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Shri P.R. Krishna Rao,
Director General of Observatories

List of Seismograph Stations with their Instruments and Constants

STATION	LATITUDE	LONGITUDE	HEIGHT a. s. l. (Metres)	LITHOGRAPHIC FOUNDATION	INSTRUMENT	COMPT.	PERIOD IN SECS	STATIC MAGNI- FICATION	DAMPING RATIO	PAPER SPEED mm/min.
BOMBAY	18°54'N	72°49'E	5	Deccan Trap	Milne-Shaw	N	12	350	13:1	16
					Milne-Shaw	E	12	350	23:1	8
					Sprengnether	E	To = Tg = 7 secs			30
BOKARO	23°50'N	85°48'E	-	Rock	Milne-Shaw	N	12	250	20:1	16
					Milne-Shaw	E	12	250	20:1	16
					Wood-Anderson	E	0.8	950	h = 0.8	60
					Wood-Anderson	N	0.8	1000	h = 0.8	60
CALCUTTA	22°32'N	88°22'E	(1) 7 (Milne-Shaw) (2) 6 (Omori-Ewing)	Alluvium	Milne-Shaw	E	12	250	20:1	8
					Wood-Anderson	N	2	870	Critical	30
					Omori-Ewing	N	16	32	-	25.4
					Omori-Ewing	E	21	30	-	25.4
CHATRA	26°50'N	87°10'E	161	Sand Stone	Milne-Shaw	E	12	250	20:1	16
					Wood-Anderson	N	1	1000	30:1	60
					Benioff	Z	To = 0.72 Tg = 0.45 secs.		Critical	60
				Wenner-Accelerograph	ZNE					
COLOMBO	06°54'N	79°52'E	7	Beach Sand	Milne-Shaw	E	12	250	20:1	-
DEHRA DUN	30°19'N	78°02'E	682	Gravel	Wood-Anderson	N	0.8	950	Critical	60
					Wood-Anderson	E	0.8	850	Critical	60
					Milne-Shaw	N	12	250	20:1	8
					Milne-Shaw	E	12	250	20:1	8
HYDERABAD	17°26'N	78°27'E	535	Granite	Milne-Shaw	E	12	250	20:1	8
					Milne-Shaw	N	12	250	20:1	8
KODAIKANAL	10°14'N	77°28'E	2346	Rock	Milne-Shaw	E	10	250	20:1	8
MADRAS	13°00'N	80°11'E	15	-	Sprengnether	E	To=Tg=72 secs		Critical	30
NEW DELHI	28°35'N	77°12'E	207	Massive Quartzite						
POONA	18°32'N	73°51'E	560	Deccan Trap	Sprengnether	Z	To=Tg=1.6		Critical	30
					Wood-Anderson	E	4	1000	20:1	16
					Milne-Shaw	N	12	280	20:1	8
PORT BLAIR	11°49'N	92°43'E	-	-	Wood-Anderson	N	2	1000	20:1	30
					Wood-Anderson	E	0.8	1000	66:1	30
					Milne-Shaw	N	12	350	20:1	8
SHILLONG	25°34'N	91°53'E	1600	Quartzite Sand Stone (Shillong Quartzite)	Wood-Anderson	N	0.8	1000	h = 0 h = 0.8	30
					Wood-Anderson	E	0.8	1000	h = 0.8	30
					Milne-Shaw	N	12	250	20:1	8
					Benioff	Z	To = 1.0 Tg = 0.18			60
					Sprengnether	E	To = Tg = 6.5		Critical	30
				Wenner Accelerograph	ZNE					
TOCKLAI	28°45'N	94°45'E	-	Alluvium	Wood-Anderson	E	0.8	970	h = 0.8	60
VIZIANAGRAM	18°07'N	83°27'E	-	-	Wood-Anderson	E	0.8	1000	h = 0.8	30
					Wood-Anderson	N	2	1000	20:1	30

DATE	STATION	COMPT	PHASE	G. M. T.			△ km	REMARKS	
				h.	m.	s.			
January 1961									
01	PORT BLAIR	E	iPg	07	37	35	60	Slight	
			iSg		37	42			
01	SHILLONG	Z	iP	13	21	18		Very distant. Slight. Rarefaction.	
01	SHILLONG	Z	eP	13	58	16		Distant, slight Compression.	
	CHATRA	Z	eP	13	59	02		Very feeble, distant other phases not clear.	
01	Shillong	Z	e	14	53	20		Distant, feeble.	
01	Shillong	Z	e	15	08	23		Distant, feeble.	
01	Shillong	Z	iP	17	55	23		Very distant, slight Rarefaction.	
01	Shillong	Z	eP	20	34	21		Distant slight.	
01	Shillong	Z	eP Sg	22	28	49	120	Slight.	
				29	02				
02	Shillong	Z	iPg Sg	01	22	08	230	Slight.	
				22	21				
02	Bombay	N NE	e e	01	56	07		Slight.	
				02	01	06			
	Madras	E	eP eS LR M	01	56	33	2290	Slight.	
				02	00	19			
				01	29				
				03	03				
	Hyderabad	E	i M	02	01	11		Period = 9 sec, Gr. dis = 2 u	
				04	02				
02	Shillong	Z	eP iS	03	29	33	350	Feeble.	
				30	11				
02	Epc: - 12.4°S, 166.4°E, h about 161 kms. Santacruz Islands Region. -H = 10h 11m 56.9s (USCGS) Mag: - 6 ³ / ₄ (Pas), 6 ¹ / ₂ -6 ³ / ₄ (Berk)								
●	Port Blair	E	iP i iS	10	23	38	8500		
					25	11			
				10	33	24			
✓	Tocklai	E	iP eS	10	23	57	8800		
					33	57			
✓	Shillong	ZNE	iP PP S M	10	23	59	8960	Compression.	
					24	19			
					34	06			
					38	06			
✓	Calcutta	E	iP iS	10	24	18	91802	Initial ground motion West.	
					34	35			
✓	Chatra	ZNE	iP i S i	10	24	28	9220		
					25	41			
				10	34	41			
					36	53			

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km	REMARKS
January 1961						
✓	Bokaro	NE	iP i	10 24 29 34 47		
✓	Colombo	E	P M	10 24 36 35 29		Amp= 2.3 mm.
✓	Madras	E	iP e PP SKS e ScS e	10 24 43 25 01 28 21 35 03 35 28 35 35 35 55		9280 Initial ground motion towards West.
✓	Hyderabad	E	iP PP SKS iS PS PPS LQ LR M	10 24 53 28 02 34 56 35 20 35 47 36 35 48 17 52 09 59 05		9390 Westward. Period= 27 sec, Gr. dis= 12 μ
✓	Kodaikanal	E	e	10 25 02		
✓	Poona	Z	iP e	10 25 13 35 41		Other phases not clear, compression. Ground motion towards West.
✓	Bombay	NE E NE N	eP SKS e e	10 25 19 35 49 36 24 37 22	10,000	
✓	Dehra Dun	NE N	eP PPP SKS e e M	10 26 08 31 02 36 35 37 11 45 41 11 01 13	11360	Slight.
02	Shillong	Z	eP	12 56 42		Slight near compression.
	Chatra	Z	eP	12 57 21		Feeble.
02	Shillong	Z	eP	14 31 02		Distant slight.
02	Chatra	Z	iPg iSg	15 46 27 46 38	90	Very feeble, Rarefaction.
02	Chatra	Z	eP	16 31 20		Feeble, Distant.
02	Chatra	Z	iP iS	17 28 00 29 27	840	Feeble, Rarefaction.
02	Shillong	Z	iP S	17 57 02 57 40	350	Slight.
02	Shillong	Z	iP	21 02 37		Distant. Compression.
	Chatra	Z	iP	21 03 08		Feeble, distant, Rarefaction
02	Shillong	Z	e	23 18 59		Distant. Slight.
02	Shillong	ZNE	IFg	23 21 58		Locally felt slight.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km	REMARKS
January 1961						
03	Shillong	Z	iP	02 39 37		Slight, distant, Rarefaction.
03	Tocklai	E	e e	09 28 02 28 26		Slight, distant.
	Shillong	ZE	eP iS	09 28 19 29 36	740	Slight, Locally felt.
	Chatra	Z NEZ	eP eS	09 29 17 31 20	1200	Feeble.
03	Dehra Dun	NE	e	09 58 05		Tremor
03	✓ Shillong	Z	iP	11 49 21		Slight, distant, Compression.
•	✓ Chatra	Z	eP	11 49 57		Very feeble, phases not clear, probably distant.
	✓ Dehra Dun	NE	e	11 51 17		Tremor.
03	Tocklai	E	e	17 20 16		Slight, distant
	Shillong	Z	eP	17 20 49		Slight, distant.
	Chatra	Z	eP	17 21 41		Mild, probably near, other phases not clear.
03	Chatra	Z	e	17 23 13		Mild, probably near, other phases not clear.
03	Chatra	Z	Pg	19 14 31	110	Very mild.
		Z	Sg	14 44		
03	✓ Shillong	Z	iP	19 35 37		Slight, distant. Compression.
•	✓ Chatra	Z	iP	19 36 14		Very feeble, probably distant. Other phases not clear.
03	✓ Shillong	Z	iP	20 13 33		Slight, distant. Rarefaction.
•	✓ Chatra	Z	eP	20 14 08		Very feeble, probably distant Other phases not clear.
04	Shillong	Z	iP	01 56 26		Distant, Rarefaction.
04	Shillong	Z	iPg Sg	03 43 28 43 44	13	Slight-
04	Shillong	Z	iP	04 56 51		Slight, near. Compression.
04	Shillong	Z	eP	07 19 18		Slight shock.
04	Shillong	Z	eP iS	07 24 53 25 16	220	Compression.
04	Shillong	Z	iPg Sg	10 32 11 32 21	100	Slight.
04	Shillong	Z	eP	11 37 59		Distant.
	Colombo	E	eP M	11 53 20 12 22 55		Amp= 0.2 mm.
04	Shillong	Z	eP S	13 12 14 12 44	270	Slight.
04	✓ Shillong	Z	iP	19 24 35		Compression. Very distant.
•	✓ Chatra	Z	iP	19 25 14		Feeble, probably distant. Other phases not clear compression.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km	REMARKS
January 1961 (contd)						
✓	Poona	Z	iP	19 26 07		Tremor.
04	Shillong	Z	eP S	21 42 25 42 51	220	Slight.
05	Shillong	Z	e	03 08 20		Slight distant.
05	Shillong	Z	eP	07 35 10		Slight distant.
05	Epc:- 51.6°N, 176.3°W Andreanof Islands. -h= 37 kmca. -H= 14h 06m 25.9s (USCGS). Mag:- 6 $\frac{3}{4}$ (Pasadena).					
✓	Tocklai	E	i e	14 17 39 18 04		Distant.
✓	Shillong	ZNE	iP S LQ LR M	14 17 42 26 58 36 00 39 10 44 33	7890	Compression. Period = 23sec., Gr. dis = 8 μ
✓	Chatra	NE	iP PP PPP S PS PPS SS SSS eLR M	14 18 00 20 45 22 22 27 24 28 04 28 25 33 19 35 31 38 53 52 00	8070	Period= 22 sec. Gr. dis=80 μ
✓	Calcutta	E	e	14 18 19		Slight
✓	Bokaro	NE	iP PP PPP iS PS M	14 18 22 21 10 23 12 28 05 28 36 53 33	8450	First direction of ground motion West
✓	Port Blair	E	iP PP i M	14 18 45 21 52 29 05 48 47		
✓	Hyderabad	EN E NE E NE N E N	iP PP SKS1 iS ScS PS PPS SS LR LR M M	14 19 06 21 54 28 53 29 23 29 47 30 17 30 40 35 26 44 39 45 47 50 39 52 17	9180	Westward Southward. Period= 18 sec. Gr. dis= 20 μ Period= 18 sec. Gr. dis= 19 μ

