42	12		14790		
		Z	PP		44	42				
		Z	eSN		55	05				
155	29	Z	eP	11	23	51.0				
		Z	eX		24	04				
156	29	Z	eP	14	23	55				
157	30	Z	ePn	5	06	53.0 ✓		655		
		NE	Sn		08	02				



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No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	Remarks		
				h.	m.	s.						
1	1	Z	eX	8	35	24				Very weak		
		Z	eX		36	02						
2	1	Z	eX	9	39	05				" "		
		Z	eX			39						
3	1	Z	eX	12	15	41				" "		
		NE	iX		16	42						
4	1	NEZ	eiP	18	00	23.0						
5	1	Z	iPKP	19	09	47.0				Dilatation		
		Z	iX			57						
6	1	Z	iX	22	33	39.0						
7	1	Z	eX	22	50	46						
		Z	eX			57						
		Z	eX			51					20	
8	2/3	Z	eP	00	59	16						
		Z	eX			33						
		Z	iX			1					01	18.0
		Z	eX			02					00	
		NEZ	eX			12					07	
9	4	NEZ	eiPg	8	59	29.4				Tura Blast		
10	4	NEZ	eX	13	53	25.0				Very weak		
		NEZ	iX			36						
11	4	Z	eP	15	05	40.0						
		Z	eX			53						
		Z	eX			07					31	
		Z	eX			48						
12	4	Z	eX	15	31	30				" "		
13	4	Z	eP	17	01	48				" "		
14	5	Z	eP	2	34	21				" "		
15	5	Z	eP	8	22	32.5						
		NZ	eX			29					27	
		Z	eX			51						
		Z	eX			30					07	
16	5	Z	eP	15	37	41.0				" "		
17	6	Z	eiPKP	22	28	53.6		15780				
		Z	iX			29					02.6	
		Z	iPP			32					00	
		Z	eX			39					45	
		Z	eX			41					24	
		N	eSS			50					32	
18	7	Z	eX	13	11	37.8						
		NE	iSg			41.0						
19	7	Z	eP	17	11	55.6				" "		
20	7	Z	eP	19	34	07						
		Z	eX			42.5						
		Z	eX			35					47	
		E	iX			58						
21	7	Z	eX	22	38	59				" "		
		Z	eX			39					09	



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	
				h.	m.	s.				
22	8	Z	ePKP	2	54	39				
		Z	eX		57	36				
		Z	eX			50				
		N	eX	3	16	15				
23	8	Z	eiP	6	41	49.8				
24	8	Z	ePKP	15	54	07		15555		
		Z	PP		57	05				
		Z	eX		59	33				
		Z	PPP	16	00	18				
		Z	eX		02	48				
		N	SS		15	33				
25	8	Z	ePKP	22	08	14.4		15665		
		Z	PP		11	15				
26	9	Z	eP	8	10	24		2420		
		NEZ	iS		14	24				
27	11	Z	eiP	9	42	04.0		7110		h = 150 Km.
		Z	eX		43	06				
		Z	PP		44	33				
		N	S		50	24				
28	12	Z	eP	2	51	08				Very weak
		N	eX		53	08				
29	13	Z	iP	9	33	35.0				Compression
		N	eX		40	50				
30	13	Z	eiP	21	56	43.5				
		Z	iX			58				
31	14	Z	iP	00	13	56.0				Dilatation
32	14	Z	eP	12	32	47				
		Z	eX		34	23				
		E	eX			43				
33	15	Z	eiP	00	30	14.0				
		Z	iX		31	12				
34	15	Z	ePn	6	12	09.5		333		
		Z	iX			17.6				
		NE	Sn			48				
35	15	Z	eX	9	36	28				Very weak
36	15	NEZ	iX	10	49	25.0				" "
37	15	Z	eP	11	25	26.5				" "
38	15	Z	eX	14	09	31.5				" "
39	16	Z	eP	4	24	37.0				" "
		Z	iX		28	28				
40	16	Z	eX	5	42	29				" "
41	16	Z	eX	20	20	05				" "
		Z	eX			17				
42	16	Z	eiP	21	21	31.0				
		Z	eX			57				
43	16	Z	iP	23	22	18.0				Dilatation
		Z	eX			27				
44	17	Z	eP	00	29	20.8				
45	17	Z	eP	5	18	05		2420		
		NZ	eS		22	02				
		NZ	iX		25	09				



