

JAN, 1954 - DEC 1955

1954  
complete

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN

January, 1954.

\*  
\*  
\* \* \* \* \*  
\*  
\*

---

---


Published under the direction of  
Dr. S.C. Roy, D.Sc.(Lond.), F.N.I.,  
Director General of Observatories.

---

---

Station	Instruments	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N	12	350	16:1	16
	Milne-Shaw	E	12	350	11:1	8
	Sprengnether	E	To = Tg = 7.2			30
Calcutta	Milne-Shaw	E	10	150	20:1	8.0
	Wood-Anderson	N	2	870	Critical	30.0
	Omori-Ewing	N	18	32	-	25.4
	Omori-Ewing	E	19	30	-	25.4
Chatra	Milne-Shaw	N	10.0	150	20:1	16
	Milne-Shaw	E	12.0	250	20:1	16
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	30:1	60
	Benioff Verti- cal	Z	To=0.72 Tg=0.45	-	Es=2.3:1 Eg=Critical	60
Colombo	Milne-Shaw	E	12	250	20:1	31.5
Dehra Dun	Wood-Anderson	N	1	1000	30:1	60
	Wood-Anderson	E	1	1000	30:1	60
	Milne-Shaw	N	12	250	20:1	16
Hyderabad	Milne-Shaw	E	12	253	20:1	8
	Milne-Shaw	N	12	251	20:1	8
Kodaikanal	Milne-Shaw	E	10.0	250	20:1	8
Madras	Sprengnether micro-seismo- graph	E	To=Tg=7.4		-	30
New Delhi	Milne-Shaw	N	12	288	20:1	8
	Wood-Anderson	N	4.0	1070	20:1	16
	Wood-Anderson	E	2.0	1841	30:1	60
	Omori-Ewing	E	28	30	1	12
Poona	Sprengnether	Z	To=Tg=1.5		-	30
	Milne-Shaw	N	12	250	20:1	8
	Wood-Anderson	E	4	1100	20:1	16
Shillong	Milne-Shaw	N	12.0	250	20:1	8.0
	Wood-Anderson	N	4	1000	20:1	60.0
	Wood-Anderson	E	1.0	1000	30:1	30.0
	Wood-Anderson	N	1.0	1000	30:1	30.0
	Benioff	Z	To = 1.0 Tg = 0.18	-	-	60.0

SEISMOLOGICAL BULLETIN

DATE	STATION	COMPT.	PHASE	G. M. T.		REMARKS
				h. m. s.	km.	
<u>Jan.</u> 1954						
01	Shillong	Z	eP	01 22 59		

DATE	STATION	COMPT.	PHASE	G. M. T.	REMARKS
				h. m. s.	km.
Jan. 1954					
01	Epc: $8\frac{1}{2}^{\circ}$ S., $124^{\circ}$ E. Flores Sea, h = 100 km ca ; O = 13h 04m 17s (U.S.C.G.S.) $9^{\circ}$ S., $123\frac{1}{2}^{\circ}$ E., h = 100 km ca; O = 13h 04m 19s (B.C.I.S.) $8^{\circ}0$ S., $122^{\circ}0$ E., O = 13h 04m 26s (Shillong). Magnitude - $6\frac{1}{2}$ (Pasadena).				
	Colombo	E	P	13 12 32	
			S	19 16	
			L	25 30	
			M	28 03	Amp = 0.1 mm.
	Shillong	Z	iP	13 12 39	5090 Moderate.
		N	i	12 53	
			PP	14 30	
			PPP	15 04	
			S	19 13	
			PS	19 23	
			PPS	19 35	
			i	20 12	
			LQ	23 04	
			SSS	23 31	
			LR	25 27	
			M	28 38	
	Calcutta	E	eP	13 12 46	5000 Slight.
		N	iP	12 47	
		E	?	15 35	
			iS	19 25	
		N	iS	19 29	
		E	SS	22 35	
	Madras	E	iP	13 12 57	5160 Moderate.
			PcP	14 18	
			PP	14 46	
			PPP	15 35	
			ScP	18 08	
			iS	19 45	
			ScS	22 27	
			SS	23 03	
			LQ	24 16	
			e	41 35	
	Chatra	NEZ	eP	13 13 10	5460 Slight.
		NE	PcP	14 37	
			PP	15 10	
			PPP	16 04	
			PcS	18 30	
		E	iS	20 15	
			PS	20 23	
			PPS	20 29	
			ScS	22 52	
			SS	23 48	
			LQ	24 33	
			LR	27 30	
			M	31 30	

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
Jan. 1954 01 Contd.	Hyderabad	E	eP iS SS	13 13 19 20 30 23 01	5550	
		N	SS L M	23 08 30 08 35 48		
	Poona	Z E	iP PcP PP PPP PcS eS ScS SS LQ M	13 13 55 14 48 16 00 17 12 18 40 21 34 23 19 25 11 27 29 35 04	6078	Moderate.
	Bombay	E	eP i e PP PPP iS i iX eX i SS	13 13 57 14 20 14 28 16 13 17 38 21 46 21 52 22 22 23 30 25 34	6455	Slight.
	Dehra Dun	NE	eP i PP PcS iS PS PPS ScS M	13 14 04 14 32 16 12 18 45 21 54 22 07 22 15 23 36 35 30	6240	Moderate.
	New Delhi	NE N NE N	eP i eS PS PPS i ScS	13 14 08 14 29 21 56 22 04 22 12 23 50 24 18	6220	Moderate.
01	Dehra Dun	NE	e i	22 20 38 21 33		Slight.
02	Shillong	Z	iP	05 37 44		Tremor.
02	Shillong	Z	iP	07 09 35		Tremor.
02	Shillong	Z	eP	09 57 44		Tremor.
02	Shillong	Z	iP	11 29 26		Tremor.
02	Shillong	Z	eP	13 17 50		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Jan. 1954							
02	Shillong	Z	iP	20	29	12	
03	Shillong	Z	iP	00	43	02	Tremor.
03	Shillong	Z	i	07	05	50	Tremor.
03	Shillong	N	e(Pg)	14	33	53	Slight, local.
			i		33	55	
			i(Sg)		34	09	
			i		34	26	
04	Bombay	E	e	12	22	10	Long distance.
		N	e		22	21	
		E	e		24	42	
		N	e		28	17	
		E	e		33	42	
			e		34	11	
	Shillong	N	e	12	37	43	Slight.
			M	13	02	-	
04	Shillong	Z	i	17	16	03	Slight.
04	Shillong	Z	i	23	59	13	Slight.
05	Dehra Dun	NE	eP	08	51	41	330 Slight.
			PP		51	49	
			Pg		51	51	
			PPP		51	55	
			LQ		52	12	
			iS		52	15	
			SS		52	25	
			SSS		52	35	
	New Delhi	E	eP	08	51	54	350 Slight.
			P*		51	59	
		NE	PP		52	01	
			LQ		52	23	
			eS		52	33	
			S*		52	41	
		E	SS		52	43	
		NE	Sg		52	47	
		N	SSS		52	53	
05	New Delhi	NE	e	10	42	36	Slight.
			i		44	05	
			i		44	20	
			i		44	36	
		E	e		45	00	
			e		45	36	
		NE	i		45	44	
05	Epc: 18° N., 81.3° E. East Godavari, Andhra; 0 = 11h 39m 53s (Shillong)						
	Felt - Kothagudium (Deccan).						
	Hyderabad	E	iP	11	40	32	240
		N	iS		41	00	
		E	iS		41	02	

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954								
05	Poona	Z	iP	11	41	26	700	Slight.
Contd.		E	eS		42	39		
			M		43	18		
	Bombay	E	eP	11	41	45	890	Feeble, local tremor.
			e		43	01		
			iS		43	16		
		N	e		43	19		
		NE	i		43	46		
	Calcutta	N	eP?	11	42	21	1055	Slight.
			iS		44	49		
	Chatra	E	eP	11	42	25		Slight, near.
			e(S)		44	32		
	Shillong	Z	eP	11	42	49	1350	Slight.
			eS		45	06		
06	Dehra Dun	N	e	08	47	33		Slight, phases not clear.
06	Shillong	Z	i	11	00	37	20	Slight, local. Felt at Shillong.
		N	i(Pg)		00	38		
			i(Sg)			40		
06	Epc: 7 <sup>o</sup> .6 N., 7 <sup>o</sup> E. SW of Spit-zbergen ; 0 = 15h 53m 59s (U.S.C.G.S.)							
	Chatra	Z	iP	16	04	20		Slight, distant.
	Shillong	Z	iP	16	04	20		Slight, distant.
		N	eP		04	36		
			eS		13	12		
			e(M)		35	00		
	Bombay	N	iP $\chi$	16	04	50	7370	Slight.
		E	eP $\chi$					
			i		13	08		
			eS		13	39		
	Poona	Z	iP	16	04	53		Tremor.
07	Shillong	Z	i	00	34	31		Slight, local.
			i		34	40		
07	Shillong	Z	iP	19	30	45		Slight, near.
			i		31	28		
		N	e		31	33		
			e		31	39		
			i		32	27		
07	Shillong	N	e	19	47	25		Slight, near.
			i		48	16		
08	Shillong	Z	e	00	26	13		Slight.
08	Dehra Dun	N	e	02	29	01		Slight, phases not clear.
			i		29	59		
			i		30	10		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954								
08	Dehra Dun	NE	eP PP PPP iS SS and LR SSS S*	03	36	06	820	Slight.
	New Delhi	E NE	eP PPP eS LR	03	36	22	870	Slight.
	Shillong	Z	i	03	38	41		Slight.
08	Dehra Dun	NE	e e	18	14	10 14 45		Feeble.
09	Shillong	Z	e	00	54	02		Tremor.
09	Shillong	Z	i	01	48	08		Tremor.
09	Shillong	Z	i	05	03	01		Slight.
09	Chatra	Z E	e e	08	15	04 37 --		Slight, distant. Surface waves.
09	Shillong	Z NE N NE N	iP eP PP i iS iSg SS SSS	18 08	08 31	31 08 38 08 50 08 56 09 02 09 07 09 18	220	Slight, felt.
	Chatra	Z	i i	18	09	30 10 51		Slight, near.
10	Shillong	Z	iPg Sg	07	39	02 39 15		Tremor.
10	Dehra Dun	NE	eP PPP eS SS LR SSS S* Sg/M	13	41	09 41 23 42 57 43 11 43 21 43 23 43 37 44 06	1060	Slight.
	New Delhi	N E NE E NE	eP P* eS SS SSS S*	13	41	30 41 58 43 34 43 46 43 56 44 18	1210	Slight.
	Chatra	Z	e	13	42	33		Slight, distant.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954								
10	Shillong	Z	e	13	43	21		Slight.
Contd.	Poona	Z	eP e?	13	43	34 48 00		Slight, phases not clear.
	Bombay	N E N E	e iY eY i	13	49	12 49 27 50 06		Movements continue upto 1400 hrs.
10	Shillong	Z	iPg	16	28	45 28 57		Slight, tremor.
10	Shillong	Z	eP Sg	17	51	51 52 01		Tremor.
10	Dehra Dun	NE	iP P* PP PPP iS SSS	18	52	47 52 49 52 55 53 01 53 07 53 29	220	Slight, near.
	New Delhi	NE E NE E NE	eP PP LQ eS S* SS Sg	18	53	01 53 09 53 31 53 41 53 48 53 52 53 57	360	Slight.
10	Shillong	Z	eP Sg	20	02	52 03 25		Tremor.
10	Shillong	Z	iPg Sg	21	38	17 38 29		Feeble.
10	Shillong	Z	iPg Sg	21	52	02 52 14		Feeble.
11	Shillong	Z	Pg Sg	01	23	47 23 58	90	Slight, felt locally.
	Dehra Dun	N	e i	01	28	42 28 48		Feeble.
11	Poona	Z N	eP e? e?	16	15	49 24 51 28 48		Slight, phases doubtful.
11	Epc: 23° N., 126° E., Riu Kiu Island; 0 = 17h 09m 02s (USCGS) 22°3' N., 125½° E., 0 = 17h 09m 02s (B.C.I.S.). Mag. 6 (Kiruna, Praha).							
	Shillong	Z N	iP PPP PcP eS LQ SSS LR M	17	15	24 16 47 18 05 20 23 22 28 22 56 24 09 26 39	3357	Slight.



DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954 11 Contd.	Chatra	Z NE	iP eS e	17	16	00	3900	Slight, distant.
	Calcutta	E	e e	17	16	01		Slight.
	Dehra Dun	NE	eP	17	17	08		Feeble.
	New Delhi	E N	eP eS	17	17	11	4810	Slight.
	Hyderabad	E NE E N	iP iS SS L	17	17	20	4960	
		E	M			35 50		Per. = 18 secs $\mu$ = 5. Per. = 15 secs $\mu$ = 4.
	Bombay	NE N E	eP PP i i	17	17	54	5500	Feeble.
		NE E NE E N	eS PS PPS ScS ScS			25 01 25 12 25 17 27 14 27 24		
		E	SS			28 36		
11	Epc: $13\frac{3}{4}^{\circ}$ N., $51\frac{1}{4}^{\circ}$ E. Gulf of Aden; O = 22h 45m 06s (B.C.I.S.)							
	Bombay	E N NE E NE	iP iX eX PP PPP	22	49	49	3450	Feeble.
		E	LQ SS SSS LR			50 00 50 16 50 27 54 54 55 13 55 29 55 39 56 15		
	Poona	Z E	eP PP eS PS SS M	22	50	02	2600	Slight.
	Hyderabad	E	eP S L M	22	51	03	2650	
						55 17 57 56 59 21		Per. = 12 secs $\mu$ = 2.
	Kodaikanal	E	e	22	55	13		Tremor, phases not clear.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954								
12	Dehra Dun	NE	eP PPP iS SS SSS	07	50	11	170	Feeble, near.
12	Epc: 49° S., 165° E. Off Coast of South Island, New Zealand; 0 = 14h 16m 22s (U.S.C.G.S.) Magnitude - 6 $\frac{3}{4}$ - 7 (Pasadena), 6 $\frac{3}{4}$ (Kiruna), 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (Praha).							
	Chatra	Z NE	ePY ePY e	14	30	22		Slight, distant Surface waves.
12	Shillong	Z N	eP S	14	34	07	10665	Slight, phase doubtful.
	Colombo	E	P SKS L M	14	33	43		Phases doubtful due to superposition of phases to the earlier shock. Amp = 1.0 mm.
	Madras	E	iP PP PPP SKS SKKS SKKKS iS PPS SS e	14	34	00	10500	Moderate, phases doubtful due to superposition of phases due to the earlier shock.
	Calcutta	E	eP SKS <sub>1</sub> S? PS ? SSS SKKS <sub>2</sub> ? SKKKS	14	34	07	10920	Moderate.
	Hyderabad	E N E NE N	eP PP SKS iS PS SSP L M M	14	34	23	11080	
				15	06	51		
		E	M	09	39			Per. = 18 secs $\mu$ = 23.
		E	M	09	47			Per. = 18 secs $\mu$ = 13.
	Bombay	E N E	iPKP <sub>1</sub> $\chi$ ePKP <sub>1</sub> $\chi$ PP i PPP PKS <sub>1</sub> SKS	14	34	29		Moderate, phases mixed up with that of the succeeding shock.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Jan.</u>								
1954								
12	Bombay	N	PS	14	44	11		
Contd.	Contd.	E	PS		44	24		
		N	e		45	13		
		E	PPS		45	24		
		N	SS		49	43		
		E	i		50	29		
		NE	SSS		54	08		
		N	LQ	15	00	51		
	Poona	Z	eP		34	46		Moderate.
		E	PP		38	18		
			SKS		45	19		
			PS		48	17		
			e		51	21		
			M	15	11	22		
	Kodaikanal	E	PP?	14	33	26		10520 Moderate.
			S		45	37		
			PPS		47	37		
			LQ	15	00	37		
			LR		01	58		
			M		12	52		
12	Bombay	E	iPKP <sub>1</sub>	14	33	27		Moderate, phases mixed with that of preceding shock.
		NE	PP		35	51		
			PPP		41	03		
		E	FES <sub>1</sub>		41	42		
		N	SES <sub>1</sub>		42	49		
			e		48	06		
		NE	PPS		49	03		
			SS		53	06		
		N	SSS		57	49		
			M	15	27	13		Per. = 16 secs $\mu$ = 14.
	New Delhi	N	ePP	14	39	28		12200 Moderate.
			PPP		41	47		
			SKS		45	35		
			SKKS		46	27		
			ES		48	50		
			PPS		49	57		
			S		54	59		
			M	15	20	52		
13	Epc: 49°S., 165° E. Off the South Coast of Sud Island, New Zealand;							
	0 = 00h 13m 06s (U.S.C.G.S.)							
	49°5 S., 166°0 E. 0 = 00h 13m 06s G.M.T. (B.C.I.S.)							
	Mag. - 7½ (Wellington), 7¼ (Pasadena), 7 (Praha), 6¾ - 7							
	(Hurbanovo, Strasbourg), 6¾ (Kiruna, Uppsala).							
	Colombo	E	eP	00	25	01		L and M lost while changing the chart.
			S		36	51		
	Madras	E	eP	00	25	47		10860 Moderate.
			FP		30	48		
			SKS		37	21		
			SKKS		37	46		
			is (ScS)		38	10		
			PS		39	48		
			PPS		40	33		
			SS		44	52		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954 13 Contd.	Calcutta	E	e(P) e e M	00	27	07 34 00 58		
	Chatra	NEZ NE	eP PP SKS <sub>1</sub> SKKS <sub>1</sub> eS SKS <sub>2</sub> PS PPS SS SSP PKKS <sub>1</sub> SSS SKKKS LQ LR M	00	27	08 21 49 13 39 56 32 05 28 47 50 50 20 24 09 09	11090	Slight.  Phases doubtful.
	Hyderabad	E EN  E N EN N  E  N	eP PP SKS iS S PS SS L L M M	00	27	19 21 42 34 44 07 29 03 20 18 20	10900	Slight.  Per. = 18 secs $\mu$ = 9. Per. = 18 secs $\mu$ = 19.
	Poona	Z E	eP e e S PS e LQ M	00	27	25 54 58 17 47 02 09 03		Moderate.
	Kodaikanal	E	PP? S PPS LQ LR M	00	30	01 13 16 25 46 31	10520	Moderate.  Per. = 15 secs $\mu$ = 10.
	Bombay	NE E N E NE  E N NE	ePKP <sub>1</sub> PP e PPP PKS SKS SKS <sub>1</sub> SKKS <sub>1</sub> eS PS	00	30	53 00 10 05 21 30 57 14 14 00		Moderate and distant.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Jan. 1954								
13	Bombay	N	PPS	00	41	50		
Contd.	Contd.	E	PPS		41	53		
		NE	SSP		46	44		
			SSS		49	53		
	New Delhi	N	e	00	30	59		Moderate.
			e		38	07		
			e		40	57		
			i		42	04		
			i		43	04		
			i		47	32		
13	Dehra Dun	NE	eP	13	11	38	260	Slight.
			PPP		11	51		
			iS		12	07		
			S*		12	11		
			Sg		12	15		
			SS		12	19		
			SSS		12	28		
13	Shillong	Z	eP	16	23	01		Tremor.
13	Dehra Dun	NE	eP	20	35	35	660	Slight.
			PP		35	42		
			P*		35	48		
			LQ		36	30		
			iS		36	41		
			SS		36	50		
			S*		36	58		
			SSS		37	02		
	New Delhi	NE	eP	20	35	56	770	Slight.
		E	PP		36	03		
			PPP		36	10		
			P*		36	13		
			Pg		36	30		
			eS		37	16		
			SS		37	26		
			SSS		37	36		
	Shillong	Z	iP	20	37	52		Tremor.
	Poona	Z	e(P)	20	41	21		Tremor.
13	Shillong	Z	eP	22	52	01		Tremor.
14	Shillong	Z	iP	02	18	58		Tremor.
	Poona	Z	eP?	02	20	50		Tremor.
	Bombay	E	i	02	21	05		
			i		21	32		
			e		23	18		
			i		28	44		
			i		29	02		
14	Shillong	Z	iPg	06	46	06		Feeble.
			Sg		46	14		
14	Shillong	Z	iP	10	48	09		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\triangle$	REMARKS
				h. m. s.	km.	
Jan. 1954						
14	Shillong	Z	iP	22 47 31		Slight.
15	Bombay	E	e e	23 46 35 47 27		
17	Poona	Z	eP?	03 14 14		Tremor.
17	Dehra Dun	NE	iP PP PPP and P* Pg LQ iS LR SS S* SSS Sg	08 47 41 47 48 47 56 48 10 48 40 48 52 48 58 49 03 49 12 49 14 49 30	670	Moderate.
	New Delhi	NE E NE  E NE N E	eP PP PPP P* LQ iS SS SSS S* Sg	08 48 00 48 08 48 15 48 19 49 14 49 25 49 36 49 46 49 50 50 12	820	Slight.
	Poona	Z	eP	08 50 01		Slight, phases not clear.
	Bombay	NE  E  NE	e e e i e i i	08 50 03 50 08 53 02 53 44 54 15 54 50 56 01		
	Hyderabad	E	e i	08 54 40 55 47		
17	Poona	Z	eP	11 54 50		Tremor.
	Bombay	E	e	11 56 18		Tremor.
17	Dehra Dun	N	e	17 15 24		Feeble.
	Bombay	NE E NE	i e e	17 48 38 50 25 56 00		Probably deep.
	Poona	Z	eP	17 48 41		Slight, phases not clear.
	Kodaikanal	E	e?	17 58 58		Tremor.
	Hyderabad	E	M	18 07 16		Per. = 15 secs $\mu = 3.$

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				△			
				km.			
<u>Jan.</u>							
1954							
17	Poona	Z	eP	20	56	02	Tremor.
17	Poona	Z	eP	22	09	34	Tremor.
17	Bombay	E	e	23	03	41	Slight.
		NE	i		09	45	
		E	e		11	01	
			e		12	43	
			e		14	02	
		N	e		16	11	
		NE	e		16	49	
	Dehra Dun	N	e	23	09	16	Tremor.
	Hyderabad	E	e	23	13	38	Tremor.
18	New Delhi	NE	P	00	10	11	Begining uncertain due starting of time break.
			i		15	13	
			i		20	12	
18	Dehra Dun	N	e	03	42	07	Tremor.
18	Dehra Dun	NE	i	07	50	16	Feeble.
18	Poona	Z	eP	10	57	25	Tremor.
	Bombay	E	e	10	57	34	Feeble.
			e		58	05	
			e		59	50	
			i	11	01	44	
		N	e		03	21	
		E	e		05	28	
		N	e		05	37	
		E	i		05	48	
			e		06	18	
	Dehra Dun	N	e	10	57	38	
			e	11	24	11	
18	Shillong	Z	eP	11	18	36	Slight.
		N	eS		19	06	
18	Poona	Z	eP	14	55	26	Tremor.
	Bombay	E	e	15	05	19	Feeble.
			e		08	52	
19	Poona	Z	eP?	09	17	06	Tremor.
19	Poona	Z	eP	13	40	28	Tremor.
20	Bombay	N	e	04	36	22	Long distance.
			e		41	06	
			e		43	24	
			e		46	08	
			e		47	35	
			e		48	17	
			i		51	45	
			e		52	06	
			e		52	43	
			e		53	13	
			e		55	13	

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Jan. 1954						
20	Kodaikanal	E	e?	16 12 37		Tremor.
	Poona	Z E	eP i?	16 16 13 23 07		Slight, phases not clear.
	New Delhi	NE E  NE	e e  e	16 24 10 24 17 25 51 26 11		Slight, phases not clear.
21	Dehra Dun	NE	e i(S)?	23 07 40 07 59		Feeble.
22	Hyderabad	E	e	10 41 30		
22	Bombay	E  NE E N	e e i i i i	11 34 25 38 05 39 19 40 43 42 30 43 00		Feebly recorded.
	Shillong	Z N	eP eS	11 35 40 36 53		Slight.
	Dehra Dun	NE	eP PP PPP Pg iS SS S* SSS Sg	11 36 11 36 18 36 25 36 43 37 30 37 32 37 51 37 53 38 07	770	Moderate.
	New Delhi	NE N NE	eP PPP S Sg	11 36 17 36 52 37 46 38 28	820	Slight.
	Poona	Z E	e e M	11 37 52 40 30 42 13		Slight.
22	Bombay	E  NE E  N N	eP SKS eS PS PPS e e SS	11 51 32 12 01 34 01 41 02 39 03 02 03 57 03 47 07 32	9000	
22	Epc: 20° S., 169° E. Loyalty Island; h = 100km ca; 0 = 21h 23m 04s (U.S.C.G.S.) Magnitude - 6½ ca (Wellington).					
	Poona	Z	eP	21 36 48		Distant, phases not clear.



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	km.
<u>Jan.</u>							
1954							
22	Bombay	E	eP	21	37	05	10855 Distant.
Contd.			e		40	55	
			PP		41	37	
		N	e		43	15	
		E	PPP		43	37	
		NE	SKS		47	25	
			SKKS		48	07	
			eS		48	28	
		E	PS		50	03	
			PPS		50	51	
			SS		55	30	
		N	e		55	35	
23	Dehra Dun	N	e	12	13	14	Tremor.
23	Dehra Dun	N	e	12	40	57	Slight.
			i		41	14	
23	Epc: $37\frac{1}{2}^{\circ}$ N., $72\frac{1}{2}^{\circ}$ E. Tadjik USSR; 0 = 16h 06m 30s G.M.T. (USCGS)						
	$37^{\circ}$ N., $74^{\circ}$ E. 0 = 16h 06m 37s G.M.T. (Shillong)						
	Magnitude - $6\frac{1}{2}$ (Uppsala, Kiruna).						
	Dehra Dun	NE	eP	16	08	36	920 Moderate.
			PP		08	44	
			PPP		08	51	
			P*		08	57	
			Pg		09	15	
			LQ		10	00	
			iS		10	11	
			SS		10	22	
			LR		10	26	
			SSS		10	33	
			S*		10	40	
			Sg/M		11	03	
	New Delhi	NE	eP	16	08	51	990 Slight.
		E	PP		08	57	
		NE	PPP		09	04	
			iS		10	33	
			SS		10	45	
			LR		10	49	
		E	SSS		10	56	
			S*		11	06	
		NE	Sg		11	35	
	Chatra	Z	iP	16	10	15	Slight, other phases
			iS		13	17	obscure.
	Bombay	N	iPX	16	10	54	2100 Feeble.
		E	ePX				
		NE	PP		11	07	
			PPP		11	16	
		E	iS		14	19	
		NE	iS		14	22	
		N	i		14	36	
		E	SS		14	39	
		NE	SSS		14	54	
			LR		15	14	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Jan. 1954							
23	Poona	Z	eP	16	10	55	2170 Moderate.
Contd.		E	PP		11	12	
			PPP		11	23	
			eS		14	29	
			LQ		14	33	
			SS		14	45	
			LR		15	20	
			M		16	53	
	Shillong	Z	eP	16	11	09	2170 Slight.
		N	S		14	45	
			LQ		14	59	
			SSS		15	14	
			LR		16	06	
			M		16	33	
	Calcutta	E	iP	16	11	12	2170 Moderate, first move-
		N	eP		11	14	ment East.
		E	PPP		11	42	
			S		14	47	
		N	S		14	48	
		E	?		14	56	
			LR		15	49	
			M		17	24	
	Hyderabad	N	iP	16	11	12	2300 Moderate.
		NE	iS		14	59	
		E	SS		15	40	
			L		17	03	
			M		17	47	
		N	M		18	02	Per. = 8 secs $\mu$ = 11. Per. = 11 secs $\mu$ = 35.
	Madras	E	eP	16	12	06	2120 Moderate.
			PP		12	25	
			PPP		13	41	
			PcP		14	32	
			iS		16	24	
			ScP		17	53	
			LQ		18	03	
			SS		18	12	
			SSS		18	28	
			ScP		21	38	
***			M		21	52	
***			LR		19	26	Amp = 42 mm.
	Kodaikanal	E	e	16	16	10	Short distance, phases not clear.

23 Epc:  $37\frac{1}{2}^{\circ}$  N.,  $72\frac{1}{2}^{\circ}$  E. Tadjik USSR;  $0 = 17h 11m 54s$  (U.S.C.G.S.)  
 $37^{\circ}$  N.,  $73^{\circ}$  E.,  $0 = 17h 12m 00s$  G.M.T. (Shillong).

Dehra Dun	NE	eP	17	14	02	1000 Moderate.
		PP		14	09	
		PPP		14	17	
		P*		14	23	
		Pg		14	46	
		LQ		15	32	
		iS		15	43	
		SS		15	52	
		LR		15	57	
		SSS		16	40	

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Jan. 1954 23 Contd.	New Delhi	N	eP	17 14 18	1000	Slight.
			PPP	14 33		
		E	P*	14 37		
		N	Pg	14 58		
		NE	LQ	15 49		
			eS	16 01		
			SS	16 13		
		N	LR	16 18		
		NE	SSS	16 24		
			S*	16 35		
			Sg	17 04		
	Bombay	E	eP	17 16 20	2075	Very feeble.
		N	iPY	16 16		
		E	ePY			
		NE	PP	16 36		
			PPP	16 42		
		E	eS	19 46		
		NE	iS	19 49		
			SS	20 05		
		E	SSS	20 19		
	Chatra	Z	iP	17 15 40		Slight.
			iS	18 38		
	Poona	Z	eP	17 16 21	2180	Moderate.
		E	PP	16 38		
			eS	19 57		
			SS	20 23		
			SSS	20 35		
			LR	20 59		
			M	22 37		
	Shillong	Z	eP	17 16 34	2220	Slight.
		N	S	20 13		
			LQ	20 25		
			SSS	21 03		
			LR	21 18		
			M	22 56		
	Hyderabad	N	iP	17 16 42	2290	Slight.
		NE	iS	20 28		
		N	L	22 39		
		E	M	23 28		Per. = 12secs $\mu$ = 8.
		N	M	23 29		Per. = 12 secs $\mu$ = 9.
	Calcutta	E	i	17 20 23		Slight, near.
			i	23 12		
	Kodaikanal	E	e	17 22 05		Tremor.
23	Dehra Dun	N	e(P)	22 05 40		Slight.
24	Dehra Dun	NE	e(P)	21 01 26	920	Slight.
			iS	03 01		
	Poona	ZE	i?	21 09 06		Feeble.
25	Poona	Z	i?	02 38 11		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Jan. 1954						
25	Hyderabad	N	M	03 57 07		Per. = 15 secs $\mu$ = 4.
25	Dehra Dun	NE	e i	17 11 27 13 08		Slight, phases not identifiable.
28	Poona	Z	eP	23 41 07		Tremor.
30	Bombay	E	e e e e e	18 42 02 42 10 52 08 52 50 53 04 53 44		Slight.
30	Poona	Z	i?	21 01 03		Tremor.
30	Bombay	E	e e e e e e	21 48 06 49 25 51 51 52 10 52 23 22 01 13 04 51		Slight.
30	Poona	Z	i?	22 04 37		Tremor.
31	Bombay	N	e e	11 54 11 54 35		Slight.
31	Hyderabad	E NE E	eP S L	11 54 49 12 04 14 19 00	8070	Slight.
		N	M	24 55 25 02		Per. = 14 secs $\mu$ = 5. Per. = 13 secs $\mu$ = 4.
	Bombay	E	eP e PP eS ScS PPS SSS	11 54 57 55 11 57 31 12 04 19 04 45 05 17 09 19	8020	Slight.
		N	M	34 42		Per. = 12 secs $\mu$ = 5.

Earthquake Reports  
Non-Instrumental Reports

The following table contains a list of earthquakes that were recorded by Voluntary Observers from various station.

Place at which felt	Date	G.M.T. of earthquake h. m. s.	Duration in secs	Intensity R.F. scale	No. of shock	Remarks
Kothagudium (Deccan)	5-1-54	23-45-00	10	V	5	Sounds like blasting in the underground heard.
Shillong	6-1-54	11-00-00	8	-	1	
Gauhati	11-1-54	01-23-00	15	V	1	
Srinagar	17-1-54	08-49-00	12	IV	3	

Sarker/27.3.56

\*@@\*@@\*@@\*@@\*@@\*@@\*@@\*@@\*@@\*@@\*@@\*@@\*

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN

February, 1954.

\*  
\*  
\* \* \* \* \*  
\*  
\*

---

---

Published under the direction of  
Dr. S.C. Roy, D.Sc.(Lond.), F.N.I.,  
Director General of Observatories.

---

---

INSTRUMENTS AND THEIR CONSTANTS

Station	Instrument	Compt.	Period in secs	Static Magni- fication	Damping ratio	Paper speed mm/minute
Bombay	Milne-Shaw	N-S	12	350	20:1	16
	Milne-Shaw	E-W	12	350	12:1	8
	Sprengnether	E-W	To = Tg = 7			30
Chatra	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	1.0	1000	30:1	60
	Wood-Anderson	E-W	1.0	1000	30:1	60
	Benioff short period	Z	To = 0.72 Tg = 0.45	-	Es = 2.3:1 Eg = Critical	60
Calcutta	Milne-Shaw	E-W	10	150	20:1	8
	Wood-Anderson	N-S	2	870	Critical	30
	Omori-Ewing	N-S	18	32	-	25.4
	Omori-Ewing	E-W	19	30	-	25.4
Colombo	Milne-Shaw	E-W	11.8 secs from 1.2. 54 to 15.2.54 12.0 secs from 15.2.54 to 28.2.54	250	17:1 from 1.2.54 to 15.2.54 20:1 from 15.2.54 to 28.2.54	8
Dehra Dun	Wood-Anderson	N-S	1	1000	30:1	60
	Wood-Anderson	E-W	1	1000	30:1	60
	Milne-Shaw	N-S	12	250	20:1	16
Hyderabad	Milne-Shaw	E-W	12	253	20:1	8
	Milne-Shaw	N-S	12	251	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismo- graph	E-W	To = Tg = 7.4 secs			30
New Delhi	Milne-Shaw	N-S	12	288	20:1	8
	Wood-Anderson	N-S	4	1070	20:1	16
	Wood-Anderson	E-W	2	1841	30:1	60
	Omori-Ewing	E-W	28	30	1	12
Poona	Sprengnether Microseismo- graph	Z	To = 1.5 Tg = 1.5			30
	Milne-Shaw	N-S	12	250	20:1	8
	Wood-Anderson	E-W	4	1100	20:1	16
Shillong	Milne-Shaw	N-S	12	250	20:1	8
	Wood-Anderson	N-S	4.0	1000	20:1	30
	Wood-Anderson	E-W	0.8	1000	h = 0.8	30
	Wood-Anderson	N-S	0.8	1000	h = 0.8	30
	Benioff seis- mograph	Z	To = 1.0 Tg = 0.18	1000	h = 0.8	60

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
Feb. 1954						
01	Dehra Dun	NE	e	00 38 17		Feeble.
			i	38 35		
01	Epc:					
						24° N., 143° E.; 0 = 01h 06m 48s (U.S.C.G.S.)
						24½° N., 143½° E.; 0 = 01h 06m 53s (B.C.I.S.)
						25° N., 144° E.; 0 = 01h 06m 58s (CMO, Japan)
						22° N., 142° 5 E. 0 = 01h 06m 56s (Shillong).
	Mag. -					7½ (Wellington), 7¼ (Pasadena), 7 (Uppsala, Kiruna, Praha, Hurbanovo), 6¾ (Strasbourg).
	Shillong	Z	eP	01 15 20	5260	Moderate.
		N	e	21 57		
			eS	22 15		
			PPS	22 27		
			SS	25 12		
			LQ	25 46		
			SSS	26 09		
			LR	27 50		
			M	31 20		
	Chatra	Z	iPY	01 15 51	5520	Slight.
		E	ePY			
			PcP	17 27		
			PP	17 50		
			?	18 15		
			PPP	18 45		
			PcS	21 11		
			iS	23 00		
			PS	23 11		
			PPS	23 23		
			ScS	25 45		
			SS	26 42		
			LQ	27 45		
			LR	30 19		
			M	34 38		
						Per. = 20 secs $\mu$ = 6.5.
	Calcutta	E	iP	01 15 56	5450	Moderate. First movement West.
			PcS	21 14		
			iS	23 01		
			ScS 1	25 48		
			LR	29 58		
			M	34 01		
			Mn <sub>1</sub>	37 36		
			Mn <sub>2</sub>	45 17		
						Per. = 20 secs $\mu$ = 105.
						Per. = 15 secs $\mu$ = 67.
	Dehra Dun	NE	eP	01 16 44	6490	Moderate.
			PcP	17 25		
			PP	18 49		
			PPP	20 25		
			PcS	21 27		
			iS	24 46		
			PS	24 56		
			PPS	25 30		
			ScS	26 20		
			SS	28 51		
			SSS	31 07		
			LQ	31 32		
			LR	34 17		
			M	39 15		
			e	16 48		
			i	17 22		
			i	17 59		

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS			
				h. m. s.	km.				
Feb. 1954	New Delhi	NE	eP	01 16 50	6450	Moderate.			
01		E	PcP	17 57					
Contd.			PP	18 58					
		N	PPP	20 13					
		NE	iS	24 50					
		N	ScS	26 36					
			SS	28 49					
			M	38 19					
		Madras	EW	iP			01 17 05	6830	Moderate.
				PcP			17 43		
			PP	19 22					
			PPP	20 49					
			PcP	21 40					
			iS	25 15					
			PS	25 36					
			PPS	25 46					
			ScS	26 42					
			SS	29 09					
			SSS	31 45					
			LQ	32 18					
			LR	35 09					
	Hyderabad	EN	iP	01 17 05	6660				
		E	PcP	17 51					
		EN	iS	25 17					
		N	PS	25 32					
		E	SS	29 20					
			L	35 51					
			M	41 06					
		N	M	41 27					
	Colombo	E	P	01 17 20					
	Kodaikanal	EW	iP	01 17 28			7000	Slight.	
			PP	19 46					
			PPP	21 25					
			iS	25 58					
			SS	30 13					
			LQ	33 43					
			LR	36 43					
			M	42 04					
					Per. = 21 secs $\mu$ = 29.				
	Poona	ZE	iP	01 17 30	7000	Moderate.			
		E	PcP	17 59					
			PP	19 43					
			e	21 07					
			e	25 27					
			S	26 07					
			SS	30 01					
			e	32 49					
			M	42 01					
	Bombay	NE	iP	01 17 35			7240	Great.	
		E	PcP	18 05					
		N	PcP	18 13					
			i	18 29					
			i	19 05					
		NE	PP	20 05					
			PPP	21 38					



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	km.
Feb. 1954							
01	Bombay	N	PcS	01	22	13	
Contd.	Contd.	NE	iS		26	18	
		E	i		26	24	
		N	i		26	31	
		NE	PS		26	41	
		N	PPS		26	47	
			ScS		27	28	
			SS		30	19	
		E	SS		30	24	
		N	SSS		33	23	
02	Epc: 80° N., 7° E. Off North East Coast of Greenland; 0 = 17h 45m 45s G.M.T. (U.S.C.G.S.) 83½° N., 3°W. 0 = 17h 45m 44s (B.C.I.S.) Mag. - 6 (Uppsala), 5½ - 6 (Kiruna).						
	Poona	E	eP(?)	17	56	29	
			e		58	49	
			e	18	00	32	
			i		06	26	
			i		09	27	
02	Hyderabad	E	M	18	28	27	Per. = 15 secs $\mu = 3$ .
03	Epc: 36½° N., 70° E. Hindukush; 0 = 15h 56m 51s (U.S.C.G.S.).						
	Dehra Dun	NE	eP	15	59	04	900 Moderate.
			PP		59	12	
			PPP		59	17	
			P*		59	22	
			Pg		59	45	
			LQ	16	00	26	
			iS		00	37	
			SS		00	49	
			LR		00	50	
			SSS		01	01	
			S*		01	07	
			Sg,M		01	32	
	New Delhi	NE	iP	15	59	16	950 Slight.
			PP		59	24	
			PPP		59	31	
			iS	16	00	54	
			SS		01	05	
		N	SSS		01	16	
			i		01	35	
	Chatra	Z	eP	16	00	54	Slight, near.
			i		03	55	
	Bombay	E	eP	16	00	56	Slight.
			PP		01	11	
			PPP		01	16	
			i		01	44	
			i		02	04	
		**	e(S)		04	07	
			e		04	44	
			LR		04	52	
		**	SS		04	24	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Feb. 1954							
03	Shillong	Z	eP	16	01	43	2270 Slight.
Contd.		N	e		05	28	
	Poona	E	i	16	01	57	
			i		02	55	
			i		06	47	
	Madras	E	e	16	02	02	Slight.
			e		06	41	
03	Epc: $45\frac{1}{2}^{\circ}$ N., $148\frac{1}{2}^{\circ}$ E. Kurile Island; h = 100 km ca; 0 = 18h 23m 53s (U.S.C.G.S. and B.C.I.S.) $44\frac{1}{2}^{\circ}$ N., $149^{\circ}$ E. h = 100 - 200 km; 0 = 18h 23m 58s (CMO, Japan).						
	Chatra	Z	iP	18	32	54	Slight, distant.
	Bombay	E	eP	18	34	43	7280 Slight.
			PcP		35	12	
			PP		37	10	
			PPP		38	46	
			PcS		39	08	
			eS		43	28	
			PS		43	48	
			PPS		44	02	
			ScS		44	18	
			i		47	08	
			SS		47	18	
			i		50	08	
			SSS		50	43	
04	Bombay	E	e	03	53	31	
			e		55	46	
			e	04	00	32	
			e		02	25	
04	Dehra Dun	NE	eP	19	06	55	300 Slight.
			P*		06	58	
			PP		07	02	
			Pg		07	03	
			LQ		07	18	
			LR		07	25	
			iS		07	29	
			S*		07	33	
			SS, Sg, M		07	39	
			SSS		07	50	
05	Epc: $4\frac{1}{2}^{\circ}$ S., $153^{\circ}$ E. Off the Coast of New Britain; 0 = 09h 19m 42s (U.S.C.G.S.) $5^{\circ}$ S., $153^{\circ}$ E. 0 = 09h 19m 46s (B.C.I.S.) Mag. - 7.1 (Christchurch), $6\frac{3}{4}$ - 7 (Pasadena), $6\frac{3}{4}$ (Skalnate Pleso), 6.7 (Wellington), $6\frac{1}{2}$ - $6\frac{3}{4}$ (Kiruna), $6\frac{1}{2}$ (Praha, Berkeley).						
	Shillong	Z	iP	09	30	23	7330 Moderate.
		N	S		39	10	

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Feb. 1954 05 Contd.	Chatra	Z NE E	iPY ePY PcP PP PPP iS PS PPS SS SSS LQ LR M	09 31 05  31 28 33 28 35 24 40 20 40 47 40 59 44 48 47 22 49 18 52 28 58 36	7870	Slight.
	Colombo	E	(P) (S) L M	09 31 23 40 52 55 09 59 37		
	Madras	E	iP PcP PP PPP iS SKS ScS PS PPS	09 31 29 31 40 34 19 36 08 41 00 41 22 41 31 41 49 42 06	8200	Moderate.
	Hyderabad	E EN E  N	iP PP iS PS SS L M M	09 31 44 34 53 41 27 41 57 46 24 56 41 10 01 23 02 03	8440	Per. = 23 secs $\mu$ = 19 Per. = 22 secs $\mu$ = 22
	Kodaikanal	EW	iP PP PPP iS SS LQ LR M?	09 31 45 34 45 36 36 41 28 46 28 52 22 56 04 10 02 34	8445	Slight.  Per. = 27 secs $\mu$ = 48
	Dehra Dun	NE	eP PcP PP PPP eS and SKS ScS PS PPS SS	09 32 00 32 04 35 02 36 54 41 55 42 10 42 44 42 58 47 10	8690	Moderate.

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
Feb. 1954						
05	Dehra Dun	NE	SSS	09 50 33		
Contd.	Contd.		LQ	53 35		
			LR	57 22		
			M	10 03 54		
	New Delhi	NE	eP	09 32 01	8690	Moderate.
		N	eS	41 56		
			SKS	42 14		
			PS	42 41		
			PPS	43 01		
			SS	47 07		
	Poona	EWZ	iP	09 32 08	8930	Moderate.
		EW	PP	35 21		
			PPP	37 06		
			eS	42 14		
			ScS	42 18		
			PS	43 03		
			SS	47 37		
			SSS	51 09		
		NS	LQ	54 13		
			LR	57 59		
			M	10 05 12		
	Bombay	N	ePY	09 32 14	9330	Great.
		E	iPY			
		NE	i	32 31		
			PP	35 26		
			PPP	37 30		
			SKS	42 23		
		N	SKS <sub>1</sub>	42 31		
		NE	iS	42 38		
		N	ScS	42 54		
		E	i	43 08		
		NE	PS	43 36		
			PPS	43 55		
		E	SS	48 14		
		N	SS	48 18		
			SSS	51 38		
		E	SSS	51 44		
		NE	LQ	55 --		
05	Bombay	E	i	15 31 38		Distant.
			i	37 28		
			e	40 30		
			i	56 37		
			i	16 00 32		
05	Dehra Dun	N	e	17 03 40		Feeble.
			i	03 55		
06	Bombay	E	e	04 58 09		Very feeble.
			i	58 30		
			i	05 00 10		
			e	03 50		
06	Colombo	S	M	05 03 59		

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Feb. 1954 07	Epc: 15° S., 167½° E. New Hebrides; h = 100 km ca O = 06h 15m 21s G.M.T. (U.S.C.G.S.) Magnitude - 6½ - 6¾ (Berkeley), 6 (Pasadena).						
	Chatra	Z	iP	06	28	10	Slight, distant.
		E	i		38	26	
	Poona	ZE	eP	06	28	55	9360 Feeble.
		E	eS		39	20	
	Bombay	E	eP	06	29	02	10700 Moderate.
			PP		33	02	
			i		33	29	
		N	e		34	14	
		E	PPP		35	09	
		NE	SKS		39	25	
		E	SKKS		39	51	
		N	i		40	17	
		E	iS		40	19	
		N	e		41	50	
		E	PS		41	55	
		N	eX		43	15	
		E	iX				
			SS		47	01	
			SSS		50	33	
	Hyderabad	E	e	06	36	54	
			e		38	55	
		N	L		39	23	
		E	M		40	32	Per. = 11 secs $\mu = 4$
		N	M		40	33	Per. = 10 secs $\mu = 2$
	Colombo	S	S	06	38	36	
			M		45	01	
07	Dehra Dun	N	e	15	56	54	Tremor.
08	Poona	Z	eP	00	48	11	Tremor.
08	Shillong	Z	iP	05	46	01	Slight, near.
08	Shillong	Z	iP	08	42	03	160 Slight.
			PP		42	10	
			eSg		42	25	
08	Poona	Z	eP	13	01	05	Tremor.
08	Epc: 22½° S., 68° W., Chili-Bolivia Boarder; h = 150 km ca; O = 14h 19m 09s (U.S.C.G.S.) Damages at Calama, Chili.						
	Bombay	NE	ePKP <sub>1</sub>	14	38	33	15890 Distant, moderate.
		E	i		39	05	
		N	e		41	14	
		E	PP		41	47	
			i		42	15	
		N	PPP		45	07	
		E	e		48	29	
		NE	PS		52	28	
		E	e		56	35	
		NE	eSS	15	00	24	

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Feb. 1954								
08	Poona	Z	ePKP	14	38	34		Feeble, phases not developed.
Contd.								
	Dehra Dun	N	ePKP i	14	38	44 39 21		Slight, phases not clear.
	Chatra	Z	ePKP	14	38	54		Slight, distant.
08	Bombay	E	e e e	18	54	28 19 03 55 11 30		
08	Shillong	N	e	19	07	05		Tremor.
09	Shillong	Z	eP P* Pg eSg	11	23	42 23 46 23 50 24 26	300	Slight.
09	Epc: 53° N., 166½° W. Aleutian; h = 100 km ca; O = 17h 39m 40s (U.S.C.G.S.).							
	Chatra	Z	i	17	51	30		Slight, distant.
	Bombay	N NE N E N E	i eP eX iX e SKKS iS PS PPS	17	52	40 52 54 53 08 54 38 18 03 42 03 55 05 18 05 54	10245	Feeble.
09	Poona	Z	eP	17	53	41		Tremor.
09	Poona	Z	eP	18	12	15		Tremor.
09	Shillong	N	e M	18	19	25 25 40		Distant, slight.
09	Dehra Dun	N	e i i	19	30	58 32 27 33 37		Slight, phases not clear.
	Poona	Z	eP	19	38	08		Tremor.
09	Shillong	ZEN EN	iP iSg	23	53	41 53 49	65	Slight, felt.
10	New Delhi	NE	iP PP PPP i iS SS SSS LR M	00	35	15 35 44 35 57 36 09 39 20 40 02 40 17 41 00 42 39	2520	Moderate, direction of first motion North and East.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Feb.</u>								
<u>1954</u>								
10	Dehra Dun	NE	e i	05	26	51 28 09		Feeble, phases not clear.
	Poona	Z	e?	05	29	36		Tremor.
10	Shillong	Z	iP	17	21	23		Slight, near.
	Calcutta	N	eP LQ ? iS SS?	17	22	24 23 28 23 34 23 38 23 45	710	Slight.
	Poona	Z	eP	17	27	26		Tremor.
	Bombay	NE	e i	17	28	17 29 52		Very feeble.
11	Epc: 39½° N., 101° E. 0 = 00h 30m 13 s. Felt over the district of Lanchow (U.S.C.G.S.) 39° N., 101½° E. 0 = 00h 30m 13s (B.C.I.S.) 41° N., 100°5 E. 0 = 00h 30m 10s (Shillong). Mag. - 7½ (Hurbanovo), 7½ (Strasbourg), 7.4 - 7.5 (Shillong), 7.3 (Praha), 7½ - 7½ (Pasadena), 7½ (Skalnate Pleso), 7 - 7½ (Berkeley, Kiruna, Uppsala).							
	Shillong	ZEN NE	iP PP PPP LQ iS SS SSS M	00	33	52 34 05 34 14 36 48 37 01 37 31 37 47 38 32	1890	Moderate.
	Chatra	NEZ NE	eP PP PPP iS LQ SS SSS LR MY MY	00	34	10 34 26 34 34 37 30 37 33 37 52 38 06 38 22 39 44	2010	Great. Per. = 16 secs / u = 9
	Calcutta	E N E N E	iP eP PP iS iS LR	00	34	45 34 50 35 07 38 33 38 34 40 00	2310	Great, first movement West.
	Dehra Dun	NE	eP PP PPP PcP iS LQ SS SSS LR M	00	35	00 35 27 35 37 38 59 39 01 39 20 39 39 39 53 40 21 42 22	2490	Moderate.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
Feb. 1954									
11	Hyderabad	EN	iP	00	36	19			
Contd.		N	PP			37	55		
		EN	iS			41	08		
		E	SS			42	57		
			L			45	26		
		N	M			47	24		Per. = 15 secs $\mu = 19$
E	M			47	32		Per. = 15 secs $\mu = 28$		
	Poona	Z	iP	00	36	39	3480	Moderate.	
		EW	PP			37	38		
			PPP			37	56		
			PcP			39	25		
			eS			41	46		
			LQ			43	25		
			SSS			43	53		
			LR			44	44		
	Bombay	NE	iP	00	36	44	3550	Moderate.	
		E	PP			37	44		
		N	PPP			38	09		
		E	PPP			38	12		
		NE	iS			41	55		
		N	LQ			43	38		
			SSS			44	11		
		LR			45	07			
		M			47	--			
	Madras	EW	iP	00	36	44	3480	Great.	
			PP			37	50		
			PPP			38	07		
			iS			41	51		
	Kodaikanal	EW	iP	00	37	16	4100	Moderate.	
			PP			38	46		
			iS			43	01		
			SS			45	34		
			LR			47	22		
		M			50	25			
	Colombo	S	P	00	37	30	4210		
			S			43	22		
			L			47	17		
			M			52	02		
11	Poona	EW	M	00	47	21			
11	Shillong	Z	e	03	01	53		Slight.	
			i			02	02		
11	Shillong	Z	e	04	57	19		Slight.	
			i			57	28		
11	Shillong	Z	iP	12	18	17		Slight.	
11	Dehra Dun	NE	e	18	16	23		Slight, phases not identifiable.	
			i			17	49		
11	Poona	Z	eP	21	15	37		Tremor.	
11	Shillong	Z	e	23	40	24		Slight.	
			i			40	33		



DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Feb.</u> 1954						
12	Poona	Z	eP	01 54 00		Tremor.
	Bombay	E	eP	01 54 11	3490	Slight.
			e	54 57		
			e <sub>1</sub>	56 14		
			e <sub>2</sub>	59 05		
			eS	59 19		
			i	02 01 05		
			e	04 31		
12	Epc: Off the Coast of Java; $0 = 21h 22m 30s$ (U.S.C.G.S.) $6^{\circ} S., 110\frac{1}{2}^{\circ} E. 0 = 21h 22m 31s$ (B.C.I.S.)					
	Chatra	Z	i	21 30 14		Slight, distant.
	New Delhi	NE	eP	21 31 10	4520	Slight.
			PP	32 48		
		N	IS	37 21		
			PPS	37 38		
			SS	40 03		
	Bombay	E	i	21 32 31		Slight.
			i	33 26		
			i(S)	36 53		
			i	39 16		
			i	39 50		
	Dehra Dun	NE	e	21 37 31		Tremor.
12	Poona	ZE	eP	22 30 43		Slight, phases not clear.
14	Bombay	E	e	04 50 03		Movement continues for some times.
			e	54 02		
			i	54 12		
	Poona	Z	i	04 50 14		Tremor.
14	Shillong	Z	Pg Sg	06 56 00 56 12	100	Slight.
14	Poona	Z	i	07 01 37		Tremor.
	Bombay	E	i	07 01 55		
			e	05 16		
			i	05 25		
14	Shillong	Z	e	09 58 19		Slight, near.
			i	59 13		
14	Shillong	Z	e	13 54 06		Slight, near.
			e	55 15		
			i	55 39		
14	Shillong	Z	e	15 40 03		Slight, near.
			e	40 56		
14	Shillong	Z	e	16 10 03		Slight, near.
			e	10 29		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Feb. 1954						
14	Shillong	Z	e e	22 44 38 44 49		Slight, near.
15	Poona	Z	e	02 42 27		Tremor.
15	Bombay	E	e(P) e(PP) e	03 42 30 45 32 04 01 18		Distant shock, feeble recorded.
15	Poona	Z	e	16 00 35		Tremor.
15	Dehra Dun	NE	e e	19 08 27 09 32		Feeble.
15	New Delhi	NE	iPg iSg	19 23 40 23 45	44	Slight, direction of first movement East.
	Dehra Dun	NE	eP P* PP iS LR S* SS SSS	19 24 05 24 06 24 12 24 28 24 29 24 32 24 37 24 49	190	Slight, near.
	Shillong	Z	e	19 29 09		Feeble.
15	Bombay	E	e e e e	20 10 46 11 12 14 10 26 40		Possibly distant shock of slight intensity.
	Poona	Z	e	20 10 50		Tremor.
16	Epc:	34° N., 74 <sup>3</sup> / <sub>4</sub> ° E.; 34° N., 74° E.;		0 = 02h 23m 32s (B.C.I.S.) 0 = 02h 23m 41s (Shillong).		
	Dehra Dun	NE	eP PP PPP Pg LQ iS LR SS S* SSS Sg	02 24 56 25 04 25 11 25 17 25 40 25 54 25 55 26 03 26 06 26 14 26 17	550	Moderate.
	New Delhi	NE E NE E NE  E NE	eP PP PPP i Pg LQ iS LR SS i Sg	02 25 12 25 20 25 27 25 30 25 37 26 07 26 20 26 27 26 31 26 46 26 55	640	Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Feb. 1954						
16	Poona	Z	eP	02 27 19		Slight.
Contd.		E	PP	27 27		
			e(S)	30 00		
			M	31 47		
	Shillong	Z	eP	02 27 40		Slight.
			eS	30 46		
	Bombay	NE	e	02 29 05		Feeble.
		E	i	30 31		
		N	e	31 28		
			i	31 37		
	Hyderabad	E	i	02 32 38		
		N	M	34 06		Per. = 9 secs $\mu$ = 2.
17	Epc: $51\frac{1}{2}^{\circ}$ N., $160^{\circ}$ E. Off the South East Coast of Kamchatka; 0 = 01h 38m 50s (U.S.C.G.S.)					
	$52\frac{1}{2}^{\circ}$ N., $160^{\circ}$ E. 0 = 01h 38m 52s (B.C.I.S.)					
	Magnitude - $6\frac{1}{4}$ (Kiruna, Uppsala), 6 (Roma).					
	Shillong	Z	e	01 48 42		Slight.
		N	e	56 41		
	Chatra	Z	iP	01 48 56		Slight.
		E	e	02 12 --		
	Hyderabad	E	i	01 50 13		
			i	59 31		
			e	59 45		
		N	M	02 19 15		
		E	M	19 20		
	Poona	ZE	e	01 50 27		Slight.
		E	e	59 51		
			M	02 20 54		
	Bombay	NE	i	01 50 30		Slight.
			e	50 42		
		E	e	53 23		
		NE	e	55 03		
		N	i	02 00 00		
			e	00 37		
		E	e	00 50		
		N		00 53		
			M	26 12		Per. = 15 secs $\mu$ = 3
		E	M	26 45		Per. = 15 secs $\mu$ = 3
17	Shillong	N	i	08 58 14		Tremor.
17	Epc: $51\frac{1}{2}^{\circ}$ N., $160^{\circ}$ E., Off the South East Coast of Kamchatka; 0 = 08h 57m 54s (U.S.C.G.S.).					
	Shillong	N	eP	09 07 48		Tremor.
	Bombay	E	e(P)	09 09 39		Feeble.
			e(S)	19 09		
			PPS	20 04		
			e	23 13		
	Poona	Z	eP	09 09 35		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			$\triangle$	REMARKS
				h.	m.	s.	km.	
Feb. 1954								
17	Shillong	N	i	09	30	21		Tremor.
17	Poona	Z	eP	10	37	13		Tremor.
17	Dehra Dun	N	e	11	45	07		Tremor.
	Shillong	Z	i	11	45	15		Tremor.
	Chatra	Z	i	11	45	36		Slight, distant.
	Bombay	E	iP PcP eS PS PPS LQ	11	47	19	7510	Feeble.
					47	43		
					56	17		
					56	39		
					56	53		
				12	04	39		
17	Poona	Z	eP	12	03	35		Tremor.
17	Dehra Dun	NE	e i	15	22	45		Feeble.
					22	57		
17	Shillong	Z	e	19	36	36		Tremor.
	Dehra Dun	N	e	19	38	29		Tremor.
18	Hyderabad	E EN E N	eP eS M M	00	35	31	5570	
					42	43		
					54	19		Per. = 10 secs $\mu = 2$ .
					54	34		Per. = 12 secs $\mu = 2$ .
	Shillong	Z	eP	00	36	37		Feeble.
	Poona	Z	eP	00	38	52		Tremor.
	Bombay	NE E NE E	eP PPP S/LQ SS SSS	00	43	16	1960	Very feeble.
					43	38		
					46	31		
					46	58		
					47	09		
	Chatra	Z	e	00	44	43		Slight, distant.
18	Poona	Z	eP	00	47	14		Distant, phases not clear.
	Bombay	NE N E	eP PP PPP eS SS SSS	00	51	39	2000	Very feeble.
					51	55		
					52	02		
					54	58		
					55	17		
					55	35		
18	Dehra Dun	N	e	04	29	45		Tremor.
18	Dehra Dun	NE	i i	06	42	26		Slight, phases not clear.
					42	35		

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
-----							
Feb. 1954 19	Epc: $11\frac{1}{2}^{\circ}$ N., $87\frac{1}{2}^{\circ}$ W. Off the Coast of Nicaragua; 0 = 00h 40m 25s (U.S.C.G.S.)						
Felt at Managua.							
Magnitude - 7.0 (Praha), $6\frac{3}{4}$ - 7 (Pasadena), $6\frac{3}{4}$ (Roma, Strasbourg, Tacubaya).							
	Chatra	Z E	ePKP e	01 53	00 --	01	Slight, very distant. Surface waves.
	Shillong	Z N	ePKP ePKP <sub>1</sub> PP PKS PS PPP <sub>2</sub> PPS SS SSS LQ LR M	01 00 03 03 13 15 15 21 26 39 46 58	00 01 08 48 26 06 15 22 34 34 15 12		Slight.
	Poona	Z	ePKP	01	00	11	Distant, phases not clear.
	Hyderabad	N E	ePKP M	01 02	00 02	17 20	Per. = 22 secs $\mu$ = 13.
	Bombay	E N E N E N	1PKP <sub>1</sub> PP PKS <sub>2</sub> PPP PPP e e PS PPS	01 02 04 06 06 10 13 14 16	00 22 16 53 56 35 17 14 13	21	Distant.
	Colombo	E	L M	02 13	02 22	22	Amp = 0.3mm.
19	Dehra Dun	NE	e i i i	12 33 33 35	32 16 52 21	39	Slight, phases not clear.
19	Epc: $45^{\circ}$ N., $91\frac{1}{2}^{\circ}$ E. Sinkiang China, 0 = 13h 28m 26s (USCGS) Magnitude - 6 (Kiruna, Uppsala), $5\frac{3}{4}$ (Praha).						
	Chatra	Z E	e(P) e(S) e	13 36 38	32 09 56	46	Slight, near.
	New Delhi	NE N E N	eP i PP PPP i iS M	13 33 33 33 33 36 39	32 07 19 28 34 36 29	59	2190 Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Feb. 1954						
19	Shillong	Z	i	13 33 00		Slight.
Contd.		N	iS	36 38		
			LQ	39 53		
			M	42 38		
	Calcutta	E	e	13 34 34		Slight, near.
			i	37 50		
			i	41 30		
	Poona	EZ	eP	13 34 39	4110	Slight, phases
		E	e(S)	40 25		indefinite.
	Bombay	N	e	13 35 08		
			e	36 26		
		E	i	40 31		
		NE	i	41 01		
		N	e	41 24		
		E	i	41 38		
		NE	i	45 31		
	Hyderabad	N	e	13 39 29		
		E	M	45 12		Per. = 12 secs $\mu$ = 3.
		N	M	47 08		Per. = 12 secs $\mu$ = 3.
19	Hyderabad	N	M	15 01 26		Per. = 24 secs $\mu$ = 8.
19	Epc: 30° S., 178° W. Kermadec Island; 0 = 19h 07m 44s (USCGS) Felt at Raoul Island (Press report from Wellington) Mag. - 7 - 7½ (Wellington), 7 - 7¼ (Berkeley), 7.0 (Praha), 7 (Roma, Pasadena), 6¾ (Kiruna, Uppsala, Strasbourg), 7½ (Hurbanovo).					
	Shillong	Z	eP	19 21 48		Moderate.
		N	ePKP <sub>1</sub>	21 48		
			e	25 42		
			i	32 25		
			i	35 14		
			i	43 48		
			i	56 48		
			i	20 01 33		
			i	09 55		
			M	18 33		
	Colombo	E	(P)	19 22 01		
			(S)	32 46		
			L	55 51		
			M	20 06 06		Amp = 0.6 mm.
	Chatra	Z	eP	19 22 08		Slight, distant.
		E	e	32 41		
	Bombay	N	ePKP <sub>1</sub>	19 26 08		Distant.
			e	27 05		
			PP	27 21		
		E	i	27 41		
		NE	PPP	29 54		
		E	PS	37 24		
		N	e	37 25		
			e	38 48		
			M	20 18 46		Per. = 18 secs $\mu$ = 6.
		E	M	19 43		Per. = 21 secs $\mu$ = 8.


DATE	STATION	COMPT.	PHASE	G. M. T.	REMARKS
				h. m. s.	km.
Feb. 1954	Poona	E	e(P)	19 26 14	10200 Moderate.
19			PPP	30 05	(?)
Contd.			eSKS	37 13	
			PS	38 32	
			PPS	39 15	
			LQ	52 44	
			M	55 18	
	Calcutta	E	PP	19 26 21	10330 Moderate.
			SKS <sub>2</sub>	32 48	
			PS	35 41	
			PPS	36 47	
			SS	41 15	
			SSP	41 34	
			M	20 07 53	Per. = 20 secs $\mu = 40$ .
			Mn	14 21	
	New Delhi	E	ePKP	19 26 30	Moderate.
		N	e	37 24	
	Hyderabad	N	PPP	19 29 27	
		E	e	36 33	
		N	e	42 52	
		E	L	54 54	
			M	20 04 18	Per. = 18 secs $\mu = 11$ .
		N	M	04 21	Per. = 20 secs $\mu = 18$ .
19	Epc: 12 $\frac{1}{2}$ ° N., 87 $\frac{1}{2}$ ° W. Off the Coast of Nicaragua; 11 $\frac{1}{4}$ ° N., 88° W. O = 21 h 34m 41s (U.S.C.G.S.) Felt at Managua and San Salvador (U.S.C.G.S.) Magnitude - 7.1 (Praha), 6 $\frac{3}{4}$ - 7 (Pasadena), 6 $\frac{1}{4}$ (Kiruna, Roma), 6 $\frac{1}{2}$ - 6 $\frac{1}{4}$ (Strasbourg), 6 $\frac{1}{4}$ (Uppsala, Tacubaya).				
	Shillong	Z	ePKP	21 54 10	Slight.
	Chatra	Z	ePKP	21 54 13	Slight, distant.
	Poona	Z	ePKP	21 54 20	Moderate, very distant.
	Bombay	N	e	21 54 24	Phases not clear.
			e	56 50	
			e	57 42	
	Calcutta	E	e	21 54 33	Slight, distant.
	Colombo	E	PKP	21 54 43	
			e	22 06 21	
			L	58 51	
			M	23 08 49	Amp = 21 secs $\mu = 11$ .
	Hyderabad	E	M	22 50 22	Per. = 21 secs $\mu = 11$ .
		N	M	50 31	

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
Feb. 1954 20						Epc: 7° S., 124½° E. Flores Sea; h = 600 km ca, 0 = 18h 35m 05s (U.S.C.G.S.) 6°9 S., 124°5 E., h = 600 km ca; 0 = 18h 35m 07s (B.C.I.S.) Magnitude - 7.2 (Wellington), 6¾ - 7 (Kiruna), 6¾ (Hurbanovo), 6½ - 6¾ (Pasadena), 6½ (Uppsala, Skalnate Pleso).
	Shillong	Z N	iP iP i iP i S isS i M	18 42 36 42 36 42 58 44 17 45 04 48 35 51 35 52 05 57 05		Moderate.
	Calcutta	E N E NE E	iP iP PP iS SS	18 42 43 42 46 44 32 48 58 51 44	4590	Moderate, first movement West and South.
	Colombo	E	iP S L M	18 42 44 47 22 50 10 52 12		Amp = 41 mm.
	Madras	E	iP PP PcP PPP ScP S SS LQ LR	18 43 01 44 39 44 47 45 13 48 30 49 17 52 16 52 50 54 51	4600	Moderate.
	Chatra	Z E	iPY ePY PP PcP PPP iS PS PPS SS LQ SSS LR M	18 43 08 44 53 45 00 45 30 49 34 49 42 49 48 52 38 53 04 53 27 55 14 59 49	4780	Moderate, probably deep focus.
	Hyderabad	EN E N E EN N E	iP i e iS iS i SS L M M	18 43 21 45 11 47 04 50 00 50 07 52 17 53 03 56 46 19 00 41 01 03	4990	Per. = 12 secs $\mu$ = 13. Per. = 11 secs $\mu$ = 9.




DATE	STATION	COMPT.	PHASE	G. M. T.	$\triangle$	REMARKS
				h. m. s.	km.	
Feb. 1954						
20	Dehra Dun	NE	eP	18 43 33		Moderate.
Contd.			i	44 16		
			pP	44 32		
			iS	50 56		
			e	51 26		
			e	51 56		
			e	52 24		
			e	53 05		
			e	56 12		
20	Poona	Z	iP	18 43 53	5490	Moderate.
		N	i	45 55		
			sP	46 40		
		E	PcS	48 48		
		N	eS	51 00		
		E	ScS	53 18		
			SS	54 23		
		N	LQ	55 31		
			SSS	55 39		
		E	LR	58 12		
		N	M	19 01 59		
	Bombay	NE	iP	18 44 01	6390	Moderate, and deep.
			i	44 21		
		N	PcP	45 15		
		NE	pP	45 46		
		E	PP	45 59		
			PPP	47 06		
		N	i	48 23		
			i	49 52		
		NE	iS	51 13		
			i	52 57		
		E	ScS	53 36		
		N	ScS	53 47		
		E	SSS	54 24		
		N	SSS	54 38		
			SSS(LQ)	55 56		
	New Delhi	NE	iP	18 44 05	5630	Moderate, deep focus.
		E	PcP	45 23		Direction of first
		N	pP	45 53		motion East.
			PP	46 26		
			i	48 02		
		NE	iS	51 20		
			sS	53 05		
		N	SS	54 51		
			i	55 33		
			LR	58 44		
20	Kodaikanal	E	e	19 26 30		Per. = 18 secs $\mu$ = 23.
20	Shillong	Z	iP	21 17 38		Slight.
		N	e	18 35		
20	Colombo	E	P	21 46 51		
			M	22 27 11		Amp = 0.2 mm.
	Hyderabad	E	e	21 57 13		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Feb. 1954						
21	Dehra Dun	NE	eP iS S* SS SSS	06 51 41 52 06 52 08 52 16 52 23	220	Slight, other phases not clear.
21	Poona	Z	e	09 53 18		Tremor.
21	Shillong	Z	i(P) i i	11 49 09 49 26 50 48		Slight, tremor.
21	Shillong	Z	i	14 32 34		Slight.
21	Shillong	Z	iPg eSg	14 37 54 38 02	70	Slight.
21	Shillong	Z	iP i	16 20 39 20 56		Slight.
	Poona	Z	e	16 22 04		Tremor.
21	Kodaikanal	E	iP PP S SS LQ LR M	18 43 13 44 58 49 46 52 58 53 43 55 55 59 37	4890	Moderate.
21	Shillong	Z	iP	19 04 01		Slight.
21	Shillong	Z	iP	19 39 04		Slight.
21	Kodaikanal	E	e	22 22 37		Presumably after shock.
22	Dehra Dun	NE	eP PP P* Pg LQ iS SS LR SSS S* Sg/M	01 18 55 19 02 19 14 19 34 20 18 20 28 20 39 20 41 20 50 20 58 21 20	900	Moderate.
	Shillong	Z	iP	01 21 26		Slight.
22	Epc: $34\frac{1}{2}^{\circ}$ N., $141^{\circ}$ E. Off the Coast of South Hondo, Japan; 0 = 06h 11m 26s (U.S.C.G.S.) $34.3^{\circ}$ N., $141.7^{\circ}$ E. h = 60 km ca; 0 = 06h 11m 28s. Felt (C.M.O., Japan) Magnitude - $6\frac{1}{2}$ (Roma), 6 (Kiruna, Praha).					
	Shillong	Z	eP i	06 19 28 21 19		Slight, phases not clear.
		N	e e e(L)	25 52 29 34 33 37		

DATE	STATION	COMPT.	PHASE	G. M. T.		REMARKS
				h. m. s.	km.	
Feb. 1954						
22	Dehra Dun	N	e	06 21 34		Tremor.
Contd.	Poona	Z	e(?)	06 21 43		Tremor.
	Hyderabad	E	M	06 48 54		Per. = 24 secs u = 5.
22	Shillong	Z	iP	08 58 06		Slight.
		N	e(M)	09 26 44		
22	Shillong	Z	i	10 15 33		Slight.
	Poona	Z	e(?)	10 37 00		Tremor.
22	Shillong	Z	e	10 34 44		Slight.
			i	35 35		
		N	e	41 13		
			M	22 --		
22	Shillong	Z	iPg iSg	11 53 59 54 07	70	Slight.
22	Epc: $56\frac{1}{2}^{\circ}$ S., $26\frac{1}{2}^{\circ}$ W. Sandwich Island; 0 = 12h 03m 23s (U.S.C.G.S.) $57\frac{1}{2}^{\circ}$ S., $26\frac{1}{2}^{\circ}$ W. 0 = 12h 03m 23s (B.C.I.S.) Mag. - 6.8 (Wellington), $6\frac{1}{2}$ (Skalnate Pleso), $6\frac{1}{4}$ (Kiruna, Uppsala, Praha).					
	Poona	Z	e(P)	12 21 27		Slight, phases doubtful.
		E	e	23 10		
			e	28 19		
			e	28 22		
			e	31 34		
			M	38 26		
	Colombo	E	PP	12 21 50		Amp = 0.2 mm.
			L	48 --		
			M	57 00		
	Shillong	Z	iPKP	12 22 28		Slight.
		N	ePKP	22 29		
			e(PP)	24 23		
			e(PPP)	26 43		
			e(SKS)	29 20		
			e	31 02		
			e	34 14		
			e	40 43		
			LR	13 01 --		
			M	10 --		
	Bombay	NE	PP	12 22 40	13220	Distant.
			SKS	28 23		
		N	e	29 25		
		NE	PS	31 57		
		N	PPS	33 12		
		E	PPS	33 15		
			e	34 22		
			SS	37 46		
			e	39 18		
		N	e	39 24		

DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$ km.	REMARKS
				h.	m.	s.		
Feb. 1954								
22	Hyderabad	EN	PP	12	22	46	12740	
Contd.		E	SKS		28	28		
		EN	SKKS		29	32		
			PS		32	13		
			SS		38	19		
		N	M		59	33		Per. = 15 secs $\mu$ = 4.
		E	M		59	38		Per. = 15 secs $\mu$ = 5.
	Calcutta	E	e	12	23	18		Slight, distant.
			e		25	02		
			i		29	12		
			e		30	13		
			i		40	32		
22	Shillong	Z	iP	18	44	12		Slight.
22	Shillong	Z	iP	22	09	00	130	Slight.
		E	eP		09	01		
		NE	iSg		09	16		
22	Shillong	Z	eP	22	23	03		Slight.
22	Shillong	Z	e	22	57	33		Slight.
			i		58	19		
			i		58	37		
23	Shillong	Z	iPg	02	54	54	120	Slight.
			iSg		55	08		
23	Shillong	Z	eP	05	47	48		Slight.
		ZN	i		48	17		
			e		49	03		
			e		49	38		
			e		49	50		
	Poona	Z	e	05	50	41		Very feeble.
	Bombay	NE	i	05	54	44		
		N	i		56	33		
		E	iX		57	18		
		N	eX					
	Hyderabad	E	M	05	57	16		Per. = 10 secs $\mu$ = 3.
23	Epc: 27 $\frac{1}{2}$ <sup>o</sup> N., 91 <sup>o</sup> E. Bhutan; 0 = 06h 40m 30s (U.S.C.G.S.)							
	27 $\frac{3}{4}$ <sup>o</sup> N., 91 $\frac{1}{2}$ <sup>o</sup> E. 0 = 06h 40m 33s (B.C.I.S.)							
	27 <sup>o</sup> N., 91 <sup>o</sup> E. 0 = 06h 40m 41s (Shillong)							
	Mag. - 6 $\frac{1}{2}$ - 6 $\frac{1}{2}$ (Kiruna), 6 (Skalnate Pleso, Praha, Strasbourg),							
	5 $\frac{3}{4}$ (Roma), 5.6 (Shillong). Felt at Shillong, Gauhati,							
	Lakhimpur, Tezpur etc.							
	Shillong	ZN	iP	06	41	13	200	Moderate.
		N	iSg		41	40		
	Chatra	Z	iPX	06	41	39	430	Moderate.
		NE	ePX					
			iPg		41	53		
			LQ		42	12		
			iS		42	35		
			S*		42	36		
			Sg		42	47		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS	
				h. m. s.	km.		
Feb. 1954							
23	Calcutta	NE	iP	06 42 07	610	Great, first movement East.	
Contd.		E	P*	42 18			
			Pg	42 27			
			iS	43 11			
			S*	43 31			
			Sg	43 46			
	Dehra Dun	NE	eP	06 43 29	1280	Moderate.	
			PP	43 37			
			PPP	43 43			
			P*	43 59			
			Pg	44 30			
			LQ	45 31			
			iS	45 39			
			SS	45 52			
			LR	46 01			
			SSS	46 04			
			S*	46 26			
			Sg/M	47 00			
	New Delhi	NE	iP	06 43 35	1380	Moderate, direction of first movement East.	
			PP	43 45			
			LQ	45 44			
			iS	45 55			
			SS	46 07			
			SSS	46 17			
			LR	46 27			
			M	47 28			
	Hyderabad	E	iP	06 44 14	1680	Per. = 15 secs $\mu$ = 100.	
		EN	iS	47 03			
		E	L	48 21			
			M	48 42			
	Madras	E	iP	06 44 45	1950	Great.	
			PP	45 02			
			PPP	45 07			
			iS	47 59			
			SS	48 18			
			SSS	48 35			
			LR	48 48			
			PcP	49 11			
			M	50 17			
			ScP	52 39			
			ScS	56 11			
	Poona	Z	iP	06 44 52	1920	Moderate.	
		E	PP	45 04			
		N	PPP	45 25			
			eS	48 04			
			SS	48 21			
		E	SSS	48 34			
		N	LR	48 50			
			M	50 19			
	Bombay	NE	iP	06 45 04	2020		Moderate.
		N	PP	45 20			
		E	PPP	45 28			
			i	46 20			

DATE	STATION	COMPT.	PHASE	G. M. T.				REMARKS
				h.	m.	s.	km.	
Feb. 1954								
23	Bombay	N	LQ	06	48	21		
Contd.	Contd.	NE	iS		48	25		
			SS		48	42		
		N	i		48	49		
		E	i(SSS)		49	34		
		N	M		50	--		
		E	M		51	--		
	Kodaikanal	E	iP	06	45	31	2540	Slight.
			PPP		46	04		
			iS		49	10		
			LQ		49	38		
			SSS		50	34		
			LR		51	07		
			M		53	10		
	Colombo	E	P	06	45	48		
			(S)		50	04		
			M		58	--		Amp = 0.6 mm.
23	Shillong	Z	iP	14	08	06	200	Slight.
			iSg		08	33		
23	Shillong	Z	e	14	57	45		Feeble.
23	Shillong	Z	eP	15	11	12	210	Feeble.
					11	40		
23	Shillong	Z	iP	16	23	20	200	Slight.
			iSg		23	46		
23	Shillong	Z	eP	16	31	45	210	Slight.
			iSg		32	14		
23	Shillong	Z	eP	18	03	39		Slight.
23	Shillong	Z	eP	18	08	37	2120	Slight.
					09	07		
23	Shillong	Z	e	18	18	38		Feeble.
23	Shillong	Z	eP	18	22	56	270	Feeble.
			eSg			37		
23	Shillong	Z	iPg	20	03	03	210	Slight.
			iSg		12	59		
23	Shillong	Z	iPg	22	52	13		Slight, local.
23	Shillong	Z	eP	23	01	17	430	Slight.
			e(S)		02	04		
			i(Sg)		02	21		
24	Dehra Dun	N	eP	00	27	16	750	Slight.
			P*		27	32		
			eS		28	33		
			LR		28	42		
			SS		28	46		
			SSS		28	55		
			S*		28	57		
			Sg/M		29	15		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Feb. 1954								
24	Shillong	Z	eP eSg	02	00	53 01 22	210	Slight.
24	Shillong	Z	e(P) iSg	02	18	55 18 24	210	Slight.
24	Shillong	Z N	iP M	06	16	40 37 --		Slight.
	Hyderabad	E N	M M	06	27	41 29 01		Per. = 12 secs $\mu = 3.$ Per. = 15 secs $\mu = 3.$
24	Shillong	Z N E Z NE	iP eP eP iSg iSg	06	44	57 44 58 45 00 45 25 45 26	200	Slight.
	Chatra	Z	eP iS	06	45	26 46 12	425	Feeble.
24	Poona	Z	eP	12	16	28		Feeble.
	Shillong	Z N	eP i	12	17	01 25 52		Slight.
24	Poona	Z	i	17	28	36		Tremor.
	Bombay	NE	e e e	17	28	36 36 28 46 --		Feeble.
	Shillong	Z N	iP i e(L)	17	30	05 39 12 50 --		Slight.
24	Poona	Z	i	17	38	04		Tremor.
	Hyderabad	E	M M	17	46	41 46 48		Per. = 15 secs $\mu = 4.$ Per. = 15 secs $\mu = 4.$
24	Shillong	Z	eP	19	45	29		Slight.
	Poona	Z	i	19	47	25		Tremor.
	Bombay	N E N	e e e	19	56	39 56 48 57 35		Feeble.
24	Shillong	Z	eP i	20	52	38 54 18		Slight.
	Poona	Z	i	20	54	48		Feeble, phases not well developed.
25	Shillong	Z	ePg i	06	28	44 28 48		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
Feb. 1954								
25	Shillong	Z	eP e	19	08	57 09 26	210	Slight.
25	Poona	Z	i	22	34	59		Tremor.
	Shillong	Z	eP	22	35	04		Slight.
25	New Delhi	NE	iPg iSg iS*	22	55	37 55 45 55 47	70	Slight, direction of first movement West.
25	Dehra Dun	NE	eP PP iS S* Sg SS SSS	22	56	01 56 08 56 24 56 25 56 29 56 32 56 44	190	Slight, near.
25	Shillong	Z N	eP e M	23	59	45 00 09 35 16 --		Slight.
26	Poona	Z	i	00	01	59		Tremor.
26	Shillong	Z	iP	03	29	51		Slight.
26	Epc: (36°5 N., 70°5 E., h = 220 km) Hindu Kush. 0 = 18h 46m 27s (B.C.I.S.) 37° N., 71½° E. 0 = 18h 46m 04s (U.S.C.G.S.) 37° N., 70° E. h = 220 km; 0 = 18h 46m 11s (Shillong). Felt at Drosh and Cherat (Press report from Quetta).							
	Dehra Dun	NE	eP PP PPP LR i iS e e M	18	48	13 48 26 48 30 49 32 49 41 49 54 50 06 50 12 50 32	850	Moderate.
	New Delhi	NE E N NE	iP PP PPP i i i S i M	18	48	26 48 41 48 45 49 13 49 16 50 06 50 18 50 37 51 03	970	Slight.
	Chatra	Z NE	i(P) i(S)	18	49	59 52 55	1670	Slight, probably deep focus.



DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.	km.	
Feb. 1954								
26	Bombay	NE	eP	18	50	17	1950	Deep focus.
Contd.		N	e		50	29		
		NE	i		50	51		
		E	LQ(?)		53	20		
		NE	iS		53	32		
		N	e		54	10		
	Poona	Z	iP	18	50	20	2000	Slight.
		E	PP		50	32		
			PPP		50	47		
			eS		53	39		
			LQ		53	42		
			SSS		54	22		
			M		56	07		
	Calcutta	E	eP?	18	50	47		Slight.
			PPP?		51	25		
			iS?		54	29		
			SS		55	01		
	Shillong	ZN	iP	18	50	48	2450	Moderate.
		N	pP		51	26		
			sP		51	52		
			iS		54	31		
			sS		55	24		
	Hyderabad	N	iPP	18	51	13	1900	
		E	e		54	05		
		N	S		54	23		
		E	M		56	33		Per. = 6 secs $\mu$ = 6.
		N	M		56	59		Per. = 6 secs $\mu$ = 2.
	Madras	E	eP	18	51	24		Slight.
			PP		52	08		
			PPP		52	20		
			iS		55	50		
			LQ		56	37		
			SS		56	51		
			SSS		57	08		
			LR		57	48		
			ScP		58	15		
			e	19	10	50		
	Colombo	E	eP	18	52	20		
			e		58	15		
	Kodaikanal	E	(P)	18	52	26		Slight.
			(S)		56	53		
			LQ		57	56		
			e		58	32		
			LR		59	11		
			M		01	26		
27	Dehra Dun	N	e	03	32	40		Feeble.
			i		33	08		
27	Shillong	Z	ePg	08	05	47	100	Slight.
			iSg		05	57		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Feb. 1954						
27	Shillong	Z	e	09 13 55		Slight.
27	Shillong	Z	iPg	10 16 11		Slight, local.
27	Shillong	Z	e	11 21 18		Slight.
27	Shillong	Z	iPg iSg	13 09 25 09 35	100	Slight.
27	Dehra Dun	N	e i	15 18 49 20 27		Feeble.
27	Shillong	Z N	iP eP i	23 46 51 46 58 57 07		Slight.
	Calcutta	E	e i	23 46 56 57 27		Tremor.
28	Poona	Z	i	00 18 03		Tremor.
28	Epc: 27° N., 131° E. Riu Kiu Island; 0 = 00h 55m 22s. Felt along Southern Kiu-Shiu Japan(USCGS) 27° N., 130½° E. 0 = 00h 55m 24s (B.C.I.S.) 27¾° N., 131° E. h = 200 km; 0 = 00h 55m 35s (C.M.O. Japan). Magnitude - 5½ - 6 (Pasadena), 6 - 6½ (Uppsala), 6½ (Praha, Roma), 6½ - 6¾ (Strasbourg).					
	Shillong	Z N	iP iS LR M	01 02 16 07 44 11 13 14 17	3820	Moderate. Per. = 24 secs $\mu$ = 56.
	Chatra	Z E	iP X eP X PP PPP eS SS LQ SSS LR M	01 02 50 04 12 04 42 08 43 11 19 11 30 11 57 13 19 16 30	4220	Slight.
	Calcutta	E	eP PP iS M Mn	01 02 51 04 20 08 48 16 57 19 30	4290	Moderate. Per. = 20 secs $\mu$ = 65.
	New Delhi	N	eP iS SS LR M	01 03 56 10 45 14 04 17 40 20 50	5180	Moderate.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\triangle$	REMARKS
				h. m. s.	km.	
Feb. 1954						
28	Dehra Dun	NE	eP	01 03 56		
Contd.			PcP	05 21		
			PP	05 37		
			PPP	06 08		
			eS	10 31		
			PS	10 37		
			PPS	10 45		
			SS	13 49		
			LQ	14 39		
			SSS	14 57		
			LR	16 59		
			M	20 48		
	Colombo	E	(P)	01 04 11		
			S	12 06		
			L	21 21		
			M	27 36		Amp = 0.1 mm.
	Madras	E	P	01 04 14	5510	Moderate.
			PcP	05 24		
			PP	06 11		
			iS	11 22		
			PS	11 29		
			PPS	11 38		
	Poona	Z	iP	01 04 41	5890	Moderate.
		E	PcP	05 34		
			PP	06 46		
			PPP	07 52		
			eS	12 10		
			PS	12 15		
			PPS	12 25		
			ScS	14 07		
			SS	15 44		
			LQ	17 35		
			LR	20 12		
			M	24 45		
	Bombay	E	eP	01 04 47	5900	Phases ill defined.
			iS	12 21		
	Hyderabad	N	(S)	01 11 14		
			M	21 12		Per. = 18 secs $\mu$ = 15.
		E	M	21 14		Per. = 18 secs $\mu$ = 9.
28	Shillong	Z	i	03 45 09		Slight, local.
			i	45 29		
28	Poona	Z	i	18 57 50		Tremor.
28	Kodaikanal	E	e	23 58 12		Tremor.

-: Voluntary Observers' Report :-

The following table contains a list of earthquakes reported as felt by Voluntary Observers during February, 1954.

Station	Date	Time G.M.T. h. m. s.	Duration in secs	Intensity R.F.Scale	No. of shocks	Remarks
Tezpur	6.2.54	16 42 00	3	IV-V	1	-
Shillong	10.2.54	00 00 00	About 20	IV	1	-
Derjeeling	10.2.54	05 20 00	5	V	2	-
Srinagar	16.2.54	02 25 00	3	IV-V	1	-
Shillong	22.2.54	22 20 00	20	IV	1	-
Twang (N.E.F.A.)	23.2.54	06 30 00	60	VII	-	Many building at Monastery near and in surrounding villages demolished.
Shillong	23.2.54	06 40 00	20	IV	1	-
Tezpur	23.2.54	06 40 00	6	VII	2	-
Gauhati	23.2.54	06 42 00	30	V	1	-
North Lakhimpur	23.2.54	06 45 00	30	V	3	-
Srinagar	26.2.54	18 48 00	15	VII	5	-

SARKER  
10.4.56

\*@\*@\*@\*@\*@\*@\*@\*@\*@\*

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

# SEISMOLOGICAL BULLETIN

MAY, 1954



---

PUBLISHED UNDER THE DIRECTION OF  
SHRI S. BASU, M.Sc., F.N.I.,  
DIRECTOR GENERAL OF OBSERVATORIES.

---

## INSTRUMENTS AND THEIR CONSTANTS

Station	Instrument	Compt.	Period in Sec.	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350	Unreliable	16.0
	Milne-Shaw	E-W	12.0	350	9 : 1	8.0
	Sprengnether	E-W	7.0	—	—	30.0
Calcutta	Milne-Shaw	E-W	10.0	150	20 : 1	8.0
	Wood-Anderson	N-S	2.0	870	Critical	30.0
	Omori-Ewing	N-S	18.0	32	—	25.4
	Omori-Ewing	E-W	19.0	30	—	25.4
Chatra	Wood-Anderson	N-S	1.0	1000	30 : 1	60.0
	Wood-Anderson	E-W	1.0	1000	40 : 1	60.0
	Benioff	Z	To=0.72 Tg=0.45	—	—	60.0
Colombo	Milne-Shaw	E-W	12.0	250	18 : 1	—
Dehra Dun	Milne-Shaw	N-S	12.0	250	20 : 1	16.0
	Wood-Anderson	E-W	1.0	1000	30 : 1	60.0
	Wood-Anderson	N-S	1.0	1000	30 : 1	60.0
Hyderabad	Milne-Shaw	E-W	12.0	253	20 : 1	8.0
	Milne-Shaw	N-S	12.0	251	20 : 1	8.0
Kodaikanal	Milne-Shaw	E-W	10.0	250	20 : 1	8.0
Madras	Sprengnether	E-W	7.2	—	Critically damped	30.0
New Delhi	Milne-Shaw	N-S	12.0	288	20 : 1	8.0
	Wood-Anderson	N-S	4.0	1070	20 : 1	16.0
	Wood-Anderson	E-W	2.0	1841	30 : 1	60.0
	Omori-Ewing	E-W	28	30	1	12.0
Poona	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
	Wood-Anderson	E-W	4.0	1100	20 : 1	16.0
	Sprengnether	Z	To=Tg=1.5	—	—	30.0
Shillong	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
	Wood-Anderson	N-S	4.0	1000	20 : 1	30.0
	Wood-Anderson	N-S	0.8	800	20 : 1	30.0
	Wood-Anderson	E-W	0.8	800	20 : 1	30.0
	Sprengnether	E-W	To=Tg=7.5	—	—	30.0
	Benioff	Z	To=1.0 Tg=0.18	—	—	60.0

## SEISMOLOGICAL BULLETIN

Date	Station	Compt.	Phase	G.M.T.	△	Remarks
				h. m. s.	km.	
May 1954						
01	Chatra	Z	i	18 13 03		Slight, distant.
	Dehra Dun	N	c	18 14 01		Tremor.
02	Shillong	Z	eP	16 42 12		Tremor.
02	Epc: 4°N., 94½° E. Off the NW Coast of Sumatra; 0=17h. 48m. 02s. (U.S.C.G.S.) 4°0 N., 95½° E. 0=17h. 48m. 03s. (B.C.I.S.) 5° N., 96° E. 0=17h. 48m. 06s. (Shillong) Magnitude — 6½ (Kiruna).					
	Colombo	E	P L M	17 51 43 57 49 01 36		Amp=1.0 mm.
	Madras	E	iP PP PPP iS SS SSS LR PcP S <sub>2</sub> P	17 52 08 52 21 52 28 55 16 55 35 55 55 56 27 56 50 18 00 26	1880	Moderate.
	Calcutta	NE E NE	eP e i	17 52 45 56 08 56 23		Moderate.
	Kodaikanal	E	iP PPP iS SS SSS LR M	17 52 48 53 24 56 15 56 39 56 54 57 12 58 39	2090	Slight. Per.=15 secs μ=13.
	Shillong	Z N	iP eP PP PPP eS SS SSS LR M PcS	17 52 49 52 49 53 04 53 16 56 32 56 49 57 07 57 39 59 01 18 00 19	3100	Moderate.
	Hyderabad	EN E EN E N	iP PP iS SS L M M	17 52 51 53 15 56 39 57 09 58 57 18 00 30 01 39	2310	Per.=12 secs μ=7. Per.=15 secs μ=9.
	Chatra	Z	eP PP PPP PcP eS LQ SS SSS LR M	17 53 15 53 53 54 01 56 51 57 33 58 11 58 24 58 47 59 13 18 01 04	2710	Slight.

Date	Station	Compt.	Phase	G.M.T.	△	Remarks
				h. m. s.	km.	
May 1954						
02 Contd.	Poona	Z EN	iP PP PPP PcP	17 53 34 54 16 54 33 56 44	2860	Moderate.
		NS	eS LQ SSS	58 01 58 50 59 29		
		EW	LR M	18 00 17 02 27		
	Bombay	NE N	eP PP PPP	17 53 44 54 25 54 42	2920	Slight.
		NE N NE E	eS e LQ LR	56 57 58 16 58 50 59 15 18 00 37		
	New Delhi	NE	eP PP iS LQ	17 54 13 55 08 59 03 18 09 03		Moderate.
		N NE	SS SSS LR	00 33 00 53 01 35		
***	02 Shillong	Z	eP	18 36 56		Tremor.
	Poona	Z	eP	18 38 43		Tremor.
02	Shillong	Z	iP	21 48 11		Slight, local.
02	Shillong	Z	iP	21 29 03		Tremor.
02	Shillong	Z	eP	22 41 31		Tremor.
02	Shillong	Z	eP	23 26 11		Tremor.
03	Shillong	Z	e	05 34 59		Tremor.
03	Shillong	Z	e	06 46 14 47 59		Tremor.
03	Shillong	Z	eP	10 31 54		Slight, local.
03	Shillong	Z	e	10 31 54 32 31		Slight, local.
03	Shillong	Z	e	11 13 17		Tremor.
	Poona	Z	e?	11 15 05		Tremor.
03	Dehra Dun	NE N	eP PP PPP Pg iS SS S* SSS Sg	11 16 03 16 09 16 16 16 23 17 02 17 12 17 17 17 24 17 30	560	Slight.
***	02 Dehra Dun	NE	eP	17 54 22		Moderate.
03	New Delhi	NE	iP PP P* iS	11 16 35 16 32 16 41 17 40	720	Slight, direction of the first motion South and East.

Date	Station	Compt.	Phase	G.M.T.			$\Delta$	Remarks
				h.	m.	s.	km.	
May 1954								
03	Bombay	NE	iP	15	41	18	8170	Slight.
Contd.		N	PcP		41	30		
		NE	PPS		51	36		
		N	SS		55	37		
			SSS		58	41		
			M	16	16	45		Per.=17 secs $\mu=9$ .
			M		17	19		Per.=13 secs $\mu=9$ .
	Kodaikanal	E	iP	15	41	36		Slight.
			PP		44	27		
			PPP		46	21		
			iS		51	27		
			SS		56	27		
			SSS		59	45		
			LQ	16	02	05		
			LR		06	00		
			M		12	30		
	Colombo	E	eP	15	41	38		
			S		51	40		
			L	16	08	00		
			M1		14	28		Amp.=0.2 mm.
			M2		28	03		Amp.=0.4 mm.
03	Kodaikanal	E	e ?	17	19	46		
03	Shillong	Z	eP	17	32	48		Tremor.
03	Shillong	Z	i(Pg ?)	18	15	11		Local.
03	Epc : 31°N., 98½°E Si-Kang China; 0=18h 20m 26s (U.S.C.G.S. and B.C.I.S)							
	32°N., 98° E. 0=18h 20m 36s (Shillong)							
	Shillong	Z	iP	18	22	25	840	Slight.
		NE	Pg		23	02		
			LQ		23	39		
			iS		23	52		
			LR(?)		24	01		
		E	SSS		24	15		
		NE	S*		24	19		
			Sg		24	39		
	Chatra	Z	iP	18	23	05	1110	Slight.
			PP		23	14		
			PPP		23	19		
			P*		23	30		
			Pg		23	57		
			LQ		24	51		
			iS		24	59		
			?		25	07		
			SS		25	12		
			SSS	18	25	23		
			S*		25	39		
			M		26	12		
	Calcutta	N	eP	18	23	30	1290	Slight.
			iS		25	42		
		E	iS		25	40		
		N	LR		26	06		
	Dehra Dun	NE	eP	18	24	33	4550	Moderate.
		N	PP		26	12		
			PPP		26	35		
			iS		30	45		
			PS		30	48		
			PPS		31	00		
			SS		33	26		
			SSS		34	10		
			S <sub>c</sub> S		34	29		



Date	Station	Compt.	Phase	G.M.T.			△	Remarks
				h.	m.	s.	km.	
May 1954								
03 Contd.	Dehra Dun		LR M	35 38	30 40			
	New Delhi	NE N NE N NE	iP PP PPP iS i	18 25 25 28 28	24 46 02 12 01 16	1950	Moderate. Direction of first motion towards North and East.	
			SS SSS LR M	28 28 28 30	23 36 54 20			
	Hyderabad	E	eP S M	18 29 32	25 38 34	2460	Per. = 12 secs $\mu=7$ .	
	Poona	Z E	iP iS	18 30	26 00 35		Slight shock. phases no clear.	
	Madras	E	P PP PPP iS LQ SS ScP	18 26 26 26 30 30 31 33	26 00 35 16 58 13 01	2680	Moderate shock.	
	Bombay	E N	e e e	18 31 31 32	31 00 07 12 38		Feeble.	
		E NE	e M	32 34	38 14			
	Kodaikanal	E	e	18	31 06		Phases not clear.	
	Colombo	E	eP L M	18 45 48	31 00 03		Amp=0.1 mm.	
03	Shillong	Z	i(Pg)	23	23 32		Local.	
04	Shillong	Z	iP	01	39 16		Tremor.	
	Poona	Z	e?	01	41 05			
04	Shillong	Z	eP PP Pg eS SS S* Sg	03 52 52 52 53 53 53 54	19 25 44 31 41 52 09	700	Slight.	
04	Bombay	N E	e e e	04 05 11	04 33 27		Feeble.	
04	Shillong	Z	e i	06 32	32 50 56		Slight, near.	
04	Bombay	E	e e	07 41 42	23 49		Mainly surface waves.	
04	Shillong	Z	e	08	58 14		Slight, near.	
04	Shillong	Z	e	09	34 26 35 15		Slight, local.	
04	Shillong	Z	e e	11 51	16 44		Tremor.	

Date	Station	Compt.	Phase	G. M. T.			△	Remarks
				h.	m.	s.	km.	
May 1954								
04	Shillong	ZNE	iPg iSg	12	08 50 09 04	110	Slight.	
04	Shillong	Z	e	16	53 20		Tremor.	
04	Shillong	Z	i	16	55 26		Tremor.	
04	Shillong	Z	i	17	44 50		Tremor.	
	Poona	Z	eP	17	46 38		Tremor.	
04	Shillong	Z	i iSg	17 47	47 49	170	Slight.	
04	Shillong	N	e(M?)	18	05 56		Slight, distant.	
04	Shillong	Z	e	18	12 02		Tremor.	
04	Shillong	Z	iP	18	21 14		Slight, near.	
	Bombay	E	e(M)	18	22 07		Very feeble shock.	
	Poona	Z	eP	18	22 50		Tremor.	
04	Shillong	Z	e	20	43 04		Tremor.	
04	Shillong	Z	e	20	56 10		Tremor.	
04	Shillong	Z	e	23	54 53		Tremor.	
05	Shillong	Z	i	00	40 11		Tremor.	
05	Shillong	Z	e	01	04 48 05 16		Slight, near.	
05	Shillong	Z	i	03	23 00		Slight, near.	
	Poona	Z	e	03	24 48			
05	Shillong	Z	e e	06 02 03 05	35 05		Slight, near.	
05	Shillong	Z	e	09	05 24 06 01		Slight near.	
05	Shillong	Z EN	iP Pg S S* iSg	09 23 23 23 23	24 29 47 51 55	220	Slight.	
05	Shillong	Z	i	11	44 23		Tremor.	
	Poona	Z	iP	11	46 43		Tremor.	
05	Shillong	Z	i	11	59 55		Tremor.	
05	Poona	Z	i	13	29 12		Tremor.	
	Shillong	N	e e e	13 30 37 47 14 12 34	26 47 34		Slight, distant.	
05	Madras	E	L?	14	14 59		Slight shock, phases not clear.	
	Kodaikanal	E	M	14	17 34		Tremor.	
	Colombo	E		14	18 —		Tremor.	
	Hyderabad	N	M	14	28 53		Per. = 18 sec. $\mu=12$ .	

Date	Station	Compt.	Phase	G.M.T.			km.	
				h.	m.	s.		
May								
1954								
05	Shillong	Z	i	17	24	37		Tremor.
	Poona	Z	eP	17	24	37		Tremor.
05	Shillong	N	e e e	17	29 32 40	47 27 55		Slight, distant.
05	Dehra Dun	N	e	19	30	55		Tremor.
05	Dehra Dun	NE	eP i(S) e	19	57 59 20	32 06 25	910	Slight, phases not clear.
	New Delhi	NE E NE N NE	eP P* LQ iS SS S* Sg	19	57 58 59 59 59 59 20	40 01 09 19 30 50 12	960	Slight.
	Shillong	Z	iP eS	19	59 20	57 03 42	2270	Slight.
05	Dehra Dun	NE	eP iS	21	38 40	17 27	1280	Slight, other phases not clear.
	Shillong		e	21	40	04		Tremor.
06	Shillong	Z	e e	00	14 15	36 03		Slight, near.
06	Dehra Dun	N	e e i	00	46 46 47	19 58 11		Slight, phases not clear.
	Shillong	Z	e i	00	47 47	42 48		
06	Epc : 50° N., 155½° E. Off the South Coast of Kamchatka ; h=100 km. Ca ; 0=09h 02m 14s (U.S.C.G.S.)							
	Shillong	ZN	iP PcP eS i S S SS	09	11 12 18 19 21 22	32 46 51 52 02 03	5700	Slight, deep.
	Chatra	Z	eP	09	11	48		Slight, distant.
	Hyderabad	EN E N E	eP S ScS SS L M M	09	13 21 22 26 34 40 40	09 58 56 55 54 24 39	7360	Slight. Per.=8 secs $\mu=3$ . Per.=8 secs $\mu=2$ .
	Poona	Z NS	iP PcP eS PPS M	09	13 13 22 23 40	24 45 27 09 52	7630	Moderate.
	Bombay	NE E NE	eP eS PPS	09	13 22 23	26 31 15	7670	Feeble, deep.

Date	Station	Compt.	Phase	G.	M	T.	$\Delta$	REMARKS
May				h.	m.	s.	km.	
1954								
06	Shillong	Z	e	09	15	37		Tremor.
06	Shillong	Z	e	09	20	59		Tremor.
06	Shillong	Z	e	11	46	34		Slight, near.
			e		47	09		
06	Shillong	Z	e	17	40	24		Slight, near.
			e		40	57		
			e		41	22		
06	Shillong	Z	iP	23	53	52		Slight, near.
07	Shillong	Z	iP	00	30	12		Tremor.
07	Shillong	Z	iP	04	44	32		Tremor.
07	Shillong	Z	iP	07	41	09		Tremor.
07	Hyderabad	E	M	11	12	36		Per.=8 secs $\mu=3$ .
07	Dehra Dun	NE	e	22	00	57		Feeble, phases not clear.
			e		01	01		
			i		01	12		
			i		01	20		
08	Shillong	Z	iP	04	20	24	440	Slight.
			P*/PP		20	28		
			PPP		20	37		
			iS		21	12		
			S*/SS		21	23		
08	Shillong	Z	e	06	24	02		Tremor.
			e		24	57		
08	Shillong	Z	e	07	04	08		Tremor.
			e		04	39		
08	Shillong	Z	iP	11	17	58		Slight.
08	Shillong	Z	eP	14	12	32		Slight, distant.
08	Shillong	Z	eP	14	28	24		Slight.
08	Shillong	Z	eP	15	08	33		Slight.
08	Shillong	Z	e	20	24	07		Slight, distant.
		N	e		24	15		
			e		31	56		
			e		39	00		
08	Poona	ZEN	iP	20	25	34		Feeble shock, other phases doubtful.
	Bombay	E	eP	20	25	42	6610	Slight.
			eS		33	51		
	Colombo	E		20	27	—		Tremor.
	Hyderabad	E	M	20	36	40		Per.=9 secs $\mu=2$ .
08	Shillong	Z	i	21	35	27		Slight, local.
08	Shillong	Z	i	22	30	44		Slight, local.
09	Shillong	ZNE NE	iP	00	02	50	210	Slight.
			P*		02	52		
			Pg		02	55		
			S*		03	17		
			iSg		03	19		
			SS		03	25		

Date	Station	Compt.	Phase	G. M. T.	$\Delta$	Remarks
				h. m. s.	km.	
May 1954						
09	Shillong		SSS	03 39		
Contd.	Calcutta	N	eP iS SS	00 04 07 05 26 05 38	750	Slight.
	Dehra Dun	N	e	00 06 56		Tremor.
	Poona	Z	e	00 11 56		
09	Shillong	Z	iP	20 50 30		Tremor.
09	Shillong	Z	ep	23 21 35		Tremor.
10	Epc: New Britain Region; 0=06h 25.5m. (B.C.I.S.)					
	Shillong	Z	iP	06 36 06		Tremor.
	Poona	Z	e?	06 37 55		
10	Shillong	Z	iP	06 43 26		Tremor
	Poona	Z	e?	06 45 04		
10	Epc: Off the East Coast of Mindanao, Philippines; 0=06h 41.5 m (B.C.I.S.)					
	Shillong	Z	iP	06 48 40		Tremor
	Bombay	E	eP eS PS SS	06 48 48 57 20 57 40 07 01 22	7035	Slight.
	Madras	E	iP PeP PP PPP iS PS PPS LQ SSS LR	06 49 29 50 49 51 17 52 09 56 15 56 26 56 35 07 00 50 02 00 03 16	5121	Slight.
10	Hyderabad	E	P S M	06 49 46 56 48 07 08 39	5410	Per.=21 secs $\mu=8$ .
10	Poona	Z	iP	06 50 02		Very feeble shock, phases not developed.
10	Shillong	Z	iP	08 04 58		Tremor.
10	Shillong	Z	iP	18 46 46		Local, tremor.
10	Shillong	Z	iP	19 00 37		Tremor.
12	Shillong	Z	iP	01 45 12		Local, tremor.
12	Shillong	Z	iP	04 42 36		Tremor.
12	Bombay Poona	E ZE	i eP	04 52 03 04 52 48		Feeble, local tremor. Tremor.
12	Epc: Off the East Coast of Mindanao, Philippines; 0=06h 22m. 14s. (U.S.C.G.S.) 61°N., 123½° E. 0=06h 22m 15s (B.C.I.S.) S Felt at Davao (Press report from Manila).					

Date	Station	Compt.	Phase	G.M.T.	$\Delta$	Remarks
				h. m. s.	km.	
May 1954						
12	Shillong	Z	iP	06 29 41		Tremor.
	Dehra Dun	NE	e	06 31 29		Feeble, phases not clear.
	Poona	ZE	eP	06 31 33		Tremor.
12	Bombay	E	i	09 49 00		Feeble, local tremor.
	Poona	ZE	iP	09 49 36		Tremor.
12	New Delhi	E NE	eP PPP Pg eS LR S* Sg	18 38 33 38 48 38 52 39 24 39 26 39 37 39 50	480	Slight.
	Dehra Dun	NE	e e	18 39 56 40 30		Feeble, phases not clear.
	Poona	Z E	e? i	18 41 58 42 28		Very feeble shock, phases not clear.
	Bombay	E	e e	18 42 10 42 25		Minor local tremor.
13	Epc: 17° N., 95½° W.; h=100 km ca, 0=14h 46m 38s (U.S.C.G.S.) 16°5' N., 95°9' W.; h= 80 km, 0=14h 46m 36s (B.C.I.S.) 16°46' N., 95°54' W. h= 80 km 0=14h 46m 42s (Tacubaya) Felt over Central and SE Mexico (Press report). Magnitude -6½ (Berkeley, Kiruna, Uppsala, Praha), 6½ (Tacubaya)					
	Chatra	Z	e	15 05 43		Slight, distant.
	Shillong	Z N	iPKP PP PKS <sub>1</sub> PKS <sub>2</sub> PS PPS SKKS <sub>1</sub> SS SSP SSS LR M	15 05 55 08 41 09 29 09 47 19 14 20 48 22 02 26 48 27 25 31 39 50 47 16 02 13	15410	Slight, distant.
	Bombay	N N E N	ePKP e e e	15 06 03 10 05 10 14 28 16		Distant shock, feebly recorded (Microseisms present).
	Poona	Z	ePKP	15 06 05		Probably very distant, slight earthquake phases not clear.
	Hyderabad	N E	ePKP M M	15 06 08 16 02 06 02 09		Slight. Per.=24 secs $\mu=11$ . Per.=24 secs $\mu=8$ .
	Dehra Dhun	N	e e	15 06 15 09 01		Slight, phases not clear.
	Kodaikanal	E	e	15 06 23		Long distance tremor.
	Madras	E	iPKP PP	15 06 25 10 52		Slight, other phases not clear.
	Colombo	E	e M	15 15 49 16 17 30		Amp=0.2 mm.



Date Station Compt. Phase G. M. T.  $\Delta$

h. m. s. km.

Date	Station	Compt.	Phase	G.	M.	T.	$\Delta$	
				h.	m.	s.	km.	
May 1954								
13	Shillong	Z	iP	16	33	40		Local, tremor.
13	Dehra Dun	NE	e	17	42	56		Feeble, phases not clear.
13	Shillong	Z	iP	19	57	55		Very near.
13	Shillong	Z	iP	21	04	45		Tremor.
13	Shillong	Z	iP	21	55	55		Tremor.
14	Shillong	Z	eP	00	36	00		Tremor.
14	Dehra Dun	NE	e i	03	15 17	26 43		Feeble, phases not clear.
14	New Delhi	N NE	eP iS SS SSS	04	42 44 44 44	25 06 19 31	980	Slight.
		N	S* Sg		44 45	38 01		
	Shillong	Z	iP	04	44	44		Tremor.
	Poona	Z	eP	04	47	44		Tremor.
14	Shillong	Z	iP	07	12	12		Tremor.
14	Shillong	Z	iP	22	11	19		Tremor.

14 Epc: 36°N., 137°E. Hondo Japan; H=250 km. O=22h 39m 25s (U.S.C.G.S.)  
 36°0 N., 137°4 E. h=230-240 km; O=22h 39m 27s (CMO, Japan, B.C.I.S.)  
 36°N., 138°E. h=250 km. O=22h 39m 27s (Shillong).  
 Magnitude—7 (Pasadena), 6 $\frac{3}{4}$  (Kiruna).

	Shillong	Z N	iP pP PP PcP iS P S eS SS LQ SSS LR	22	46 47 48 48 52 52 53 54 54 55 56	37 30 08 56 25 41 56 33 48 23 34	4520	Moderate.
	Dehra Dun	NE N	eP PcP PP PPP PcS iS PPS ScS LQ SSS LR M	22	47 49 49 50 53 54 54 57 58 58 00 04	57 24 38 18 20 39 49 43 44 55 44 40	5060	Moderate
	New Delhi	NE	iP PP PcP iS	22	48 48 49 54	02 55 33 53	5210	Moderate
14	New Delhi	N	SS i SSS i	22	56 57 59 23	30 21 34 28		

Date	Station	Compt.	Phase	G.M.T			△	
				h.	m.	s.		
May								
1954								
14	Calcutta	E	iP	22	48	05	5250	Moderate. First movement
Contd.		N	iP		48	10		West
		E	P S		53	29		
		N	PcS		53	31		
		E	iS		54	59		
		N	S		55	05		
		E	SS		58	20		
	Madras	E	P	22	48	40		Moderate.
			pP		49	34		
			S		56	11		
			Ss		58	00		
	Poona	Z	eP	22	48	56	6110	Moderate.
		E	i		49	49		
			PP		50	57		
			PPP		52	15		
			PcS		53	31		
			eS		56	37		
			PS		56	45		
			S.S?		58	13		
			LQ	23	02	57		
			LR		05	30		
			M		10	17		
	Kodaikanal	E	iP	22	49	07		Slight.
			PP		51	22		
			PPP		52	49		
			S		56	55		
			SS	23	00	55		
			LQ		03	25		
			LR		06	37		
			M		11	23		
	Hyderabad	E	iP	22	49	24	4840	Moderate.
			PP		51	24		
			iS		55	54		
			L	23	01	29		
			M		06	18		Per.=18 secs $\mu=9$ .
		N	M		06	22		Per.=18 secs $\mu=10$ .
	Bombay	NE	iP	22	49	54	6980	Moderate.
			PcP		50	17		
		E	PP		52	04		
			i		52	27		
			i		54	37		
		N	e		56	44		
		E	i		56	47		
		NE	iS		58	23		
		E	PS		58	47		
			M	23	16	—		Suppressed.
	Colombo	E	iP	22	49	59		
			iS		56	57		
			M	23	07	55		Amp=0.1 mm.
15	Madras	E	eP?	05	52	21		Slight, phases not clear.
	Poona	Z	eP	05	53	48		Tremor.
15	Poona	Z	eP	05	57	08		Tremor.
	Dehra Dun	NE	e	05	58	29		Feeble, phases not clear.
			i		58	36		
15	Chatra	Z	i	22	47	05		Slight, distant.
16	Epc : $36\frac{1}{2}^{\circ}$ N., $70\frac{1}{2}^{\circ}$ E. Hindukush ; h=200 km ca ; 0=20h 10m 42s (U.S.C.G.S.)							
	36.°5 N., 70.°5 E. h=220 km ; 0=20h 10m 43s (B.C.I.S.)							
	36° N., 70.°5 E. h=200 km ; 0=20h 10m 40s (Shillong)							
	Felt : Drosh, Cherat, Chakdara and Risalpur (Press report from Quetta).							

Date	Station	Compt.	Phase	G.M.T.			△	Remarks	
				h.	m.	s.			
May 1954 16 Contd.	Dehra Dun	NE N	eP PP PPP P* LQ iS SS LR SSS S* S <sub>2</sub> , M	20	12	40	890	Moderate.	
	New Delhi	NE  N	iP PP PPP P* Pg iS SS SSS S*	20	12	51	960	Slight.	
	Chatra	Z	iP PP PPP LQ iS SS LR M	20	14	26	1760	Slight.	
	Bombay	NE N  NE E	eP e i eS i	20	14	37	1960	Slight, deep focus.	
	Poona	Z E	eP eS LR M	20	14	41	1935	Slight.	
	Shillong	Z N	iP iS	20	15	09	2280	Slight.	
	Calcutta	E	eP iS	20	15	12	2220		
	Hyderabad	E	iP iS M	20	15	54	1620	Per.=6 secs $\mu=2$ .	
	Kodaikanal	E	e?	20	19	55		Tremor.	
	Madras	E	i	20	19	58		Moderate, phases not clear.	
17	Dehra Dun	NE	e	19	30	40		Tremor.	
17	Shillong	Z	i	21	09	21		Slight.	
17	Poona	Z	eP	21	14	35		Tremor.	
17	Shillong	Z	i	22	01	58		Tremor.	
17	Shillong	Z	i	23	03	01		Tremor.	
19				Epc: 31° N., 92° E. Tibet; 0=04h 21.0 m (B.C.I.S.)					
	Shillong	N	i	04	24	29		Slight.	
	Poona	Z	i	04	26	22		Tremor.	

Date	Station	Compt.	Phase	G.M.T.			△	Remarks
				h.	m.	s.		
May 1956	Shillong	Z	i	06	38	32		Slight.
19	Shillong	Z	iPg	15	40	04		Slight, local.
19	Shillong	Z	e	21	01	30		Tremor.
19	Shillong	Z N	i e(L)	23	18	05		Slight.
	Poona	Z	i	23	19	19		Tremor.
20	Shillong	Z	i	02	08	08		Tremor.
20	Shillong	Z	e(?) i	04	26	42		Slight.
20	Dehra Dun	NE	e i	09	41	39		Slight, phases not clear.
20	Shillong	Z	i i	17	15	49		Slight, local.
20	Shillong	Z	i i i	20	28	06		Slight, near.
21	Shillong	Z	e	04	06	20		Slight, near.
21	Poona	N	i? i i i	04	17	34		Feeble, phases not clear.
21	Shillong	Z	iPg	04	31	41		Slight, near.
21	Dehra Dun	NE	e	05	17	40		Tremor.
21	Shillong	Z N	i e e e e	05	17	52		Slight.
21	Shillong	Z N E	iPg iPg iPg	12	26	35		Slight., felt(?)
21	Shillong	Z	i	12	56	17		Slight.
21	Shillong	Z	i	16	25	27		Slight.
	Hyderabad	N	M	17	10	33		Per.=14 secs $\mu=4$ .
	Poona	N	e	17	12	38		
21	Shillong	Z N	i e(M)	17	52	02		Slight.
21	Shillong	Z	e	21	04	34		Slight, local.
22	Shillong	Z	i i i	04	19	44		Slight, near.
22	New Delhi	E  NE N	eP LQ SS S* Sg	08	03	49	640	Slight.

Date	Station	Compt.	Phase	G.M.T.			△	km.
May				h.	m.	s.		
1954								
22	Dehra Dun	NE	e	08	04	17		Slight, phases not clear.
Contd.			i		05	55		
			i		06	17		
	Poona	ZE	eP	08	08	06		Tremor,
22	Shillong	Z	i	11	41	49		Slight.
22	Dehra Dun	NE	i	11	45	25		Feeble, phases not clear.
22	Shillong	Z	i	11	47	29		Slight.
22	Shillong	Z	e	12	12	39		Slight.
22	Shillong	Z	iPg	14	39	59	80	Slight (Felt ?).
		N	iSg		40	08		
23	Shillong	Z	e	04	02	11		Slight, near.
			e		02	26		
23	Epc : 46° N., 149½° E. Kurile Island ; h=150 km ca. 0=04h 10m 27s (U.S.C.G.S.)							
	45° N., 150° E., h=160 km ; 0=04h 10m 30s—Felt (C.M.O. Japan).							
	Shillong	Z	iP	04	19	10		Slight.
			i		19	20		
23	Chatra	Z	iP	04	19	29		Slight, probably deep focus.
	Dehra Dun	NE	eP	04	19	59		Tremor.
	Poona	ZE	eP	04	21	09		Tremor.
23	Epc : 3° N., 124° E. Celebes Sea ; 0=06h 56m 42s (U.S.C.G.S.)							
	2° N., 124° E. 0=06h 56m 39s (Shillong).							
	Shillong	Z	iP	07	04	06	4230	Slight.
		N	eP		04	06		
			PP		05	35		
			iS		10	00		
	Chatra	Z	eP	07	04	41		Slight, distant.
	Madras	E	iP	07	05	00	4910	Moderate.
			PP		06	44		
			PPP		07	17		
			S P		10	20		
			eS		11	34		
			PPS		11	46		
			SS		14	46		
			LQ		15	33		
			SSS		15	47		
	Hyderabad	E	iP	07	05	16	5150	
			PP		07	06		
		EN	iS		12	04		
		E	SS		15	45		
			L		18	39		
			M		21	37		Per.=18 sec μ=5.
		N	M		22	48		Per.=18 secs μ=5.
	Kodaikanal		eP	07	05	17		Tremor.
	Poona	ZE	iP	07	05	50	5720	Moderate.
		E	PP		07	44		
			PPP		08	51		
			eS		13	10		
			FS		13	18		
			PIS		13	23		
			LR		20	34		
			M		25	05		



Date	Station	Compt.	Phase	G.M.T.			△ km.	Remarks
				h.	m.	s.		
May 1954								
23 Contd.	Bombay	E	eP	07	06	00		Feeble.
		N	iS		13	24		
			e		13	29		
	Colombo	E	S	07	11	29		
			L		21	—		
			M		27	49		Amp=0.2 mm.
23	Kodaikanal	E	e	07	49	17		Tremor.
23	Shillong	Z	iPg	12	22	40	100	Slight.
			i		22	58		
23	Shillong	Z	i	14	34	42		Slight, near.
24	Epc : 48½° N., 156° E. Kurile Is and; 0=07h 29m 59s (U.S.C.G.S.)							
	Shillong	Z	i	07	38	30		Slight, tremor.
	Poona	Z	iP	07	40	25		Tremor.
24	Shillong	Z	i	08	23	47		Slight.
24	Shillong	Z	ePg	17	11	53	120	Slight, Local.
			eSg		12	07		
24	Shillong	Z	e	18	03	57		Tremor.
24	Shillong	Z	ePg	18	25	55	110	Slight.
			iSg		26	08		
24	Shillong	Z	iP	19	07	40	230	Slight.
			i		07	50		
			iSg		08	13		
24	Shillong	Z	e	19	21	18		Slight.
24	Epc : Karakoram region; 0=22h 31.7m (B.C.I.S.) 39° N., 75° E. 0=22h 31m 51s (Shillong)							
	Dehra Dun	NE	eP	22	34	05	970	Slight.
		N	PPP		34	20		
			Pg		34	49		
			eS		35	44		
			SS		35	56		
			LR		36	01		
			SSS		36	06		
			S*		36	17		
			Sg,M		36	41		
	New Delhi	NE	eP	22	34	22	1030	Slight.
		N	i		34	34		
		E	LQ		35	57		
		NE	eS		36	08		
			SS		36	19		
			LR		36	23		
			SSS		36	31		
		N	S*		36	44		
			Sg		37	07		
	Shillong	Z	iP	22	36	14		Slight.
		N	eS		39	48		
	Poona	Z	eP	22	36	28		Slight shock, phases not clear.
			iS		40	15		
		E	i		42	32		
	Hyderabad	E	eP	22	37	25	2710	Slight.
			S		41	43		
			M		45	25		Per.=8 secs μ=3.
		N	M		45	53		Per.=8 secs μ=3.

Date	Station	Compt.	Phase	G.M.T.	△	Remarks
				h. m. s.	km.	
May 1954						
24	Bombay	E	e	22 41 25		
Contd.			e	41 30		
			i	42 22		
	Madras	E	i	22 45 35		Moderate, phases not clear.
26	Shillong	Z	e	01 35 08		Slight.
26	Poona	Z	eP	01 54 30		Tremor.
	Bombay	N	eP	01 54 41	8150	Slight.
			eS	02 04 10		Phases lost in microseisms.
	Shillong	N	e(M)	02 14 24		Slight.
26	Shillong	Z	iP	14 48 31		Feeble.
26	Shillong	Z	eP	19 05 34		Feeble.
27	Shillong	Z	e	07 57 56		Feeble.
27	Shillong	Z	iP	16 11 04		Feeble.
27		Epc : Celebes Sea, data discordant ; 0=16h 18-0m (B.C.I.S.)				
	Shillong	Z	i	16 24 01		Feeble.
	Dehra Dun	NE	e	16 26 20		Tremor.
	Poona	ZE	eP	16 27 03		Tremor.
	Bombay	NE	e	16 34 09		
27	Poona	Z	eP	19 08 56		Tremor.
27	Shillong	Z	i	23 33 48		Feeble.
28	Shillong	Z	eP	15 49 23		Feeble.
28	Shillong	Z	e	19 29 18		Feeble.
28	Shillong	Z	e	21 05 15		Feeble.
29	Shillong	Z	e	16 28 04		Feeble.
29	Shillong	Z	e	22 49 29		Feeble.
30	Shillong	Z	iP	14 55 13		Feeble.
30		Epc : Celebes Sea ; 0=19h 46m 56s (U.S.C.G.S.) 1° N., 124½° E. 0=19h 46m 35s (B.C.I.S.)				
	Shillong	Z	iP	19 54 09		Feeble.
	Chatra	Z	iP	19 54 46		Slight, distant.
	Dehra Dun	N	e	19 55 46		Feeble, phases not clear.
			i	56 08		
			i	56 25		
	Poona	Z	e?	19 55 47		Feeble.
31	Shillong	Z	i	15 55 36		Tremor.
31		Epc : Flores Sea ; 8° S., 118½° E. h=150 km ; 0=15h 48m 48s. (U.S.C.G.S.) 8° S., 118 E. 0=15h 48m 50s (Shillong) Magnitude—6½—6½ (Pasadena), 6 (Uppsala, Praha).				
	Madras	E	iP	15 56 43	4688	Moderate.
			PP	58 23		
			PcP	58 34		

Date	Station	Compt.	Phase	G.M.T.	△	Remarks
				h. m. s.	km.	
May 1954						
31	Madras		PPP	58 54		
Contd.			ScP	16 02 16		
			iS	03 04		
			SS	05 53		
			LQ	06 31		
			LR	08 26		
			M	12 16		
	Shillong	N	iP	15 56 46	4560	Moderate.
			i(?)	57 31		
			PPP	59 09		
			S	16 03 00		
			SS	06 09		
			LR	08 46		
			M	12 16		
	Chatra	Z	e	15 56 49		Slight, distant.
			e	16 03 46		
	Kodaikanal	E	iP	15 56 51	4810	Slight.
			PP	58 36		
			PPP	59 18		
			iS	16 03 21		
			LQ	07 21		
			SSS	07 39		
			LR	09 30		
			M	13 12		Per.=12 secs $\mu=8.6$ .
	Hyderabad	E	eP	15 57 06	5110	
			iS	16 03 51		
		N	M	14 42		Per.=18 secs $\mu=22$ .
		E	M	14 51		Per.=18 secs $\mu=22$ .
	Poona	Z	iP	15 57 42	5450	Moderate.
		E	PcP	59 03		
			PPP	16 00 25		
			eS	04 45		
			PS	04 52		
			PPS	04 57		
			ScS	07 13		
		N	SS	07 58		
		E	SSS	09 19		
		N	LR	11 28		
		E	M	15 15		
	Bombay	E	eP	15 57 49	5870	Moderate.
			PcP	58 00		
			PP	16 00 02		
			PPP	00 54		
			iS	05 17		
		N	iS(?)	05 20		
			M	24 36		Per.=15 secs $\mu=5$ .
		E	M	22 00		Per.=15 secs $\mu=5$ .
	New Delhi	NE	eP	15 58 00	5700	Moderate.
		N	i	16 00 17		
			eS	05 19		
			PPS	05 33		
			ScS	07 50		
			SS	08 49		
			i	09 17		
			SSS	10 19		
			i	11 33		
			LR	12 47		
			M	17 25		

**Earthquake Reports**  
(Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations.

Place at which felt	Date	Time at which felt in G.M.T.	Intensity in R.F. scale	No. of shocks	Remarks
Tezpur	2.5.54	21h. 23m.	III	1	—
Shillong	21.5.54	12h. 30m.	I	1	—
Shillong	22.5.54	14h. 40m.	III	1	—

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

# SEISMOLOGICAL BULLETIN

*JUNE, 1954*



---

PUBLISHED UNDER THE DIRECTION OF  
SHRI S. BASU, M.Sc., F.N.I.,  
DIRECTOR GENERAL OF OBSERVATORIES.

---

## INSTRUMENTS AND THEIR CONSTANTS

Station	Instrument	Compt.	Period in Secs.	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350		16.0
	Milne-Shaw	E-W	12.0	350	9 : 1	8.0
	Sprengnether	E-W	$T_o = T_g = 7.0$	—	—	30.0
Calcutta	Milne-Shaw	E-W	10.0	150	20 : 1	8.0
	Wood-Anderson	N-S	2.0	870	Critical	30.0
	Omori-Ewing	N-S	18.2	32	—	25.4
	Omori-Ewing	E-W	19.0	30	—	25.4
Chatra	Wood-Anderson	N-S	1.0	1000	30 : 1	60.0
	Wood-Anderson	E-W	1.0	1000	40 : 1	60.0
	Benioff	Z	$T_o = 0.72$ $T_g = 0.45$	—	—	60.0
Colombo	Milne-Shaw	E-W	12.0	250	18 : 1	—
Dehra Dun	Milne-Shaw	N-S	12.0	250	20 : 1	16.0
	Wood-Anderson	E-W	1.0	1000	30 : 1	60.0
	Wood-Anderson	E-W	1.0	1000	30 : 1	60.0
Hyderabad	Milne-Shaw	E-W	12.0	250	20 : 1	8.0
	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
Kodaikanal	Milne-Shaw	E-W	10.0	250	20 : 1	8.0
Madras	Sprengnether	E-W	$T_o = T_g = 7.2$	—		30.0
New Delhi	Milne-Shaw	N-S	12.0	288	20 : 1	8.0
	Wood-Anderson	N-S	4.0	1070	20 : 1	16.0
	Wood-Anderson	E-W	2.0	1840	30 : 1	60.0
	Omori-Ewing	E-W	28	30	—	12.0
Poona	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
	Wood-Anderson	E-W	4.0	1100	20 : 1	16.0
	Sprengnether	Z	$T_o = T_g = 1.5$	—	—	30.0
Shillong	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
	Wood-Anderson	N-S	4.0	1000	20 : 1	30.0
	Wood-Anderson	N-S	0.8	800	20 : 1	30.0
	Wood-Anderson	E-W	0.8	800	20 : 1	30.0
	Sprengnether	E-W	$T_o = T_g = 7.5$	—	—	30.0
	Benioff	Z	$T_o = 1.0$ $T_g = 0.18$	—	—	60.0

## SEISMOLOGICAL BULLETIN

Date	Station	Compt.	Phase	G. M. T.	△	Remarks
				h. m. s.	km.	
June 1954						
01	Dehra Dun	NE	e i	07 48 30 49 59		Feeble, phases not clear.
	Shillong	Z	i	07 50 59		Tremor.
01	Shillong	Z	i	12 58 35		Tremor.
01	Shillong	Z	Pg Sg	17 39 42 39 47		Local.
01	Shillong	Z	Pg Sg	17 41 16 41 22		Local.
01	Shillong	Z	Pg Sg	17 59 17 59 22		Local.
01	Shillong	Z	iP Pg S S* Sg	19 05 47 06 02 06 32 06 43 06 53		Slight.
01	Poona	Z	eP	20 52 39		Tremor.
01	Shillong	Z	i	20 53 41		Tremor.
02	Poona	ZE	eP	07 10 39		Slight, phases mixed up with microseisms.
02	Shillong	Z	e	09 39 45		Tremor.
02	Poona	ZN	eP	10 49 20		Slight, phases mixed up with microseisms.
02	Shillong	Z	i i	11 02 54 03 23		Slight, local.
02	Dehra Dun	N	e	21 56 21		Tremor.
02	Shillong	Z	e i	22 14 55 15 27		Slight.
03	Shillong	Z	iP Pg S Sg SS	00 30 59 31 05 31 25 31 31 31 39		Slight, local.
03	Shillong	Z	e i	07 30 31 31 15		Tremor.
03	Shillong	Z	e	16 55 42		Tremor.
03	Shillong	Z	e	17 29 03		Tremor.
03	Shillong	Z	e	21 52 26		Tremor.
03	Shillong	Z	Pg Sg	22 26 03 26 28		Local.
04	Dehra Dun	NE	e i i	0 06 06 06 09 06 38		Feeble, phases not clear.

Date	Station	Compt.	Phase	G. M. T.	△	Remarks
				h. m. s.	km.	
June 1954						
04						Epc: $\frac{1}{2}^{\circ}$ S., $91\frac{1}{2}^{\circ}$ W. Galapagos Island; 0=06h 50m 42s (U.S.C.G.S.) Magnitude— $6\frac{3}{4}$ —7 (Lwir), $6\frac{1}{2}$ (Pasadena), $6\frac{1}{2}$ (Tacubaya, Praha), $6\frac{1}{2}$ (Berkeley)
	Dehra Dun	Ne	e e i	07 10 32 12 34 14 09		Feeble, phases not clear.
	Chatra	Z	e	07 10 33		Slight, distant.
	Shillong	N	PKP <sub>1</sub> SKS <sub>2</sub> PKKP PPP SKSP SS SSS M	07 10 34 17 57 18 53 23 23 24 13 32 50 38 47 08 16 47		Slight, distant.
	Hyderabad	N	M	08 34 40		Per. = 18 secs/ $\mu$ = 6.
04	Colombo	E	eP	10 37 —		
04	Madras	E	iP	10 40 50		Earthquake of moderate intensity, phases not clear due to presence of Microseisms.
04						Epc: Java Sea; 0=10h 41m 37s (U.S.C.G.S.) $5^{\circ}$ S., $108^{\circ}$ E., 0=10h 41.6m. data discordant (B.C.I.S.)
	Shillong	N	iP PcP iS SS/LQ LR ScS M	10 48 39 51 07 54 14 56 10 57 05 57 53 11 00 20		Slight.
	Chatra	Z E	iP eS	10 49 05 55 05		Slight, distant.
	Bombay	NE E N NE	eP e eS e e	10 49 24 54 52 55 49 58 08 59 27		Slight, phases doubtful due to presence of microseisms.
	New Delhi	NE N	eP iS PS PPS SSS	10 50 00 56 38 56 48 56 56 11 00 35	4990	Slight
	Hyderabad	E EN	e S L	10 50 13 54 34 11 03 44		Per. = 12 secs/ $\mu$ = 3. Per. = 12 secs/ $\mu$ = 5.
	Dehra Dun	N	e e e e	10 50 13 56 52 57 30 58 08		Feeble, phases not clear.

Date	Station	Compt	Phase	G. M. T.			Δ	Remarks			
				h.	m.	s.					
June 1954							km.				
04	Kodaikanal	E	i	10	53	45	2710	Slight intensity.			
04	Dehra Dun	NE	e	16	46	49		Tremor.			
04	Dehra Dun	NE	e	18	23	53		Tremor.			
05	Dehra Dun	NE N	eP PP PPP Pg LQ iS LR SS SSS S* Sg M	12	47	53	860	Slight.			
	New Delhi	NE	iP PP	12	48	11	880	Slight.			
		E	P* Pg		48	19 28 46					
		NE	iS SS LR SSS		49	42 51 54 00					
		E	i		50	03					
		N	S*		50	10					
06		Shillong	Z	i	11	13			42		Tremor.
06		Epc : $3\frac{1}{2}^{\circ}$ S., $136\frac{1}{2}^{\circ}$ E. West New Guinea ; O=16h 50m 33s (U.S.C.G.S.) $3.0^{\circ}$ S., $135.5^{\circ}$ E. O=16h 50m 40s (B.C.I.S.) $4^{\circ}$ S., $137^{\circ}$ E. O=16h 50m 35s (Shillong) Magnitude—7— $7\frac{1}{2}$ (Hurbanovo), 7.1 (Praha), 7 (Pasad na, Tacubaya, Lwir), $6\frac{1}{4}$ —7 (Uppsala, De Bilt)									
		Shillong	Z	iP }	16	59			45	5890	Compression first move- ment North.
			N	iP }							
				PcP		17			00		
			PPP			02	50				
			PcS			05	04				
			iS			06	04				
			ScS			09	29				
			SS			10	32				
			LQ/SSS			12	13				
			LR			14	36				
		M			18	36					
	Calcutta	E	iP }	17	00	07	5865	Moderate.			
		N	iP }			00			08		
			eS			07			34		
		E	iS			07			35		
			SS			11			15		
			LQ			12			56		
			LR			15			21		
			M			19			28		
	Chatra	Z	iP }	17	00	17	6300	Moderate.			
		E	eP }								
			PcP			01			15		
			PP			02			30		
			PPP			03			56		
			iS			08			09		

Date	Station	Compt.	Phase	G. M. T.	$\Delta$	Remarks
				h. m. s.	km.	
June 1954						
06	Chatra	E	PS	17 08 15		
Contd.			PPS	08 30		
			ScS	10 11		
			SS	12 00		
			LQ	14 15		
			LR	16 52		
			M	22 00		
	Madras	E	iP	17 00 29	6440	Moderate.
			PcP	01 02		
			PP	02 40		
			PPP	04 08		
			PcS	05 08		
			iS	08 29		
			PS	08 43		
			PPS	08 49		
			ScS	10 09		
			SS	12 35		
			LR	15 37		
	Colombo	E	(P)	17 00 —		
			S	08 19		
			L	17 09		
	Hyderabad	E	iP	17 00 50	6660	
		N	iS	09 02		
		EN	ScS	10 36		
			SS	12 54		
		N	L	19 50		
		E	M	23 06		Per.=23 secs/ $\mu$ =15.
		N	M	23 54		Per.=24 secs/ $\mu$ =27.
	Poona	Z	eP	17 01 17	7130	Moderate.
		E	PP	03 39		
			eS	09 55		
			PS	10 19		
			PPS	10 27		
			ScS	10 49		
			SS	14 07		
			SSS	16 56		
			LQ	18 11		
			LR	21 31		
			M	26 56		
	Dehra Dun	NE	eP	17 01 18	7140	Moderate.
		N	PcP	01 17		
			PP	03 43		
			PPP	05 14		
			PcS	05 43		
			iS	09 56		
			PS	10 15		
			PPS	10 25		
			ScS	11 13		
			SS	14 13		
			SSS	17 03		
			LQ	17 56		
			LR	20 51		
			M	26 07		
	Bombay	E	iP	17 01 23	7310	Moderate.
		NE	PcP	01 28		
			PP	03 44		
			PPP	05 21		
			iS	10 09		



Date	Station	Compt.	Phase	G. M. T.			Δ	Remarks
				h.	m.	s.		
June 1954							km.	
06	Bombay	E	SKS <sub>1</sub>	17	11	09		
Contd.	Contd.	N	i		11	23		
		NE	SS		14	23		
		N	LQ		18	38		
		E	LQ		18	43		
			LR		21	13		
			M		29	07		Per. = 24 secs/μ=12.
		N	M		29	11		Per. = 23 secs μ=13.
06	Dehra Dun	NE	e	19	07	07		Slight, phases not clear
			i		08	09		
			i		08	27		
06	Shillong	Z	i	22	06	35		Tremor.
07	Shillong	Z	e	06	35	35		Tremor.
07	Shillong	Z	[e e	09	51	12 52 01		Slight.
07	Epc : 3½°S., 152½°E. New Britain Region; h=450 km ca; 0=10h 15m 33s (U.S.C.G.S.) 7°S., 153°E. h=500 km ca; 0=10h 15m 38s (Shillong) Magnitude—7 (Uppsala, Wellington) 6½ (Pasadena, Berkeley), 6½ (Lwiro).							
	Shillong	ZNE	iP pP PP i iS i sS	10	25	36 27 12 28 02 30 42 33 40 34 44 36 32	7340	Compression, first movement North and West.
	Calcutta	E N E N	iP iP iS iS	10	25	55 25 59 34 16 34 20	6835	Slight, first movement West and North.
	Chatra	EZ E	iP pP iS M	10	26	03 27 38 34 36 52 —	7890	Slight, deep focus, other phases not clear.
	Colombo	E	P S	10	26	22 35 08		Slight
	Madras	E	iP PcP pP? PP PcS iS PS PPS ScS	10	26	25 26 47 28 03 28 53 30 43 35 16 35 34 35 46 35 58	7412	Moderate.
	Hyderabad	E  N E	iP e PP iS L M M	10	26	36 28 15 29 04 35 41 47 54 53 48 54 09	7660	Moderate.  Per.=15 secs/μ=4. Per.=15 secs/μ=4.

Date	Station	Compt.	Phase	G. M. T.			Δ	Remarks
				h.	m.	s.		
June 1954							km.	
07	Kodaikanal	E	iP pP sP i	10	26	37 28 19 29 05 29 47		Slight.
	Dehra Dun	NE N	eP PcP PP iS PPS SS SSS LR M	10	26	51 27 08 29 37 36 07 36 59 40 51 43 41 49 16 55 23	7890	Moderate.
	New Delhi	NE N	iP pP sPi iS PS i i	10	26	53 28 35 29 34 36 09 36 41 40 21 40 50	7890	Moderate.
	Poona	Z E	iP PcP PP PPP eS SKS <sub>1</sub> ScS PS PPS SS SSS M	10	26	59 27 06 29 46 31 35 36 27 36 37 36 43 37 05 37 26 41 28 44 34 57 23	8130	Moderate.
	Bombay	NE N NE E N	eP PP PPP iS i i i SS	10	27	07 29 46 31 30 36 38 39 05 39 37 39 54 41 47	8200	Moderate.
08	Dehra Dun	N	e	09	18	46		Tremor.
08	Shillong	Z	i e	11	03	33 04 09		Slight, near.
09	Shillong	Z N	i e i i	00	57	08 57 09 57 56 58 12		Slight, near.
09	New Delhi	N NE	eP eS i i	03	55	42 57 23 57 28 57 33		
	Dehra Dun	NE	e	03	57	02		
09	Shillong	Z N	iP L	10	08	47 20 —		Slight.

Date	Station	Compt.	Phase	G. M. T.			$\Delta$	Remarks
				h.	m.	s.		
June 1954							km.	
10	Shillong New Delhi	Z NE N	iP iP eS PPS i SSS	22 22	45 46 53 54 55 58	14 43 46 01 47 31	5430	Slight. Slight.
11	Shillong	Z	i	01	01	34		Slight.
11	Shillong	Z	e	09	03	27		Tremor.
11	Shillong	Z	i	09	50	40		Slight.
11	Shillong	Z	iP e L	17	06 14 30	16 59 —		Slight.
	Chatra	Z	i	17	06	33		Slight, distant
11	Shillong	Z	e e	17	16 17	53 14		Slight, local.
11	Shillong	Z	e	19	01	51		Slight.
11	Shillong	Z	i	21	32	27		Slight.
11	Poona	Z	eP	22	47	27		Tremor.
12	Shillong	Z	i	05	34	43		Slight.
12	Shillong	Z	i	05	47	54		Slight.
12	Shillong	Z	e i	12	11 11	31 42		Slight, local.
12	Shillong	Z	i(S(g))	15	23	03		Slight.
12	Shillong	Z	i i	17	54 55	40 14		Slight.
13	Shillong	Z NE	iP ep i iSg	02	20 20 20 20	34 35 41 53	150	Slight.
13	Dehra Dun	NE	e i i	04	21 51 51	46 51 58		Slight, phases not clear.
13	Shillong	Z	e i	10	58 58	15 45		Slight.
13	Shillong	Z	e	17	10	10?		Slight.
13	Shillong	Z N	e e	17	29 35	36 46		Slight.
13	Shillong	Z	i i i	22	32 33 34	47 40 03		Slight.
13	Shillong	Z	i	23	10	46		Tremor.

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
<u>June</u>				h. m. s.				
<u>1954</u>								
14	Shillong	Z	i	06	55	25		Tremor.
14	Shillong	Z	e	07	10	48		Tremor.
14	Shillong	Z	e	08	38	02		Tremor.
14	Shillong	Z	i e	12	15	02 15 30		Slight, local.
14	Shillong	Z	i	13	35	20		Slight, trace very faint.
14	Shillong	Z	i	16	37	48		Slight.
14	Shillong	Z	ePg eSg	16	58	38 58 50	100	Slight, local.
15	Dehra Dun New Delhi	NE	e	13	40	50		Tremor.
		NE	eP	13	41	01		Slight.
			i		49	32		
			e		49	58		
15	Dehra Dun	NE	e	13	49	30		Slight, phases not clear.
			i		49	41		
			i		50	14		
	Bombay	NE	ePKP <sub>1</sub>	13	49	33	16780	Very distant and deep. Phases not clear due to microseisms.
		E	eSS	14	12	42		
	Poona	Z	eP	13	49	34		Other phases mixed with microseisms.
	Chatra	Z	i	13	49	39		Slight, distant.
	Shillong	N	eP	13	49	47		Slight.
		Z	eP	13	49	48		
		N	e		50	20		
			e		54	05		
			i	14	01	39		
	Calcutta	E	i i	13	50	41 57 41		Slight, distant.
	Madras	E	iP?	13	53	47		Slight shock. Phases not clear.
	Hyderabad	E	e	14	01	07		
16	Shillong	Z	e	17	45	39		Tremore.
16	Shillong	Z	i	23	32	28		Feeble.
17	Epc: $56^{\circ}$ N., $154\frac{1}{2}^{\circ}$ W. Off the South Coast of Kodaikanal; $O=01h\ 42m\ 22s$ (U.S.C.G.S.) $56^{\circ}8'N$ , $154^{\circ}W$ . $O=01h\ 42m\ 24s$ (B.C.I.S.) Magnitude— $6\frac{3}{4}$ (Lwiro), $6\frac{1}{2}$ (Pasadena, Praha, Roma, Hurbanovo).							
	Shillong	Z	iP	01	54	41		Slight, very distant
		N	eP		54	49		
			i(S)	02	04	49		

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
June 1954								
17 Contd.	Chatra	Z E E	iP } eP } eS } PS } PPS } LQ } LR } M }	01 54 49	9110		Slight.	
				02 05 03				
				05 52				
				06 11				
				16 20				
				20 39				
				27 —				
	New Delhi	NE N	eP iS PPS	01 55 00 02 05 20 06 43			Slight	
	Bombay	NE E N	eP eS i M M	01 55 28 02 06 28 06 56 37 13 42 37	10220		Moderate. Per. = 15 secs/ $\mu$ = 3. Per. = 13 secs/ $\mu$ = 3.	
	Poona	ZN N	eP i(?) i(?)	01 55 54 02 06 19 07 08			Distant shock, phases doubtful and lost in shifting.	
	Hyderabad	E N	e M M	01 55 59 02 35 53 38 05			Per. = 18 secs/ $\mu$ = 12. Per. = 18 secs/ $\mu$ = 17.	
	Calcutta	E	i i i	01 57 06 02 05 41 14 43			Slight, distant.	
	Colombo	E	i L	02 07 10 40 —				
17	Shillong	Z	iP	02 14 48			Slight.	
17	Shillong	N	i? i?	02 29 50 33 50			Slight.	
17	Kodaikanal	E	iP PPP iS LQ SSS LR M?	02 36 42 37 0 41 00 41 39 42 00 42 51 44 51	2710		Slight intensity.	
17	Shillong	Z	e i	05 46 32 47 27			Tremor.	
17	Poona	Z	eP	06 03 55			Slight shock, phases mixed up with microseism.	
17	Shillong	Z	iP iS	06 04 29 08 19	2250		Slight.	
17	New Delhi	NE N NE  N NE	eP PPP P* Pg iS i SS LR S* Sg	10 02 11 02 25 02 31 02 54 03 54 04 00 04 06 04 10 04 31 04 39			Slight.	

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
June 1954								
18	Poona	Z	eP	15 50 03				Slight shock, phases not clear.
	Bombay	NE	e	15 50 15				Feeble, near tremor.
12	Epc: Soenda Starit; 0=17h 54m 40s. Felt Djakarta (U.S.C.G.S.) 6°S., 105½° E. 0=17h 54m 42s (B.C.I.S.)							
	Madras	E	iP?	18 01 07				Slight shock, phases not clear.
	Shillong	Z N	iP eP S M	18 01 29 01 34 06 53 13 45	3760		Slight.	
	Hyderabad	E EN E	eP PcP iS L M	18 01 42 04 54 07 09 11 33 14 55	3810			
	Poona	Z N	eP PP PPP eS LQ SSS M	18 02 18 03 5i 04 12 08 16 11 14 11 37 16 19	4300		Slight shock.	
	Bombay	E	eP PP eS ScS i i	18 02 20 03 50 07 57 11 55 12 54 13 25	3965		Slight. Possibly deep focus.	
	New Delhi	NE	eP eS	18 02 52 09 17	4750		Slight.	
19	Epc: 30½° N., 130° E. Off the South Coast of Kiu-Shiu, Japan; 0=01h 56m 30s (U.S.C.G.S. and B.C.I.S.) 29½° N., 131½° E. H=0-10km; 0=01h 56m 22s. Felt (C.M.O. Japan). Magnitude 6½ (Strasbourg), 6 (Roma).							
	Shillong	Z N	iP e e	02 03 13 04 52 07 29				Feeble.
	Chatra	Z E	iP e	02 03 46 20 —				Slight, distant; surface waves.
	Poona	Z	eP	02 05 39				Tremor.
	Bombay	E	eP eS	02 05 44 13 07	5780		Moderate.	
	Hyderabad	E	M	02 26 05				Per. = 15 secs. $\mu$ = 4
19	Poona	Z	eP	03 24 13				Tremor.

Date	Station	Compt.	Phase	G. M. T.			△	Remarks
				h.	m.	s.		
June 1954								
19	Shillong	Z	e	05	59	40		Tremor.
19	Shillong	Z	i	12	35	03		Tremor.
19	Shillong	Z	i	23	14	44		Tremor.
20	Bombay	N	e e	01	20	— 26		
20	Dehra Dun	NE	e	17	42	57		Tremor.
20	Epc : 5°S., 146°E. of the Coast of New Gunniea ; h=60 km ca; 0=20h 45m 57s (U.S.C.G.S.) 4½°S., 145½°E. h=60 km ca; 0=20h 46m 00s (B.C.I.S.)							
	Shillong	Z	i	20	56	08		Tremor.
	Dehra Dun	NE	e	20	57	28		Tremor.
	Poona	Z	eP	20	57	39		Tremor.
21	Poona	Z N	e i? i i	02	08	07 59 19 01		Slight distant shock. Phases mixed with microseisms and other phases lost in shifting.
	Madras	E	e	02	08	20		Tremor.
	Shillong	Z	e	02	08	29		Tremor.
21	Shillong	Z	i	02	15	41		Tremor.
	Chatra	Z	i	02	16	10		Slight, distant.
21	Poona	Z	eP	14	36	22		Tremor.
22	Shillong	Z N	i(Sg) e	03 04	49 02	02 —		Slight, strong microseism.
22	Shillong	Z	i	17	35	01		Slight, local.
22	Shillong	Z	e i e	22	43 14 14	40 17 41		Slight.
23	Dehra Dun	NE	e i	08	01 03	47 29		Feeble.
24	Shillong	Z	Pg Sg	09	54 54	25 39		Slight.
24	Shillong	Z	Pg P* PPP Sg	10	44 44 44 45	41 45 55 00	170	Slight.
24	Shillong	Z	e	16	21	13		Slight.
24	Shillong	Z	P Pg P* S Sg	16 17	59 59 59 5 0	31 36 46 57 02	220	Slight.

Date	Station	Compt.	Phase	G. M. T.	△	Remarks
				h. m. s.		
<u>June 1954</u>						
24	Shillong	Z	Pg Sg	17 55 48 56 21		Slight, local.
	Chatra	Z	i i	17 56 40 58 01		
26	Shillong	Z	e	11 11 02		Tremor.
26	Shillong	Z	i	12 01 24		Tremor.
26	Shillong	Z	i	18 26 39		Slight, local.
26	Shillong	Z	Pg Sg	20 59 48 59 55		Slight.
26	Shillong	Z	i	21 43 47		Tremor.
27	Shillong	Z	e i	04 04 35 05 29		Slight.
27	Shillong	Z	e	16 24 27		Tremor.
28	Shillong	Z	e	03 33 38		Tremor.
28	Shillong	Z	P P* S Sg SSS	03 57 42 57 44 58 06 58 14 58 28		Slight.
28	Hyderabad	N	M	06 04 33		Per. = 23 secs/ $\mu$ = 10.
28	Shillong	Z	i	11 32 13		Tremor.
28	Shillong	Z	P Pg S* SS/Sg	14 33 25 33 34 34 02 34 08	300	Slight.
28	Shillong	Z	Pg Sg	17 57 53 58 03		Slight.
28	Epc : 29 $\frac{1}{4}$ °N., 86 $\frac{1}{2}$ °E South Tibet ; 0=21h 31m 44s (B.C.I.S.) 28.5°N., 86.8°E. 0=21h 31m 40s (Shillong)					
	Chatra	ZEN NE	iP Pg PP PPP iS SS SSS	21 32 13 32 15 32 21 32 26 32 34 32 44 32 58	170	Slight.
	Shillong	ZNE N	P PP LQ S/LR SSS M	21 33 03 33 05 33 47 34 00 34 17 34 28	530	Slight. Probably deep, compression. First movement South and East.  Suppressed.
	Calcutta	EN N E	eP LQ iS iS	21 33 16 34 03 34 17 34 20	580	Slight, felt at Katmundu.