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△	REMARKS
January 1961 (contd)						
✓	Dehra Dun	NE N	eP PP i e e e M	14 19 13 22 04 28 47 34 31 36 59 38 13 42 19 47 27		
✓	Bombay	NE N NE E NE N E	eP PP PPP SKS eS M M	14 19 19 20 56 22 45 29 37 29 56 15 01 13 01 26	9630	Period= 19 sec, Gr. dis= 16 μ Period= 19 sec, Gr. dis =19 μ
✓	Madras	E	iP i PP PPP SKS eS ScS PS PPS	14 19 20 19 30 22 48 24 53 29 47 29 58 30 08 31 04 31 27	9670	Initial ground motion towards West.
✓	Colombo	E	P e L M	14 19 41 31 09 53 - 15 06 39		Amp= 1.5 m
✓	Kodaikanal	E	e	14 19 43		Tremor.
✓	Poona	Z N	iP ePP SKKS2 iS PPS M	14 20 16 23 41 30 37 30 51 32 16 54 07	9580	Compression ground motion towards South and West.
05	Shillong	E	eP	15 18 29		Slight distant.
✓	Dehra Dun	NE	e	15 20 26		Tremor.
05	Epc:- 4.1°S, 143°E. New Guinea- Felt. -H= 15h 53m 56s (USCGS) h about 108 km. Mag:- 6 $\frac{3}{4}$ -7 (Pas).					
✓	Port Blair	E	eP	16 03 13		Slight.
✓	Calcutta	N E	e i i	16 03 34 03 59 12 04		Slight.
✓	Shillong	ZNE	iP PPP eS M	16 03 35 07 02 11 23 24 38	6220	Compression, Moderate.
✓	Tocklai	E	i	16 03 37		Slight.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd)						
✓	Chatra	NE	P pP PP S sS SS	16 04 14 04 43 06 38 12 34 14 21 16 51	6810	Slight.
✓	Bokaro	NE E	iP PP PPP i ScS	16 04 20 06 35 08 05 12 35 13 54		Moderate. Direction of ground motion towards West.
✓	Madras	E	eP PcP PP iS i i i SS SSS	16 04 29 04 58 06 52 13 07 13 33 13 51 14 03 17 10 20 12	7140	Moderate.
✓	Colombo	E	P e L M	16 04 32 12 57 25 49 31 54		Amp= 0.2 mm.
✓	Hyderabad	E	iP PP eS PS SKS1 SS LR M	16 04 47 06 59 13 35 14 11 14 48 17 56 24 06 32 47	7350	Moderate, Ground motion towards West. Period= 15 sec. Gr. dis = 4
✓	Bombay	NE	eP eS	16 05 21 14 39	7930	Slight.
✓	Dehra Dun	NE	e i i	16 06 08 14 16 15 17		Slight. Phases not clear.
✓	Poona	Z	iP	16 06 11		Feeble, Tremor. Other phases not clear.
05	Shillong	Z	eP	16 32 52		Slight distant.
05	Epc:- 21.2°S, 169.3°E. Loyalty Islands Region. -H= 17h 57m 56.6s (USCGS). Mag:- 6 $\frac{3}{4}$ (Pasadena).					
✓	Calcutta	N E	e i i	18 09 34 21 59 38 34		
✓	Port Blair	E	iP PP PPP iS SSS LR M	18 10 13 13 20 15 09 20 23 28 47 37 15 44 17	9020	