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	
				h.	m.	s.				
46	17	Z	ePn	11	27	22.0		466		
		Z	eX			51				
		NE	Sn		28	13				
		Z	iX			40				
47	17	Z	ePn	12	45	04		355		
		NE	iSn			43				
48	17	Z	eP	15	00	19				Very weak
49	17	Z	eX	16	33	00				" "
		Z	eX			12				
		Z	eX		35	29				
	18	Z	eX	7	44	52.6				" "
		Z	eX			58				
51	18	Z	iP	14	16	07.6		9245		
		Z	PP		19	24				
		NEZ	iS		26	29				
		N	eX		27	30				
		N	SS		31	50				
52	18	Z	iP	14	46	31.0				Dilatation
53	18	Z	eiP	15	28	43.4				Very weak
54	18	Z	eiP	15	49	21.0				" "
		Z	iX			29.8				
55	18	Z	eiP	16	32	35.3				" "
		Z	eX			46				
56	18	Z	eP	17	01	07.2				" "
		Z	eX			16				
57	18	Z	eP	19	41	40				" "
58	18	Z	eiP	21	32	28.0				" "
		Z	eX			43				
		Z	eX		33	29				
59	18	Z	eiP	23	55	06.5				" "
		Z	eX			15				
		N	eX	24	02	47				
60	19	Z	eP	1	26	09				
		N	eX		33	05				
61	19	Z	eiP	6	45	50.5				" "
62	19	Z	eX	8	14	09				" "
		Z	eX			24				
63	19	Z	iP	10	41	51.8				Dilatation
		Z	iX		43	39				
		Z	eX		48	12				
64	19	Z	eiP	12	11	14.8				
65	19	Z	eiP	23	03	47.0		1280		
		NE	S		05	57				
66	20	Z	eiP	3	17	12.0				
67	20	Z	eiP	15	29	18.5				
		Z	eX			27				
68	20	Z	eP	20	33	28.2				
69	21	Z	eiP	18	11	44.0				
70	21	Z	eiP	18	46	48.0				
71	21	Z	iP	19	03	23.0				Dilatation



No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist. Km.	
				h.	m.	s.				
72	21	Z	eIP	22	52	25.0				Very weak
		Z	iX			35				
73	23	Z	ePKP	14	23	06			15665	
		Z	PP		26	06				
74	23	Z	iPKP	14	57	18.0			15010	Dilatation
		Z	PP		59	58				
75	23	Z	ePKP	15	49	43			15665	
		Z	PP		52	44				
76	23	Z	eX	22	10	24.0				Very weak
		Z	iX			36				
		Z	PP		13	35				
77	24	Z	eP	1	49	44				" "
		Z	iX			56				
		Z	iX		52	09				
78	24	Z	ePn	23	26	03.6			766	
		Z	iX			14				
		NE	iSn		27	24				
79	25	Z	eX	12	13	14.0				" "
		Z	iX			25				
80	26	Z	eIP	9	38	38.0				" "
		Z	eX		39	21				
81	27	Z	ePg	00	02	18			100	
		NE	iSg			29.8				
82	27	Z	iPg	9	00	18.4			( Tura Blast )	
83	27	Z	ePn	18	37	25.0			821	Compression
		Z	P*			39				
		NE	Sn		38	40				
84	28	Z	eX	00	46	20.5				
85	28	Z	eX	1	23	52.6			11890	
		Z	PP		24	12				
		Z	eX		26	10				
		N	SKKS		31	24				
		Z	eX		33	15				
		Z	PPS		34	27				
86	28	Z	ePKP	6	31	13				
		Z	eX:			36				
		Z	eX			54				
		Z	eX		34	36				
87	28	Z	eP	15	32	21.0				
		Z	eX			35				
88	28	Z	ePn	19	09	20.0			655	
		NE	iSn		10	29				
89	28	Z	ePH	20	03	21			655	
		Z	eX			42				
		NE	iSn		04	30				
90	28	Z	ePn	20	22	07			644	
		NE	iSn		23	15				
91	28	NEZ	Sn	20	32	45				
92	29	Z	eX	6	00	22				
		Z	eX		02	10				
93	29	Z	eX	16	47	12				
		Z	iX			37.6				
94	31	NEZ	iSn	18	14	56				