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
June 1954								
28 Contd.	Dehra Dun	NE N	eP PPP P* Pg LQ iS LR SS SSS S* Sg,M	21	33	35	790	Moderate.
	New Delhi	NE	iP PPP P* i Pg LQ eS SS SSS S* Sg	21	33	43	890	Slight.
	Poona	Z E	eP PP PPP eS SS SSS LR M	21	35	11	1610	Slight.
	Madras	E	eP PPP iS SS SSS PcS M	21	35	35	1950	Moderate.
	Bombay	E NE	e i i	21	35	42		Feeble, phases not clear.
	Hyderabad	N	eP S M	21	36	55	1040	Per. = 12 secs/ $\mu$ = 4.
28	Chatra	Z	iP iS	22	03	19	170	Feeble, probably after shock of shock at 2132 hrs.
30	Epc: 7° N., 37° E. South Ethiopia; 0=13h 26m 50s (U.S.C.G.S.), 6° N., 37° 2 E. 0=13h 26m 55s (B.C.I.S.) Magnitude—6½ (Kiruna); 6 (Uppsala), 5.9 (Roma), 5½ (Praha).							
	Poona	Z N E N	iP PP PPP eS SS LR M	13	34	03	4150	Moderate.

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
June 1954								
30 Contd.	Bombay	E E N N	eP(?) iS eS LQ M	13	34	09	4070	Slight. Phases doubtful due to microseisms.
	Madras	E	eP?	13	34	50		Per. = 10 secs/14 $\mu$ = 4.
	New Delhi	N	eP? eS PS SS LQ LR M	13	35	03	4980	Slight.
	Dehra Dun	N	eP PcP e PcS iS PS SS LQ LR M	13	35	28	5000	Slight.
	Chatra	Z	eP	13	36	01		Slight, distant.
	Shillong	N	eP(?) iS SS LQ LR M	13	36	36	6090	Slight.
	Calcutta	E	i i i	13	43	35		

**Earthquake Reports**

(Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations.

Place at which felt	Date	Time at which felt in G.M.T. h. m.	Duration in secs.	Intensity in R.F. scale	No. of Shocks	Remarks
Darjeeling	June 28	21 45	2	IV	1	—



GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT  
SEISMOLOGICAL BULLETIN  
*JULY, 1954*



---

PUBLISHED UNDER THE DIRECTION OF  
SHRI S. BASU, M.Sc., F.N.I.,  
DIRECTOR GENERAL OF OBSERVATORIES.

---

**INSTRUMENTS AND THEIR CONSTANTS**

Station	Instrument	Compt.	Period in Secs.	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350	23 : 1	16.0
	Milne-Shaw	E-W	12.0	350	—	8.0
	Sprengnether	E-W	$T_o = T_g = 7.0$	—	—	30.0
Calcutta	Milne-Shaw	E-W	10.0	150	20 : 1	8.0
	Wood-Anderson	N-S	2.0	870	Critical	30.0
	Omori-Ewing	N-S	18	32	—	25.4
	Omori-Ewing	E-W	19	30	—	25.4
Chatra	Milne-Shaw	E-W	12.0	250	20 : 1	16.0
	Wood-Anderson	N-S	1.0	1000	30 : 1	60.0
	Wood-Anderson	E-W	1.0	1000	40 : 1	60.0
	Benioff	Z	$T_o = 0.72$ $T_g = 0.45$	—	—	60.0
Colombo	Milne-Shaw	E-W	12.0	250	20 : 1	—
Dehra Dun	Milne-Shaw	N-S	12.0	250	20 : 1	16.0
	Wood-Anderson	E-W	1.0	1000	30 : 1	60.0
	Wood-Anderson	N-S	1.0	1000	30 : 1	60.0
Hyderabad	Milne-Shaw	E-W	12.0	250	20 : 1	8.0
	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
Kodaikanal	Milne-Shaw	E-W	10.0	250	20 : 1	8.0
Madras	Sprengnether	E-W	7.2	—	Critically damped	30.0
New Delhi	Milne-Shaw	N-S	12.0	300	20 : 1	8.0
	Wood-Anderson	N-S	4.0	1070	20 : 1	16.0
	Wood-Anderson	E-W	2.0	1800	30 : 1	60.0
	Omori-Ewing	E-W	28	30	1	12.0
Poona	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
	Wood-Anderson	E-W	4.0	1100	20 : 1	16.0
	Sprengnether	Z	$T_o = T_g = 1.5$	—	—	30.0
Shillong	Milne-Shaw	N-S	12.0	250	20 : 1	8.0
	Wood-Anderson	N-S	4.0	1000	20 : 1	30.0
	Wood-Anderson	N-S	0.8	800	20 : 1	30.0
	Wood-Anderson	E-W	0.8	800	20 : 1	30.0
	Sprengnether	E-W	$T_o = T_g = 7.5$	—	—	30.0
	Benioff	Z	$T_o = 1.0$ $T_g = 0.18$	—	—	60.0



Date	Station	Compt.	Phase	G.M.T.	Δ	Remarks.
				h. m. s.	km.	
July 1954						
02	Poona	Z	eP	02 53 50	5510	Moderate.
Contd.		N	PP PPP eS PPS SS M	55 27 56 31 03 00 58 01 16 12 31 14 45		
	Bombay	N E NE E NE E N	eP } iP } PcP PP PPP iS PS PPS i	02 54 05 55 14 56 06 57 04 03 01 26 01 31 01 36 02 00	5750	Moderate, surface waves not well developed.
02	Shillong	NE Z	SS e i	04 58 05 59 59 06 00 05		Slight, near.
02	Shillong	Z	e e	07 52 18 52 35		Tremor.
02	Shillong	Z	iP	09 55 52		Slight.
02	Poona	Z	eP	14 23 06		Tremor.
02	Shillong	Z	iP i	14 23 40 24 15		Slight, near.
02	Shillong	N	e e	14 29 54 34 50		Slight, distant.
02	Shillong	Z	i	15 00 09		Tremor.
02	Shillong	Z N	iPg } ePg } eP iSg SS	15 51 52 51 56 52 17 52 25	220	Slight.
02	Shillong	Z	e	21 14 56		Tremor.
02	Shillong	Z	i	22 28 41		Tremor.
02	Shillong	N	e	22 43 49		Tremor.
03	Shillong	Z	i	00 43 52		Tremor.
03	Epc: 3½° S. 29° E Tanganyika, Congo; 0 = 00h 32m 53s (USCGS) 3°24' S., 29°07' E. 0 = 00h 32m 57.5 s. (I.R.S.A.C.) Felt - Lwiro, Astrida, Uvira, Degats (Press report from Lwiro) Magnitude - 5½ (Praha)					
	Hyderabad	E	e e L M	00 47 15 53 12 58 25 01 01 17	4280	Per.=20 secs μ=8.
	Shillong	N	eS e e	00 52 42 01 02 29 06 26		Slight, distant.

Date	Station	Compt.	Phase	G. M. T.	Δ	Remarks
				h. m. s.	km.	
July 1954						
03	Shillong	Z	e e	07 29 50 29 53		Tremor.
03	Shillong	Z	e	10 17 38		Tremor.
03	Shillong	Z	eP Pg P* S* eSg SSS	10 51 05 51 10 51 19 51 47 51 52 51 58	330	Slight.
03	Epc: 19½° N., 121½° E. Off the Coast of Luzon, Phillipines; 0=21h 15m 00s (U.S.C.G.S.) 19°40' N., 121°35' E., (Manila). Felt—Calapayan, Aparri (Press report) Magnitude—5½—5¾ (Kiruna), 5½ (Upsala)					
	Shillong	Z N N	eP i eP eS eSS e e(M?)	21 20 52 20 57 21 03 25 33 26 40 28 48 30 55		Slight.
	Calcutta	E	e(S) e i	21 26 36 28 47 35 14		Slight.
	Hyderabad	N	M	21 46 28		Per.=12 secs μ=3.
03	Epc: 6½° S., 105½° E. h=100 km ca Off the South West Coast of Java; 0=22h 31m 25s G.M.T. Felt—Djakarta; Magnitude—7 (Pasadena, Praha, Kiruna), 6½ (Uppsala, Hurbanovo); 6½ (Tacubaya)					
	Madras	E	iP PP PcP iS	22 37 47 38 57 40 25 42 50	3380	Moderate. Other Phases not clear due to overlapping of traces.
	Kodaikanal		iP PP PPP iS LQ and SS SSS LR M	22 37 55 38 58 39 16 43 10 45 19 45 46 46 43 49 37	3610	Moderate.
	Calcutta	E N E N E	iP iP iS iS SS SSS ScS?	22 38 00 38 03 43 18 43 22 45 14 45 41 48 17	3665	Great. First movement West and South.

Date	Station	Compt.	Phase	G	M	T.	Δ	Remarks
				h.	m.	s.	km.	
July 1954								
03 (Contd.)	Shillong	ZN N	iP PP PPP PcP iS PcS LQ SS LR M	22	38	09	3660	Moderate, compression.
	Hyderabad	EN E EN N E N E	iP PP iS SS L L M M	22	38	22	3950	Great.  Per.=24 secs $\mu=97$ . Per.=21 secs $\mu=43$ .
	Chatra	EZ	iP PP PPP PcP eS PcS LQ SSS iScS M	22	38	35	3920	Moderate.
	Bombay	E	iP PP PPP PcP iS SS LQ SSS ScS LR M	22	33	40	4110	Moderate.
	Poona	Z E  N	iP PP PPP iS PS PPS SS LQ SSS LR M	22	38	55	4253	Great.
	New Delhi	NE   N	iP PP PPP PcS iS PS PPS i	22	39	30	4850	Moderate. Direction of first movement South and East.

Date	Station	Compt.	Phase	G	M	T.	Δ	Remarks
				h.	m.	s.	km.	
July 1954								
03	New Delhi	N	LQ	22	49	41		
Contd.	Contd.		LR M		51	45		
	Dehra Dun	NE N	eP PcP PP PPP PcS iS PS PPS SS ScS LQ SSS LR M	22	39	38	4910	Moderate.  Per.=21 secs $\mu=115$ .
	Dehra Dun	NE	e i i	00	56	52		Feeble, phases not clear.
	Shillong	Z	e	00	59	19		Tremor.
	Shillong	Z	e e i	06	48	19		Slight, near.
	Dehra Dun	NE	i i	13	40	43		Tremors.
	Shillong Dehra Dun	Z NE	i e	15	35	22		Tremor. Feeble, phases not clear.
	Shillong	Z	e e	17	46	53		Slight, near.
	Shillong	Z	e	20	02	07		Tremor.
	Shillong	Z	iP e	20	55	10		Slight, near.
	Shillong	Z	i	21	08	40		Tremor.
	Dehra Dun	N	i i	09	57	53		Feeble, phases not clear.
	Shillong	Z	iPg eSg	11	37	48	90	Slight.
	Shillong	Z	e e e	12	04	25		Slight.
	Dehra Dun	N	e i	12	24	34		Feeble, phases not clear.
	Shillong	Z	e	12	26	33		Tremor.
	Shillong	Z	iP	14	01	43		Tremor.
	Shillong	N	e	14	21	33		Ground wave.

Date	Station	Compt.	Phase	G. M. T.			△ km.	Remarks
				h.	m.	s.		
July 1954								
05	Shillong	Z	e	16	27	11		Tremor.
05	Shillong	Z	i	16	35	20		Tremor.
05	Dehra Dun	NE	e	19	31	59		Feeble, phases not clear.
			i		32	07		
06	Shillong	Z	i		32	21		Tremor.
			e		19	33		
06	Shillong	Z	iP	04	10	36		Slight.
			N		18	54		
			e		19	31		
06	Dehra Dun	N	e	06	19	50		Tremor.
06	Shillong	Z	e	08	08	42		Tremor.
06	Epc: 46½° N., 153½° E. Kurile Island; h=100 km ea; 0=08h 04m 42s (U.S.C.G.S.)			Magnitude—7(Praha, Tacubaya), 6½—7 (Pasadena, Kiruna), 6½—6¾ (Berkeley, Uppsala, Hurbanovo).				
06	Shillong	ZN N	iP	08	13	48	5920	Moderate.
			e		14	42		
			PcP		15	11		
			PP		15	52		
			iS		21	19		
			SS		25	01		
			LR		28	—		
M		32	19					
06	Chatra	EZ E	iP	08	14	07	6180	Slight.
			PcP		15	00		
			PP		16	09		
			PPP		17	24		
			PcS		19	07		
			iS		21	52		
			PS		22	05		
			PPS		22	19		
			ScS		23	35		
			SS		25	42		
			LQ		27	54		
			LR		30	31		
			M		35	20		
06	Calcutta	E	iP iS	08	14	22 22 18	6370	Moderate, first movement West.
06	Dehra Dun	NE N	eP	08	14	34	6520	Moderate.
			PcP		15	12		
			PP		16	39		
			PPP		18	10		
			cS		22	38		
			PS		22	54		
			PPS		23	04		
			ScS		24	05		
			SS		26	37		
			SSS		28	39		
			LQ		29	45		
			LR		32	21		
			M		37	34		

Date	Station	Compt.	Phase	G. M. T.			△ km.	Remarks						
				h.	m.	s.								
July 1954														
06 Contd.	Colombo	E	e S L M	08	14	49								
					25	39								
					50	—								
					55	07								
06	New Delhi	NE N	P PP PPP eS PS ScS SS SSS M	08	14	50	6700	Moderate. Uncertain due starting of the phase within time break.						
					17	08								
					18	38								
					23	04								
					23	16								
					24	37								
					26	35								
					29	05								
					36	13								
				06	Hyderabad	EN E N EN E N E			iP PP iS iS SS L M M	08	15	25	7550	Moderate.
	18	01												
	24	24												
	24	28												
	28	58												
	37	46												
	41	19												
	42	06												
06	Madras	E	iP PcP PP iS				08	15		42	7780	Moderate shock, phases not clear due to presence of large microseisms.		
								15		58				
					18	30								
					24	52								
06	Poona	Z N	iP PP PPP PcP iS PS PPS SS LQ M	08	15	46	7800	Moderate.						
					18	14								
					19	54								
					20	21								
					24	57								
					25	21								
					25	50								
					29	39								
					33	55								
					43	10								
06	Bombay	N	iP e PP iS PS i	08	15	52	7800	Moderate.						
					17	07								
					18	24								
					25	03								
					25	36								
06	Kodaikanal		e	08	15	59		Tremor.						
					09	03			51					
06	Shillong	Z	iP	10	23	22		Slight.						
06	Shillong Dehra Dun	Z N	iP e	10	24	06		Tremor.						
					10	56			06					
06	Shillong	Z	iP	10	56	06		Slight.						
06	Shillong Chatra Dehra Dun	Z Z N	iP i e	11	20	54		Slight, distant. Tremor.						
					11	21			13					
					11	21			41					
06	Shillong	Z N	e e e	1	32	22		Tremor.						
					41	44								
					52	—								

Date	Station	Compt.	Phase	G. M. T.	Δ	Remarks
				h. m. s.	km.	
July 1954						
06 Contd.	Hyderabad	E	M	12 20 05		Per.=20 secs $\mu=14$ .
06	Shillong	Z	e	16 49 15		Tremor.
06	Dehra Dun	N	e	18 01 36		Tremor.
06	Shillong	Z	i	19 23 44		Slight.
06	Shillong Hyderabad	N E	e M	23 03 — 23 19 16		Slight. Per.=20 secs. $\mu=8$ .
07	Shillong	Z	i	01 31 00		Slight.
07	Shillong	Z	e(?) i	13 17 15 18 03		Slight.
08	Shillong	Z	i	14 45 17		Slight, local.
08	Shillong	Z N	i e(L)	15 28 55 30 24		Slight.
08	Shillong	Z	e	16 55 53		Tremor.
08	Shillong	Z	e	17 27 36		Tremor.
08	Shillong	Z	i	19 15 00		Slight.
09	Shillong	Z N	e e(L)	12 34 23 45 —		Tremor.
09	Shillong	Z	i	14 51 10		Slight.
09	Shillong	Z N	i e(M)	15 46 57 16 06 —		Slight.
09	Shillong	Z	i i	18 36 14 41 33		Slight.
	Chatra Poona	Z Z	i eP	18 36 39 18 38 28		Slight, probably deep focus. Tremor.
09	Shillong	Z	eP iSg	20 20 20 20 48	200	Slight.
10	Dehra Dun	N	e i i l	18 37 17 37 17 37 36 38 20		Feeble, phases not clear.
10	Epc. 37° N., 70½° E. Hindukush; h=200 km ca; 0=22h 56m 53s (U.S.C.G.S.) 36°5 N., 70°5 E. h=220 km; 0=22h 56m 57s (B.C.I.S.) 37° N., 72° E. 0=22h 56m 45s (Shillong) Felt—Hengu, Drosh (Press report from Quetta).					
	Dehra Dun	NE N	eP PP P* PPP Pg	22 58 53 59 02 59 08 59 13 59 36	900	Moderate.

Date	Station	Compt.	Phase	G.M.T.	Δ	Remarks
				h. m. s.		
July 1954						
10	Dehra Dun	N	LQ	23 00 16		
Contd.	Contd.		iS SS LR SSS S* Sg/M	00 26 00 38 00 40 00 48 00 57 01 17		
	New Delhi	NE	eP PP P* Pg i i iS SS M	22 59 06 59 13 59 28 59 54 00 18 00 30 00 52 01 04 01 48	1030	Slight. Direction of first movement North.
	Chatra	Z NE	iP eP PP PPP LQ iS SS SSS LR M	23 00 38 00 49 00 58 03 34 03 36 03 57 04 08 04 22 05 43	1780	Slight, probably deep focus.
	Poona	Z E	eP PPP eS SS SSS LR M	23 00 58 01 23 04 20 04 42 04 50 05 05 06 37	2030	Slight.
	Bombay	N	i e i(S)	23 01 10 01 43 04 07		Slight, probably deep focus. Phases not clear.
	Calcutta	E	iP iS	23 01 19 04 54	2160	Slight.
	Shillong	N	iP i	23 01 21 05 00		Slight.
	Madras	E	eP PP PPP PoP iS LQ SS SSS LR ScP M	23 01 54 02 29 02 42 05 30 06 05 06 43 07 00 07 03 07 50 09 05 09 41	2610	Moderate.
	Hyderabad	N	e iS L	23 02 18 04 45 06 00		Slight.

Date	Station	Compt.	Phase	G. M. T.	$\Delta$	Remarks.
				h. m. s.	km	
July 1954						
10 Contd.	Hyderabad Contd.	E N	M M	23 07 00 07 11		Per. = 7 secs $\mu = 5$ . Per. = 8 secs $\mu = 3$ .
11	Chatra	Z	e i	07 30 14 31 35		Feeble, near.
11	Chatra	Z	e	17 15 42		Slight, near.
	Dehra Dun	E	e	21 05		Surface waves.
	Shillong	N N	e e(?) i	17 17 13 17 17 39 18 21		Tremor. Slight.
12	Dehra Dun	N	e	17 42 15		Tremor.
12	Dehra Dun	N	e e	17 55 00 57 18		Feeble, phases not clear.
12	Shillong	N	e(M)	18 52 --		Tremor.
12	Dehra Dun	N	e	23 16 37 16 49		Feeble, phases not clear.
13	Shillong	Z	eP	04 03 44		Feeble.
13	Shillong	Z	iP	05 54 47		Feeble.
13	Epc: 3° S., 151° E. New Britain Region; 0=08h 04m 44s (U. S. C. G. S.) Magnitude - 6½ (Kiruna).					
	Shillong	Z N	iP eP	08 15 19 15 26		Slight.
	Chatra	Z	eP	08 15 48		Slight, distant.
	Colombo	E	P S L M	08 16 20 25 39 40 30 46 30		
	Madras	E	e	08 16 24		Tremor.
	Calcutta	E	e i	08 16 51 24 31		Slight, distant.
	Poona	ZE	eP	08 16 51		Slight, distant shock, phases not clear.
	Bombay	E	e e e	08 17 09 17 37 26 16		Feeble.
	Hyderabad	NE	e	27 54		
	Hyderabad	N	M	08 45 52		Per. = 18 secs $\mu = 5$ .
13	Dehra Dun	N	e	14 20 12		Tremor.
13	Shillong	Z	eP	20 07 17		Feeble.
13	Shillong	Z	iP	22 17 11		Feeble.
13	Shillong	N	e e	22 38 33 41 28		Feeble.

Date	Station	Compt.	Phase	G. M. T.	$\Delta$	Remarks
				h. m. s.	km.	
July 1954						
14	Shillong	Z	eP	06 48 41		Tremor.
14	Shillong	Z	eP	11 52 07		Feeble.
14	Shillong	Z	iP	23 23 44		Feeble.
14	Shillong Poona	Z Z	iP eP	23 53 39 23 55 33		Feeble. Tremor.
15	Shillong	ZNE	iP iS Sg	16 23 06 23 41 23 43		Local, Slight, felt.
	Chatra	Z	i i	16 24 02 25 24		Slight, near.
	Calcutta	N	i	16 24 41		Slight, very near.
16	Shillong	ZNE E	iP Sg	00 24 55 25 14		Local, Slight, felt.
16	Shillong	Z	iP	02 59 04		Feeble.
16	Shillong	Z	eP	07 39 14		Tremor.
16	Shillong Chatra Poona	Z Z Z	iP e e	12 50 01 12 50 27 12 52 13		Feeble. Slight, distant. Tremor.
16	Dehra Dun	N	e i	15 33 47 35 20		Feeble, phases not clear.
16	Shillong	Z	eP	20 04 57		Very feeble.
16	Shillong	Z	iP	22 56 21		Feeble.
17	Shillong	Z	eP	00 44 28		Feeble.
18	Shillong	N	eP	05 21 30		Feeble.
18	Dehra Dun	NE	e i	05 56 18 56 36		Feeble, phases not clear.
18	Shillong Chatra Poona	Z Z ZN	eP e eP	06 44 33 06 44 44 06 46 16		Tremor. Slight, distant. Very feeble, phases not developed.
18	Shillong	N	eP	07 05 32		Feeble.
18	Hyderabad	N E	M M	07 20 39 20 43		Per. = 14 secs $\mu = 5$ Per. = 15 secs $\mu = 4$ .
18	Epc: 35½° N., 140½° E. Off the East Coast of Hondo, Japan; 0=09h 07m 44s (U.S.C.G.S.) 35° 5' N., 141° 1' E. h=40 km ca; 0=09h 07m 36s Felt (C.M.O., Japan). Magnitude—7 (Wellington), 6½ (Pasadena, Roma), 6½—6½ (Praha), 6½ (Kiruna), 6—6½ (Uppsala).					
	Shillong	ZN	iP	09 15 35	4720	Moderate.



Date	Station	Compt.	Phase	G. M. T.			Δ	Remarks
				h.	m.	s.		
July 1954								
18 Contd.	Shillong. Contd.	ZN	PP iS PS PPS SS LQ SSS LR M	09	17	01		
	Chatra	Z E	iP } eP } PP PPP PcP eS PPS SS LQ LR M	09	16	02	5080	Slight.
	Calcutta	E	iP PcS iS SS	09	16	12	5450	Moderate.
	New Delhi	NE N NE N	eP PP eS PPS M	09	16	57	5870	Moderate.
	Hyderabad	EN E EN E N E	iP PP iS SS L M M	09	17	27	6360	Per.=21 secs $\mu=13$ . Per.=22 secs $\mu=14$ .
	Madras	E	iP PcP PPP iS PS PPS ScS SS	09	17	36	6480	Moderate.
	Poona	N E N	eP PP PPP eS PS PPS SS SSS LQ LR M	09	17	50	6780	Slight.

Date	Station	Compt.	Phase	G.M.T.			Δ	Remarks
				h.	m.	s.		
July 1954								
18 Contd.	Bombay	NE	iP PcP PPP eS PS PPS SS	09	17	55		Moderate. Surface waves not prominent.
	Colombo		e S L M	09	21	—		
18								Epc : 20° N., 120° E. Off the North Coast of Luzon, Phillipines ; 0=10h 57m 30 s(B.C.I.S.) Magnitude—5½ (Kiruna).
	Shillong	Z	eP eS M(?)	11	03	10		Feeble.
	Chatra Calcutta	Z E	e eS i i	11	03	49		Slight, distant. Slight, distant.
	Hyderabad	N E	M M	11	22	41		Per.=12 secs $\mu=3$ . Per.=12 secs $\mu=3$ .
18	Chatra Shillong	Z Z	e eP	14	52	11		Slight, distant. Very feeble.
18	Dehra Dun	N	e	19	34	39		Feeble, phases not clear.
18	Shillong	Z	eP	22	10	27		Very feeble.
18	Dehra Dun	N	e	22	55	40		Tremor.
19	Shillong	Z	eP	14	03	30		Feeble.
19	Shillong	Z	eP	15	57	24		Feeble.
19	Shillong	Z	eP	17	18	26		Feeble.
19	Poona	E	eP	19	10	20		Tremor.
19	Dehra Dun	N	e	20	10	16		Feeble.
19	Shillong	Z	iP	21	35	35		Feeble.
20	Dehra Dun	N	e	01	52	49		Tremor.
20	Shillong	Z	i i	08	52	33		Tremor.
20	Shillong	Z	P Pg PP Sg	18	52	20		Very feeble
20	Shillong	Z	i	20	02	53		Slight.

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
July 1954								
20	Dehra Dun	NE	e	20	15	21		Tremor.
20	Shillong	Z	P Pg PPP S S* Sg	20	46	46 46 58 47 02 47 28 47 30 47 36		Slight.
20	Shillong	Z N	eP eP PPP eS SSS/M	23	40	25 27 42 15 35		Slight.
20	Chatra	Z	e	23	40	45		Slight, near.
	Calcutta	E	e	23	41	15		Slight, near.
	Poona	N	i e*	23	48	38		Tremor.
21	Dehra Dun	N	e	00	45	14		Tremor.
21	Shillong	Z	Pg Sg	04	11	02 16		Tremor.
21	Epc: $27\frac{1}{2}^{\circ}$ N., $101^{\circ}$ E. Szechwan Province China; 0=04h 38m 51s (U.S.C.G.S.) 27° N., 101 E. Yunnan Province China; 0=04h 38m 50s (Shillong).							
	Shillong	Z N	iP eS LR M	04	40	57 31 15 53		Slight.
	Chatra	Z	i	04	41	51		Slight, near.
	Dehra Dun	NE N	eP PP PPP iS PcP LQ SS SSS LR M PcS ScS	04	43	33 55 08 19 31 35 56 09 34 24 08 06	2290	Moderate.
	New Delhi	NE N NE N	eP PP eS LQ PcP SSS LR M	04	43	41 03 22 32 48 03 19 32	2230	Slight.

Date	Station	Compt.	Phase	G. M. T.			$\Delta$ km.	Remarks
				h.	m.	s.		
July 1954								
21	Hyderabad	N	eP	04	43	56	2700	Slight.
Contd.			iS L M i		48	13 33 56 01		Per.=11 secs $\mu=5$ . Slight.
	Calcutta	N	i	04	44	01		
	Bombay	N	eP PPP eS LQ SS SSS LR M	04	44	41 48 26 35 56 11 51 01	3120	Slight, doubtful due micro-seisms. Per.=7 secs $\mu=4$ .
21	Shillong	Z	i	07	15	31		Tremor.
21	Shillong	Z	i	14	54	25		Tremor.
21	Shillong	Z	e	16	46	35		Tremor.
21	Shillong	Z	iP	17	44	31		Slight.
21	Shillong	Z	i	22	07	22		Tremor.
21	Shillong	Z	i	04	10	46 48		Slight, local.
22	Shillong	Z	i	06	03	57		Tremor.
22	Shillong	Z	i	07	48	26		Tremor.
22	Shillong	Z	e i	07	57	29 58		Tremor.
22	Shillong	Z	i	10	47	39		Slight.
22	Shillong	Z	i	12	24	23		Tremor.
22	Shillong	Z	e	12	46	16		Tremor.
22	Shillong	Z	i	14	54	27		Slight, rarefaction.
22	Shillong	Z	i	18	28	59		Tremor.
23	Bombay	E	i i	04	53	09 28		Unidentifiable phases of a very distant shock.
	Poona	Z	iP	04	53	09		Feeble shock. Phases lost.
	Shillong	Z	PKP	04	53	32		Slight compression. Other phases not clear.
23	Epc: $34\frac{1}{2}^{\circ}$ N., $69\frac{1}{2}^{\circ}$ E. Eastern Afghanistan; 0=14h 45m 16s (U.S.C.G.S.) 35° N., 69° E. 0=14h 45m 15s (Shillong).							
	New Delhi	NE N NE	iP PP PPP	14	47	21 29 35	360	Slight. Direction of first motion South and East.

Date	Station	Compt.	Phase	G.M.T.			Δ	Remarks
				h.	m.	s.		
July 1954								
28	Shillong	Z	iP P* Pg eS Sg	22	26	41	710	Slight.
28	Shillong	Z	iP PP P* Pg LQ eS SS S* Sg	22	30	54	690	Slight.
29	Shillong	Z	eP P* eSg	00	40	01	210	Slight.
29	Shillong	Z	e e	01	09	53		Tremor.
29	Epc: 49½° N., 158° E. Off the South Coast of Kamchatka; 0=03h 34m 20s (U.S.C.G.S.) Magnitude—6½—6½ (Berkeley), 6 (Pasadena), 6½ (Kiruna), Uppsala, Tacubaya), 6—6½ (Praha).							
	Dehra Dun	N	e i i i i	03	43	25		Slight, phases not clear.
	Shillong	ZN	iP i PoP iS PS PPS LR M	03	44	00	6180	Moderate.
	Calcutta	E	eP iS	03	44	30	6800	Slight.
	New Delhi	NE N	eP eS	03	44	51		Moderate.
	Hyderabad	E	iP iS M	03	45	36	7750	Per.=15 secs μ=5.
	Poona	ZN	eP PP eS SS SSS M	03	45	51	8030	Moderate.
	Kodaikanal	E	eP	03	45	53		Tremor.

Date	Station	Compt.	Phase	G. M. T.			Δ	Remarks
				h.	m.	s.		
July 1954								
29	Bombay	NE N E N E	iP eS iS M M	03	45	54	8070	Moderate.
29	Shillong	Z	i i	04	14	48		Per.=19 secs μ=5. Per.=23 secs μ=10.
29	Shillong	Z	iP eS eSg SS	04	16	05	180	Tremor.
29	Shillong	Z	i i	06	17	24		Slight.
29	Shillong	Z	e e	06	17	43		Tremor.
29	Shillong	Z	e e	06	48	00		Tremor.
29	Shillong	Z	e e	08	32	10		Tremor.
29	Shillong	Z	e e	08	48	43		Tremor.
29	Shillong	Z	i i	08	34	33		Tremor.
29	Shillong	Z	i i	14	03	27		Tremor.
29	Shillong	Z	e i	14	03	40		Tremor.
29	Shillong	Z	e i	14	29	00		Tremor.
29	Shillong	Z	i i	14	48	59		Slight, local.
29	Shillong	Z	e e	22	25	03		Tremor.
30	Shillong		e	00	04	16		Tremor.
30	Shillong	Z	iPg	07	23	16		Slight.
30	Epc: 35½° S., 97½° , South Pacific; h=100 km ca; 0=08h 46m 11s (U.S.C.G.S.) Magnitude—6½ (Pasadena, Kiruna), 6½ (Tacubaya), 6 (Uppsala)							
	Colombo	E	e e e	09	04	25		
	Bombay	E NE E N E NE	PKP PP i e i	09	06	06		Very distant shock, feebly recorded.
	Poona	Z N	PKP i i	09	06	09		

Date	Station	Compt.	Phase	G. M. T.			Δ	Remarks
				h.	m.	s.		
July 1954								
30 Contd.	Shillong	N	PKP <sub>1</sub> PP e(SKKS <sub>1</sub> ) e(SKKS <sub>2</sub> ) PPS SS SSS LQ LR M	09	07	08	18580	Moderate, Beginning in Benioff Vertical mixed with traffic disturbance.
	Kodaikanal	E	e	09	10	57		Tremor.
	Hyderabad	E N	M M	10	08	32		Per.=21 secs $\mu = 6$ . Per.=22 secs $\mu = 15$ .
30	Shillong	Z	i	11	30	21		Tremor.
30	Shillong	Z	eP Pz eSg SS SSS	17	33	26	170	Slight.
31	Epc: 39° N., 104° E. Ningsia Province China; 0=00h 59m 57s (U.S.C.G.S.) 39° 5 N., 104° E. 0=00h 59m 56s (B.C.I.S.). 38° N., 105° E. 0=00h 59m 57s (Shillong). Magnitude - 7½ (Hurbanovo, De Bilt), 7.2 (Praha), 7-7.1 (Shillong), 7 (Roma), 6½ (Kiruna, Uppsala, Jerusalem), 6½ (Pasadena).							
	Shillong	ZN E N	iP ep PP PPP LQ iS SS SSS LR M PcS ScS	01	03	47	1810	Great.
	Chatra	Z	i	01	04	15		Moderate, Near; phases unidentifiable from vertical compt. record alone.
	Calcutta	E N E	iP iP PPP iS LR M	01	04	48	2430	Great. First movement West and South.

Date	Station	Compt.	Phase	G.M.T.			Δ	Remarks
				h.	m.	s.		
July 1954								
31 Contd.	Dehra Dun	NE N	eP PP PPP PcP iS LQ SS SSS LR PcS M ScS	10	05	07	2650	Moderate.
	New Delhi.	N	iP PP iS i LQ SS SSS LR PcS M	01	05	17	2760	Moderate, direction of first movement North.
	Hyderabad	E	i P iS SS L M	01	06	14	3300	Great. Per.=9 secs $\mu = 176$ .
	Poona	ZN	eP PP PPP iS SS SSS LR M	01	06	36	3732	Great.
	Madras	E	iP PcP iS LQ SSS LR	01	06	41	3810	Moderate.
	Bombay	NE N	iP PP PPP i iS i i LQ SS SSS LR M	01	06	43	3770	Great. (beginning)

Date	Station	Compt.	Phase	G. M. T.	$\Delta$	Remarks
July 1954				h. m. s.	km.	
31 Contd.	Kodaikanal	E	iP PP PPP iS LQ SSS LR	01 07 22 08 40 09 04 13 01 15 28 16 00 17 13	4000	Earthquake of moderate intensity.
	Colombo	E	P S L M1 M2	01 07 33 13 18 19 30 22 42 30 50		
31	Shillong	Z	iP	01 18 56		After shock of previous shock.
31	Shillong	Z	iP	01 26 11		After shock of previous shock.
31	Shillong	Z	i i	02 02 49 02 55		Tremor.
31	Shillong	Z	i	02 09 24		Tremor.
31	Shillong	Z	e e e	06 06 45 07 21 07 28		Slight, local. Begining doubtful due merging with traffic disturbance.
31	Shillong	Z	ePg eSg	06 10 19 10 33	120	Slight.
31	Shillong	Z	e	06 21 41		Tremor.
31	Shillong	Z	e	12 30 53		Tremor.
31	Shillong	Z	e e	13 52 35 53 53		Slight, near. Traces faint due to drop in voltage.
31	Dehra Dun	N	e i	15 45 38 46 12		Feeble.
31	Shillong	Z	e	17 08 07		Tremor.
31	Dehra Dun	N	e i	17 57 24 59 01		Slight, phases not clear.
	Shillong	Z	e(P)	17 59 58		Slight, near.
31	Shillong	Z	iPg eSg	19 06 10 06 24	120	Slight.
31	Shillong	Z	iP	20 23 37		Slight.
31	Shillong	Z	eP	22 20 13		Slight.

### Earthquake Reports

(Non-Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations

Place at which felt	Date	Time at which felt in G.M.T.	Duration in secs	Intensity R.F. scale	No. of shocks	Remarks
		h. m.				
Shillong	July 1	15 25	1-2	II	1	—
Srinagar	July 10	23 —	30	V	2	Sound rumbling, cracking of walls heard.
Shillong	July 15	16 25	3	II-III	1	—
Shillong	July 16	00 25	3	II-III	1	—
SARKER						
28.1.56						

Amc  
7-20-60  
ST

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN

March → Dec  
1954



Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	$T_0 = T_g$ $= 7.0$	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	$T_0=0.72$ $T_g=0.45$	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.2$	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	$T_0=1.5$ $T_g=1.5$	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benloff Short Period	Z	$T_0=1.0$ $T_g=0.18$	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G. M. T.			/	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1954								
01	Shillong	Z	e	18	57	57		Feeble.
01	Shillong	Z	i	21	55	07		Tremor.
02	Shillong	Z	e	04	39	58		Tremor.
			i		40	12		
			e		40	45		
02	Shillong	Z	e	10	04	04		Tremor.
02	Shillong	Z	i	17	19	48		Tremor.
			i		20	07		
02	New Delhi	E N,E	eP	18	46	14	840	Slight.
			P*		46	33		
			Lq		47	28		
			iS		47	41		
			SS		47	54		
			SSS		48	04		
			S*		48	09		
	Dehra Dun	N,E	eP	18	46	17	610	Slight.
			iS		47	23		
			Lr		47	28		
			SS		47	34		
			S*		47	41		
02	Shillong	Z	i	21	34	51		Trem r.
			i		34	59		
			i		35	21		
03	Epc: $5\frac{1}{2}^{\circ}$ S, $142\frac{1}{2}^{\circ}$ E; New Guinea; O = 06h 02m 55s (U.S.C.G.S) Magnitude = $7\frac{1}{4}$ (Pasadena, Berkeley, Christ Church), 7 (Kiruna), 6.8 (Skalnate Pleso), $6\frac{3}{4}$ (Uppsala)							
Shillong	Z N N		iP	06	12	52	6360	Moderate.
			eP					
			PcP		13	41		
			PPP		16	21		
			PcS		17	48		
			iS		20	47		
			PS		20	54		
			ScS		22	40		
			SS		24	27		
			SSS		26	55		
			Lq		27	14		
			Lr		28	44		
			M		32	29		
Calcutta	E N E N E		iP	06	13	09	6780	Moderate, first movement West and North.
			iP		13	15		
			iS		21	27		
			iS		21	29		
			ScS		23	10		
			Lq		29	27		



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
						km.	
<u>Mar.</u>							
1954							
03 Contd.	Chatra	E	aP	06	13	22	6870 Slight.
			PcP			14 05	
			PP			15 43	
			PPP			17 09	
			PcS			17 54	
			eS			21 45	
			PS			21 55	
			PPS			22 09	
			ScS			23 01	
			SS			25 47	
			SSS			28 39	
			Lq			29 01	
			Lr			32 24	
			M			37 07	
	Madras	E	iP	06	13	37	7220 Moderate.
			PcP			14 08	
			PP			16 05	
			PPP			17 38	
			PcS			18 05	
			iS			22 19	
			PS			22 46	
			PPS			22 51	
			ScS			23 32	
			SS			26 30	
			SSS			29 16	
			Lq			30 01	
			Lr			33 08	
			M			40 17	
	Kodaikanal	E	iP	06	13	50	7350 Slight.
			iS			22 38	
			PS			23 02	
			PPS			23 17	
			SS			27 02	
			SSS			30 03	
			Lq			31 11	
			Lr			34 21	
			M			39 59	
	Hyderabad	E	iP	06	13	54	
			PP			16 24	
			iS			22 45	
			PS			23 01	
			SS			27 01	
		E,N	L			34 32	
			M			40 48	
		N	M			40 57	
			M			40 57	
							Per. = 21 Secs./u = 23.
	New Delhi	N,E N	aP	06	14	19	7850 Moderate.
			PcP			14 39	
			PP			17 05	
			PcS			18 58	
			iS			23 33	
			ScS			24 30	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS			
				h.	m.	s.				
<u>Mar.</u>										
1954										
03 Contd.	Dehra Dun	N,E	eP	06	14	20	7890 Moderate.			
			N	PcP		14		36		
			PP		17	03				
			PPP		18	40				
		N,E	iS		23	36				
			N	ScS/PS		24		12		
			PPS		24	28				
			SS		28	21				
			Lq		33	33				
			Lr		37	11				
			M		43	19				
		Poona	E	E	iP	06		14	22	7930 Moderate.
					PcP			14	33	
					PP			17	10	
PPP					18	46				
N	eS				23	40				
	E			PS		24	18			
	PPS				24	31				
	SS				28	15				
	Lq				33	24				
	M				43	02				
Bombay	N			E	eP	06	14	32	8090 Moderate. Another shock appears to be superimposed on the coda of this shock.	
					E	iP				
		E	PP		17	23				
		N	e		18	03				
		E	e		23	25				
		N,E	iS		23	58				
			PS		24	32				
		E	PPS		24	49				
		N	SS		28	37				
		E	Lq		33	29				
		N	Lq		33	35				
		E	Lr		37	32				
			M		51	22				
							Per. = 23 Secs./u = 12.			
03	Shillong	Z	eP	07	54	30	Slight.			
			e		57	19				
Chatra	E		e	07	57	58	Slight, distant.			
			e	08	04	32				
			e		19	--		Surface wave.		
	Dehra Dun	N	e	08	04	03	Tremor.			
Hyderabad	E	N	M	08	15	45	Per. = 16 Secs. /u = 6.			
			M		16	08		Per. = 16 Secs. /u = 6.		
03	Shillong	Z	e	08	31	39	Tremor.			
03	Shillong	Z	i	10	04	28	Tremor.			
03	Shillong	Z	e	10	47	04	Slight.			
			i		47	07				

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1954</u>								
03	Madras	E	iP PcP PP eS	10	47	47	7220	Slight, probably after shock of the earlier shock at 0613 hrs.
	Poona	Z	i	10	48	32		Tremor.
03	Poona	Z	i	11	08	20		Tremor.
03	Dehra Dun	N	e	12	59	23		Feeble.
03	Epc: $5\frac{1}{2}^{\circ}$ S, $142\frac{1}{2}^{\circ}$ E; $0 = 15h\ 21m\ 27s$ (U.S.C.G.S)							
	Shillong	Z	e(P) e	15	31	27 31 34		Tremor.
	Madras	E	iP PcP PP PPP PcS eS PS PPS ScS SS Lq	15	32	10 32 41 34 36 36 11 36 36 40 55 41 15 41 34 41 56 44 57 48 41	7290	Slight, after shock of the earthquake at 0613 hrs.
	Poona	Z	i(P)	15	32	54		Tremor.
	Bombay	E	e(P) e	15	33	02 42 31		Very feeble.
	Dehra Dun	N	e	15	33	26		Feeble.
03	Shillong	Z	e	17	25	13		Tremor.
03	Shillong	Z	e	17	47	19		Tremor.
03	Shillong	Z	e	19	58	11		Tremor.
03	Shillong	Z	i i i i	20	58	19 58 28 58 34 58 38		Slight, near.
	Poona	Z	i	20	59	32		Tremor.
04	Shillong	Z	i e	22	17	19 17 29		Tremor.
05	Shillong	Z	e i e	03	42	08 42 21 43 19		Tremor.
05	Shillong	Z	i	03	51	54		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Mar.</u> 1954						
05	Poona	Z	eP	04 23 50		Tremor.
	Shillong	N	M	04 38 30		Slight.
05	Dehra Dum	N	e(P) i(S)	07 54 19 55 53	910	Slight, phases not clear.
	Shillong	Z	e	07 56 49		Very feeble.
05	Epc: $3^{\circ}$ S, $130^{\circ}$ E; Ceram Island; $0 = 11\text{h } 17\text{m } 43\text{s}$ (U.S.C.G.S).					
	Poona	Z	eP	11 23 50		Tremor.
	Shillong	Z	eP i i	11 26 04 26 24 26 53		Slight.
	Madras	E	iP e eS i	11 26 58 30 55 34 03 35 10		Slight, phases not clear.
	Dehra Dum	N	e	11 28 01		Feeble.
05	Epc: Hindu Kush; $0 = 15\text{h } 07\text{m } 01\text{s}$ (B.C.I.S).					
	Dehra Dum	N,E	eP eQ iS SS SSS Lr M PcP	5 09 05 12 16 12 20 12 36 12 54 13 00 14 22 14 32	1640	Moderate.
	Chatra	Z	e	15 11 17		Slight, distant.
	Shillong	Z	i	15 12 05		Tremor.
	Madras	E	e	15 17 18		Slight, phases not clear.
	Poona	Z	e	15 31 37		Feeble, phases not clear.
05	Shillong	Z	i	21 58 43		Slight.
06	Epc: $24^{\circ}$ S, $180^{\circ}$ ; Long Fiji Island; $h = 550$ km ca; $0 = 00\text{h } 29\text{m } 27\text{s}$ (U.S.C.G.S). Magnitude = 7 (Wellington), $6\frac{1}{2}$ (Berkeley).					
	Chatra	Z	eP e	00 42 31 52 22		Slight, distant.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Mar.</u>									
1954									
06 Contd.	Poona	E	aP?	00	46	50		Feeble, phases doubtful.	
			i		47	54			
			i		50	11			
	Bombay	N, E	e	00	48	00		Distant and deep focus.	
			e		53	07			
			e		58	13			
07	Shillong	Z	iP	06	08	54		Slight.	
07	Shillong	Z	iP	07	53	54		Slight.	
08	Poona	Z	aP	07	54	41		Tremor.	
08	Poona	Z	aP	08	26	17		Tremor.	
08	New Delhi	E	aP	16	33	30	470	Slight.	
			N, E	Pg		33			47
		E	eS		34	20			
			Lr		34	21			
			S*		34	31			
N, E	Sg		34	44					
08	Poona	Z, E	aP	17	39	02		Feeble, phases doubtful.	
08	Shillong	Z	e	19	12	28		Slight, near.	
			e		12	40			
09	Shillong	Z	e	01	35	57		Beginning doubtful due poor light intensity.	
09	Epc: 0.3°N, 29.8°W; St. Paul Rock Atlantic Ocean;								
	O = 02h 21m 41s (B.C.I.S).								
	1½°N, 30½°W; O = 02h 21m 43s (U.S.C.G.S).								
	Magnitude = 6½ (Kiruna), 6 (Uppsala).								
	Bombay	N	e	02	39	32		Very distant shock, feebly recorded.	
			E			39			49
						48			53
			M	03	12	39			
	Poona	Z	e?	02	39	56		Tremor.	
	Colombo	E	P	02	42	12		Amp. = 0.2mm.	
			M	03	26	25			
	Shillong	N	e	02	44	45		Slight, distant.	
			e			51			38
			e			57			48
			M	03	13	48			
	Kodaikanal	E	e	02	45	--		Time doubtful due failure of eclipse clock.	
	Hyderabad	N	M	03	15	11		Per. = 15 Secs. /u = 3.	

STATION	DEPT.	PHASE	G. M. T.			△	REMARKS
			h.	m.	s.		
0501 Qinghai Province of China; 0 = 05h 30m 48s (U.S.C.G.S). 33°N, 94°E; 0 = 05h 30m 47s (B.C.I.S). 32°N, 95°E; 0 = 05h 30m 52s (Shillong).							
Shillong	Z,N,E	eP	05	32	39	790	Slight.
	N	Lq		33	53		
	Z,N,E	eS		34	01		
	N	SS		34	22		
		ESS		34	37		
		M		34	46		
Shillong	N,E	eP	05	32	51		Slight, near, phases not clear.
Shillong	N	eP	05	34	06	1610	Moderate, other phases not clear.
		e		34	11		
		Ir		34	23		
		Lq		36	36		
		eS		36	48		
		PcP		39	12		
Shillong	N,E	eP	05	34	23	1750	Slight.
	N	Lq		37	02		
		eS		37	19		
		M		39	20		
Shillong	N	P	05	35	32	2420	
		L		39	29		
		L		41	45		
		M		43	30		Per. = 8 Secs./Δ = 4.
Shillong	E	e	05	35	35		Slight, distant.
		i		37	03		
Shillong	E	eP	05	35	54	2590	Slight.
	N	eS		40	03		
		SS		40	49		
		Ir		41	15		
		M		43	23		
Shillong	N,E	eP	05	36	03	2610	Feeble.
		eS		40	14		
	E	Lq		40	47		
		Ir		41	50		
Shillong	E	i(P)	05	36	06		Slight, succeeding phases mixed up with the phases of another shock.
		e		41	39		
Shillong	E	e	05	44	47		Time uncertain due failure of eclipse clock.

DATE	STATION	COMP.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Mar.</u> 1954						
09	Epc: 50°N, 157°E. Off the South Coast of Kamchatka;					
	- H = 05h 39m 24s (U.S.C.G.S)					
	50°N, 157 $\frac{1}{4}$ °E. - H = 05h 39m 24s (B.C.I.S)					
	Magnitude = 6 $\frac{3}{4}$ (Praha), 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Pasadena), 6 $\frac{1}{4}$ (Kiruna), 6 (Uppsala).					
	Shillong	N,Z	eP	05 49 00	6050	Moderate.
			PP	51 01		
			PPP	52 16		
			eS	56 38		
			ScS	58 39		
			SS	06 00 31		
			Lr	05 31		
			M	09 16		
	Chatra	Z	iP	05 49 14		Slight, distant.
		E	e	06 09 30		Surface waves.
	New Delhi	N,E	eP	05 49 48		
	Hyderabad	N	P	05 50 34	7800	
			eS	59 46		
			L	06 12 35		
			M	17 38		Per. = 16 Secs./u = 9.
	Poona	Z	iP	05 50 47	7870	Moderate.
		N	PcP	51 02		
			PP	53 24		
			eS	06 00 02		
			PS	00 21		
			PPS	00 47		
			SSS	07 30		
			Lq	09 24		
			M	18 34		
	Madras	E	i	05 50 48		
			Lr	06 21 14		
			M <sub>1</sub>	25 34		
			M <sub>2</sub>	29 27		
	Bombay	N,E	eP	05 50 49		Slight, phases not
		N	e	51 09		clear due to superposi-
			e	53 39		tion with that of earlier
		N,E	e(S)	06 00 26		one.
			e	01 15		
		E	M	19 03		Per. = 23 Secs./u = 5.
		N	M	19 11		Per. = 23 Secs./u = 10.
	Colombo	E	P	05 51 20		
			S	06 01 05		
			L	18 --		
			M	30 --		Amp. = 0.2mm.
09	Shillong	Z	iP	19 58 23		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1954						
10	Epc: Hindu Kush;		- H =	04h 16m 38s	(Quetta).	
			- H =	04h 16m 35s	(Shillong).	
	Dehra Dun	N,E	eP	04 18 38	870	Slight.
			Lq	19 51		
			iS	20 06		
			Lr	20 15		
			SS	20 18		
			SSS	20 27		
			S*	20 29		
	New Delhi	N,E	eP	04 18 44	960	Slight.
		E	P*	19 08		
			Pg	19 28		
		N,E	eS	20 23		
			S*	20 56		
			Sg	21 23		
	Chatra	Z	eP	04 20 15		Feeble, near.
			iS	23 10		
	Shillong	Z	iP	04 20 48		Slight, near.
			PP	21 08		
			PPP	21 18		
			S	24 20		
			Lq	14 27		
			PcP	24 52		
	Poona	Z,E	e?	04 21 24		Slight shock, phases
		E	i?	22 59		not clear.
			•	25 46		
	Madras	E	eP	04 26 37		Very feeble. Other
						phases not clear.
10	Shillong	Z,N	Pg	05 46 41		Slight, local.
			Sg	46 49		
10	Shillong	Z	eP	08 04 55		Feeble, near.
10	Shillong	Z	iP	15 38 16		Very feeble.
10	Shillong	Z	•	21 50 37		Tremor.
10	Shillong	Z	•	22 03 38		Tremor.
10	Shillong	N,Z	eP	22 38 43		Feeble.
			eS	40 30		
			SS	40 41		
			M	41 19		
	Chatra	Z	•	22 39 20		Slight, distant.
11	Shillong	Z	•	05 15 18		Slight, near.
			•	16 21		
11	Poona	Z	eP	10 49 37		Tremor.



DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1954						
12	Madras	E	•	05 32 56		
12	Poona	Z	e?	11 31 30		
12	Shillong	Z	• •	21 51 02 51 34		Slight, near.
13	Epc: Southern Pakistan; 28.1°N, 65.6°E. 28°N, 66.5°E.			- W = 00h 58m 53s (U.S.C.G.S) - H = 00h 59m 02s (B.C.I.S) - H = 00h 59m 00s (Shillong).		
	New Delhi	N,E	iP i i	01 01 13 01 25 01 41	1000	Slight.
		N	i	01 55		
		N,E	Lq iS SS	02 48 02 56 03 08		
			Lr	03 13		
			SSS	03 19		
		N	S*	03 30		
		N,E	i	03 40		
			Sg	04 04		
	Dehra Dun	N,E	eP PPF P*	01 01 26 01 44 01 53	1090	Slight.
			Lq	03 09		
			iS	03 18		
			SS	03 32		
			Lr	03 36		
			SSS	03 42		
			S*	03 55		
			Sg/M	04 24		
	Bombay	N,E	eP PP	01 01 30 01 40	1150	Slight.
		E	PPP	01 46		
		N,E	Lq	03 17		
			eS	03 39		
		N	SS	03 39		
		E	SS	03 42		
		N	M	05 --		
		E	M	05 09		Per. = 5 Secs./ $\mu$ = 10
	Poona	Z	eP	01 01 36		Slight.
		E	eS	03 51		
			M	05 42		
	Chatra	N,E,Z	eP PP PPP	01 03 10 03 29 03 40	1960	Slight.
		N,E	iS	06 25		
		E	SS	06 48		
			Lr	07 22		
			M	08 44		

13

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Mar. 1954							
13 Contd.	Madras	E	eP	01	03	23	2190 Slight.
			PP		03	44	
			PPP		03	54	
			iS		07	00	
			Lq		07	15	
			SS		07	35	
			SSS		07	46	
			Lr		08	08	
			M		09	43	
			ScP		10	51	
	Kodaikanal	E	iP	01	03	35	2310 Slight.
			iS		07	17	
			Lq		07	31	
			M		10	17	
	Calcutta	E	eP	01	03	41	2410 Slight.
			iS		07	37	
			SS		08	12	
			Lr		09	06	
	Shillong	Z	iP	01	04	01	2500 Slight.
		N	eP		04	01	
		Z	i		04	15	
		Z,N	PP		04	27	
		Z	PPP		04	38	
		N,Z	eS		08	04	
			Lq		08	25	
		N	Lr		10	04	
			M		11	28	
	Colombo	E	P	01	04	11	
			S		08	46	
13	Shillong	Z,N,E N,E	e	11	51	07	Slight, near.
			e		51	30	
			i		51	35	
13	Kodaikanal	E	e	17	20	48	Tremor.
13	Epc: $8\frac{1}{2}^{\circ}$ S, $117^{\circ}$ E. Sunda Island; - H = 18h 14m 45s (B.C.I.S).						
	Colombo	E	eP	18	22	20	Amp. = 0.1 mm.
			S		28	20	
			M		41	05	
	Chatra	Z	e	18	23	08	Slight, distant.
		E	e		29	54	
	Calcutta	E	e	18	24	06	Slight, distant.
			i		29	04	
			i		32	30	
	Madras	E	e	18	29	00	
			e		32	30	
			e		32	46	
			M		41	24	

DATE	STATION	COMPT.	PHASE	G. M. T.	REMARKS
				h. m. s. km.	
Mar. 1954					
13	Hyderabad	N	M	18 42 54	Per. = 15 Secs./u = 3.
Contd.					
13	Shillong	Z	i	22 06 29	Slight, near.
		E	e	06 29	
		E,N	e	06 41	
13	Shillong	Z,N	aP	23 22 37	
		Z	i	22 39	
			i	22 44	
			i	22 53	
		N	eS	28 42	
			Lq	31 51	
			Lr	33 48	
			M	37 36	
14	Shillong	N	e	09 08 37	Slight, distant.
			i	17 18	
			e	17 52	
			e	18 22	
			e	19 07	
			i	22 10	
	Kodaikanal	E	e	09 07 48	Tremor.
	Madras	E	M	10 26 54	
14	Shillong	Z	e	15 07 00	Tremor.
14	Shillong	Z	e	15 34 42	Tremor.
14	Shillong	N,Z	e	17 47 34	Slight, distant.
			e	54 19	
		N	e	54 30	
			e	56 32	
			e	58 33	
			i	18 02 07	
			e	07 26	
			M	15 30	
	Chatra	Z	e	17 54 33	Slight, distant.
		E	e	18 18 --	Surface wave.
	Bombay	N,E	aP	17 56 06	8220 Feeble.
		N	PcP	56 20	
		N,E	eS	18 05 38	
		E	ScS	06 04	
			SS	10 26	
	Calcutta	E	e	17 56 17	Slight, distant.
			Mn	18 24 22	
	Hyderabad	E	M	18 25 35	Per. = 12 Secs./u = 3.
		N	M	26 25	Per. = 12 Secs./u = 2.
	Madras	E	M	18 31 07	

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1954</u>								
15	Poona	Z	eP	17	56	05		Probably very distant earthquake, phases doubtful.
16	Bombay	N	e	08	56	34		The disturbance may be due to causes other than real earthquake movement.
			e	09	02	07		
16	Epc: $11\frac{1}{2}^{\circ}$ N, $58^{\circ}$ E. - H = 14h 24m 16s (B.C.I.S)							
	Bombay	N	eP	14	24	00		Slight.
		E	iP					
		E	e		26	35		
		N	e		27	17		
		E	e		27	22		
	Poona	Z	eP	14	24	04	2060	Slight.
		E	PP		24	21		
			PPP		24	33		
			eS		27	36		
			Lq		27	42		
			SS		28	01		
			SSS		28	18		
			M		29	12		
	Kodaikanal	E	iP	14	24	42		Tremor.
			PP		25	00		
			PPP		26	09		
			SS		27	17		
			SSS		27	33		
			Lr		27	46		
			M		29	06		
	Hyderabad	E	iP	14	24	57	2460	
			iS		28	58		
			L		30	22		
			M		32	30		Per. = 10 Secs./u = 2
	Madras	E	iP	14	25	10	2600	Slight.
			i		25	19		
			PP		25	36		
			eS		29	20		
			Lq		29	42		
			SS		30	06		
			SSS		30	28		
			Lr		30	48		
	M		33	25				
16	Poona	Z	e	15	38	40		Tremor.
18	Shillong	Z	i	05	06	29		Feeble.
18	Dehra Dun	N	e	06	05	26		Slight.
18	Dehra Dun	N	e(P)	12	52	27	530	Feeble.
			i(S)		53	24		

DATE	STATION	COMPT.	PHASE	G. M. T.		REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1954						
18	Shillong	Z,E	i	13	50 43	Slight, felt locally,
18	Shillong	Z,N	i	16	55 03	
			i		55 33	
			e		55 52	
			i		56 07	
			i		56 22	
18	Dehra Dun	N	e	17	00 35	Feeble.
	Poona	Z	eP	17	01 56	Tremor.
19	Dehra Dun	N	e	08	35 06	Slight.
			i		38 01	
19	Madras	E	M	11	14 --	Phases not clear.
19	Shillong	Z	i	16	15 35	Feeble.
19	Madras	E	P	23	39 27	Slight, short period movement, other phases not certain.
	Shillong	Z	e	23	39 47	Tremor.
	Poona	Z	eP	23	40 57	Tremor.
19	Poona	Z	i?	23	44 33	
20	Bombay	E	e	08	36 19	Feeble.
			e		37 19	
	Poona	Z	e	08	37 30	Feeble shock, phases not clear.
20	Madras	E	e	14	15 07	Slight.
			eS?		23 01	
	Poona	Z	eP	14	15 11	Tremor.
21	Shillong	Z	iP	06	19 04	Slight.
21	Shillong	Z	iP	11	09 27	Slight, local.
21	Epc:	24 $\frac{1}{2}$ $^{\circ}$ N, 95 $^{\circ}$ E. N W Burma; h = 150 km; - H = 23h 42m 05s (U.S.C.G.S)				
		24.6 $^{\circ}$ N, 95.2 $^{\circ}$ E; h = 150 km; - H = 23h 42m 09s (B.C.I.S).				
	Shillong	Z,N,E	iP	23	43 04	Great. Felt strongly. Slight damage to property. Pendulum clock stopped. Coupler overthrown in Milne-Shaw seismograph.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS			
				h.	m.	s.				
<u>Mar.</u>										
<u>1954</u>										
21	Calcutta	E	iP	23	43	45	630 From Milne-Shaw. The instrument was thrown out of adjustment after the first impulse. Great. Felt locally and over a wide area in Assam, Bengal, Bihar and Orissa.			
		N	iP		43	46				
			PP		43	47				
			P*		43	59				
		E	P*		44	00				
		N	Pg		44	13				
			iS		44	51				
		E	iS		44	52				
		Chatra	Z	iP	23	44		01	810	First movement down.
			N	iP↓		44		02		$\mu = 2.0$ . First movement South.
E	eP↓						First movement East.			
E	iP			44	02		Long Period instrument.			
N,E	iS?			45	25		First movement East. This shock was locally felt at Chatra on the morning of 22nd March, 1954 at 0515 hrs. I.S.T. People who were awake at the time only felt it. The shock was also felt at Biratnagar, Belka and Barahashetra by people who were awake. The oscillations following the primary phase had a high frequency and large amplitude. The sensitivity of recording paper was insufficient to record the trace of the shock. Wenner Accelerograph worked for the first time and recorded the tremor.			
21	New Delhi	N,E	iP	23	45	56	1710	Great. Direction of first motion South and East.		
			PP		46	07				
			PPP		46	19				
		N	i		46	35				
			Lq		48	43				
		N,E	iS		48	48				
			SS		49	06				
		N	Lr		49	32				
21	Dehra Dun	N,E	eP	23	45	56	1710	Great.		
			PP		46	09				
		E	PPP		46	17				
		N,E	Lq		48	44				
			iS		48	48				
		E	SS		49	05				
		N	SSS		49	17				
		N	Lr		49	27				
21	Hyderabad	E,N	iP	23	46	02	1780	Per. = 14 Secs. $\mu = 20$ . Per. = 12 Secs. $\mu = 16$ .		
		E	S		49	00				
			SS		49	21				
			M		52	21				
		N	M		52	21				

DATE	STATION	COMPT	PHASE	G. M. T.		/	REMARKS
				h.	m. s.		
Mar. 1954							
21	Madras	E	iP iS	23 46 15 49 27	1920		Great. First movement of trace corresponds to Pendulum movement towards West. Due to large movements other phases not identifiable. Shock felt over the whole of India.
21	Poona	Z N, S	iP PP eS M	23 46 43 47 56 50 24 53 02	2220		Great.
	Bombay	N	iP iS	23 46 54 50 38			Great earthquake of North Western Burma.
21	Colombo	S	iPP S L M	23 47 01 49 19 50 59 52 30			
22	New Delhi	N, E	iPg iSg	06 36 04 36 06	170		Slight.
22	Dehra Dun	N	e	09 25 38			Tremor.
22	Poona	Z	eP	16 37 58			Tremor.
22	Poona	Z	eP	17 30 16			Tremor.
22	Poona	Z	i	19 09 43			Tremor.
	Shillong	N	e	19 29 00			Slight, surface waves.
24	Madras	E	e	00 19 55			
24	Poona	Z	i	01 42 36			Tremor.
24	Dehra Dun	N	e	11 14 11			Tremor.
24	Poona	Z	i	12 38 42			Tremor.
24	Shillong	N	e	13 04 56			Slight, surface waves.
24	Poona	Z	i	17 33 13			Tremor.
	Shillong	N	e	17 53 43			Slight, surface waves.
24	Dehra Dun	N, E	eP iS S3 Lr Sg/M	18 08 37 10 10 10 23 10 25 10 59	900		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.		Z	REMARKS
				h. m. s.	km.		
Mar. 1954							
21	New Delhi	N,E	eP	18	08	50	850 Slight.
			PPP		09	05	
			e3		10	18	
		N,E	33		10	32	
			333		10	40	
			3*		10	45	
25	Epc: Probable region Pamir (B.C.I.S.) 38°N, 72°E. - H = 06h 47m 30s (Shillong).						
	Dehra Dun	N,E	eP	06	49	51	1110 Moderate.
PP				50	00		
Lq				51	35		
13				51	44		
33				51	56		
3g/m				52	52		
New Delhi	N,E	eP	06	50	35	1140 Slight.	
		PP		50	15		
		PPP		50	23		
		Lq		51	52		
	N,E	e3		52	02		
		33		52	15		
	N	3*		52	45		
		3g		53	16		
25	Poona	Z	eP	06	51	58	Tremor.
25	Poona	Z	e	06	53	51	Slight, phases doubtful.
			e		58	07	
			e	07	00	40	
25	Shillong	N	iPg	07	18	25	30 Slight.
i3g		18	28				
26	Dehra Dun	N	e	03	44	39	Tremor.
26	Bombay	N	e	04	43	14	Feeble.
			e		45	45	
	Dehra Dun	N	e	04	44	50	Tremor.
	Poona	Z,E,W	e	04	45	41	Very feeble shock. Phases not clear.
26	Poona	Z	e?	09	58	54	Tremor.
26	Poona	Z	i	10	57	56	Tremor.
26	Poona	E,W,Z	eP	18	42	49	Feeble, phases doubtful.
27	Bombay	E	e	02	05	42	Feeble.
			e		09	33	
	Poona	Z	eP	02	05	45	Feeble.



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Mar.								
1954								
27	Madras	E	1P	02	06	02	2380	Slight.
Contd.			PP		06	28		
			PPP		06	43		
			eS		09	56		
			Lq		10	20		
			SSS		11	03		
			Lr		11	33		
			M		13	45		
27	Shillong	Z	e	09	26	48		Slight.
27	Shillong	Z	iPg	11	41	48	90	Slight.
			iSg		41	58		
27	Shillong	Z	i	11	46	56		Slight.
27	Poona	E,W,Z	eP	18	40	33		Slight.
	New Delhi	N	eP	18	40	34	430	Slight.
		E	eS		41	21		
			SS		41	32		
			SSS		41	43		
	Shillong	Z	e	18	40	46		Slight.
			e		45	27		
27	Poona	Z	e?	19	00	28		
28	Poona	Z	e?	09	16	31		Tremor.
28	Shillong	Z	eP	09	24	52	560	Slight.
			Pg		25	12		
			Lq		25	38		
			Lr		25	53		
			Sg/M		26	18		
28	Shillong	Z	e	09	43	19		Tremor.
			e		44	14		
28	Kodaikanal	E	eP	13	11	04	2450	Slight.
			eS		15	04		
			Lq		15	31		
			SS		15	49		
			SSS		16	03		
			Lr		16	37		
			M		18	25		Per. = 10 Secs./u = 14. s
	Madras	E	iP	13	11	39	2870	Slight.
			PP		12	09		
			PPP		12	30		
			S		16	05		
			Lq		16	43		
			SS		16	57		
			SSS		17	09		
			Lr		17	51		
			M		19	39		

21

DATE	STATION	COMP.	PHASE	G. M. T.	Δ	REMARKS
				h. m. s.	km.	
Mar. 1954						
28	Poona	Z	eP	13 12 02		Slight, phases not clear.
Contd.						
	Hyderabad	E	eP	13 12 07	3190	
		N	iS	16 56		
		E	M	20 58		Per. = 12 Secs. $\Delta = 9.$
		N	M	21 01		Per. = 12 Secs. $\Delta = 4.$
	Bombay	N,E	e	13 13 02		Feeble.
		E	e	17 02		
	Shillong	Z	e	13 24 03		Tremor.
28	Shillong	Z	e	17 22 27		Slight.
	Poona	Z	eP	17 23 47		Tremor.
28	Shillong	Z	e	20 14 39		
	Chatra	Z	eP	20 14 51		
28	Epc: $52^{\circ}N, 176^{\circ}E$ . Rats Island; Aleutian Island;					
	- H = 20h 36m 22s (U.S.C. G.S.)					
	- H = 20h 36m 20s (Uccle).					
	Magnitude = $6\frac{1}{4}$ (Kiruna).					
	Shillong	N	1P	20 47 13	7360	Moderate.
		Z	1P	47 14		
		N	PP	49 48		
			PPP	51 05		
			PcS	51 54		
			iS	56 01		
			PPS	56 39		
			ScS	57 22		
			SS	21 00 17		
			SSS	03 00		
			Lo	03 46		
			Lr	06 39		
			M	25 45		
	Chatra	N,E,Z	eP	20 47 27	7610	Slight.
		E	PcP	47 51		
			PP	50 04		
			PPP	51 38		
			eS	56 31		
			SKS <sub>1</sub>	57 22		
			SS	21 00 50		
			Lq	05 15		
			Lr	08 31		
			M	13 08		
	New Delhi	N,E	eP	20 47 55	8040	Moderate.
		N	PcP	48 09		
			PP	50 45		
			PPP	52 30		
			iS	57 18		
			SKS	57 59		
			M	21 15 18		

DATE	STATION	COMP.	PHASE	G	M	T	Δ	REMARKS		
				h.	m.	s.	km.			
<u>Mar.</u>										
1954										
28 Contd.	Hyderabad	E,N	iP	20	48	33	9010			
		N	S		58	43				
		E	PS		59	05				
			SS	21	03	49				
		N	L		14	22				
			M		19	25				
		E	M		19	29		Per. = 15 Secs. /u = 13. Per. = 16 Secs. /u = 14.		
28	Poona	Z	iP	20	48	49	9220	Moderate.		
		N	PP		51	05				
			PPP		53	00				
			eS		59	09				
			ScS		59	15				
			PPS	21	00	27				
		E	SS		04	41				
		N	SSS		08	03				
			Lq		11	33				
			Lr		15	29				
			M	21	22	00				
			Madras	E	iP	20	48	50	10840	Moderate.
					PP		53	01		
	PPP				55	07				
	SKS				59	15				
	SKKKS				59	49				
	SKS <sub>1</sub>			21	00	05				
	S				00	13				
	PS				01	45				
	PPS				02	29				
	SS				06	38				
	SSP				06	53				
	Bombay	N,E,S	eP	20	48	51	9260	Slight.		
			PP		52	04				
		N	eS <sub>1</sub>		59	12				
		E,ES	iS <sub>1</sub>							
		E,S	i		59	37				
		N	PPS	21	00	29				
			M		22	34		Per. = 19 Secs. /u = 4. Per. = 24 Secs. /u = 7.		
	Kodaikanal	E,W	iP	20	49	12	9350	Slight, distant.		
			PP		52	27				
			PPP		54	26				
			iS		59	38				
			PS	21	00	42				
			PPS		01	08				
			SS		05	21				
			SSS		08	45				
	M		23	45						



DATE	STATION	COMPT	PHASE	G	M	T	∠	REMARKS
				h.	m.	s.	km.	
<u>Mar.</u>								
1954								
29	Dehra Dun	N	eP	04	08	55		Slight, phases not identifiable.
Contd.								
	New Delhi	N, E	eP	04	08	58		Slight.
		N	e		14	51		
			eS		15	06		
			e		18	59		
			e		26	05		Surface waves.
	Colombo	E	eP	04	09	01		
			S		15	21		
			L		26	16		
			M		29	09		amp. = 0.2 mm.
	Poona	Z	eP	04	09	28	4950	Moderate.
		E	eP					
			PcP		10	53		
			PP		11	10		
			PPP		11	51		
			eS		16	04		
			PPS		16	15		
			Lq		20	09		
			M		26	18		
29	Bombay	N, E	eP	04	09	38	5020	Slight.
		N, E, S	PP		11	26		
		E, S	PPP		12	09		
		N, E	eS		16	18		
		N, E, S	SS		19	29		
		N	Lq		20	21		
		E, S	Lr		22	34		
		E	M		32	47		Per. = 14 Secs. /i = 3.
29	Shillong	Z	i	04	37	01		Tremor.
			i		37	27		
29	Epc: 36.9°N, 3.3°W. Near South Coast of S. h = 630 km.							
	- H = 06h 17m 06s (BCIS)							
	37°N, 3 1/2°W. h = 650 km. Ca; H = 06h 17m 05s (USCGS).							
	Magnitude = 7 1/4 - 7 1/2 (Pasadena), 7 1/4 (Tacubaya),							
	7-7 1/4 (Berkeley, Kiruna), 6.5 (Praha).							
	Felt over large area of Spain. Extensive property damage at Granada and Malaga.							
	Dehra Dun	N, E	eP	06	26	55	6520	Moderate.
			PP		27	46		
			PPP		28	05		
		iS and	PcP		34	59		
			Lq		35	26		
			SS		36	11		
			Lr		37	36		
			M		40	55		

DATE	STATION	COMPT	PHASE	G. M T			REMARKS
				h.	m.	s.	
						km.	
<u>Mar.</u>							
1954							
29 Contd.	New Delhi	N,E	iP	06	26	58	6460 Moderate. Deep focus. Direction of the first motion South and East.
			i		27	20	
		N	PP		29	35	
			iS		34	59	
			PS		35	11	
			i		35	54	
			i		39	54	
i		40	56				
Bombay	N,E	iP	06	27	08	7690 Moderate.	
		i		27	21		
	N	i		27	26		
		iS		35	23		
	E	i		36	02		
		i		36	13		
Poona	Z,E	iP	06	27	13	6700 Moderate.	
		N	PcP		28		04
		PP		29	32		
		PPP		30	43		
		PcS		31	59		
		eS		35	27		
		PS		35	34		
		PPS		35	51		
		ScS		36	55		
		SS		39	27		
		SSS		41	51		
		Lq		42	07		
		Lr		44	39		
	M		49	59			
Hyderabad	N	iP	06	27	33	7210	
		E	iP		27		36
			PP		30		47
			iS		36		15
			SS		40		13
	N	e		44	52		
		E	M		55		43
	N	M		57	22		
	Chatra	E,Z	iP	06	27		47
E			PcP		28	19	
		PP		30	16		
		PPP		31	49		
		PcS		32	15		
		iS		36	34		
		PS		36	56		
		PPS		37	04		
		SKS <sub>i</sub>		37	34		
		SS		41	02		
		SSS		44	00		
		Lq		45	02		
		Lr		48	11		
	M		53	56			

Per. = 16 Secs.  
/u = 10  
Per. = 15 Secs.  
/u = 9

DATE	STATION	COMPT	PHASE	G	M	T	∠	REMARKS			
				h.	m.	s.	km.				
<u>Mar.</u>											
1954											
31 Contd.	Kodaikanal	E	iP	18	30	14		Phases doubtful.			
							30	41			
									30	53	
			iSS						34	11	
			SSS						34	30	
									34	47	
									35	07	
									35	34	
			M						37	20	Per. = 10.5 Secs. /u = 18
	Hyderabad	N	iP	18	30	23	2250	Great.			
			iS			34	06				
			M			37	59				
	Madras	E	iP	18	30	39	2510	Great.			
			iS			34	43				
	New Delhi	N,E	iP	18	31	06	2760	Great. Direction of first motion South and West.			
			PP			31	42				
		N	PPP			31	51				
		N,E	i			32	06				
		N	PcP	34	34	39					
			iS			35	26				
			SS			36	26				
			SSS			36	41				
			Lr			37	27				
			PcS			38	29				
			M			41	17				
			Mn			43	21	Per. = 15 Secs. /u = 373			
	Dehra Dun	N,E	eP	18	31	11	2800	Great.			
			PP			31	47				
			PPP			31	57				
			PcP			34	50				
			iS			35	34				
			Lq			36	13				
			SS			36	30				
			SSS			36	42				
			Lr			37	20				
		N	M			39	32	Per. = 12.4 Secs. /u = 166.			
	Chatra	E,Z	iP	18	32	05	3550	Great.			
		N,E	eP								
		E	PP			33	10				
			PPP			33	28				
			PcP			34	58				
			iS			37	16				
			PcS			38	44				
			SSS			39	16				
			i			39	31				
			Lr			40	30				
			M			42	47	Per. = 18.0 Secs. /u =			

DATE	STATION	COMPT	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Mar.</u>								
1954								
31 Contd.	Calcutta	E	iP	18	32	06	3480	Very great. First movement East.
		N	eP		32	12		
		E	PPP		33	31		
		N	PPP		33	34		
			PcP		35	12		
		E	iS		37	13		
		N	iS		37	16		
	E	Lr		40	14			
	Shillong	N	iP	18	32	40	3970	Great.
			PP		34	00		
		**	FPP		34	18		
			SS/Lq		40	22		
			SSS		40	56		
			Lr		42	27		
			ScS		43	10		
			M		44	56		Per.=13.5 secs.
		**	iS		38	17		$\Delta$ =34.