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd)						
✓	Shillong	ZNE	iP PP iS PS	18 10 34 13 56 21 04 22 04	9470	Compression.
✓	Tocklai	E	e e	18 10 40 26 24		
✓	Colombo	E	P S L M	18 11 03 21 35 49 19 19 11 08	9510	Amp= 2.4 mm.
✓	Bokaro	NE	iP SKS i PS	18 11 04 21 38 22 12 23 28	10390	First direction of ground motion East.
✓	Madras	E	eP PP PPP SKS SKKS iS PS PPS SS SSS LR M	18 11 09 14 49 16 50 21 46 22 03 22 24 23 39 24 30 28 45 32 23 38 31 55 11	10630	
✓	Chatra	NE	iP PP e e e e LQ LR	18 11 16 15 03 21 33 22 09 28 45 32 25 38 - 43 -		
✓	Hyderabad	E	M	19 18 00		Period= 16 sec., Gr. dis = 12.5
✓	Hyderabad	E	iP i e e e e i LR LR E N M M	18 11 21 21 58 22 12 22 45 28 06 31 00 38 38 40 57 41 09 46 06 46 19		Direction of the motion towards West. Period= 15sec., Gr. dis= 9 μ Period= 15sec., Gr. dis= 11 μ
✓	Bombay	E NE	e e e	18 11 53 15 04 22 29 39 11		
✓	Bombay	E N	M M	19 18 30 22 30		Period= 19sec., Gr. dis= 15 μ Period= 17sec., Gr. dis= 8 μ
✓	Poona	Z	iP	18 12 43		Compression. Direction of the motion towards West.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Dehra Dun	NE	e	18 26 24		Slight. Phases not identifiable
			i	24 23		
			i	32 31		
			i	41 06		
			i	47 22		
			i	53 06		
✓	Kodaikanal	E	e	18 22 01		Initial ground motion towards E
			e	24 52		
			e	37 12		
			i	38 42		
			i	48 32		
			e	19 00 42		
			LR	07 20		
			M	18 56		
05	Shillong	Z	iP	18 27 20	9400	Moderate. Compression.
		E	iS	37 47		
			PPS	39 29		
			SS	43 44		
			SSS	47 09		
			LQ	51 17		
			LR	55 29		
			M	19 09 29		
05	Shillong	Z	iP	19 49 06		Slight, distant. Rarefaction.
05	Shillong	Z	eP	20 07 04		Slight, distant.
05	Shillong	Z	ePg Sg	20 13 48 13 55	70	Slight.
05	Shillong	Z	iPg iSg	21 42 52 43 04	100	Slight.
✓	06 Shillong	Z	eP	01 28 43		Slight, distant.
06	Shillong	Z	eP	02 48 48		Local Tremor.
06	Shillong	Z	eP	05 55 48 56 07	150	Near weak.
✓	06 Shillong	Z	iP	06 32 50		Moderate, distant. Rarefaction.
✓	Chatra	Z	eP	06 33 09		Very feeble, distant, Other phases not clear.
06	Shillong	Z	eP	07 15 20		Slight, Distant;
06	Chatra	Z	eP	07 15 46		Very feeble, distant. Other phases not clear.
06	Shillong	Z	eP	09 06 44		Local Tremor.
07	Dehra Dun	NE	e	00 56 15		Feeble.
			e	57 38		
	Chatra	Z	eP	00 57 01		Feeble, distant probably two different shocks.
			i	59 39		
	Shillong	Z	iP	00 57 43		Slight, distant.
07	Shillong	Z	eP	01 01 08		Slight, distant
07	Shillong	Z	eP	06 56 47	310	Slight.
			eS	57 22		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
07	Chatra	Z	eP	06 56 59	260	Mild
			e	59 23		
			eS	57 29		
07	Shillong	Z	eP	09 03 55	200	Slight.
			Pg	04 06		
			Sg	04 21		
07	Chatra	Z	iPg	09 53 55	80	Mild, Compression.
		NZ	Sg	53 57		
	Shillong	Z	eP	09 55 57		Slight, distant.
07	Chatra	Z	iP	10 39 58		Feeble, distant. Other phases not clear. Compression.
✓	Shillong	Z	iP	10 40 23		Distant, Compression.
07	Shillong	Z	iP	13 36 23		Shallow Rarefaction.
07	Shillong	Z	iPg	14 58 58		Slight, near.
07	Chatra	Z	iP	16 02 31		Very feeble, distant.
✓	Shillong	Z	iP	16 02 54		Distant, rarefaction.
07	Chatra	Z	iP	18 05 17		Very feeble, distant. Rarefaction.
07	Shillong	Z	iP	18 35 47		Distant, rarefaction.
✓	Chatra	Z	iP	18 35 50		Very feeble, distant, rarefaction.
07	Shillong	Z	eP	21 42 31		Slight, distant.
	Chatra	Z	eP	21 43 17		Very very feeble.
07	Port Blair	E	iP	23 06 39	100	Slight.
			iSg	06 49		
08	Shillong	ZNE	iP	01 22 56	4570	Compression.
			iS	29 10		
✓	Chatra	Z	eP	01 23 38		Feeble distant.
✓	Poona	Z	iP	01 24 50		Tremor.
08	Epc:- 3½°N, 129.6°E, Halmahera Region. h about 117 km. -H= 02h 56m 34s (USCGS).					
	Shillong	ZNE	iP	03 04 03	4620	Compression.
			S	10 19		
✓	Chatra	Z	eP	03 04 43		Feeble, distant.
✓	Madras	E	eP	03 05 12	5330	Slight.
			PP	07 08		
			PPP	07 54		
			eS	12 10		
			PS	12 17		
			PPS	12 27		
✓	Colombo	E	P	03 05 14		
✓	Hyderabad	E	eP	03 05 31	5540	Slight.
			PP	07 30		
			PPP	08 25		
			eS	12 41		
			SS	16 18		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Dehra Dun	NE	eP	14 32 29	6700	
		N	PPP	36 10		
			iS	40 33		
			SS	44 37		
			SSS	46 50		
			LQ	47 38		
			M	55 07		Period= 15 sec., Gr. dis= 20.4
✓	Port Blair	E	iP	14 32 54	7150	
			iS	41 32		
			M	54 32		
✓	Hyderabad	EN	iP	14 33 23	7570	Initial ground movement towards South & West.
		N	PcP	33 44		
			PP	35 43		
			PPP	37 43		
		EN	iS	42 23		
		N	PS	42 49		
			SS	46 39		
			SSS	49 47		
			LQ	50 50		
			LR	53 13		
		E	LR	54 02		
		N	M	59 45		Period= 21 sec., Gr. dis= 27 μ
		E	M	15 00 47		Period= 21 sec., Gr. dis= 33 μ
✓	Poona	Z	iP	14 33 38	7800	Compression. Initial ground motion towards South and West.
		N	PP	36 08		
			iS	42 49		
			SS	47 26		
			LQ	51 27		
			M	15 01 00		
✓	Madras	E	iP	14 33 40	7840	Initial ground motion towards West
			PcP	33 56		
			PP	36 09		
			PPP	37 43		
			iS	42 53		
			PS	43 12		
			PPS	43 29		
			ScS	43 41		
			SS	47 16		
			SSS	50 17		
			LQ	52 06		
			LR	55 42		
			M	15 01 25		
✓	Bombay	NE	eP	14 33 40	7890	
			eS	42 56		
		E	PS	43 25		
		NE	PPS	43 41		
			SS	48 11		
		N	M	15 01 49		Period = 23 sec., Gr. dis= 66 μ
		E	M	08 00		Period = 18 sec., Gr. dis= 41 μ
✓	Kodaikanal	E	iP	14 34 02	8630	
			PP	37 00		
			S	43 54		
			PPS	45 03		
			LQ	57 12		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Colombo	E	P	14 34 05		
			e	43 45		
			L	15 00 19		
			M	12 53		Amp= 1.2 mm.
✓	Shillong	Z	eP	14 52 56		Slight, distant.
✓	Vizianagram	E	eP	18 36 31		Slight.
✓	Shillong	Z	iPg	00 04 25	110	Exactly local.
			iSg	04 38		
			SSS	05 00		
	Chatra	Z	eP	00 05 26		Mild, probably near, other phases not clear.
			e	06 33		
✓	Shillong	Z	eP	12 09 40		Slight, distant.
✓	Epc:-			50°N, 171°W		Near Aleutian Islands.
				-H= 11h 59m 50s		(Shillong).
				(2) 51.8°N, 171°W,		Fox Islands.
				h about 47 km.		-H= 11h 59m 55s (USCGS).
✓	Shillong	ZNE	iP	12 11 25	8310	Slight, compression.
			iS	21 02		
			M	41 12		
✓	Chatra	ZNE	iP	12 11 43	8490	Moderate, Other phases not clear. Compression
			PP	14 27		
			S	21 28		
			PS	22 08		
			PPS	22 30		
			SS	26 31		
			M	42 -		
✓	Dehra Dun	NE	eP	12 11 58	8640	Slight, Other phases not clear.
			iS	21 51		
✓	Calcutta	E	e	12 11 59	8730	Slight.
			eS	21 56		
✓	Bokaro	NE	iP	12 12 00	8870	Slight, Other phases unidentifiable
			iS	24 12		Initial ground motion towards South and West.
✓	Hyderabad	N	eP	12 12 44	9430	Slight.
		EN	eS	23 13		
		E	PS	24 14		
		N	LR	39 43		
		E	LR	40 11		
			M	48 05		Period= 18 sec., Gr. dis= 8 μ
		N	M	48 23		Period= 15 sec., Gr. dis= 6 μ
✓	Poona	Z	eP	12 12 54	10050	Slight, Other phases not clear.
			eS	23 48		
✓	Bombay	NE	e	12 13 12		Slight.
			SKS	23 42		
			eS	23 57		
✓	Port Blair	E	iS	12 22 56		Slight.
✓	Colombo	E	e	12 27 29		
			e	55 29		
✓	Madras	E	M	12 54 27		M Waves of distant shock.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd)						
11	Shillong	Z	eP	14 06 31		Slight, distant.
11	Chatra	Z	eP	14 28 31		Feeble, distant.
11	Chatra	Z	iP	14 42 17		Feeble, distant. Rarefaction.
11	Shillong	Z	iP	19 48 49		Slight, distant. Rarefaction.
11	Shillong	Z	iPg Sg Sn	20 57 48 58 00 58 09	100	Slight.
11	Chatra	Z	eP	23 40 37		Feeble, distant.
	Shillong	Z	iP	23 41 16		Slight, distant. Rarefaction.
11	Shillong	ZNE	iP iS	23 43 14 43 39	210	Locally felt, weak.
	Tocklai	E	e i	23 43 47 44 18		
	Chatra	ZN	iP S	23 43 53 44 43	460	Feeble.
12	Shillong	Z	eP	04 07 02		Slight, distant.
12	Shillong	Z	iP	05 28 49		Rarefaction.
12	Shillong	Z	iP	06 15 58		Near slight.
12	Shillong	Z	iP iSg	06 53 14 27 -	110	Slight, Rarefaction.
12	Shillong	Z	eP	08 50 48		Slight, distant.
12	Shillong	Z	eP	11 27 55		Slight, Near.
12	Shillong	Z	iP	13 55 28		Compression. Distant.
12	Shillong	Z	iP	14 25 43		Feeble, distant. Compression.
13	Tocklai	E	i e	02 00 37 02 00 58		
13	Shillong	Z	iP	15 04 40		Slight, distant. Rarefaction.
	Chatra	Z	iP	15 05 01		Feeble, distant. Compression.
13	Shillong	Z	iPg iSg	18 04 44 - 55	90	Slight, Rarefaction.
	Chatra	Z	eP	18 04 46		Feeble, distant.
13	Chatra	Z	eP	18 34 14		Feeble, distant.
13	Shillong	Z	iPg PPP S SSS	18 51 59 52 11 52 18 52 40	150	Slight, Rarefaction.
13	Shillong	Z	e	19 31 29		Distant imp ulse.
13	Chatra	Z	iP iS	20 10 46 11 07	161	Very feeble, Compression.
13	Chatra	Z	eP	20 18 45		Feeble, distant.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd)						
4	Shillong	ZE	iP iS	02 00 51 01 31	370	Slight.
	Chatra	Z ZN	iP S	02 01 56 03 21	820	Slight, Rarefaction.
4	Shillong	Z	iP	02 36 50		Distant, slight. Rarefaction.
	Chatra	Z	iP	02 37 11		Very feeble, probably distant. Other phases not clear. Compression.
4	Shillong	Z	iP	05 43 22		Distant, slight. Rarefaction.
	Chatra	Z	eP	05 43 57		Very feeble, probably distant. Other phases not clear. Compression.
4	Shillong	Z	ePg iS	06 57 11 57 32	150	Weak.
4	Shillong	Z	eP	07 12 10		Slight, distant.
4	Shillong	Z	eP	15 45 51		Slight, distant.
4	Shillong	Z	iP	16 36 37		Weak, distant. Compression.
4	Epc:- 53.9°N, 163.7°W, Unimak Island Region. -H= 16h 38m 55.6s(USCGS). -h about 41 kms. Mag 5 $\frac{3}{4}$ (Pal).					
	Shillong	ZNE	iP iS	16 50 44 17 00 38	8670	Weak, Compression.
	Chatra	Z EN	iP PcP PP PPP S	16 51 02 51 09 54 06 55 54 17 01 00	8750	Slight.
		N	SKS SKKS PS PPS LQ LR M	01 09 01 18 01 47 02 05 12 15 16 00 31 00		Period= 15 sec., Gr. dis= 7 μ
	Dehra Dun	NE N	eP iS LQ LR M	16 51 09 17 01 17 12 10 15 59 22 56	8980	Slight.
	Poona	Z N	eP e	16 52 07 17 03 30		Slight, Other phases not clear.
	Bombay	NE	eP SKS1 eS	16 52 19 17 03 12 03 28	10450	Slight.
	Calcutta	E	e e	16 52 53 17 03 03		Slight.
	Bokaro	NE	i	17 01 36		Slight, distant. Other phases unidentifiable.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Hyderabad	E	e	17 02 59		Period= 18 sec. Gr. dis= 6 μ
			M	17 29 59		
14	Shillong	Z	eP	21 05 49		Slight, distant.
14	Shillong	Z	eP	22 32 15		Slight, distant.
14	Shillong	Z	iP	23 55 06		410 Slight.
			Pg	55 16		
			S	55 49		
	Chatra	Z	iP	23 56 11		Very mild.
			e	57 35		
15	Dehra Dun	NE	e	01 05 21		Feeble
				05 42		
	Shillong	Z	iP	01 14 39		Very distant, slight, compression.
15	Shillong	Z	eP	04 13 51		Distant, slight.
15	Shillong	Z	ip	08 01 06		Distant, Rarefaction.
15	Shillong	Z	i	11 32 54		Tremor, Local.
15	Shillong	Z	iP	12 01 13		Distant, compression.
✓	Chatra	Z	e	12 01 43		Very feeble, other phases not clear.
15	Vizianagram	E	iP	12 21 06		Distant. Compression.
15	Shillong	Z	iPg	16 34 21		20 Weak
			Sg	34 24		
15	Epc:- 20.4°S, 169.5°E Loyalty Islands Region. -H= 16h 44m 44.8s (USCGS). h about 182 kms.					
✓	Shillong	ZE	iP	16 57 15		9110 Slight, Rarefaction
			iS	17 07 29		
✓	Chatra	Z	eP	16 57 42		Feeble, distant.
			e	58 15		
✓		NE	e	17 08 01		
✓	Port Blair	E	i	16 58 11		Slight.
			i	17 06 59		
✓	Dehra Dun	NE	e	17 02 39		Feeble.
			i	09 52		
✓	Bombay	NE	e	17 02 42		Slight.
		E	e	08 52		
		NE	e	10 07		
✓	Bokaro	NE	i	17 08 03		Slight, distant, Other phases unidentifiable.
			i	08 38		
		E	ii	09 58		
✓	Hyderabad	E	i	17 08 25		Period= 15 sec., Gr. dis= 4 μ
			M	12 06		
15	Epc:- 5.2°S, 110°E Java Sea h about 565 kms. -H= 20h 34m 14.3s (USCGS).					
✓	Shillong	Z	iP	20 40 24		Slight, distant.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Chatra	Z	iP	20 40 59		Feeble.
			i	42 54		
			e	45 49		
			e	49 58		
✓	Dehra Dun	NE	e	20 48 10		6120 Tremor.
6	Epc:- 27°N, 143°E, Off South East Coast of Japan. -H= 07h 19m 40s (Shillong)					
	(2) 36°N, 141.1°E Near East coast of Honshu Island -H= 07h 20m 18.6s. -h= about 131 km. Mag: 6 $\frac{3}{4}$ -7 (Pas) Felt: Central and NE Honshu-(USCGS)					
	Shillong	ZN	iP	07 28 07		5110
			PP	29 47		
			PPP	30 37		
			iS	34 52		
			LQ	38 45		
			SSS	39 08		
			M	44 00		Period= 15 sec. Gr. dis= 62 μ
	Chatra	ZNE	iP	07 28 42		5140 Compression. Initial ground motion towards South and West.
		NE	PcP	30 02		
			PP	30 24		
			PPP	30 58		
			PcS	33 52		
			S	35 30		
			PS	34 42		
			PPS	35 47		
			ScS	38 24		
			SS	38 50		
			LQ	39 49		
			SSS	39 59		
			LR	42 02		
		E	M	51 00		
		N	M	54 00		Period= 15 sec., Gr. dis= 162 μ
✓	Tocklai	E	e	07 28 50		Distant.
✓	Calcutta	E	iP	07 28 51		5550
			e	29 53		
			iS	36 02		
			e	49 30		
✓	Bokaro	E	iP	07 29 01		5700 Other phases unidentifiable. Initial ground motion towards West.
			iS	36 20		
			M	47 31		
✓	Port Blair	E	iP	07 29 10		
			i	36 21		
✓	Dehra Dun	NE	eP	07 29 29		6120
		N	PP	31 27		
			PPP	32 00		
			iS	37 11		
			SS	40 52		
			SSS+LQ	42 34		
			LR	44 23		
			M	49 27		Period= 16.5 sec., Gr. dis= 86.8 μ
✓	Sehore	N	iP	07 29 46		Distant. Compression.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Vizianagram	N	iP	07 29 59		Compression.
			i	30 09		
			i	37 34		
			e	37 50		
	Hyderabad	E	iP	07 30 08	6490	Initial ground motion towards West.
			PcP	30 36		
			PP	31 15		
			PPP	33 40		
			iS	38 11		
			PS	38 30		
			PPS	39 00		
			SKS1	39 56		
			SS	42 10		
			SSS	44 44		
			LR	47 46		
			M	51 57		Period= 18 sec., Gr. dis= 48 μ
	Madras	E	iP	07 30 14	6740	Initial ground motion towards West.
			PcP	30 53		
			PP	32 28		
			PPP	34 00		
			iS	38 30		
			PS	38 42		
			PPS	38 48		
			ScS	39 44		
			SS	42 25		
			SSS	44 58		
			LQ	45 32		
			LR	48 16		
			M	53 39		
	Poona	N	iP	07 30 27	7140	Compression. Initial ground motion towards South and West.
			PP	32 57		
			iS	39 05		
			PS	39 23		
			PPS	39 33		
			SS	43 15		
			LQ	46 35		
			M	55 15		
	Bombay	NE	iP	07 30 33	7190	
			PP	32 47		
			PPP	34 31		
			e	38 46		
			eS	39 13		
			SKS	40 07		
		E	M	08 00 09		Period= 14 sec., Gr. dis= 79 μ
		N	M	08 00 31		Period= 13 sec., Gr. dis= 32 μ
	Colombo	E	P	07 30 46		
			e	39 13		
			M	08 01 4		Amp= 3.4 mm
						Slight, distant.
16	Shillong	Z	eP	08 56 04		
16	Epc:- Aftershock of earlier shock.					
	35.7°N, 140.6°E					
	-H= 11h 19m 46.5s (USCGS) -h about 157 kms.					
	Shillong	ZN	iP	11 27 33		Compression, distant.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Chatra	ZNE	iP	11 28 06	5140	Slight, distant.
		NE	eS	34 54		
		NE	M	50 00		Period= 15 sec., Gr. dis= 9 μ
	Calcutta	E	eP	11 28 15	5550	Moderate.
			iS	35 25		
	Bokaro	NE	iP	11 28 25	5670	Slight.
		E	i	35 39		
		NE	iS	35 42		
	Port Blair	E	e	11 28 52		Slight
	Dehra Dun	NE	eP	11 28 58	5980	Slight
		N	PPP	3 31 52		
			iS	36 32		
			SS	40 24		
			LQ	42 26		
			LR	44 58		
			M	48 48		
	Hyderabad	E	iP	11 29 33	6490	Slight, Initial ground motion towards West.
			iS	37 36		
			LR	47 30		
			M	51 30		Period= 18 sec. Gr. dis= 6 μ
	Madras	E	iP	11 29 40	6700	Slight. Initial ground motion towards West.
			iS	37 54		
			PPS	38 18		
			ScS	39 19		
	Colombo	E	P	11 29 52		
			e	38 36		
			e	57 20		
			M	12 01 20		Amp= 0.5 mm.
	Poona	Z	iP	11 29 53		Tremor. Compression.
	Bombay	NE	eP	11 29 56	6950	Slight.
			eS	38 23		
			PS	38 42		
		E	M	59 33		Period= 15 sec., Gr. dis= 6 μ
		N	M	59 37		Period= 15 sec., Gr. dis= 2 μ
16	Shillong	Z	iP	11 48 56		Rarefaction, Slight, distant.
✓	Chatra	Z	iP	11 49 30		Feeble, distant. Rarefaction.
16	Epc:-36.2°N, 141.7°E Honshu Japan					
	-H= 12h 12m 34.4s -h about 105 kms.					
	Mag: 6½-6¾ (Pas)					
✓	Shillong	ZN	iP	12 20 23	4850	Compression.
			iS	23 53		
	Tocklai	E	e	12 20 27		Distant.
	Chatra	ZNE	ip	12 20 56	5200	
		NE	PcP	22 32		
			PP	22 47		
			PPP	23 30		
			PcS	26 30		
			S	27 47		
			SP	27 56		
			SSP	28 02		
			SS	30 50		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
16	Chatra	NE	ScS	12 31 19		
			LQ	31 39		
			SSS	31 55		
			LR	33 41		
		EN	M	44 00		Period= 14 sec., Gr. dis= 105 μ
	Calcutta	E	eP	12 21 06	5550	
			iS	28 16		
	Bokaro	NE	iP	12 21 16		
		E	i	28 22		
		NE	i	28 37		
	Port Blair	E	iP	12 21 26	5610	
			iS	28 40		
			ScS	31 30		
			M	39 38		
	Dehra Dun	NE	eP	12 21 46	6120	
		N	PP	23 47		
			PPP	24 52		
			iS	29 28		
			SS	33 02		
			SSS & LQ	34 42		
			LR	37 23		
			M	41 19		
	Sehore	E	e	12 22 05		Distant.
	Vizianagram	N	iP	12 22 16	5990	Compression, distant.
			iS	32 52		
	Hyderabad	E	iP	12 22 27	6770	Initial ground motion towards West.
			PP	24 26		
			PPP	26 03		
			iS	30 45		
			SKS1	31 59		
			SS	33 57		
			LR	39 51		
			M	44 30		
						Period= 15 sec., Gr. dis= 18 μ
	Madras	E	iP	12 22 32	6740	Initial ground motion towards West.
			PcP	23 08		
			PP	24 44		
			PPP	26 14		
			eS	30 48		
			PS	31 02		
			PPS	31 06		
			ScS	31 11		
			SS	34 37		
			SSS	37 11		
			LQ	37 51		
			M	46 56		
	Poona	E	iP	12 22 44	7230	Compression. Initial ground motion towards South and West.
		N	PP	25 15		
			PPP	26 42		
		E	iS	31 26		
		N	PS	31 39		
			SS	35 24		
			SSS	38 23		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
16	Poona	N	LQ	12 39 04		
			LR	42 15		
			M	47 23		
	Bombay	NE	eP	12 22 49	7280	
			PP	25 26		
		E	PPP	27 04		
		NE	e	31 15		
			eS	31 34		
		E	e	31 57		
		NE	SKS	32 51		
		N	M	51 57		Period= 15 sec. Gr. dis. = 31 μ
		E	M	52 32		Period=13 sec., Gr. dis= 47 μ
	Kodaikanal	E	eP	12 23 01	8730	Initial ground motion towards East.
			PPP	28 01		
			iS	32 58		
			SS	38 28		
			SSS	42 04		
			LQ	45 43		
			LR	49 49		
			M	56 49		Period= 15 sec., Gr. dis= 14.3 μ
	Colombo	E	P	12 23 02		
			e	31 32		
			e	50 50		
			M	58 18		Amp= 2.2 mm.
16	Shillong	Z	eP	13 17 04		Slight, distant.
16	Epc:- 36.3°N, 141.2°E Near East coast of Honshu (Japan) -H= 14h 04m 5.3s (USCGS) -h about 127 kms.					
	Shillong	Z	iP	14 11 54		Slight, distant. Compression.
	Chatra	ZNE	iP	14 12 27	5240	Slight.
			S	19 21		
		NE	M	36 00		Period= 12.1 sec., Gr. dis= 13 μ
	Calcutta	E	eP	14 12 33	5570	Moderate
			iS	19 45		
	Bokaro	N	iP	14 12 45		Slight, distant.
		E	eP			
		NE	i	20 06		
		E	i	20 11		
	Port Blair	E	e	14 13 12		Slight.
	Dehra Dun	NE	eP	14 13 12	6080	Slight.
		N	PP	15 11		
			PPP	16 18		
			iS	20 51		
			SSS & LQ	26 01		
			LR	28 06		
			M	33 28		
	Hyderabad	E	iP	14 13 51	6660	Moderate. Initial ground motion towards West.
			PP	16 00		
			iS	22 03		
			SS	25 48		
			LR	32 54		
			M	36 57		Period =18sec. Gr. dis= 9 μ