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No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
1	1	Z	ePKP	5	58	58			14335	
		Z	iX		59	09				
		Z	iX			57				
		Z	PP	6	01	09				
2	1	Z	eP	7	34	56			10665	Confused with the
		Z	PP		38	51				prec. shock
		N	SKS		45	24				
		N	iX		46	40				
		ZN	PS		47	48				
3	1	Z	ePP	9	52	27				" " "
		N	SKS		58	57				
		N	iX	10	00	00				
4	2	Z	eiPn	2	17	43.8			610	
		NE	iSn		18	49.0				
5	2	N	eX	2	56	57				Very weak
6	2	Z	eiP	14	45	04.5				" "
7	3	Z	iP	00	46	53.8				Dilatation
		Z	eX		55	16				
8	3	Z	iP	3	20	41.5				Dilatation
9	4	Z	eiP	15	35	31.0				
		Z	eX		36	09				
10	4	Z	eX	18	45	13.0				Very weak
11	4	Z	eiP	23	05	39.0			9720	
		Z	eX			51				
		N	SKS		16	06				
		N	S			18				
12	4	Z	eP	23	51	29				" "
		Z	eX			42				
13	5	Z	eP	2	39	16				" "
		Z	iX			26.5				
14	5	Z	eX	14	28	53				" "
15	6	Z	iPn	9	05	40.6			677	Compression
		NE	iSn		06	52				
16	7	Z	eX	3	38	53				Very weak
		Z	eX		39	04				
17	7	Z	eP	4	35	30			10555	" "
		N	eS		46	42				
18	7	Z	eX	12	42	35.3				" "
		Z	eX			43				
		Z	eX			54				



No.	Date	Comp	Phase	G. M. T.			Par.	Amplitude	Dist.	Remarks
				h.	m.	s.				
19	7	NE	iX	16	09	25.0			Very weak	
20	8	Z	ePn	2	09	24.0		688		
		NE	Sn		10	36.8				
21	8	Z	eX	8	09	49			" "	
		Z	eX		10	07				
22	8	Z	iP	12	31	54.0		10780	Dilatation	
		Z	PP		35	51				
		N	SKS		42	31				
		N	iX		43	16				
		Z	iX		44	27				
23	9	Z	eiPKP	16	22	00		15110		
		Z	iX		25	15				
		Z	PKS			36				
24	10	Z	eP	23	36	53.0				
		Z	iX		37	30				
		Z	iX		38	45				
25	11	NEZ	iSg	15	26	05.0				
26	11	Z	iP	16	04	09.8		9280	Compression	
		NZ	PP		07	24				
		NE	iS		14	29				
27	11	Z	eiP	22	50	33.0		10220		
		Z	PP		54	17				
		:E	SKS	23	01	06				
		N	eX			45				
		NZ	PS		02	48				
28	11	Z	iP	23	46	27.0			Compression	
		Z	iX			39.8				
29	13	Z	eX	6	13	04			Very weak	
		Z	eX			15				
30	14	Z	eX	19	10	44			" "	
		Z	iX			59				
		Z	eX		11	10				
31	14	Z	eiPKP	23	48	06.4		15555	h = 100 Km.	
		Z	eX			12				
		EZ	PP		51	15				
32	15	Z	eiP	19	16	52.0		9665		
		N	SKS		27	14				
		N	S			30				
		N	eX		28	06				
33	16	Z	iPn	1	01	13.0		655	Dilatation	
		Z	eX			25				
		NE	iSn		02	22.3				
34	16	Z	eiP	3	53	50.0			Very weak	
35	16	Z	eP	16	26	18.5			" "	