Earthquake Reports  
(Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of March, 1954.

Place at which felt	Date in G.M.T.	Time in G.M.T.	Duration in secs.	Intensity R.F. scale	No. of shocks	Remarks
		h. m.				
Sirsa	21	23 15	1	IV	-	-
Jaspur	21	23 20	5	VII	-	-
Kohima	21	23 30 (roughly)	30	VIII	-	Direction of motion South.
Naga Hills	21	23 30 (roughly)	30	VIII	-	In some streams water level raised and in some other streams water level lowered.
Midnapore	21	23 30 (roughly)	2	-	-	-



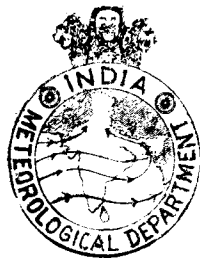
Place at which felt	Date in G. M. T	Time in G. M. T h. m.	Duration in secs	Intensity R.F. scale	No. of shocks	Remarks
Kandi	21	23 42	20	VI	-	Direction East west
Khoragpur	21	23 42	2	IV	-	-
Garhbeta	21	23 42	30	VI	-	-
Deragaon	21	23 42	90	VII	-	-
Sibsagar	21	23 42	120	VII	-	Movement from S-W direction.
Khagaria	21	23 42	3	IV	-	Motion vertical.
Bethampur	21	23 42	2	-	-	-
Nawabgunj	21	23 42	-	VI	-	-
Kalna	21	23 42	7	IV	-	-
Darjeeling	21	23 42	40	V	-	Rumbling noise heard.
Dibrugarh	21	23 42	60	VII	-	Movement from S-E corner landslips happened.
Tinsukia	21	23 42	70	IV	-	-
Naharakotia	21	23 42	-	-	-	Considerable damage to Tingrai bridge. Rumbling noise heard.
Barkagaon	21	23 43	12	VI	2	Direction from South East.
Agartola	21	23 43	60	-	1	-
Khajuha	21	23 43	10	IV	-	Direction N-S.
Saugar Islands	21	23 43	2	-	-	-
Burdwan	21	23 43	60	IV	2	-
Shillong	21	23 44	120	VII	2	Direction from East
Bagdogra	21	23 44	70	VI	2	Articles swing from E-W.
Gangajalghati	21	23 44	2	VI	-	-
Lalbag	21	23 44	90	VII	-	-
Siliguri	21	23 44	-	-	-	-
Alipore	21	23 44	25	VI	2	-
Gauhati	21	23 45	75	IV	2	-

Place at which felt	Date in G. M. T	Time in G. M. T h. m.	Duration in sec.	Magnitude	No. of shocks	Remarks
Lumding	21	23 45	56	VIII	2	-
Cuttack	21	23 45	3	VI	1	-
Chapra	21	23 45	30	V	1	-
DumDum	21	23 45	30	VI	-	Direction from East.
Forbesgunj	21	23 45	-	-	2	-
Nowgong	21	23 45	120	VII	-	-
Dalu	21	23 45	60	IV	-	Direction N-S.
Mahendragunj	21	23 45	180	-	-	-
Bi. Shum	21	23 45	20	IV	-	-
Lhasa	21	23 45	43	IV	1	Brisky movement with a swing from N to S.
Fatehpur	21	23 45	35	-	4	-
Deoghar	21	23 45	30	IV	-	-
Godda	21	23 45	3	-	-	Direction N-S.
Sahibgunj	21	23 45	30	IV	-	Direction from E-W.
Asankhali	21	23 45	-	-	-	-
Chandua	21	23 45	5	IV	-	-
Kishangunj	21	23 45	120	IV	-	-
Khirpai	21	23 45	2	V	-	Sound heard like rumbling noise. Direction East to West.
Golaghat	21	23 45	120	VII	-	Slight damage. Rumbling noise.
Jamui	21	23 45	5	-	-	Direction N to S.
Barisal	21	23 45	3	VI	2	Direction E-W.
Rajshah	21	23 45	50	VI	3	Direction S to N.
Mymensing	21	23 45	90	VII	2	Direction N to S.
Asansol	21	23 45	60	-	-	-
Latehar	21	23 45	2	-	-	-
Margherita	21	23 45	30	VI	-	Motion from South West.

Place at which felt	Date in G. M. T	Time in		Duration in secs	Intensity R.F. scale	No. of shocks	Remarks
		G. M. T	h. m.				
Gaya	21	23	46	2	-	-	-
Katwa	21	23	46	30	VIII	-	Direction from West to East.
Bermu (Ranchi)	21	23	47	-	-	2	-
Dhanbad	21	23	48	35	I	2	-
Kurseong	21	23	48	8	IV	-	-
Narayangunj	21	23	50	60	VI	2	-
Khulna	21	23	50	35	VI	4	Direction N-S.
Comilla	21	23	50	30	VII	3	-
Cox's Bazar	21	23	50	5	IV	2	Direction from North.
Rangpur	21	23	50	15	VII	2	Direction E-W.
Jorhat	21	23	50	-	VII	-	Rocked severely.
North Lakhimpur	21	23	53	-	VII	-	-
Fakiragram	21	23	54	60	IV	-	Direction N-S.
Satkhira	21	23	54	2	VI	-	Direction E-W.
Sylhet	21	23	55	120	VII	-	Knocking movement appearing from North.

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
*Shri S. Basu, M.Sc., F.N.I.,*  
Director General of Observatories

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G	M	T	Δ	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
01	Dehra Dun	N	i i	09	19	49 20 25		Feeble, phases not clear.
01	Shillong	N	e i	14	09	35 14 00		Very feeble.
01	Shillong	N	P/Pg Sg S	16	12	58 13 10 13 14		Local, felt.
01	Epc: 46 1/2°N, 153 1/2° E. Kurile Island; h = 60 km. - H = 18h 18m 47s (USCGS). Magnitude = 6 1/4 (Pasadena).							
	Shillong	N	iP PP PPP iS ScS SS SSS Lq Lr M	18	27	58 29 41 31 06 35 34 37 31 39 20 41 15 41 33 44 22 47 45	6020	Slight.
	Chatra	Z E	iP eP eS e	18	28	16 36 00 50 --	6170	Slight, distant.  Surface waves.
	Dehra Dun	N,E	eP i i	18	28	41 29 03 29 17		Feeble, phases not clear.
	New Delhi	N,E N	eP eS M	18	28	56 37 15 57 31	6790	Slight.
	Hyderabad	E,N E E,N E N E	iP PP iS ScS SS L M M	18	29	39 32 06 38 36 39 39 43 07 50 12 56 09 56 36	7510	Slight.   Per.=18 Secs./Δ= 7. Per.=18 Secs./Δ= 7.
	Madras	E	iP PcP PP PPP iS PS PPS SS Lr M	18	29	52 30 23 32 25 34 07 38 55 39 18 39 26 43 22 51 30 19 05 32	7630	Slight.

DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u> 1954								
01	Poona	Z	eP	18	29	53	7800	Moderate.
Contd.		E	PcP		30	11		
		N	PPP		34	15		
			eS		43	05		
			SS		43	58		
			SSS		46	56		
			M		57	27		
	Bombay	N,E	eP	18	29	59	7810	Slight.
		E	PP		32	33		
		N	PPP		34	19		
		N,E	eS		39	11		
		N	PS		39	43		
		E	PS(SKS)		39	46		
			PPS		40	01		
	Kodaikanal	E	iP	18	30	18	8050	Slight.
			PP		33	00		
			PPP		34	45		
			iS		39	42		
			PPS		40	29		
			M		59	00		
01	Dehra Dun	N,E	e	20	28	54		Feeble, phases not clear.
			i		28	24		
02	Dehra Dun	N	e(P)	01	56	30	1300	Slight, other phases not clear.
			e		56	44		
			e(S)		58	42		
			SS		58	56		
			Lr		59	06		
02	Shillong	N	e	05	32	58		Slight.
			i		34	01		
			e		34	33		
	Dehra Dun	N	e	05	38	50		Feeble, phases not clear.
			i		38	56		
02	Shillong	N	P	05	42	58		Slight.
			Pg		43	03		
			Sg		43	34		
	Dehra Dun	N	e	05	48	40		Tremor.
02	Colombo	E	L	11	09	--		
			M		12	51		
02	Poona	Z	e	11	26	02		Tremor.
02	Shillong	Z	e	15	15	20		Slight.
	Poona	Z	e	15	17	02		Tremor.
	Madras	E	M	15	58	--		Other phases not clear.


DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u> 1954								
02	Shillong	Z	i	20	35	28		Slight.
03	Shillong	Z	e	00	14	30		Feeble.
03	Shillong	Z	i	01	30	57		Slight.
03	Shillong	Z	P	11	14	20		Slight.
			Pg		14	24		
			PP		14	27		
			S		14	43		
			Sg		14	49		
03	Bombay	E	e	20	55	35		Feeble. unclear.
			e		55	39		
	Poona	Z, E, W	e	20	55	45		Feeble.
	Madras	E, W	e	20	55	47		Feeble.
04	Epic: 42°N, 142 1/2°E. Off the South Indian Ocean ridge.							
	- H = 23h 13m 10s (ISC and 0313).							
	41°59' N, 142°08' E. h = 50 km.							
	- H = 23h 14m 01s (ISC and 0313).							
	Shillong	Z	iP	23	23	12		Slight.
	Chhatra	Z	iP	23	23	34		Slight. unclear.
		E	eS		29	23		
			e		42	--		Surface waves.
	Dehra Dun	N, E	eP	23	23	05		Slight. phases not clear.
	New Delhi	N, E	iP	23	23	22		Slight.
		N	iS		30	57		
	Hyderabad	E	eP	23	24	02		
		E, N	i		32	39		
		E	M		49	51		Per. = 18 Secs. A <sub>1</sub> = 2.
	Poona	Z	iP	23	24	21	6820	Slight.
		E	PcP		24	48		
			PP		26	39		
			PPP		28	12		
			PcS		28	39		
			eS		32	43		
			PPS		33	12		
			SSS		39	46		
			M?		49	10		
	Madras	E	iP	23	24	22	6610	Slight.
			PcP		24	55		
			PP		26	27		
			iS		32	31		
			PS		32	54		



DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
04	Bombay	N,E	eP	23	24	24	7150	Feeble
Contd.		N	PcP		2	43		
			PP		26	46		
		N,E,S	eS		33	02		
		E,S	PS?		33	17		
		N	PS		33	20		
	Colombo	E	eS	23	33	06		
			M		54	21		
05	Poona	Z	iP	18	1	48		Tremor.
	Dehra Dun	N,E	e	18	12	05		Feeble, not clear
			i		12	31		
			i		12	59		
			i		13	37		
06	Shillong	N,E	e	11	59	07		Slight
			i		59	45		
06	Dehra Dun	N	e	12	04	47		Tremor.
06	Bombay	E	e	14	39	41		Near, shock.
			e		43	27		
	Poona	Z,E	eP	14	39	53		Feeble, not clear
		E	i?		43	45		
	Dehra Dun	N,E	e	14	40	03		Feeble, not clear
06	Shillong	N	e	15	47	56		Slight
			e		54	42		
07	Poona	Z	e?	16	46	40		Slight
07	Shillong	Z	eP	21	18	26	190	Slight
			P*		18	27		
			Pg		18	29		
			iSg		18	52		
			SS		18	59		
08	Shillong	Z	iP	07	07	48	190	Slight
			P*		07	49		
			Pg		07	51		
			PP		07	54		
			S		08	10		
			S*		08	14		
		Z,N,E	iSg		08	17		
			SS		08	24		
08	Poona	Z	eP?	16	58	13		Distant, feeble
		E	i?	17	06	11		shock. Feeble
			i?		06	49		not clear

DATE	STATION	COMPT	PHASE	G	M	T	$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
<u>1954</u>								
08	Shillong	N	e	17	04	53		Slight, distant.
Contd.			e		23	43		
			e	18	01	21		
08	Bombay	E	M	18	03	--		Feeble.
	Hyderabad	N	M	18	05	32		Per.= 18 Secs. $\Delta$ =7.
	Madras	E	M	18	19	32		Other phases not clear.
09	Dehra Dun	N,E	e	05	15	24		Feeble, phases not clear.
09	Epc: $19^{\circ} \frac{10}{2}$ N, $121^{\circ} \frac{1}{2}$ E. Off the North Coast of Luzon, Philippines; - H = 07h 15m 03s (USCGS). Felt at Calayan (V) and Aparri (Press report from Manila).							
	Shillong	N	eP	07	20	34	3500	Slight.
			PP		21	29		
			eS		25	42		
			Lq		27	05		
			Lr		29	39		
			M		31	33		
	Chatra	Z	iP	07	21	34		Slight, distant.
		E	e		35	--		Surface waves.
	Poona	Z,E	iP	07	23	19		Slight.
	Bombay	E	eP	07	23	28	5060	Very feeble.
			PP		25	15		
			eS		30	11		
09	Shillong	Z	i.g	11	19	06	50	Slight.
		E,N	ePg		19	06		
		Z,E,N	iSg		19	12		
10	Shillong	Z	e	00	35	09		Tremor.
10	Poona	Z	e	02	49	22		Tremor.
10	Shillong	Z	eP	11	12	33	200	Slight.
			P*		12	35		
			PP		12	40		
			PPP		12	51		
			iSg		13	00		
11	Epc: $7^{\circ}$ S, $155^{\circ}$ E. Solomon Island; - H = 03h 03m 03s (USCGS).							
	Shillong	Z	iP	03	13	30		Feeble.
	Hyderabad	E	eP	03	15	18	8840	Slight.
		N	iS		25	20		
			M		50	06		Per.=15 Secs. $\Delta$ =3.

DATE	STATION	COMPT	PHASE	G	M	T	$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
11	Poona	Z	eP	03	15	42		Slight, distant.
Contd.	Madras	E	eS	03	25	10		Tremor.
11	Shillong	Z	iP	03	25	17		Tremor.
	Bombay	N,E	e	03	26	20		Very feeble.
11	Dehra Dun	N	e	05	59	44		Feeble.
11	Epc: 11°N, 57°E. Arabian Sea.			H = 10h 25m 21s		(USCGS).		
	10 1/2°N, 57°E.			H = 10h 25m 23s		(BCIS).		
	Bombay	N,E	iP	10	29	24	2000	Moderate.
			PPP		29	50		
		N	i		30	12		
		N,E	eS		32	43		
		N	Lq?		32	53		
		E	Lq		32	58		
		N	SS		33	00		
		E	SSS		33	19		
		N	Lr		33	22		
			M		36	23		Per.=13 secs. $\mu$ =43.
		E	M		41	07		Per.=13 secs. $\mu$ =85.
	Poona	Z,E	iP	10	29	32	2010	Moderate.
		N	PP		29	44		
			PPP		29	55		
			eS		32	52		
			SS		33	08		
			M		35	10		
	Kodaikanal	E	iP	10	30	04	2450	Moderate.
			PPP		30	47		
			iS		34	04		
			Lq		34	46		
			M		37	49		Per.=13 secs. $\mu$ =17.
	Hyderabad	E	iP	10	30	11	2490	
		N	iS		34	14		
		E	iS		34	18		
			SS		35	05		
		N	SS		35	21		
			M		37	10		Per.=15 secs. $\mu$ =136.
		E	M		37	41		Per.=12 secs. $\mu$ =77.
	Colombo	E	iPP	10	30	21		
			S		34	27		
			L		36	18		
			M <sub>1</sub>		38	32		
			M <sub>2</sub>		42	--		

DATE	STATION	COMPT	PHASE	G	M	T		REMARKS
				h.	m.	s.	km.	
<u>Apr.</u> 1954								
11 Contd.	Madras	E	iP	10	30	25		Great.
	Dehra Dun	N,E	e(P)	10	31	13		Moderate.
			e(PPP)		32	31		
			e(S)		36	01		
			M		41	06		
	New Delhi	N,E	PP	10	31	43	2890	Moderate.
		N	PPP		31	57		Beginning lost
			iS		35	32		within hour
			SS		36	37		mark.
			i		37	01		
			i		37	25		
			M		41	25		
	Chatra	E	eP	10	31	55	3550	Moderate.
			PP		33	00		
			PPP		33	21		
			PcP		34	45		
			eS		37	07		
			Lq		39	03		
			SSS		39	32		
			Lr		40	25		
			M		43	00		Per.=12 secs./u=19.5
	Calcutta	E	eP	10	31	55	3490	Moderate.
			PcP		34	56		
			iS		37	03		
	Shillong	Z	eP	10	32	25	3890	Moderate.
		N	PP		33	55		
			PPP		34	55		
			iS		38	01		
11	Epc: 37°N, 70 1/2° E. Hindukush; h = 60 km.							
	- H = 10h 53m 20s (USCGS).							
	Dehra Dun	N,E	eP	10	55	33	890	Moderate.
			PP		55	41		
			PPP		55	46		
			P*		55	52		
			Lq		56	55		
			eS		57	05		
			SS		57	18		
			Lr		57	20		
			SSS		57	29		
			S*		57	35		
			Sg/M		57	59		
	New Delhi	N,E	iP	10	55	45	970	Slight.
			PP		55	53		Direction of
			i		56	14		first motion
		N	Pg		56	34		South and
			i		57	06		East.
		N,E	iS		57	25		
		N	SSS		58	43		

DATE	STATION	COMPT	PHASE	G	M	T	$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
11	Chatra	N	iP	10	57	19	1780	Moderate.
Contd.			PP		57	32		
			PPP		57	40		
			lq	11	00	13		
			iS		00	17		
			SS		00	33		
			SSS		00	47		
			Lr		00	58		
			M		02	22		
	Bombay	N,E	iP	10	57	29	1910	Slight.
		N	PP		57	47		
		N,E	PPP		57	53		
			iS	11	00	40		
		E	SSS		01	19		
			Lr		01	27		
			M		02	58		
	Poona	Z	iP	10	57	32	1850	Moderate.
		N,S	PP		57	40		
			PPP		57	48		
			eS	11	00	36		
			SS		00	54		
			SSS		01	09		
			Lr		01	34		
			M?		02	47		
	Hyderabad	N	iP	10	57	52	2120	
			iS	11	01	22		
	Calcutta	E	iP	10	57	59		First movement
		N	i(S)	11	01	43		East.
		E	SS		02	08		
	Shillong	Z	eP	10	58	03		
			iS	11	01	40		
13	Shillong	Z	P	04	36	37		Slight, local.
			P*		36	40		
			Pg		36	46		
			Lq		36	58		
			Sg		37	26		
13	Poona	Z	e	07	55	33		Tremor.
	Madras	E	iP	07	55	43		Slight.
	Shillong	Z	i	07	56	05		Tremor.
			i		56	48		
13	Shillong	Z	e	15	13	32		Slight.

DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u> 1954								
13	Epc: 34 $\frac{1}{2}$ ° N, 133 $\frac{1}{2}$ ° E.		South Coast of Hondo;					
			- H = 15h 25m 48s (USCGS and BCIS).					
	32°9 N, 134°4 E.		h = 20 km;					
			- H = 15h 25m 40s; Felt (CMO. Japan).					
	Shillong	Z	iP	15	32	57		Slight.
		N	iS		38	43		
			PS		38	58		
			SS		42	28		
			SSS/Lq		43	23		
			Lr		45	25		
			M		50	09		
	Chatra	Z	eP	15	33	26		Slight, distant.
		E	e		50	--		Surface waves.
	Poona	Z,E	i	15	35	16		Slight, phases not clear.
	Calcutta	E	eS	15	39	37		Slight, distant.
	Hyderabad	E	M	15	59	58		Per.=15 secs. $\Delta$ = 4.
13	Shillong	Z	e	16	52	00		Tremor.
13	Dehra Dun	N,E	eP	17	04	49	900	Slight.
			P*		05	09		
			iS		06	22		
			SS		06	32		
			Lr		06	35		
			SSS		06	43		
			S*		06	49		
			Sg/M		07	12		
	New Delhi	E	eP	17	05	16	940	Slight.
			PP		05	24		
			PPP		05	31		
			P*		05	37		
			Pg		05	58		
			eS		06	53		
			SS		07	05		
			SSS		07	13		
			i		07	28		
13	Poona	Z	e	17	10	59		Tremor.
13	Shillong	Z	i	17	45	11		Tremor.
13	Shillong	Z	P	18	13	36		Local.
			Pg		13	40		
			Sg		14	04		
13	Shillong	Z	Pg	23	48	42		Local.
			Sg		48	48		

DATE	STATION	COMPT	PHASE	G	M	T	REMARKS
				h.	m.	s.	km.
<u>Apr.</u>							
<u>1954</u>							
14	Poona	Z	e	08	13	47	Tremor.
14	Dehra Dun	N	eP.	09	43	40	870 Slight.
			PP		43	46	
			P*		43	58	
			iS		45	09	
			SS/Lr		45	21	
			SSS		45	34	
			S*		45	39	
			Sg/M		46	00	
14	Epc: 10° N, 93° E. Andaman Island Region;						
	10° N, 93 <sup>1</sup> / <sub>4</sub> ° E. - H = 13h 24m 47s (USCGS)						
	10° N, 93 <sup>1</sup> / <sub>4</sub> ° E. - H = 13h 24m 46s (BCIS).						
	995 N, 93° 5' E. - H = 13h 24m 44s (Shillong).						
	Madras	E,W	iP	13	27	52	1420 Slight.
			PP		28	01	
			PPP		28	06	
			i		28	31	
			iS		30	17	
			Lq		30	19	
			SS		30	35	
			SSS		30	44	
			Lr		30	52	
			M		32	12	
	Calcutta	E	eP?	13	28	04	1600 Moderate.
		N	iP		28	04	
			iS		30	45	
		E	SS?		31	10	
	Kodaikanal	E	iP	13	28	25	2380 Slight.
			PPP		28	56	
			S		32	19	
	Shillong	Z	eP	13	28	27	Slight.
		N	PP		28	36	
			PPP		28	47	
			eS		31	17	
			Lr		31	43	
			M		32	54	
	Hyderabad	E,N	iP	13	28	34	1750
		E	eS		31	30	
			SS		31	42	
			M		34	38	Per.=16 secs. $\lambda$ = 9.
	Chatra	Z	iP	13	28	57	2010 Slight.
		E	eP				
			PP		29	16	
			PPP		29	28	
		E,Z	iS		32	17	
		E	SS		32	46	
			SSS		33	01	
			Lr		33	20	
			M		34	46	

DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
14	Poona	ZFN	iP	13	29	27	2280	Moderate.
Contd.		N,S	PP		29	48		
			eS		33	11		
			Lq		33	16		
			SS		33	37		
			SSS		33	57		
			M		35	54		
	Bombay	N	eP	13	29	40	2500	Slight.
		E	iP					
		N,E,S	PPP		30	17		
		E	PPP		30	21		
		N	PcP		33	30		
		N	eS		33	43		
		E	iS					
		N,E	Lq		34	15		
		N	SS		34	32		
		E	SSS		35	06		
		N	Lr		35	18		
	New Delhi	N,E	iP	13	30	02	2570	Slight.
			PP		30	36		
			eS		34	10		
		N	Lq		34	40		
			SS		34	54		
	Dehra Dun	N,E	eP	13	30	11	2890	Moderate.
			PP		30	52		
			PPP		31	04		
			iS		34	40		
			Lq		35	34		
			SSS		36	01		
			Lr		36	47		
			PcS		37	01		
			M		38	56		
			ScS		40	45		
14	Dehra Dun	N	e	20	11	10		Feeble, phases not clear.
14	Shillong	Z	e	21	44	47		Tremor.
15	Poona	Z	e?	03	08	31		Tremor.
15	Dehra Dun	N,E	eP	05	56	05	520	Moderate.
			PP		56	12		
			P*		56	14		
			Pg		56	24		
			iS		57	00		
			Lr		57	02		
			SS		57	09		
			S*		57	11		
			SSS		57	20		
			Sg/M		57	23		



DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
15	New Delhi	E	eP	05	56	22	620	Slight.
Contd.			PP		56	30		
		N	Lq		57	14		
		N,E	iS		57	27		
			Lr		57	31		
			SS		57	37		
			S*		57	42		
			Sg		58	08		
	Shillong	Z	e	05	58	48		Tremor.
15	Shillong	Z	e	06	06	38		Slight, local.
			e		06	44		
			i		06	57		
15	Shillong	Z	e	10	13	52		Tremor.
15	Dehra Dun	N,E	e	22	01	53		Slight, phases not clear.
			i		33	48		
	New Delhi	N,E	eP	22	02	03	1090	Slight.
		E	PPP		02	30		
			P*		02	41		
			Pg		03	11		
			eS		04	05		
			Lr		04	45		
			S*		05	02		
16	Shillong	Z	e	04	58	53		Tremor.
16	Shillong	Z	i	06	11	40		Tremor.
			i		12	08		
	Poona	Z	e	06	13	51		
16	Shillong	Z	e	09	50	03		Slight, local.
			i		50	08		
16	Shillong	Z	i	10	06	52		Tremor.
16	Poona	Z	e	10	40	43		
16	Shillong	Z	P	17	37	41		Slight.
			P*		37	42		
			Sg		38	09		
			SS		38	14		
			SSS		38	25		
17	Epc: $51\frac{1}{2}^{\circ}$ N, $179^{\circ}$ W. Andreanov Island, Aleutian Island; - H = 20h 10m 37s Felt Adak (U.S.C.G.S) Magnitude = $6\frac{3}{4}$ -7 (Pasadena), $6\frac{3}{4}$ (Berkeley), 6.6 (Rome), $6\frac{1}{2}$ (Kiruna, Uppsala).							

DATE	STATION	COMPT	PHASE	G	M	T	$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u> 1954								
17	Shillong	Z	iP	20	21	50	7530	Moderate.
Contd.		N	I					
		N	PcP		22	10		
			iS		30	53		
			PS		31	02		
			ScS		31	39		
			SS		35	16		
			Lq		39	07		
			Lr		43	41		
			M		47	22		
	Chatra	Z	i(P)	20	22	00		Slight.
		N,Z	e(S)		31	14		
	Dehra Dun	N,E	eP	20	22	16	8110	Moderate.
			PPP		26	49		
			iS		31	42		
			ScS		32	14		
			PS		32	22		
			PPS		33	25		
			SS		36	35		
			SSS		39	44		
			Lq		41	47		
			M		51	27		
	Calcutta	E	eP	20	22	18	8130	Moderate.
			iS		31	46		
			SS?		36	45		
	New Delhi	N,E	iP	20	22	28	8300	Moderate.
		N	PcP		22	41		
			iS		32	04		
			PS		32	31		
			PPS		32	47		
			SSS		39	44		
			M		50	45		
	Hyderabad	E	iP	20	23	10	9230	Moderate.
			iS		33	30		
			SS		38	59		
			L		51	00		
		N	M		54	52		Per.=18 secs. $\Delta_1=24$ .
		E	M		55	11		Per.=20 secs. $\Delta_1=26$ .
	Poona	Z	iP	20	23	19		Moderate.
		E	PP		28	45		
			iS		33	48		
			PS		34	52		
			PPS		35	18		
			SS		39	41		
			M?		58	17		

DATE	STATION	COMPT	PHASE	G	M	T	$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
17	Madras	E	iP	20	23	21	9500	Moderate.
Contd.			PcP		23	27		
			PP		26	52		
			SKS		33	42		
			S		33	53		
			PS		34	56		
			PPS		35	16		
			SS		39	17		
	Bombay	N,E	eP	20	23	23	9510	Moderate.
		E	PP		26	48		
			PPP		28	47		
			e		33	41		
			iS		33	51		
		N	eSi		33	55		
		E	iSi					
		E	PS		34	51		
			PPS		35	24		
		N	M		59	00		Per.=18 secs./ $\mu$ =10
		E	M		59	00		Per.=19 secs./ $\mu$ =10
	Colombo	E	ePP	20	23	57		
			S		34	45		
			L		56	02		
			M	21	07	07		
17	Kodaikanal	E	iP	21	23	42	9850	Very slight.
			iS		34	32		
			M	22	00	14		Per.=18 secs./ $\mu$ =16.7.
17	Shillong	Z	i	22	29	10		Tremor.
18	Colombo	E	ePP	03	28	50		
			M	04	06	53		
19	Dehra Dun	N,E	eP	11	32	18	880	Slight.
			Pg		32	58		
			eS		33	49		
			SS		34	02		
			Lr		34	04		
			SSS		34	13		
			S*		34	23		
			Sg/M		34	42		
	New Delhi	N,E	eP	11	32	31	950	Slight.
		E	PP		32	39		
			PPP		32	47		
			Pg		33	15		
			Lq		33	59		
		N,E	iS		34	09		
		N	i		35	18		
		N,E	SS		34	21		
		N	SSS		34	29		
			S*		34	38		
			Sg		35	08		

DATE	STATION	COMP	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u> 1954								
19	Poona	Z	e	16	39	01		Very feeble.
19	Dehra Dun	N,E	eP	16	55	39	340	Slight.
			e		55	53		
			Pg		56	24		
			Lq		57	07		
			iS		57	17		
			SS		57	26		
			Lr		57	32		
			S*		57	49		
			Sg/M		58	11		
	New Delhi	N,E	eP	16	55	57		Slight.
			P*		55	18		
			Lq		57			
			iS		57	44		
			Lr		58	03		
			SSS		58	07		
			S*		58	20		
			Sg		58	45		
19	Bombay	E	e	17	01	50		Very feeble.
			e		03	44		
	Madras	E	eP?	17	05	16		
			S?		07	23		
21	Poona	Z	e	00	15	57		
21	Chatra	Z	e	10	04	52		Slight, distant.
21	Poona	Z	i	20	42	51		Tremor.
22	Chatra	Z	i	15	02	27		Slight.
	Poona	Z	i	15	04	01		Tremor.
	Bombay	E	i	15	04	11		Very feeble.
			i		12	27		
22	New Delhi	E	eP	23	01	50	470	Slight.
			P*		01	58		
			Pg		02	06		
			i		02	14		
			Lq		02	30		
			S*		02	52		
		N,E	Sg		03	03		
	Dehra Dun	N,E	eP	23	01	56	360	Slight.
			P*		02	02		
			PP		02	04		
			Pg		02	08		
		N	PPP		02	10		
			Lq		02	25		
			Lr		02	33		
			iS		02	35		
			S*		02	36		
			SS		02	41		
			Sg		02	45		
			SSS		02	54		

DATE	STATION	COMPT	PHASE	G	H	V	REMARKS
				h.	m.	s.	km.
<u>Apr.</u>							
<u>1954</u>							
23	Dehra Dun	N,E	e i	11	06	19 07 27	Feeble, phases not clear.
23	Chatra	Z	e	13	24	37	Slight, near.
23	Calcutta	E	e i	13	27	05 29 27	Slight, near.
	Dehra Dun	N	eP PP S SS SSS PeP PeS	13	27	07 27 14 29 29 29 42 30 03 33 14 35 43	1400 Slight.
	Madras	E	e	13	27	32	Tremor.
	New Delhi	N	eS SS SSS M	13	29	15 31 45 33 39 31 51	2280 Slight.
	Hyderabad	E,E E N	eS M M	13	31	36 31 33 35 26	Per.= 3 secs./ $\lambda$ =2. Per.= 9 secs./ $\lambda$ =2.
	Bombay	N,E N,E,S	e e	13	32	13 35 13	Feeble.
24	Dehra Dun	N	e	23	15	53	Tremor.
25	Poona	Z	e?	00	40	32	Very distant, feeble shock, phases not clear.
	Bombay	E,W	e e	00	44	25 51 23	Distant and feeble.
	Kodaikanal	E,W	e?	00	44	44	Very slight, tremor.
	Madras	E,W	eP	00	45	08	Slight, phases not clear.
	Hyderabad	E	eS M	00	51	42 01 17 50	Per.=17 secs./ $\lambda$ = 6
25	Colombo	E	M	03	11	45	
25	Shillong	Z	iP	02	42	44	Slight.
25	Shillong	Z	iP P* Pg S? Sg/M	03	43	24 43 36 43 50 44 19 44 46	510 Slight, near.

DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h. m. s.			km.	
<u>Apr. 1954</u>								
25	Bombay	N E N	e e e	03	52	14 55 29		Very feeble and near shock.
25	Shillong	Z	1P	09	26	15		Feeble.
25	Shillong	Z	eP	18	13	03		Tremor.
25	Shillong	Z	eP	18	21	11		Tremor.
25	Shillong	Z	eP	22	02	03		Tremor.
26	Shillong	Z	eP	00	40	32		Tremor.
26	Shillong	Z	eP	02	19	20		Tremor.
26	Poona	Z	e?	02	29	29		Tremor.
26	Shillong	Z	eP Pg S SSS Sg	11	00	26 00 55 01 39 01 55 02 07	700	Slight.
	Dehra Dun	N	e(P) PP e(S)	11	02	46 03 06 05 22	1550	Slight. Phases not clear.
	Calcutta	E	e i i	11	03	37 06 14 06 59		Slight, near.
	Poona	E	e	11	08	27		Very distant feeble shock. Phases not clear.
	Bombay	E N E	e e e e	11	08	31 08 45 12 20 13 39		Very feeble shock.
26	Shillong	Z	1Pg P Sg	16	45	50 45 52 45 59.5	80	Slight, local, felt.
26	Epc: 52°N, 159°E. Off the SE Coast of Kamchatka; h = 60 km. - H = 20h 24m 47s (B C I S ) 51°N, 158½°E. h = 60 km Ca. - H = 20h 24m 44s (U S C G S )  52°N, 159° E. h = 100 km Ca. - H = 20h 24m 52s (CMO. Japan). Magnitude = 6½ - 6¾ (Pasadena), 6½ (Kiruna, Uppsala, Berkeley), 6.4 (Roma).							

20

DATE	STATION	COMPT	PHASE	G	M	T	REMARKS
				h.	m.	s.	km.
<u>Apr.</u>							
1954							
26 Contd.	Shillong	Z	eP	20	34	25	6230 Distant, slight.
			PPP			34 47	
			S			42 14	
			ScS			42 30	
			Lq			43 21	
		M			43 56		
	Chatra	Z	eP	20	34	38	Slight, distant. Probably deep focus.
	Dehra Dun	N	e i	20	34	55 39 24	Slight, phases not clear.
	Calcutta	E	eP	20	34	58	6550 Slight.
eS					43 04		
Lq					49 39		
Lr					52 14		
	New Delhi	N,E N	iP	20	35	08	7370 Moderate.
PcP					35 32		
iS					43 57		
PS					44 16		
i					44 51		
SS					48 26		
SSS					51 14		
Lr					56 32		
M			21 02 00				
	Hyderabad	E,N N	iP	20	35	57	7600
iS					44 59		
L					58 19		
M		21	03	35	Per.=21 secs./ $\Delta$ = 13. Per.=18 secs./ $\Delta$ = 10.		
M				03 53			
	Poona	Z	eP	20	36	07	Very distant feeble shock. Phases not clear.
		E					
	Madras	E	iP	20	36	11	7910 Moderate.
PcP					36 18		
PP					38 54		
PPP					40 40		
iS					45 28		
SKS					45 52		
ScS					45 56		
PPS					46 07		
	Bombay	N,E E N,E E N,E E N,E E N	iP	20	36	12	7950 Slight.
eP							
PP					38 56		
PPP					40 41		
eS					45 31		
PS					46 02		
PPS					46 18		
M			21	11	08	Per.=19 secs./ $\Delta$ = 8. Per.=18 secs./ $\Delta$ = 7.	
M					11 11		

DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
26	Kodaikanal	E	e	20	36	35		Very slight, tremor.
Contd.	Colombo	E	P	20	36	42		
			S		46	25		
			L	21	02	50		
			M		10	35		
27	Epc: $6^{\circ}\text{N}$ , $82\frac{1}{2}^{\circ}\text{W}$ ; - H = 10h 06m 24s (U S C G S)							
	$5\frac{3}{4}^{\circ}\text{N}$ , $82\frac{1}{2}^{\circ}\text{W}$ ; H = 10h 06m 26s (B C I S)							
	Magnitude = 7 (Pasadena), $6\frac{3}{4}$ (Berkeley), 6 (Uppsala, Roma).							
	Colombo	E	e	10	24	50		Feeble.
			M	11	35	05		
	Bombay	N,E	ePKP <sub>1</sub>	10	26	08		Distant shock.
		E	e		33	09		
	Chatra	Z	e.	10	26	09		Slight, distant.
	Kodaikanal	E	e	10	31	42		Very slight, tremor.
	Poona	Z	e	10	36	11		Tremor.
	Hyderabad	E	M	11	29	13		Per.=24 secs./ $\Delta$ = 8.
27	Dehra Dun	N	e	15	30	25		Tremor.
27	Epc: $56^{\circ}\text{S}$ , $147^{\circ}\text{E}$ . Off the South Coast of Tasmania;							
	- H = 21h 21m 35s (U S C G S).							
	Shillong	N	eP	21	35	10		Moderate.
			SKS <sub>1</sub>		45	36		
			SKKS <sub>1</sub>		45	51		
			iS		46	06		
			PS		47	32		
			PPS		48	07		
			PKKP <sub>2</sub>		51	48		
			SS		52	11		
			SSP		52	41		
			e?		55	41		
			Lr	22	05	41		
			M		13	21		
	Calcutta	E	e	21	37	06		Slight, distant.
			i(SKS)		45	33		
	Bombay	E	e	21	38	10		Feeble.
			M	22	03	--		
	Kodaikanal	E	e	21	44	54		Very slight, tremor.
	Madras	E	eS	21	44	56		Slight, phases not clear.
	Hyderabad	E	SKS	21	45	27		
			M	22	05	27		Per.=15 secs./ $\Delta$ = 6.
		N	M		05	30		Per.=18 secs./ $\Delta$ =12.



DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1954								
27	Poona	N	e	21	45	45		Slight, phases not clear.
Contd.								
28	Dehra Dun	N	e	16	08	41		Tremor.
29	Madras	E	eP	04	31	06		Moderate. Phases not clear.
29	Dehra Dun	N	e	08	36	10		Tremor.
29	Bombay	E	e	11	08	29		Distant. Moderate.
		N	e		08	44		
		E	e		10	39		
		N	e		12	22		
		E	e		12	34		
	Poona	Z	i	11	08	43		Slight, phases not clear.
	Kodaikanal	E	e?	11	33	41		Very slight, tremor.
29	Colombo	E	ePP	11	51	50		
			S	12	07	20		
			L		43	50		
			M	13	01	53		
29	Poona	Z	i	11	53	52		Moderate, long distant shock. Phases not clear.
29	Bombay	N	e	11	54	02		Distant.
		N,E,S	e		57	25		
		E,S	e		58	26		
			e	12	07	--		
		E	M		56	--		
		N	M		59	--		
29	New Delhi	N	ePKP	11	55	05	12670	Moderate.
			PP		56	07		
			PPP		58	57		
		N	SKS	12	01	45		
			SKKS		02	58		
			PS		05	49		
			PPS		07	02		
			PKKS		09	50		
			SS		11	59		
			SSS		16	10		
29	Hyderabad	N	eP	11	57	19	10010	
			S	12	08	12		
		E	SS		13	31		
			M		39	44		Per.=18 secs. $\Delta$ =24.
		N	M		40	05		Per.=18 secs. $\Delta$ =21.

DATE	STATION	COMPT	PHASE	G	M	T	△	REMARKS	
				h.	m.	s.	km.		
<u>Apr.</u>									
<u>1954</u>									
29	Calcutta	E	iPKP <sub>1</sub>	11	59	21	13780	Moderate.	
			SKS <sub>2</sub>	12	06	38			
			PPS?		12	33			
			Mn		53	46		Per.=20 secs./u =72.	
29	Dehra Dun	N,E	e	22	10	28		Slight. Phases not clear.	
			i		10	34			
			i		10	47			
30	Poona	Z	i?	12	06	44			
30	Poona	Z	i	12	13	51			
30	Epc: 39.5°N, 22.2°E. Thessalonika Greece;								
				- H = 13h 02m 36s (B C I S).					
				39 <sup>10</sup> / <sub>2</sub> °N, 22°E. - H = 13h 02m 36s (U S C G S )					
	New Delhi	N,E	iP	13	11	04	5050	Moderate.	
			PP		13	53			
			PPP		14	52			
			iS		17	46			
		N	ScS		20	23			
			SS		20	58			
			SSS		22	10			
			Lr		24	49			
			M		28	58			
	Dehra Dun	N,E	eP	13	11	06	5050	Moderate.	
			PcP		12	26			
			PP		12	59			
			PPP		13	44			
			PcS		16	22			
			iS		17	58			
			PPS		18	14			
			ScS		20	32			
			SS		21	06			
			Lq		22	15			
			SSS		22	25			
			Lr		24	14			
			M		28	12			
	Bombay	N,E,S	iP	13	11	18	5310	Moderate.	
			PP		13	11			
		ES	PPP		14	07			
		N,E,S	iS		18	15			
		ES	PPS		18	33			
		N,E,S	SS		21	11			
		ES	i		21	47			
			i		22	09			
		N	Lq		22	34			
			SSS		22	46			
			M		34	16		Per.=17 secs./u = 9.	

DATE	STATION	COMPT	PHASE	G	M	T	$\Delta$	REMARKS
							h. m. s. km.	
<u>Apr.</u>								
1954								
30 Contd.	Poona	Z N,S	iP	13	11	25	5360	Moderate.
			PP		13	23		
			PPP		13	59		
			PcS		16	44		
			iS		18	24		
			PS		18	29		
			SS		21	19		
			Lq		22	11		
			SSS		22	30		
			Lr		24	41		
M		28	58					
	Hyderabad	E,N E E,N E N E	iP	13	11	53	5800	
			PP		13	57		
			iS		19	18		
			L		28	09		
			M		31	36		
			M		32	20		
								Per.=23 secs./h = 69. Per.=22 secs./h = 64.
30	Chatra	Z N,E N,E,Z	i(P)	13	12	06		Moderate, distant.
			e(P)					
			e(S)		19	40		
	Kodaikanal	E,W	iP	13	12	25	6350	Slight.
			PPP		15	53		
			PcS		17	11		
			iS		20	20		
			PPS		20	45		
			M		34	36		
	Madras	E,W	iP	13	12	26	6250	Moderate.
			PcP		13	17		
			PP		14	40		
			PPP		15	51		
			PcS		17	09		
			iS		20	16		
			PS		20	31		
			PPS		21	42		
			ScS		22	04		
			SS		23	54		
			SSS		26	22		
Lq		26	27					
Lr		29	30					
	Calcutta	E	iP	13	12	32	6830	Moderate. First movement west.
			PP		14	48		
			PPP		16	12		
			iS		20	53		
			ScS		24	24		
			Lq		28	07		
			PKKP <sub>1</sub>		33	23		
			M		36	08		

DATE	STATION	COMPT	PHASE	G M T			△	REMARKS	
				h.	m.	s.			
<u>Apr.</u>									
1954									
30 Contd.	Colombo	S	P	13	12	49.			
			S			21	01		
			L			36	--		
			M			42	14		
	Shillong	N	iP	13	12	55		Moderate.	
			PP			14	44		
			PPP			16	37		
			PcS			17	37		
			iS			21	06		
			ScS			22	12		
			SS			24	31		
			SSS			27	24		
			M			34	54		
30	Kodaikanal	E,W	e?	22	59	39		Very slight, tremor.	
30	Poona	Z	e	23	17	59			
30	Madras	E,W	e	23	22	36		Slight. Phases not clear.	
30	Calcutta	E	e	23	27	06		Slight, distant.	
			e			38	14		
30	Bombay	N	e	23	28	43		Distant and feeble.	
		E,S	e			28	48		
	Hyderabad	E	S	23	28	43		Per.=18 secs. $\lambda$ = 14 Per.=15 secs. $\lambda$ = 7.	
		N	L			45	18		
		E	M			52	24		
		N	M			53	02		
Colombo	S	P		23	31	16			
		L				51	49		
		M				58	51		

Earthquake Reports  
(Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of April 1954.

Place at which felt	Date in		Time in		Duration in secs	Intensity R.F.scale	No. of shocks	Remarks
	G.	M.	G.	M.				
Shillong	01		16	15	6	III	-	-
Srinagar	11		10	54	120	V	4	-
Khandwa	23		11	05	1	III-IV	1	-
Shillong	26		16	30(?)	15	II	1	-



18/10/68

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

- 2 -

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	$T_0 = T_g$ $= 7.0$	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	$T_0=0.72$ $T_g=0.45$	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.2$	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	$T_0=1.5$ $T_g=1.5$	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	$T_0=1.0$ $T_g=0.18$	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

 Office of the Director General of Observatories,  
 Lodi Road, New Delhi, India, 1959.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
01	Dehra Dun	N	e	07	43	49		Feeble, phases not clear.
	Shillong	Z	i	07	45	02		Tremor.
			e		48	41		
01	Shillong	Z	i	09	23	59		Tremor.
			i		24	06		
01	Shillong	Z	e	09	35	20		Tremor.
01	Shillong	Z	i	13	24	40		Slight, near.
			i		24	48		
			i		24	55		
01	Dehra Dun	N,E	eP	15	37	19	220	Slight, phases not clear.
			iS		37	44		
			i		37	54		
	New Delhi	E	eP	15	37	30	310	Slight.
			P*		37	33		
		N,E	PP		37	37		
		E	Pg		37	40		
			PPP		37	44		
		N,E	Lr		38	02		
		E	iS		38	05		
		N,E	S*		38	11		
			Sg		38	17		
	Shillong	Z	e	15	38	53		Tremor.
			e		40	48		
			e		40	54		
01	Shillong	Z	e	20	54	02		Tremor.
			i		54	08		
01	Shillong	Z	i	21	39	39		Tremor.
			e		45	10		
02	Shillong	Z	e	00	56	06		Tremor.
			e		56	22		
02	Shillong	Z	iPg/P*	02	59	45	100	Slight.
			P		59	47		
			iSg		59	56		
			S	03	00	01		
			SS		00	11		
02	Shillong	Z	e	04	50	01		Slight, near.
			e		50	54		
02	Dehra Dun	N	e	06	19	21		Feeble.



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
02	Shillong	Z	iP	06	45	46	190	Slight.
			P*		45	47		
			Pg		45	49		
			S/S*		46	10		
			eSg		46	11		
			SS		46	18		
02	Shillong	Z	iPg	22	33	12	20	Slight.
			iSg		33	14		
02	Shillong	Z	e	20	59	29		Tremor.
			i		59	41		
02	Shillong	Z	iP	21	24	41	210	Slight.
			Pg		24	43		
			PP		24	48		
			eSg		25	10		
02	Shillong	Z	iPg	22	04	50	20	Slight.
			iSg		04	52		
03	Shillong	Z	iP	08	24	48	220	Slight.
			ePg		24	52		
			eSg		25	18		
03	Shillong	N	e	08	35	05		Distant. Phases not clear.
03	Shillong	Z	e	12	37	11		Tremor.
03	Shillong	Z	iP	18	09	31	220	Slight.
			ePg		09	37		
			eSg		10	15		
03	Poona	Z	eP	18	26	52		Tremor.
03	Shillong	Z	e	18	28	02		Distant.
04	Shillong	Z	i	01	38	57		Tremor.
			i		38	59		
04	Shillong	Z	e	14	03	42		Tremor.
			e		03	57		
04	Shillong	Z	e	15	29	02		Tremor.
04	Shillong	Z	e	16	07	21		Tremor.
04	Shillong	Z	i	18	00	08		Tremor.
04	Shillong	Z	i	21	44	09		Tremor.
04	Shillong	Z	i	23	59	01		Slight.
			e		59	39		

5

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
05	Dehra Dun	N,E N	eP PPP P* Pg Lq iS SS Lr SSS Sg/M	03	15	26	900	Moderate.
05	Shillong	Z,N N	iP iS	09	00	39	8670	Slight.
	Poona	Z,N Z	eP ?	09	02	13		Very distant feeble shock. Phases not clear.
	Colombo	E	eP S L M	09	02	39		Amp. = 0.2mm.
	Hyderabad	N	S M	09	12	12		Per. = 15 Secs./u = 7
05	Dehra Dun	N,E N	eP PP PPP P* Pg Lq iS Lr SS SSS S* Sg/M PcP	09	19	05	870	Moderate.
	New Delhi	N,E	eP PP Lq eS SS SSS M	09	19	30	860	Slight.
	Shillong	Z	e	09	21	21		
05	Dehra Dun	N	e e	09	55	58		Slight. Phases not clear.
	Shillong	Z	i	18	01	08		Tremor.
05	Shillong	Z	e	23	54	03		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Aug.</u> 1954						
06	Shillong	N	e	00 03 15		Tremor.
06	Dehra Dun	N,E	eP PP PPP Pg iS SS/Lr SSS S* Sg/M	02 56 14 56 24 56 29 56 52 57 46 57 57 58 08 58 13 58 38	890	Moderate.
	New Delhi	N,E N N,E	eP P* iS SS SSS S*	02 56 32 56 51 58 13 58 25 58 36 58 48	980	Slight.
06	Shillong	Z	i	11 43 39		Tremor.
06	Shillong	Z N,E	i i	12 39 02 39 25		Slight, local.
07	Dehra Dun	N,E N	eP PPP P* Pg iS SS/Lr SSS S* Sg/M	15 15 52 16 06 16 10 16 27 17 13 17 24 17 35 17 39 17 59	780	Moderate.
	New Delhi	N,E E N,E	iP PP P* Pg iS SS SSS Sg	15 15 57 16 04 16 16 16 38 17 37 17 48 17 58 18 32	970	Slight. Direction first motion South and East.
	Poona	Z	i	15 17 35		Tremor.
	Shillong	Z,N N	iP iS	15 18 15 21 56	2230	Slight.
07	Shillong	N	e e	18 12 38 15 05		Slight initial movement very small obscured in microseisms.
	Calcutta	E	e	18 16 19		Tremor.
	Poona	N	i?	18 21 34		---

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
07	Shillong	Z	e	18	39	11		Slight.
			e		39	41		
07	Shillong	Z	e	19	19	00		Tremor.
08	Shillong	Z	iP	11	50	35	290	Slight.
			eP*		50	40		
			aPg		50	46		
			eS		51	10		
		Z,N	eS*		51	15		
		Z	eSg		51	20		
09	Shillong	Z,N	i	00	16	54		Slight, near.
09	Shillong	Z	e	11	08	10		Tremor.
09	Shillong	Z	i	17	22	32		Tremor.
09	Shillong	Z	i	18	18	21		Tremor.
09	Epc: 53°N, 161°E. - h = 60 km Ca. Off the East Coast of Kamchatka. - H = 19h 16m 48s (U.S.C.G.S). Magnitude = 6½-6¾ (Pasadena, Skalyate Pleso), 6½ (Berkeley, Uppsala), 6¼-6½ (Praha), 6-6¼ (Kiruna).							
	Shillong	Z,N	iP	19	26	36	6240	Moderate.
			iS		34	26		
	Dehra Dun	N	eP	19	27	06	6950	Moderate.
			PcP		27	38		
			PP		29	25		
			PPP		30	55		
			eS		35	33		
			PS		35	50		
			PPS		35	57		
			ScS		36	53		
			SS		39	40		
			Lq		43	06		
			Lr		46	00		
			M		51	00		
	New Delhi	N,E	eP	19	27	19		Moderate.
			i?		37	06		
	Colombo	E	e?	19	27	19		
			S		38	39		
			L	20	01	34		
			M		07	29		
	Hyderabad	N	P	19	28	10	7800	
		E,N	eS		37	22		
		N	PS		37	56		
			L		52	17		
			M		57	14		Per.= 18 Secs./u= 21
		E	M		57	58		Per.= 18 Secs./u= 11

DATE	STATION	COMPT.	PHASE	G. M T.	Δ	REMARKS
				h. m. s .	km.	
<u>Aug. 7</u>						
1954						
09	Poona	Z	eP	19 28 23	8110	Slight.
Contd.		N	PcP	28 50		
			PP	31 15		
			PPP	33 02		
			iS	37 50		
			PPS	38 29		
			SS	42 24		
			M	57 18		
	Madras	E	eP	19 28 24	8130	Moderate.
			PcP	28 32		
			PP	31 14		
			PPP	33 03		
			iS	37 53		
			SKS	38 05		
			PS	38 24		
			PPS	38 55		
	Bombay	N	e(P?)	19 28 36		Moderate.
			•	37 45		
			e(S)	38 28		
			M(?)	20 24 11		Per. = 16 Secs./u = 9
	Kodaikanal	E	e(P?)	19 29 04	8180	Slight.
			iS	38 34		
	Calcutta	E	S	19 35 30		Moderate. Beginning
			M	56 40		not recorded.
09	Dehra Dun	N	•	20 55 36		
			i	55 48		
09	Shillong	Z	i	21 32 36		Tremor.
09	Shillong	Z	i	22 21 50		Tremor. Near shock.
			i	22 34		
10	Dehra Dun	N	i	01 28 31		Tremor.
10	Shillong	Z	i	08 33 11		Slight.
			i	34 00		
10	Shillong	Z	•	10 59 42		Slight.
10	Shillong	Z	iP	17 28 29		Slight.
			iSg	29 59		
10	Shillong	Z	i?	18 07 47		Slight.
10	Shillong	Z	e(Sg)	23 58 14		Slight.
11	Shillong	Z	eP	05 53 24		Slight.
			•	53 59		
11	Shillong	Z	•	07 35 18		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u> 1954								
11	Shillong	Z	e	09	40	13		Slight.
11	Shillong	Z	iPg iSg	10	00	38 00 42	20	Slight.
11	Shillong	Z	e	12	56	47		Slight.
11	Shillong	Z N	e(?) eP eS L	13	00	39 00 43 01 27 01 46	400	Slight. 'Z' Component too faint for measurements
11	Shillong	Z	i	20	03	28		Slight.
	Dehra Dun	N	e	20	05	13		Tremor.
12	Shillong	Z	iP e eSg	05	07	54 08 16 08 27	230	Slight.
12	Dehra Dun	N	e	07	50	35		Tremor.
12	Shillong	Z	iP	11	45	52		Slight.
12	Epc: 2°N, 118°E. Off the East Coast of Borneo. - H = 23h 42m 32s (U.S.C.G.S). Magnitude = 5 $\frac{3}{4}$ -6 (Kiruna).							
	Shillong	Z	eP e eS L	23	49	25 49 32 55 06 00 00 01		Slight.
	Calcutta	E	PP iS	23	51	02 55 18		Slight, distant.
	Colombo	E	S L M	23	55	50 00 01 50 08 08		Amp. = 0.4mm.
13	Shillong	Z	i(Sg)	08	35	42		Slight.
13	Shillong	Z	iPg iSg	19	59	18 59 26	70	Slight.
13	Shillong	Z	i(Pg) i	20	38	57 38 59		Slight.
14	Shillong	Z	eP iSg SS	02	55	17 55 41 55 48	180	Slight.
14	Dehra Dun	N	e	07	59	09		Tremor.
14	Shillong	Z	i	14	32	21		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
14	Shillong	Z	e	17	02	05		Slight.
14	Shillong	Z	iP	17	28	59	210	Slight.
			i		29	02		
			iSg		29	27		
14	Shillong	Z	eP	19	53	04	450	Slight.
			iS		53	52		
			iSg		54	10		
14	Epc: Ceram Sea. - H = 22h 56m 08s (U.S.C.G.S). 3°S, 127 $\frac{1}{2}$ °E. -H = 22h 56m 08s (B.C.I.S).							
	Colombo	E	(P)	23	04	05		
			SSS		12	38		
			L		22	58		
			M		27	35		/u = 0.4mm.
	Shillong	Z	eP	23	04	28	4860	Slight.
			i		04	30		
		N	eP		04	30		
			iS		11	01		
	Madras	E	eP	23	05	06	6000	Very slight.
	Kodai anal	E	e?	23	05	48		Slight, tremor.
	Poona	Z	eP	23	06	01	6330	Slight.
		N	PP		08	16		
			PPP		09	23		
			iS		13	55		
			PS		14	07		
			PPS		14	21		
			ScS		15	46		
			SS		17	48		
			Lq		20	19		
			Lr		23	09		
			M		28	04		
	New Delhi	N,E	eP	23	06	02	6370	Moderate.
		N	iS		13	58		
	Hyderabad	N	S	23	12	55		
			M		30	57		Per. = 18 Secs./u = 5.
15	Dehra Dun	N	e	05	59	38		Tremor.
15	Shillong	Z	e(P)	06	48	34		Feeble.
			e		49	15		
15	Shillong	Z	iP	09	43	50		Slight.
15	Shillong	Z	e	18	55	24		Slight.
15	Shillong	Z	i(Pg)	20	34	15		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
16	Shillong	Z	iP	00	02	45		Slight.
		N	M		11	--		
16	Shillong	Z	•	02	37	20		Slight.
			•		37	22		
16	Shillong	Z	•	04	59	42		Slight.
			•		59	49		
			i	05	00	00		
16	Dehra Dun	N	•	08	04	15		Feeble, phases not clear.
16	Dehra Dun	N	•	09	04	45		Feeble, phases not clear.
			i		09	17		
16	Shillong	Z	iP	09	06	58		Slight.
16	Shillong	Z	i	13	10	33		Slight.
16	Shillong	Z	i(Pg)	16	07	39		Slight.
			i(Sg)		07	41		
16	Shillong	Z	iPg	20	13	46	130	Slight.
			iSg		14	01		
16	Shillong	Z	eP	20	53	15	160	Slight.
			iSg		53	35		
16	Shillong	Z	eP	21	07	01	130	Slight.
			i		07	02		
			i		07	15		
			i(Sg)?		07	17		
16	Shillong	Z	•	21	55	06		Slight.
17	Dehra Dun	N	•	10	11	18		Slight. Phases not clear.
			i		11	45		
			i		12	05		
18	Shillong	N,E	•	03	37	07		Slight.
18	Epc: 21½°S, 176°W. Tonga Island. - h = 150 km. Ca. - H = 04h 42m 20S							
	(U.S.G.G.S) Felt - Nukualofa (VI), Apia (III). (Press report from Apia).							
	Magnitude = 7½ (Wellington, Takubaya), 7¼ (Berkeley),							
	7 (Pasadena, Chihuahua).							
	Shillong	N	•	04	54	36		Moderate shock. 'P'
			•		58	57		time not absolutely
			PP	05	00	09		accurate for absence
			•		01	34		of Benioff time.
			•		02	45		
			i		03	59		
			SKS		06	20		
			SS		07	24		



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Aug.</u>									
1954									
18 Contd.	Hyderabad	E	eP	04	56	40	12360	△ from PS - SKS.	
			PP	05	01	11			
			iSKS		07	05			
			SKKS		08	03			
			iPS		10	28			
			SS		15	45			
			N	L	31	27			
			E	L	34	12			
			N	M	43	06		Per. = 15 Secs./ $\Delta$ = 4	
			E	M	43	23			Per. = 11 Secs./ $\Delta$ = 3
	Kodaikanal	E	eP?	05	00	00		Slight shock. 'P' phase a little uncertain.	
			i		06	03			
	Dehra Dun	N	ePKP	05	00	00	5280	Moderate.	
			PP		01	52			
			SKS		07	06			
			SKKS		09	43			
			PS		11	16			
			SS		16	59			
	Calcutta	E	PP	05	00	18	4510	Moderate. First movement east.	
			SKS		06	28			
	New Dehli	N,E	ePKP	05	00	46	4900	Slight.	
			N	iSKS		07			20
				i		08			28
				PS		11			23
	Poona	Z	PKP	05	00	50		Slight shock. Phases not clear.	
			Z,E	i		01			33
			N,E	SKS		07			25
			N	i		09			23
				PS		11			23
	Bombay	E	PKP <sub>1</sub>	05	00	52	12600	Moderate, deep.	
			PP		01	35			
			N,E	SKS		07			31
			E	i		07			58
			N	•		09			30
			E	iS		09			52
				PS		11			28
			E	i <sub>1</sub>		12			21
			N	• <sub>1</sub>					
			E	SS		17			32
	Madras	E	PP	05	00	54	4390	Moderate.	
			SKS		06	30			
18	Shillong	Z	eP	18	07	58		Slight. Distant.	
18	Shillong	Z	eP	19	02	45		Slight. Distant.	
18	Shillong	Z	eP	19	17	09		Slight. Local.	

DATE	STATION	C.M.P.T.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Aug.</u>									
1954									
18	Shillong	Z	iP	20	36	23		Slight. Local.	
18	Shillong	Z	eP	20	56	11		Slight, near.	
			e		56	22			
			e		57	30			
	Calcutta	N	e		59	03		Slight. Felt at Bhagalpur at Bihar.	
			E	eP	20	57	03		330
			N	iS		57	38		
	New Delhi	E	iS		57	40		Slight.	
			eP	20	58	23	1090		
			P*		58	46			
			Pg		59	10			
			eS	21	00	15			
			SS		00	24			
	Shillong	N	SSS		00	35		Slight. Phases not clear.	
			M		01	20			
	Poona	Z	e	21	03	03		Tremor.	
18	Dehra Dun	N,E	e	22	31	14		Slight. Phases not clear.	
			i		31	25			
18	Epc: 39°N, 72°E. Pamir. - H = 23h 32m 06s (B.C.I.S).								
	Dehra Dun	N,E	eP	23	34	22	1170	Moderate.	
			PP		34	30			
			PPP		34	37			
			Lq		36	12			
			iS		36	21			
			SS		36	33			
			Lr		36	40			
			SSS		36	44			
			Sg/M		37	30			
	New Delhi	N,E	eP	23	35	00	1280	Slight.	
			E	PPP		35	14		
			N,E	iS	23	37	10		
			N	SS		37	22		
			Lr		37	31			
	Poona	Z	eP	23	36	55		Very feeble shock. Phases not clear.	
	Shillong	Z	eP	23	37	11		Slight.	
	Hyderabad	E	e	23	44	09		Slight.	

DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
19	Shillong	Z	eP	00	51	01		Slight. Local.
			e		51	05		
			e		51	51		
			e		51	56		
	Dehra Dun	N	e	00	56	50		Tremor.
20	Dehra Dun	N	e	04	12	48		Slight. Phases not clear.
20	Shillong	Z	ePg	10	17	48		Slight. Local.
			Sg		18	01		
20	Bombay	N	e	15	34	57		Slight.
			e		39	10		
	Poona	E	i	15	35	14		Faeble shock. Phases not clear.
		N	i		39	20		
	Dehra Dun	N	e	15	35	14		Slight. Phases not clear.
	Shillong	Z	e	15	37	14		Feeble. Distant.
	Calcutta	E	e	15	43	52		Slight. Distant.
			i		49	42		
20	Shillong	Z	eP	20	35	48		Slight. Distant.
21	Epc: 7°N, 126½°E. Off the East Coast of Mindanao, Phillipines.							
	- H = 06h 38m 33s (U.S.C.G.S).							
	7° .5' N, 126° .10' E. (Manila). Felt Davo (V), Dadinagas & Hinatnan (III) Butnan (III). (Press report from Manila)							
	Magnitude = 6¼ (Kiruna).							
	Colombo	E	e?	06	44	49		
			e		53	19		
	Shillong	Z	eP	06	45	54		Slight.
	Madras	E	iP	06	47	12	5150	Slight.
			PP		48	58		
			PPP		49	50		
			ScP		52	44		
			iS		54	00		
			PS		54	08		
			PFS		54	20		
			ScS		54	42		
			SS		57	22		
	Dehra Dun	N	eP	06	47	36	5440	Moderate.
			PcP		48	40		
			PP		49	12		
			PPP		50	19		
			PcS		52	26		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.	km.	
<u>Aug.</u>								
1954								
21	Dehra Dun	N	e	06	54	39		
Contd. Contd.			eS		54	45		
			PS		54	53		
			ScS		57	08		
			SSS		59	44		
			M	07	06	06		
	Poona	Z	eP	06	47	58		Slight shock.
		N	iS		55	08		Phases not clear.
	Hyderabad	N	eS	06	54	06		Slight.
21	Shillong	Z	eP	09	54	50		Slight.
			Sg		55	08		
22	Dehra Dun	N,E	eP	06	44	40	920	Moderate.
		N	PP		44	46		
			PPP		44	53		
			Lq		46	06		
			iS		46	16		
			SS		46	27		
			Lr		46	32		
			SSS		46	38		
			S*		46	46		
			Sg/M		47	12		
24	Epc: 39.5°N, 118.5°W. Nevada USA. - H = 05h 51m 31s (U.S.C.G.S). Felt: San Francisco, Oakland, Sacramento, Reno, Elko & Fallon. Magnitude = 7¼ (Skalnate Pleso), 7 (Prahá) 6¾-7 (Hurvanovo, Kiruna), 6.8 (Pasadena), 6½-6¾ (Uppsala), 6½ (Berkeley, Takubaya).							
	Madras	E	e	06	08	50		Distant shock of moderate intensity. Phases not clear.
			e		29	36		
	Shillong	N	PP	06	10	02		Moderate. Distant.
			SKS		16	44		
			PS		20	03		
			SSS		29	53		
			e(Lr)		41	46		
			e(M)		50	56		
	Poona	Z	PKP	06	10	23		Probably a long distant shock. Phases not clear.
	Bombay	E	ePKP <sub>1</sub>	06	10	30	13550	Moderate.
			e		17	07		
		N	SKS		17	37		
		E	i		20	00		
		N	SS		28	30		
		E	eSS		28	36		
			SSS		33	03		
			Lq		37	33		
			M	07	00	56		
		N	M		07	54		
								Per. = 19 Secs./u = 11
								Per. = 21 Secs./u = 8

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Aug.</u>						
1954						
24 Contd.	New Delhi	N	iPP	06 10 43	12110	Moderate.
			SKS	16 47		
			SKKS	17 53		
			PS	20 06		
			SS	26 02		
		M	50 39			
	Hyderabad	N	ePP	06 11 53		
			e	21 48		
		E	M	57 45		Per. = 21 Secs./u = 43
			M	58 53		Per. = 21 Secs./u = 37
	Colombo	E	PP	06 13 05		
			SS	30 30?		
			L	52 20		
			M	07 02 30		Amp. = 3.0mm.
	Calcutta	E	SKS	06 17 04		Moderate, Distant.
			e	18 56		
			e	20 53		
			i	26 59		
			Mn	55 44		
	Kodaikanal	E	e	06 18 59		
			e	29 47		
24	Dehra Dun	N	e	23 52 40		Slight. Phases not clear.
			i	54 15		
25	Shillong	E	eP*	04 58 09	160	Slight.
			iSg	58 30		
25	Shillong	N	e	06 32 58		Slight. Near.
			e	33 06		
			e	34 22		
25	Shillong	Z	e	10 19 50		Tremor.
25	Shillong	Z	ePg/P*	17 38 59	80	Slight.
			P	39 03		
			eSg	39 08		
			S*	39 12		
25	Shillong	Z	iP	18 32 26	270	Slight.
			P*	32 29		
			Pg	32 33		
			Lq	32 44		
			S	32 53		
			iSg	33 04		
			SSS	33 13		
26	Shillong	Z	iP	06 33 10	240	Slight.
			P*	33 12		
			Pg	33 17		
			S	33 39		
			S*	33 41		
			eSg	33 45		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
1954								
26	Shillong	Z	e	08	37	02		Slight. Near.
			i		38	12		
			i		38	16		
26	Shillong	Z	iPg	09	27	31	40	Slight.
			P*		28	33		
			iSg		28	36		
			S*		28	39		
26	Shillong	Z	iP	17	38	08	240	Slight.
			P*		38	10		
			Pg/PP		38	14		
			PPP		38	20		
			S*		38	39		
			eSg		38	44		
			SS		38	47		
26	Shillong	Z	iP	18	51	14		Slight. Near.
			i		52	24		
	Poona	Z	aP	18	52	41		Tremor.
	Dehra Dun	N	e	18	53	04		Tremor.
26	Shillong	Z	iP	19	28	15		Slight. Distant.
			i		35	11		
		N	e		37	17		
	Dehra Dun	N	e	19	30	14		Tremor.
26	Shillong	Z	e	19	54	55		Tremor.
26	Shillong	Z	iP	21	01	46		Slight.
26	Shillong	Z	i	22	23	52		Tremor.
27	Shillong	Z	iPg	06	39	49	100	Slight.
			iSg		40	00		
27	Shillong	Z	e	07	05	44		Tremor.
27	Madras	E	e	07	28	22		
27	Epc: 24°N, 143°E. South of Borin Island. h = 100 km.							
	- H = 10h 55m 00s (U.S.C.G.S).							
	Magnitude = 6.7 (Pasadena), 6½ (Berkeley, Kiruna),							
	6¼ (Uppsala).							
	Shillong	Z	iP	11	03	18	5030	Moderate.
		N	aP		03	18		
		Z	PcP		04	53		
		N	iS		09	59		
			PS		10	10		
			PPS		10	25		
			SS		13	09		
			SSS		14	11		
			Lr		17	08		
			M		19	47		

DATE	STATION	COMPT.	PHASE	G. M. T.	∠	REMARKS
				h. m. s.	km.	
<u>AUG.</u> 1954						
27	Calcutta	E	eP	11 03 47	5450	Moderate.
Contd.			S	10 52		
			?	14 59		
			Lq	15 29		
	Dehra Dun	N	eP	11 04 46	6240	Moderate.
			eS	12 35		
	New Delhi	E	eP	11 04 49	6400	Moderate.
			iS	12 47		
			ScS	14 32		
			M	26 35		
	Madras	E	iP	11 05 01	6630	Moderate shock.
			PcP	05 34		
			PPP	08 40		
			PcS	09 32		
			iS	13 11		
			PS	13 26		
			PPS	13 38		
			ScS	14 43		
			SS	17 11		
			Lr	23 15		
	Hyderabad	E,N	P	11 05 11		
			iS	13 14		
			PS	13 40		
			SS	17 06		
			L	23 15		
		N	L	23 49		
			M	28 51		
		E	M	28 56		Per. = 18 Secs. $\Delta$ = 7.
		E	P	11 05 24		Per. = 18 Secs. $\Delta$ = 5
	Colombo		S	13 41		
			L	27 --		
			M	31 03		Amp. = 0.4mm.
	Kodaikanal	E	eP	11 05 27	7000	Long distance earthquake of slight intensity.
			iS	13 57		
			f?	12 12 45		
	Poona	Z	iP	11 05 31	7000	Slight.
		N	iS	14 01		
			PS	14 15		
			PPS	14 35		
			SS	18 14		
			M	30 17		
	Bombay	N,E	iP	11 05 36	7420	Moderate, h = 120 km.
		N	pP	06 12		
		N, E	iS	14 13		
		E	i	15 14		
		N	i	15 20		
27	Shillong	Z	i	11 22 31		Slight.
27	Shillong	Z	i	11 53 33		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Aug</u>								
<u>1954</u>								
27	Shillong	Z	e	15	18	11		Tremor.
			e		18	30		
27	Shillong	Z	e	19	34	03		Tremor.
27	Shillong	Z	e	20	48	39		Tremor.
27	Dehra Dun	N	e	21	58	20		Feeble.
			i		58	52		
28	Shillong	Z	e	01	23	56		Slight. Near.
			e		24	08		
28	Shillong	Z	i	03	56	21		Slight. Distant.
28	Shillong	Z	i	10	01	44		Feeble.
28	Epc: 37°N, 141°E. Off the East Coast of Hondo Japan. - H = 10h 01m 20s (U.S.C.G.S). 36.7°N, 141.1°E. h = 40 km Ca. - H = 10h 01m 24s Felt (CMO Japan).							
	Shillong	Z	i	10	09	21		Slight. Distant.
			i		11	11		
		N	e		27	35		Ground waves.
	Dehra Dun	N	e	10	10	40		Feeble. Phases not clear.
	Poona	Z	iP	10	11	36		Tremor.
	Bombay	E	eP	10	11	40	7170	Feeble.
			eS?		20	19		
28	Dehra Dun	N	i	14	18	25		Feeble. Phases not clear.
28	Shillong	Z	eP	16	29	51	200	Slight.
			eSg		30	18		
28	Shillong	Z	eP	16	57	39	200	Slight.
			Pg		57	42		
			S/S*		58	02		
			eSg		58	06		
			SS		58	14		
			SSS		58	22		
28	Shillong	Z	e	21	15	45		Tremor.
28	Shillong	Z	iPg	21	29	53	30	Slight.
			iSg		29	56		
28	Shillong	Z	iP	23	24	00		Slight. Distant.
29	Kodsikanal	E	e?	14	29	44		Slight. Tremor.
29	Shillong	Z	i	16	09	14		Slight. Local.



DATE	STATION	COMPT.	PHASE	G. M. T.			∠	REMARKS
				h.	m.	s.		
Aug. 1954								
29	Colombo	E	L M	16	31	30 55		Amp. = 0.8mm.
29	Shillong	Z	iPg/P* PP iSg S* S	19	57	01 08 12 14 17	90	Slight.
29	Shillong	Z	e i	20	10	31 38		Slight. Near.
30	Shillong	Z	iP P* Pg PP S iSg SS	01	42	28 29 31 36 52 55 03	200	Slight.
30	Dehra Dun	N	aP PP Pg Lq iS SS Lr S* Sg/M	02	45	43 48 21 05 15 27 29 45 06	890	Slight.
	New Delhi	N,E	P i i	02	45	54 32 58		Slight.
30	Shillong	Z	iPg P* iSg	02	48	08 10 15	60	Slight.
30	Epic: 44°N, 147½°E. Kurile Island. h = 60 km Ca.							
	44.5°N, 147.5°E. h = 60 km. - H = 07h 57m 23s (U.S.C.G.S).							
	43.6°N, 147.8°E. h = 60 km. - H = 07h 57m 24s (B.C.I.S).							
	Magnitude = 6-6¼ (Pasadena). - H = 07h 57m 23s Felt (CMO Japan).							
	Dehra Dun	N	e	08	05	59		Slight. Phases not clear.
	Shillong	Z	iP	08	06	03	5280	Slight, compression.
		N	aP PP i eS PS SS SSS M			07 07 09 12 13 16 17 23		
						03 57 12 58 03 44 48 30		

21

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS				
				h.	m.	s.			km.			
<u>Aug.</u>												
1954												
30 Contd.	New Delhi	N,E	eP	08	07	08	6260	Moderate.				
			i		07	19						
	Poona	Z	eP	08	08	08	7220	Slight.				
		N	PcP		08	44						
			PP		10	29						
			PPP		12	11						
			eS		16	50						
			PS		17	05						
			PPS		17	24						
			Lr		27	36						
			M?		33	26						
			Bombay	N,E	eP	08			08	10	7370	Slight.
E	PcP				08	41						
	PP				10	36						
	PPP				12	07						
	eS				16	59						
N,E	i				17	11						
E	PPS				17	32						
	i				18	19						
	Hyderabad			E	eS	08	16	17				
				N	M		32	44				
	Colombo	E	S	08	17	41						
			L		36	51						
			M		47	01						
30	Dehra Dun	N,E	eP	08	41	27	530	Slight.				
		N	PP		41	36						
			P*		41	39						
			PPP		41	42						
			Pg		41	49						
			iS		42	24						
			Lr		42	27						
			SS		42	37						
			S*		42	41						
			SSS		42	48						
			Sg/M		42	52						
			New Delhi	N,E	eP	08			41	36	620	Slight.
				E	Pg				42	01		
N,E	iS				42	41						
	Lr				42	45						
	S*				42	59						
	SSS				43	03						
E	Sg				43	15						
	Shillong	Z	iP	08	41	53	800	Slight.				
			PP		41	59						
			PPP		42	06						
			iS		43	16						
			SS		43	26						
			SSS		43	38						

Amp. = 0.5mm.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Aug.</u>								
<u>1954</u>								
30	Poona	Z	eP	08	43	26	1540	Slight.
Contd.			eS		46	02		
30	Shillong	Z	•	11	48	25		Tremor.
30	Shillong	Z	eP	17	44	19	230	Slight.
			P*		44	21		
			Pg		44	25		
			S		44	44		
			S*		44	49		
			eSg		44	52		
			SS		44	58		
			SSS		45	07		
30	Dehra Dun	N	•	18	27	31		Tremor.
30	Dehra Dun	N	•	19	08	09		Tremor.
30	Shillong	Z	•	19	58	13		Slight, local.
			i		58	16		
			i		58	24		
30	Shillong	Z	iP	21	25	23		Slight. Distant.
	Poona	Z	i	21	27	16		Tremor.
30	Shillong	Z	ePg	22	35	52	20	Slight.
			iSg		35	54		
30	Shillong	Z	•	22	38	05		Slight. Near.
			•		38	12		
			i		39	18		
31	Shillong	Z	iP	05	08	18		
			PP		08	25		
			P*		08	27		
			Pg		08	37		
			Sg		09	35		
31	Shillong	Z	iP	09	44	30		Tremor.
31	Shillong	Z	iP	11	14	29		

Earthquake Reports  
(Non Instrumental Reports)

The following table contains a list of earthquake that were reported by Voluntary Observers from various station during the month of August 1954.