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Madras	E	iP	14 14 00	6890	Slight. Initial ground motion towards West.
			PPP	17 51		
			iS	22 24		
			PS	22 40		
			PPS	22 48		
			ScS	23 43		
✓	Poona	Z	eP	14 14 12		Tremor, Compression.
✓	Bombay	NE	eP	14 14 17	6930	Slight.
		E	eS	22 43		
		NE	PS	22 58		
		E	M	44 02		Period= 16 sec. Gr. dis= 8 μ
		N	M	44 30		Period= 13 sec., Gr. dis= 2 μ
✓	Colombo	E	e	14 23 08		
			e	32 25		
✓	16 Shillong	Z	eP	14 52 04		Slight, distant.
✓	Chatra	Z	iP	14 52 37		Feeble, distant. Compression.
16	Epc:- 36.4°N, 140.6°E Near east coast of Honshu Islands (Japan) -H= 15h 41m 23.3s (USCGS) -h about 147 kms.					
✓	Tocklai	E	i	15 48 59		Distant.
✓	Shillong	ZNE	iP	15 49 07	4790	Distant, Moderate.
			iS	55 34		Rarefaction
	Chatra	ZNE	iP	15 49 41	5170	Moderate.
		NE	PcP	51 11		
			PP	51 29		
			PPP	52 11		
			PcS	55 05		
			S	56 30		
			ScS	59 28		
			SS	59 47		
			LQ	16 00 47		
			SSS	00 58		
			LR	02 54		
		EN	M	13 00		Period= 14.5 sec., Gr. dis= 58 μ
✓	Calcutta	E	iP	15 49 53		Moderate.
			i	57 03		
✓	Bokaro	NE	iP	15 49 58		Slight.
		E	i	56 59		
		NE	i	57 24		
✓	Port Blair	E	iP	15 50 07	5510	Moderate.
			PP	51 49		
			PPP	53 02		
			iS	57 15		
			M	16 05 37		
✓	Dehra Dun	NE	eP	15 50 28	5810	Moderate.
		N	PP	52 29		
			PPP	53 29		
			iS	57 53		
			SSS & LQ	16 03 18		
			LR	05 15		
			M	09 42		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
✓	Vizianagram	N	eP	15 50 58		Distant.
	Hyderabad	E	iP	15 51 06	6440	Moderate, Initial ground motion towards West.
			PP	53 12		
			PPP	54 46		
			eS	59 06		
			PS	59 24		
✓			SKS1	16 00 33		
			SS	03 07		
			LR	08 46		
			M	13 18		Period= 18 sec., Gr. dis= 15 μ
	Madras	E	iP	15 51 14	6700	Moderate, Initial ground motion towards West.
			PcP	51 47		
			PP	53 32		
			PPP	55 01		
			iS	59 28		
			PS	59 45		
			PPS	59 51		
			ScS	16 00 48		
			LQ	06 33		
			M	14 31		
	Poona	E	iP	15 51 28		Moderate, Compression.
			i	16 00 06		Initial ground motion towards South & West.
			i	00 21		
			i	04 15		
			M	16 35		
	Bombay	NE	iP	15 51 32	6910	Slight
		E	e	52 08		
			eS	59 57		
		NE	PS	16 00 14		
		N	M	20 37		Period= 15 sec., Gr. dis= 15 μ
		E	M	21 13		Period= 14 sec., Gr. dis= 22 μ
	Colombo	E	P	15 51 37		
			S	16 00 20		
			L	19 37		
			M	27 02		Amp= 0.9 mm
16	Kodaikanal	E	e	16 00 11		Tremor.
16	Calcutta	E	e	17 08 18		Slight.
16	Shillong	Z	iP	18 20 22		Near.
16	Dehra Dun	NE	e	21 48 12		Tremor.
17	Chatra	Z	iP	03 21 16	150	Slight, Near H(Chatra)
			S	21 35		03 20 51. Rarefaction.
17	Shillong	Z	iP	05 52 33		Slight, distant. Rarefaction
17	Shillong	Z	eP	06 49 33		Slight, Near.
✓	Chatra	Z	eP	06 50 01		Very feeble, distant. Other phases not clear.
17	Vizianagram	E	iP	09 00 34		Near.
17	Shillong	Z	P	13 12 14	330	Slight, Near.
			PPP	12 36		
			S	12 51		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd).						
17	Shillong	Z	P	19 09 15		570 Slight, Near.
			Pg	09 42		
			S	10 15		
17	Epc:- 21.4°S, 169.3°E, Loyalty Island Region. -H= 23h 05m 32.5s (USCGS) -h about 84 km.					
17	Shillong	Z	eP	23 18 19		9380 Slight, distant.
			iS	28 45		
17	Chatra	Z	eP	23 18 40		Very feeble, distant other phases not clear.
17	Bombay	E	e	23 20 31		Slight.
			e	24 30		
			e	30 07		
17	Dehra Dun	NE	e	23 30 03		Feeble.
			e	31 06		
17	Shillong	Z	eP	23 34 23		Slight, distant.
18	Tocklai	E	e	01 09 39		Slight, Near.
18	Shillong	Z	iP	07 35 46		Slight, distant. Rarefaction.
18	Chatra	Z	eP	09 47 27		Feeble, distant
18	Shillong	Z	eP	09 48 09		Slight, distant.
18	Shillong	Z	eP	15 21 25		Slight, distant.
18	Shillong	Z	iP	16 56 24		Slight, distant.
18	Shillong	Z	iP	21 18 04		130 Slight, compression.
			iSg	18 20		
18	Shillong	Z	iP	23 49 06		310 Slight.
			iS	49 41		
19	Shillong	ZNE	iP	01 09 31		Slight, Local.
19	Shillong	Z	eP	04 33 36		Slight, distant.
19	Port Blair	E	e	04 43 18		Slight.
	Dehra Dun	NE	e	04 44 20		Feeble
			i	45 23		
			i	46 03		
19	Shillong	Z	iP	06 07 14		Slight, distant. Compression.
19	Shillong	Z	iP	17 31 40		Weak, distant. Compression.
19	Chatra	Z	iP	17 32 02		Feeble, distant.
19	BoKaro	E	i	17 32 24		Slight, distant.
19	Dehra Dun	NE	e	17 32 24		Slight, phases not clear.
			e	40 28		
19	Poona	Z	iP	17 33 38		9370 Slight, Compression.
				44 04		Initial ground motion towards South & West.
19	Bombay	NE	eP	17 33 40		
			e	43 22		
			e	43 38		
		N	M	18 02 28		Period= 19 sec. Gr. dis= 2 μ
		E	M	08 13		Period= 14 sec., Gr. dis= 2 μ