No.	Date	Comp	Phase	G. M. T.			Per. Amplitude	Dist.	Remarks
				h.	m.	s.			
36	17	Z	iPg	9	15	45.4		Tura Blast	
37	17	Z NE	ePn eSn	15	12	52.0	667		
38	17	Z E E	eP eX eX	16	45 47	00 22.0 42			
39	17	Z N N N NE NE	iP pP eX eX is sS	21	28 29 31 33 39 40	54.0 36 22 12 00 12	9445	Dilatation h ≠ 200 Km.	
40	19	Z Z	eiP eX	2	55	36.0 52		Very weak	
41	19	Z Z E E E E E	eiP pP iP iSXS iX SP eX	5	22 25 27 32 33 35 36	59.0 12 30 40 26 42 48	11780	h = 650 Km.	
42	19	Z Z	eX eX	15	05	19.0 46		Very weak	
43	19	Z Z Z	eiP eX eX	20	37 49 50	17.0 44.5 16		" "	
44	19	Z Z Z	eiP iX iX	5	22 23 25	59.0 05 18		" "	
45	21	Z Z Z	eX eX eX	3	02 03	33 47 00		" "	
46	21	Z Z Z Z	eiPKP eX iPKKP ePP	16	26 27 30	43.0 51 04 40	17055		
47	21	Z Z	eP eX	17	13	00 10.7		" "	
48	22	Z Z N Z NE	eiP eX eX eX eX	9	08 09 12 14	39.0 42 40 27 48			
49	23	Z	eiP	10	03	55.0		" "	
50	23	Z	eP	4	19	00		" "	
51	23	Z NE	eiPn Sn	19	19 20	39.0 01	770		



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
52	24	Z	eP	5	04	58.3			Very weak	
		Z	eX		05	18				
53	24	Z	eiP	13	31	16.7			" "	
		Z	iX		33	33				
54	24	Z	eiP	21	17	51.0			" "	
55	24	Z	eP	21	54	14.0			" "	
56	24	Z	eP	22	53	29.0			" "	
		Z	eX			42				
		Z	eX			54				
57	25	Z	eX	20	05	05			" "	
58	26	Z	eiP	23	04	31.0			" "	
59	27	Z	eiP	2	02	14.0			" "	
		Z	eX		04	27				
60	27	Z	eX	4	14	50			" "	
		Z	eX		21	46				
61	27	Z	eiP	16	34	58			" "	
		N	(SKS)		45	24				
62	27	Z	eiP	22	10	48.8		855		
		Z	eX			58				
		E	p*		11	07				
		Z	iX			22				
		NE	iSn		12	18				
63	27	Z	ePn	23	47	02		677		
		Z	eX			21				
		NE	eSn		48	15				
		E	eX			37				
64	28	Z	eiPg	8	49	15.0		122	Not felt	
		NE	iSg			30				
65	28	Z	iP	10	03	07.0			Dilatation	
		Z	iX			18				
66	28	Z	eiP	20	45	45.0				
		Z	eX		46	21				
		Z	eX		47	12				
67	29	Z	iX	3	07	24.0			Near	
		Z	iX			30.6				
68	30	Z	ePn	4	54	06		722		
		NE	Sn		55	22				
69	30	ZNE	iPg	10	14	15			Tura Blast	
70	31	Z	eP	2	01	37			Two shocks	
		E	iX		11	30				
		E	iX		12	18				
		E	iX			56				
		E	iX		15	36				
		E	iX		20	00				
		E	iX			48				
		E	eX		23	06				
			iX				24	06		



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No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
1	1	Z NE N NE NE NE	eP SKS SKS S sS iX	00	23 33 34 35 41	15 36 15 54 58 30		11555	h = 130 Km.	
2	1	Z	eP	9	51	32.3			Very weak	
3	1	Z Z	eiPKP iX	16	55 56	56.0 05			" "	
4	1	Z Z	iPKP iX	19	00	19.0 28.8			Compression	
5	1	Z Z	eX eX	22	23	04.5 17			Very weak	
6	2	Z	eP	2	39	32.5			" "	
7	2	Z	eiP	14	18	47.5			" "	
8	3	ZN	eX	12	44	51			" "	
9	4	Z	iP	10	02	32.3			Compression	
10	4	ZN	eX	10	27	00			Very weak	
11	5	Z N N	eP eS eX	00	42 44	05.6 02 12		1135		
12	5	Z Z N	eP eX S	1	19 21	25.0 57 21.5		1135		
13	5	Z Z Z N	eiP iX PP S	6	19 21 25	48.0 52 08 15		3845		
14	5	Z Z Z Z NE NE NE	eiP iX PP iX SKS eS iX	11	47 51 58	36.0 47.5 12 30 03 21 48		9900		
15	5	Z	eP	14	14	29			" "	
16	5	NEZ	iSg	15	35	04.5			" "	
17	6	Z E	ePn Sn	00	04 05	16.0 23.5		633		