Place at which felt	Date	Time in		Duration in Secs.	Intensity in R.F. Scale.	No. of shocks	Remarks
		G. M. T.	h. m.				
Srinagar	16	02	50	3	V	1	The sound resembling like moving of a heavy loaded wooden cart heard.

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



-----  
-----  
Published under the direction of

Shri S. Basu, M.Sc., F.N.I.,

Director General of Observatories  
-----  
-----

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori- Ewing	N-S	18.0	32	-	25
	Omori- Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 <sup>s</sup> Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Sept. 1954							
01	Shillong	Z	iP	14	13	50	Slight.
01	Shillong	Z	e	19	44	10	Tremor.
01	Shillong	Z	e	22	41	50	Feeble.
			e		41	52	
02	Shillong	Z	e	00	13	52	Feeble.
02	Shillong	Z	e	01	02	12	Feeble.
			e		02	14	
02	New Delhi	N,E E	eP PPP Pg iS LR SS Sg	01	21	00	690 Slight.
					21	15	
					21	28	
		N,E			22	12	
					22	18	
					22	23	
					22	48	
	Dehra Dun	N,E N	eP PP PPP LQ iS LR SS SSS M PcP PcS ScS	01	21	18	830 Moderate.
					21	21	
					21	30	
					22	31	
					22	44	
					22	54	
					23	00	
					23	07	
					23	39	
					27	51	
					31	18	
					34	49	
	Shillong	Z	e	01	23	57	Feeble.
			e		27	27	
		N	e		30	20	
	Poona	Z	e?	01	24	39	Feeble.
	Hyderabad	E	M	01	28	30	Per. = 11 secs, /u = 2.
02	Shillong	Z	e	04	25	25	Feeble, near.
			e		26	00	
02	Shillong	Z	i	06	26	24	Tremor, distant.
			e		28	18	
02	Shillong	Z	i	12	08	58	Slight, distant.
			e		11	15	Phases not clear.
02	Shillong	Z	i	12	20	03	Feeble, near.
			e		20	05	
02	Shillong	Z	i	14	36	11	Slight.
02	Shillong	Z	iP	19	03	37	Distant, slight.
			e		04	09	
		N	e		13	27	



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				km.			
Sept. 1954							
02	New Delhi	NE	eP	20	31	27	700 Slight.
		E	Pg		31	55	
		NE	eS		32	40	
		E	SSS		33	02	
		NE	Sg		33	19	
	Dehra Dun	N	e	20	31	43	Slight, phases not clear.
			e		32	57	
	Shillong	Z	e	20	34	12	Tremor, feeble.
			e		38	03	
03	Epc: Assam, Shock Felt at Dibrugarh (Shillong).						
	Shillong	ZN	iP	02	16	18	290 Slight.
		N	iS		16	51	
	New Delhi	NE	eP	02	19	12	1630 Slight.
			eS		21	57	
			M		24	05	
	Dehra dun	N	eP	02	19	13	1550 Slight.
			PPP		19	32	
			eS		21	49	
			SSS		22	15	
			LR		22	22	
			S*		22	43	
			M		23	21	
03	Shillong	Z	iP	06	56	39	Feeble, near.
			e		56	48	
03	Shillong	Z	iP	07	05	14	Very feeble.
			e		05	33	
03	Shillong	Z	e	11	20	49	Tremor.
03	Shillong	Z	e	12	21	35	Tremor.
03	Shillong	Z	e	16	13	30	Tremor.
04	Epc: 3°S., 139½°E. New Guinea; h = 60 km. 0 = 03h 28m 32s (U.S.C.G.S.) 3.2°S., 139.5°E., h = 60 km; 0 = 03h 28m 32s (B.C.I.S.) Magnitude - 6½ (Kiruna, Uppsala); 6¼ (Pasadena, Praha).						
	Shillong	ZN	iP	03	37	59	5960 Moderate.
		N	PPP		41	08	
			iS		45	32	
			ScS		47	55	
			LQ		51	12	
			LR		53	33	
	Calcutta	E	e	03	38	35	Slight.
			iS		45	56	
04	Colombo	E	P	03	38	43	6580 'P' trace partially lost. Amp = 0.5 mm.
			S		46	50	
			L		55	--	
			M	04	03	02	



Sept.  
1954

04	Madras Cpntd.	E	iP PcP PP iS PPS ScS SSS LQ LR	03 38 46 39 20 41 00 47 03 47 26 48 16 53 38 54 09 56 56	6760	Moderate.
	Hyderabad	E	iP PcP e iS ScS SS L M	03 39 01 39 37 43 02 47 33 48 49 51 19 59 46 04 02 40		
		EN E				
		N	M	03 55		Per.=18 secs, /u = 5. Per.=18 secs, /u = 9.
	Kodaikanal	E	eP PP S SS SSS LQ M	03 39 25 41 35 47 29 51 35 54 11 54 50 04 03 02	6940	Long distance earthquake.
	New Delhi	NE	eP iS	03 39 29 48 22	7440	Moderate.
	Dehra Dun	NE	iP	03 39 31		Slight, phases not clear.
	Poona	Z N	eP PP eS PS PPS SS SSS LR M	03 39 33 42 01 48 24 48 44 49 00 52 41 55 40 59 43 04 05 13	7410	Slight.
	Bombay	E	eP pP PP PPP i eSI iSI PS LQ	03 39 34 39 58 42 15 43 59 45 04 48 39 49 03 58 16	7665	Slight, h = 70 km.
		N E NE E				
04	Shillong	Z	i	04 29 07		Tremor.
04	Chatra	EZ E	e e e	06 38 30 46 34 07 00 36		Slight,distant. Surface phase.



h. m. s. km.

Sept.  
1954

04 Epc: 28°N., 83½°E., two shocks; 01 =06h 43m 46s  
02 =06h 45m 14s  
(U.S.C.G.S.)

27°55'N., 83°5' E.; 01 =06h 43m 50s (Shillong)  
Magnitude I - 6¼ (Kiruna),  
Magnitude II - 6½-6¾ (Uppsala, Kiruna).

Station	COMPT.	PHASE	G.	M.	T.	km.	Remarks
Chatra	Z	iP	06	44	43	380	Moderate.
	E	eP					
		PP	44	51			
		PPP	44	58			
		LQ	45	11			
		LR	45	21			
		iS	45	24			
		M	45	38			
Dehra Dun	NE	eP	06	45	12	580	Moderate.
		PP	45	20			
		P*	45	23			
		PPP	45	27			
		Pg	45	35			
		LQ	46	01			
		iS	46	14			
		LR	46	19			
		SS	46	26			
		S*	46	31			
		SSS	46	37			
		Sg	46	44			
New Delhi	NE N NE N	iP	06	45	18	600	Slight.
		PP	45	28			
		Pg	45	45			
		iS	46	23			
		Sg	46	59			
Calcutta	NE E	iP	06	45	35	720	Moderate. First movement North.
		iS	46	50			
		S*	47	15			
		Sg	47	32			
Shillong	Z N	iP	06	45	40	820	Moderate.
		iS	47	04			
		e	47	53			
Hyderabad	EN  N	iP	06	46	35	2080	
		i	48	04			
		iS	50	01			
		L	51	10			
		M	52	40			
Poona	Z N	eP	06	46	57	1430	Moderate.
		PP	47	04			
		PPP	47	16			
		LQ	49	22			
		eS	49	23			
		M	50	48			

Per. = 9 secs,  
/u = 54.

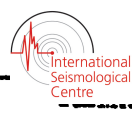
DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Sept. 1954						km.	
04	Bombay	N	eP	06	47	01	1450 Slight.
Contd.			eS		49	28	
			M		51	11	
		E	M		51	28	
	Madras	E	iP	06	47	27	1650 Moderate.
			PP		47	36	
			PPP		47	43	
			iS		50	14	
			SS		50	36	
			SSS		50	48	
			LR		50	58	
04	Madras	E	M	06	52	08	
			PcP		52	19	
			PcS		55	50	
			ScS		59	17	
	Kodaikanal	E	iP?	06	50	53	Earthquake of moderate intensity.
			iS?		53	44	
			SS		53	54	
			SSS		54	11	
			LR		54	22	
			M		56	30	
							Per. = 7.5 secs, /u = 23.
04	Shillong	Z	iP	07	48	02	Slight, distant.
04	Shillong	Z	i	08	16	03	Slight.
			e		16	15	
04	Epc: $21\frac{1}{2}^{\circ}$ N., $122\frac{1}{2}^{\circ}$ E. Off the SE Coast of Formosa; $21^{\circ}4$ N., $122^{\circ}$ E., 0 = 08h 53m 20s (U.S.C.G.S.) 0 = 08h 53m 22s (B.C.I.S.) Felt - Basco (Press report from Manila). Magnitude - $5\frac{3}{4}$ (Uppsala), 6 (Praha).						
	Shillong	Z	iP	08	59	15	3030 Compression, Moderate.
		N	PP		09	00	
			eS		03	54	
			SSS		05	18	
			LR		06	04	
			M		08	14	
	Chatra	EZ	e	08	59	54	Slight, distant.
	Calcutta	E	ePP	09	00	30	Slight.
			e		02	00	
			iS		05	48	
			SS		07	32	
			LR		08	55	
			M		11	36	
	Dehra Dun	N	eP	09	01	04	Feeble, phases not clear.
	Poona	N	i?	09	05	13	Feeble, phases not clear.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				.h.	m.	s.	km.
Sept. 1954							
04	Hyderabad	N	L	09	12	41	
Contd.		E	M		15	03	
		N	M		16	41	Per. = 15 secs, /u = 4. Per. = 15 secs, /u = 6.
04	Shillong	Z	iP	09	02	28	Tremor, distant, rarefaction.
04	Shillong	Z	i	09	27	35	Tremor.
04	Shillong	Z	i	11	07	29	Tremor.
04	Shillong	Z	i	11	55	31	Very feeble.
			e		56	47	
04	Shillong	Z	i	13	24	11	Tremor.
04	Chatra	Z	i	13	24	33	Slight, distant.
		E	e				
04	Shillong	Z	e	17	16	35	Feeble, near.
04	Shillong	Z	i	21	18	06	Tremor.
04	Shillong	Z	i	22	08	14	Tremor.
05	Shillong	Z	i	05	31	31	Feeble.
			e		31	55	
05	Madras	E	eP	07	19	52	Distant shock of slight intensity.
05	Kodaikanal	E	e	07	42	41	Long distance earthquakes.
05	Epc: 19°S., 176°E. Fiji Island region; 0 = 07h 45m 31s (U.S.C.G.S.) Magnitude - 6½ - 6¾ (Praha, 6¾ Pasadena), 6¾ (Kiruna) (Uppsala).						
	Shillong	Z	iP	07	58	50	9780 Slight.
			PP	08	02	25	
			S		09	33	
			PPS		11	00	
			e		11	18	
			i		16	35	
05	Chatra	EZ	e	07	59	08	Slight, near.
	Hyderabad	E	eP	08	01	49	7050
			PP		03	55	
			iS		10	22	
			ScS		11	22	
		N	M		26	19	
		E	M		26	32	Per. = 16 secs, /u = 7. Per. = 12 secs, /u = 2.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
						km.	
<u>Sept.</u>							
<u>1954</u>							
05	Colombo	E	PP	08	03	--	
Contd.			(S)		17	20	
			L		39	20	
			M		44	50	
	Poona	Z	ep	08	04	08	6300 Slight.
		N	e		07	27	
			e(S)		12	00	
			LQ		20	52	
			M?		25	55	
	Bombay	NE	e	08	04	32	Distant shock,
			e		12	12	Feeble.
		E	e		14	01	
		NE	e		19	23	
05	Shillong	Z	i	09	41	35	Tremor.
05	Dehra Dun	N	e	10	49	12	Tremor.
05	Shillong	Z	i	17	33	04	Tremor.
05	Shillong	Z	i	19	04	48	Tremor.
05	Shillong	Z	e	19	50	42	Feeble, near.
			e		50	54	
05	Shillong	Z	i	20	59	08	Tremor.
05	Shillong	Z	i	22	23	05	Feeble, near.
			e		23	28	
06	Shillong	Z	i	04	19	05	Tremor.
06	Dehra Dun	N	e	08	41	45	Tremor.
06	Shillong	Z	i	11	19	20	Tremor.
06	Chatra	Z	i	11	31	49	Feeble, distant.
06	Chatra	Z	e	14	13	00	Feeble, distant.
		E	e		27	30	Surface waves.
							Period=15.0 sec,
							Amp=0.5 m.m.
	Calcutta	E	e	14	19	10	Slight, distant.
			i		21	49	
			i		25	31	
	Shillong	N	e	14	23	39	Slight.
	Hyderabad	N	M	14	31	38	Per.=15 secs,
							/u = 4.
06	Dehra Dun	N	e	15	54	39	Tremor.

10.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Sept. 1954							
06	Epc: 21°N., 121°E. Off the North Coast of Luzon, Phillipines; 0 = 16h 46m 58s (U.S.C.G.S.) Magnitude - 6 (Praha), 5½ - 6 (Kiruna), 5¼ (Uppsala).						
	Calcutta	E	eP	16	53	17	3300 Slight.
			iS		58	13	
			LR	17	01	08	
			M		04	19	
	Chatra	Z	iI	16	53	24	Slight, distant.
		E	ei				Surface waves.
			e		58	37	
			e	17	07	37	Period=14.0 sec, Amp=1.7 m.m.
	Madras	E	eP	16	54	31	4540 Moderate.
			PP		56	13	
			PPP		56	35	
			ScP		59	55	
			iS	17	00	43	
	Hyderabad	E	iP	16	54	41	4520
			PP		56	21	
		EN	iS	17	00	52	
		E	SS		04	14	
			L		08	09	
		N	M		10	56	Per. = 15 secs, /u = 9.
	Poona	Z	i	16	55	13	
		N	i	17	01	46	Feeble and distant.
			i		07	28	Phases not clear.
			i		12	35	
	Bombay	N	e	16	55	45	Feeble.
			e	17	02	40	
	Shillong	N	e	16	58	47	Slight.
			e		59	44	
			e	17	02	21	
			e		03	02	
	Kodaikanal	E	e	16	59	41	Tremor.
06	Dehra Dun	N	e	17	41	06	Tremor.
06	Kodaikanal	E	e	18	39	41	Tremor.
06	Epc: 51°N., 158°E. Off the SE Coast of Kamtchatka; h = 60 km ca, 0 = 18h 30m 48s (U.S.C.G.S.), 52°N., 157½°E., h=60 km ca; 0=18h 30m 51s (B.C.I.S.) Magnitude - 6½ (Skalnate Pleso), 6½ (Pasadena, Praha), 6¼ (Kiruna, Uppsala, Jerusalem).						
	Shillong	N	iP	18	40	25	6000 Moderate.
			e		40	44	
			PPP		44	44	
			iS		48	00	
			e		49	37	
			SS		52	24	
			LQ		54	22	
			LR		56	56	
			M	19	02	09	



DATE STATION COMPT. PHASE G. M. T. △

h. m. s. km.

Sept.  
1954

DATE	STATION	COMPT.	PHASE	G.	M.	T.	km.		
06 Contd.	Chatra	EZ E	eP	18	40	38	6187	Slight.	
			PcP		41	44			
			PP		42	52			
			PPP		44	07			
			PcS		45	30			
			eS		48	24			
			PS		48	33			
			PPS		48	48			
			LQ		54	24			
			LR		57	00			
			M		19	01			45
				Calcutta	E	iP			18
PPP		44				48			
iS		49				23			
SKS <sub>1</sub>		50				35			
	New Delhi	N	iP	18	41	11	7190	Moderate.	
			iS		49	51			
			PS		50	03			
			SKS		50	51			
			SS		54	01			
			LR		19	01			55
			M		08	01			
	Hyderabad	EN	iP	18	42	00	7590		
			PP		44	33			
			iS		51	01			
			PS		51	26			
			SS		54	34			
		N	L	19	03	14			
			M	08	10				
					Per. = 12 secs,				
					/u = 12.				
Poona	Z N	iP	18	42	13	7870	Moderate.		
		PcP		42	33				
		PPP		46	43				
		iS		51	28				
		PS		51	59				
		PPS		52	10				
		SS		56	03				
		SSS		59	15				
		M		19	10			08	
		Bombay	N	iP	18			42	14
pP				42	41				
e				46	20				
eS				51	30				
i				51	45				
PPS				52	08				
i				52	38				
M				19	17	26			
				Per. = 15 secs,					
				/u = 6.					
Madras	E	iP	18	42	15	7870	Moderate shock.		
		PcP		42	27				
		PP		44	55				
		PPP		46	40				
		iS		51	30				
		SKS		51	50				
		PPS		52	14				

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
						km.	
<u>Sept.</u>							
1954							
07	Epc: 21° N., 121° E. Off the North Coast of Luzon, Philippines; O = 00h 08m 23s (U.S.C.G.S.) Felt = Basco (Press report from Manila).						
	Chatra	EZ	e	00	14	14	Slight, distant.
	Calcutta	E	eP	00	14	39	3590 Slight.
			eS		19	53	
			SS		21	41	
			?		22	33	
	Madras	E	eP? iS?	00	15	27	4980 Slight.
	Poona	Z	iP	00	16	37	Feeble, phases not clear.
	Shillong	N	e	00	18	07	Slight, distant.
			e		23	02	
			e		24	37	
			e		26	12	
	Kodaikanal	E	e	00	19	41	Tremor.
	Bombay	N	e	00	20	41	Feeble.
			e		26	49	
			e		27	34	
	Hyderabad	N	M	00	33	54	Per.=12 secs, /u =12.
07	Epc: 21° N., 121½° E. Off the North Coast of Luzon, Philippines; O = 00h 35m 13s (U.S.C.G.S.) Felt at Basco (Press report from Manila) Magnitude - 5½ - 6 (Praha).						
	Shillong	Z	e	00	41	13	Distant, Slight.
			e		50	32	
	Chatra	Z	e	00	41	38	Slight, distant.
	Madras	E	P	00	42	47	4530 Slight.
			S?		48	59	
	Poona	Z	iP	00	43	37	Tremor.
07	Shillong	Z	e	07	47	19	Slight.
07	Shillong	Z	iP	07	59	23	Slight.
07	Shillong	Z	iP	10	05	20	
07	Shillong	Z	iP	10	23	53	970 Slight, rarefaction probably deep.
			LQ		25	29	
			iS		25	38	
			SS		25	52	
			LR		25	59	
			SSS		26	13	
08	Epc: 29° N., 95½° E. China Assam Frontier; O = 02h 39m 49s (U.S.C.G.S.)						

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Sept. 1954							
08 Contd.	Shillong	ZN	iP	02	41	00	390 Moderate, felt at Dibrugarh.
			LQ			41 30	
			LR			41 40	
			S			41 43	
			SS			41 49	
	Chatra	Z	iP	02	41	44	220 Slight.
			PP			41 51	
			PPP			41 57	
			LQ			43 00	
			iS			43 09	
			SS			43 21	
			M			44 00	
	Shillong	ZN	Sg	02	41	54	
			SSS			42 03	
	Bombay	N	e	02	49	14	Earlier phases lost due to overlapping of record.
			e			52 02	
08	Dehra Dun	N	e	09	32	35	Tremor.
08	Shillong	Z N	iP	09	41	17	390 Slight.
			S			41 59	
			Sg			42 12	
			SSS			42 21	
08	Shillong	Z	eP	12	57	01	Slight, trace faint.
08	Shillong	Z	eP	13	22	19	Feeble.
08	Shillong	Z	e	17	54	27	Slight, local.
09	Epc: 36°N., 1½°E North Algeria; 0=01h 04m 37s (U.S.C.G.S.) 36°17' N., 1°28' E.; 0 = 01h 04m 37s (B.C.I.S.) 35° N., 0°, 0 = 01h 04m 35s (Shillong) Algerian town of Orleansville shattered. About 1000 people killed.						
	New Delhi	N	iP	01	15	07	7030 Moderate.
			PcP			15 41	
			PP			17 24	
			PPP			18 54	
			iS			23 40	
			PS			23 57	
			SKS			25 02	
			SS			28 05	
			SSS			30 49	
			LR			34 46	
M			40 31				
	Kodaikanal	E	iP	01	15	11	9330 Earthquake of moderate intensity.
			PcP			16 29	
			PP			18 59	
			iS			25 35	
			PS			25 11	
			SS			30 17	
			LQ			35 38	
			LR			39 08	
M			45 17				



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	km.
Sept. 1954							
09 Contd.	Dehra .Dun	NE N	eP PP PPP LQ iS SS SSS LR M	01	15	17	7220 Moderate.
	Bombay	NE  E	iP PcP i eS PS PS	01	15	18	7185 Moderate.
		E N	ScS M	01	24	52	
		E	M		48	10	Per. = 21 secs, /u = 23. Per. = 20 secs, /u = 8.
	Poona	Z N	eP PcP PP PPP iS PPS SS SSS LQ M	01	15	22	7370 Moderate.
	Hyderabad	EN N EN N	iP PP iS PS SS L M	01	15	48	7750
		E	M		45	31	Per. = 18 secs, /u = 33. Per. = 18 secs, /u = 8.
	Chatra	E	eP PP PPP eS PS PPS LR M	01	16	00	7890 Moderate.
							Per. = 11.5 secs, /amp. = 1.5 m.m.



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Sept. 1954							
09	New Delhi	NE	eP	19	12	02	970 Slight.
Contd.			PPP		12	15	
			LQ		13	32	
			iS		13	42	
			SS		13	53	
			SSS		14	03	
			S*		14	17	
			Sg		14	42	
10	Shillong	Z	Pg	03	10	59	30 Local.
			Sg		11	03	
10	Kodaikanal	E	e	05	54	41	Tremor.
	Dehra Dun	N	e	05	54	53	Tremor.
	Poona	NZ	i	05	55	00	Slight, phases not clear.
		N	i	06	03	48	
	Madras	E	iP	05	55	52	7930 Slight shock.
			iS	06	05	10	
			SKS		05	34	
			ScS		05	38	
	Shillong	Z	iP	05	55	56	Rarefaction, slight.
	Hyderabad	N	S	06	04	32	
			M		25	28	Per.=15 secs,/u=4.
10	Shillong	Z	i	12	05	17	Tremor.
10	Shillong	ZN	P	17	32	36	2440
		N	S		36	34	
10	Shillong	Z	i	20	44	20	Other phases doubtful, local.
10	Shillong	N	e	22	20	55	Tremor.
11	Shillong	Z	iP	01	31	01	Rarefaction, phases doubtful.
12	Poona	Z	iP	00	08	01	Tremor.
12	Epc: 41°N., 143°E. Off the South Coast of Hokkaido, Japan.						
	O = 07h 43m 50s (U.S.C.G.S.)						
	40.9°N., 143.6°E. h = 20 km ca; O = 07h 43m 47s						
	Felt (C.M.O., Japan).						
	Magnitude - 6½ (Uppsala, Praha); 6¼ (Kiruna, Pasadena).						
	Shillong	Z	P	07	52	09	5060 Moderate.
		N	S		58	53	



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	km.
<u>Sept.</u>							
1954							
13	Epc: $21^{\circ}\text{S.}$ , $175\frac{1}{2}^{\circ}\text{W.}$ Tonga Island, $h = 150\text{ km.}$ O = 02h 09m 55s (U.S.C.G.S.) Magnitude - 7 - $7\frac{1}{4}$ (Wellington), $6\frac{3}{4}$ (Pasadena).						
	Colombo	E	(e)	02	22	01	
			S		34	21	
			L	03	54	--	
			M	04	07	11	Amp = 09 mm. End trace overlapping.
	Shillong	Z	P	02	23	33	Feeble.
	Kodaikanal	E	e	02	26	41	Tremor.
	Calcutta	E	e	02	27	40	Moderate, distant.
			i		27	53	
			i		28	52	
			i		34	02	
			i		37	55	
	Bombay	E	ePKP <sub>1</sub>	02	28	01	12955 Moderate, surface wave not developed.
		NE	PP		29	32	
		E	PPP		31	38	
		NE	SKS <sub>1</sub>		35	05	
			PPS <sub>1</sub>		40	08	
			SS(?)		45	12	
		E	SSS		49	32	
			i		57	30	
	Dehra Dun	N	e	02	28	16	Feeble, phases not clear.
			i		29	19	
	Poona	Z	e	02	28	27	Slight.
	Madras	E	i	02	28	35	Moderate.
	Hyderabad	N	SKS	02	34	36	
			M	03	07	21	Per. = 12 secs, /u = 3.
13	Chatra	EZ	e	18	19	04	Slight, distant. Surface phase.
			e		25	42	
		E	e		33	30	Per. = 14.0 secs, Amp = 0.75 mm.
	Madras	E	e	18	20	28	Tremor.
13	Epc: $21^{\circ}\text{N.}$ , $121\frac{1}{2}^{\circ}\text{E.}$ Off the North Coast of Luzon, Phillipines; O = 18h 12m 37s G.M.T. (U.S.C.G.S.) Magnitude - $5\frac{3}{4}$ (Kiruna, Uppsala).						
	Calcutta	E	e	18	23	57	Slight, distant.
			e		27	35	
			i		28	26	
	Kodaikanal	E	e	18	24	41	
	Colombo	E	P	18	26	20	
			M		42	--	

DATE	STATION	COMPT.	PHASE	G.	M.	T.	△	REMARKS	
				h.	m.	s.	km.		
Sept. 1954									
13 Contd.	Dehra Dun	N	e	18	26	51		Tremor.	
	Poona	Z	e	18	27	31		Tremor.	
	Bombay	N	eP	18	27	39	5075	Feeble, appears to be a double shock.	
		E	iP						
		E	i		28	21			
		N	eS		34	22			
	Hyderabad	N	II	18	37	25		Per. = 15 secs, /u = 6.	
14	Epc: 21° N., 121½° E. H = 00h 48m 18s (U.S.C.G.S.) Magnitude = 5¼ (Kiruna, Uppsala).								
	Kodaikanal	E	e	00	54	41		Tremor.	
	Chatra	EZ	e	00	54	44		Slight, distant, Surface waves, Per. = 15.0 secs, Amp = 1.25 mm.	
		E	e	01	09	00			
	Madras	E	iP	00	58	56	4410	Slight shock.	
			PP	57	35				
			PcP	57	50				
			PPP	58	01				
			IS	01	02	03			
			LR	48	54				
	Poona	Z	eP	00	56	31		Feeble, phases not clear.	
	Bombay	N	e	00	57	36		Phases not clear. Per. = 13 secs, /u = 3.	
			E	e	01	03	46		
			N	II	19	46			
	Hyderabad	N	II	01	12	20		Per. = 15 secs, /u = 9.	
	Colombo	E	II	01	16	20		Amp = 0.6 mm.	
14	Shillong	Z	eP	04	39	08		Very feeble.	
14	Shillong	Z	eP	07	01	55			
			N	e	10	28			
			e	11	58				
			e	15	13				
	Chatra	EZ	e	07	02	38		Slight, distant.	
	Calcutta	E	e	07	15	07		Slight, distant.	
	Poona	N	e?	07	21	50			
	Bombay	N	e	07	22	26		Very feeble.	
			E	e	23	38			
	Kodaikanal	E	e	07	24	41		Tremor.	

DATE	STATION	COMPT.	PHASE	G. L. T.			REMARKS
				h.	m.	s.	
<u>Sept.</u>							
<u>1954</u>							
14 Contd.	Shillong	Z	eP	07	26	26	Very feeble,
		N	e		34	13	
			e		34	41	
			i		36	02	
			i		39	55	
			i		41	32	
			i	42	47		
	Dehra Dun	N	e	07	28	10	Tremor.
	Bombay	N	e	07	30	14	Feeble, phases unidentifiable.
			e		36	15	
			e		38	46	
			e		47	✓✓	
	Hyderabad	N	M	07	44	24	Per. = 15 secs, /u = 7.
	Poona	N	e?	07	47	44	Feeble, phases doubtful.
14	Dehra Dun	N	e	17	07	05	Tremor.
	Shillong	Z	eP	17	07	34	Very feeble.
14	Dehra Dun	N	e	18	26	59	Tremor.
14	Shillong	Z	eP	20	13	01	280 Slight.
			Sg		13	40	
14	Shillong	Z	eP	22	22	44	280 Slight.
			PP		22	52	
			S		23	16	
			Sg		23	25	
15	Shillong	Z	ePg	12	04	47	80 Feeble, local.
			Sg		04	56	
15	Dehra Dun	N	e	13	33	27	Feeble, phases not clear.
			i		33	50	
15	Shillong	Z	1P	18	08	45	Slight, distant.
		N	eP		08	45	
			e		12	50	
			e		18	27	
			i		19	23	
			i		26	08	
	Chatra	EZ	e	18	09	02	
	Calcutta	E	i	18	13	07	Slight, distant.
			i		13	33	
			i		19	37	
			i		22	38	
			i		26	53	


21.

DATE	STATION	COMPT.	PHASE	G. R. T.			REMARKS		
				h.	m.	s.			
<u>Sept.</u>									
<u>1954</u>									
15 Contd.	Madras	E	eP	18	13	14	5540 Slight shock.		
			iS		20	24			
			PS		20	32			
			PPS		20	47			
			ScS		22	41			
			SS		23	52			
			LQ		25	35			
			LR		27	59			
Dehra Dun	N	e	i	18	13	43	Slight. Phases not clear.		
			i		15	07			
			i		21	19			
Colombo	E	eP	S	18	15	24	3090 Amp = 0.4 mm.		
			L		20	07			
			M		23	--			
			M		25	38			
Kodaikanal	E	e	18	17	42	Short distance shock.			
Hyderabad	N	iP	iS	18	20	39	5940 Per. = 15 secs, /u = 4.		
			iS		28	11			
			M		42	30			
Poona	N	i	18	21	22	Distant, feeble. Phases not clear.			
Bombay	NE	i	e	18	21	39	Distant and deep.		
			e		29	42			
16	Shillong	Z	iP	01	15	25	520 Slight, near.		
			PP		15	31			
			Sg		13	47			
17	Epc: $4\frac{1}{2}^{\circ}$ S., $153\frac{1}{2}^{\circ}$ E.		H = 01h 13m 08s (U.S.C.G.S.)						
	Shillong	Z	iP	01	24	05	Slight, not near.		
	Chatra	Z	iP	e	01	24	32	Slight, distant.	
							33		41
Colombo	E	P	S	01	25	01	7980 Amp = 0.3 mm.		
			L		34	21			
			L		48	26			
			M		54	06			
Poona	ZE NE	eP	eS	01	25	32	3870 Slight. Other phases not clear.		
			eS		35	35			
Hyderabad	N	S	01	34	46				
17	Shillong	Z	iP	05	15	21	Slight, local.		
			e		15	39			



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				△			
				km.			
<u>Sept.</u>							
<u>1954</u>							
17	Epc:	24 $\frac{1}{2}$ <sup>o</sup> N., 122 <sup>o</sup> E.	H =	07h	33m	21s	(U.S.C.G.S.)
		24 $\frac{1}{2}$ <sup>o</sup> N., 121 $\frac{1}{2}$ <sup>o</sup> E.	H =	07h	33m	23s	(B.C.I.S.)
	Shillong	Z	iP	07	39	11	3550 Moderate, distant.
		N	eP		39	18	
			S		41	23	
	Chatra	Z	iPI	07	39	48	2534 Slight.
		E	ePI				
			PP		40	56	
			PPP		41	17	
			PcP		42	32	
			iS		<del>44</del> 53		
			PcS		46	04	
			LQ		48	09	
			M		50	45	
							Per. = 7.5 secs, Amp = 1.75 mm.
	Dehra Dun	N	iP	07	40	54	4720 Moderate.
			PcP/PP		42	45	
			PPP		43	21	
			PcS		46	21	
			iS		47	17	
			PS		47	23	
			PPS		47	29	
			SS		50	13	
			ScS		50	34	
			LQ		50	43	
			SSS		51	07	
			LR		52	37	
			M		56	12	
	New Delhi	NE	eP	07	41	00	4350 Slight.
		N	PPP		43	00	
			iS		47	01	
			i		47	19	
			SS		50	01	
			LQ		50	14	
			M		55	01	
	Madras	E	iP	07	41	08	4540 Moderate shock, phases not identified.
			i		43	07	
			eS		47	20	
			e		50	48	
	Colombo	E	P	07	41	21	4980
			S		47	59	
			L		56	21	
			M	08	01	04	Amp = 0.1 mm.
	Poona	Z	eP	07	41	40	Phases not clear.
		N	i		48	42	
			i		52	05	
			i		58	10	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS	
				h.	m.	s.		
Sept. 1954								
17 Contd.	Bombay	NE	eP	07	41	48	4970 Slight.	
			i		42	09		
			PP		43	37		
			E	i		44		02
			N	PPP		44		23
			E	iS		48		25
			N	eS(?)		48		42
			E	PPS		48		55
			N	LQ		52		06
			E	SS		52		15
E	SSS		52	30				
N	SSS		53	09				
			LR	55	22			
	Hyderabad	N	i	07	43	06		
			S		47	15		
			SS		50	40		
			M		58	09		
						Per. = 15 secs, /u = 4.		
17	Shillong	Z	eP	09	02	19	110 Local, feeble.	
			Sg		02	32		
17	Shillong	Z	iP	09	10	03	Slight shock.	
17	Epc: $21\frac{1}{2}^{\circ}$ S., $176\frac{1}{2}^{\circ}$ W., $h = 250$ km ca -H = 11h 03m 14s (U.S.C.G.S.) Magnitude = $7\frac{1}{2}$ (Berkeley), $7 - 7\frac{1}{2}$ (Pasadena).							
	Colombo	E	P	11	13	50		
	Kodaikanal	E	e	11	14	42	Tremor.	
	Shillong	ZN	eP	11	16	39	Moderate, long distance shock. Appears to be a considerably deep focus shock.	
			e		17	07		
			e		18	10		
			i		20	50		
			i		21	09		
			iS		26	54		
			eS	28	47			
	Chatra	Z,E	-	11	17	01	Slight, distant. Very prominent.	
			i		11	21		14
			e			27		20
	Calcutta	E	e	11	18	38	Moderate, distant.	
			e		21	01		
			i		27	08		
			i		31	03		
	Bombay	NE	e	11	20	14	Distant and deep. Moderate.	
			i		23	06		
			i		30	06		
			i		31	56		
			i		32	00		
			i		32	32		
			i		33	30		
	i		38	13				

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
							
				km.			
<u>Sept.</u>							
1954							
17	DehraDun	N	eP	11	21	17	Slight
Contd.			e		21	28	
			e		21	39	
			e		22	19	
			i		22	33	
			LR		22	44	
			SSS		23	02	
			E		23	17	
			PcP		28	03	
			PcS		31	43	
17	New Delhi	NE N	eP	11	21	27	Moderate shock.
			e		23	46	
			e		27	52	
			e		30	54	
			e		31	38	
	Poona	Z N	eP	11	21	31	Slight, phases not clear.
			i		27	52	
			i		29	54	
			i		31	43	
			i		38	00	
	Madras	E	iP	11	21	34	Moderate shock.
			e		23	28	
			e		23	38	
			e		27	08	
			i		27	30	
			e		30	38	
			e		30	53	
			e		31	08	
			e		32	15	
	Hyderabad	N	P	11	21	56	Per. = 18 secs, amp. = 13 mm.
			e		29	11	
			e		43	02	
			L	12	03	05	
17	Shillong	Z	eP	12	00	23	Very feeble.
17	Shillong	Z	eP	14	53	07	Very feeble, distant.
17	Shillong	N	e	14	59	36	Very feeble, distant.
17	Shillong	Z	eP	19	21	27	Very feeble.
17	Shillong	Z	eP	19	40	13	Very feeble.
17	Shillong	Z	eP	19	56	03	Tremor.
17	Shillong	Z	eP	20	10	41	Tremor.
17	Shillong	Z	eP	20	38	51	Very feeble.
17	Shillong	Z	iP	20	41	40	Slight, near.
			e		41	58	



DATE	STATION	COMPT.	PHASE	G. M. T.			km.	
				h.	m.	s.		
Sept. 1954								
17 Contd.	Shillong	Z	iPg Sg	21	28	14 28 21	70	Slight, local.
18	Shillong	Z	iP e e	00	19	37 19 40 20 14		Slight, local.
18	Dehra Dun	N NE	e(P) S	01	09	34 11 30	1130	Feeble, phases not clear.
18	Shillong	Z	eP	01	11	51		Slight, distant.
18	Shillong	Z	eP	15	40	14		Slight, distant.
18	Dehra Dun	N	e i	15	41	57 50 16		Slight, phases not clear.
18	Poona	Z	e	15	42	12		Tremor.
18	Madras	E	e	15	49	26		Tremor.
18	Shillong	Z	eP	18	34	24		Slight.
18	Shillong	Z	cP e	19	56	42 56 56		Feeble, local.
18	Shillong	Z	iP e i i	20	27	14 27 20 27 28 27 35		Slight, local.
18	Shillong	Z	eP	22	14	09		Tremor.
19	Shillong	Z	e	02	43	49		Very feeble.
19	Shillong	Z	eP i	03	15	03 15 16		Feeble, local.
19	Shillong	Z	e	16	04	22		Feeble, distant.
19	Shillong	Z	e	17	52	00		Slight, local.
19	Shillong	Z	iP	18	21	57		Slight, local.
		ZN	i		22	04		
19	Shillong	Z	e	20	22	16		Very feeble.
20	Epc:	0°, 123° E. Celebes Island Region; H = 00h 39m 34s (Shillong) 1½° S., 120½° E., - H = 00h 39m 28s (U.S.C.G.S.)						
	Magnitude	- 6 (Kiruna, Uppsala), 5 3/5 - 6 (Pasadena, Praha).						
	Kodaikanal	E	e	00	44	41		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Sept. 1954							
20	Shillong	NZ	eP	00	46	57	4400 Slight, distant.
Contd.		N	PP		48	28	
			S		53	01	
			SS		55	45	
			LQ		55	57	
			SSS		56	25	
			M	01	01	01	Per. = 24.7 secs Amp. = 20 mm.
	Calcutta	E	eP	00	47	10	4450 Moderate.
		N	eP		47	11	
		E	iS		53	16	
			SS		56	14	
			?		57	14	
			LR		58	14	
	Madras	E	iP	00	47	30	4730 Moderate shock.
			PcP		49	03	
			PP		49	12	
			ScP		52	49	
			iS		53	56	
			PS		54	09	
		E	PPS	00	54	13	
			ScS		57	14	
			SS		57	19	
			LQ		58	02	
	Chatra	EZ	eP	00	47	33	4720 Slight.
		E	PP		49	10	
			PcP		49	20	
			PcS		53	11	
			iS		53	56	
			SS		56	47	
			LQ		57	17	
			LR		59	20	
			M	01	03	-	Suppressed.
	Hyderabad	EN	iP	00	47	51	5050
			PP		49	45	
		N	iS		52	33	
			L	01	00	45	
			M		05	51	Per. = 18 secs, Amp = 10 mm.
	Colombo	E	M	01	06	58	Amp = 1.1 mm. P, S and L trace lost.
	New Delhi	NE	eP	00	47	52	6460 Moderate.
		N	PcP		49	12	
			iS		55	53	
			ScS		57	46	
			SS		59	54	
			SSS	01	02	12	
			M		09	08	



DATE	STATION	COMPT.	PHASE	G. L. T.			REMARKS
				h.	m.	s.	
Sept. 1954						km.	
21	Shillong	Z	iP	05	03	24	Slight.
21	Shillong	Z	i	09	50	55	Slight, near.
21	Shillong	Z	i	14	59	51	Slight, near.
21	New Delhi	NE	Pg iSg	20	17	36 17 45	80 Slight, P may be earlier due to time mark.
21	Dehra Dun	NE	e i i	20	17	37 17 45 17 53	Feeble, phases not clear.
22	New Delhi	E NE	eP Pg iS S Sg	22	33	56 34 24 35 08 35 27 35 46	700 Slight.
	Dehra Dun	NE	e i	22	34	26 35 19	Slight, phases not clear.
	Shillong	Z	e e	22	36	51 40 23	Slight, distance.
23	Shillong	Z	iPg/P*01 P PP eSg S SS	44	45	44 45 44 46 44 53 44 58 45 03 45 18	110
23	Dehra Dun	N	e	10	46	07	Tremor.
23	Epic: 49° N., 156° E. Kurile Islands Region. - H = 21h 43m 36s (U.S.C.G.S.) 50° N., 156° E. - H = 21h 43m 38s (B.C.I.S.) Magnitude - 5 $\frac{1}{4}$ (Praha, Skalnaté Pleso), 6 $\frac{1}{2}$ (Pasadena, Kiruna, Uppsala).						
	Shillong	ZN N	iP PcP PP PPP iS ScS SS LQ LR M	21	53	05 21 54 04 55 09 56 15 22 00 48 02 42 04 26 07 30 09 22 13 20	6140 Moderate.
	Chatra	E For	eP PcP50 PP PPP PcS eS ScS SS LQ LR M	21	53	23 54 19 55 29 56 53 58 17 01 22 03 08 05 08 07 45 10 33 15 30	6420 Moderate.

Per. = 17.0 secs,  
Amp. = 3.5 mm.

Sept.  
1954

23	Calcutta	E	iP	21 53 39	6590	Moderate, First movement West.
Contd.		N	eP	53 41		
		E	iS	22 01 47		
			ScS	03 25		
			SS	05 39		
			SSS	08 03		
			M	16 57		
			Mn	22 07		Δmp = 47 mm.
	New Delhi	NE	eP	21 53 59	6950	Moderate.
		N	i	54 17		
			PcP	54 35		
			eS	22 02 26		
			ScS	03 48		
			LQ	09 40		
			LR	12 36		
			M	17 13		
	Hyderabad	EN	iP	21 54 45		
		E	PP	57 13		
		N	iS	22 04 01		
			SS	08 20		
			L	17 46		
		E	M	22 10		
		N	M	22 13		
	Madras	E	iP	21 54 58	8060	Moderate.
			PcP	55 10		
			iS	22 04 22		
			SKS	04 45		
			ScS	04 54		
			PS	05 09		
			SS	09 25		
			SSS	12 31		
	Bombay	NE	iP	21 55 01		Moderate.
			PP	57 44		
			iS	22 04 23		
		N	M	24 33		
		E	M	24 33		Per. = 13 secs, Δmp. = 18 mm.
			M	24 33		Per. = 16 secs, Δmp. = 10 mm.
	Poona	ZN	iP	21 55 01	8143	Moderate.
		N	PcP	55 19		
			PP	57 58		
			PPP	59 26		
			iS	22 04 30		
			PS	04 51		
			PPS	05 20		
			SS	09 13		
			SSS	12 11		
			LR	17 44		
			M	23 49		
	Kodaikanal	E	eP	21 55 21	9140	Long distance earthquake.
			eS	22 05 36		
			M	29 21		



Sept.  
1954



From the ISC collection scanned by SISMOS

23 Contd.	Shillong	Z	iPg iSg	21 57 28 57 33	40	Slight.
24	Shillong	Z	e i	00 25 18 25 34		Slight, near.
24	Dehra Dun	NE	e	01 16 54		Slight, phases not clear.
24	Shillong	Z	eP P* S. eSg SS	16 23 08 23 10 23 32 23 36 23 43	210	Slight.
24	Shillong	Z	iP Pg iSg SS	16 23 16 23 18 23 39 23 51	180	Slight.
24	Shillong	Z	eP iSg	17 37 47 38 34	320	Slight.
25	Shillong	Z	eP PP P* PPP eS SS S*	00 48 56 48 53 49 07 49 08 49 59 50 09 50 16		Slight.
25	Shillong	Z	iPg P* iSg S*	01 45 06 45 07 45 12 45 15	50	Slight.
25	Shillong	Z	i e	07 16 26 16 59		Slight, near.
25	Shillong	Z	eP iSg	07 37 43 38 06	180	Slight.
25	Shillong	Z	iP	11 26 47		Slight, distant.
25	Poona	Z	iP	11 27 00		Slight. Other phases not clear!
25	Colombo	E	P L M	11 34 19 48 49 52 19		'P' uncertain. Amp. = 0.3 mm.
25	Hyderabad	N	M	11 55 38		Per. = 18 secs, Amp. = 0.6 mm.
25	Bombay	H	e	12 00 00		Very feeble surface waves recorded in the Milne-Show.
26	Shillong	Z	eP P* Pg S S*	04 05 21 05 22 05 26 05 47 05 50	220	Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				km.			
<u>Sept.</u>							
1954							
26	Shillong		iSg	05	52		
Contd.	Contd.		SS	05	56		
			SSS	06	06		
26	Shillong	Z	eP	10	53	34	240 Slight.
			Pg		53	40	
			S		54	00	
			S*		54	03	
			iSg		54	07	
			SS		54	13	
26	Shillong	Z	e	21	08	49	Tremor.
			i		09	41	
			i		10	17	
27	Shillong	Z	eP	09	57	17	Slight, distant.
27	Poona	Z	e	15	48	39	Tremor.
27	Dehra Dun	N	e	16	46	28	Tremor.
27	Shillong	Z	iP	16	46	29	Slight, distant.
	Chatra	Z	i	16	46	53	Slight, distant.
27	Shillong	Z	e	17	26	31	Tremor.
27	Shillong	Z	e	18	07	07	Slight, near.
			e		07	24	
			e		08	01	
27	Shillong	Z	eP*	21	23	23	60 Slight.
			Pg/P		23	27	
			PPP		23	39	
			iSg/S*		23	42	
			SS		23	51	
			SSS		24	03	
27	Shillong	Z	e	22	22	03	Tremor.
			e		22	37	
28	Shillong	Z	iP	00	34	47	6330 Slight.
		N	eP				
		Z	i		41	04	
		N	eS		42	41	
			M		56	00	
28	Chatra	Z	i	00	35	03	Slight, distant.
		E	e		59	19	Surface waves. Per. = 15.0 secs, Amp. = 0.5 mm.
28	Poona	N	eP	00	46	27	Feeble shock.
			e?		57	01	Phases not clear.
			i	01	04	38	
28	Bombay	N	e	01	06	00	Feeble surface waves
		E	e		17	00	of a shock recorded.

DATE	STATION	COMPT.	PHASE	G. M. T.		REMARKS
				h. m. s.	km.	
<u>Sept. 1954</u>						
28 Contd.	Shillong	N	e	13	17 16	Very feeble.
			e		18 23	
			e		19 20	
29	Shillong	Z	eP	03	13 19	Feeble, local.
		N	eP		13 21	
			e		13 23	
30	Shillong	Z	eP	17	12 18	Feeble.

Earthquake Reports  
( Non Instrumental Reports )

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations.

Place at which felt	Date	Time at which felt	Duration in secs	Intensity in R.F. scale	No. of shocks	Remarks
		G.M.T.				
		h. m.				
Shillong	10th Sept. 1954	18 30	5	III	1	
Along	21st Sept. 1954	00 15	-	-	1	

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



-----  
Published under the direction of

Shri S. Basu, M.Sc., F.N.I.,

Director General of Observatories  
-----

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori- Ewing	N-S	18.0	32	-	25
	Omori- Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 <sup>s</sup> Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G. N. T.	$\Delta$	MAGNITUDE
Oct. 1954 Epic: 11°S, 166°E; epicentre located. - 50 km S of Rik (I.S.C. data). Magnitude = 6 $\frac{1}{2}$ -7 (Stalinate Pleso, Burbanovo); 6.8 (Pasadena); 6 $\frac{1}{4}$ (Praha, Debilt); 6 $\frac{1}{2}$ -6 $\frac{1}{4}$ (Berkeley); 6 $\frac{1}{2}$ (Airuno).						
01	Shillong	Z N	eP	03 07 46	8980	Moderate.
			iS	17 54		
			SKS <sub>1</sub>	17 58		
			ScS	18 00		
			PPS	18 58		
			SS	22 58		
			SSS	26 13		
			Lq	28 58		
			Lr	32 24		
			M	35 35		
01	Calcutta	E	iP	03 08 08	9130	Moderate. First movement Dist.
			iS	18 23		
			SS	23 34		
01	Colombo	E	iP	03 08 30	9130	
			iS	18 50		
			L	44 00		
			M	52 00		amp. = 0.6mm
01	Madras	E	iP	03 08 33	9700	Moderate.
			PP	12 00		
			PPP	13 59		
			SKS	18 53		
			ScS	19 03		
			S	19 16		
			ScS	19 20		
			PS	20 18		
			PPS	20 44		
			SS	25 26		
01	Hyderabad	E E,N N	eP	03 08 43	9700	Moderate.
			iS	19 23		
			L	36 13		
			M	42 22		amp. = 1.5mm
01	Kodaikanal	E	P	03 08 46	9530	Slight.
			FP	12 01		
			PPP	13 55		
			S	19 19		
			PS	20 19		
			Lq	32 22		
			Lr	36 25		
			M	43 37		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS	
				h.	m.	s.			km.
<u>Oct.</u>									
1954									
01 Contd.	New Delhi	N,E N	e	03	09	00	9780	Moderate.	
			iSKS			19			37
			iS			19			51
			PS			20			11
			PPS			21			24
	Poona	Z	eP	03	09	08		Slight.	
Bombay	N,E E N E N N,E E N,E E N E N	N,E E N E N N,E E N,E E N E N	eP	03	09	12	10940	Moderate.	
			i			12			10
			PP			13			06
			PP			13			12
			PPP			15			00
			PPP			15			34
			e			17			28
			SKS <sub>1</sub>			19			40
			SKS <sub>1</sub>			19			52
			SKKS <sub>1</sub>			20			16
			iS			20			35
			iS			20			38
			PS			21			50
			PS			21			54
			Lq			37			0
Lr			41	--					
M			04	08	00		Amp. = 4mm		
01	Shillong	Z	eP	11	08	01	510	Slight, near.	
			PP			08			07
			S			08			56
			M			09			17
02	Shillong	Z	eP	04	26	01	470	Feeble	
			Pg			26			21
			S			26			51
			S*			27			08
			Sg/M			27			19
02	Shillong	Z	eP	05	28	15	170	Feeble.	
			Pg			28			29
			Lq			28			37
			S			28			44
			S*			28			53
			Sg/M			29			02
02	Poona	Z N E N	eP	10	10	16	6120	Slight.	
			PP			12			23
			PPP			13			33
			e( )			17			58
			PS			18			08

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Oct.</u>						
<u>1954</u>						
02	Shillong	E,Z	iP	11 30 20	60	Feeble.
Contd.		N	eP	30 22		
		Z	Sg	30 25		
02	Shillong	Z	iPg	21 30 04	90	Feeble, local.
			Sg	30 15		
Epc: $10^{\circ}$ S, $165\frac{1}{2}^{\circ}$ E; Santacruz Island. - H = 02h 47m 17s (USCGS)						
Magnitude = 7.2 (Skalnate Pleso), 7 (Praha, Hurbanovo),						
$6\frac{3}{4}$ -7 (Pasadena), $6\frac{3}{4}$ (Uppsala, Kiruna).						
	Shillong	Z	eP	02 59 33		Moderate, other phases not clear.
	Calcutta	E	eP	02 59 53	9250	Moderate.
			iS	03 10 13		
			PS	11 13		
			SS	15 42		
			SSS	19 28		
			M	33 28		Amp. = 136mm
	Chatra	E,Z	e	02 59 58		Slight distant. Other phases not clear.
	Colombo	E	P	03 00 00	9930	'P' approximate lost in hour mark.
			iS	10 49		Trans overlapp ng.
			L	32 58		Amp. = 1.5mm.
			M	40 06		
	Madras	E	eP	03 00 15	9660	Moderate.
			e	04 13		
			e	06 24		
			S	10 53		
			e	12 41		
			e	13 21		
	Hyderabad	E	eP	03 00 28	9728	Moderate.
		E,N	S	11 09		
		E	PS	11 31		
		N	L	28 45		
			M	34 36		Amp. = 18mm.
		E	M	35 07		Amp. = 6mm.
	Kodaikanal	E	P	03 00 31		Moderate.
			PP	03 52		
			S	11 01		
			PS	12 01		
			PPS	12 28		
			SS	16 49		
			SSS	20 13		
			Lq	24 01		
			Lr	28 13		
			M	37 10		Amp. = 9.6mm.



DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Oct.</u> 1954						
03 Contd.	Poona	Z N	e(P) PP PPP eS PS PPS SS SSS Lq Lr M	03 00 48 04 18 06 06 11 31 12 32 13 06 17 26 21 00 25 13 29 30 36 51		Slight, beginning doubtful.
	Bombay	N,E E N,E E N N,E N	e(P) PPP SKS <sub>1</sub> i iS PS SS SS SSS Lr M	03 01 03 07 02 11 38 12 03 12 25 13 37 18 52 18 58 22 37 32 03 55 01	10840	Moderate.          Amplitude 7mm.
	New Delhi	N	e i e i	03 05 21 11 15 11 53 13 11		Moderate, phases not well developed.
03	Poona	Z	e	09 02 44		Tremor.
03	Shillong	Z N,E N Z N Z,N N	iP i i i i i i i	10 42 07 42 17 42 20 42 50 43 02 43 11 43 20 43 39		Local, slight.
	Chatra	Z	e	10 42 49		Slight, near.
	Dehra Dun	N,E	e	10 47 01		Tremor.
	Bombay	N,E N E	e e i	10 50 09 50 34 52 42		Feeble, tremor.
	Poona	Z	e	10 50 19		Tremor.
03	Poona	Z	e	10 52 16		Tremor.

DATE	STATION	COMPT.	PHASE	G.M.T.			Δ	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
1954								
03	Epc: $60\frac{1}{2}^{\circ}$ N, $151^{\circ}$ W; Kenai Peninsula, Alaska. - h = 100 km Ca. - H = 11h 18m 46s (U.S.C.G.S). Magnitude = $6\frac{3}{4}$ -7 (Pasadena); $6\frac{3}{4}$ (Takubaya, Kiruna, Uppsala) $6\frac{1}{2}$ (Berkeley, Praha); $6-6\frac{1}{4}$ (Hurbanovo).							
	Shillong	Z	eP	11	30	50	8980	Moderate. Time doubtful.
		N	eS		40	46		
	Dehra Dun	N,E	e(P)	11	30	52		Moderate, phases not clear.
			e		32	53		
			e(S)		40	57		
	Chatra	Z	iP	11	30	55	8930	Slight.
		E	eP					
			PP		34	00		
			PPP		36	00		
			iS		41	01		
			Lq		52	07		
			Lr		56	06		
			M	12	03	30		
	New Delhi	N,E	eP	11	31	07	9020	Moderate.
		N	i		33	49		
			PP		34	34		
			i		35	16		
			i		38	01		
			iS		41	17		
			ScS		41	34		
			PS		41	55		
			PPS		42	19		
			i		42	57		
			SS		46	11		
	Calcutta	N,E	eP	11	31	18	9130	Moderate.
			iS		41	33		
		E	PS		42	15		
	Hyderabad	N	eP	11	31	50	9430	Moderate.
		N,E	PP		35	37		
			S		42	19		
			PS		44	13		
		N	SS		48	58		
		E	M	12	09	59		Amp = 8mm.
		N	M		10	01		Amp = 18mm.
	Bombay	N,E	eP	11	31	54	10110	Moderate.
		N	pP		32	32		
		N,E	e		33	35		
		E	i		34	29		
		N	PP		35	31		
		E	PP		35	42		
		N	e		40	20		
		N,E	i		42	23		
		N	iS		42	50		
			PS		43	23		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS	
				h.	m.	s.			km.
<u>Oct</u>									
<u>1954</u>									
03 Contd.	Poona	Z	eP	11	31	56	9420	Slight.	
		E	FP		35	27			
		E	PPP		37	25			
		N	eS		42	24			
			PS		43	24			
			PPS		43	54			
			SS		48	05			
			SSS		51	32			
			Lq		55	09			
			Lr		59	17			
	M		12	06	30				
	Madras	E	eP	11	32	09	9590	Moderate shock.	
			SKKS		42	03			
			PS		44	11			
	Colombo	E	P	11	36	03		Amp. = 1.2mm.	
			e		47	19			
			e		12	06	--		
			M		14	31			
03	Shillong	Z	iP	12	14	55		Feeble, local.	
			e		15	05			
03	Epc:	1°S, 127½°E; - H = 23h 21m 36s (U.S.C.G.S)							
		1°S, 127½°E; - H = 23h 21m 35s (B.C.I.S).							
		Magnitude = 6½ (Kiruna), 6 (Praha).							
	Shillong	Z	eP	23	29	43	4640	Moderate.	
		N	eS		36	02			
	Calcutta	N,E	eP	23	29	59	4890	Slight.	
		E	iS		36	32			
		N	iS		36	34			
	Madras	E	iP	23	20	27	5250	Moderate.	
			eS		37	21			
	Chatra	Z	i(P)	23	30	20	5220	Slight, other phases not clear.	
			e						
			i(S)		37	12			
			e(M)		48	--			
	Colombo	E	P	23	30	36		Amp. = 0.5mm.	
			e		37	11			
			M		50	06			
	Hyderabad	E	eP	23	30	48	5640	Amp. = 3mm.	
			N	iS		38	04		
				L		48	05		
				M		51	04		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
<u>1954</u>								
03	Poona	Z	eP	23	31	23	6120	Slight.
			PP		35	25		
			PPP		37	24		
		N	eS		39	05		
			PS		39	16		
			PPS		39	29		
			ScS		41	16		
			SS		42	45		
			SSS		44	37		
			Lq		44	55		
			Lr		47	27		
			M		32	42		
			New Delhi	N,E	eP	23		
N	iS				3	09		
	ScS				41	22		
	SS				42	55		
	Dehra Dun	N,E	eP	23	31	27	6190	Moderate, phases not clear.
			e		32	14		
			e		32	31		
			eS		39	13		
	Bombay	E	eP	23	31	48	6280	Slight.
			PPP		34	56		
		N,E	iS		39	19		
		E	ScS		41	09		
04	Epic: 25°N, 122°E; Formosa. - H = 01h 33m 21s (U.S.C.G.S). Magnitude = 5½ - 5¼ (Uppsala).							
	Shillong	Z	eP	01	39	03		Slight.
		N	e		43	40		
			e		45	25		
			e		50	40		
	Chatra	Z	i <sub>1</sub>	01	39	43		Slight, distant.
		E	e <sub>1</sub>					
	Poona	Z	eP	01	41	40		Feeble, phases not clear.
	Bombay	E	e	01	48	15		Feeble.
			e		52	09		
04	Shillong	Z	eP	09	45	09		Feeble.
		N	i		55	05		
	Colombo	E	P	09	46	51	8150	Amp. = 0.2mm.
			S		56	26		
			L	10	19	21		
			M		25	36		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ km.	REMARKS
				h.	m.	s.		
<u>Oct.</u> 1954								
04	Shillong	Z	eP S S* Sg/M	11	43	08 33 36 41	220	Feeble.
04	Shillong	Z	eP	16	48	01		Very feeble.
04	Shillong	Z	eP PP S S* Sg/M	20	17	19 28 14 22 33	620	Slight.
05	Shillong	Z N	P e e e	04	17	03 05 08 15		Slight, near.
05	Shillong	Z N	P eS Lr M	04	26	16 32 09 51	4610	Slight.
05	Shillong	Z	e	04	31	54		Compression, distant, slight.
05	Shillong	Z	e	11	34	47		Compression, distant, slight.
	Chatra	Z	i	11	34	48		Slight, distant.
05	Shillong	Z	e	14	44	36		Distant, slight.
06	Shillong	Z	e	04	19	58		Tremor.
06	Shillong	Z	e	05	06	58		Tremor,
	Dehra Dun	N	e	05	07	21		Tremor.
06	Dehra Dun	N, E	eP PP iS SS SSS	05	20	52 56 06 16 27	110	Slight.
	New Delhi	E N, E	eP iS S* Sg SS	05	21	18 54 58 04 05	320	Slight.
06	Shillong	Z	eP Pg Lq S* Sg	06	30	42 03 33 00 13	600	Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
<u>1954</u>								
06	Shillong	Z	e	08	02	42		Slight.
			e		03	05		
			e		03	45		
			e		03	55		
			e		04	00		
			e		04	16		
06	Shillong	Z	e	08	29	58		Feeble, near.
	Shillong	Z	e	08	37	36		Distant, slight.
			e		38	06		
			e		50	01		
06	Poona	N	e?	09	09	12		Feeble.
06	Shillong	Z	e	18	26	28		Slight, near.
			e		26	38		
			e		26	56		
			e		27	07		
			e		27	18		
06	Dehra Dun	N,E	eP	19	59	03	860	Slight.
			Lq	20	00	21		
			eS		00	32		
			SS&Lr		00	43		
			SSS		00	53		
			S*		00	58		
			Sg/M		01	20		
	New Delhi	N,E	eP	19	59	07	990	Slight.
			S	20	00	49		
			SS		01	02		
		N	Lr		01	08		
			SSS		01	16		
06	Shillong	Z	e	20	01	25		Tremor, distant.
06	Shillong	Z	e	23	45	03		Tremor, distant.
07	Shillong	Z	e	02	58	25		Distant, compression, slight.
07	Epc: Chagos Island Region, Indian Ocean.							
	- H = 07h 57m 23s (U.S.C.G.S)							
	5.4°S, 68.5°E; - H = 07h 57m 21s (B.C.I.S)							
	6°S, 69°E; - H = 07h 57m 19s (Shillong)							
	Magnitude = 5 $\frac{3}{4}$ (Kiruna).							
	Colombo	E	P	07	55	50	3660	
			S	08	01	08		
			L		05	22		
			M	07	33			Amp. = 1.5mm.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
<u>1954</u>								
07 Contd.	Kodaikanal	E	P	08	01	28	2950	Slight.
			S		06	01		
			Lq		07	01		
			SS		07	17		
			SSS		07	38		
			Lr		08	28		
			M		10	37		
Madras	E	iP	08	02	12	2590	Moderate.	
		PP		02	43			
		PPP		02	54			
		iS		06	21			
		Lq		06	49			
		SS		07	02			
		Lr		07	50			
		ScP		09	29			
		M		09	52			
Hyderabad	E,N	iP	08	02	40	2790	Amp. = 10mm Amp. = 3mm	
		iS		07	03			
		SS		08	34			
	L		09	34				
	M		10	09				
	E	M		12	19			
Poona	N	eP	08	02	42	2790	Slight.	
		PP		03	25			
		PPP		03	34			
		iS		07	05			
		Lq		08	05			
		SS		08	24			
		SSS		08	41			
		Lr		09	25			
M		11	37					
Bombay	E	iP	08	02	45	2780	Slight.	
		PPP		03	36			
		iS		07	07			
		Lq		07	48			
		Lr		09	18			
		M		11	22			
New Delhi	N	eP	08	04	13	3870	Slight.	
		PP		05	29			
		PPP		05	47			
		eS		09	44			
		M		16	19			
Chatra	Z	i	08	04	03		Slight, distant.	
Shillong	Z	iP	08	04	43	4230	Slight, compression.	
		iS		10	37			
		e		14	50			
		M		18	22			
Calcutta	E	eS	08	09	38		Slight.	

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
1954								
07	Bombay	E	e	14	02	22		Tremor.
07	Shillong	Z	e	18	01	38		Feeble.
07	Shillong	Z	i	19	29	17		Slight, distant.
		N	e		38	27		
07	Bombay	E	iP	19	30	44	9440	Slight.
			PP		34	13		
			e		38	00		
			e		38	37		
			eS		41	13		
			PS		42	05		
07	Shillong	Z	e	19	57	30		Tremor, distant.
08	Shillong	Z	e	05	14	28		Tremor.
08	Shillong	Z	e	05	26	39		Tremor.
08	Shillong	Z	e	09	34	49		Tremor.
08	Shillong	Z	e	10	33	05		Tremor.
08	Shillong	Z	i	10	54	48		Slight, compression.
08	Shillong	Z	i	13	40	22		Slight, compression.
08	Shillong	Z	e	14	23	55		Feeble, near.
08	Shillong	Z	i	16	23	49		Slight, near. Compression.
			e		25	12		
			e		25	18		
08	Dehra Dun	N,E	eP	18	36	53	370	Slight.
			PP		37	00		
			Pg		37	04		
			PPP		37	06		
			Lq		37	22		
			iS		37	34		
			S*		37	39		
			SS		37	44		
			Sg		37	47		
			SSS		37	55		
			08	Shillong	Z	i		
e		40				14		
08	Shillong	Z	e	23	52	41		Near, feeble.
			e		58	57		
			e		59	46		
09	Shillong	Z	e	01	36	57		Distant, tremor.
	Shillong	Z	e	04	52	26		Near, feeble.
			e		52	42		
			e		53	16		
			e		53	35		
			e		53	35		



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Oct.</u> 1954								
09	Shillong	Z	i	11	17	40		Feeble, near.
09	Shillong	Z N	i i	21	19	25 19 37		Feeble, near.
09	Dehra Dun	N,E	e i	23	08	09 08 16		Feeble, phases not clear.
10	Shillong	Z	e e e e	04	51	00 51 02 51 08 51 14		Slight, near.
10	Shillong	Z	e e e	05	21	09 21 19 21 22		Feeble, near.
10	Shillong	Z	e e	05	39	07 39 16		Feeble, near.
10	Shillong	Z	i	06	46	25		Tremor, distant.
10	Dehra Dun	N	e	08	22	19		Tremor.
10	Shillong	Z	e e	08	23	23 23 29		Feeble, near.
10	Shillong	Z	e	11	37	56		Tremor, distant.
10	Shillong	Z	e e	20	21	21 22 12		Feeble, near.
10	Shillong	Z	e	23	41	21		Tremor, distant.
10	Shillong	Z	i e	23	44	23 44 52		Feeble, near. Compression,
11	Shillong	Z	e e e e	06	25	28 25 39 26 05 26 26		Feeble, near.
11	Shillong	Z	e	08	50	04		Tremor, distant.
11	Shillong	Z	e e e	15	30	49 30 53 31 21		Feeble, near.
11	Shillong	Z N	e i e	16	21	43 29 46 43 03		Slight, rarefaction, distant.
	Chatra	Z	i	16	21	56		Slight, distant.
11	Shillong	Z	e	17	05	52		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
1954								
11	Shillong	Z	e	17	11	10		Tremor.
11	Shillong	Z	e	17	28	52		Slight.
		N	e		24	35		
11	Shillong	Z	i	18	08	55		Feeble, rarefaction.
			i		09	04		
11	Shillong	Z	e	19	58	42		Feeble, near.
			e		58	56		
11	Shillong	Z	e	20	01	32		Tremor.
			e		01	35		
11	Shillong	Z	e	22	10	13		Tremor.
			e		10	56		
			e		11	07		
12	Shillong	Z	Pg	05	54	57	110	
			Sg		55	10		
12	Dehra Dun	N	e	11	49	20		Tremor.
13	Poona	Z	e	19	15	19		Tremor.
13	Epc: 38°N, 70°E; Afganistan. - H= 22h 11m 45s (Shillong)							
	- H = 22h 11m 44s (Quetta)							
Data discordant (B.C.I.S).								
	Dehra Dun	N,E	eP	22	14	15	1220	Moderate.
			PPP		14	29		
			P*		14	44		
			Pg		15	12		
			Lq		16	10		
			iS		16	20		
			SS		16	22		
			Lr		16	44		
			SSS		16	47		
			Sg/M		17	37		
				New Delhi	N,E	iP	22	
PP		14				33		
N,E	PPP				14	40		
	i				15	17		
N	Lq				16	19		
N,E	eS				16	28		
	i				16	36		
N,E	SS				16	41		
	Lr				16	48		
N,E	M				17	37		
	Chatra	E,Z			e	22	15	59
			Z		19	13		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Oct. 1954						
13 Contd.	Bombay	N	eP	22 16 07	2090	Slight.
		E	eP	16 12		
			PP	16 26		
			iS	19 39		
		N	eS	19 43		
		E	SS	20 05		
			Lr	20 40		
		N	M	24 05		Amp. = 3mm
	Hyderabad	N	iP	22 16 36	2420	
		E,N	iS	20 33		
		N	L	23 15		
			M	25 12		Amp. = 6mm.
	Poona	N,Z,E	eP	22 16 16	2220	Slight.
		E	PP	16 36		
			PPP	16 44		
		N,E	eS	19 56		
		E	Lq	20 06		
			SS	20 25		
			SSS	20 35		
			Lr	20 56		
			M	22 34		
	Calcutta	E	eP	22 16 40	2600	Slight, time approxi- mate due to failure of time-marking clock.
	Shillong	Z	iP	22 16 45	2780	Slight, probably deep.
		N	eP	16 46		
			iS	20 48		
			Lq	21 20		
			Lr	22 22		
			M	24 20		Supressed.
	Madras	E	eP?	22 17 57	4530	
			iS	25 41		
			PS	25 56		
			SoS	27 26		
			SS	29 15		
			SSS	31 25		
	Kodaikanal	E	P	22 22 23		Slight.
			e	24 53		
			Lr	25 20		
			M	26 23		
14	Dehra Dun	N,E	eP	01 31 58	900	Slight.
			PP	32 04		
			PPP	32 11		
			Pg	32 36		
			Lq	33 18		
			iS	33 31		
			SS	33 41		
			Lr	33 43		
			SSS	33 52		
			S*	34 00		
			Sg/M	34 25		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Oct.</u>									
<u>1954</u>									
14 Contd.	New Delhi	N, E	iP	01	32	04	980	Slight.	
		E	PPP		32	18			
		N, E	iS		33	45			
		N, E	Lr		34	02			
			SSS		34	06			
		S*		34	16				
	Shillong	Z	P	01	34	32		Slight.	
14	Epc;	7°S, 128°E.	Banda Sea;	- H =	01h	35m	00s	(U.S.C.G.S)	
		7.5°S, 127.5°E.		- H =	01h	35m	01s	(B.C.IS)	
		6°S, 130°E.		- H =	01h	35m	03s	(Shillong).	
Shillong	Z		iP	01	43	43	5220	Moderate.	
		N	iP		43	44			
			PP		45	38			
			PPP		46	23			
			iS			35			
			PS		51	00			
			SSS		55	38			
			Lr		57	23			
			M		02	00			38
Madras	E		P	01	44	11	5700	Moderate.	
			PcP		45	14			
			iPP		46	12			
			PPP		47	11			
			iS		51	31			
Chatra	Z		iP	01	44	16	5800	Slight.	
		E	eP						
			eS		51	40			
		M		02	03	45			
Kodaikanal	E		P	01	44	22	7060	Long distance earthquake of slight intensity.	
			PP		46	40			
			S		47	58			
			Lq		02	00			07
			Lr		02	55			
Hyderabad	N, E		iP	01	44	33	6020		
		E	PcP		45	36			
		PP		46	33				
	E, N	iS		52	09				
	N	SS		55	57				
Poona	Z		eP	01	45	03	6560	Moderate.	
		E	PcP		45	43			
			PP		47	17			
			PPP		48	46			
			PcS		50	41			
			iS		53	09			
			PS		53	26			
			PPS		53	31			
			SS		56	57			
			Lq		02	00			00
			Lr		02	51			
			M		07	42			

DATE	STATION	COMPT.	PHASE	G.	M.	T.	△	REMARKS
				h.	m.	s.	km.	
<u>Oct.</u>								
<u>1954</u>								
14	Bombay	N	eP	01	45	12	6690	Slight. 'M' has not developed.
Contd.		E	iP					
			PP	47	21			
			PPP	48	29			
		N,E	iS	53	25			
		E	ScS?	54	31			
			SS	57	25			
			i	58	47			
	New Delhi	N,E	eP	01	45	14	6670	Moderate.
		N	PPP	48	51			
			iS	53	26			
			SS	57	27			
	Dehra Dun	N,E	eP	01	45	18	6660	Moderate.
		N	PcP	45	53			
			PP	47	23			
			PPP	48	58			
			PcS	49	45			
			iS	53	30			
			PS	53	44			
			PPS	53	58			
			ScS	54	56			
			SS	57	40			
			SSS	02	00	27		
			Lq	00	57			
			Lr	03	38			
			M	08	46			
14	Shillong	Z	Pg	17	59	57	60	Slight, local.
			Sg	18	00	04		
15	Shillong	Z	i	03	29	13		Slight, local.
15	Shillong	Z	P	03	47	25		Feeble
15	Shillong	Z	P	03	47	25		Slight.
15	Shillong	Z	P	07	02	49		Slight.
15	Shillong	Z	i	08	17	07		Local.
			i		17	26		
15	Shillong	Z	i	20	28	12		Very feeble.
15	Shillong	Z	i	23	13	58		Slight, local.
			i		14	04		
16	Shillong	Z	P	00	39	33		Feeble.
16	Shillong	Z	P	07	28	14		Slight.
16	Shillong	Z	e	09	48	10		Slight.
16	Shillong	Z	P	18	09	36		Slight.
16	Dehra Dun	N,E	e	18	23	15		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Oct. 1954								
16	Shillong	Z	e i	19	38	18 38 41		Feeble.
16	Shillong	Z	P	20	24	16		Slight.
16	Shillong	Z	P	22	34	49		Slight.
17	Shillong	Z	P	19	38	44		Slight.
17	Shillong	Z	e	19	39	50		Slight.
17	Shillong	Z	e	19	42	27		Slight.
17	Dehra Dun	N,E	e	19	43	08		Tremor.
17	Shillong	Z	e e e	21	21	18 21 50 21 57		Slight.
17	Bombay	E N,E	e e	23	12	20 20 05		Long distance shock feebly recorded.
17	Shillong	Z N	PKP M	23	17	23 00 01 38		Slight, very distant.
17	Shillong	Z	Pg Sg	23	26	29 26 34	40	Local
18	Hyderabad	E	M	00	06	50		$\mu = 6\text{mm}$ .
18	Shillong	Z	i e	02	03	03 03 14		Slight, local.
18	Shillong	Z	e	11	06	36		Local.
18	Shillong	Z	e	13	36	18		Feeble, time uncertain.
18	Shillong	Z	e	14	38	39		Slight.
18	Shillong	Z	e	19	52	49		Local.
18	Dehra Dun	N	e	20	03	09		Tremor.
19	Dehra Dun	Z	i	16	37	11		Slight, local.
19	Dehra Dun	Z	e	17	17	08		Slight distant.
19	Dehra Dun	Z	e	17	36	03		Tremor.
19	Shillong	Z	eP	18	00	51		Slight distant.
19	Shillong	Z	i i	23	37	02 37 14		Tremor.
19	Shillong	Z	iPg P iSg SS	23	48	28 48 30 48 32 48 49	40	Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
						km.	
<u>Oct.</u> 1954							
20	Kodaikanal	E	P S SS Lq Lr M	00 19 25 26 30 31 34 38	25 42 09 49 09 19	5670	Moderate.
20	Shillong	Z	iP	05	50	34	Slight distant.
20	Shillong	Z, E E	eP eS M	14 00 05 10	27 10 52	3100	Slight.
20	Chatra	Z E	iP eP e	14	01	07 --	Slight distant.
	Bombay	E	e e e	14	03	07 19 31	Shock not recorded on Milne-Shaw Charts feeble, not clear.
20	Epc: 30.8°N, 142.1°E. South of Honshu, Japan. - H = 23h 41m 44s (C.M.O. Japan) 31°N, 141°E. - H = 23h 41m 43s (U.S.C.G.S)						
	Shillong	Z E	iP eP PP PPP PcS eS Lq M	23	49	51 26 11 27 18 48 33	4800 Slight.
	Calcutta	E	e	23	50	04	Slight, distant.
	Chatra	Z E	i e	23	50	21 --	Slight, distant surface waves. Per.=16 Secs. Amp.=0.75mm.
	New Delhi	N, E	eP eS PS ScS	23	51	19 59 07 13	6090 Slight.
	Hyderabad	E	e L M	23	51	44 13 38	
	Bombay	N E E N E E	eP iP PcP PPP eS iS PS PPS	23	52	10 41 05 36 55 09	6930 Slight. Surface waves have not been developed.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Oct. 1954						km.	
21	Epc: 42.5°S, 81°E; South Indian Ocean - H = 00h 10m 08s (Shillong) 41°S, 81°E; - H = 00h 10m 10s (U.S.C.G.S) Magnitude = 7 (Pasadena); 6 $\frac{3}{4}$ (Kiruna); 6 $\frac{1}{4}$ (Prah).						
	Colombo	E	P	00	18	48	5420
			S		25	50	
			L		30	36	
			M		33	48	Amp. = 3.5mm.
	Madras	E	eP	00	19	41	Moderate.
			PcP		20	34	
			PP		21	43	
			PPP		23	04	
			iS		27	22	
			PS		27	35	
			PPS		27	42	
			ScS		29	25	
			SS		31	00	
			SSS		32	57	
			Lq		33	03	
	Poona	N, E N	eP	00	20	18	6590 Moderate.
			PP		22	31	
			PPP		23	50	
			iS		28	26	
			PS		28	38	
			PPS		28	48	
			SS		32	28	
			Lq		35	13	
			Lr		38	01	
			M		43	03	
	Bombay	N	iP	00	20	20	6700 Moderate.
			PP		22	34	
			PPP		24	04	
			iS		28	38	
			SS		32	32	
			Lr		38	35	
		E	M		41	34	
		N	M		44	46	
	Calcutta	N, E E	eP	00	20	47	7090 Moderate.
			iS		29	22	
			PKKP <sub>1</sub>		41	06	
			M		45	03	
			Mn		47	27	
	Shillong	Z E	iP	00	21	07	7500 Moderate.
			eP				
			iS		30	03	
			SKS		31	06	
			SS		34	40	
			Lq		38	33	
			Lr		42	13	
			M		44	55	



DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
Oct. 1954								
21 Contd.	Chatra	Z	i(P)↓	00	21	11	7590	Slight, distant.
		E	e↓					
			i(s)	30	12			
	New Delhi	N	eP	00	21	19	7690	Moderate.
		N,S	PcP		21	52		
		N,S	PP		23	57		
		N,S	iSg		30	25		
		N,S	PS		30	55		
		N,S	SS		35	01		
		N,S	SSS		38	04		
21	Shillong	Z	i	01	45	15		Tremor.
21	Shillong	Z	e	03	11	38		Slight, near.
			i		12	35		
			i		13	34		
21	Shillong	Z	i	07	14	46		Slight, distant.
		N	e	08	10	45		
21	Shillong	Z	iP	10	28	06	250	Slight.
			Px		28	08		
			Pg		28	11		
			iSg		28	42		
			SS		28	45		
21	Dehra Dun	N,E	e	19	15	57		Feeble, phases not clear.
			i		16	27		
21	Shillong	Z	i	20	22	49		Slight, distant.
			i		24	02		
22	Shillong	Z	e	02	58	08	170	Slight.
			iSg		58	30		
			e		58	36		
22	Shillong	Z,N,E	iPg	04	38	37	20	Slight.
		N,E	iSg		38	39		
22	Shillong	Z,N,E	i	04	39	51		Slight, local.
22	Shillong	Z	e	06	13	15		Slight, near.
			i		14	10		
22	Shillong	Z	ePg/Px	07	57	14	100	Slight.
			P		57	18		
			PP		57	22		
			eSg		57	26		
			S		57	29		
			SS		57	36		
22	Shillong	N	eP	14	14	59	130	Slight.
			PP		15	06		
			iSg		15	14		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Oct.</u>								
<u>1954</u>								
22	Shillong	Z	i	16	36	56		Slight, distant.
			i		38	51		
			i		42	05		
22	Shillong	Z	e	17	22	06		Tremor.
22	Shillong	Z	e	18	04	53		Slight.
23	Shillong	Z	i	00	53	45		Slight, distant.
			i		55	08		
23	Shillong	Z	e	06	34	21		Slight, tremor.
23	Shillong	Z	e	07	33	21		Slight.
23	Shillong	Z	P	11	36	22	280	Slight.
			Pg		36	28		
			S		36	52		
			e		36	58		
23	Shillong	Z	iP	18	00	19		Feeble.
23	Shillong	Z	Pg	21	05	33	20	Slight.
23	Shillong	Z	e	21	30	32		Feeble.
23	Shillong	Z	iP	23	22	42		Slight.
24	Shillong	Z	iP	05	22	23		Slight.
24	Shillong	Z	e	06	56	01		Slight.
			i		56	08		
			e		56	31		
24	Dehra Dun	N,E	e	09	32	06		Feeble, phases not clear.
	New Delhi	N,E	eP	09	32	29	640	Slight.
		E	PP		32	37		
		N,E	Pg		32	59		
		E	Lq		33	26		
		N,E	eS		33	37		
		E	Lr		33	43		
		N,E	SS		33	48		
		N,E	Sg		34	13		
	Shillong	Z	e	09	34	41		Tremor.
24	Shillong	N	e(M)	10	55	30		Slight, distant.
24	Shillong	Z	eP	16	18	29	210	Slight.
			eSg		18	59		
24	Shillong	Z	e	16	29	59		Tremor.
			i		30	20		
24	Shillong	Z	iP	17	21	47		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Oct. 1954						km.	
24	Shillong	Z	e	22	44	22	Tremor.
24	Shillong	Z	e	23	46	48	Slight, distant.
25	Shillong	Z	iP	00	19	21	Slight, distant.
25	Shillong	Z	ePx Pg/P PP eSg SS	00	34	37 38 45 52 04	120 Slight.
25	Shillong	Z	i	00	37	33	Slight, near.
25	Shillong	Z	e i i	01	03	58 27 40	Tremor.
25	Shillong	Z	e e e e	04	50	38 47 14 28	Slight, near.
25	Shillong	Z	i	06	22	58	Slight.
25	Dehra Dun	N	e	06	58	49	Tremor.
25	Shillong	Z	e i i	06	58	57 07 56	Slight.
25	Shillong	Z	iPg iSg	09	43	35 37	20 Slight.
25	Shillong	Z	i	10	45	10	Slight, local.
25	Shillong	Z	i	19	28	40	Feeble.
26	Shillong	Z	e i	00	44	55 12	Tremor.
26	Shillong	Z	eP PP S* Sg	07	13	22 29 17 23	510 Slight.
26	Shillong	Z	ePg S Sg	10	19	30 48 51	140 Feeble.
26	Shillong	Z	eP	10	43	25	Feeble.
26	Shillong	Z	eP	10	43	58	Feeble.
26	Shillong	Z	eP	18	28	04	Feeble.
26	Shillong	Z	eP	20	39	33	Feeble.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Oct. 1954								
26	Shillong	Z	eP Sg	22	37	16 37 38	170	Slight.
27	Shillong	Z	ePg Sg	03	30	49 31 04	130	Feeble.
27	Shillong	Z	eP	03	34	17		Slight.
27	Shillong	Z	eP	08	26	59		Feeble.
27	Shillong	Z	eP	10	41	07		Very feeble.
27	Shillong	Z	eP Sg	16	13	28 14 06	260	Feeble.
27	Shillong	Z	eP	16	46	59		Very feeble.
27	Shillong	Z	eP	17	31	23		Very feeble.
27	Shillong	Z	ePg Sg	17	46	31 46 47	130	Slight, local.
27	Shillong	Z	eP Sg	18	02	13 02 30	140	Slight, local.
27	Dehra Dun	N,E	e i	20	27	54 29 18		Slight, phases not clear.
	New Delhi	N,E E N,E N,E	eP e i eS Lr SS SSS	20	28	03 28 22 28 34 29 47 29 51 29 59 30 10	1010	Slight.
	Shillong	Z	eP	20	30	14		Slight, distant.
27	Epc: 40°N, 77.5°E. Sinkiang province, China.							
	- H = 2lh 48m 45s (Shillong & B.C.I.S).							
	40°N, 77°E. - H = 2lh 48m 41s (U.S.C.G.S).							
	Dehra Dun	N,E	eP PP PPP P* Pg Lq iS SS Lr SSS S* Sg/M	21	51	06 51 15 51 20 51 27 51 52 52 39 52 52 53 03 53 08 53 15 53 26 53 51	1020	Moderate.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Oct. 1954								
27 Contd.	New Delhi	N	iP	21	51	28	1230	Slight.
		N,E	PPP		51	52		
		N	i		52	11		
			iS		53	34		
			Lr		53	54		
	Chatra	Z	i	21	52	19		Slight, near.
		E	e		58	12		Surface waves.
	Calcutta	E	e	21	52	36		Slight, distant.
			e		57	10		
			Mn	22	03	54		Amp. = 23mm.
	Shillong	Z	eP	21	53	05	2120	Slight.
		N	eP		53	08		
		E	eS		56	35		
	Bombay	N,E	eP	21	53	36	2380	Slight.
		E	eS		57	30		
		N,E	e		57	41		
	Poona	Z	eP	21	53	37	2480	Slight.
			PP		54	06		
			PPP		54	17		
			eS		57	39		
			Lq		58	06		
			SS		58	24		
			SSS		58	37		
			Lr		59	10		
			M	22	00	57		
	Madras	E	eP	21	54	16		Tremor.
	Hyderabad	E	e	22	00	51		
			M		02	54		Amp. = 2mm.
28	Shillong	Z	eP	06	29	25		Slight.
28	Shillong	Z	eP	06	35	09		Very feeble.
28	Shillong	Z	iP	07	09	58		Slight.
			e		10	55		
			e		11	23		
28	Dehra Dun	N,E	i	07	12	10		Tremor.
28	Shillong	Z	eP	09	44	12		Very feeble.
28	Epc: 35°N, 70°E. Afganistan. - H = 14h 36m 33s (Shillong)							
	36°N, 69½°E. - h = 100 km. Ca.							
	-H = 14h 36m 28s (U.S.C.G.S).							
	Dehra Dun	N,E	eP	14	38	35	910	Moderate.
			PP		38	43		
			PPP		38	49		
			Px		38	56		
			Lq		39	59		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS	
				h.	m.	s.			km.
<u>Oct.</u>									
1954									
28 Contd.	Dehra Dun Contd.	N,E	iS	14	40	10			
			SS		40	20			
			Lr		40	23			
			SSS		40	31			
			S*		40	38			
			Sg/M		41	01			
	New Delhi	N,E	iP	14	38	44	980	Slight.	
			PP		38	52			
			Pg		39	01			
			N,E	Lq		39	29		
				iS		40	25		
				SS		40	37		
				Lr		40	44		
				SSS		40	49		
				S*		40	58		
				Sg		41	22		
	Chatra	Z	iP	14	40	23	1790	Slight.	
			PP		40	40			
			PPP		40	49			
			iS		43	22			
			SS		43	43			
			SSS		43	54			
			Lr		44	04			
			M		45	24			
	Poona	Z	eP	14	40	32	1860		
			PP		40	45			
			eS		43	38			
			SS		44	00			
			SSS		44	12			
			Lr		44	25			
			M		45	48			
	Shillong	Z	eP	14	41	10	2330	Slight.	
			E	eS		45			00
	Madras	E	e	14	46	10		Tremor.	
28	Shillong	Z	eP	15	11	16		Very feeble.	
28	Shillong	Z	eP	15	20	39	280	Feeble.	
			Sg		21	19			
28	Shillong	Z	eP	16	53	19		Very feeble.	
			e		53	31			
28	Shillong	Z	eP	18	30	15		Feeble.	
			e		30	34			
29	Shillong	Z	eP	07	52	15		Very feeble, local.	
			e		52	31			
29	Shillong	Z	eP	11	22	05		Slight, distant.	
			i		32	57			
29	Bombay	E	e	11	26	00		Distant and feeble.	
			e		28	16			
			i		33	53			

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Oct. 1954							km.	
29	Shillong	Z	ePg Sg	18 03 21 03 26		40		Local, slight.
29	Shillong	Z	iP Sg	18 40 36 41 07		230		Slight, local.
29	Shillong	Z	i	19 55 53				Very feeble.
29	Shillong	Z	iP	20 12 50				Slight.
29	Shillong	Z	ePg Sg	20 59 04 59 21		140		Slight, local.
29	Shillong	Z	eP	21 46 51				Slight, distant.
29	Shillong	Z	eP P* Sg/M	22 38 06 38 09 38 59		360		Feeble.
30	Bombay	E	e i	00 20 35 28 15				Surface waves only.
30	Shillong	Z N,Z	iPg Sg	00 20 56 21 12		130		Slight, local.
30	Shillong	Z	eP PP P* S Sg	05 39 56 40 02 40 06 40 51 41 21		370		Slight.
30	Shillong	Z	iP	16 14 34				Slight.
30	Shillong	Z	eP	16 47 51				Very feeble, distant.
30	Shillong	Z	eP	16 59 41				Very feeble, distant.
30	Shillong	Z	iP	18 12 15				Local, slight.
30	Shillong	Z	eP	18 39 21				Slight, distant.
30	Shillong	Z	eP	19 41 02				Slight, distant.
30	Shillong	Z,E E	eP e e	19 42 29 45 39 46 41				Local, slight. Phases not clear.
30	Shillong	Z N	eP e i	22 00 40 00 47 07 20				Slight, distant.
30	Shillong	Z	eP	22 37 05				Feeble, distant.
30	Poona	Z	e	23 03 30				Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Oct.</u> 1954								
30	Shillong	Z	eP	23	51	12		Slight, distant.
30	Bombay	E	i	23	55	12		Surface waves.
31	Shillong	N,E	ePg Sg	02	21	40	70	Strong, local shock felt.
31	Shillong	Z	eP	04	53	41		Slight, distant.
31	Shillong	Z	eP	08	13	03		Slight, distant.
31	Bombay	E	e	09	59	45		
31	Shillong	Z N	eP eP i	23	25	46		Slight, distant.
31	Colombo	E	P e e M	23	26	03		
						37 21		
						58 21		Amp. = 0.4mm.
				00	05	21		
31	Bombay	E	e e e	23	26	56		Distant and slight.
						33 56		
						37 44		
31	Shillong	Z	eP	23	46	46		Feeble, distant.

Earthquake Reports  
(Non Instrumental Reports)

The following is the list of earthquakes as reported by the Voluntary Observers from different places during the month of October 1954.

Place at which felt	Date in G. M. T.	Time in G. M. T.	No. of Shocks	Duration of shocks in Secs.	Intensity in R.F. scale	Remarks
Shillong	09 Oct.	21 18	1	3	V	-
Shillong	22 Oct.	04 42	1	4	III	-
Gauhati	22 Oct.	14 15	1	15	V	Appeared coming from NE direction.



1

2

3

4

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



-----  
-----  
Published under the direction of

Shri S. Basu, M.Sc., F.N.I.,

Director General of Observatories  
-----  
-----

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori- Ewing	N-S	18.0	32	-	25
	Omori- Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 <sup>s</sup> Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Nov.</u>									
<u>1954</u>									
01	Shillong	Z	eP	00	39	11		Very feeble.	
01	Shillong	Z	eP	06	04	21		Feeble, near.	
01	Shillong	Z	eP	06	09	00		Very slight, distant.	
01	Dehra Dun	N	e	11	13	53		Tremor.	
01	Dehra Dun	N	e	18	22	47		Tremor.	
01	Dehra Dun	N,E	e	21	14	21		Feeble, phases not clear.	
	Bombay	E	eP	21	15	09	2590	Feeble.	
		N	eP		15	13			
		E	eS		19	18			
	Poona	Z	eP	21	15	19	2850	Slight.	
			PP		15	59			
			PPP		16	11			
		N,E	eS		19	45			
		E	Lq		20	15			
			Lr		21	23			
	Shillong	Z	eP	21	16	44		Slight, distant.	
01	Dehra Dun	N	e	23	40	35		Tremor.	
02	Shillong	Z	iP	02	40	27	270	Slight.	
		N,E	P*		40	29			
			eS		40	58			
			S*		41	02			
			Sg		41	07			
	Dehra Dun	N	e	02	46	07		Tremor.	
02	Shillong	Z	iP	03	15	52	270	Feeble.	
			P*		15	56			
			Pg		16	01			
			S*		16	28			
			Sg		16	23			
02	Epc: 7°S, 121.5°E. In the Floris Sea.								
				- H = 08h 24m 09s (Shillong)					
				7.5°S, 119°E. - H = 08h 24m 08s (U.S.C.G.S)					
				8°S, 119°E. - H = 08h 24m 10s (B.C.I.S);					
	Colombo	E	P	08	32	00	4830		
			S		38	30			
			L		47	50			
			M		52	46		Amp. = 14.8mm.	

DATE	STATION	COMPT.	PHASE	C. M. T.			△	REMARKS
				h.	m.	s.		
<u>Nov.</u>								
<u>1954</u>								
02 Contd.	Shillong	Z	iP	08	32	08	4720	Moderate compression, first ground movement west.
		N,E	PP		33	54		
			PPP		34	30		
			iS		38	31		
			PS		38	38		
			PPS		38	39		
		N	SS		42	01		
		E	SS		42	05		
			Lq		42	30		
		N	Lr		44	00		
			M		46	35		
Madras	E	F		08	32	20	5060	Moderate.
		e		32	39			
		PcP		34	18			
		PPP		34	59			
		ScP		38	01			
		eS		39	02			
		PPS		39	19			
		SS		42	10			
		ScS		42	19			
		Lq		42	54			
		Lr		45	03			
	M		48	36				
Kodaikanal	E	iP		08	32	36	4850	Earthquake of moderate intensity.
		PP		34	21			
		PPP		35	09			
		S		41	39			
		SS		44	51			
		Lq?		45	39			
		Lr		47	54			
		M?		51	36			
						Amp. = 8.6mm.		
Chatra	E	eP		08	32	42	5190	Great.
		PcP		34	19			
		PP		34	30			
		PPP		35	19			
		PcS		38	11			
		iS		39	32			
		SS		42	53			
		Lq		43	35			
		Lr		45	53			
			M		50	20		
						Per. = 15mm A = 9		
Hyderabad	E,N	iP		08	32	51	5220	
		PP		32	51			
		iS		39	43			
	E	ScS		42	22			
		SS		43	35			
		L		47	40			
		M		50	29			
	N	M		51	04			

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Nov</u>						
<u>1954</u>						
02	Poona	Z	eP	08 33 20	5700	Great shock.
Contd.		N	PcP	34 35		
			PP	35 24		
			iS	40 39		
			PS	40 47		
			PPS	40 55		
			ScS	43 03		
			SS	44 21		
			Lq	45 57		
			Lr	48 31		
			M	52 55		
	Bombay	N,E	eP	08 33 29	5930	Moderate.
		E	iP			
		N,E	PcP	34 28		Another shock
		N	PP	35 49		is mixed up with
			PPP	36 46		this shock in the
			PcS?	38 27		beginning and
			e	40 16		later it is a case
			eS	41 00		of multiple shock.
		E	iS			
		N	ScS	43 18		
			SS	44 42		
		E	e	45 19		
		N	SSS(Lq)	46 42		
			e	47 41		
			Lr?	50 30		
			i	53 08		
		E	M	56 34		Amp. = 86mm
		N	M	57 48		Amp. = 53mm.
	Dehra Dun	N,E	eP	08 33 44	6110	Moderate.
			PcP	34 38		
			PP	35 49		
			PPP	37 03		
			PcS	38 25		
			iS	41 25		
			PS	41 33		
			PPS	41 42		
			ScS	42 56		
			SS	44 58		
			SSS	47 27		
			Lq	47 32		
			Lr	50 09		
			M	54 47		
	New Delhi	N,E	eP	08 33 39	5950	Great.
		N	PP	35 39		
			PPP	36 45		
			PcS	38 46		
			eS	41 11		
			i	41 51		
			ScS	43 30		
			SS	44 32		
			i	45 10		
			i	45 50		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Nov.</u>								
<u>1954</u>								
02	New Delhi	N	SSS	08	46	07		
Contd.	Contd.		Lq		46	12		
			Lr		48	20		
			M		53	00		
	Bombay	E	i	08	37	06		Moderate shock super imposed on the preceding shock. Amp. = 59mm Amp. = 25mm.
			i		46	16		
			M		59	16		
		N	M	09	03	34		
02	Shillong	Z	i	08	46	40		Tremor.
02	Shillong	Z	iP	09	16	31	240	Feeble.
			P*		16	33		
			Pg		16	36		
			S*		16	59		
			Sg		17	04		
02	Shillong	Z	i	09	26	09		Very feeble, rarefaction.
02	Shillong	Z	e	09	52	07		Tremor.
02	Shillong	Z	e	10	09	14		Feeble.
		E	e		10	24		
			e		15	05		
	Poona	Z	eP	10	12	05		Feeble shock, phases not clear.
		N	e?		23	29		
02	Shillong	Z	i	10	29	00		Very feeble, rarefaction.
02	Shillong	Z	i	10	34	46		Very feeble. Compr- essions. Distant.
02	Shillong	Z	i	10	47	47		Feeble rarefaction. Distant.
02	Poona	Z	e	15	48	58		Tremor.
02	Shillong	Z	e	16	12	34		Tremor.
02	Dehra Dun	N	e	16	19	41		Tremor.
02	Shillong	Z	e	16	45	43		Tremor, near.
			e		46	24		
02	Shillong	Z	e	20	57	31		Tremor, near.
			e		57	33		
			e		57	42		
02	Shillong	Z	e	21	52	48		Tremor, near.
			e		53	31		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Nov.</u> 1954								
02	Shillong	Z	e e	22	39	08 11		Tremor, near.
03	New Delhi	E N,E	eP? Lq iS S*	00	25	12 12 23 40	680	Slight.
	Dehra Dun	N	e	00	26	21		Tremor.
	Shillong	Z	e e	00	31	06 13		Tremor.
03	Shillong	Z	i	03	25	32		Very feeble compression.
	Poona	Z	e	03	26	36		Tremor.
03	Shillong	Z	e	04	32	16		Tremor, near.
03	Shillong	Z	eP Pg S S* Sg	07	42	18 36 09 20 30	470	Very feeble, near.
03	Shillong	Z	i	09	00	43		Compression, tremor distant.
03	Shillong	Z N	iP Sg	10	54	02 35	240	Slight, near.
	Dehra Dun	N	e	10	59	45		Tremor.
03	Dehra Dun	N	e	12	24	50		Tremor.
03	Shillong	Z	i	16	30	13		Tremor, distant.
03	Shillong	Z	e	16	16	01		Tremor, distant.
03	Shillong	Z	Pg Sg	18	33	46 56		
03	Dehra Dun	N	e	23	19	56		Tremor.
04	Shillong	Z	e	01	08	35		Tremor, distant.
	Shillong	Z	i	10	39	41 19		Near, tremor.
04	Shillong	Z	e	04	05	16		Tremor.
04	Shillong	Z	i	04	07	40		Tremor, distant.
	Shillong	Z	e	16	14	14		Tremor, distant.
04	Shillong	Z	i	19	23	47		Compression, tremor.



DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
Nov. 1954								
04	Shillong	Z	i e	23	12	43 13 13		Tremor, near.
05	Shillong	Z	i e	04	11	26 11 45		Very feeble, near.
05	Shillong	Z	e	09	19	21		Tremor, near.
05	Shillong	Z	e	09	19	21		Very feeble, distant.
	Bombay	E	e e	09	20	57 49 00		Very feeble
05	Shillong	Z	e	15	45	11		Tremor, distant.
05	Shillong	Z	i	19	24	26		Tremor.
05	Shillong	Z	i	22	56	37		Feeble.
	Bombay	E	eP eS M	22	58	24 23 07 56 34 23	8220	
06	Dehra Dun	N,E	e i i	07	36	02 38 03 38 53		Slight, phases not clear.
	New Delhi	N,E E N,E E N,E	eP i PPP i iS SS Lr S*	07	36	06 36 17 36 26 37 00 37 52 38 06 38 12 38 26	1030	Slight.
	Shillong	Z	i e	07	38	27 38 35		Feeble, distant.
	Shillong	Z	i	07	52	08		Tremor
06	Bombay	E	e e	13	14	09 18 31		Very feebly recorded in Milne-Shaw N-S component.
06	Shillong	Z	iP P* S* Sg	21	02	28 02 31 02 59 03 08	280	Very feeble, near.
06	Shillong	Z	e e	21	28	48 29 35		Tremor.
06	Shillong	Z	i	21	44	10		Tremor.
06	Poona	Z	e	22	58	23		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.		
<u>Nov.</u> 1954								
06	Shillong	Z	e	23	00	13		Tremor.
			e		00	57		
			e		01	15		
06	Shillong	Z	P	23	44	10	210	Very feeble, near.
			S		44	34		
			S*		44	37		
			Sg		44	39		
07	Shillong	Z	i	00	23	19		Tremor, distant.
07	Shillong	Z	e	00	36	57		Tremor.
			e		37	33		
07	Shillong	Z	e	05	32	46		Tremor.
07	Shillong	Z	i	07	15	52		Very feeble. Comp- ression. Distant.
07	Poona	Z	e	07	17	37		Tremor.
07	Shillong	Z	i	07	27	40		Tremor. Rarefaction.
07	Dehra Dun	N,E	e	07	40	35		Feeble, phases not clear.
			i		42	06		
			i		42	09		
07	Shillong	Z	i	07	43	10		Very feeble. Compression.
07	Shillong	Z	i	08	49	19		Tremor. Rarefaction.
07	Bombay	E	e	10	58	24		Feeble.
07	Shillong	Z	e	16	38	27		Tremor.
07	Shillong	Z	e	19	49	49		Tremor.
07	Shillong	Z	i	19	59	34		Very feeble. Compression.
07	Shillong	Z	e	21	52	16		Very feeble. Distant.
07	Shillong	Z	iP	22	47	53	290	Very feeble.
			P*		47	56		
			S*		48	24		
			Sg		48	34		
07	Shillong	Z	i	23	01	09		Tremor. Compression.
07	Shillong	Z	e	23	44	56		Tremor.
			e		45	37		
08	Shillong	Z	e	05	44	20		Very feeble.
08	Dehra Dun	N	e	07	23	29		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Nov. 1954								
08	Shillong	Z	e	15	34	45		Tremor, near.
			e		35	00		
08	Shillong	Z	e	15	43	47		Tremor.
08	Shillong	Z	e	16	01	41		Tremor, near.
			e		02	21		
08	Shillong	Z	e	16	53	48		Tremor.
08	Shillong	Z	e	17	39	35		Tremor.
			e		40	06		
08	Shillong	Z	e	21	19	13		Tremor.
08	Shillong	Z	e	21	50	57		Tremor.
08	Shillong	Z	i	22	14	21		Tremor, near.
			e		14	27		
08	Shillong	Z	e	22	20	09		Tremor.
08	Shillong	Z	i	22	59	12		Tremor, distant.
08	Shillong	Z	i	23	19	27		Tremor.
09	Shillong	Z	iP	09	53	08		Slight.
09	Shillong	Z	eP	14	46	24		Feeble.
09	Shillong	Z	i	22	15	05		Near.
10	Shillong	Z	e	06	38	22		Feeble.
10	Shillong	Z	e	07	33	30		Feeble.
10	Shillong	Z	e	10	24	06		Near, slight.
			e		24	35		
10	Shillong	Z	iP	11	04	44	550	Slight.
			PP		04	58		
			S/Lr		05	42		
			M/SSS		06	06		
10	Shillong	Z	iP	11	08	55	800	Slight.
			S		10	18		
10	Shillong	Z	eP	13	38	22		Near.
10	Shillong	Z	eP	15	34	14		
			i		34	20		
10	Shillong	Z	iP	15	45	02		Feeble.
10	Shillong	Z	e	20	30	38		Feeble.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Nov.</u>						
<u>1954</u>						
11	Bombay	N,E	iP	05 18 58	2350	Slight.
		E	i	20 05		
		N,E	eS	22 50		
		E	Lq	23 10		
			SS	23 17		
			L	24 06		
	New Delhi	N,E	iP	05 19 14	2320	Slight.
		N	PP	19 38		
		N,E	PPP	19 49		
			eS	23 09		
		N	Lq	23 18		
			SS	23 35		
	Dehra Dun	N,E	e	05 19 29		Slight, phases not clear.
	Madras	E	iP	05 20 24		Slight.
			eS?	24 37		
	Shillong	Z	iP	05 21 12		Slight.
11	Shillong	Z	eP	05 57 44		Near.
11	Shillong	Z	iP	06 29 11		
11	Shillong	Z	Pg	06 59 37	160	Tremor.
			Sg	59 55		
11	Shillong	Z	e	07 43 43		Tremor.
11	Shillong	Z	e	10 46 17		Tremor.
11	Shillong	Z	eP	15 17 15	1480	Slight.
		E	iS	19 45		
			Lq	19 48		
			SS	20 06		
			M	21 36		
	Bombay	E	e	15 27 38		Surface waves in Milne-Show (N-S) also there are some surface movements.
	Madras	E	e	15 30 00		Phases not clear.
11	Shillong	Z	iP	19 38 37		Slight.
11	Shillong	Z	eP	19 57 21		Slight.
11	Shillong	Z	iP	20 31 44		Slight.
11	Shillong	Z	iP	23 32 20		Slight.
12	Shillong	Z	e	00 45 01		Tremor.
12	Shillong	Z	i	04 27 08		Near.
			i	27 47		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Nov. 1954								
12	Shillong	Z	e	07	30	07		Tremor.
12	Shillong	Z	iP	11	25	42		Slight.
12	Madras	E	iP i	11	45	15 24		Slight, very near other phases not clear.
12	Poona	Z	eP e	11	46	49 51 16		Feeble shock. Phases not clear.
12	Bombay	E	e e	13	27	00 14 10 00		Surface waves of a very distant shock.
	Kodaikanal	E	e?	13	31	43		Tremor.
	Hyderabad	E N	M M	13	42	25 42 35		Amp. = 5mm Amp. = 7mm.
	Madras	E	M	13	45	30		Distant shock. Other phases not clear.
12	Shillong	Z	e	14	13	45		Tremor.
12	Shillong	Z	i i	19	36	31 36 38		Local.
13	Shillong	Z	iP	00	34	22		Slight.
13	Shillong	Z	e	01	26	55		Slight. Probably near.
13	Dehra Dun	N	e	05	22	37		Tremor.
13	Shillong	Z	eP	13	32	40		Tremor.
13	Shillong	Z	iP	14	53	25		Slight.
13	Shillong	Z	e	18	04	56		Slight.
13	Shillong	Z	e	19	12	47		Slight.
14	Shillong	Z	Pg Sg	01	22	02 22 13	100	Local.
14	Shillong	Z	P Pg Sg	09	14	27 14 35 15 59	220	Near.
14	Dehra Dun	N, E	e	16	55	16		Tremor.
14	Shillong	Z	Pg Sg	17	13	48 13 52	40	Local felt.
14	Shillong	Z	e i	17	25	14 25 48		Near.
14	Shillong	Z	e	17	56	23		Feeble.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s		
<u>Nov.</u>								
<u>1954</u>								
14	Shillong	Z	eP	18	41	45		Very feeble.
14	Shillong	Z	e	20	11	29		Slight.
15	Shillong	Z	eP	05	00	32		Slight.
15	Dehra Dun	N,E	eP	13	56	31	730	Moderate
			PP		56	38		
			PPP		56	45		
			P*		56	47		
			Pg		57	02		
			Lq		57	34		
			iS		57	48		
			Lr		57	56		
			SS		57	58		
			SSS&S*		58	09		
			Sg/M		58	30		
	New Delhi	N,E	eP	13	56	48	860	Slight.
			P*		57	06		
			eS		58	18		
			SS		58	31		
		E	SSS		58	42		
		N,E	S*		58	45		
			Sg		59	07		
	Chatra	Z	e	13	57	56		Slight, distant.
	Shillong	Z	e	13	58	43		Feeble.
	Poona	Z	eP	13	59	01	1950	Slight.
			PP		59	15		
			PPP		59	23		
			eS	14	02	15		
			Lq		02	17		
			SS		02	29		
			SSS		02	52		
			Lr		03	07		
			M		04	34		
15	Epc: $19\frac{1}{2}^{\circ}\text{N}$ , $145\frac{1}{2}^{\circ}\text{E}$ ; -h = 200km. - H = 16h 26m 44s (U.S.C.G.S).							
	$18\frac{1}{2}^{\circ}\text{N}$ , $146^{\circ}\text{E}$ ; -h = 150-200km. -H = 16h 26m 39s (B.C.I.S).							
	Shillong	Z	iP	16	35	18	5270	Slight.
		N	iS		42	13		
			SS		43	16		
			ScS		44	43		
	Chatra	Z	iP)	16	35	51	6080	Slight, depth of
		E	eP)					focus 150 kms.
			ePP		36	33		
			iS		43	12		
			PPS		43	28		
			iS		44	25		
			Lq		48	08		
			Lr		50	55		
			M		55	08		Suppressed.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Nov.</u>									
1954									
15 Contd.	Dehra Dun	N,E	eP	16	36	47	6550	Moderate.	
			PcP			37			23
		PP			38	58			
		PPP			40	17			
		PcS			40	56			
		iS			44	53			
		PS			45	02			
		PPS			45	20			
		ScS			46	07			
		SS			49	35			
		SSS			52	01			
		N	Lr		55	35			
		M		17	00	56			
New Delhi	E	N	eP	16	36	50	6610	Moderate.	
			PcP			37			34
			iS			44			59
			ScS			46			16
Madras	E		iP	16	36	52	7110	Moderate shock.	
			PcP			37			30
			PP			39			04
			PPP			40			41
			PcS			41			30
			S			45			08
			PS			45			29
			i			45			58
			ScS,SS			46			24
SSS			48	59					
Hyderabad	E		eP	16	36	56	6800		
			iS			45			16
			ScS			46			28
			L			56			12
			M	17	01	47			/u = 3mm.
Poona	Z	N	eP	16	37	21	7140	Slight.	
			PP			39			50
			PPP			41			13
			PcS			41			31
			iS			45			59
			ScS			46			59
			SS			50			20
			SSS			53			24
			Lq			54			35
			Lr			57			47
			M	17	03	36			
Bombay	N,E		eP	16	37	27	7610	Moderate.	
			pP			38			15
			iS			46			11
			ScS			47			04
			sS			47			27
Kodaikanal	E		e?	16	45	43		Tremor.	

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Nov. 1954								
15	Shillong	Z	P	19	43	30	250	Near.
			P*		43	33		
			Pg		43	37		
			S		43	59		
			Sg		44	05		
15	Shillong	Z	eP	22	51	57		Slight.
16	New Delhi	E	eP	11	05	11	9780	Slight.
			PPP		05	25		
			Pg		05	56		
		N,E	eS		06	52		
		E	SS		07	03		
			Lr		07	07		
			S*		07	26		
			Sg		07	59		
	Dehra Dun	N,E	e	11	06	22		Feeble, phases not clear.
17	Shillong	Z	e	16	23	41		Tremor.
17	Epc: 19°N, 145°E. Mariana Islands Region. - h = 600 km Ca. - H = 17h 18m 15s (U.S.C.G.S).							
	Chatra	Z	i	17	18	48		Slight distant.
		E	e		33	23		
	Shillong	Z,E	iP	17	26	16	4620	Slight.
		Z	i		27	26		
		E	PPP		28	12		
		Z,E	eS		32	33		
			PS		32	37		
		E	PPS		32	44		
			SS		35	38		
			SSS		36	28		
	New Delhi	N,E	i	17	27	44		
			i		35	21		
		N	e		36	31		
	Poona	Z	eP	17	28	15	6500	Slight.
		E	PP		30	25		
			PPP		31	52		
			iS		36	18		
			PS		36	29		
			PPS		36	41		
			SS		40	02		
			SSS		42	27		
			Lq		42	53		
			M		50	19		
	Bombay	N,E	eP	17	28	22	6610	Slight, deep.
			iS		36	31		
	Dehra Dun	E	e	17	28	41		Tremor.



DATE	STATION	COMPT.	PHASES	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Nov.</u>								
1954								
17	Shillong	Z	iP	17	30	22		Slight.
17	Dehra Dun	N,E	e	18	05	11		Tremor.
18	Shillong	Z,N	iPg Sg	00	13	25 13 29	40	Slight.
18	Dehra Dun	N,E	e i	00	48	37 50 40		Feeble. Phases not clear.
	New Delhi	E	eP P* Pg eS Lr SS S* Sg	00	48	49 49 02 49 13 49 57 50 03 50 08 50 15 50 29	650	Slight.
18	Shillong	Z	iP	05	12	17		Slight.
18	Epc: 49°N, 155°E; In Kurile Islands Region. -h= 100 km Ca. - H = 05h 20m 04s (U.S.C.G.S) 49°N, 155°E; - h = 100 km Ca. - H = 05h 20m 00s (MO.Japan) Magnitude = 6½ (Praha, Skalnaté Pleso); 6 (Kiruna).							
	Shillong	Z,E N	iP eP i PP PcP iS eS	05	29	17 29 41 30 33 32 46 36 42	5810	Slight.
		E	PS PPS SS Lr			36 53 37 06 40 42 45 47		
		N,E	M			52 03		
	Chatra	Z E	e e	05	29	34 -- 52 --		Slight, distant. surface waves.
	Hyderabad	N	eP S M	05	30	56 39 47 57 51	7400	/u = 8mm
	Madras	E	iP PcP PPP iS SKS	05	31	11 31 23 35 41 40 18 40 37	7710	Slight shock.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Nov.</u>									
1954									
18 Contd.	Poona	Z	iP	05	31	13	7750	Slight.	
		E	PP		33	51			
			PPP		35	31			
		N	iS		40	21			
			PS		40	44			
			PPS		40	59			
			SS		44	53			
			SSS		47	49			
			Lq		49	49			
			Lr		52	30			
			M		58	04			
			Bombay	N,E	iP	05			31
N	eS <sub>1</sub>				40	22			
E	iS <sub>1</sub>								
N	e				41	36			
	Colombo	E	P	05	41	09		Amp. = 0.2mm.	
			L	06	00	00			
			M		10	34			
18	Shillong	Z	i	06	09	36		Tremor.	
18	Shillong	Z	e	06	40	17		Tremor.	
18	Shillong	Z	e	07	51	47			
18	New Delhi	N	eP	10	21	58	70	Slight.	
		E	iSg		22	06			
	Dehra Dun	N	i	10	22	46		Tremor.	
18	Shillong	Z	i	11	06	46		Slight, near.	
18	Shillong	Z	i	16	50	34		Slight.	
			i		50	43			
18	Shillong	Z	e	17	57	15		Feeble.	
18	Shillong	Z	e	18	00	01		Feeble.	
18	Shillong	Z	e	18	17	55		Feeble.	
18	Shillong	Z	eP	18	49	55	200	Slight.	
			P*		49	56			
			Pg		49	59			
			S		50	19			
			iSg		50	23			
			N	e		50			25

18 Epc: 39°N, 142°E; - H = 20h 44m 55s (U.S.C.G.S)  
 38.9°N, 142.3°E; - H = 20h 44m 57s (CMO Japan & B.C.I.S).  
 Magnitude = 6 $\frac{3}{4}$  (Uppsala); 6 $\frac{1}{4}$  (Kiruna, Rome & Skalnate Pleso).

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Nov. 1954								
18 Contd.	Shillong	Z,E	iP	20	53	03	4740	Moderate.
		N	eP					
		E	PcP/PP	54	44			
			PPP	55	25			
		N,E	iS	59	27			
			PS	59	31			
			PPS	59	40			
		N	SS	21	03	27		
			SSS	04	18			
			M	08	44			
	Chatra	Z	iP	20	53	29	5150	Slight.
		E	eP					
			PP	55	15			
			eS	21	00	17		
			M	10	10			
								Per. = 15 Secs /u = 0.5mm.
	Dehra Dun	N	eP	20	54	09		Feeble. Phases not clear.
	New Delhi	N,E	iP	20	54	18	5960	Slight.
		N	i	54	34			
			eS	21	01	51		
			ScS	04	01			
			SS	05	22			
	Madras	E	iP	20	55	05	6640	Slight shock.
			PcP	55	42			
			iS	21	03	16		
			PS	03	34			
	Poona	Z	iP	20	55	15	6720	Slight.
		N	PP	57	33			
			PPP	58	59			
			iS	21	03	31		
			PS	03	44			
			PPS	03	56			
			SS	07	29			
			SSS	10	03			
			Lq	10	30			
			Lr	13	22			
			M	18	33			
	Bombay	N,E	iP	20	55	19	6890	Moderate. Somewhat deep.
		E	iS	21	03	43		
			PPS?	04	19			
18	Shillong	Z	eP	20	58	37		Slight, distant.
18	Shillong	Z	iP	21	01	22		Slight, distant.
19	Shillong	Z	e	04	57	58		Slight. Local.
			i	58	19			

19

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
						km.	
<u>Nov.</u>							
1954							
19	Epc: In Sea of Japan. - h = 570 km Ca.						
	- H = 05h 56m 04s (Shillong)						
	41°N, 131½°E; - h = 600 km Ca.						
	- H = 05h 56m 03s (U.S.C.G.S)						
	41.2°N, 131.8°E; - H = 05h 56m 00s (CMO, Japan)						
	Magnitude = 6¼ (Kiruna); 6¼-6½ (Uppsala).						
	Shillong	Z,N,E	iP	06	02	21	4020 Moderate.
		E	i		02	55	
			PP		03	20	
			pP		04	01	
		N	sP		04	54	
		N,E	iS		07	19	
			sS		13	10	
	Chatra	Z,E	iP	06	02	46	3700 Slight. Deep focus.
		E	PP		03	56	
			iS		08	06	
			e?		10	48	
			Lr		11	48	
			M	--	15	--	Suppressed.
	Dehra Dun	N,E	eP	06	03	25	4260 Moderate.
		N	PP		04	57	
			PPP		05	23	
			PcP		05	29	
			PcS		09	10	
			iS		09	20	
			Lq		11	55	
			SS		12	20	
			SSS		12	30	
			ScS		13	11	
			Lr		13	47	
			M		17	21	
	New Delhi	N,E	iP	06	03	36	4380 Moderate. Deep focus.
		N	pP		05	13	Direction of first
			i		05	31	motion south and west.
			iS		09	39	
			isS		12	27	
			i		14	05	
			i		15	29	
	Hyderabad	E	iP	06	04	15	1410
			iS		10	48	
		N	iS		10	53	
		E	SS		13	59	
			L		17	15	
		N	M		20	52	Amp. = 5mm.
		E	M		21	05	Amp. = 3mm.
	Madras	E	P	06	04	20	5890 Deep shock.
			pP		06	14	Moderate.
			S		11	18	
			sS		14	35	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Nov. 1954						km.	
19 Contd.	Poona	Z N	iP PP PPP iS PS PPS SS Lq SSS Lr M	06	04	36	5280 Slight.
	Bombay	N,E	iP pP iS sS	06	04	41	6090 Moderate.
	Colombo	E	P S L M	06	04	51	7480 Amp. = 0.1mm
	Kodaikanal	E	iP S	06	04	53	5690 Slight.
19	Hyderabad	E	iP iS	06	05	56	5440
19	Dehra Dun	N	e	17	50	53	Tremor.
20	Epc: 30.5°N, 82°E; Nepal—Tibet Frontier. - H = 13h 09m 25s(Shillong).						
	Dehra Dun	N,E	eP P* PP Pg PPP Lq iS S* SS Sg SSS	13	10	26	350 Slight. Amp. = 31mm.
	New Delhi	N,E E N,E	eP PP Pg Lq iS S* Sg SSS	13	10	37	480 Slight.
	Chatra	Z E Z,E	iP eP iS M	13	10	57	670 Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.	km.		
<u>Nov.</u>									
<u>1954</u>									
20	Shillong	Z,E	iP	13	11	47	1120	Slight.	
Contd.		E	PP			11			52
			Lq			13			33
			eS			13			42
			Lr			14			00
	N,E	M			14	41			
	Poona	Z	iP	13	12	39	1430	Slight.	
		N	eS			15			05
		E	SS			15			17
			SSS			15			27
	Bombay	E	eP	13	12	47	1480	Slight.	
		N,E	Lq			15			08
		E	eS			15			17
			e			16			17
			i			17			00
		e			17	10			
	Madras	E	eP	13	16	25		Tremor.	
	Hyderabad	E	eP	13	16	27			
20	Dehra Dun	N	e	16	59	25		Tremor.	
20	Epc: 27.5°N, 82.5°E. India — Nepal Border								
	- H = 19h 06m 18s (Shillong).								
	Dehra Dun	N,E	eP	19	07	02	370	Slight.	
		N	P*			07			07
			PP			07			10
			Fg			07			14
			PPP			07			16
			Lq			07			32
			Lr			07			40
			iS			07			42
			S*			07			48
			SS			07			51
		Sg			07	55			
		SSS			08	02			
	Chatra	Z	i(P)	19	07	32	670	Slight.	
			i(S)			08			42
			M			09			15
	Shillong	Z	eP	19	08	15	940	Slight.	
			PP			08			24
			P*			08			45
			Lq			09			50
			eS			10			02
		Lr			10	17			
	Poona	Z	iP	19	09	17	1410	Slight.	
			PPP			09			33
			eS			11			40
			SS			11			54
			M			13			13

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Nov.</u>									
1954									
20 Contd.	Bombay	E	e	19	12	04		Feeble.	
			e		13	23			
			e		13	36			
		N	e		13	52			
20	Shillong	Z	e	20	06	13		Slight, local	
			e		6	24			
21	Shillong	Z	iP	04	56	36		Slight.	
21	Shillong	Z	iP	05	12	40		Slight.	
21	Dehra Dun	N	e	07	22	38		Tremor.	
21	Shillong	Z	iP	07	23	27		Slight.	
21	Shillong	Z	iP	07	31	14		Slight.	
21	Shillong	Z	iP	07	33	47		Slight.	
21	Shillong	Z	iP	07	37	16		Slight, distant.	
			e	07	54	46			
			N	e		55			42
			e	08	02	12			
	Bombay	E	e	07	56	00		Distant shock. Feebly recorded.	
			e	08	03	09			
			e		05	41			
			e		07	06			
	Kodaikanal	E	e	07	56	24		Probably a long distant, Tremor.	
21	Shillong	Z	e	07	59	09		Feeble.	
			e		59	34			
	Poona	Z	eP	07	59	46		Slight distant shock. Phases not clear.	
21	Hyderabad	E	e	08	05	18		Amp. = 6mm. Amp. = 3mm.	
		N	M		40	01			
		E	M		43	04			
21	Colombo	E	L	08	32	00		Amp. = 0.8mm.	
			M		44	00			
21	Shillong	Z	iP	08	49	02		Slight.	
21	Madras	E	M	09	10	47		Moderate shock. Other phases not clear.	
21	Shillong	Z	eP	10	57	31		Slight, local.	
			e		57	51			

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Nov. 1954							km.	
21	Shillong	Z	iPg iSg	15	15	15 15 29	120	Slight.
21	Shillong	Z	iP	16	25	11		Slight.
21	Poona	Z	e	16	27	01		Tremor.
21	New Delhi	N, E E N, E N N, E	eP P* Pg Lq iS S* Sg	19	07	12 07 21 07 28 07 52 08 02 08 13 08 24	470	Slight.
21	Dehra Dun	N, E	e	19	21	05		Tremor.
	Shillong	Z	i	19	22	14		Feeble.
21	Shillong	Z	i	21	03	40		
22	Shillong	Z	e e	07	25	56 26 20		Slight, local.
22	Shillong	Z	e e e	09	41	37 41 50 42 49		Slight.
22	Shillong	Z	iP	15	20	55		Feeble.
22	Shillong	Z	i	17	00	10		Slight.
22	Shillong	Z	e	17	05	09		Slight.
22	Shillong	Z	ePg/P* PP eSg S	17	37	49 37 58 38 00 38 03	90	Slight.
22	Shillong	Z	e	17	56	7		Feeble.
22	Dehra Dun	N	e i	18	46	32 47 57		Slight.
	New Delhi	E  N, E E N, E  E	eP PPP P* Lq eS Lr S* i Sg	18	46	45 46 58 47 04 48 09 48 27 48 34 48 52 49 07 49 18	930	Slight.



DATE	STATION	COMPT.	PHASE	G. E. T.			△	REMARKS
				h.	m.	s.		
<u>Nov.</u>								
1954								
22	Shillong	E,N,E	eP	21	33	52	540	Slight.
		E	P*		34	02		
			Pg		34	12		
			i		34	29		
		N	Lq		34	38		
			iS		34	39		
		E	SS		34	52		
		E,N	Sg/M		35	23		
22	Poona	Z	e	21	37	23		Tremor.
	Bombay	N,S	i	21	37	35		Feeble, tremor.
		S	e		42	40		
	Dehra Dun	N	e	21	39	29		Tremor.
23	Shillong	Z	e	02	25	13		Slight, local.
			i		25	19		
			e		26	15		
		N	i		27	05		
23	Epc: 28.8°N, 94.6°E; India -- China Border							
	- H = 02h 30m 59s (Shillong).							
	29°N, 95½°E; - H = 02h 30m 48s (U.S.C.G.S).							
	Shillong	Z	iP↓	02	32	02	480	Moderate.
		N	eP↓					
			P*/PP		32	10		
			Pg		32	20		
			Lq		32	41		
			iS/Lr		32	53		
			S*/SS		33	06		
			Sg		33	19		
	Chatra	Z	iP↓	02	32	44	860	Moderate.
			eP↓					
			PP		32	52		
			Lq		34	00		
			iS		34	13		
			Lr		34	22		
			SSS		34	35		
			M		34	59		
	Dehra Dun	N,E	eP	02	34	29	1600	Moderate.
			PPP		34	49		
			Lq		37	00		
			iS		37	10		
			SS		37	22		
			SSS		37	31		
			Lr		37	42		
			M		38	59		
			PcP		39	42		
			PcS		43	12		
			ScS		46	46		

DATE	STATION	COMPT.	PHASE	G. M. T.		△	R.MARKS
				h.	m. s.		
<u>Nov.</u>							
1954							
23 Contd.	New Delhi	E	eP	02	34 34	1700	Slight.
			i		34 42		
		N,E	iS		37 25		
			i		37 37		
		N,E	SS		37 46		
			SSS		37 57		
		M		39 22			
Hyderabad	E	P	02	35 29	2100		
		S		38 57			
		L		41 03			
Madras	E	iP	02	35 39	2290	Moderate shock.	
		PP		35 59			
		PPP		36 10			
		eS		39 25			
		PcP		39 34			
		Lq		39 41			
		SS		40 00			
		M		42 45			
Poona	Z	iP	02	35 50	2320	Moderate.	
		eS		39 39			
		Lq		39 54			
		SS		40 15			
		Lr		40 50			
		M		42 41			
Bombay	N	eP	02	36 00	2610	Slight.	
		iP					
	E	PPP		36 27			
		iS		40 07			
		eS		40 11			
	N	e		40 21			
		Lq		40 37			
	E	M		43 23			Amp. = 6mm.
N							
Dehra Dun	N,E	eP	02	34 29	1600	Moderate.	
		PPP		34 49			
		Lq		37 00			
		iS		37 10			
		SS		37 31			
		Lr		37 42			
		M		38 59			
		PcP		39 42			
		PcS		43 12			
		ScS		46 44			
New Delhi	E	eP	02	34 34	1700	Slight.	
		i		34 42			
	N,E	iS		37 25			
		i		37 37			
	N,E	SS		37 46			
		SSS		37 57			
	M		39 22				

DATE	STATION	COMP.	PHASES	G. M. T.		REMARKS
				h. m. s.	km.	
<u>Nov.</u>						
1954						
23	Kodaikanal	E	iP	02 36 15		Tremor.
Contd.			S	40 15		
23	Poona	Z	iP	06 01 55		Tremor.
23	Bombay	N, E	e	10 11 14		Very feeble.
		E	e	21 01		
	Chatra	Z	i	10 27 30		
		E	e(M)	55 --		Per. = 15 /u = 0.75
	Bombay	E	eP	10 29 06	8510	Slight.
		N	eP	29 10		
		E	PP	31 48		
			eS	38 52		
		N	eS	38 58		
		E	PS	39 31		
			PPS	39 52		
			M	11 05 02		
	Poona	Z	iP	10 29 06	9270	Slight.
		N, S	PP	32 20		
			PPP	34 05		
			eS	39 27		
			ScS	39 32		
			SSS	48 17		
			Lr	55 35		
			M	11 02 42		
	Madras	E	eP	10 29 07		Tremor.
23	Epc: 52°N, 160½°E; Off South-East coast of Kamchatka.					
	- h = 60 km. - H = 21h 12m 55s (U.S.C.G.S).					
	50°N, 160°E; - H = 21h 12m 36s (Shillong).					
	Magnitude = 6½-6¾ (Uppsala), 6½ (Kiruna).					
	6-6¼ (Pasadena, Hurbanovo); 6 (Praha, Skalnaté Pleso).					
	Chatra	Z	i	21 22 55		Slight, distant surface waves
		E	e(M)	50 --		Per. = 15.0 /u = 2.0
	Poona	Z	iP	21 24 27	81600	Slight.
		N, E	eS	33 56		
		N	PS	34 29		
			PPS	34 51		
	Bombay	E	iP	21 24 28	8250	Slight.
		N	iP	24 30		
		E	eS	33 59		
		N	eS	34 03		
			M	22 00 29		Amp. = 2mm
		E	M	00 29		Amp. = 3mm
	Madras	E	eP	21 24 30		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Nov.</u>								
1954								
23 Contd.	Colombo	E	L	21	53	--		
			M	22	08	36		Amp. = 0.3mm
	Kodaikanal	E	e	21	57	48		Tremor.
25	Dehra Dun	N	e	04	42	56		Tremor.
25	Dehra Dun	N,E	eP	06	34	13	890	Moderate.
			PPP		34	27		
			Lq		35	31		
			iS		35	45		
			SS		35	56		
			Lr		35	58		
			SSS		36	07		
			S*		36	13		
			Sg/M		36	35		
			New Delhi	N,E	E	eP	06	34
PPP		34				57		
N,E	E	Pg			35	12		
		eS			36	08		
E	N,E	SS			36	20		
		SSS			36	30		
E	E	S*			36	43		
		Sg			37	05		
	Poona	Z	i	06	39	37		Tremor.
25	Poona	Z	i	09	19	41		Tremor.
25	DehraDun	N	i	11	34	54		Slight. Phases
			i		35	18		not clear.
			i		40	08		
			i		45	54		
Shillong	N	PP	11	35	11	11970		
		SKS		41	19			
Chatra	E	e	11	35	12		Slight, distant	
		e	12	09	30		surface waves.	
New Delhi	N	e	11	35	23		Distant. Moderate.	
		i		38	16			
		i		41	38			
		i		44	57			
		e		45	29			
		i		45	57			
		i		45	38			
		i		51	10			
		i		54	48			
		i		58	57			
Poona	N,S	PP	11	36	43	12670	Moderate	
		PS		46	24			
		PPS		47	58			
		SS		53	27			
		Lr	12	14	23			
		M		14	40			

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ km.	REMARKS	
				h.	m.	s.			
<u>Nov.</u>									
1954									
25 Contd.	Bombay	N,E	ePKP	11	36	46		Distant shock.	
			e		46	33		Identification of	
		N	e		53	34		phases not clear.	
			SS?	12	02	31			
	Madras	E	iP	11	37	08	7000	Moderate shock.	
			PPP		42	33			
			SKS		46	58			
			SKKS		47	19			
			ScS		47	41			
			PS		43	16			
			PPS		49	16			
			SSF		53	50			
			SSS		57	06			
	Hyderabad	E,N	eP	11	37	41	8580		
			PP		40	23			
			iS		47	31			
		E	SS		54	08			
		N	SS		54	11			
		E	M	12	17	10		Amp. = 30mm	
	Colombo	E	P	11	37	50			
			S		54	52			
			L	12	09	55			
			M		19	35		Amp. = 2.0mm	
25	Shillong	Z	eP	21	46	10	8240	Slight.	
		N	iS		55	44			
	Chatra	E	e	21	50	30		Slight, distant.	
			e		56	08			
	Poona	Z	i?	21	51	06		Feeble shock.	
		N,E	i?		56	47		Phases not clear.	
	Bombay	E	e	21	51	53		Long distance, deep.	
			e		54	2			
			i		56	55			
	Madras	E	iS	21	56	19		Moderate shock. Phases not clear.	
27	Epc: Very near to Calcutta; - H = 16h 21m 18s (Shillong). Felt at Calcutta, Burdwan, Midnapore and Krishnagar.								
	Chatra	Z	i	16	22	14		Appears to be an earlier milder movement.	
	Shillong	Z	eP	16	22	15	450	Slight.	
			eS		23	03			
	New Delhi	E	eP	16	24	04	1160	Slight.	
			eS		26	06			
			i		26	08			
			SS		26	17			
			N,E.	Lr		26	25		
				M		27	16		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Nov.</u>									
1954									
27 Contd.	Poona	Z	eP	16	24	42	1610	Slight.	
			S			27			24
			i?			28			35
	Dehra Dun	N,E	e	16	26	05		Feeble. Phases not clear.	
			i		27	37			
28	New Delhi	N,E	iP	20	25	56	680	Slight.	
			Pg			26			23
			iS			27			07
			Lr			27			15
			SS			27			19
			SSS			27			29
			Sg			27			46
28	Dehra Dun	N,E	eP	21	26	07	1220	Moderate.	
			P*			26			34
			Pg			27			03
			Lq			28			00
			iS			28			11
			SS			28			22
			Lr			28			34
			SSS			28			37
			S*			28			58
			Sg/M			29			34
	Poona	Z	e?	21	29	44		Very feeble shock, phases not clear.	
	Bombay	-	e	21	30	00		Feeble, deep shock; phases not clear.	
30	Hyderabad	E	eP	21	31	22	1090	Amp. = 2mm	
			eS			33			14
			M			34			11
30	Shillong	Z	eP	22	41	56		Slight.	
			i			43			10

Earthquake Reports  
(Non Instrumental Reports)

The following is the list of earthquakes  
that were reported by Voluntary Observers from  
different places during the month of November  
1954.

Place	Date in	Time in	Duration	Number	Intensity	Remarks
	G. M. T.	G. M. T. h. m.	of shocks in secs	of shocks	in R.F. scale	
Shillong	02	02 40	2	1	III	
Srinagar	02	11 03	10	3	IV	
Sheo (DT. Barmar)	03	00 30	5	1	-	Direction of motion Eastwest.
Tezpur	05	04 08	2	1	VI	
Tezu	23	02 30	30	1	-	
Mohanbari	23	02 33	5	1	-	
Gusar (NEFA)	23	02 30	-	-	-	
Krishnanagar	27	16 28	10	3	V	
Baburbag (Burdwan)	27	16 15	2	2	IV	
Dum Dum	27	16 20	5	1	V	
Alipore (Calcutta)	27	16 21	3	2	III	

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



-----  
-----  
Published under the direction of

Shri S. Basu, M.Sc., F.N.I.,

Director General of Observatories  
-----  
-----





DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u> 1954								
01	Shillong	Z,E N N,E	iP eP iS	01	58	59	190	Slight. Felt at Goalpara
	New Delhi	E  N,E E N,E	eP PP i Lq iS SSS M	02	01	12	1270	Slight
	Bombay	E N N,E	e e e	02	06	06		Tremor
01	Shillong	Z	i	18	27	29		Slight
01	Shillong	Z N E N E	iP eP eP i iSg iSg	23	17	18	230	Slight
	New Delhi	E	eP Lq iS Lr	23	19	55	1450	Slight
	Dehra Dun	N,E	i	23	22	04		Tremor
	Poona	Z	e	23	24	44		Tremor
	Bombay	E N,E	e i	23	25	37		Local. Tremor
02	Shillong	Z	iP iSg	03	57	00	220	Slight
02	Shillong	Z	iP iSg	03	59	39	200	Slight
02	Shillong	Z N	iP i	06	40	49		Slight
02	Shillong	Z	i	08	23	30		Slight
02	Shillong	Z	iP iSg	16	54	11	210	Slight
02	Shillong	Z	e	17	24	48		Slight
02	Shillong	Z	e	18	39	47		Slight
02	Shillong	Z	e	23	32	56		Slight

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
<u>1954</u>								
03	Dehra Dun	N	i	08	51	51		Tremor
03	Shillong	Z	eP	10	17	15	250	Slight
		N,E	iSg		17	51		
03	Shillong	Z	e	15	<del>20</del> 05		220	Slight
			e		<del>22</del> 36			
03	New Delhi	E N,E	eP	19	13	42	780	Slight
			Lq		14	53		
			eS		15	03		
			SS		15	13		
			Sg		15	50		
03	Epc: $41^{\circ}$ N, $75^{\circ}$ E; Kirgiz (U.S.S.R). - H = 21h 38m 15s (Shillong) $41\frac{1}{2}^{\circ}$ N, $74\frac{1}{2}^{\circ}$ E; - H = 21h 38m 12s (U.S.C.G.S) $41\frac{1}{4}^{\circ}$ N, $75\frac{1}{4}^{\circ}$ E; - H = 21h 38m 11s B.C.I.S) Magnitude = 6 (Kiruna); $5\frac{3}{4}$ -6 (Prahá).							
Dehra Dun	N,E	eP	21	40	59	1220	Moderate	
		PP		41	09			
		PPP		41	14			
		P*		41	27			
		Pg		41	54			
		Lq		42	52			
		iS		43	03			
		SS		43	15			
		Lr		43	23			
		SSS		43	27			
		S*		43	42			
Sg/M		44	12					
New Delhi	N,E	eP	21	41	16	1380	Slight	
		PP		41	26			
		Lq		43	28			
	N	iS		43	26			
		SSS		43	58			
		M		45	05			
Chatra	Z,E	eP	21	42	19	1960	Slight	
		PP		42	37			
	E	PPP		42	43			
		iS		45	34			
		eS						
	Z	SS		45	54			
		Lr		46	28			
E	M		48	09				
Per. = 9.0 Secs Amp. = 2.25mm								

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
<u>1954</u>								
03 Contd.	Shillong	Z	iP	21	43	01	1730	Slight
		N	eP					
		E	eP	43	02			
			eS	46	55			
		N	eS	46	57			
		M	52	--				
	Bombay	N,E	eP	21	43	17	2590	Slight
		N	PP	43	43			
			PPP	44	03			
		E	iS	47	26			
		N,E	eS					
		E	Lq	47	54			
		N	Lr	49	02			
		E	i	50	24			
		N	M	52	33			
	Poona	Z	iP	21	43	20	2580	Slight
		E	PP	43	51			
			PPP	44	05			
			iS	47	29			
			Lq	47	59			
			SS	48	24			
			SSS	48	33			
			PcS	50	29			
			M	50	52			
			ScS	54	05			
	Hyderabad	N	P	21	43	36	2570	
			iS	47	45			
			SS	48	39			
		E	L	50	00			
		N	M	52	36			
								Per. = 12 Secs /u = 8
	Madras	E	eP?	21	43	42	3510	Moderate
			eS	49	51			
			Lq	51	35			
			SS	51	40			
			Lr	53	16			
		M	55	48				
	Kodaikanal	E	eP	21	50	56	1860	Slight
			eS	54	02			
			M	57	11			
								Per. = 6 Secs /u = 4.1
03	Shillong	Z	iP	22	13	17		Slight
03	Shillong	Z	eP	22	18	54		Slight
03	Shillong	Z	iP	22	38	05		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
1954								
04	Epc: $21^{\circ}$ N, $88^{\circ}$ E; Bay of Bengal. - H = 03h 08m 17s (Shillong).							
	Shillong	Z	e	03	09	32		Slight
			iP		09	35		
		E	PP		09	41		
			Lq		10	15		
			S/Lr		10	21		
			SS		10	42		
			SSS		10	52		
			M		11	25		
	Chatra	Z	i	03	09	55		Slight. Near
	New Delhi	N,E	eP	03	11	29	1430	Slight
		N	eS		13	55		
			SSS		14	19		
			M		15	28		
	Poona	Z	iP	03	11	45	1550	Slight
		E	PP		11	53		
			PPP		12	00		
		Z,E	eS		14	21		
		E	SS		14	36		
			SSS		14	45		
			M		16	03		
	Bombay	E	eP	03	11	58	1670	Feeble
			eS		14	46		
	Dehra Dun	N	iS	03	14	02		Slight. Phases not clear
			i		14	28		
			i		1	42		
			i		15	06		
			i		16	00		
			i		17	14		
04	Epc: $5^{\circ}$ S, $152\frac{1}{2}^{\circ}$ E. New Britain Region. - H = 07h 00m 29s (U.S.C.G.S.) - H = 07h 00m 32s (B.C.I.S.) $7^{\circ}$ S, $151\frac{1}{2}^{\circ}$ E; - H = 07h 00m 32s (Shillong). Magnitude = $6\frac{1}{2}$ (Pasadena, Praha); $6\frac{1}{4}$ (Kiruna) 6.2 (Roma).							
	Shillong	Z,E	iP	07	11	22	1550	Compression.
		E	Pc		11	47		Slight. First
		N	PP		13	49		movement west.
			PPP		15	14		
			iS		20	09		
			PS		20	21		
			PPS		20	27		
			ScS		21	16		
			SS		24	16		
			SSS		26	39		
			Lr		30	50		
			M		36	31		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
1954								
04 Contd.	Chatra	Z,E E	eP	07	11	48	7810	Slight
			PP		14	31		
			PPP		16	10		
			eS		21	00		
			PS		21	28		
			PPS		21	43		
			SS		25	49		
			Lq		30	17		
			M		40	--		
							Amp. = 0.3mm	
	Madras	E	iP	07	12	11	8200	Moderate
			PcP		12	24		
			PP		14	57		
			PPP		16	40		
			iS		21	42		
			SKS		21	54		
			ScS		22	02		
			PS		22	18		
			PPS		22	36		
	Kodaikanal	E	eP	07	12	23	8350	Slight
			eS		22	05		
			PPS		23	05		
			M		42	17		
	New Delhi	N,E N	eP	07	12	40	8710	Moderate
			eS		22	36		
	Poona	Z,E E	iP	07	12	43	8960	Moderate
			PcP		12	55		
			PP		15	51		
			PPP		17	42		
			eS		22	56		
			ScS		23	03		
			PS		23	39		
			SS		28	07		
M		45	51					
	Dehra Dun	N	eP	07	12	46	8590	Feeble. Phases not clear
			i		13	21		
			i		14	34		
			iS		22	34		
	Bombay	N,E E N,E N E N,E E	eP	07	12	53	9070	Moderate (Some- what deep)
			PP		16	11		
			iS		23	05		
			e		23	43		
			PS		23	51		
			PPS		24	10		
			SS		28	27		
			SSS		31	48		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
1954								
04 Contd.	Colombo	E	e	07	20	00		Trace overlapping
			e		40	--		
			e		40	06		
	Hyderabad	N	M	07	39	40		Per. = 20 Secs. /u = 7
04	Poona	Z	iP	18	50	14		Slight. Distant. Phases not clear
	Bombay	E	PKP <sub>1</sub>	18	50	15	14020	Slight. Distant
		N,E	PP		52	02		
			eSS	19	09	06		
	Chatra	Z	e	18	50	22		Slight. Distant
	Shillong	Z	ePKP	18	50	24		Slight. Other phases not clear
		E	iPKP		50	28		
	Colombo	E	e	18	51	52		
			e		35	--		
			e		43	22		
	Madras	E	i	18	52	05		Slight
	Kodaikanal	E	e	18	53	58		Tremor
	Hyderabad	E	M	20	05	31		Per. = 25 Secs /u = 12
04	Shillong	Z	P	22	44	19	200	Slight
			Sg		44	45		
05	Shillong	Z	eP	00	34	25		Very feeble
	Chatra	Z	i	00	35	03		Slight. Distant
06	Shillong	Z N	eP	03	02	20	7200	Slight
			iS		11	01		
			PPS		11	34		
			SS		14	56		
			Lq		18	41		
			Lr		21	41		
			M		27	55		
	Poona	Z	iP	03	03	52		Tremor
	Bombay	E	e	03	03	59		Feeble
			e		10	35		
			e		14	15		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Dec. 1954</u>								
06	Shillong	Z	eP	15	52	16		Slight
06	Shillong	Z	e	18	34	45		Feeble
06	Shillong	Z	iP	23	58	05		Slight. Rarefaction
07	Shillong	Z	iP	06	33	29		Slight
07	Shillong	Z	iP	13	49	45		Slight. Probably near. Phases not identifiable.
07	Shillong	Z	e	14	49	49		Very feeble.
07	Epc: $3\frac{1}{2}^{\circ}$ N, $125\frac{1}{2}^{\circ}$ E; Celebes Sea Region. - H = 14h 48m 30s; - h = 100 km (U.S.C.G.S) Felt at Mambajao (Manila Press). Magnitude = $5\frac{3}{4}$ (Kiruna).							
	Shillong	Z	iP	14	55	51	4300	Compression. Probably deep.
		N	PP		57	25		
			iS	15	01	49		
		E	sS		02	50		
	Chatra	Z	iP	14	56	29		Slight. Distant.
		E	eP					
			e	15	02	52		
	Madras	E	iP	14	56	50	5110	Moderate
			PcP		58	05		
			PP		58	42		
			iS	15	03	35		
			PPS		03	53		
			SS		06	58		
			Lq		08	10		
	Colombo	E	P	14	56	51	4860	
			S		15	03		
	Hyderabad	E	iP	14	57	06	5280	L & M Merged.
			PP		58	44		
		N,E	iS	15	04	02		
		E	SS		07	44		
	Kodaikanal	E	eP	14	57	07	5220	Slight
			eS	15	03	59		
			M		14	47		
	Poona	Z,E	iP	14	57	39	5840	Moderate
		E	PcP		58	27		
			PP		59	40		
			PPP	15	00	50		
		N,E	iS		05	05		
		E	PS		05	18		
			PPS		05	23		
			Lq		10	56		
			M?		19	--		



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.	km.	
<u>Dec.</u>								
<u>1954</u>								
07	Bombay	E	iP	14	57	49	5910	Slight. Deep.
Contd.			i		58	25		
			PP	15	00	03		
		N,E	iS			19		
		E	PPS		05	35		
07	Shillong	Z	i	15	07	40		Ne r.
07	Shillong	Z	eP	22	14	01		Slight
			iP		14	03		
07	Dehra Dun	N,E	e	23	20	23		Tremor.
08	Poona	Z	e	00	19	31		Tremor.
08	Dehra Dun	N	e	02	42	59		Tremor.
08	Shillong	Z	eP	06	10	51	200	Slight
			Pg		10	56		
			Sg		11	20		
08	Dehra Dun	N,E	i	08	48	--		Tremor.
08	Shillong	Z	i	13	48	52		Slight.
09	Poona	Z	iP	14	33	27		Tremor
09	Shillong	Z	P	14	39	29		
10	Hyderabad	E	M	14	17	38		Per. = 15 Secs /u = 1
11	Poona	Z	e	03	45	11		Tremor.
11	Hyderabad	E	M	04	23	52		Per. = 16 Secs /u = 3
	Colombo	E	L	04	17	--		P & S indistinct.
			M		30	40		Amp. = 0.5mm
11	New Delhi	N	iPg	05	32	41	450	Slight.
		N,E	iSg		32	46		
11	Dehra Dun	N,E	e	12	09	11		Tremor
11	Epc:	52½° N, 32° W; North Atlantic Ocean.						
		- H = 12h 57m 07s (U.S.C.G.S)						
		52.8° N, 31.7° W; - H = 12h 57m 08s (B.C.I.S)						
		Magnitude = 6.7 (Roma); 6½ - 6¾ (Jerusalem);						
		6¾ (Pasadena, De Bilt, Kiruna); 6.4 (Praha);						
		6¼ (Skalnate Pleso).						