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd)						
17	Calcutta	E	e	17 53 09		Slight.
17	Hyderabad	E	M	18 05 48		Period= 18 sec., Gr. dis= 7 μ
20	Shillong	Z	eP	02 14 34		Slight, distant.
20	Shillong	Z	iP	08 24 30		Slight, distant. Rarefaction.
20	Chatra	Z	iP	09 02 44		Very feeble, distant.
20	Shillong	ZE	eP	11 50 12	730	Slight, distant.
	Chatra	Z	iPn	11 51 12	800	Mild.
		Z	Pg	11 51 46		
		Z	LQ	11 52 23		
		NZ	Sn	11 52 35		
		Z	SS	11 52 47		
		Z	SSS	11 52 58		
		Z	S*	11 53 00		
	Tocklai	E	e	11 51 15		Slight, near.
20	Shillong	Z	iP	11 55 04		Slight, near
20	Chatra	Z	eP	16 15 49		Very feeble, distant.
20	Epc:- 56.4°N, 152.3°E Sea of Okhotsk. -H= 17h 09m 15.7s (USCGS) -h = 46 km. Mag: 6 $\frac{3}{4}$ (Pasadena).					
20	Shillong	Z	iP	17 21 33		Distant, Compression.
	Chatra	Z	eP	17 21 39	3250	Moderate.
		NZE	PcP	17 21 45		
		Z	i	17 22 07		
		ZNE	PP	17 24 48		
		Z	i	17 25 35		
		ZNE	eS	17 32 00		
		ZNE	ScS	17 32 06		
		N	SS	17 37 28		
		N	LQ	17 44 -		
		N	LR	17 48 -		
		NE	M	17 56 00		Period= 23.0 secs., Gr. dis 15 μ
	Bombay	N	e	17 22 41		Slight.
		NE	e	26 33		
		NE	e	33 18		
		E	e	39 43		
		N	e	40 28		
		E	M	18 08 -		
	Bokaro	NE	i	17 32 21		Slight, distant.
	Colombo	E	P	17 34 04		
			e	47 10		
20	Tocklai	E	i	20 28 10		
20	Shillong	ZNE	iP	20 59 22	280	Moderate. Felt locally.
			iS	59 53		Compression
	Tocklai	E	e	20 59 32		
			i	59 41		
	Chatra	Z	iP	21 00 25	880	Slight.
		NZ	PP	21 00 33		
		Z	Pg	21 00 53		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
20	Chatra	NEZ	eS	21 01 36		
		N	LR	21 01 43		
	Calcutta	E	i	21 01 06		Slight.
			i	01 21		
	Poona	Z	e	21 06 36		Tremor.
	Bombay	E	e	21 07 10		Very mild and near.
		NE	e	07 38		Tremor.
20	Bokaro	N	i	21 21 51		Slight, distant.
20	Shillong	Z	iP	22 42 42		Slight, distant. Compression.
	Chatra	Z	iP	22 43 13		Very feeble, distant.
			i	43 26		compression.
			i	44 46		
	Poona	Z	iP	22 44 25		Tremor. Compression.
21	Shillong	Z	eP	08 43 58		Slight, near
21	Shillong	Z	iP	15 07 27		Slight, distant.
						Compression.
21	Chatra	ZN	iP	16 15 48	140	Feeble, Rarefaction.
			S	16 07		
21	Shillong	Z	iP	21 36 12		Slight, distant.
						Rarefaction.
22	Chatra	Z	iP	01 07 56		Feeble, distant.
						Compression.
22	Shillong	Z	eP	02 29 24		Slight, distant.
22	Epc:- 11.9°S, 166.2°E. Santa Cruz Islands Region.					
	-H= 03h 24m 04.5s (USCGS) -h= 25 kms.					
	Mag: 7 (Pasadena).					
	Port Blair	E	e	03 36 06		
	Shillong	ZE	eP	03 36 18	8960	Rarefaction.
			PP	39 24		
			PPP	41 10		
			S	46 25		
			ScS	46 45		
			PS	47 15		
			PPS	47 37		
			SS	51 18		
			SSS	54 28		
			LQ	57 42		
			LR	04 01 44		
			M	09 49		
	Chatra	Z	ePKP	03 36 44		
			PP	37 39		
			e	43 32		
			e	44 31		
			e	45 33		
			e	47 16		
			i	47 26		
		NE	e	48 28		
			i	49 06		
		N	LQ	04 05 00		
			LR	11 00		
		NE	M	43 00		
Period= 17 sec., Gr. dis= 9						

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
	Bokaro	E	iP	03 36 49	9470	
			iS	47 19		
	Madras	E	eP	03 37 05	9890	
			PP	40 29		
			PPP	42 33		
			SKS	47 34		
			SKKS	47 43		
			iS	47 52		
			PS	49 01		
			PPS	49 33		
			SS	53 33		
			SSS	57 15		
			LQ	04 01 28		
	Colombo	N	iP	03 37 07		
			i	47 30		
			e	53 30		
			L	04 16 05		
			M	24 50		
	Hyderabad	E	eP	03 37 14		
			PP	40 20		
			PPP	42 47		
			e	47 45		
			e	48 47		
			e	49 20		
			e	52 50		
			LR	04 04 50		
			LR	05 32		
		N				
		E		10 08		Period= 18 sec., Gr. dis= 11 μ
		N		10 11		Period= 15 sec., Gr. dis= 8 μ
	Poona	Z	eP	03 37 33		Rarefaction
		N	i	48 58		
			e	50 27		
			e	55 55		
			e	56 09		
			LQ	04 05 53		
			LR	10 41		
	Dehra Dun	NE	eP	03 37 43		
		N	PP	40 48		
			PPP	42 36		
			i	48 06		
			e	53 15		
			e	57 30		
			LQ	04 00 30		
			LR	04 04 53		
			M	11 42		
	Kodaikanal	E	eP	03 37 44		
			i	47 55		
			e	49 01		
			e	56 40		
			LQ	59 37		
			LR	04 03 34		
			M	10 25		
	Bombay	NE	eP	03 37 50	10690	
		E	e	38 14		
			PP	41 00		
			PPP	43 00		
Period= 30 sec., Gr. dis= 33.1 μ						