No.	Date	Comp	Phase	G.		M.		T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	S;	s.					
18	6	Z NE	eiPn Sn	8	18 19	15.5 30					710	
19	6	Z Z	eX eX	23	16 17	48 02.5						Very weak
20	7	Z Z Z	eX eX eX	12	49 50 51	58 17 02						" "
21	8	Z Z NE E	eX eX iX iX	10	41 42 43	06 22 50 02						" "
22	8	Z N N NE E E E E	eP ePP eX SKS eX sS PS M	11	40 44 46 50 51 52	03.0 00 00 29 36 18 54					10890	h = 125 Km.
23	8	Z Z NE	eX eX iX	17	46 47	05 45 07						Very weak
24	8	Z N NE	eP eX (S)	18	00 01 04	20.5 45 54						
25	9	Z Z NE	eiPn eX Sn	21	11 12	20.0 40 26.7					633	
26	10	Z	eP	3	56	22.0						" "
27	10	Z Z	eX eX	5	03	09 14						" "
28	10	Z N	ePnn Sn	16	19 20	21.8 56					910	
29	12	Z Z	eP eX	1	00	00 17						" "
30	12	Z Z NE	eX eX M	19	47 50	00 00						" "
31	13	E	iX	12	49	35						" "
32	13	Z ZE	eX eX	13	15 17	34 39						" "
33	13	Z E Z	eiP eX (S)	14	08 12 13	55.0 57 18					2045	
34	13	Z Z	eiP eX	15	51 56	43.0 18						