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS			
				h.	m.	s.					
<u>Dec.</u>											
1954											
11 Contd.	New Delhi	N,E N	eP	13	09	13	6610	Moderate			
			PP		12	11					
			eS		19	04					
			PS		19	44					
			SS		24	03					
			Lr		34	34					
		M		41	37						
	Bombay	E	eP	13	09	45	9350	Slight			
			iS		20	10					
	Chatra	Z	i	13	09	47		Slight. Distant.			
		E	e		20	12					
	Poo na	Z N	iP	13	09	46	9490	Moderate.			
			PP		13	04					
			PPP		15	01					
			SKS <sub>1</sub>		20	04					
			eS		20	17					
			PS		21	09					
			PPS		21	37					
			SS		25	52					
			Lq		33	01					
			Lr		37	13					
			M	44	27						
	Shillong	Z E	iP	13	10	03	10330	Rarefaction. Moderate.			
			PP		13	15					
			PPP		15	33					
			SKS		20	29					
			S		20	52					
			PS		22	00					
			PPS		22	32					
			SS		27	38					
			SSS		29	46					
					M	46			12		
			Hyderabad	E N	eP	13			10	09	9680
	PP				13	36					
	SKS				20	36					
	eS				20	48					
	N,E	SS			26	36					
		L			40	03					
	N	M			45	42		Per. = 16 Secs /u = 6			
	E	M			45	42			Per. = 14 Secs /u = 5		
	Colombo	E	eP	13	19	50		Amp. = 0.5mm			
			M		14	57			38		
11	Shillong	Z	Pg	17	16	04	20	Slight. Local			
			Sg		16	06					

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
<u>1954</u>								
12	Shillong	Z	iP	01	09	59	160	Feeble
			PP		10	07		
			eS		10	18		
			Sg		10	20		
12	Shillong	Z	eP	03	18	58	130	Slight
			Sg		19	14		
12	Shillong	Z	eP	04	28	11	730	Slight
			P*		28	23		
			Pg.		28	35		
			S		29	27		
			Sg		29	41		
12	Shillong	Z	iP	17	21	52		Distant. Rarefaction
12	Shillong	Z	e	18	32	04		Earlier movement feebly recorded. Beginning uncertain. Feeble.
12	Shillong	Z	e	22	48	12		
			i		48	19		
12	Shillong	Z	iP	21	07	02		Slight. Compression.
12	Shillong	Z	iP	23	42	53		Slight. Compression.
13	Shillong	Z	P	09	28	30		
13	Shillong	E	eP	13	17	08	860	Slight
			PP		17	17		
			P*		17	30		
		N	eS		18	37		
		E	SSS		18	58		
		N,E	M		19	23		
	Poona	Z	eP	13	17	57	720	Slight
		E	PP		18	05		
			PPP		18	16		
			Lq		19	01		
			eS		19	12		
			SS		19	25		
			SSS		19	33		
			M		19	42		
	Bombay	N	e	13	18	17		Surface waves.
		E	i		18	32		
	Dehra Dun	N,E	eP	13	19	37	490	Slight. Other phases not clear.
			iS		20	29		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
<u>1954</u>								
13	Hyderabad	N	M	13	20	51		Per. = 8 Secs /u = 2
Contd.								
13	Shillong	Z	P S	20	39	30 40 00	270	
13	Poona	Z	e	20	42	01		Tremor
13	Dehra Dun	N	e	20	44	59		Tremor.
13	Bombay	N	e	20	46	24		Feeble
			e			48 14		
13	Shillong	Z	r	22	46	29		
13	Poona	Z	e	22	48	12		Tremor
14	Shillong	Z	iSg	04	40	44	120	Slight
		Z,N	iSg			40 59		
14	Shillong	Z	iP	06	12	07		Slight. Distant.
		N	e			19 28		
			e			29 37		
14	Colombo	E	L M	06	15	36 19 41		Amp. = 0.7mm
14	Shillong	Z	e	09	14	46		Slight. Near.
			e			15 38		
14	Shillong	Z	e	19	42	48		Slight. Near
			e			43 46		
14	Shillong	Z	i	19	49	16		Feeble.
14	Shillong	Z	e	22	40	0		Slight. Local
			e			40 41		
14	Shillong	Z	e	22	52	21		Slight. Local
			e			52 55		
15	Shillong	Z	i	00	27	24		Slight.
15	Shillong	Z	e	03	53	21		Slight.
15	Dehra Dun	N,E	e	04	04	52		Tremor
15	Dehra Dun	N,E	e	05	54	40		Tremor.
15	Shillong	Z	e	08	15	45		Slight.
15	Shillong	Z	e	08	31	19		Slight. Near.
		E	e			32 07		
		N,E	e			33 10		
15	Shillong	Z	i	14	00	11		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
1954								
15	Shillong	Z	e	14	47	03		Feeble
15	Shillong	Z	e	16	36	56		Feeble
15	Poona	Z	e?	19	10	50		Tremor
15	Shillong	Z	i	19	11	54		Slight
15	Chatra	Z,E	e	21	19	31		Slight. Near
	Shillong	Z	eP	21	19	33	640	Slight
		E	P*		19	51		
			Pg		20	02		
			Lq		20	33		
		N,E	eS		20	41		
			S*		21	09		
			Sg.		21	18		
	Bombay	N	e	21	29	19		Slight
		E	e		29	41		
			i		32	46		
15	Shillong	Z	e	21	53	15		Feeble
15	Shillong	Z	e	23	46	06		Slight
16	Shillong	Z	e	05	26	53		Slight
16	Shillong	Z	e	06	29	36		Slight. Near.
			i		29	50		
			e		29	58		
16	Shillong	Z	e	07	11	56		Slight.
16	Shillong	Z	e	07	15	29		Feeble.
16	Shillong	E	e	07	22	17		Slight. Near.
16	Shillong	Z	e	10	34	40		Feeble
16	Epc: 39.3° N, 118° W; near Fallon, Nevada.							
	- H = 11h 07m 10s (U.S.C.G.S). Moderate property damage. Felt at Pasadena, Los Angeles.							
	Magnitude = 7½ (Praha, De Bilt); 7.4 (Pasadena);							
	7¼ (Hurbanovo); 7.2 (Takubaya)							
	7-7¼ (Skalnate Pleso); 7 (Roma, Kiruna,							
	Uppsala); 6¼ (Berkeley, Mt. Hamilton).							
	Shillong	Z,N,E	e(P)	11	21	32	12140	Moderate.
		Z,N	PP		26	06		
		N	PPP		27	53		
			SKS <sub>1</sub>		31	28		

DATE	STATION	COMPT.	PHASE	G. M. T.	Δ	REMARKS
				h. m. s.	km.	
<u>Dec.</u>						
1954						
16	Shillong	N	e(S)	11 32 54		
Contd.	Contd.		PS	33 53		
			PPS	34 47		
			SS	40 51		
			SSS	44 45		
			SKKKS <sub>1</sub>	46 32		
			Lq	50 00		
			Lr	55 45		
			M	12 02 08		
	Chatra	Z	e	11 21 46		Slight. Distant.
	Poona	Z	PKP <sub>1</sub>	11 26 07	13500	Great.
		Z,N	PP	27 43		
		N	PPP	30 08		
			SKS <sub>2</sub>	33 18		
			SKKKS <sub>2</sub>	34 44		
			PS	37 39		
			PPS	39 02		
			PKKS <sub>1</sub>	40 17		
			SKKS <sub>1</sub>	43 52		
			SS	44 25		
			SSS	49 08		
			Lr	12 04 38		
			M	14 14 05		
	Dehra Dun	N	eP	11 26 19		Moderate.
			e	26 50		
			e	27 08		
			e	29 38		
			i	30 41		
			e	31 24		
			e	31 50		
			e	32 02		
			e	32 36		
			e	33 18		
			M	34 28		
			ScS	36 56		
	New Delhi	N	PP	11 26 25	13220	Moderate.
			i	27 33		
			PPP	28 43		
			iSKS	32 20		
			i	33 33		
			i	34 25		
			PS	35 50		
			i	37 25		
			i	38 54		
			i	40 13		
			SSS	46 20		
			e	12 00 25		
			i	03 30		
			M	08 24		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
1954								
16 Contd.	Bombay	N,E	eP	11	26	33	13270	Moderate. Phases mixed up with another shock probably from the same origin.
			e		34	40		
			i		35	23		
			e		39	07		
		E	iSS		44	13		
	Hyderabad	E	e	11	27	43		Per. = 21 Secs. /u = 57
			M	12	07	49		
	Madras	E	e	11	28	19		Distant shock. Phases not identifiable.
			i		32	50		
			e		45	36		
			e		51	37		
	Kodaikanal	E	ePP?	11	29	04		Initial phase not clear. Long distance shock of moderate intensity. Per. = 24 Secs /u = 46.5
			ePS		38	37		
			SS		44	52		
			Lq		57	40		
			L	12	03	10		
			M		12	40		
	Colombo	E	P	11	29	57	9590	'S' uncertain  Amp. = 4.9mm
			S		40	32		
			L	12	08	--		
			M		18	10		
17	Shillong	Z	i	00	55	29		Slight
17	Shillong	Z	e	04	35	28		
17	Shillong	Z	e	17	27	48		Slight. Near.
17	Shillong	Z	iP	18	00	28	210	Slight
			eSg		00	57		
17	Shillong	Z	eP	19	04	03	280	Slight.
			P*		04	05		
			Pg.		04	10		
			S		04	36		
			S*		04	39		
			eSg.		04	44		
17	Shillong	Z	i	23	31	00		Slight. Local
18	Shillong	Z	iP	01	45	01	170	Slight
			eSg		45	23		
18	Dehra Dun	N,E	e	08	38	39		Tremor
18	Dehra Dun	N,E	e	09	22	38		Tremor
18	Shillong	Z	P	14	48	50		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
1954								
18 Contd.	Chatra	Z	iP	14	49	53	840	Slight.
			PP		50	01		
			PPP		50	06		
			Lq		51	19		
			iS		51	27		
			Lr		51	39		
			SSS		51	50		
			M		52	18		
	Poona	Z	e?	14	52	55		Tremor
	Bombay	E	eP	14	53	02	2500	Feeble
			eS		57	05		
	Dehra Dun	N,E	e	14	54	44		Tremor
	Madras	E	iS	18	13	27		Moderate
	Dehra Dun	N,E	eP	18	17	15	870	Slight
			PPP		17	29		
			Pg		17	56		
			Lq		18	37		
			iS		18	45		
			SS/Lr		18	57		
			SSS		19	07		
			S*		19	13		
	Sg/M.		19	34				
	New Delhi	E	eP	18	17	35	890	Slight
			iS		19	07		
			SS		19	19		
			SSS		19	31		
			S*		19	38		
18	Hyderabad	E	e	18	35	43		Per. = 12 Secs /u = 2
			M		43	20		
18	Bombay	E	i	20	13	02		Feeble and near.
	Hyderabad	E	P	20	13	35	2450	Per. = 15 Secs /u = 4
			iS		17	35		
			L		19	20		
			M		20	20		
19	Shillong	Z	i	03	30	29		Slight
19	Shillong	Z	i	05	20	01		Slight
19	Shillong	Z	e	05	55	30		Local. Slight.
			e		55	41		
19	Shillong	Z	e	07	13	00		Slight.



DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Dec. 1954						km.	
19	Shillong	Z	e	10	12	39	Slight.
19	Epc: 30° N, 94.3° E. Sikang, China. - H = 10h 27m 24s (Shillong). Felt at Dibrugarh and Shillong.						
	Shillong	Z N,E	iP eP P* PP Pg PPP Lq S S* iSg/SS SSS	10	28	11	310 Moderate
	Dehra Dun	N,E	eP i	10	30	50	Feeble. Phases not clear.
	New Delhi	E N,E	eP eS SS SSS	10	30	53	1470 Slight
		E	Lr			33 57	
	Poona	Z	eP e e e E e e e e	10	32	08	Moderate
						33 42 33 59 34 10 38 12 38 20 38 27 42 50 46 10	
	Bombay	E	eS e i i	10	36	08	Moderate
						40 17 45 54 52 28	
	Hyderabad	E	e e e e	10	36	49	
						38 07 42 59 53 37	
19	Poona	Z	i i i	10	42	49	Probably after shock of previous day's shock.
						46 10 54 22	
	Colombo	E	P S M	10	42	50	8590 'S' uncertain Amp. = 0.8mm
						52 40 11 41 38	

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u>								
<u>1954</u>								
19	Dehra Dun	N,E	e	10	42	58		Feeble. Phases not clear.
			i		43	25		
			i		44	20		
			i		45	00		
			i		46	23		
	New Delhi	N,E N	ePP	10	43	02		Moderate.
			i		43	33		
			i		52	53		
	Madras	E	iP	10	43	03	8610	Moderate.
			PcP		43	12		
			PP		46	03		
			PPP		46	58		
			iS		52	54		
			ScS		53	09		
			PS		53	42		
	Shillong	Z N	ePKP	10	43	14		Slight. Distant.
			e		47	42		
			e		54	03		
			e		57	45		
			e	11	07	30		
			e		13	09		
			e		30	23		
	Chatra	Z,E E	e	10	43	57		Slight. Distant.
			e		53	42		
	Hyderabad	E	eP	10	44	01	7440	Per. = 12 Secs /u = 2
			PP		46	22		
			iS		52	54		
			SS		56	43		
			L	11	05	24		
			M		10	55		
19	Shillong	Z	eP eSg	16	06	55 07 26	220	Slight.
19	Shillong	Z	e	16	10	56		Slight.
19	Shillong	Z	e	16	51	48		Feeble.
19	Shillong	Z	e	16	41	29		Slight.
19	Shillong	Z	i	17	01	32		Slight.
19	Shillong	Z	e	18	30	12		Slight. Near.
			e		31	09		
19	Shillong	Z	e	18	57	44		Feeble.
19	Shillong	Z	e	20	28	06		Feeble.

DATE	STATION	COUNTRY	DEPTH	P. S. T.			Δ	REMARKS
				h.	m.	s.		
<u>Dec. 1954</u>								
20	Shillong		e	00	29	08		Slight. Local.
20	Shillong		e	01	33	08		Slight.
20	Shillong		e	01	54	08		Slight. Local.
20	Shillong		e	01	54	11		
20	Shillong		e	01	56	07		Feeble.
20	Shillong		e	01	56	08		Feeble.
20	Shillong		e	20	37	22		Slight.
20	Shillong		e	20	48	15		Slight.
20	Shillong		e	23	01	32		Feeble.
21	Shillong		e	00	17	37		Feeble.
21	Shillong		e	01	23	10		Slight.
21	Dehra Dun	N, E	e	06	53	39		Tremor.
21	Epc: $3\frac{1}{2}^{\circ}$ S, $145\frac{1}{2}^{\circ}$ E. - H = 11h 57m 19s (U.S.C.G.S). Magnitude = $6\frac{1}{4}$ (Kiruna).							
	Chatra	E	e	12	07	57		Slight. Distant.
			e		16	31		
	Dehra Dun	N	eP	12	08	53		Slight. Phases not clear.
			i		18	18		
	Poona	Z	eP	12	08	56	8240	Slight.
		N	PP		11	43		
			PPP		13	31		
			eS		18	30		
			PS		19	05		
			PPS		19	17		
			SSS		26	33		
			Lq		23	17		
			M		33	07		
	Bombay	E	iP	12	09	04	8300	Slight. Possibly deep focus.
			i		09	48		
			PP		11	49		
			PPP		13	21		
			iS		18	40		
			PS		19	13		
			PPS		19	23		
			SS		23	24		
	Colombo	E	P	12	17	01		Amp. = 0.3mm
			M		44	31		
21	Dehra Dun	N	e	16	27	22		Tremor.

21

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				km.			
<u>Dec.</u>							
1954							
21	Epc: 40.9° N, 123.9° W. Humboldt Cainty, California. - H = 19h 56m 27s (U.S.C.G.S). Felt at Sanfrancisco. Several injured and extensive property damage. Magnitude = 6 $\frac{3}{4}$ - 7 (Hurbanovo); 6 $\frac{1}{4}$ (Kiruna); 6.7 (Takubaya); 6 $\frac{1}{2}$ - 6 $\frac{1}{4}$ (Uppsala, Praha, Roma); 6.6 (Pasadena).						
	Shillong	N,E	e	20	15	03	
	Dehra Dun	N	e	20	15	16	Slight. Phases not clear.
			i		22	13	
	Poona	Z	e	20	15	16	Probably distant. Phases not clear.
	New Delhi	N	eP	20	15	28	Moderate. 11550
			PPP		17	25	
			SKS		21	36	
			SKKS		22	13	
			PS		24	36	
			SKKP		26	20	
			SS		30	10	
			SSS	34	12		
	Bombay	N	e	20	16	23	Moderate. Distant.
			e		33	38	
			e		34	30	
	Hyderabad	E	iP	20	16	37	Per. = 17 Secs /u = 10
			e		26	27	
			e		26	58	
			e		33	05	
			e		44	11	
			M		52	49	
	Colombo	E	P	20	18	16	Amp. = 1.1mm
			e		34	41	
			e	21	01	51	
			M		20	31	
	Kodaikanal	E	e?	20	18	39	Slight. Distant. Phases not clear.
	Chatra	E	i	20	22	42	Slight. Distant. Surface waves.
			e		53	00	
21	Shillong	Z	P	22	12	58	
22	Shillong	Z	P	04	29	19	
	Poona	Z	e	04	30	41	Very feeble. Phases not clear.
22	Dehra Dun	N	e	06	12	22	Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
Dec. 1954						
22	Poona	Z	eP	16 36 12		Very feeble Phases not clear.
23	Shillong	Z	P	16 37 02		
24	Shillong	Z	iP	10 30 07		Feeble.
24	Poona	Z	e	11 34 43		Feeble shock. Phases not clear.
	Shillong	Z	eP	11 35 38		Feeble.
24	Shillong	Z	eP	11 42 16		Slight.
24	Hyderabad	N	M	11 53 49		Per. = 16 Secs /u = 3
		E	M	55 07		Per. = 16 Secs /u = 2
25	Shillong	Z	eP	05 01 12		Slight. Local. Phases doubtful.
25	Shillong	Z	ePg iSg	17 32 17 32 26	78	Slight.
25	Shillong	Z	eP	18 09 03		Slight.
25	Shillong	Z	eP	18 39 09		Slight.
25	Shillong	Z	iP	21 16 17		Slight. Distant. Phases doubtful.
26	Shillong	Z	eP	03 48 54		Moderate. Phases not clear.
	Poona	Z,E	e	03 51 09		Slight. Phases not clear.
26	Bombay	N	e	04 00 37		Slight. Deep.
26	Hyderabad	N	M	09 49 52		Per. = 12 Secs /u = 2
27	Shillong	Z,N,E	iP iSg	01 36 55 37 21	200	Slight. Felt locally.
27	Epc: $5\frac{1}{2}^{\circ}$ S, $130^{\circ}$ E. In Banda Sea. - H = 06h 47m 23s (U.S.C.G.S).					
	Shillong	Z	eP	06 56 09		Moderate. Phases not clear.
	Chatra	Z	i	06 56 42		Slight. Distant.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Dec.</u> 1954								
27 Contd.	Madras	E	iP	06	56	45	5490	Slight.
			eS	07	03	52		
	Poona	Z	iP	06	57	37		Slight. Phases not clear.
		E	i	07	05	32		
			i		06	05		
	New Delhi	N,E	iP	06	57	41	6430	Moderate
			iS	07	05	40		
	Dehra Dun	N,E	e	06	57	44		Slight. Phases not clear.
	Bombay	N	eP	06	57	46	6430	Slight. Deep
			iS	07	05	45		
27	Poona	Z	eP	07	29	44		Tremor.
27	Poona	Z	e	14	30	55		Tremor.
28	Epc: 3° S, 153° E. In New Britain Region. - H = 01h 00m 46s (Shillong). 5° S, 152½° E; - H = 01h 00m 37s (U.S.C.G.S) 4¾° S, 153° E; - H = 01h 00m 40s (B.C.I.S) Magnitude = 6½ (Kiruna).							
	Shillong	Z,N,E	iP	01	11	30	7220	Moderate.
			PP		13	48		
			PPP		15	30		
			eS		20	25		
			SS		24	30		
			Lq		28	15		
	Chatra	Z	e	01	12	00		Slight. Distant.
	Bokaro	N,E	e	01	12	14		
			e		13	14		
	Colombo	E	P	01	12	20		Amp. = 0.6mm
			L		36	--		
			M		47	48		
	Madras	E	eP	01	12	21	7910	Slight. Phases not clear.
			eS		21	38		
	Hyderabad	E	eP	01	12	33	8640	
			eS		22	26		
			SS		26	50		
			L		38	34		
			M		45	48		
							Per. = 18 Secs /u = 5	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS	
				h.	m.	s.		
<u>Dec.</u>								
<u>1954</u>								
28 Contd.	Kodaikanal	E	iP	01	12	38	8570	Slight.
			iS		22	27		
			Lq		32	57		
			Lr		36	36		
			M		42	57		
	New Delhi	N,E N	eP	01	12	51	8710	Moderate.
			eS		22	47		
			PS		23	20		
			i		24	05		
	Poona	Z E	iP	01	12	59	9050	Moderate.
			PP		16	00		
			PPP		17	55		
			SKS <sub>1</sub>		23	04		
			eS		23	12		
			ScS		23	22		
			PS		24	09		
			PPS		24	39		
			SS		28	38		
			SSS		32	05		
			Lq		34	29		
			M		46	06		
	Bombay	N E N	eP	01	13	05	9450	Slight to moderate. Somewhat deep. Fol- lowed by after shocks.
			iP					
			i		13	22		
			PPP		18	23		
			SKS <sub>1</sub>		23	12		
		E N E	eSt					
			iS		23	34		
			e		24	11		
			e		29	01		
28	Poona	Z	e	02	26	35	Tremor.	
28	Dehra Dun	N,E	e	03	12	46	Slight. Phases not clear.	
			i		22	49		
28	Shillong	Z	eP	06	10	31	Slight. Phases doubtful.	
28	Shillong	Z	iP	07	26	58	Slight. Phases not clear.	
28	Shillong	Z	eP	09	53	09	Slight.	
28	Shillong	Z	eP	10	30	07	Slight.	
29	Bokaro	N,E	e	11	52	21		
			e	12	03	53		
			e	14	36			
	Poona	Z,E	eP	11	53	11	Feeble. Phases not clear.	

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Dec.</u>						
1954						
29	Shillong	Z	eP	19 28 58		Slight.
30	Dehra Dun	N,E	e i	01 56 22 58 10		Feeble. Phases not clear.
30	Dehra Dun	N,E	e	11 13 36		Tremor.
30	Epc: 53° N, 168° W; Fox Islands in Ale tians. - H = 11h 32m 28s (U.S.C.G.S). Felt at Unalaska. Magnitude = 6½ - 6¾ (Pasadena).					
	Dehra Dun	N,E	e	11 42 37		Tremor.
	Shillong	Z	iP	11 44 05	8400	Slight.
	Chatra	Z E	i	11 44 18		Slight. Distant.
			e	54 00		
			e	12 15 00		Per. = 22.0 Secs Amp. = 0.3mm.
	New Delhi	N,E N	eP	11 44 39	8890	Moderate.
			eS	54 43		
	Poona	Z,E E	eP	11 45 29	10010	Moderate.
			PP	49 08		
			PPP	51 11		
			SKS <sub>1</sub>	55 38		
			eS <sub>1</sub>	56 22		
			PPS	58 27		
			M?	12 24 59		
	Bombay	N,E N E	eP	11 45 31	10150	Slight. Somewhat deep.
			eS <sub>1</sub>	56 28		
			iS <sub>1</sub>			
	Bokaro	N,E	iS	11 54 18		
			e	54 33		
			e	54 48		
			i	12 19 56		
	Hyderabad	N E	M	12 18 08		Per. = 15 Secs /u = 4 Per. = 18 Secs /u = 3
			M	19 58		
31	Dehra Dun	N,E	e	17 18 38		Tremor.



Earthquake Reports  
(Non Instrumental Reports)

The following is the list of earthquakes that were reported by Voluntary Observers from various places during the month of December 1954.

Place	Date in G. M. T	Time in G. M.T. h. m.	Duration of Shocks	Number of Shocks	Intens- ity in R. F. Scale	Remarks
<u>Dec.1954</u>						
Sapla(N.E.F.A)	01	23 17	-	-		No damage.
Charduar (N.E.F.A)	01	-- --	-	-		Tremor.
Dirang-Dzong (N.E.F.A)	01	-- --	-	-		Slight damage of a kitchen only.
Shillong	09	15 28	5	1	IV	
Dhanbad	09	21 37	3	1	V	Direction E-W.
Tezu	10	01 42	30	-	-	
Shillong	13	20 41	10	-	III	
Abu	15	02 48	50	-	IV	
Abu	15	17 00	30	-	IV	
Dibrugarh	19	10 30	1	-	IV	

INDIA METEOROLOGICAL DEPARTMENTCENTRAL SEISMOLOGICAL  
OBSERVATORY, MEATH HOME,  
SHILLONG.

Dated, 1st February, 1960.

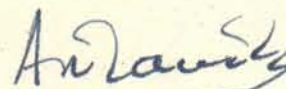
Dear Colleague,

I regret much that due to certain unavoidable circumstances the printing of the monthly Seismological bulletins of the Indian Seismological Stations had been interrupted for a considerable period. These difficulties have now been overcome and I am forwarding herewith the seismological bulletins of Indian Stations for the period March, 1954 to December, 1954. We hope that in future our bulletins will be reaching you regularly.

May I take this opportunity of thanking you for the invaluable data of your station which are being received regularly.

Assuring you of our co-operation at all times, and with kind regards,

Yours faithfully,



(A. N. TANDON)  
Seismologist.

\*\*\*\*\*

\*Bisht\*  
1/2/60.

JUL 18 1960



*[Faint handwritten text, possibly a signature or name]*

9-30-60  
JMC

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN

1955  
Complete



Jan →

OCT  
1955

Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

SEP 28 1960

- 2 -

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	$T_0 = T_g$ $= 7.0$	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	$T_0=0.72$ $T_g=0.45$	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.2$	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	$T_0=1.5$ $T_g=1.5$	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	$T_0=1.0$ $T_g=0.18$	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

 Office of the Director General of Observatories,  
 Lodi Road, New Delhi, India, 1959.















DATE	STATION	COMPT	PHASE	U.S.T. h. m. s.	Δ km	REMARKS	DATE	STATION	COMPT	PHASE	U.S.T. h. m. s.	Δ km	REMARKS
15	SHILLONG	Z	e	10 04 38		Feeble	17	SHILLONG	Z	e	15 43 28		Slight
15	SHILLONG	Z	e	11 15 23		Slight	17	SHILLONG	Z	iP iSg	17 30 13 30 23	80	Slight
15	SHILLONG	Z	eP/P* Pg eSg	12 52 13 52 14 52 34	170	Slight	17	SHILLONG	Z	e	17 45 27 45 44		Slight
	CHATRA	Z	eP iS	12 52 35 53 17	486	Feeble	17	SHILLONG	Z	e	17 58 20		Slight
15	SHILLONG	Z	e	15 50 25 50 27 50 49		Slight, local	17	SHILLONG	Z	eP P* Lq s iSg	18 41 03 41 09 41 33 41 45 41 59	370	Slight
	CHATRA	Z	eP iS	15 50 31 51 05	300	Feeble	17	SHILLONG	Z	e	19 50 44		Feeble
15	SHILLONG	Z	e	19 59 30		Slight	17	SHILLONG	Z	e	21 58 22		Slight, distant
15	SHILLONG	Z	e	20 03 17		Slight, distant	17	SHILLONG	Z	e	22 34 11		Slight
15	SHILLONG	N Z	e(M) i	20 18 45 20 16 14		Slight, near	17	SHILLONG	N Z	eP iSg	21 59 18 22 22	10	Slight
16	SHILLONG	Z	e	21 42 01 42 33		Slight, near	17	SHILLONG	Z	e	22 48 41		Feeble
16	SHILLONG	Z	e	22 52 16 52 31 52 53 53 01		Slight, near	17	SHILLONG	Z	eP Pg s Sg	23 26 55 28 05 28 24 28 42	200	Slight
16	SHILLONG	Z	e	23 53 13 53 45	70	Slight	17	SHILLONG	Z	eP	23 41 33		Feeble
16	SHILLONG	Z	e	24 23 19		Slight, near	17	SHILLONG	Z	eP	24 09 31 24 20		Distant, phases not clear
16	SHILLONG	Z	e	24 24 12		Slight, near	17	SHILLONG	Z	e	25 18 18 26 45		Slight
16	SHILLONG	Z	e	25 23 12		Slight, near	17	SHILLONG	Z	eP	27 31 35		Slight, distant
16	SHILLONG	Z	e	27 21 11 27 23 45		Slight	17	SHILLONG	Z	e(P)	28 08 57		Feeble, distant
16	SHILLONG	Z	e	27 43 34 43 43		Slight, near	17	SHILLONG	Z	e	28 03 26 03 32		Slight, near
17	SHILLONG	Z	e	28 15 34 34 58 34 59		Slight, near	17	SHILLONG	Z	e	28 07 13		Slight, compression
17	SHILLONG	Z	e	28 15 34 34 58 34 59		Slight, near	18	SHILLONG	Z	e	01 36 17		Tremor
16	SHILLONG	Z	e	28 28 20		Slight, distant	18	SHILLONG	Z	e	02 50 26 50 34 50 50		Slight, near
16	SHILLONG	Z	e	28 31 17 31 22		Slight, near	18	SHILLONG	Z	e	01 07 47 11 19	80	Slight, local
16	SHILLONG	Z	e	28 34 24		Slight, near	18	SHILLONG	Z	e	02 42 19		Feeble
17	SHILLONG	Z	e	28 40 22 40 28		Slight, near	18	SHILLONG	Z	e	02 56 14		Tremor
17	DEBRA DUB POONA	Z	e	28 51 17 51 35		Tremor	18	SHILLONG	Z	eP i	02 27 34 28 06		Slight, near
17	SHILLONG	Z	eP Pg eSg	28 59 24 59 27 59 40	100	Slight	18	SHILLONG	Z	e	03 53 52		Slight, near
17	BOKARO	N Z	eP eS iSg	28 58 06 58 42 58 59	120	Slight	18	SHILLONG	Z	eP	03 27 53		Slight, compression
	SHILLONG	Z	iP P* Pg iS s- s	05 33 21 33 35 33 39 34 14 34 25 34 45	490	Slight	18	DEBRA DUB	N Z	e i	03 23 51 24 07		Feeble
	DEBRA DUB	N Z	e	03 35 35		Tremor	18	POONA	Z	iP	04 08 40		Tremor
	POONA	Z	e	03 32 00		Tremor	18	SHILLONG	Z	eP N e	07 33 40 36 01 36 46		Slight, phases not clear
17	SHILLONG	Z	e	10 59 42		Slight		BOKARO	N Z	eP eS Lq SS SSS Lr M	07 34 29 38 18 38 46 39 07 39 20 39 41 41 26	2326	Slight
17	SHILLONG	Z	i	15 24 54 25 25		Slight, near		POONA	Z	iP	07 36 46		Tremor
17	SHILLONG	Z	e	15 26 08 26 51		Slight, near		BOMBAY	E	e e e	07 41 11 43 11 44 41		Feeble

DATE	STATION	COMPT	PHASE	G. M. Y. h. m. s.	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	C. M. T. h. m. s.	$\Delta$ km	REMARKS	
January 1955							January 1955							
20	HYDERABAD	E	M	07 44 21		Per. = 12 secs $\Delta u = 2$	22	SHILLONG	Z	eP Pg Sg	18 51 54 51 57 52 16	170	Slight	
20	SHILLONG	Z	Pg Sg	14 06 20 06 31	100	Slight	22	SHILLONG	Z	iP	20 09 34		Feeble	
20	DEHRA DUN	N,E	i	18 00 26		Tremor	22	SHILLONG	Z	i	20 18 11		Tremor	
	SHILLONG	Z	Pg Sg	18 07 02 07 14	100	Slight	22	SHILLONG	Z	e	21 47 36		Tremor	
20	SHILLONG	Z	e	18 20 14		Feeble	23	SHILLONG	Z	e	15 20 43		Tremor	
21	BOMBAY	N,E	e(?)	01 41 29		Phases could not be identified.	23	MADRAS	E	e	22 23 32		Phases not clear	
		E	e	46 07			Epc: Near Southwest Coast of Java. - H = 22h 21m 14s (U.S.C.G.S) 74°S, 105°E. - H = 22h 21m 17s (B.C.I.S)							
		N	e	46 16										
	NEW DELHI	E	eP PP	01 41 51 41 59	940	Slight	COLOMBO	F	P S L M	22 27 21 32 21 37 21 40 26	3370		Amp. = 0.3 mm	
		N,E	Lq	43 20			SHILLONG	Z	eP	22 28 09			Slight. Other phases not clear. Compression.	
		N	SS	43 40			POONA	N,E	iP PF PPP	22 29 00 30 39 31 12	4510		Slight	
		N,E	SSS M	43 51 44 26				E	iS PS PPS SSS	35 09 35 13 35 23 39 00				
	DEHRA DUN	N,E	e i	01 42 47 43 39		Slight, phases not clear		N	M?	43 37				
	POONA	Z,E	e	01 45 07		Feeble, phases not clear	BOMBAY	E	iP eS eS	22 29 08 35 20 35 23	4550		Slight	
	SHILLONG	Z	e	01 45 44		Feeble		N	eS	39 04				
	HYDERABAD	E	M	01 49 32			NEW DELHI	N	iP iS	22 29 32 36 05	4890		Moderate	
	BOKARO	N,E	eP PP PPP Lq eS SS SSS M	01 46 39 46 50 46 58 49 00 49 11 49 28 49 41 50 45	1500	Slight	DEHRA DUN	N,E	eP iP PcS iS PPS Lq M	22 29 41 31 21 34 54 36 21 36 38 40 23 45 45	5020		Slight	
21	SHILLONG	Z	eP	11 52 22		Feeble	24	SHILLONG	Z	e	00 43 53			Tremor
21	SHILLONG	Z	iP	14 30 19		Slight. Compression	24	SHILLONG	Z	eP Lq S Lr/SS M	10 33 19 34 40 34 52 34 59 35 45	900		Slight
21	SHILLONG	Z	iP	14 31 42		Tremor	POONA	Z	e	10 36 33			Very feeble Phases not clear	
21	SHILLONG	Z	e	18 08 58		Tremor	BOKARO	N,E	e e e	10 38 07 38 43 38 56			Feeble	
22	SHILLONG	Z	i	02 23 51		Tremor	24	SHILLONG	Z	eP Pg iS Sg	20 18 44 19 03 19 37 19 55	500		Slight
22	SHILLONG	Z	eP	04 50 04		Slight, local. Phases not clear	24	SHILLONG	Z	eP Pg Sg	22 15 32 15 33 15 53	180		Slight
22	Epc: 8°S, 67°E. Chagos Islands Region - H = 05h 28m 35s (U.S.C.G.S) 9°S, 68°E. - H = 05h 28m 28s (B.C.I.S)							24	SHILLONG	Z	e	22 20 02		Feeble, near
	BOMBAY	N	eP	05 34 33	3300	Slight	25	SHILLONG	Z	iP	04 16 30			Slight, distant
		E	eP PPP	34 36 35 54			25	SHILLONG	Z	eP	15 00 46			Slight, phases not clear
		N	eS	39 24			25	POONA	Z	e	15 01 17			Very feeble. Phases not clear
		E	eS SS Lr	39 32 42 14 43 32			COLOMBO	E	L M	15 32 51 35 36			Amp. = 0.4 mm	
	SHILLONG	Z	e	05 36 21		Tremor	25	SHILLONG	Z	e	20 28 36			Tremor.
	POONA	E	e?	05 36 34		Very feeble. Phases not clear								
	KODAIKANAL	E	iP iS M	05 37 35 39 45 41 08	1280	Slight. Short distance								
	MADRAS	E	Lr(?) M	05 39 09 42 15		Earlier phases not clear								
	HYDERABAD	N	e	05 39 20										
		E	M	43 31										
		N	M	43 31		Per. = 11 secs $\Delta u = 4$								
	DEHRA DUN	N	e	05 42 27		Slight. Phases not clear								
22	SHILLONG	Z	e	13 44 54		Tremor								
22	SHILLONG	Z	iP	15 29 38		Slight. Compression								
22	SHILLONG	Z	iP	15 38 25		Feeble. Compression.								



DATE	STATION	COMPT	PHASE	G. M. T. h. m. s	△ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s	△ km	REMARKS
January 1955							January 1955						
30	NEW DELHI	E	eP	09 04 18		Slight	31	HYDERABAD	N,E	iP	16 13 09	7570	
Contd			e	04 34			Contd			PP	15 30		
			e	05 52					N	iS	22 09		
			i	05 57					E	PS	22 27		
	SHILLONG	Z	iP	09 06 38		Moderate, distant, phases not clear.				SS	26 32		
									N	L	34 09		
										M	38 54		Per. ± 18 secs /u ± 10
30	DEHRA DUN	N,E	e	13 01 55		Feeble	POONA	Z	iP	16 13 18	7810		Moderate
30	SHILLONG	Z	e	15 39 04		Tremor		E	PcP	13 36			
30	SHILLONG	Z	eP	23 46 40		Slight, distant phases not clear.		N	PP	16 02			
									FPP	17 39			
	DEHRA DUN	N,E	e	28 46 46		Tremor			PcS	17 57			
								N,E	eS	22 30			
31	SHILLONG	Z	iP	02 53 32		Moderate, distant, phases not clear.		E	PS	22 49			
									PPS	22 59			
31	POONA	Z	iP	05 22 24		Tremor		N	SKS1	23 27			
									SS	26 49			
	SHILLONG	Z	iP	05 22 49		Moderate, distant phases not clear			SSS	30 01			
									Lq	31 15			
									Lr	34 23			
									M	39 34			
31	HYDERABAD	E	M	06 20 07		Per. ± 21 secs /u ± 5	MADRAS	E	iP	16 13 20	7670		Moderate
									PcP	13 33			
									i	13 51			
									PP	15 54			
									PPF	17 44			
									iS	22 25			
									PS	22 53			
									PPS	23 07			
									SS	27 01			
									SSS(?)	30 01			
									Lq	32 11			
									Lr	35 30			
									M	46 32			
31	Epc: 44°N, 153°E. In Pacific off Kurile Islands							BOMBAY	N,E	iP	16 13 27	7830	Moderate
	- H = 16h 02m 15s (Shillong)								N	PcP	13 42		
	46°N, 153°E. - H = 16h 02m 07s (U.S.C.G.S)								E	e	13 57		
	46°N, 152°E. - H = 16h 02m 12s (B.C.I.S)									PPF	17 57		
	Magnitude: 6% (Praha, DeBilt, Roma), 6% (Kiruna, Uppsala), 6%-6% (Pasadena)									i	21 04		
	SHILLONG	Z	iP	16 11 23	5690	Moderate		N,E	iS	22 40			
			PP	13 23				E	PS	23 10			
			PPP	14 12				N	ScS	23 20			
			iS	18 42				E	PPS	23 36			
			SS	20 50					SS	27 27			
			SSS/Lq	23 46				N	M	47 05			Per. ± 15 secs /u ± 69.1
			Lr	26 17				E	M	47 05			
			M	30 11									
	BOKARO	N,E	iP	16 12 02	5440	Moderate	COLOMBO	E	F	16 13 35	9090		Amp. ± 1.3 mm
			PcP	12 45					S	23 48			
			PP	14 13					L	44 30			
			PPP	15 35					M	51 35			
			iS	20 02									
			PS	20 17									
			PPS	20 26									
			ScS	21 30									
			SS	23 56									
			SSS	26 22									
			Lq	26 48									
			Lr	29 33									
			M	34 33									
	DEHRA DUN	N,E	eP	16 12 10	5570	Moderate	31	SHILLONG	Z	eP	20 22 24		Tremor
		N	PcP	12 48									
			PP	14 20									
			FPP	15 56									
			eS	20 17									
			PS	20 32									
			PPS	20 44									
			ScS	21 47									
			SS	24 12									
			SSS	26 48									
			Lq	27 20									
			Lr	30 17									
			M	34 39									
	NEW DELHI	N,E	iP	16 12 20	6720	Moderate	31	SHILLONG	Z	e	21 17 24		Slight, near.
		N	PP	14 40									
			PPP	16 11									
			S	20 35									
			ScS	22 11									
			SS	24 52									
			M	34 20									

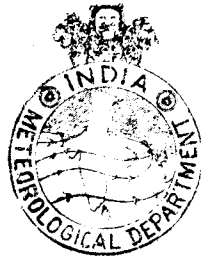
 Earthquake Reports  
(Non Instrumental Reports)

Following is the list of Earthquakes that were reported by Voluntary Observers from different stations during the month of January 1955:-

Place	Date in G. M. T	Time in G. M. T h. m.	No. of shocks	Duration in secs	Intensity in R.F. Scale	RE MARKS
KATHMUNDU	06	03 30				
TEZPUR	10	15 48	1	2	V	
SHILLONG	13	00 04	1	3	V	
SHILLONG	14	13 15	1	20	V	
LUMDING	14	13 13	1	5	VI	
SILCHAR	14	13 15	1	10	VI	
HALFLONG	14	13 27	1	8	VI	
IMPHAL	14	13 13	1	2	VI	
JAIPUR	27	09 55	1	10	VI	

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
*Shri S. Basu, M.Sc., F.N.I.,*  
Director General of Observatories



- 2 -

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	$T_0 = T_g$ $= 7.0$	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	$T_0=0.72$ $T_g=0.45$	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.2$	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	$T_0=1.5$ $T_g=1.5$	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	$T_0=1.0$ $T_g=0.18$	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

 Office of the Director General of Observatories,  
 Lodi Road, New Delhi, India, 1959.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	
February 1955							February 1955							
01	SHILLONG	Z	e	03 30 32		Slight	02	SHILLONG	Z	e i	20 55 33 55 38		Slight	
1	SHILLONG	Z E E,N	e e e	08 15 20 18 22 18 36		Slight, near	02	SHILLONG	Z	e e e	22 06 28 06 59 07 19		Slight, near	
01	SHILLONG	Z	e	08 32 34		Feeble	03	SHILLONG	Z	i	00 59 34		Slight	
01	SHILLONG	Z N,E	e e	10 14 02 17 42		Slight, near	03	SHILLONG	Z	e	01 47 29		Slight	
01	SHILLONG	Z	i	14 43 50		Slight	03	SHILLONG	Z	iPg iSg	03 24 02 24 12	80	Slight	
01	SHILLONG	Z	e	17 16 52		Slight, local	03	SHILLONG	Z	e	06 24 24		Slight	
01	SHILLONG	Z	i	18 49 49		Slight	03	SHILLONG	Z	e	06 44 03		Slight, near	
01	Epc: 42°N, 142°E. Off the South Coast of Hokkaido Japan (U.S.C.C.S) - H = 19h 16m 02s 41.9°N, 142.6°E. h = 60 kms. - H = 19h 16m 12s Felt (C.M.O Japan)							03	SHILLONG	Z	e	12 58 27		Slight
	SHILLONG	Z,E N E	iPg ePg PP PPP N,E E	19 24 18 25 53 25 59 26 37 30 47 30 53 31 06 34 09 40 42	4830	Slight	03	SHILLONG	Z	e	13 33 31		Slight	
	BOKARO	N,E	eP i e e i e	19 25 00 32 41 32 45 32 49 34 49 35 23		Slight, distant	03	SHILLONG	Z	e	17 16 29		Feeble	
	DEHRA DUN	N,E	eP i	19 25 20 33 10		Feeble, phases not clear	03	DEHRA DUN	N,E	e	18 27 44		Tremor	
	NEW DELHI	N,E N	eP i M	19 25 29 33 29 46 00		Moderate	03	SHILLONG	Z	e	18 28 38		Slight	
	POONA	Z N,E N	iP e e e e e e e e e	19 26 28 27 03 28 58 35 15 35 31 35 40 39 21 42 10 43 10 46 07 51 24		Slight	03	SHILLONG	Z	e	21 30 28		Slight	
	BOMBAY	N,E E N,E E	e e e e e	19 26 33 35 31 36 00 36 44 39 35 42 31	7530	Slight	03	SHILLONG	Z	e	23 24 02		Slight	
	COLOMBO	E	S L M	19 35 29 51 21 57 36		Amp. = 0.2 mm	04	SHILLONG	Z	iPg iSg	00 10 40 10 58	80	Slight	
01	SHILLONG	Z	i	20 28 05		Slight	04	SHILLONG	Z,E N Z,N,E	iPg ePg Pg iSg	04 07 40 07 54 07 54 08 15	200	Slight	
02	SHILLONG	Z	e	01 09 25 09 36 10 09		Slight, near	04	COLOMBO	E	e e e	04 27 27 31 50 37 20		L indistinct. Time approximate Amp. = 5.5 mm	
02	SHILLONG	Z	i	05 29 14		Slight, near	04	SHILLONG	Z	e	05 22 27		Slight	
02	SHILLONG	Z	e	06 12 23		Slight	04	Epc: 6°N, 37°E. South of Ethiopia H = 05h 20m 06s (I.C.I.S)						
02	SHILLONG	Z	i	06 34 33		Slight	BOMBAY	E	e	05 28 17 35 53		Feeble		
02	NEW DELHI	N,E	ePg iSg	10 14 17 14 20	20	Slight	POONA	N	e?	05 28 33		Very feeble		
02	SHILLONG	Z	iP eSg	10 51 13 51 43	210	Slight	MADRAS	E	e	05 42 34				
02	SHILLONG	Z	e	20 50 56		Slight	HYDERABAD	E N	M M	05 42 45 43 07		Per. = 18 secs /b = 7 Per. = 17 secs /u = 6		
							SHILLONG	Z,E E N,E E N,E	eP PP PPF eS SS Lq Lr M	05 30 40 32 42 33 56 38 14 41 54 44 06 46 58 51 02	5980	Slight		
							04	Epc: 17°S, 66°E. Mascarene Island Region. - H = 07h 21m 45s (Shillong) 17°S, 67°E. - H = 07h 21m 49s (U.S.C.G.S) 17°S, 66°E. - H = 07h 21m 48s (I.C.I.S) Magnitude = 6 1/2 - 6 1/2 (Praha), 6 (Kiruna)						
							KODAIKANAL	E	iP PP iS Lq SS SSS Lr M	07 27 55 28 49 32 43 33 58 34 10 34 48 35 19 37 40	3180	Moderate intensity		
													Per. = 15 secs /u = 78	



DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS
February 1955						
05	BOKARO	N,E	iP	20 51 45	6390	Moderate
Contd.			PP	52 34		
			PPP	55 13		
			iS	59 43		
			PS	59 52		
			PPS	21 00 02		
			ScS	01 13		
			i?	01 32		
			SS	03 37		
			SSS	05 45		
			Lq	06 07		
			Lr	09 09		
			M	14 07		
	DEHRA DUN	N,E	eP	20 51 45	6630	Moderate
		N	PP	53 59		
			PPP	55 30		
			eS	59 55		
			PS	21 00 07		
			PPS	00 19		
			SS	04 00		
			Lq	07 25		
			Lr	10 13		
			M	14 07		
	NEW DELHI	N,E	eP	20 52 01	6720	Moderate
		N	S	21 00 16		
			M	14 05		
	HYDERABAD	N,E	iP	20 52 42	7400	
		E	PP	55 12		
			iS	21 01 33		
			ScS	02 42		
		N,E	SS	06 09		
		E	M	19 29		Per. $\approx$ 15 secs. $\Delta$ $\approx$ 4
	MADRAS	E	iP	20 52 58	7640	Slight, other phases not clear
			PcP	53 15		
			PP	55 32		
			PPP	57 22		
			S	21 02 02		
			i	02 14		
			PS	02 39		
			SS	06 41		
	POONA	Z	iP	20 53 01	7780	Moderate
		N	PcP	53 21		
		E	PPP	57 23		
		N,E	eS	21 02 11		
		E	PS	02 41		
			PPS	03 02		
		N	SS	06 52		
			SSS	09 55		
			M	20 53		
	BOMBAY	N,E	iP	20 53 07	7780	Slight
		E	PP	55 41		
			PPP	57 37		
			iS	21 02 17		
		N	eS	02 20		
		E	PPS	03 00		
	COLOMBO	E	P	20 53 23		
			S	21 02 52		
			L	23 56		
			M	31 36		Amp. $\approx$ 0.5 mm
05	SHILLONG	Z	e	21 08 30		Slight
05	SHILLONG	Z	i	21 19 34		Slight, local
05	SHILLONG	Z	i	21 21 23		Slight
05	SHILLONG	Z	e	21 39 36		Slight
05	SHILLONG	Z	i	21 55 43		Slight
05	SHILLONG	Z	e	23 24 07		Slight
			e	24 59		
05	SHILLONG	Z	i	23 36 46		Slight
06	SHILLONG	Z	e	01 06 53		Slight
06	SHILLONG	Z	i	02 16 48		Slight, local
06	BOMBAY	N,E	eP	02 39 17	8050	Slight
		E	PP	41 53		
			eS	48 41		
			PS	49 16		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS
February 1955						
06	POONA	Z	iP	02 39 18		Tremor
Contd.						
06	COLOMBO	E	L	03 17 00		
			M	26 50		Amp. $\approx$ 0.3 mm
06	Epc: Near South Coast of Sumatra - H $\approx$ 04h 34m 55s (U.S.C.G.S)					
	SHILLONG	Z	iP	04 41 08		Slight
	MADRAS	E	eS	04 45 00		Other phases not clear
	BOMBAY	E	eS	04 47 32		Feeble
			e	51 02		
06	SHILLONG	Z	i	06 08 13		Slight, local
			iSg	08 23		
06	SHILLONG	Z	i	07 24 21		Slight
06	SHILLONG	Z	e	08 24 51		Slight
06	SHILLONG	Z	i	10 24 46		Slight
06	SHILLONG	Z	i	12 41 15		Slight, local
06	Epc: 40°N, 78°E. Sinkiang Province, China; - H $\approx$ 14h 51m 55s (Shillong) Western Sinkiang Province; - H $\approx$ 14h 51m 53s (U.S.C.G.S) 40°N, 78°E. - H $\approx$ 14h 51m 58s (E.C.I.S)					
	DEHRA DUN	N,E	eP	14 54 19	1060	Slight, other phases not clear
			Lq	56 03		
			iS	56 07		
	NEW DELHI	N,E	eP	14 54 39	1350	Slight
			Lq	56 47		
		N	SS	57 11		
		N,E	SSS	57 24		
			i	57 35		
	SHILLONG	Z	eP	14 56 13		Slight
06	POONA	Z	iP	14 56 53		Feeble, phases not clear
		N	i	15 01 07		
		E	i	02 01		
			i	03 18		
			i	03 31		
	BOKARO	N,E	iS	14 59 56		Slight
			e	15 02 54		
	BOMBAY	E	eS	15 01 00		Slight
06	SHILLONG	Z	i	18 09 13		Slight, local
06	Epc: 50°N, 180°E. Adreanoff Islands, Aleutian Islands. - H $\approx$ 18h 17m 05s (U.S.C.G.S)					
	SHILLONG	Z	iP	18 28 18		Slight
06	SHILLONG	Z	i	18 48 07		Slight, local
06	SHILLONG	Z	iP	19 49 15	390	Slight, local
			Lq	49 47		
			iS	49 57		
06	Epc: 100 miles off South Coast of Kamchatka; - H $\approx$ 22h 35m 48s GMT (Shillong) 52°N, 160°E; - H $\approx$ 22h 35m 52s (B.C.I.S)					
	SHILLONG	Z	eP	22 45 41		Slight
06	SHILLONG	Z	i	22 56 39		Slight, local
07	SHILLONG	Z	i	00 19 38		Slight
07	SHILLONG	Z	e	07 19 52		Slight, local
07	SHILLONG	Z	e	08 30 52		Slight
07	SHILLONG	Z	e	13 18 57		Slight
07	DEHRA DUN	N,E	i	14 38 29		Feeble, phases not clear
			i	39 56		
	SHILLONG	Z	e	14 40 49		Slight











DATE	STATION	COMPT	PHASE	G. V. T. h. m. s.	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS		
February 1955							February 1955								
23	SHILLONG	Z	iP	16 53 40		Slight.	23	DEHRA DUN	N,E	eP	23 15 21	710	Slight.		
23	SHILLONG	Z	e	18 21 18		Tremor.	(Contd)		N	PP	15 28				
23	Epc: 34°S, 54½°E. Indian Ocean; - H = 18h 31m 45s (U.S.C.G.S) Magnitude = 6 (Kiruna)										PPP	15 35			
	KODAIKANAL	E	eS	18 47 52		Tremor. Phases not clear				iS	16 35				
	POONA	Z	eP	18 41 25	6310	Slight		POONA	Z	eP	23 16 57	1640	Slight.		
		E	PcP	42 03						PP	17 10				
			PP	43 25					E,Z	PPP	17 18				
		N,E	PcS	45 58						i	19 23				
		E	eS	49 18					Z	i	19 28				
			PS	49 25					Z,E	Lq	19 40				
			PPS	49 37					E	eS	19 43				
			ScS	50 57						SS	19 57				
			SS	53 05						SSS	20 09				
			Lq	55 32						Lr	20 18				
			Lr	58 24					Z	M?	21 39				
			M?	19 03 15						PcP	21 47				
	BOMBAY	E	eP	18 41 28	6220	Slight.		BOMBAY	E	eP?	23 17 25		Slight.		
		N	eP	41 31						PPP	17 45				
		E	PcP	42 08						iS	20 29				
			PP	43 30						i	20 30				
		N,E	PcS	46 07						SS	20 52				
		E	eS	49 16					N,E	SSS	21 08				
			eS	49 19					E	Lr	21 21				
			PS	49 27						M	23 23				
			e	50 00											
			e	51 10											
			SS	53 14											
	HYDERABAD	N	eP	18 41 45	6220			HYDERABAD	N	M	23 21 36		Per. = 11 secs /u = 3.		
			iS	49 33											
			L	58 49											
			M	19 01 48		Per. = 16 secs /u = 7									
	SHILLONG	Z	iP	18 42 52	7800	Slight		24	SHILLONG	Z	e	00 52 48		Tremor.	
		E	PP	45 04											
			eS	52 03											
			PS	52 27											
			PPS	52 41											
			SS	56 35											
			Lq	19 01 27											
			M	08 33											
	BOKARO	N,E	eP	18 42 55		Moderate, distant.		24	SHILLONG	Z	e	04 48 05		Tremor.	
			iS?	51 25											
23	SHILLONG	Z	iP	20 09 32		Slight		24	SHILLONG	Z	iP	06 28 09		Slight	
23	Epc: 28°N, 85°E. Nepal; - H = 23h 13m 25s (Shillong) 28°N, 85½°E. - H = 23h 13m 30s (U.S.C.G.S)								24	CHATRA	Z	iPg	06 42 39	80	Feeble
	CHATRA	Z	iP <sub>0</sub>	23 14 06	250	Slight					iSg	42 40			
		E	iP <sub>0</sub>												
		E	iS	14 35											
	BOKARO	N,E	eP	23 14 41	380	Slight, near		24	DEHRA DUN	N,E	e	08 27 53		Tremor	
			PP	14 47											
			PPP	14 52											
			iS	15 22											
			M/Sg	15 39											
	SHILLONG	Z	iP	23 15 00	670	Compression, slight.			SHILLONG	Z	iP	15 16 50	650	Slight	
		E	eP	15 01							Lq	17 45			
			PPP	15 14							S	17 58			
			Lq	15 59							Lr	18 04			
			iS	16 10							SSS	18 20			
			Lr	15 14							Sg	18 28			
			SSS	16 33											
			N	16 40											
	NEW DELHI	E	eP	23 15 21	780	Slight.		DEHRA DUN	N,E	eP	15 17 10	730	Slight.		
			P*	15 39							PP	17 17			
		N,E	Pg	15 50							Pg	17 40			
			i	16 21							Lq	18 13			
			iS	16 42							iS	18 26			
			i	16 57							Lr	18 33			
		N	Sg	17 27							SS	18 38			
											SSS	18 46			
											Sg/M	19 06			

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS
February 1955							February 1955						
24	NEW DELHI (Contd)	E	eP	15 17 11	780	Slight	26	MADRAS (Contd)	S	iP	00 36 48		Other phases not identifiable.
		N,E	PPP	17 24						i	37 25		
			Pg	17 51				SHILLONG	Z,E	iP	00 36 55		Rarefaction
			i	18 17					E	e	37 52		
			iS	18 32						e	38 47		
			Lr	18 40						e	39 10		
			S*	18 55						e	42 33		
			Sg	19 18						iS?	42 44		
	HYDERABAD	N	eP	15 18 34	1830					sS?	44 38		
			eS	21 38						e	46 09		
			SS	21 57						e	46 45		
			M	23 22		Per. = 9 secs A <sub>u</sub> = 4		POONA	Z	iP	00 37 58	3490	Slight
										PP	39 00		
	POONA	Z	eP	15 18 47	1640	Slight				PPP	39 16		
			PP	18 59						eS	43 06		
			PPP	19 07						SS	44 53		
			eS	21 33						SSS	45 08		
			Lr	22 19						Lr	46 07		
			M?	23 37						M?	48 40		
	BOMBAY	N,E	eP	15 19 00	1710	Slight		BOMBAY	N	eP	00 38 08	3610	Slight
		E	eP	19 04					E	iP			
		N,E	eS	21 52					E	PP	39 21		
		E	SSS	22 23					N,E	PPP	39 33		
			Lr	22 33					E	PcP	40 43		
		N,E	i	23 00					N,E	iS	43 23		
		E	M	25 00					E	SS/Lg	45 21		
	MADRAS	E	iP	15 19 04	1640	Slight				SSS	45 59		
			PP	19 16						i	46 40		
			PPP	19 25						Lr	47 05		
			S	22 08									
			SS	22 32									
			SSS	22 45									
			Lr	22 57									
			PcP	23 43									
			M	24 50									
24	CHATRA	Z	iP	15 23 04	260	Slight	26	SHILLONG	Z	e	10 23 23		
		E	iS	23 34			26	SHILLONG	Z	eP	10 40 53		
24	KODAIKANAL	E	e?	15 24 01		Tremor	26	SHILLONG	Z	e	12 02 41		
24	CHATRA	Z	iP	15 25 --			26	SHILLONG	Z	e	18 09 07		
			iS	26 20			26	SHILLONG	Z	e	18 37 28		
24	CHATRA	Z	iP	15 34 14	230	Feeble	26	SHILLONG	Z	eP	19 34 37		
			iS	34 41			27	SHILLONG	Z	e	05 01 00		
24	CHATRA	Z	iP	15 46 34	250	Feeble	27	SHILLONG	Z	e	07 15 24		
			iS	47 03			27	SHILLONG	Z	e	09 49 18		Tremor
24	SHILLONG	Z	e	15 47 40		Slight	27	DEHRA DUN	N,E	e	09 49 18		
24	CHATRA	Z	iP	15 56 25	230	Feeble		SHILLONG	Z	e	09 49 36		
			iS	56 52			27	SHILLONG	Z	e	10 30 46		
24	CHATRA	Z	iP	16 04 22	240	Slight	27	SHILLONG	Z	e	10 41 57		
		E	iS	04 50			27	SHILLONG	Z	e	12 18 15		
	SHILLONG	Z	eP	16 05 13		Slight	27	BOMBAY	E	e	15 18 37		
	DEHRA DUN	N,E	e	16 06 52		Tremor				e	22 04		
24	CHATRA	Z	iP	16 20 49	250	Slight	27	SHILLONG	Z	e	16 56 05		
			iS	21 18			27	CHATRA	Z	eP	19 18 16	240	Slight
	SHILLONG	Z	e	16 21 45		Slight				iS	18 44		
24	CHATRA	Z	iP	17 37 21			27	SHILLONG	Z	e	19 19 17		
		E	iS	37 49			27	SHILLONG	Z	e	19 25 06		
24	SHILLONG	Z	iP	17 38 16		Slight	27	SHILLONG	Z	e	19 28 24		
	DEHRA DUN	N,E	e	17 39 50		Tremor	27	Epc: 27°S, 176°W; Kermadec Islands Region;					
	POONA	Z	i	17 44 15		Tremor		- H = 20h 43m 24s (U.S.C.G.S)					
25	SHILLONG	Z	iP	11 18 38		Slight.		24°S, 175°W; - H = 20h 43m 23s (B.C.I.S)					
25	SHILLONG	Z	iP	13 51 18		Slight.		Felt in Raoul Island, Wellington (Newzealand)					
25	SHILLONG	Z	e	17 01 35		Tremor		Magnitude = 8.1 (Praha), 8 (Pasadena, Berkeley),					
26	Epc: 0°, 102°E. Sumatra; H=00h 31m 14s (USCGS)							7.9 to 8 (Roma), 7.9 (Wellington),					
	COLONBO	E	P	00 36 22	2230			7% (Kiruna), 7% (Uppsala).					
			S	40 22									
			L	45 22									
			M	49 22		Amp. = 0.2 mm							







GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



-----  
-----  
Published under the direction of

Shri S. Basu, M.Sc., F.N.I.,

Director General of Observatories  
-----  
-----

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min.
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 <sup>s</sup> Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
01	Dehra Dun	N,E	e i	00	18	28 38		Feeble. Phases not clear.
	New Delhi	E	eP Pg iS Sg SSS	00	18	48 51 09 11 27	175	Slight.
01	Shillong	Z	eP	03	34	22		Slight, near.
01	Epc: 65° N, 133° W; Yukon (Canada) - H = 04h 42m 59s (U.S.C.G.S) Magnitude = 6½ (Kiruna); 6½-6½ (Pasadena); 6½ (Uppsala); 6 (Skalnate Pleso). Felt: Aklavik, Goodhope (Canada).							
	Dehra Dun	N,E N	eP PP iS PS PPS SS SSS Lq Lr M	04	55	21 58 21 00 13 05 30 06 25 06 47 10 55 14 24 17 48 21 19 28 13	9000	Moderate.
	Shillong	Z,N,E N,E E N N,E E N,E	iP PP PPP SKS iS PS PPS SS Lq Lr M	04	55	23 58 36 05 00 32 05 36 05 43 06 36 07 04 11 44 17 29 21 13 28 26	9270	Moderate.  Per. = 15 Secs. /u = 10.7
	New Delhi	N,E N	eP PP eS PS SS M	04	55	27 58 39 05 05 35 06 38 10 47 27 30	8980	Moderate.
	Kodaikanal	E	e?	04	55	45		Remor.



DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
01 Contd.	Bokaro	N,E	iP	04	55	45	9890	Moderate. Distant.
			PP		59	02		
			PPP	05	00	58		
			SKS <sub>1</sub>		05	56		
			SKKS <sub>1</sub>		06	08		
			iS		06	32		
			PS		07	08		
			PPS		08	15		
			SS		12	09		
			SSP		12	39		
			SSS		15	36		
			Lq		20	28		
			Lr		24	47		
M		32	09					
Poona	Z N	N,E	iP	04	56	19	1053	Moderate.
			PP	05	00	05		
			SKS <sub>1</sub>		06	50		
			eS		07	31		
			SS		13	51		
			M		36	09		
Hyderabad	N,E N E N E N N	N,E	P	04	56	20	10320	
			PP	05	00	05		
			e		03	52		
			SKKS		06	49		
			SKKS		06	54		
			S		07	25		
			PS		08	46		
			SS		13	45		
			Lq		21	01		
			Lr		25	49		
M		33	59					
								Per.= 18 Secs. $\mu = 10$
Bombay	N,E E	N,E	eP	04	56	21	10390	Moderate.
			PP	05	00	04		
			iS		07	28		
			SS		13	55		
			M		37	47		
								Per.= 15 Secs. $\mu = 10.2$
Madras	E	E	eP	04	56	32	11110	Moderate.
			PP	05	00	28		
			PPP		02	46		
			SKS		07	12		
			SKKS		07	35		
			eS/ScS		08	04		
			PS		09	35		
			PPS		10	24		
			SS		14	53		
			SSP		15	14		
			SSS		18	50		
			M		33	11		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
01	Shillong	Z	e	05	11	24		Slight.
01	Shillong	Z	eP	09	00	45		Slight.
01	Shillong	Z	iP					
		N,E	eP	14	14	48		Slight.
			e		25	06		
	Dehra Dun	N,E	e	14	14	49		Tremor.
01	Bokaro	N,E	e	14	23	36		Very slight.
			i		25	40		
01	Shillong	Z,E	eP	14	49	46	4720	Slight.
		E	PP		51	26		
			PPP		52	01		
			eS		56	09		
			Lq		59	32		
			SSS		59	54		
		N,E	M	15	05	45		
01	Bokaro	N,E	iP	14	50	33		Slight.
			e		53	20		
			e		55	35		
	Madras	E	iP	14	51	40	2170	Slight.
			PP		51	58		
			PPP		52	07		
			S		55	15		
			Lq		55	28		
			SSS		56	00		
			Lr		56	29		
			M		57	54		
	Bombay	E	eP	14	52	09	7200	Slight.
			eS		15	00	50	
	Hyderabad	E	M	15	20	03		Per. = 12 Secs. μ = 2
01	Shillong	Z	eP	14	51	31		Slight.
01	Shillong	Z	e	15	44	30		Feeble.
01	Epc: 2° S, 69° E; Near Maldiva Islands, Indian Ocean;							
	- H = 17h 18m 55s (Shillong)							
	- H = 17h 18m 55s (U.S.C.G.S).							
	Colombo	E	S	17	22	21		
			L		23	00		
			M		27	56		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
01 Contd.	Kodaikanal	E	eP	17	22	30	2850	Slight.
			PPP		22	54		
			S		25	30		
			Lq		25	42		
			Lr		26	03		
		M		27	18			
Madras	E	iP	17	23	14	2180	Slight.	
		PP		23	32			
		PPP		23	41			
		eS		26	50			
		Lq		26	58			
		SS		27	12			
		SSS		27	31			
		Lr		27	47			
		M		29	00			
Poona	Z N	iP	17	23	39	2350	Moderate.	
		PP		24	09			
		PPP		24	16			
		iS		27	30			
		Lq		27	51			
		SSS		28	23			
		M		30	17			
Bombay	N,E E	iP	17	23	43	2370	Slight.	
		PP		24	04			
		Lq		26	54			
	N E	eS		27	35			
		iS		27	35			
		SS		28	13			
		SSS		28	20			
		Lr		28	48			
Hyderabad	N,E	iP	17	23	48	2410		
		iS		27	44			
	N E	M		29	21			
		M		30	47			
Shillong	Z,E E	iP	17	25	52	3940	Slight. First movement East. Compression.	
		PPP		27	38			
	N,E E	eS		31	27			
		PcS		31	48			
		Lq		34	00			
		Lr		36	12			
	N,E	M		38	56			
01	Bokaro	N,E	e	17	32	27		Slight.
			i		34	18		
			i		35	19		
01	Shillong	Z	eP	17	52	18	130	Slight.
			eSg		52	34		

Per. = 11 Secs  
 $\mu = 5$

DATE	STATION	COMPT.	PHASE	G. M. T.			/	REMARKS
				h.	m.	s.		
<u>Mar.</u> 1955								
01	Shillong	Z	iP	19	18	21		Slight.
01	Dehra Dun	E	e	20	29	09		Tremor.
01	Shillong	Z	eP	22	20	57		Slight.
01	Dehra Dun	N,E	e	22	43	43		Tremor.
01	Shillong	Z	eP	22	44	42		Slight.
01	Shillong	Z	e	23	36	31		Feeble.
02	Shillong	Z,E	iP	01	29	39	7660	Slight. First movement West. Compression.
		E	eS		38	44		
02	Poona	Z	iP	01	39	03		Tremor.
02	Epc: 4° S, 152½° E; - H = 01h 36m 45s (U.S.C.G.S).							
	Shillong	Z,E	eP	01	47	35	7360	Slight.
			PcP		47	51		
		E	PP		49	56		
		N,E	eS		56	23		
		E	PS		56	36		
			ScS		57	13		
			Lr	02	06	51		
			M		13	08		
	Bombay	E	iP	01	49	11	10110	Slight.
			PP		52	38		
			PPP		54	36		
			SKKS		59	38		
			iS	02	00	07		
02	Shillong	Z	e	02	13	15		Slight.
			e		15	58		
02	Shillong	Z	eP	03	32	56		Slight.
02	Shillong	Z	iP					Slight, near. Rarefaction.
		E	eP	03	41	26		
		N,E	e		42	33		
			e		45	58		
			e		47	59		
02	Shillong	Z	iP	03	47	23		Slight.
02	Shillong	Z	iP	04	42	53		Slight.
02	Shillong	Z	e	06	26	36		Slight.
02	Shillong	Z	iP	11	14	24		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Mar. 1955							km.	
02	Shillong	Z	e	12	51	10		Slight.
02	Shillong	Z	e	13	36	19		Slight.
02	Shillong	Z	e	14	20	27		Slight.
02	Shillong	Z	iPg eSg	14	39	15 39 17	20	Slight.
02	Shillong	Z	e	17	05	54		Slight.
02	Shillong	Z	e	17	17	48		Slight.
02	Shillong	Z	e	18	14	42		Feeble.
02	Shillong	Z	i	18	15	22		Slight.
02	Shillong	Z	ePg eSg	19	41	24 41 34	80	Slight.
02	Shillong	Z	e	20	19	53		Slight.
02	Shillong	Z	e	20	42	00		Slight.
02	Shillong	Z	e	21	54	47		Slight.
02	Shillong	Z	e	23	57	38		Slight.
03	Shillong	Z	e	00	52	17		Slight.
03	Shillong	Z	iP	01	21	30		Slight.
03	Shillong	Z	iP	04	35	38		Slight.
03	Shillong	Z	ePg eSg	09	35	13 35 15	20	Slight.
03	Shillong	Z	eP	10	13	17		Slight.
03	Shillong	Z	eP	10	32	31		Slight.
03	Shillong	Z	eP	12	01	27		Slight.
03	Shillong	Z	eP	13	38	07		Slight.
03	Shillong	Z	e	14	28	27		Slight.
03	Shillong	Z	e	16	39	20		Slight.
03	Shillong	Z	eP	20	07	14		Slight.
03	Shillong	Z	i e	20	15	03 15 31		Slight, near.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
03	Shillong	Z	e	20	29	30		Feeble.
03	Shillong	Z	iP	20	58	26		Slight.
03	Shillong	Z	e	23	33	48		Slight.
03	Shillong	Z N,Z	iPg eSg	23	39	00	90	Slight.
					39	11		
04	Dehra Dun	N,E	e	05	54	04		Tremor.
04	Shillong	Z	e	06	20	39		Slight.
04	Shillong	Z	e	11	07	48		Slight.
04	Shillong	Z	e	15	49	40		Slight.
04	Shillong	Z	e	16	56	59		Slight.
04	Shillong	Z	e	17	19	09		Slight, near.
			e		19	25		
			e		19	29		
04	Shillong	Z	e	17	56	18		Slight.
04	Shillong	Z	e	20	52	50		Slight, near.
			e		53	18		
04	Shillong	Z	e	22	25	30		Slight.
05	Shillong	Z	eP	03	49	15		Slight.
05	Shillong	Z	iP	05	37	43		Slight.
05	Shillong	Z	eP eSg	05	42	27	180	Slight.
					42	51		
05	Shillong	Z	eP	08	34	43		Slight.
05	Epc: Hindukush. - H = 10h 22m 50s (U.S.C.G.S).							
	Dehra Dun	N,E N	eP PP PPP P* Lq iS Lr SS SSS S* Sg/M	10	24	58	810	Moderate.
					25	06		
					25	13		
					25	16		
					26	11		
					26	22		
					26	33		
					26	35		
					26	47		
					26	50		
					27	10		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
05	New Delhi	N,E	eP	10	25	12	950	Slight.
Contd.		N,E	PP		25	28		
			Pg		25	50		
			Lq		26	40		
			iS		26	50		
			SS		27	02		
			Lr		27	05		
			Sg		27	43		
	Poona	Z	eP	10	27	03	1920	Feeble. Phases doubtful.
			PP		27	20		
			iS		30	15		
			SS		30	34		
			i		31	19		
			i		32	52		
	Bombay	N	PP	10	27	27	1780	
			eS		30	10		
		E	e		30	13		
	Shillong	Z,E	eP	10	27	30	2290	Slight.
			i		27	32		
		E	PPP		28	06		
			iS		31	16		
	Madras	E	e(S)	10	32	45		Slight. Phases not identifiable.
			e		35	46		
05	Shillong	Z	e	11	08	46		Slight. Local.
			e		08	51		
			e		09	01		
			e		09	06		
05	Shillong	Z	eP	12	50	50		Slight.
05	Shillong	Z	e	16	46	34		Feeble.
05	Shillong	Z	e	17	31	53		Slight.
05	Shillong	Z	e	19	47	29		Feeble.
05	Shillong	Z	eP	21	54	32		Slight.
06	Shillong	Z	eP	03	01	35		Slight. Near.
06	Shillong	Z	eP	05	57	18		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
06	Epc: 3° S, 101° E; - H = 06h 17m 58s (Shillong); 2½° S, 100° E; - H = 06h 18m 01s Near South Coast of Sumatra (U.S.C.G.S); - h = 50 km (Kiruna); Magnitude = 6½—6¼ (Kiruna).							
	Colombo	E	P	06	23	05		
			S		27	10		
			L		30	07		
			M <sub>1</sub>		33	50		
			M <sub>2</sub>		36	25		Amp. = 1.8mm
	Madras	E	iP	06	23	32	2740	Moderate. Probably deep.
			i		23	45		
			i		23	57		
			PP		24	13		
			PPP		24	25		
			i		24	40		
			iS		27	52		
			i		28	10		
			Lq		28	46		
			SS		29	05		
			SSS		29	27		
			Lr		30	01		
			M		31	56		
	Kodaikanal	E	eP	06	23	41	3110	slight.
			PP		24	38		
			PPP		24	59		
			iS		28	25		
			Lq		29	46		
			SSS		30	22		
			Lr		31	16		
			M		33	46		
	Shillong	Z,E	iP					
		N	eP	06	24	02	3110	Moderate. First movement N-W.
		E	sP		24	31		Compression.
		N,E	PP		24	44		h = 80
			PPP		25	03		
			iS		28	46		
		E	sS		29	18		
		N,E	Lq		30	05		
			SS		30	20		
			SSS		30	44		
			Lr		31	48		
			M		34	10		
	Hyderabad	N,E	iP	06	24	05	3150	
		E	PP		24	50		
		N	eS		28	52		
			SS		30	01		
			L		33	23		
		N,E	M		34	59		Per. = 20 Secs /u = 11



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
06	Bokaro	N,E	1P	06	24	12	3210	Slight.
Contd.			PP		24	55		
			PPP		25	31		
			1S		29	02		
			Lq		30	14		
			SS		30	38		
			SSS		30	44		
			Lr		31	34		
			M		34	14		
	Poona	Z	1P	06	24	43	3780	Slight.
			PP		26	01		
			PPP		26	18		
		Z,N	eS		30	08		
		Z	Lr		32	21		
		N	SSS		32	33		
			M		36	33		
	Bombay	N,E	1P	06	24	52	3770	Moderate.
		E	PP		26	15		
		N,E	PPP		26	28		
		E	1S		30	16		
		N,E	eS		30	19		
		E	SS		33	00		
			Lq		33	07		
		N,E	SSS		33	26		
		N	i		33	37		
		E	Lr		34	58		
		N	M		38	00		
		E	M		38	31		
	New Delhi	N,E	1P	06	25	21	4270	Moderate. Direction
		N	PP		26	51		of the first movement
		N,E	S(?)		31	17		South & East.
		N	SS		33	57		
			SSS		34	29		
			M		37	10		
	Dehra Dun	N,E	eP	06	25	28	4230	Moderate.
		N	PP		26	57		
			PPP		27	17		
			1S		31	22		
			SS		33	40		
			Lq		33	54		
			SSS		34	38		
			Lr		35	36		
			M		39	03		
06	Shillong	Z	1P	06	28	47		Slight.
06	Shillong	Z	eP	08	06	43		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
06	Epc: $9\frac{1}{2}^{\circ}$ N, $122\frac{1}{2}^{\circ}$ E; - H = 10h 55m 28s (U.S.C.G.S)							
	$9^{\circ}$ N, $122^{\circ}$ E; Near South West Philipin Islands;							
	- H = 10h 55m 33s (Shillong).							
	Shillong	Z,E	iPI	11	02	06	3640	Moderate. Rarefaction. First movement East.
		N	ePI					
		E	PP		03	17		
		N,E	PPP		03	36		
			iS		07	23		
		E	Lq		08	59		
			SS		09	31		
		N,E	Lr		10	45		
			M		13	47		
	Bokaro	N,E	iP	11	02	50	4220	
			PP		04	22		
			PPP		04	48		
			iS		08	43		
			PS		08	52		
			PPS		08	59		
			SS		11	27		
			Lq		11	42		
			SSS		11	54		
			Lr		13	11		
			M		16	52		
	Madras	E	iP	11	03	21	4580	Moderate.
			PcP		04	51		
			PP		04	59		
			PPP		05	32		
			iS		09	35		
			PPS		09	47		
			SS		12	58		
			Lq		13	34		
			Lr		15	37		
			M		19	06		
	Colombo	E	P	11	03	22		Amp. = 0.7mm
			S		09	45		
			L		18	20		
			M		22	25		
	Hyderabad	E	P	11	03	30	4770	Per. = 16 Secs. $\mu = 7$
			PP		05	14		
			iS		09	56		
			SS		13	29		
			L		16	20		
		N	M		19	56		
		E	M		20	06		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS			
				h.	m.	s.					
<b>Mar. 1955</b>											
06 Contd.	New Delhi	N,E N	eP	11	03	58	5070	Moderate.			
			iS		10	41					
			SS		13	53					
			Lq		14	30					
			Lr		16	33					
		M		20	34						
Dehra Dun	N,E N	eP	11	04	01	5000	Moderate				
		PP		05	38						
		PPP		06	30						
		iS		10	40						
		PS		10	50						
		PPS		10	56						
		SS		14	02						
		Lq		14	20						
		SSS		14	59						
		Lr		16	45						
		M		19	48						
Poona	Z E       N	iP	11	04	11	5240	Moderate.				
		PP		06	00						
		PPP		06	53						
		PcS		09	19						
		iS		11	04						
		PS		11	08						
		PPS		11	14						
		i		14	35						
		M		22	22						
		Bombay	E N E     N,E E	eP	11			04	19	5410	Slight.
				eI							
iI				04	25						
PP				06	14						
PPP				07	07						
ScP				09	04						
iS				11	21						
i				12	25						
SS				14	47						
e				15	02						
SSS				17	13						
Kodaikanal	E	e	11	09	43	4920	Slight. Long distance.				
06	Epc: 8° N, 122° E; Near South west Philippine Islands; - H = 13h 33m 30s (Shillong); 9½° N, 122½° E; - H = 13h 33m 31s (U.S.C.G.S); Felt at Dipolog, Iloilo, Dumaguete (Manila).										
Shillong	Z,E N N,E	iP	13	40	09	3670	Moderate. Direction of the first movem- ent East & South. Rarefaction.				
		eP									
		PP									
		PPP									
		iS									