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
22	Bombay	NE	SKS eS PS PPS	03 48 23 49 07 50 30 51 11		Period= 17 sec., Gr. dis= 13 Period= 16 sec., Gr. dis= 09
		E N	M M	04 25 00 43 04		
22	Shillong	Z	iP	05 08 56		Near, Compression.
22	Shillong	Z	eP	07 22 09		Slight, distant.
22	Shillong	Z	iP	08 31 54		Slight, distant. Rarefaction.
22	Shillong	Z	ePg iSg	10 37 38 37 52	120	Slight.
22	Shillong	Z	iP	10 55 50		Slight, distant. Rarefaction.
22	Shillong	Z	eP	19 17 05		
22	Shillong	Z	iP	19 29 21		Slight, distant. Compression.
	Chatra	Z	iP	19 30 05		Feeble, distant. Compression.
	Dehra Dun	NE	e	19 31 15		Tremor
23	Calcutta	E	eP iS	03 35 42 46 02	9245	Moderate
23	Shillong	Z	iP	04 56 49		Slight, distant. Rarefaction,
	Chatra	Z	eP	04 57 14		Feeble, distant.
	Poona	Z	iP	04 58 58		Tremor. Rarefaction.
	Shillong	Z	eP	05 02 47		Slight, distant.
	Dehra Dun	NE	e	05 05 20		Tremor
23	Shillong	Z	iP	07 11 38	190	Slight .
23	Shillong	Z	iP	09 19 26		Slight, distant. Compression.
	Bombay	NE	e	09 48 18		Slight.
		E	e	52 12		
		NE	e	52 37		
	Poona	Z	iP	09 48 18		Tremor
	Madras	E	e	09 48 23		Slight.
			e	52 16		
			e	53 30		
	Hyderabad	E	eP eS LR	09 48 41 52 40 54 09	2440	Slight.
		N	LR	54 12		
		N	M	55 12		
		E	M	55 32		
	Dehra Dun	NE	e	09 50 36		Period= 18 sec. Gr. dis= 2 Period= 8 sec., Gr. dis= 3
			e	55 23		Feeble.
23	Shillong	Z	iP iSg	17 17 51 18 07	130	Slight.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 Contd)						
23	Chatra	Z	iP	18 11 57		Feeble, distant. Compression.
23	Vizianagram	E	eP	19 55 28		
23	Dehra Dun	NE	e i i	23 34 42 36 02 36 41		Feeble.
	Chatra	Z NE	eP eS	23 36 28 39 09	1588	Feeble.
	Shillong	Z	iP	23 37 19		Slight, distant. Rarefaction.
	Bombay	E	e	23 38 48		Mild near Tremor.
	Poona	Z	eP	23 38 50		Tremor. Compression.
	Madras	E	e e	23 43 12 44 40		Slight.
24	Shillong	Z	eP S	04 04 09 05 03	500	Slight.
24	Shillong	Z	ePg Sg	04 44 49 44 58	80	Feeble.
24	Epc:- 15.6°N, 167.6°E, New Hebrides Island Region. -H= 07h 25m 03.5s (USCGS) -h= 198 kms.					
	Shillong	Z	iP SKS	07 37 12 47 30	9120	Slight, Compression.
	Chatra	Z E	eP e	07 37 40 47 54		Feeble, Compression.
	Dehra Dun	NE	e	07 48 45		Feeble.
24	Chatra	Z	iP	14 48 41		Feeble, distant. Compression.
24	Chatra	Z	iP Pg PP S Sg i SS	16 47 09 47 12 47 17 47 23 47 31 47 32 47 34 47 42	180	Mild.
24	Chatra	Z	eP eS	20 23 33 23 51	145	Mild.
24	Chatra	Z	eP e	21 50 35 51 06	35	Mild
25	Chatra	Z	iP	01 00 54		Feeble, distant. Compression.
25	Shillong	Z	iP	05 04 57		
25	Shillong	ZE	iP	05 33 45		Slight, distant. Rarefaction.
	Chatra	Z NE	eP eS	05 34 08 44 00		Feeble distant. Other phases not very clear.
	Bombay	NE	e	05 45 37		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
25	Shillong	Z	iPg iSg	06 16 17 16 33	130	Slight.
25	Shillong	Z	P	06 45 00		
	Shillong	Z	iPg iSg	09 38 45 39 20	240	Slight, Compression
	Shillong	Z	eP	17 27 45		Slight, distant.
	Chatra	Z	iP e	17 28 22 30 18		Feeble, distant.
25	Shillong	Z	iP	19 13 42		Moderate, distant. Compression.
	Chatra	Z	iP i	19 14 01 14 56		Feeble.
	Chatra	Z	iPg or iPn	19 18 09		Mild near.
25	Tocklai	E	iP iS	23 43 50 44 12		
	Shillong	ZNE	iP S	23 45 15 45 04	460	Feeble.
	Chatra	Z	iP PP PPP P* LQ S SS SSS	23 45 13 45 21 45 27 45 30 46 27 46 38 46 48 46 59	820	Mild
26	Bombay	NE	e e	00 46 21 46 27		Slight, local Tremor.
	Poona	Z	iP	00 46 28		Tremor.
	Hyderabad	E	i	00 48 56		
	Vizianagram	N	e i i	00 49 00 50 47 51 00		
	Madras	E	e e	00 50 48 51 13		Feeble
26	Epc:- 15.3°N, 93.7°E. Southern Burma. -H= 01h 47m 01.4s (USCGS). -h= 67 kms					
	Port Blair	N	eP e	01 48 04 48 26		Slight.
	Calcutta	E	eP e i	01 49 21 50 41 56 39		Slight.
	Shillong	ZE	iP eS	01 49 25 51 13	1060	Moderate. Rarefaction.
	Madras	E	eP PP iS e M	01 50 03 50 15 52 32 52 55 54 17	1470	Slight.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
	Chatra	ZNE NE	iP PP PPP LQ e e S e	01 50 22 50 30 50 39 52 25 52 34 52 48 52 59 54 00	1550	Feeble, compression.
	Poona	Z	iP eS	01 51 23 55 12		2330 Slight, compression.
	Bombay	E	eP eS	01 51 36 55 30		2380 Slight.
	Tocklai	E	e	01 51 47		
26	Shillong	Z	iP	05 32 32		Slight, distant. Rarefaction.
26	Shillong	Z	eP	10 39 06		Slight, distant.
26	Shillong	Z	iP	11 02 02		Slight, distant. Rarefaction.
26	Shillong	Z	eP	13 25 10		Slight, distant.
26	Shillong	Z	iP	14 16 49		Slight, distant. Rarefaction.
	Chatra	ZN	eP S	14 17 38 19 11	900	Feeble.
26	Shillong	Z	eP	15 44 26		Slight, distant.
26	Shillong	Z	eP	15 52 38		Slight, distant.
	Chatra	Z	eP	15 53 18		Feeble, distant.
26	Calcutta	E	eP	16 25 42		
26	Epc:- 21.4°S, 169.5°E. Loyalty Islands. -H= 16h 13m 25.1s (USCGS) -h= 119 km.					
	Port Blair	E	iP iS	16 25 48 35 51	8870	Slight.
	Calcutta	E	i	16 35 54		
	Shillong	ZNE	iP iS	16 26 08 36 38	9470	Slight, compression.
	Chatra	Z	eP	16 26 30		Feeble, distant.
	Bokaro	E NE	i i	16 26 33 37 07	9550	Slight
	Colombo	N	P S L M	16 26 35 37 04 17 07 10 11 35	9890	
	Madras	E	eP PPP SKS KKS eS PPS SSS	16 26 38 32 19 37 09 37 24 37 43 39 18 44 02	10330	Slight.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd)						
	Bombay	E	eP	16 27 19	11470	Moderate.
		E	e	30 18		
			sPKP1	31 32		
			PPP	33 44		
		NE	SKS	37 56		
		N	eS	39 04		
		E	PS	41 00		
			eSS	46 23		
		N	M	17 16 03		Period= 17 sec., Gr. dis=4
		E	M	16 37		Period= 15 sec., Gr. dis= 5
	Kodaikanal	E	e	16 28 54		Tremor.
	Poona	Z	eP	16 31 25		Slight.
	Hyderabad	E	S	16 37 29		
			M	17 08 05		Period= 15 sec., Gr. dis= 6
	Dehra Dun	NE	e	16 29 41		Slight.
			i	37 52		
			i	38 52		
26	Shillong	Z	iP	19 01 41		Slight, distant. Compression.
	Chatra	Z	iP	19 02 01		Feeble, distant.
27	Shillong	Z	iP	01 03 20		Near, Compression.
	Chatra	Z	iP	01 03 47		Feeble, distant. Compression.
	Poona	Z	iP	01 04 43		Tremor, Compression.
27	Shillong	Z	eP	01 12 14		Slight, distant.
27	Shillong	Z	eP	04 07 59		Slight, distant.
27	Shillong	Z	eP	14 05 53		Slight, distant.
27	Epc:- 5.5°S, 151.9°E, New Ireland Region. -H= 13h 55m 15.6s (USCGS) -h= 118 kms.					
	Shillong	ZNE	iP	14 09 35		Slight near. Rarefaction.
	Chatra	ZN	eP	14 10 27		Feeble.
			e	10 35		
			e	10 42		
			e	11 48		
			e	11 59		
			e	12 13		
			e	12 22		
			e	13 51		
	Shillong	Z	iP	14 59 40		Slight, distant. Rarefaction.
27	Shillong	Z	iP	15 18 41		Slight, distant. Rarefaction.
27	Shillong	Z	iP	15 59 42		Slight, distant. Rarefaction.
27	Chatra	Z	iP	19 54 24		Feeble, distant. Compression.
27	Shillong	Z	iP	20 15 51		Slight, distant.
27	Vizianagram	E	e	20 42 24		



DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km.	REMARKS
January 1961 (contd).						
28	Tocklai	E	i	00 13 43		
28	Poona	Z	eP	03 44 28		Tremor, Rarefaction.
	Shillong	Z	iP	03 44 42		Slight, distant. Rarefaction.
28	Shillong	Z	eP	05 15 43		Slight, distant.
28	Shillong	Z	iP	05 25 22		Slight, distant. Rarefaction.
28	Shillong	ZE	iPg Sg	09 43 44 43 56	110	Slight, Rarefaction.
	Chatra	Z	eP	09 45 07		Feeble
28	Chatra	Z	iP	11 20 03	630	Slight.
			P*	20 14		
			Pg	20 19		
		ZN	eS	21 09		
	Dehra Dun	NE	e	11 20 28		Feeble.
			i	21 24		
			i	21 55		
	Shillong	Z	iP	11 20 49	1390	Slight, Rarefaction.
			iS	23 10		
	Poona	Z	eP	11 22 28		Tremor.
	Bombay	NE	e	11 25 15		Slight.
			e	27 15		
			M	29 30		Period= 7 sec., Gr. dis= 2 μ
			M	29 36		Period= 7 sec., Gr. dis= 1 μ
	Hyderabad	E	M	11 26 19		Period= 8 sec., Gr. dis = 3 μ
	Madras	E	e	11 26 36		Slight.
			e	28 24		
	Kodaikanal	E	e	11 27 51		Tremor.
28	Shillong	ZE	eP	12 00 08		Slight, distant.
28	Poona	Z	eP	14 26 01		Tremor, Compression.
	Shillong	Z	iP	14 26 03		Slight, distant. Rarefaction.
	Chatra	Z	eP	14 26 08		Feeble, distant.
28	Shillong	Z	iP	14 34 07		Slight, distant. Rarefaction.
	Chatra	Z	eP	14 34 43		Feeble.
28	Shillong	Z	eP	14 47 07		Slight, distant.
28	Epc:- 21.3°S, 169.5°E Loyalty Islands Region. -H= 19h 43m 01.4s (USCGS) -h= 50 km. Mag: 6 $\frac{1}{4}$ (Pasadena).					
	Port Blair	E	e	19 55 45		Slight.
	Shillong	ZE	iP	19 55 51	9290	Slight, Compression.
			S	20 06 15		
	Chatra	Z	eP	19 56 12	9550	Feeble.
		NE	iS	20 06 45		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
	Bombay	E	e	19 58 14		Slight, distant.
		E	e	20 01 20		
		NE	SKS	07 36		
		E	e	10 35		
		E	eSS	15 46		
	Kodaikanal	E	e	20 06 32		Tremor.
	Bokaro	NE	i	20 06 47		Slight, distant.
	Madras	E	iSKS	20 06 54		Slight.
			e	07 33		
			e	17 38		
	Hyderabad	E	i	20 07 07		
		N	M	40 49		Period= 18 sec. Gr. dis= 6
		E	M	40 52		Period= 18 sec., Gr. dis= 7
	Dehra Dun	NE	e	20 07 34		Feeble.
29	Shillong	ZE	iP	00 13 04		Slight, distant. Compression.
	Chatra	Z	e	00 13 29		Mild near.
			e	13 39		
29	Shillong	Z	iP	00 27 32		Slight, distant. Compression.
29	Shillong	Z	iP	01 02 45		Slight, distant. Compression.
29	Shillong	Z	eP	03 29 19		Slight, distant.
29	Dehra Dun	NE	e	13 26 45		Tremor.
29	Shillong	Z	eP	13 35 13		Slight, distant.
	Chatra	Z	e	13 35 26		Feeble, distant.
29	Shillong	Z	iP	15 45 50		Slight, distant. Compression.
29	Shillong	ZNE	iP	16 33 08	290	Slight.
			iS	33 41		
	Tocklai	E	i	16 33 35		
	Chatra	Z	iP	16 34 08	920	Feeble, Compression.
			S	35 27		
29	Shillong	Z	eP	18 03 38		Slight, distant.
29	Chatra	Z	iP	22 23 08	150	Feeble.
			S	23 28		
	Shillong	Z	iPg	22 54 24		Locally felt.
30	Shillong	Z	eP	09 30 06		Slight, distant.
30	Vizianagram	E	i	10 39 19		
30	Shillong	Z	iP	11 27 37		Slight, distant. Rarefaction.
30	Shillong	Z	iP	12 24 37		Slight, distant. Compression.
	Chatra	Z	eP	12 24 39		Feeble, distant.
30	Chatra	Z	iP	21 37 34	444	Feeble
			S	38 22		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
30	Shillong	ZNE	ePg	22 52 38	190	Locally felt.
			PP	52 42		
			PPP	52 48		
			eSg	53 00		
			SS	53 09		
			SSS	53 20		
	Tocklai	E	iP	22 52 48	220	
			iS	53 14		
	Chatra	ZNE	iP	22 53 38	620	Feeble, Rarefaction.
			S	54 44		
	Dehra Dun	NE	e	22 58 09		Tremor.
31	Shillong	ZE	eP	01 00 56	9070	Slight.
			iS	11 08		
	Chatra	ZNE	iP	01 01 01	9180	Feeble, Compression.
			S	11 18		
	Dehra Dun	NE	eP	01 01 08	9220	Slight.
			PP	04 17		
			iS	11 27		
			SS	16 49		
			SSS	19 55		
			LQ	22 52		
			LR	26 25		
			M	33 25		
	Bokaro	NE	eP	01 01 28		Slight.
			i	01 43		
	Hyderabad	N	eP	01 01 57	9550	Slight.
		N	e	05 45		
		EN	eS	12 31		
		N	PS	13 10		
		E	SS	18 19		
		E	SSS	22 13		
		E	LR	27 16		
		E	M	38 01		Period= 18 sec. Gr. dis 17 μ
	Bombay	NE	eP	01 02 05	10670	Slight.
			PP	05 53		
		E	SKS	12 39		
		N	eS	13 21		
		E	e	19 33		
		N	SS	20 05		
	Madras	E	e	01 05 36		Slight.
			i	12 52		
			e	20 06		
	Kodaikanal	E2	e	01 12 41		Tremor
	Port Blair	E	e	02 01 51		Slight.
				12 27		
31	Tocklai	E	e	03 49 57		
31	Shillong	Z	iPg	07 52 22	120	Slight.
			iSg	52 25		
31	Shillong	Z	iPg	13 14 51	20	Slight, Compression.
			iSg	14 53		



DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	△ km.	REMARKS
January 1961 (contd)						
31	Dehra Dun	NE	e	14 47 29		Feeble
			i	48 49		
			i	50 31		
			i	51 54		
31	Shillong	Z	ePg iSg	15 06 16 06 17		10 Slight.
31	Shillong	Z	eP	16 42 04		Slight, distant.
31	Shillong	Z	iP	18 43 32		Slight, distant. Compression.
	Chatra	Z	eP	18 43 44		Feeble, distant. Compression.
			i	18 43 45		
31	Shillong	Z	eP	19 34 15		Slight
31	Chatra	Z	eP	22 36 02		Mild distant.
			e	36 05		
			e	36 11		
31	Shillong	Z	eP	22 45 22		Slight, distant.
31	Shillong	Z	iP	23 55 17		110 Slight, Compression.
			iPg	55 19		
			iS	55 30		
			iSg	55 32		

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.	DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
STATION: Shillong COMPONENT: E-W. MONTH: January, 1961.									
01	00	-	-	-	13	00	2	0.5	5.0
	06	2	0.5	6.0		06	2	0.5	5.0
	12	1	0.4	5.0		12	2	0.5	5.0
	18	1	0.5	5.5		18	2	0.5	5.0
02	00	2	0.5	5.5	14	00	2	0.5	5.4
	06	2	0.5	5.7		06	2	0.5	5.4
	12	3	0.4	5.0		12	2	0.5	5.0
	18	3	0.4	5.0		18	-	0.5	-
03	00	2	0.5	5.2	15	00	2	0.4	5.1
	06	2	0.4	6.0		06	2	0.3	6.2
	12	3	0.6	6.0		12	3	0.4	5.6
	18	1	0.4	6.3		18	2	0.3	5.0
04	00	2	0.3	5.4	16	00	2	0.3	5.5
	06	3	0.5	5.2		06	3	0.4	5.4
	12	3	0.6	6.1		12	-	-	-
	18	2	0.5	6.0		18	-	-	-
05	00	2	0.4	5.1	17	00	1	0.5	6.0
	06	2	0.4	6.2		06	2	0.6	5.8
	12	2	0.5	6.2		12	2	0.4	5.6
	18	2	0.4	5.0		18	2	0.4	5.4
06	00	3	0.3	5.8	18	00	-	-	-
	06	2	0.3	7.0		06	2	0.3	4.8
	12	2	0.4	7.5		12	2	0.4	5.0
	18	2	0.3	7.0		18	2	0.4	5.0
07	00	2	0.3	5.7	19	00	2	0.4	5.2
	06	2	0.4	5.3		06	2	0.5	5.6
	12	2	0.3	6.0		12	2	0.5	5.6
	18	2	0.4	6.0		18	2	0.7	5.2
08	00	2	0.4	6.0	20	00	2	0.6	4.6
	06	2	0.4	6.0		06	2	0.4	4.5
	12	3	0.5	5.8		12	2	0.4	4.5
	18	2	0.3	5.5		18	3	0.7	5.5
09	00	2	0.4	5.4	21	00	2	0.5	5.5
	06	2	0.3	5.0		06	2	0.3	5.8
	12	2	0.4	4.6		12	2	0.3	5.0
	18	2	0.4	4.6		18	2	0.3	5.4
10	00	2	0.4	4.7	22	00	2	0.3	5.8
	06	2	0.4	5.7		06	-	-	-
	12	2	0.5	5.6		12	2	0.5	6.0
	18	2	0.3	5.9		18	2	0.5	6.0
11	00	2	0.4	5.5	23	00	2	0.5	5.5
	06	2	0.5	5.0		06	2	0.6	6.0
	12	2	0.5	4.9		12	-	-	-
	18	2	0.6	5.3		18	2	0.5	5.8
12	00	2	0.6	5.6	24	00	2	0.7	5.3
	06	2	0.5	5.7		06	3	1.0	6.0
	12	2	0.4	5.2		12	2	0.8	5.8
	18	3	0.5	5.0		18	2	0.6	5.5

EARTHQUAKE REPORTS
(NON-INSTRUMENTAL)

The following is the list of Earthquakes that were reported by voluntary observers from different places during the month of January 1961

Place	Date in G.M.T.	Time in G.M.T.	Duration of shock in secs.	Number of shocks	Intensity in R.F. Scale	REMARKS
Shillong	2	23-18	5	1	III	
Pasighat	3	09-28	10	1	V	Shock from East
Shillong	9	14-00	4	1	III	
	11	23-41	3	1	III	
	20	21-00	2	1	III	
Lumding	28	14-50	1	1	IV	
Shillong	29	21-53	3	1	III	

II

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.	DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
STATION: Shillong					COMPONENT: E-W				
					MONTH: January, 1961.				
25	00	2	0.6	6.4	03	15	1	1.0	2.9
	06	3	0.7	6.4		18	1	1.0	3.0
	12	2	0.5	6.0		21	1	1.0	3.1
	18	2	0.5	6.2	04	00	11	1.0	3.2
26	00	2	0.5	7.0		03	1	1.1	3.3
	06	2	0.5	6.0		06	3	1.0	3.2
	12	2	0.4	5.8				0.3	1.7
	18	-	-	-				0.6	4.5
27	00	2	0.5	6.0		12	3	0.6	3.2
	06	2	0.5	5.8				0.2	2.2
	12	2	0.5	5.8				0.5	4.5
	18	2	0.5	5.8		18	3	0.5	4.7
28	00	2	0.5	5.8				0.3	2.3
	06	2	0.5	6.3	05	00	3	0.5	4.6
	12	2	0.5	6.2				0.3	2.5
	18	2	0.4	6.2		06	3	0.5	4.9
29	00	2	0.5	6.0				0.5	2.4
	06	2	0.4	6.0		12	3	0.5	4.9
	12	2	0.4	5.9				0.5	2.2
	18	1	0.4	5.4		18	3	0.5	4.3
30	00	2	0.5	5.6				0.5	2.5
	06	2	0.3	5.8	06	00	3	0.5	4.7
	12	2	0.4	5.8				0.6	2.5
	18	3	0.5	6.0		06	3	0.7	5.2
31	00	2	0.4	5.7				0.6	2.5
	06	2	0.5	5.9		12	3	0.5	5.0
	12	2	0.4	5.8				0.4	2.5
	18	2	0.5	6.0		18	3	0.5	5.0
STATION: Bombay (Colaba)					COMPONENT: E-W				
					MONTH: January, 1961.				
01	00	3	0.7	4.2	07	00	3	0.6	4.4
	06	3	0.3	1.7				0.6	2.7
	06	3	0.5	4.7		06	3	0.6	5.2
	18	3	0.4	2.0				0.4	2.5
	12	3	0.6	4.6		12	3	0.5	4.9
			0.4	2.5				0.5	2.3
	18	3	0.6	4.7		18	3	0.5	4.8
			0.5	2.4				0.4	2.3
02	00	3	0.6	4.8	08	00	3	0.6	4.8
			0.6	2.2				0.6	2.6
06	06	3	0.7	5.0		03	-	-	-
			0.7	2.6		06	3	0.6	5.1
	12	3	0.7	4.8				0.7	2.6
			0.6	2.6		09	1	0.9	2.8
	18	3	0.6	4.8		12	1	0.9	2.8
			0.5	2.6		15	1	0.9	3.0
03	00	3	0.6	5.1		18	1	0.6	2.9
			0.7	2.5		21	1	0.6	2.9
	03	1	0.8	2.6	09	00	3	0.6	3.7
	06	1	1.1	2.9				0.5	3.7
	09	1	1.1	3.0		06	3	0.5	3.5
	12	1	1.0	3.1				0.4	2.3
						12	3	0.5	3.8
						18	3	0.5	2.4

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.	DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
STATION: Bombay (Colaba)					COMPONENT: E-W				
					MONTH: January, 1961.				
10	00	3	0.6	3.7	16	12	-	-	-
			0.4	2.5		18	3	0.5	3.6
	03	-	-	-				0.3	2.0
	06	1	0.6	3.0	17	00	3	0.6	3.4
	09	1	0.8	2.8				0.2	2.0
	12	1	1.0	2.8		06	3	0.7	3.2
	15	-	-	-				0.3	2.0
	18	1	0.9	2.8		12	3	0.7	3.4
	21	1	0.9	2.8				0.4	2.0
11	00	1	1.1	3.0		18	3	0.5	3.5
	03	2	1.4	3.1				0.3	2.2
	06	1	1.5	3.3	18	00	-	-	-
	09	1	1.3	3.3		06	3	0.6	3.6
	12	1	1.3	3.5				0.4	2.6
	15	1	1.2	3.3		12	3	0.6	3.9
	18	1	1.2	3.3				0.4	2.5
	21	1	1.1	3.3		18	3	0.6	3.6
12	00	1	0.9	3.1				0.3	2.3
	03	1	1.0	3.2	19	00	3	0.5	3.1
	06	1	1.1	3.3				0.3	1.9
	09	1	0.9	3.3		06	3	0.5	4.0
	12	1	0.9	3.1				0.4	2.3
	15	1	1.0	3.0		12	3	0.6	2.2
	18	1	0.9	3.2				0.4	4.8
	21	1	0.9	3.1		18	-	-	-
13	00	1	0.9	2.9	20	00	3	0.5	3.4
	03	1	0.7	3.0				0.5	6.0
	06	1	0.8	3.0				0.4	2.5
	09	1	0.7	3.2		06	3	0.5	4.5
	12	1	0.6	2.9				0.5	6.5
	15	1	0.7	2.9				0.4	2.3
	18	1	0.7	3.3		12	3	0.4	4.4
	21	1	0.8	3.0				0.4	6.8
14	00	1	0.9	3.2				0.4	3.0
	03	1	0.7	3.6		18	-	-	-
	06	1	0.9	3.8	21	00	3	0.5	3.7
	09	1	0.7	3.6				0.4	3.0
	12	1	0.8	3.6		06	3	0.5	4.0
	15	1	0.7	4.2				0.2	1.7
	18	3	0.7	3.6		12	2	0.7	4.0
			0.7	2.5		18	2	0.5	4.0
15	00	3	0.6	3.4	22	00	2	0.5	3.8
			0.3	2.3				-	-
	06	3	0.8	3.9		06	-	-	-
			0.3	2.3		12	2	0.5	4.8
	12	3	0.8	3.7		18	2	0.5	4.7
			0.3	2.2	23	00	2	0.5	4.4
	18	3	0.7	3.2				0.4	5.2
			0.2	1.8		06	2	0.4	4.7
16	00	3	0.6	3.6		12	2	0.5	4.7
			0.4	2.4		18	2	0.5	5.5
	06	3	0.6	3.1	24	00	3	0.7	5.3
			0.4	2.4				0.4	3.1