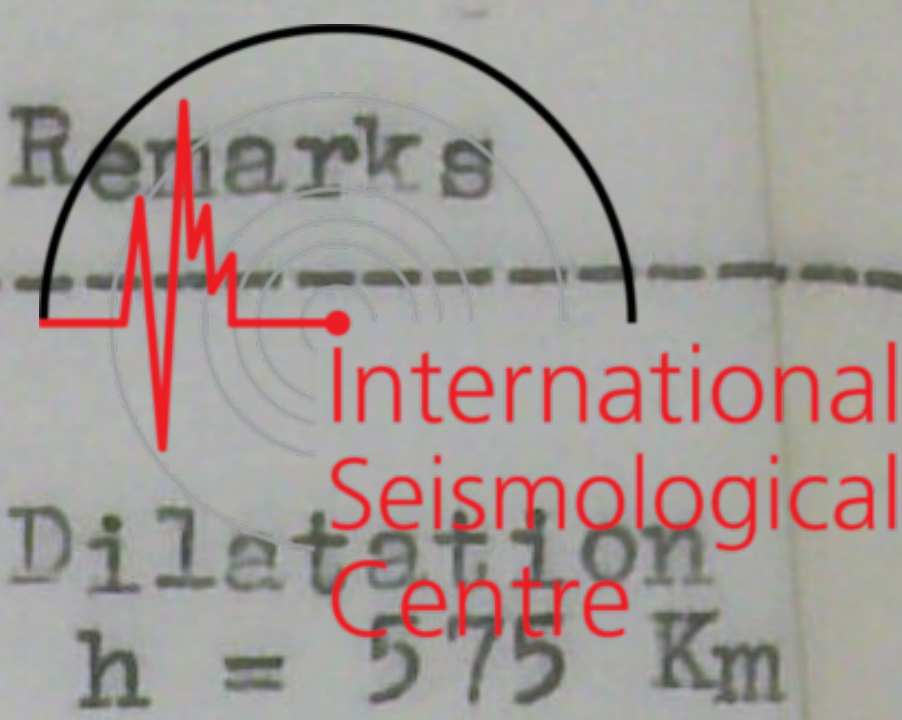




No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	Remarks
				h.	m.	s.				
35	13	Z	eX	21	38	24			Very weak	
		Z	eX		39	36				
36	14	Z	eP	8	06	30		2045		
		Z	eX		07	48				
		NZ	(S)		10	54				
37	15	Z	iPn	1	47	30		566	Dilatation	
		NE	iSn		48	30				
38	17	Z	iP	8	53	59.0			Compression	
		Z	eX		54	10				
39	17	Z	iPn	20	58	28.6		710		
		Z	eX			39.4				
		NE	eSn		59	44				
40	17	Z	eX	23	55	20.5			Very weak	
41	18	Z	ePn	5	10	05.0		688		
		NE	Sn		11	17				
42	18	Z	iP	11	05	22.0		2090	Compression	
		Z	eX		06	50				
		EZ	(S)		08	50				
		Z	eX		12	12				
43	18	Z	eiP	20	57	10.4			Very weak	
		Z	eX			54				
44	18	Z	eiP	23	17	26.0			" "	
45	19	Z	eX	2	41	02			" "	
		Z	eX			51				
		Z	eX		43	14				
46	19	NE	iX	13	44	02			" "	
		Z	iX			04				
47	19	Z	iX	18	44	18			" "	
		Z	iX		46	42				
48	20	Z	eX	19	22	26.0			" "	
49	21	Z	eP	5	26	04.0		2720		
		N	(S)		30	23				
		Z	eX			37				
50	24	EZ	iSg	8	04	10.0			" "	
51	26	N	eX	5	47	15			" "	
		N	eX			48				



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist. Km.	Remarks
				h.	m.	s.				
52	27	Z	iPKP	6	52	45.0		16665	Dilatation h = 575 Km	
		Z	iX			54				
		Z	eX			53 54				
		Z	ipPKP			54 54				
53	27	Z	eiP	8	26	25.4			Very weak	
		Z	iX			44				
		E	iX			34 09				
54	27	ZE	ePn	10	18	14.0			" "	
		NE	Sn			19 10				
55	27	Z	eP	12	25	20.0			" "	
		Z	eX			38				
		NE	(S)			33 06				
56	27	Z	eP	19	40	31.0			" "	
57	28	Z	iP	1	38	34.0			Compression	
		Z	iX			53.0				
		Z	eX			39 11				
58	28	Z	eiP	22	41	25.0				
		NE	(S)			45 31				
		Z	eX			46 17				
59	29	Z	eX	12	31	05			Very weak	
		Z	eX			38				
60	29	Z	ePg	13	50	02.5			" "	
		EZ	iSg			08				
61	29	Z	eiP	17	03	13.0				
		Z	eX			30				
62	29	Z	eP	19	19	04.0			" "	
		Z	eX			32				
		N	(S)			29 56				
63	29	Z	eiP	22	45	20.0			" "	





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No.	Date	Comp	Phase	G.	M. T.		Per.	Amplitude	Dist.	Remarks
					h.	m.				
1	1	Z	eP		00	26	15.8			Very weak
2	1	Z NE	ePn Sn		6	31 32	08 17		655	
3	1	Z	eiP		23	24	12.0			" "
4	2	Z Z	iP iX		6	33	46.0 58			Compression
5	2	Z E	eP S		7	24 25	11.0 57		1055	
6	2	Z Z	eX eX		13	24	29 48			Very weak
7	3	Z Z NE	ePn eX iSn		1	03	11 ✓ 22 ✓ 41 ✓		866	
8	3	Z Z Z Z	eP eX eX eX		9	38 39 43	20.0 ✓ 48 15 36			" "
9	5	Z	eiPKP		18	28	08.0			" "
10	5	Z NE	ePn iSn		20	29 30	13.0 37		810	
11	5	Z Z	eX eX		22	47	00 47			" "
12	7	Z Z Z	eP eX eX		14	09	09.0 35 05			" "
13	9	Z NE	eiPn iSn		1	44 45	24.0 30		622	
14	9	Z Z	eiP eX		21	29	20.4 ✓ 32.4			" "
15	10	Z Z Z	iPKP iX pPKP		4	03	33.0 43 50			Dilatation h = 575 Km
16	10	Z Z Z Z	eX eX iX iX		11	00	01 07 19 05			Very weak
17	10	Z Z	eiPKP iX		19	03	42.0 51.8			" "
18	10	Z Z	eP iX		21	06	07 49			" "









No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
41	26	Z	eIP	15	38	20.0	✓	7780		
		N	iS		47	30				
		N	eX			48				
42	26	Z	iX	19	39	59.0			Very weak	
43	27	NEZ	iX	13	20	32.0			" "	
44	28	Z	iP	10	50	13.5	✓	1665	Compression	
		N	eS		53	00	✓			
45	30	Z	eX	8	40	35.0	✓			
		Z	iX			51				
46	30	Z	iP	21	28	44.9			Dilatation	
47	31	Z	eP	13	41	48				