IV

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
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STATION: Bombay (Colaba) COMPONENT: E-W MONTH: January, 1961 (contd)

24	06	3	0.5	5.0
			0.4	2.8
	12	3	0.5	4.7
			0.4	2.8
	18	3	0.7	4.8
			0.5	6.0
			0.3	2.8
25	00	3	0.7	6.1
			0.4	2.6
	06	3	1.1	7.1
			0.4	3.4
	12	3	0.8	5.9
			0.4	3.5
	18	3	0.8	5.9
			0.4	3.0
26	00	3	0.6	4.7
			0.4	3.0
	06	3	0.6	4.8
			0.3	2.3
	12	3	0.6	4.9
			0.5	2.3
	18	-	-	-
27	00	3	0.5	5.2
			0.4	2.2
	06	3	0.6	5.7
			0.4	2.5
	12	3	0.5	5.4
			0.3	2.5
	18	3	0.6	6.0
			0.4	2.3
28	00	3	0.5	5.8
			0.3	2.5
	06	3	0.7	6.3
			0.2	2.5
	12	3	0.6	6.1
			0.3	2.5
	18	3	0.6	5.6
			0.3	2.4
29	00	3	0.6	5.2
			0.3	2.5
	06	3	0.5	5.4
			0.4	2.6
	12	3	0.5	5.2
			0.4	2.5
	18	3	0.5	6.0
			0.3	2.2
30	00	3	0.5	5.3
			0.2	2.0
	06	3	0.5	5.3
			0.5	2.5
	12	3	0.5	5.0
			0.4	2.3
	18	2	0.5	5.0

STATION: Madras.

31	00	2	0.6	5.1
	06	2	0.6	5.4
	12	2	0.5	5.1
	18	2	0.5	4.9
01	00	1	0.7	2.7
	03	1	0.6	2.7
	06	1	0.7	2.7
	12	1	0.7	3.0
	18	1	0.6	3.0
02	00	1	0.5	3.0
	03	3	0.5	3.1
	06	3	0.4	2.7
	12	3	0.3	2.7
	18	3	0.3	2.7
03	00	3	0.3	2.9
	03	-	-	-
	06	-	-	-
	12	3	0.3	3.0
	18	3	0.3	2.7
04	00	3	0.3	2.9
	03	3	0.4	3.1
	06	3	0.4	3.0
	12	3	0.4	3.1
	18	3	0.4	3.3
05	00	3	0.3	3.1
			0.1	1.5
	03	-	-	-
	06	-	-	-
	12	3	0.2	1.6
	18	3	0.3	2.2
06	00	3	0.3	2.4
	03	3	0.3	2.6
	06	3	0.3	2.5
	12	3	0.4	2.5
	18	3	0.5	2.5
07	00	3	0.5	2.7
	03	3	0.5	2.9
	06	3	0.5	2.7
	12	3	0.4	2.7
	18	3	0.4	2.7
08	00	3	0.4	2.6
			0.1	1.6
	03	3	0.3	2.8
	06	3	0.3	2.8
	12	3	0.3	2.7
	18	1	0.4	2.7
09	00	1	0.5	2.7
	03	1	0.5	2.8
	06	1	0.5	2.7
	12	1	0.5	2.8
	18	1	0.7	2.8

V

International
Seismological
Centre

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
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STATION: Madras (contd) COMPONENT: E-W. MONTH: January 1961 (contd)

10	00	1	0.9	2.8
	03	1	0.9	2.9
	06	1	0.9	2.7
	12	11	1.0	2.8
	18	1	0.9	2.9
11	00	1	0.9	3.0
	03	1	0.8	2.9
	06	1	0.7	2.8
	12	1	0.5	2.8
	18	1	0.5	2.8
12	00	1	0.5	2.8
	03	-	-	-
	06	1	0.5	2.8
	12	1	0.6	2.9
	18	1	0.6	2.9
13	00	1	0.6	2.9
	03	3	0.4	2.8
	06	3	0.4	2.7
	12	3	0.4	2.8
	18	3	0.4	2.7
14	00	3	0.4	2.8
	03	3	0.4	2.7
	06	1	0.5	2.6
	12	1	0.5	2.8
	18	1	0.6	2.9
15	00	1	0.6	2.9
	03	1	0.7	2.8
	06	1	0.7	2.7
	12	1	0.7	2.8
	18	1	0.6	2.8
16	00	1	0.6	2.8
	03	3	0.6	2.7
	06	3	0.5	2.6
	12	-	-	-
	18	3	0.4	2.9
17	00	3	0.3	2.7
			0.1	1.5
	03	3	0.3	2.9
	06	3	0.3	2.7
	12	3	0.3	2.7
	18	3	0.3	2.7
18	00	3	0.3	2.6
	03	3	0.3	2.5
	06	3	0.3	2.5
	12	3	0.3	2.5
	18	3	0.3	2.7
19	00	3	0.2	2.5
	06	3	0.2	2.3
	12	3	0.2	2.3
	18	3	0.2	2.3
20	00	3	0.2	2.3
	03	3	0.2	2.3
	06	3	0.2	2.2
	12	3	0.2	2.1
	18	3	0.1	2.1
21	00	30	0.2	2.1
	03	3	0.2	1.9
	06	3	0.2	2.1
	12	3	0.3	2.2
	18	3	0.3	2.4
22	00	3	0.3	2.4
	03	3	0.3	2.5
	06	3	0.3	2.5
	12	3	0.3	2.6
	18	3	0.3	2.6
23	00	3	0.3	2.5
	03	3	0.3	2.7
	06	3	0.3	2.4
	12	3	0.3	2.6
	18	3	0.3	2.3
24	00	3	0.3	2.4
	03	3	0.3	2.4
	06	3	0.3	2.5
	12	3	0.3	2.7
	18	3	0.3	2.6
25	00	3	0.3	2.4
	03	3	0.3	2.4
	06	3	0.3	2.5
	12	3	0.3	2.7
	18	3	0.3	2.6
26	00	3	0.3	2.6
	03	3	0.3	2.3
	06	3	0.3	2.3
	12	3	0.3	2.4
	18	3	0.2	2.3
27	00	3	0.2	2.3
	03	3	0.2	2.2
	06	3	0.1	1.9
	12	3	0.1	2.1
	18	3	0.2	2.0
28	00	3	0.1	2.0
	03	3	0.1	2.1
	06	3	0.1	2.0
	12	3	0.2	2.2
	18	3	0.2	2.4
29	00	3	0.2	2.4
	03	3	0.3	2.5
	06	3	0.3	2.5
	12	3	0.3	2.4
	18	3	0.3	2.4

DATE HOUR K MEAN MEAN
GMT SIMPLE PERIOD
AMPLITUDE IN SECS.
IN m.m.

STATION: Madras (contd) COMPONENT: E-W. MONTH: January 1961 (contd)

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.	DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
30	00	3	0.3	2.4	10	00	0,0	-	-
	03	3	0.3	2.4		06	...	-	-
	06	3	0.3	2.3		12	0,0	-	-
	12	3	0.2	2.3		18	0,0	-	-
	18	3	0.3	2.4	11	00	0,0	-	-
		3	0.4	4.4		06	...	-	-
31	00	3	0.2	2.5		12	2 0.4	3.1	-
		3	0.4	4.6		18	2 0.4	3.2	-
	03	-	-	-					
	06	3	0.3	4.0	12	00	2 0.4	3.1	-
	12	3	0.3	4.1		06	2 0.8	3.2	-
	18	3	0.3	4.4		12	2 0.8	3.2	-
						18	2 0.8	3.2	-

STATION: Port Blair.

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.	DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
01	00	0,0	-	-	13	00	2 0.8	3.2	-
	06	...	-	-		06	2 0.8	3.2	-
	12	0,0	-	-		12	2 0.8	3.2	-
	18	0,0	-	-		18	2 0.8	3.2	-
02	00	0,0	-	-	14	00	2 0.8	3.0	-
	06	...	-	-		06	2 0.4	3.0	-
	12	0,0	-	-		12	2 0.4	3.0	-
	18	0,0	-	-		18	2 0.4	3.0	-
03	00	0,0	-	-	15	00	2 0.4	3.0	-
	06	0..	-	-		06	...	-	-
	12	0..	-	-		12	3 0.4	7.5	-
	18	0..	-	-		18	3 0.4	7.5	-
04	00	0..	-	-	16	00	3 0.4	7.5	-
	06	0..	-	-		06	...	-	-
	12	0..	-	-		12	...	-	-
	18	0..	-	-		18	3 0.4	3.2	-
05	00	3 0.4	7.5	-	17	00	3 0.4	3.2	-
	06	...	-	-		06	3 0.4	3.3	-
	12	3 0.4	7.5	-		12	3 0.4	3.3	-
	18	...	-	-		18	3 0.4	3.2	-
06	00	3 0.4	7.5	-	18	00	3 0.4	3.3	-
	06	...	-	-		06	0,0	-	-
	12	...	-	-		12	0,0	-	-
	18	...	-	-		18	0,0	-	-
07	00	...	-	-	19	00	0,0	-	-
	06	3 0.4	3.2	-		06	0,0	-	-
	12	3 0.4	3.2	-		12	0,0	-	-
	18	3 0.4	3.0	-		18	0,0	-	-
08	00	3 0.4	3.0	-	20	00	0,0	-	-
	06	0,0	-	-		06	0,0	-	-
	12	0,0	-	-		12	0,0	-	-
	18	0,0	-	-		18	0,0	-	-
09	00	0,0	-	-	21	00	0,0	-	-
	06	0,0	-	-		06	0,0	-	-
	12	0,0	-	-		12	0,0	-	-
	18	0,0	-	-		18	0,0	-	-



DATE HOUR K MEAN MEAN
GMT SIMPLE PERIOD
AMPLITUDE IN SECS.
IN m.m.

STATION: Port Blair COMPONENT: E-W. MONTH: January 1961 (contd)

DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.	DATE	HOUR	K	MEAN SIMPLE AMPLITUDE IN m.m.	MEAN PERIOD IN SECS.
22	00	0,0	-	-	27	00	0..	-	-
	06	0,0	-	-		06	0,0	-	-
	12	0,0	-	-		12	0,0	-	-
	18	0,0	-	-		18	0,0	-	-
23	00	0,0	-	-	28	00	0,0	-	-
	06	0..	-	-		06	0,0	-	-
	12	0..	-	-		12	0,0	-	-
	18	0..	-	-		18	0,0	-	-
24	00	0..	-	-	29	00	0,0	-	-
	06	...	-	-		06	0..	-	-
	12	0,0	-	-		12	0..	-	-
	18	3 0.4	7.5	-		18	0..	-	-
25	00	3 0.4	7.5	-	30	00	0..	-	-
	06	3 0.4	7.5	-		06	0..	-	-
	12	3 0.4	7.5	-		12	0..	-	-
	18	3 0.4	7.5	-		18	0..	-	-
26	00	3 0.4	7.5	-	31	00	0..	-	-
	06	0..	-	-		06	0..	-	-
	12	0..	-	-		12	0..	-	-
	18	0..	-	-		18	0..	-	-

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