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No.	Date	Comp	Phase	G.	M.	T.	Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
1	1	Z NE NE	eiPn iX iSn	13	10	54.8 47 55			566	
2	2	Z NZ	ePg Sg	9	39	42.4 45.6			278	Not felt
3	4	NE N	eX eX	1	10	10 43				Very weak
4	4	Z Z	eX eX	3	51	15 34				" "
5	5	Z Z	eX eX	8	39	38 40 30				" "
6	5	Z	iP	10	49	07.0				Dilatation
7	6	Z Z	ePKP eX	5	47	41.4 18				Very weak
8	7	Z Z	eiP iX	8	44	14 18				" "
9	7	Z	eX	13	13	35.4				" "
10	7	Z NE	ePg iSg	14	30	12.8 16			278	Not felt
11	7	Z	ePKP	21	29	40.0				Very weak
12	8	Z Z NE	eX eX (Sn)	4	39	30.0 41.5 14				" "
13	9	Z	eiX	4	48	46.0				" "
14	10	Z Z Z Z	eP eX eX eX	7	08	08.0 54 09 05 57				" "
15	10	Z Z Z Z	eP eX iX iX	13	57	57.0 02 15 26				" "
16	10	Z	iPKP	18	19	41.0				Dilatation
17	11	Z E E	ePg eX Sg	00	31	07 21 28			167	Not felt
18	11	Z	eX	3	18	31.5				Very weak
19	11	Z Z NE NE	eiPn iX iX Sn	8	33	17.3 58 10 19.5			577	
20	12	Z Z Z N N	iP eX eX eX eX	2	21	18.0 24 26 23 12 18				Dilatation
21	15	Z Z N N N	iP PP SKS PPS M	7	29	48.0 04 10 30			9335	Compression
				8	12					



No.	Date	Comp	Phase	G. M. T.			Per.	Amplitude	Dist.	Remarks
				h.	m.	s.				
22	15	Z	eP	19	46	48			Very weak	
23	16	Z	eX	5	46	29			" "	
23	16	Z	eX	16	23	43			" "	
24	17	Z	eiP	15	07	38.4			" "	
		Z	eX			41			" "	
25	17	Z	eiP	19	23	33.8			" "	
		Z	iX			47			" "	
26	18	Z	ePKP	11	36	56		17055	" "	
		Z	PKKP		37	14				
		Z	PP		40	50				
27	18	Z	iP	22	21	53.0			Compression	
		Z	eX		22	32				
28	19	Z	eiP	23	34	49.0		9555	h = 175 Km.	
		Z	iPPP		35	34				
		Z	iPPP		40	15				
		E	S		45	03				
29	20	Z	eiPKP	12	03	48.0		15890		
		Z	PP		07	12				
		Z	eX			48				
30	20	Z	iP	18	08	32.0		7055	Dilatation	
		N	S		17	00				
		N	PPS		18	33				
31	21	Z	eP	1	49	35.7				
		Z	eX			54				
		N	iX		55	00				
32	21	Z	eX	3	07	11			Very weak	
		Z	eX		08	03				
33	21	Z NE	ePn iSn	19	43 44	00 17	Confused with m microseisms	733		
34	23	Z NE	ePn eSn	18	27	00 50		455		
35	24	Z N N	iPn P* Sn	21	46 47	22.8 32 15		488	Compression	
36	27	Z	eP	00	33	55.0			Very weak	
37	27	Z	eX	5	18	16.6			" "	
		Z	eX			27.5				
		Z	eX		20	09				
38	27	Z	eiP	6	09	32.3				
		Z	iX			39				
		Z	eX		16	15				
39	27	Z	eiP	17	24	06.0				
		Z	eX		26	18				
		Z	eX			51				
		E	(SKS)		34	38				
		E	eX		36	00				
		E	eX			36				
		E	eX		42	00				
40	28	Z E E	eiP eX S	9	01 03	18.0 45 18		1165		
41	29	Z	eP	9	40	16.0				
		Z	eX			34				
		Z	eX			54				