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1955						
06 Contd. Contd.	Shillong	E	Lq	13 47 06		
			SS	47 29		
		N,E	SSS	47 51		
			Lr	49 31		
		N	ScS	50 33		
	N,E	M	51 46			
Bokaro	N,E	iP	13 40 54	4180	Moderate.	
		PP	42 21			
		PPP	42 47			
		iS	46 44			
		SS	49 15			
		Lq	49 34			
		SSS	49 49			
		Lr	51 23			
		M	53 51		Per.= 15 Secs.	
Madras	E	iP	13 41 24	4590	Moderate.	
		PP	42 01			
		PcP	42 14			
		PPP	42 32			
		i	43 03			
		S	47 39			
		i	48 30			
		Lq	50 57			
		SSS	51 16			
		Lr	53 59			
		M	57 58			
Colombo	E	P	13 41 25			
		S	47 42			
		L	56 30			
		M	14 00 35		Amp.= 2.0mm	
Hyderabad	E	iP	13 41 35	4810		
		PP	43 40			
		iS	48 03			
		SS	51 21			
		L	55 21			
		M	58 15		Per.= 20 Secs.	
		N	M	58 49	$\mu = 21$	
Dehra Dun	N,E	eP	13 41 45	5340	Moderate.	
		PP	43 38			
		PPP	44 15			
		iS	48 43			
		PS	48 54			
		PPS	49 01			
		SS	52 00			
		Lq	52 57			
		SSS	53 26			
		Lr	55 28			
		M	59 17			

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
06	New Delhi	N,E	eP	13	42	01	5050	Moderate.
Contd.		N	IS		48	43		
			SS		52	04		
			Lq		52	32		
			M		58	41		
	Poona	Z	iP	13	42	13	5248	Moderate.
		E	PP		44	01		
		N,E	IS		49	07		
		E	PPS		49	16		
		N	SS		52	26		
		E	I		52	47		
		N	SSS		53	45		
			M	14	00	30		
	Bombay	N	ePi					
		E	iPi	13	42	22	5390	Moderate.
			PeP		43	27		
			PP		44	13		
			PPP		45	04		
			ScP		47	19		
		N,E	IS		49	23		
		E	PPS		49	43		
			SS		52	51		
	Kodaikanal	E	eP	13	47	46	4950	Slight. Long distance shock.
			S		54	31		
06	Shillong	Z	iP	13	49	28		Slight compression.
06	Shillong	Z	e	16	04	27		Slight.
06	Shillong	Z	e	17	30	58		Slight.
06	Shillong	Z	e	19	19	32		Slight.
06	Shillong	Z	eP	20	39	43		Slight.
06	Epc: $37^{\circ}$ N, $74^{\circ}$ E; Near East Pamir. - H = 20h 55m 26s (Shillong). $38\frac{1}{2}^{\circ}$ N, $73\frac{1}{2}^{\circ}$ E; - H = 20h 55m 13s (U.S.C.G.S).							
	Dehra Dun	N,E	eP	20	57	31	890	Moderate.
		N	PP		57	38		
			PPP		57	45		
			Lq		58	53		
			IS		59	03		
			SS		59	15		
			Lr		59	18		
			SSS		59	26		
			Sg/M		59	54		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Mar.</u>									
1955									
06 Contd.	New Delhi	N,E E N,E	eP	20	57	49	1010	Slight. Direction of first motion South and West.	
			PP			57			57
			PPP			58			03
			P*			58			09
			iS			59			33
			SS			59			46
			Lr			59			50
			S*	21	00	08			
i			00	21					
	Bokaro	N,E	iP	20	59	31	1820	Slight.	
			PP			59			48
			PPP			59			55
			iS/Lq	21	02	33			
			SS			02			55
			SSS			03			07
			Lr			03			16
			M			04			39
	Bombay	N,E E N,E E N E N,E E	eP	20	59	45	2200	Slight. Deep focus.	
			PP	21	00	03			
			i			00			23
			e			03			01
			eI						
			iI			03			13
			iS			03			23
			i			04			25
i			05	11					
	Poona	Z E	iP	20	59	48	2060	Slight.	
			PP	21	00	04			
			PPP			00			13
			iS			03			12
			SS			03			21
			SSS			03			46
			Lr			04			03
			M			05			18
	Shillong	Z,E N E	iP	20	59	53	2110	Slight. Direction of the first movement East. Compression.	
			eP						
			PP	21	00	09			
		PPP			00	19			
		iS							
		eS			03	22			
		Lq			03	34			
		SS			03	54			
		SSS			04	09			
		Lr			04	26			
		M			06	00			
	Hyderabad	N E N	iP	21	00	09	2240		
			PP			00		30	
			S			03		51	
			iS			03		57	

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
06	Madras	E	eP	21	00	54	2700	Slight.
Contd.			PP		01	32		
			iS		05	11		
			Lq		05	37		
			SS		05	54		
			Lr		06	42		
			M		08	34		
06	Shillong	Z	eP	23	33	40		Slight.
07	Shillong	Z,E	iP	04	57	32	9580	Slight. Direction of
		E	PP	05	00	18		the first movement
			SKS		07	53		West. Compression.
			iS					
		N	eS		08	07		
		E	PS		09	10		
			PPS		09	50		
			SS		12	44		
07	Shillong	Z	e	05	31	20		Slight.
07	Shillong	Z	e	05	37	41		Slight.
07	Shillong	Z	e	06	39	35		Slight.
07	Shillong	Z	e	07	22	42		Slight.
07	Shillong	Z	e	07	57	27		Slight.
07	Shillong	Z	e	08	07	13		Slight, local.
07	Shillong	Z	e	09	44	26		Slight, local.
07	Shillong	Z	e	11	11	26		Slight.
07	Shillong	Z	e	15	01	13		Slight.
		E	e		11	47		
07	Shillong	Z	eP	16	24	04		Slight.
07	Shillong	Z	e	17	13	09		Slight.
07	Shillong	Z	e	19	52	23		Slight.
07	Shillong	Z	e	19	55	54		Slight.
07	Dehra Dun	N,E	e	20	04	48		Tremor.
08	Shillong	Z	e	03	56	17		
08	Shillong	Z	e	04	56	57		

DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
08	Colombo	E	P	05	56	50		
			S	06	06	22		
			M		44	35		Amp.= 0.1mm
08	Madras	E	iP?	06	01	20		Other phases not clear.
08	Shillong	Z	e	06	42	50		
08	Shillong	Z	e	06	52	44		
08	Shillong	Z	eP	15	15	21	130	Felt at Goalpara.
			Sg		15	37		
08	Dehra Dun	N,E	e	19	26	50		Feeble. Phases not clear.
			i		27	34		
08	Shillong	Z	eP	19	39	43		
08	Poona	Z	i?	23	41	34		Tremor.
09	Shillong	Z	eP	00	36	28		
09	Poona	Z	i?	02	24	54		Tremor.
09	Shillong	Z	e	02	35	51		
09	Hyderabad	N	M	03	19	41		Per.= 21 Secs.
		E	M		19	46		$\mu = 9$
09	Colombo	E	P	03	45	00		'P' approximate.
			L		15	19		
			M		19	29		Amp.= 0.4mm
09	Shillong	Z	iP	04	56	41		
09	Shillong	Z	eP	05	51	13		
	Poona	Z	iP	05	51	37		
09	Shillong	Z	eP	09	24	59		
			eS		29	45		
	Colombo	E	P	09	25	34		'P' uncertain.
			M		48	14		Amp.= 0.1mm
	Poona	Z	iP	09	27	30		Tremor.
	Dehra Dun	N,E	i	09	32	46		Slight. Phases not clear.
			i		41	24		
	Hyderabad	N	M	09	44	51		Per.= 12 Secs.
		E	M		45	00		$\mu = 2$



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
09	Dehra Dun	N,E	e	10	49	03		Tremor.
09	Shillong	Z	iP	14	12	55		
09	Poona	Z	iP	17	31	12		Tremor.
	Shillong	Z	i	17	31	23		
09	Shillong	Z	e	18	08	19		
09	Shillong	Z	e	19	54	22		
09	Shillong	Z	e	21	30	36		
10	Shillong	Z	e	00	52	06		
10	Shillong	Z	iP	16	17	05		
10	Shillong	Z	e	17	47	27		
10	Shillong	Z	e	18	46	05		
10	Shillong	Z	e	19	53	52		
10	Shillong	Z	e	20	53	19		
10	Epc: $34^{\circ}$ N, $78^{\circ}$ E; (Kashmir). - H = 21h 16m 26s (Shillong).							
	$33^{\circ}$ N, $76\frac{1}{2}^{\circ}$ E; - H = 21h 16m 21s (B.C.I.S)							
	$32\frac{1}{2}^{\circ}$ N, $77^{\circ}$ E; - H = 21h 16m 20s (U.S.C.G.S).							
	Dehra Dun	N,E	eP	21	17	13	330	Slight.
		N	P*		17	17		
			PP		17	21		
			Pg		17	23		
			PPP		17	27		
			Lq		17	37		
			Lr		17	45		
			iS		17	49		
			S*		17	54		
			SS/Sg		17	59		
			SSS		18	10		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
10 Contd.	New Delhi	N,E	eP	21	17	31	680	Slight.
			PP			17 40		
		E	PPP			17 47		
			Pg			18 02		
		N,E	Lq			18 29		
			iS			18 42		
		E	i			19 00		
			S*			19 03		
			SSS.			19 09		
Poona	Z	iP	21	19	55	1590	Slight.	
		PP			20 03			
	N	PPP			20 13			
		eS			22 35			
	E	SS			22 52			
		SSS			23 04			
		Lr			23 13			
		M			23 47			
	Shillong	E	eP	21	19			55
PP					20 10			
iS					22 37			
Bombay	E	e	21	20	09		Near shock of slight intensity.	
		e			23 35			
	N	i			23 43			
		e			23 43			
Bokaro	N,E	eS	21	21	29		Feeble.	
		i			23 01			
Hyderabad	E	e	21	24	18		Per.= 9 Secs. , u = 2	
		M			25 57			
Colombo	E	P	21	27	31		'P' uncertain. Amp.= 0.1mm	
		L			06 36			
		M			13 06			
10	Madras	E	iP	22	24	24	1400	Slight.
			Lq			26 40		
			iS			26 47		
			SS			27 00		
			SSS/Lr			27 24		
			M			28 33		
11	Dehra Dun	N,E	e	03	18	50		Tremor
	Shillong	Z	e	03	18	55		
11	Shillong	Z	e	04	37	05		
11	Shillong	Z	e	09	29	13		
	Poona	Z	i	09	29	59		Tremor

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.m.	s.	km.		
<u>Mar.</u>								
1955								
11	Shillong	Z	e	18	20	18		
11	Shillong	Z	e	18	37	40		
11	Shillong	Z	eP	21	53	11		
11	Poona	Z	i	21	55	00		
11	Epc: 8° N, 124° E; (Mindanao, Philippine) - H = 23h 32m 46s (U.S.C.G.S). Felt at Dipolog, Mambajao and Iloilo (Manila).							
	Shillong	Z	iP	23	39	43	3980	Slight.
		E	iS		45	21		
	Bokaro	N,E	iP	23	40	20	4400	Slight, distant.
			PP		41	59		
			PPP		42	27		
			eS		46	24		
			PS		46	28		
			PPS		46	34		
			SS		49			
			Lq		49	30		
			SSS		49	50		
			Lr		51	27		
			M		55	12		
	Madras	E	iP	23	40	52		Slight.
			e		42	34		
	Dehra Dun	N,E	e	23	41	33		Tremor.
	Poona	Z	iP	23	41	42	5590	Slight.
		E	PP		43	32		
			eS		48	55		
			PS		49	01		
			PPS		49	09		
			ScS		51	01		
	Bombay	E	iP	23	41	49	5750	Moderate.
		N	eP		41	52		
		E	PcP		42	52		
			PP		43	46		
			PPP		44	55		
			ScP		47	03		
			iS		49	11		
			PS		49	22		
			PPS		49	31		
12	Shillong	Z	e	02	39	49		Slight.
12	Shillong	Z	e	06	27	15		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1955						
12	Shillong	Z	e	09 29 26		Slight.
12	Shillong	Z	e	12 06 49		Slight.
12	Shillong	Z	e	12 58 26		Slight.
12	Shillong	Z	iP	13 37 39		Slight.
	Poona	Z	i	13 38 46		Tremor.
12	Epc: 35.5° N, 74.4° E; - H = 16h 42m 30s (Shillong); 35° N, 73.4° E; - H = 16h 42m 15s (U.S.C.G.S). 35° N, 73.5° E; - H = 16h 42m 18s (B.C.I.S).					
	Dehra Dun	N,E N	eP PP P* PPP. Pg Lq iS Lr SS S* SSS. Sg	16 43 52 44 00 44 04 44 08 44 18 44 48 44 57 45 03 45 10 45 17 45 20 45 32	610	Moderate.
	New Delhi	N E N,E N E N,E N N,E	eP eP e P* Pg i i iS SS S* Sg	16 44 01 44 03 44 13 44 17 44 35 44 42 45 17 45 24 45 36 45 49 46 11	800	Slight.
	Bombay	N,E E N,E E	eP PP PPP e iS SS SSS Lr M	16 46 02 46 17 46 24 46 56 48 46 49 02 49 12 49 24 50 40	1610	Moderate.
	Bokaro	N,E	eP i i	16 46 03 50 29 50 50		Slight. Probably deep.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS					
				h.	m.	s.							
<u>Mar.</u>													
1955													
12 Contd.	Poona	Z	iP	16	46	04	1690	Slight.					
			PP		46	17							
			PPP		46	25							
			eS		48	54							
			SS		49	15							
			SSS		49	28							
			Lr		49	49							
			M		50	51							
			Hyderabad	N	E	eP			16	46	30	1760	
						S				49	27		
M		51				22							
N		53				09							
								Per. = 6 Secs. A = 7					
Shillong	Z	E	iP	16	46	32	1910	Slight.					
			iS		49	43							
Madras	E		eP	16	47	31	2460	Slight.					
			PP		47	49							
			PcP		51	17							
			S		51	31							
			Lq		51	52							
			SS		52	10							
			Lr		52	52							
			M		54	24							
			Colombo	E		eS			16	52	30		
e		55				35							
L		57				22							
M		59				35							
12	Shillong	Z	e	18	23	23		Slight.					
12	Shillong	Z	e	18	34	22		Slight.					
12	Shillong	Z	eP	19	36	12		Slight.					
12	Shillong	Z	e	23	18	51		Feeble.					
13	Shillong	Z	e	04	13	14		Feeble.					
	Poona	Z	i	04	15	11		Tremor.					
13	Shillong	Z	e	05	29	42		Feeble.					
13	New Delhi	Z	eP	07	02	16	2080						
			eS		05	42							
			M		08	33							
13	Shillong	Z	e	08	00	05		Feeble.					
13	Shillong	Z	e	08	17	02		Tremor.					

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
<u>1955</u>						
13	Epc: Southern Iran; - H = 16h 58m 00s (U.S.C.G.S); 28° N, 56 $\frac{1}{2}$ ° E; - H = 16h 58m 05s (B.C.I.S).					
	Bombay	E	iP	17 02 08	2030	Slight.
		N	eP	02 22		
		E	PP	02 31		
			PPP	03 00		
			i	05 30		
		N,E	eS	05 34		
		E	Lq?	05 41		
			i	05 50		
			SS	06 06		
			SSS			
	Poona	Z	iP	17 02 21	2090	Slight.
			PP	02 34		
		E	PPP	02 44		
		N	eS	05 48		
		E	M(?)	07 18		
	Dehra Dun	N,E	eP	17 02 43	110	Slight.
			PP	02 55		
			i	02 57		
			S	06 14		
			SS	06 35		
		N	Lr	06 49		
			M	08 17		
	Hyderabad	E	eP	17 03 10	2530	
		N	S	07 15		
		E	M	12 20		Per. = 18 Secs.
		N	M	12 21		$\mu = 5$
	Madras	E	iP	17 03 52	3370	Slight.
			PP	04 51		
			eS	08 52		
			i	09 07		
			Lq	10 13		
			SSS	10 39		
			M	14 19		
	Colombo	E	L	17 12 34		
			M	17 19		Amp. = 0.1mm
13	Shillong	Z	eP	17 05 25		Slight.
13	Dehra Dun	N,E	e	18 41 57		Tremor.
	Shillong	Z	e	18 42 50		Tremor.
13	Shillong	Z	e	18 57 05		Tremor.
13	Shillong	Z	eP	19 39 59		Slight.
13	Madras	E	iP	19 41 05		Slight. Other Phases not clear.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
13	Poona	Z	i	19	42	02		Tremor.
Contd.								
13	Shillong	Z	eP	20	14	16		Slight.
13	Shillong	Z	e	20	35	13		Tremor.
13	Shillong	Z	e	22	15	13		Tremor.
13	Shillong	Z	e	22	44	54		Tremor.
13	Shillong	Z	e	23	46	47		Tremor.
14	Shillong	Z	e	00	28	48		Tremor.
14	Shillong	Z	e	02	43	08		Feeble.
14	Shillong	Z	e	06	10	19		Feeble.
14	Shillong	Z	e	11	13	03		Feeble.
14	Shillong	Z	eP	12	08	20		Slight.
14	Epc: $52\frac{1}{2}^{\circ}$ N, $173\frac{1}{2}^{\circ}$ W; - H = 13h 12m 04s; - h = 100 km.(U.S.C.G.S) Magnitude = 7 (U.S.C.G.S); $6\frac{3}{4}$ (Berkeley); $6\frac{1}{2}$ (Kiruna).							
	Shillong	Z	iP	13	23	21	7840	Moderate.
		E	PP		26	08		
			eS		32	34		
			PS		33	08		
	Dehra Dun	N,E	eP	13	23	52	7840	Moderate.
		N	PP		26	52		
			iS		33	05		
			PS		35	15		
			PPS		36	03		
			SS		40	22		
			SSS		44	22		
			Lr		53	20		
			M	14	00	35		
	Bokaro	N	eP	13	23	57	8220	Moderate. Distant.
			iS		33	29		
			SKS <sub>1</sub>		33	58		
			PS <sub>1</sub>		34	22		
			PPS		34	49		
			Lq		43	59		
			Lr		47	18		
			M		53	39		
	Poona	Z	iP	13	24	08	8830	Moderate.
			eS		34	09		
			ScS		35	17		
			PS		36	03		
			PPS		36	17		
			SS		40	35		
			SSS		44	15		
			Lr		51	44		
			M		59	03		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
14 Contd.	New Delhi	N,E N	(eP)?	13	24	37	7540	Slight.
			S		33	35		
			ScS		34	35		
			i		39	29		
			Lr		44	57		
			M		50	53		
Bombay	E	E	eP	13	25	01	9250	Moderate. Deep-Focus. (Tabulated as normal shock)
			e		26	30		
			i		29	03		
			PPP		30	23		
			SKS		35	00		
			iS					
			eS		35	21		
			i		36	08		
			PS		36	28		
			PPS		36	45		
			SS		40	47		
			SSS		44	19		
			Hyderabad	E	E	eP		
PP		28				45		
iS		35				57		
SS		41				11		
L		53				21		
M		58				48		
M		59				24		
Madras	E	E	eP	13	25	31	10110	Moderate.
			PP		29	16		
			PPP		31	13		
			SKS		36	09		
			iS		36	26		
			PS		36	41		
			PPS		38	39		
			SS		42	59		
			SSS		46	49		
			Lq		51	14		
			Colombo	E	E	e		
i		34				43		
e		46				21		
M		51				36		
14	Shillong	Z	e	17	11	33		Feeble.
			iP	17	24	49		
			e	22	36	07		
			e	23	06	46		
			eP	06	26	13		
15	Shillong	Z						Slight. Distant, phases not clear.

Per. = 18 Secs.  
/u = 6

Amp. = 0.4mm



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
15	Shillong	Z	e	07	39	33		Tremor.
15	Epc: 23.8° N, 93° E; (Indo Burma Border); - H = 08h 13m 18s (Shillong); Felt at Shillong.							
	Shillong	Z,N,E	iP	08	13	53	220	Slight. Felt locally.
		Z,E	PP		13	55		
			iPg		13	58		
			P*		14	00		
			PPP.		14	06		
			S		14	19		
			S*		14	21		
			iSg/N.		14	24		
			SS		14	31		
			SSS		14	41		
	Bokaro	N,E	iP	08	14	56	770	Slight.
			Lq		16	05		
			eS		16	16		
			SSS		16	38		
			M		16	57		
	Dehra Dun	N,E	eP	08	16	49	1590	Slight.
		N	iS		19	29		
			SS		19	43		
			SSS		19	54		
			Sg/M		21	03		
	New Delhi	N,E	eP	08	16	53	1560	Slight.
			iP		19	30		
			SS		19	46		
		N	SSS		19	58		
			Lr		20	05		
	Madras	E	iP	08	16	58	1710	Slight.
			iS		19	50		
			SS		20	11		
			Lr		20	04		
			M		22	00		
	Poona	Z	iP	08	17	31	1910	Slight.
			PP		17	45		
			PPP		17	56		
			eS		20	42		
			i		20	54		
			SSS		21	14		
			Lr		21	28		
			PcP		22	08		
			M		22	53		
	Bombay	N	eP					
		E	iP	08	17	44	2300	Slight.
			PP		18	04		
			iS		21	31		
			SS		22	03		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
15	Shillong	Z	e	16	17	20		Tremor.
15	Shillong	Z	iP	16	53	50		Moderate. Distant. Phases doubtful.
15	Dehra Dun	N,E	e	17	07	52		Tremor.
15	Shillong	Z	iP	17	27	05		Moderate. Phases doubtful.
15	Shillong	Z	iP	20	23	09		Slight. Distant. Pha- ses not developed.
16	Shillong	Z	e	03	41	52		Tremor.
16	Shillong	Z	eP	04	04	47		Slight. Phases doubtful.
16	Shillong	Z	iP	06	47	40		Slight. Distant. Phases doubtful.
16	Epc: $24\frac{1}{2}^{\circ}$ N, $121\frac{1}{2}^{\circ}$ E; - H = 20h 12m 34s (B.C.I.S.); Formosa; - H = 20h 12m 22s (U.S.C.G.S)							
	Shillong	Z,N,E	iP	20	18	14	3080	Moderate. Probably deep.
		E	PP		19	04		
			PPP		19	26		
			eS		22	56		
			Lq		24	10		
			Lr		25	30		
			M		27	39		
	Colombo	E	e	20	19	21		
			S		27	21		
			L		37	31		
			M		41	31		Amp. = 0.2mm
	Bombay	E	e	20	21	03		
			e		30	48		
			e		31	56		
	Bokaro	N,E	eS	20	24	30		Slight.
			i		30	23		
			i		31	32		
			i		34	55		
	Hyderabad	E	M	20	36	16		Per. = 17 Secs.
		N	M		36	18		/u = 5

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				△			
				h. m. s.			km.
<u>Mar.</u>							
<u>1955</u>							
16	Epc: 36.5° N, 72° E; Hindukush; - H = 20h 39m 30s Shillong); 38° N, 71° E; - H = 20h 39m 20s (U.S.C.G.S).						
	Dehra Dun	N,E N	eP PP PPP Lq iS SS Lr SSS S* Sg/M.	20	41 46 41 53 42 01 43 15 43 23 43 22 43 37 43 42 43 49 44 10	950	Moderate.
	Poona	Z	iP PP PPP eS i SS SSS Lr PcP M	20	43 36 43 49 43 59 46 49 47 01 47 12 47 23 47 38 48 09 49 02	1930	Slight.
	Shillong	Z,N,E E	iP PP PPP eS Lq SS SSS Lr M	20	44 10 44 33 44 57 47 52 47 58 48 25 48 36 49 06 50 34	2230	Slight. Probably deep.
	Madras	E	eP (eS)?	20	45 37 49 41		Phases not at all clear.
16	Shillong	Z	e	22	05 14		Slight.
16	Colombo	E	P L M	22	17 36 59 21 23 11 06		Amp. = 0.1mm
17	Shillong	Z	e	02	30 13		Tremor.
17	Dehra Dun	N,E	e	05	47 29		Tremor.
17	Shillong	Z	e	09	23 14		Moderate. Phases doubtful.
17	Shillong	Z	iP	17	45 37		Moderate. Distant. Phases doubtful.
17	Shillong	Z	e	17	51 56		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
17	Shillong	Z	e	18	51	05		Tremor.
18	Epc: $54\frac{1}{2}^{\circ}$ N, $161^{\circ}$ E; - H = 00h 06m 42s; Near East Coast of Kamchatka (U.S.C.G.S); $54\frac{1}{2}^{\circ}$ N, $161^{\circ}$ E; - H = 00h 06m 44s (B.C.I.S). Magnitude = $7\frac{1}{4}$ - $7\frac{3}{4}$ (Pasadena, Berkeley); $7\frac{3}{4}$ (Skalnate Pleso); $7\frac{1}{4}$ (Roma); $7\frac{1}{4}$ (Takubaya); $7$ - $7\frac{1}{4}$ (Praha, Hurb-anavo); $7$ (Uppsala); $6\frac{3}{4}$ - $7$ (Kiruna).							
	Dehra Dun	N,E N	eP PP PPP iS PS PPS SS SSS Lq Lr M	00	17	04	7310	Moderate.  Per. = 14 Secs. /u = 84
	New Delhi	N,E N	iP i PPP S SKS i Lr	00	17	15	7040	Moderate. Direction of the first movement North.
	Bokaro	N,E	iP PcP PP PPP PcS iS PS PPS ScS SS SSS Lq Lr M	00	17	07	6530	Moderate. Distant.  Per. = 34 Secs. Amp. = 22mm
	Hyderabad	N,E N E  N E	iP PP PPP iS PS SS SSS L M M	00	18	05	7770	Per. = 17 Secs. /u = 104

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS	
				h.	m.	s.			
<u>Mar.</u> 1955									
18 Contd.	Bombay	N,E	iP	00	18	18	8030	Moderate. Appears to be a double-shock.	
			PcP		18	28			
		E	PP		21	02			
			PPP		22	49			
		N	iS		27	41			
			eS		28	11			
		E	PS		28	33			
			PPS		56	47			
		N	M						Per.= 15 Secs. /u =134
Poona	N		iP	00	18	19	8000	Great.	
			PcP		18	43			
			PP		20	48			
			PPP		22	41			
			ScS		22	55			
			iS		27	40			
			PS		27	57			
			PPS		28	24			
			SS		32	05			
			i		33	04			
			Lq		36	35			
			Lr		39	44			
			M		45	23			
			Mn		57	44			Per.= 15 Secs. /u =101
Madras	E		iP	00	18	22	7810	Great.	
			PcP		18	44			
			i		19	53			
			PP		21	09			
			PPP		22	36			
			iS		27	34			
			PS		28	17			
			PPS		28	24			
			SS		31	59			
			Kodaikanal	E		eP			00
PP		21				38			
PPP		23				23			
iS		28				26			
SS		33				26			
Lq		38				38			
Lr		42				08			
M?		48				14	Per.= 15 Secs.		
Colombo	E		iP	00	18	50		Amp.= 3.7mm	
			S		28	43			
			L		40	08			
			M		57	35			
18	Shillong	Z	e	05	12	23		Slight. Local.	
18	Shillong	Z	i	06	19	10		Tremor.	

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Mar. 1955								
18	Shillong	Z	iP	07	53	33		Moderate. Distant. • Phases doubtful.
18	Shillong	Z	i	09	29	41		Tremor.
18	Shillong	Z	i	10	07	19		Tremor.
18	Shillong	Z	i	20	44	34		Slight.
19	Shillong	Z	iP	04	04	33		Moderate. Distant. Phases doubtful.
19	Dehra Dun	N,E	e	08	09	05		Feeble. Phases not clear.
			i		10	50		
			i		11	10		
	Poona	Z	iP?	08	09	45		Feeble. Phases not clear.
			i		14	58		
			i		16	02		
	Shillong	Z	e	08	10	09		Slight.
19	Madras	E	eP?	08	17	08		
			iS?		19	22		
	Shillong	Z	e	08	18	41		Slight.
19	Shillong	Z	e	17	20	28		Feeble.
19	Shillong	Z	e	17	24	00		Slight. Very distant.
19	Shillong	Z	e	17	32	59		Feeble.
19	Shillong	Z	eP	18	28	53		Slight. Distant.
19	Dehra Dun	N,E	e	20	16	33		Tremor.
19	Shillong	Z,E	iP	22	01	15		Moderate. Distant. Phases doubtful.
19	Shillong	Z	eP	23	09	13		Slight.
			e		48	21		
20	Shillong	Z	iP	00	45	08		Distant.
20	Shillong	Z	e	02	12	40		Feeble. Distant.
20	Shillong	Z	e	02	29	35		Slight. Distant.
20	Shillong	Z	eP	06	20	38		Distant. Slight.
20	Shillong	Z	eP	20	46	48		Slight. Distant.
20	Shillong	Z	eP	21	19	12		Moderate. Distant. Phases doubtful.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
20	Shillong	Z,E E	iP Lq eS Lr SS M	23	18	13 14 25 35 46 59	690	Moderate. Phases not very regular.
21	Poona	Z	i	00	56	31		Tremor.
21	Poona	Z	iP i i	00 01	57 01	49 32 40		Tremor. Probably a very feeble shock.
	Madras	E	eP e e e e M	00	57	24 32 40 50 54 18	1480	Slight.
	Bombay	N	eP e eS	00	57	57 42 47	3210	Slight.
	Shillong	Z	iP	00	59	54		Moderate. Phases doubtful.
	Kodaikanal	E	e e e e	01	01	40 40 40 31	1170	Slight.
	Hyderabad	E	M	01	05	54		Per. = 11 Secs. μ = 9
21	Shillong	Z	e	02	20	32		Slight. Very distant.
21	Shillong	Z	eP	04	58	16		Moderate. Distant. Phases unidentifiable.
21	Shillong	Z	e	05	31	09		Tremor.
21	Epc: 25.4° N, 99.4° E; In China Burma Frontier; 26° N, 98½° E; -h = 100 km; - H = 13h 01m 55s (Shillong); - H = 13h 02m 05s (U.S.C.G.S).							
	Shillong	N,E E	iP PP P* Pg Lq IS Lr SS S* SSS Sg/M	13	03	27 34 39 53 27 37 43 48 55 58 10	670	Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1955						
21 Contd.	Bokaro	N,E	eP	13 04 51	1820	Slight.
			Lq	07 42		
			iS	07 53		
			SS	08 08		
			SSS	08 23		
			Lr	08 44		
			M	09 29		
Hyderabad	E	iP	13 06 10	2300	Times approximate.	
		iS	09 57			
		L	12 12			
		M	13 58			
						Per. = 11 Secs. /u = 4
Dehra Dun	N,E N	eP	13 06 19	2100	Slight.	
		PP	06 29			
		iS	09 47			
		Lq	09 58			
		SS	10 07			
		SSS	10 21			
		Lr	10 46			
		M	12 18			
New Delhi	N,E N	eP	13 06 23	2160	Slight.	
		iS	09 56			
		SS	10 22			
		i	10 42			
		Lr	11 09			
		M	12 10			
Madras	E	iP	13 06 47	2570	Slight.	
		PP	07 15			
		PPP	07 29			
		PcP	10 19			
		iS	10 55			
		Lq	11 28			
		SSS	11 53			
		Lr	12 36			
		M	15 06			
		Poona	Z			eP
PP	07 53					
PPP	08 08					
i	11 29					
eS	11 34					
Lq	12 33					
SS	12 55					
Lr	14 42					
M	15 59					
ScS	17 53					
Bombay	N,E E			eP	13 07 23	2790
		PP	08 04			
		PPP	08 16			
		eS	11 46			
	N,E E	iS	12 47			
		SS	13 03			
		SSS	13 03			
		Lr	13 49			





DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
22 Contd.	Madras	E	iP	06	18	52	2510	Slight.
			PP		19	30		
			PPP		19	38		
			iS		22	56		
			Lq		23	36		
			SS		23	54		
			SSS		24	11		
			Lr		24	38		
		M		26	54			
. Poona	Z		iP	06	19	18	2780	Moderate.
			PP		19	58		
			PPP		20	03		
			PcP		22	57		
			eS		23	03		
			Lq		24	05		
	E		SS		24	18		
			SSS		24	37		
			Lr		25	07		
			M		27	03		
			ScS		30	14		
					e	06	19	25
Bombay	N		ePI	06	19	25	2850	Moderate.
			iPI					
			PP		20	09		
			PPP		20	18		
			PPP		20	24		
			iS		23	51		
			iS		23	55		
			SS		25	03		
			SS		25	12		
			Lr		25	58		
			M		27	00		
N		M		27	41		Per. = 7 Secs. /u = 12	
Colombo	E		P	06	19	35		Time approximate.
			S		24	10		
			L		33	00		
			M		34	55		
							Amp. = 0.8mm	
22	Shillong	Z	e	11	17	00		Slight.
22	Shillong	Z	iP	11	59	52		Slight.
22	Shillong	Z	eP	14	08	04		Slight.
22	Epc:							10° S, 93° E; - H = 14h 04m 54s (Shillong); 8½° S, 92° E; - H = 14h 05m 04s (U.S.C.G.S); 9° S, 91½° E; - H = 14h 05m 06s (B.C.I.S); Magnitude = 7-7¼ (Wellington); 7 (Pasadena, Uppsala, Kiruna, Lwiro); 6½-7 (Skalnate Pleso); 6½ (Praha).

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
22 Contd.	Colombo	E	P	14	09	40		
			e		11	08		
			S		13	25		
			M		15	20		Amp. = 28.4mm
	Kodaikanal	E	iP	14	10	21	2900	Moderate.
			iS		14	21		
			SSS		15	12		
			Lr		15	22		
			M		17	07		
								Per. = 9 Secs. $\mu = 15$
	Madras	E	iP	14	10	29	2960	Moderate.
			PP		11	19		
			PPP		11	31		
			PcP		13	38		
			iS		15	03		
			Lq		16	16		
			SS		16	27		
			Lr		17	28		
			M		19	26		
	Hyderabad	N	iP	14	11	16	3410	Light, faint. Minute marks not clear. Per. = 17 Secs. $\mu = 148.$
			iS		16	19		
			M		19	49		
	Poona	Z,N,E	iP	14	11	39	3710	Great.
			PP		12	53		
		Z,N	PPP		13	11		
		N	PcP		14	21		
			iS		17	01		
			PcS		18	01		
			Lq/SS		18	54		
			SSS		19	19		
			Lr		20	26		
			M		23	21		
	Bokaro		N,E	iP	14	11	45	3610
		PP			12	40		
		PPP			13	06		
		i?			16	21		
		iS			17	00		
		Lq			18	36		
		SS			18	57		
		SSS			19	08		
		Lr			20	17		
		M			21	45		
								Per. = 18.7 Secs. $\mu = 165$

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS				
				h. m. s.	km.					
<u>Mar.</u>										
1955										
22 Contd.	Bombay	N,E	iP	14 11 47	3850	Moderate to great. 'M' waves nicely recorded.				
			PP	13 05						
		N	PPP	13 21						
			PcP	14 23						
		N,E	i	15 37						
			iS	17 17						
		E	Lq	19 19						
			SS	19 24						
		N,E	SSS	19 56						
			Lr	20 58						
		E	M	23 25						
			N	M			24 21			
								Per.= 20 Secs. /u =272.		
			Shillong	Z,N,E			iP	14 11 54	3920	Moderate.
PP	13 12									
N,E	PPP			13 35						
	PcP			14 24						
N	iS			17 28						
	PcS			18 13						
N,E	Lq/SS			19 29						
	Lr			20 54						
N,E	M			24 20						
							Per.= 20 Secs. /u =130.			
	New Delhi	N,E	iP	14 12 41	4280	Great.				
			PP	14 12						
			PPP	14 47						
			iS	18 38						
			SS	21 31						
			SSS	22 12						
			Lr	23 34						
	Dehra Dun	N,E	eP	14 12 53	4690	Moderate.				
			PP	14 28						
		N	PPP	15 31						
			iS	19 14						
		N	PS	19 22						
			PPS	19 40						
		N	SS	22 36						
			Lq	23 06						
		N	SSS	23 30						
			Lr	25 10						
		N	M	29 10						
									Per.= 20 Secs. /u =152.	
		22	Shillong	Z			e	16 57 21		Slight.
22	Shillong	Z	e	18 29 08		Slight.				
22	Shillong	Z	e	18 34 45		Slight, near.				
			e	34 58						

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
22	Shillong	Z	ePg eSg	21	38	31 38 37	50	Slight.
22	Shillong	Z	e	21	55	04		Slight.
22	Shillong	Z	e	22	37	08		Slight.
23	Shillong	Z	iPg iSg	00	20	43 20 47	40	Slight.
23	Shillong	Z	e	00	50	02		Slight.
23	Epc: After shock of the Indian Ocean shock dated 22nd March '55; - H = 04h 54m 31s (U.S.C.G.S); 9° S, 93° E; - H = 04h 54m 29s (Shillong).							
	Colombo	E	e	04	59	40		
			e	05	02	50		
			e		03	38		
			e		04	40		Amp. = 1.6mm
	Madras	E	iP PP PPP S? SSS M	04 05	59 00	59 13 19 54 18 17	1740	Slight.
	Hyderabad	N	eP S SS M	05	00	38 39 09 36	3370	Per. = 21 Secs. M = 10
	Poona	Z,N,E N N,E N N,E	eP PPP eS PcS Lq M	05	01	08 41 26 27 39 42	3630	Slight.
	Bokaro	N,E	eP e e M	05	01	15 43 19 11		Slight.
	Bombay	N,E N E	eP eS iS	05	01	17 37	3700	Slight. After shock of the preceding great shock.
	New Delhi	N,E	e	05	02	10		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Mar.</u>						
1955						
23	Dehra Dun	N,E	eP	05 02 21	4430	Slight.
Contd.			PP	03 47		
			PPP	04 04		
			iS	03 26		
			Ps	03 34		
			PPS	03 47		
			SS	11 13		
			Lq	11 37		
			SSS	12 02		
			Ir	13 52		
			M	17 15		
23	Shillong	Z	e	13 54 55		Tremor.
23	Shillong	Z	eP	14 02 06		Slight. Distant.
23	Shillong	Z	e	14 50 49		Slight.
23	Shillong	Z	i	15 15 34		Tremor.
23	Shillong	Z	iP	16 02 00		Slight. Distant.
23	Shillong	Z	e	17 16 08		Tremor.
23	Madras	L	eP	17 29 22		Slight. Other phases not clear.
			M	40 08		
	Poona	Z	eP?	17 29 58		Very feeble shock. Phases not identifiable
	Coimbatore	N,E	e	17 33 42		Very feeble.
			i	41 06		
	Hyderabad	N	e	17 40 16	5510	
			e	42 01		
			e	47 24		Per.= 21 Secs.
			e	18 02 02		= 6
	Dehra Dun	N,E	e	17 41 10		Slight. Phases not clear.
			e	44 51		
			i	49 39		
23	Shillong	Z	iP	2 46 04		Slight. Local.
23	Epc: $102^{\circ}$ N, $124^{\circ}$ E; - H = 22h 27m 16s (U.S.C.G.S) Felt at . . . . . abjao, Iloilo (Manila).					
	Shillong	Z	iP	22 34 01		Moderate. Distant. Phases doubtful.
	Poona	Z	i	22 35 08		Tremor.
	Madras	L	iP	22 35 21		Slight. Other phases not clear.
			i	37 01		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Mar. 1955								
24	Shillong	Z	iP	00	38	22		Slight. Distant. Phases not identifiable.
24	Shillong	Z	eP	04	46	20		Slight. Distant.
24	Shillong	Z	e	05	21	30		Tremor.
24	Shillong	Z	iP	16	17	14		Slight. Distant. Phases doubtful.
24	Shillong	Z	iP	18	01	57		Slight
24	Shillong	Z	iP	19	38	35		Slight. Distant.
24	Shillong	Z	eP	20	54	18		Slight. Distant.
24	Dehra Dun	N,E	e	22	41	29		Feeble. Phases not clear.
	Shillong	Z	iP	22	42	41		Moderate. Very distant.
25	Shillong	Z	iP	00	22	36		Slight. Distant.
25	Shillong	Z	iP	02	25	34		Moderate. Distant. Phases doubtful.
25	Shillong	Z	iP	10	33	06		Slight. Near.
25	Shillong	Z	eP* eSg-	17	36	37 36 53	120	Slight.
25	Shillong	Z	iP	18	31	37		Slight.
25	Shillong	Z	eP	20	17	05		Slight.
25	Shillong	Z	eP	20	18	50		Slight.
25	Shillong	Z	eP	22	02	22		Slight. Near.
25	Shillong	Z	eP	23	01	47		Slight.
25	Shillong	Z,E	eP	23	09	05		Slight.
25	Shillong	Z,E	eP eS	23	50	18 51 19	580	Slight.
26	Shillong	Z	e e	03	21	31 21 58		Slight.
26	Shillong	Z	e i	09	06	41 06 52		Slight.
26	Shillong	Z	e	13	05	33		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
26	New Delhi	N,E E	eP PP PPP Lq N,E eS SS Lr E i	20	51	05 13 21 45 55 07 11 26 51	1070	Slight.
	Dehra Dun	N,E	e	20	52	38		Tremor.
27	Shillong	Z	e	06	58	04		Feeble.
27	Shillong	Z	eP	09	43	07		Slight.
27	Shillong	Z	eP i	10	16	58 59		Slight.
27	Shillong	Z	e	11	30	31		Feeble.
27	Shillong	Z	eP Pg eSg SS	12	12	29 39 50 59	160	Slight.
27	Shillong	Z	eP e	14	05	17 13		Slight. Distant.
27	Epc: 29° N, 90° E; In Eastern Tibet; - H = 14h 38m 53s (Shillong); 30° N, 90° E; - H = 14h 38m 44s (U.S.C.G. S); 29.9° N, 90.2° E; - H = 14h 38m 45s (B.C.I.S); Magnitude = 6½ (Kiruna); 5.8 (Shillong).							
	Chatra	Z,E	eP iS	14	39	53 38	410	Slight.
	Shillong	Z,N,E N,E	eP P* Pg. Lq iS S* Sg.	14	39	55 02 15 29 44 54 07	460	Moderate.
	Bokaro	N,E	iP PP PPP Lq iS SS SSS M	14	40	32 36 43 39 52 09 22 41	770	Moderate.



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
1955								
27	Dehra Dun	N,E	eP	14	41	24	1110	Moderate.
Contd.		N	PP		41	30		
			PPP		41	40		
			Lq		43	07		
			iS		43	18		
			SS		43	29		
			Lr		43	35		
			SSS		43	41		
			Sg/M		44	23		
	New Delhi	N,E	eP	14	41	21	1180	Slight.
			PP		41	38		
		E	PPP		41	45		
		N,E	iS		43	30		
			SSS		43	51		
		N	M		44	58		
	Colombo	E	e	14	42	25		
			S		48	35		
			L		57	05		
			M	15	00	25		Amp. = 0.7mm
	Hyderabad	N,E	iP	14	42	36	1660	
			iS		45	24		
		E	L		46	18		
			e		47	06		
			M		48	50		Per. = 9 Secs. /u = 2
	Poona	Z	eP	14	43	04	1980	Moderate.
			PP		43	18		
			PPP		43	29		
			eS		46	21		
			SS		46	25		
			SSS		46	50		
			Lr		47	08		
			PcP		47	52		
			M		48	28		
	Madras	E	iP	14	43	07	2040	Moderate.
			PP		43	26		
			PPP		43	36		
			i		44	45		
			iS		46	30		
			SS		46	59		
			Lr/PcP		47	24		
			M		48	52		
	Bombay	N,E	eP	14	43	13	2050	Moderate.
		N	PP		43	21		
		N,E	PPP		43	33		
		E	e		46	26		
		N	eS!		46	36		
		E	iS!					
			Lq		46	40		
			SS		46	52		
		N,E	SS		47	03		
			SSS		47	26		
		N	M		49	37.		Per. = 13 Secs. /u = 47

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
27	Kodaikanal	E	eP	14	43	53	2730	Slight.
Contd.			iS		48	08		
			Lq		48	53		
			Lr		49	05		
			M		51	05		
27	Shillong	Z	e	17	49	45		Slight.
27	Shillong	Z	e	18	40	45		Feeble.
27	Chatra	Z	iP	18	43	48	410	Feeble.
			iS		44	33		
	Shillong	Z	iP	18	43	56		Slight.
27	Shillong	Z	eP	20	17	11		Slight.
27	Shillong	Z	e	21	03	01		Feeble.
27	Shillong	Z	e	23	51	52		Feeble.
28	Shillong	Z	e	06	05	22		Feeble.
28	Chatra	Z	iPg	08	20	24	70	Feeble.
			iSg		20	33		
28	Chatra	Z	iPg	08	39	06	70	Feeble.
			iSg		39	15		
28	Hyderabad	E	e	09	10	17		
			e		40	56		
								Per. = 22 Secs.
								/u = 10
28	Epc: 29° N, 130° E; - H = 09h 12m 10s (Shillong);							
	29° N, 130° E; - H = 09h 12m 09s (U.S.C.G.S);							
	29.4° N, 130° E; - H = 09h 12m 20s (CMO Japan);							
	Magnitude = 6-6½ (Kiruna); 6½ (Praha).							
	Shillong	Z,N	ePi	09	18	54	3740	Moderate.
		E	iPi					
		Z	i		18	56		
		E	i		19	09		
			PP		20	19		
			iS		24	17		
		N	eS					
		N,E	SS/Lq		26	15		
			Lr		27	09		
		N	i		29	37		
		N,E	M		30	15		

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
28 Contd.	Dehra Dun	N,E N	eP	09	20	29	4720	Moderate.
			PP			14		
			PPP	22	42			
			iS	26	52			
			PS	27	03			
			PPS	27	11			
			SS	30	19			
			Lq	30	45			
			SSS	31	05			
			Lr	32	42			
			M	36	31			
	Madras	E	eP i	09	20	59		Slight.
	Poona	Z N	iP PP PPP eS M	09	21	23	5780	Moderate.
	Bombay	N	e	09	21	46		Feeble.
	Colombo	E	L M	09	39	40		Trace overlapping. Amp.= 0.4mm
28	Shillong	Z	e	09	29	18		Feeble.
28	Poona	Z	eP	14	54	45		Tremor.
	Shillong	Z,E	eP	14	55	57		Slight.
28	Shillong	Z,E E N,E	eP e e(M?)	15	08	18 28 20		Slight. Distant.
28	Shillong	Z	e	21	08	31		Slight.
	Poona	Z	eP	15	10	04		Tremor.
30	Chatra	Z	iP iS	05	02	24 01	940	Slight.
	Bokaro	N	e i i i	05	06	37 18 26 26		Feeble.
30	Shillong	Z	P Sg	07	27	23 47	180	Slight. Near.
30	Shillong	Z	eP	10	33	43		Tremor.
30	Shillong	Z	e	10	53	23		Feeble.

DATE	STATION	COMPT.	PHASE	G. M. T.			△ km.	REMARKS
				h.	m.	s.		
<u>Mar.</u>								
<u>1955</u>								
30	Shillong	Z	iP	12	17	11		Slight.
30	Shillong	Z	iP	13	59	54		Slight. Rarefaction.
30	Shillong	Z	iP	15	45	52		Slight. Rarefaction.
30	Chatra	Z	iP iS	21	41	07 41 27	160	Slight.
	Shillong	Z	iP	21	41	45		Slight. Phases doubtful.
31,	Shillong	Z	e	04	48	44		Tremor.
31	Shillong	Z	iP	07	15	21		Slight. Compression.
31	Shillong	Z	e	09	04	24		Tremor.
31	Dehra Dun	N,E	e	13	24	57		Tremor.
31	Shillong	Z	e	14	12	50		Slight. Local.
31	Shillong	Z	iP	16	37	00		Slight.
31	Chatra	Z	iPg iSg	18	08	44 08 52	60	Feeble.
31	Epc: 7° N, 127° E; - H = 18h 16m 40s (Shillong); 8° N, 124° E; - H = 18h 17m 00s (U.S. C.G.S.); - h = 60 km Ca; - H = 18h 17m 12s (B.C.I.S.); 7°55' N, 124°05' E; - h = 50 km Ca (Manila); Magnitude = 7½ (Lwiro); 7.7 (Praha, Skalnaté Pleso); 7.6 (Hurbanovo); 7½-7¾ (Kiruna); 7½ (Pasadena, Berkeley, Rom ); 7¼-7½ (Shillong); 7 (Uppsala). About 425 killed and several million dollars damage to property and agriculture in Ilagan, Ozamis city and lake Lanao area.							
	Shillong	Z,N,E	iP	18	23	57	4120	Great. Rarefaction.
		N	PP		25	14		First movement west.
			PPP		25	44		
			PcP		26	33		
			iS		29	44		
			SS		31	49		
			Lq		32	05		
			SSS		32	56		
			Lr		33	59		
			ScS		34	18		
			M		36	44		
	Bokaro	N,E	iP	18	24	41	4510	Great. Distant.
			PP		26	27		
			PPP		27	08		
			iS		30	51		
			Ps		30	57		

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
<u>Mar.</u>							
1955							
31	Bokaro Contd. Contd.	N,E	PPS	18	31	00	
			SS		33	43	
			Lq		34	07	
			SSS		34	26	
			ScS		34	33	
			Lr		36	03	
			M		39	35	
						Per. = 30.7 Amp. = 70mm	
Madras	E	iP	18	25	08	4780	Great.
		PcP		26	46		
		PP		26	59		
		PPP		27	34		
		S		31	34		
Colombo	E	P	18	25	19		
		S		32	01		
		L		41	21		
		M		47	51		
						Amp. = 33mm Trace faint.	
Hyderabad	E	eP	18	25	22	5120	
		iP		25	34		
		N	iP		25	38	
	E	PcP		26	36		
		PP		27	20		
		PPP		28	13		
			PcS		31	01	
			iS		32	20	
	N	iS		32	22		
		E	SS		35	45	
			Lq		37	38	
			Lr		39	40	
			M		43	10	
	N	M		43	53		
						Per. = 20 Secs. /u = 282	
New Delhi	E N E N N,E N	eP	18	25	44	5760	Great.
		eP		25	50		
		PP		28	00		
		PP		28	02		
		PPP		29	09		
		iS		33	06		
		ScS		35	04		
		SS		35	58		
		SSS		37	38		
		Lr		39	13		
		M		44	06		
Dehra Dun	N,E N	eP	18	25	55	5750	Moderate.
		PP		27	45		
		PPP		28	38		
		iS		33	16		
		PS		33	18		
		PPS		33	32		
		SS		36	22		
		Lq		37	46		
		SSS		38	03		
		Lr		39	51		
		M		43	41		
						Per. = 9 Secs. /u = 133	

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
Mar. 1955							
31	Poona	Z	iP	18	25	58	5840 Great.
Contd.		E	PcP		26	55	
			PP		27	59	
			PPP		29	00	
			PcS		30	45	
			iS		33	24	
			ScS		35	51	
			SS		36	56	
			SSS		38	47	
			Lr		41	24	
			M		45	53	Per. = 23 Secs. /u = 378.
	Bombay	N	eP				
		E	iP	18	26	19	5870 Moderate to Great.
			PcP		27	03	
		N,E	PP		28	11	
		E	PPP		29	17	
		N,E	iS		33	47	
			SS		37	31	
		E	SSS		39	39	
			Lq		39	54	
			Lr		42	14	
		N	M		47	36	Per. = 19 Secs. /u = 410
		E	M		51	09	
	Kodaikanal	E	eP	18	25	36	5370 Moderate.
			PP		27	32	
			PPP		28	32	
			iS		32	36	
			SS		36	06	
			SSS		37	36	
			M		42	00	Per. = 15 Secs. /u = 60
31	Shillong	Z	iP	19	02	02	Slight.
31	Shillong	Z	iP	19	23	32	Slight.
31	Shillong	Z	iP	19	28	23	Slight.
31	Shillong	Z	eP	19	34	04	Slight.
31	Shillong	Z	iP	19	39	10	Slight. Rarefaction.
31	Shillong	Z	iP	20	38	43	Slight.
31	Epc: 8°N, 124½°E; -H = 20h 52m 39s (U.S.C.G.S.)						
	Magnitude = 6½ - 6¾ (Kiruna); 6¼ - 6½ (Uppsala)						
	Shillong	Z	iP	20	59	40	Slight. Rarefaction.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Mar.</u>									
1955									
31 Contd.	Bokaro	N,E	iP	21	00	20	4490	Moderate. Probably after shock of the previous great shock.	
			i?		00	26			
			PP		01	57			
			iS		06	22			
			PS		06	31			
			PP		06	37			
			SS		09	18			
			Lq		09	31			
			SSS		10	01			
			ScS		10	23			
			Lr		11	31			
			M		14	46			
				Colombo	E	P			21
S		07				23			
L		18				41			
M		22				13			
Madras	E		iP	21	00	52	4810	Moderate.	
			PcP		02	26			
			PP		02	41			
			PPP		03	15			
			iS		07	20			
			ScS/SS		10	42			
			Lq		11	20			
			SSS		11	36			
			L		13	31			
			M		18	00			
Hyderabad	E		iP	21	01	05	4920		
			PP		02	55			
			N,E	iS		07			40
			E	S		11			16
			Lq		13	46			
	N			Lr		16	55		Per. 16 Secs. /u = 13.
				M		19	02		
				M					
Poona	Z E		eP	21	01	36	5680	Slight.	
			PcP		02	28			
			PPP		04	36			
			eS		08	54			
			ScS		11	05			
			Lr		16	37			
			M		20	54			
Dehra Dun	N,E		e	21	01	38		Feeble. Phases not clear.	
Bombay	N,E		eP	21	01	56	5800	Slight.	
			eS		09	20			
31	Shillong	Z	eP	21	30	35		Slight.	

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Mar. 1955								
31	Shillong	Z	iP	22	01	36		Slight.
31	Poona	Z	eP	23	19	50		Tremor.
31	Shillong	Z	P	23	44	20		Slight.
31	Shillong	Z,E	iP	23	47	52	4000	Slight. Compression. First movement west.
			PPP		49	39		
			iS		53	24		
			ScP		53	3		
			SSS		56	17		
			ScS		57	47		
			M	00	00	40		
	Madras	E	eP	23	49	01	4860	Slight.
			PPP		51	33		
			iS		55	32		
			PPS		55	46		
			SSS		59	48		
31	Shillong	Z	iP	23	57	53		Slight.

### Earthquake Reports

#### (Non Instrumental Reports)

The following is the list of earthquakes as reported by the Voluntary Observers from different places during the month of March 1955.

Place at which felt	Date in G. M. T.	Time in G. M. T. h. m.	No. of Shocks	Duration of shocks in Secs.	Intensity in R.F. scale	Remarks.
Srinagar	07 March	02 25	3	10	VI	N11
Srinagar	11 March	02 48	2	10	VI	N11
Srinagar	12 March	22 14	3	9	VI	N11
Gura	12 March	22 20	1	10	VI	N11





GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Apr. 1955								
01	Shillong	Z	iP	02	45	19		Slight.
01	Shillong	Z	iP	03	16	12		Slight.
01	Shillong	Z	iP	04	51	58		Slight.
01	Shillong	Z	iP	05	15	34		Slight.
01	Shillong	Z	iP	06	13	40		Slight.
01	Shillong	Z	eP	06	19	07		Slight.
01	Shillong	Z	iP	06	38	09		Slight. Rarefaction.
01	Shillong	Z		08	37	39		Slight.
01	Shillong	Z	iP	08	52	45		Slight. Compression.
01	Shillong	Z	e	09	11	39		Tremor.
01	Shillong	Z	e	09	58	26		Tremor.
01	Shillong	Z	iP	17	15	28		Slight. Rarefaction.
01	Shillong	Z	eP	17	59	28		Slight.
02	Shillong	Z	e	04	03	38		Tremor.
02	Shillong	Z	iP	08	29	26	170	Slight.
			S		29	51		
			Sg		29	55		
	Dehra Dun	Z	eP	08	29	40	31c	Feeble.
			iS		30	15		
02	Shillong	Z	iP	08	37	35		Feeble.
02	Shillong	Z	iP	10	34	36		Feeble.
02	Shillong	Z	e	19	15	14		Slight.
			i		15	24		
			i		15	58		
			i		16	15		
03	Shillong	Z	iP	00	02	33		Slight. Rarefaction.
03	Shillong	Z E	eP	01	32	46	390	Feeble. Phases doubtful.
			PPP		33	00		
			S/Lr		33	43		
			SS		33	55		
			SSS		34	05		
			M		34	15		
03	Shillong	Z	e	03	03	33		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Apr.</u>						
<u>1955</u>						
03	Shillong	Z	e i	03 42 21 42 45		Slight, near.
03	Shillong	Z	eP	04 04 44		Slight. Compression.
03	Shillong	Z	iP	04 12 42		Slight. Compression.
03	Shillong	Z	iP Pg S/Lr SS Sg	17 08 01 18 17 18 43 19 02 19 15	380	Slight.
03	Dehra Dun	Z	iPg iSg	13 00 41 00 50	70	Feeble.
03	Shillong	Z	e	16 26 33		Tremor.
03	Dehra Dun	Z	eP iS	21 31 43 32 02	150	Feeble.
03	Shillong	Z	eP	23 21 03		Feeble. Compression.
04	Shillong	Z	e	04 17 08		Tremor.
04	Shillong	Z	e i	04 56 01 56 21		Slight.
04	Shillong	Z E	iP PP PPP S SS SSS M	05 10 33 10 40 11 14 11 27 11 39 11 48 11 50	500	Slight.
04	Shillong	Z	e	07 58 37		Tremor.
04	Epc: 21.8°N, 120.8°E; - H = 1lh 1lm 18s (Shillong), 20°N, 121°E; - H = 1lh 1lm 21s (U.S.C.G.S) Magnitude = 7 (De Bilt), 6.4 (Shillong), 6 (Pasadena), 6 $\frac{3}{4}$ (Kiruna, Praha), 6 $\frac{1}{2}$ (Uppsala) 6 $\frac{1}{4}$ (Lwiro).					
	Shillong	Z E	iP i PP PPP PcP iS i Lq SS SSS Lr M	11 17 05 17 20 17 45 18 01 20 02 21 37 21 56 22 31 22 54 23 20 24 07 26 17	2930	Moderate. Compression. Probable depth=100 km.
						Per. = 14 Secs. $\mu$ = 46

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
Apr.								
<u>1955</u>								
04 Contd.	Bokaro	N,E	eP	11	17	59	3560	Moderate.
			PP		19	12		
			PPP		19	31		
			iS		23	11		
			Lq		25	12		
			SS		25	29		
			SSS		25	53		
			Lr		26	45		
			ScS		28	19		
			M		29	19		
	Dehra Dun	N,E N	eP	11	18	56	4290	Moderate.
			PP		20	07		
			PPP		20	47		
			iS		24	53		
			SS		27	15		
			Lq		27	41		
			SSS		27	58		
			Lr		29	28		
			M		32	36		
				New Delhi	N,E N	eP		
PPP		21				08		
PcS		24				36		
eS		25				08		
SS		28				13		
SSS		29				02		
M		32				56		
	Hyderabad	N				eP	11	19
			PP		20	40		
			PcP		20	54		
			iS		25	07		
			SS		28	19		
			ScS		29	03		
			L		31	43		
			M		35	33		
								Per. = 15 Secs. /u = 26
Madras	E		iP	11	19	04	4630	Moderate.
			PP		20	46		
			PPP		21	23		
			ScP		24	29		
			iS		25	22		
			PS		25	30		
			SS		28	32		
			ScS		28	41		
			Lq		29	02		
			SSS		29	21		
			Lr		31	18		
			M		36	07		

121

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS			
				h.	m.	s.			km.		
<u>Apr.</u>											
<u>1955</u>											
04 Contd.	Colombo	E	P	11	19	22	4570				
			S			25			36		
			L								
			M					Amp. = 3.0mm			
	Poona	Z	aP	11	19	36	4860	Moderate.			
		E	PcP						21	12	
				PP						21	22
				PPP						22	03
				PcS						24	48
			N,E	eS						26	07
			E	Lq						29	46
				SSS						30	05
				M						35	42
		Bombay	N	aP	11	19			42	5000	Moderate. 'M' not well developed.
	E		iP								
	E		PP				21	36			
	N,E		PPP				22	08			
	N		eS				26	21			
	E		iS								
	N		PPS				26	31			
	E		PPS				26	36			
	N	SS				29	42				
	Kodaikanal	E	P	11	20	22	4670	Slight.			
			PP						22	02	
			PPP						22	47	
			eS						26	42	
			SS						30	07	
			SSS						31	00	
			Lq						30	47	
			Lr						32	58	
	M				36	34					
04	Shillong	Z	e	16	23	03		Tremor.			
04	Shillong	Z	e	17	28	24		Tremor.			
04	Shillong	Z	Pg	19	07	44	90	Slight.			
			Sg						07	54	
04	Shillong	Z	e	19	30	13		Slight.			
			i						30	45	
04	Shillong	Z	e	19	54	55		Tremor.			
04	Colombo	E	L	20	45	00					
			M						58	58	
								Amp. = 0.4			
04	Shillong	Z	e	21	46	53		Tremor.			
04	Shillong	Z	i	22	59	14		Slight, local.			
	Chatra	Z	iP	22	59	41	390	Feeble			
			iS						23	00	24

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
<u>1955</u>								
05	Shillong	Z	iPg Sg	01	23	00 26	220	Slight, near.
	Chatra	Z	eP iS	01	23	16 00	410	Slight.
05	Shillong	Z	e	02	49	51		Slight.
05	Shillong	Z	e	03	15	05		Slight.
05	Shillong	Z	e	05	54	46		Slight.
05	Shillong	Z	e	06	14	45		Very slight. Local.
05	Shillong	Z	e	06	14	57		Very slight. Local.
05	Shillong	Z	e	06	51	17		Slight.
05	Dehra Dun	N	e i	10	33	39 48		Slight. Phases not clear.
05	Epc: 13°N, 142½°E; Mariana Island Region. - H = 11h 23m 17s (U.S.C.G.S).							
	Shillong	E	iP PP PPP S	11	32	07 03 53 07	5370	Slight.
	Bokaro	N,E	e i i	11	32	46 22 54		Slight.
	Madras	E	iP S	11	33	27 40	6690	Moderate. Distant.
	Poona	Z	eP	11	34	04		Tremor.
	Bombay	N,E	eP eS	11	34	10 58	7350	Slight.
05	Shillong	Z	e	13	05	36		Slight.
05	Dehra Dun	N	eP PP PPP eS SS Lr M	13	10	26 40 13 08 51 44 28	4040	Slight.
05	Shillong	Z	e	13	54	33		Slight.



DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.		
Apr. 1955								
05	Epc: 23°N, 121°E; -H = 14h 02m 46s (U.S.C.G.S.)							
	Shillong	E	eP	14	08	25	2920	Moderate.
			e(S)			12 56		
			e	7	14	25		
			e			18 32		
			e			19 22		
			i			20 21		
			i			21 03		
	Bokaro	N,E	eP	14	09	15	3960	Slight.
			PP			10 40		
			PPP			10 59		
			eS			14 51		
			Lq/SS			17 04		
			SSS			17 15		
			Lr			18 51		
			M			21 40		
	Madras	E	iP	14	10	18	4450	Moderate.
			PP			11 51		
			PcP			12 04		
			ScP			15 40		
			iS			16 24		
			i			16 44		
			SSS			20 17		
			M			26 34		
	Colombo	E	P	14	10	35	5110	
			S			17 20		
			L			28 40		
			M			32 20		Amp. = 0.5mm
	Poona	Z	eP	14	10	54		Feeble shock.
		E	i			12 43		Phases not clear.
			i			13 23		
			i			17 29		
	Bombay	E	eP	14	11	01	5300	Slight.
			PP			12 51		
			PPP			13 53		
			eS			17 57		
	Hyderabad	N	M	14	26	06		Per. = 15 Secs. /t = 7
05	Dehra Dun	N	e	14	29	47		Slight. Phases not clear.
			i			35 31		
			i			40 03		
			i			41 24		
	Poona	N	i	14	30	22		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Apr.</u>									
<u>1955</u>									
05	Epc: 25°N, 110°W; Gulf of California. - H = 15h 09m 15s (U.S.C.G.S). Magnitude = 7 (Pasadena, Takubaya), 6 $\frac{3}{4}$ -7 (Lwiro), 6 $\frac{3}{4}$ (Praha), 6 $\frac{1}{2}$ (Uppsala).								
	Shillong	Z	e	15	28	28		Slight.	
	Colombo	E	P	15	29	14		Amp. = 0.6mm	
			L	16	26	00			
			M	35	05				
	Madras	E	eP	15	29	31		Moderate. Distant.	
			i	32	51				
	Poona	Z,N,E	i	15	30	59		Slight. Very distant shock. Phases not clear.	
			N	i	34	05			
				i	54	41			
				i	16	09	03		
				i	34	02			
	Bokaro	N,E	e	15	31	11	11140	Slight. Very distant.	
			PP	35	30				
			PPP	37	47				
			SKS <sub>1</sub>	41	47				
			SKKS <sub>1</sub>	42	28				
			iS <sub>1</sub>	42	56				
			PS	44	36				
			PPS	45	36				
			SS	50	19				
			SSP	50	26				
			SSS	54	11				
			Lq	57	32				
			Lr	16	04	26			
			M	09	36				
	Hyderabad	N	M	16	17	46		Per. = 24 Secs. /u = 24	
05	Shillong	Z	e	17	03	38			
06	Shillong	Z	e	05	49	34		Slight.	
06	Shillong	Z	e	10	30	21		Slight.	
06	Shillong	Z	e	10	4	46		Slight.	
06	Bokaro	N,E	eP	11	39	10	6770	Slight. Distant. Probably deep.	
			iS	47	27				
			PPS	48	31				
			SS	51	44				
			SSS	54	52				
			Lq	56	25				
			Lr	59	37				
			M	12	05	10			

125

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
Apr. 1955						
06	Shillong	Z	e	11 43 32		Slight.
Contd. 06	Epc: 17.3°S, 66°E; Mascarene Island Region. - H = 12h 50m 48s (Shillong). 17½°S, 66°E; - H = 12h 50m 50s (U.S.C.G.S) Magnitude = 5½-6 (Lwiro), 5½ (Kiruna).					
	Colombo	E	P	12 56 42	3010	
			S	13 01 20		
			L	02 38		
			M	04 14		Am. = 2.5mm
	Kodaikanal	E	eP	12 57 00	4700	Slight.
			S	13 03 22		
			SS	06 24		
			Lq	06 40		
			Lr	08 50		
			M	11 40		
	Madras	E	P	12 57 33	3700	Moderate.
			PP	58 43		
			PPP	59 02		
			PcP	59 57		
			iS	13 02 53		
			ScP	03 29		
			SS/Lq	05 15		
			SSS	05 31		
			Lr	06 44		
			ScC	07 42		
			M	10 27		
	Poona	Z	iP	12 57 59	4110	Moderate.
		N	PP	59 19		
			PPP	59 42		
			PcP	13 00 16		
		N,E	iS	03 45		
		N	SS	06 14		
			Lr	07 40		
			M	10 35		
	Hyderabad	N	iP	12 58 03	4000	
			PP	59 12		
			iS	13 03 42		
			SS	06 09		
			L	09 04		
			M	12 37		
	Bombay	N,E	iP	12 58 03	4150	Moderate.
			PP	59 25		
			PPP	59 45		
			iS	13 03 51		
		E	Lq	06 32		
			Lr	08 07		

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
<u>1955</u>								
06	Bokaro	N,E	eP	12	59	15	5310	Moderate.
Contd.			PcP	13	00	42		
			PP	00	59			
			PPP	01	55			
			iS	06	12			
			PS	06	19			
			PPS	06	23			
			SS	09	06			
			Lq	10	06			
			SSS	10	25			
			Lr	11	59			
			M	16	06			
	New Delhi	N,E	iP	12	59	30	5110	Moderate.
		N	PP	13	01	15		
			eS	06	15			
			M	16	02			
	Dehra Dun	N	eP	12	59	37	5400	Moderate.
			PP	13	01	16		
			PPP	02	29			
			iS	06	42			
			PS	06	55			
			PPS	07	01			
			SS	10	19			
			SSS	11	32			
			Lr	13	55			
			M	17	51			
	Shillong	E	eP	12	59	42	5480	Moderate.
			PP	13	01	42		
			PPP	02	51			
			S	06	49			
			CS	10	09			
06	Shillong	Z	e	17	33	27		Slight.
06	Epc: 34.3°S, 84.3°E; In Indian Ocean. - H = 19h 48m 46s (Shillong). 33½°S, 87°E; - H = 19h 48m 46s (U.S.C.G.S). Magnitude = 6 (Kiruna).							
	Colombo	E	P	19	56	36	4120	
			S	20	02	23		
			L	06	06			
			M	09	56			Amp. = 0.9mm
	Madras	E	eP	19	57	21	5250	Moderate.
			PcP	58	29			
			PP	59	11			
			PPP	20	00	04		
			eS	04	15			
			PPS	04	29			
			ScS	06	44			
			SS	07	41			
			Lq/SSS	09	22			
			M	15	56			

DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.		
Apr. 1955								
06 Contd.	Hyderabad	N	iP	19	57	55	5630	
			PcP		58	22		
			PP		59	50		
			iS	20	05	10		
			SS		08	42		
			L		15	07		
			M		18	16		
							Per. = 15 Secs. $\mu = 7$	
Poona	Z	N	iP	19	58	10	5960	Moderate
			PcP		59	01		
			PP	20	00	13		
	N, E	N	PPP		01	27		
			iS		05	43		
			ScS		07	45		
			SS		09	31		
			Lr		14	17		
			M		18	19		
			Bombay					
N, E	N	E	eP	19	58	15	6050	Moderate.
			eS	20	05	53		
			iS					
Bokaro								
N, E	N, E	iP	19	58	33	6440	Moderate.	
		PP	20	00	44			
		PPP		02	03			
		iS		06	33			
		PS		06	44			
		PPS		06	55			
		SS		10	25			
		SSS		11	44			
		Lq		12	25			
		Lr		15	11			
		M		20	14			
Shillong								
E	E	iP	19	58	50	6660	Moderate.	
		PP	20	00	58			
		PPP		02	22			
		S		07	01			
		ScS		08	08			
		SSS		13	22			
		Lr		16	52			
New Delhi								
N, E	N, E	iP	19	59	13	6950	Moderate. Direction of first movement East.	
		i		59	31			
		iS	20	07	40			
		ScS		08	54			
		S		11	46			
		Lq		14	48			
		M		22	30			

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
<u>1955</u>								
06	Dehra Dun	N,E	eP	19	59	23	7110	Moderate.
Contd.		N	PP	20	01	47		
			i		07	59		
			i		08	20		
			i		12	29		
			i		15	37		
			i		18	46		
			i		24	13		
	Kodaikanal	E	eS	20	03	35		
06	Shillong	Z	e	21	07	37		Slight.
06	Chatra	Z	iPg	23	51	03	90	Feeble.
			iSg		51	15		
07	Shillong	Z	eP	04	20	38		Slight.
07	Bombay	N	e	08	56	28		
07	Shillong	Z	ePg	10	17	54		Local.
07	Shillong	Z	e	11	54	48		Slight.
07	Shillong	Z	e	16	21	21		Slight.
07	Shillong	Z	e	22	55	23		Slight.
07	Shillong	Z	e	22	59	11		Slight.
07	Dehra Dun	E	e	23	32	17		Tremor.
08	Shillong	Z	Pg	01	04	41	100	Local.
			Sg		04	52		
	Chatra	Z	iP	01	10	01	290	Feeble.
			iS		10	34		
08	Shillong	Z	Pg	02	08	54		Local.
08	Shillong	Z	e	03	14	22		Slight.
08	Madras	E	iP	03	15	32		Slight. Near.
			e		17	17		
08	Shillong	Z	e	06	13	54		Slight.
08	Shillong	Z	e	07	14	23		Slight.
08	Shillong	Z	e	09	49	23		Slight.
08	Shillong	Z	e	10	32	35		Slight.
08	Shillong	Z	e	11	21	19		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			Δ	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
1955								
08	Shillong	Z	e	13	46	51		Slight.
08	Shillong	Z	e	16	30	52		Slight.
09	Shillong	Z	iP	05	05	18		Slight.
09	Shillong	Z	e	06	44	23		Slight.
09	Shillong	Z	iP	06	45	09		Slight.
09	Dehra Dun	N,E	e	10	41	21		Feeble. Phases not clear.
	Shillong	Z	iP	10	42	50		Slight.
09	Shillong	Z	e	15	30	25		Slight.
09	Poona	Z	iP	15	41	24		Tremor.
	Shillong	Z	e	15	41	31		Very slight.
09	Shillong	Z	e	15	49	31		Slight.
	Poona	Z	iP	15	50	27		Tremor.
09	Shillong	Z	e	19	25	36		Slight.
09	Shillong	Z	e	21	15	36		Slight. Local.
10	Bokaro	N,E	e	08	24	49		Feeble.
			e		27	16		
			e		29	14		
			i		49	40		
10	New Delhi	N,E	eP	14	47	00	5350	Moderate.
		N	iS		53	59		
			ScS		56	51		
			i		57	47		
			SSS		58	40		
10	Epc: 10°N, 124.9°E; Mindanao Island Region. Philipines. - H = 17h 38m 20s (Shillong). 8°N, 125°E; - H = 17h 38m 12s (U.S.C.G.S). Magnitude = 6½ (Pasadena, Kiruna), 6¼-6½ (Uppsala), 6 (Praha).							
	Shillong	Z	eP	17	45	15	3810	Moderate. After shock
		E	PP		46	43		of the shock of 31st
			iS		50	42		March '55.
			Lr		18	01	20	

DATE	STATION	COMPT.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
<u>1955</u>								
10 Contd.	Bokaro	N,E	iP	17	45	52	2760	Moderate.
			PP		47	27		
			PPP		47	55		
			iS		51	55		
			PS		52	01		
			PPS		52	08		
			SS		54	40		
			Lq		54	51		
			SSS		55	14		
			Lr		56	48		
		M	18	00	05			
	Colombo	E	P	17	46	20	4990	
			S		52	58		
			L	18	04	12		
			M		07	45		Amp. = 1.0mm
Madras	E	iP	17	46	22	4820	Moderate.	
		i		46	55			
		PcP		48	00			
		PP		48	14			
		PPP		48	46			
		ScP		51	47			
		iS		52	51			
		SS		56	01			
		i		56	18			
		Lq		56	3			
		SSS		56	55			
		M	18	02	30			
Hyderabad	E			17	46	36	5070	
			PP		48	31		
			iS		53	19		
			PS		53	30		
			SS		56	19		
	N,E E		Lq		56	41		
			Lr		59	26		
			M	18	05	08		Per. = 15 Secs. /u = 10
			M		05	08		Per. = 16 Secs. /u = 8
			N					
Kodaikanal	E	P	17	46	41	5190	Slight.	
		PP		47	33			
		PPP		49	21			
		S		53	31			
		SS		56	42			
		SSS		58	06			
		Lq		58	51			
		Lr		59	51			
		M	18	03	46			



DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.		
<u>Apr.</u>						
<u>1955</u>						
10	Dehra Dun	N,E	P	17 47 04	5250	Moderate.
Contd.		N	PP	48 42		
			PPP	49 57		
			iS	53 58		
			PS	54 09		
			PPS	54 17		
			SS	56 49		
			Lq	58 01		
			SSS	58 25		
			Lr	18 00 30		
			M	04 24		
	Poona	Z		17 47 12	5510	Moderate.
		E	PP	49 07		
			PPP	50 08		
		N,E	iS	54 21		
		N	PPS	54 37		
			ScS	57 01		
			SSS	59 10		
			Lr	18 01 06		
			M	06 51		
	Bombay	N,E	eP	17 47 21	5590	Moderate. Somewhat
		E	e	48 38		deep.
			PP	49 18		
			PPP	50 24		
			iS	54 34		
		N	eS			
		E	PPS	54 56		
		N	e	55 02		
10	Chatra	Z	eP	21 35 39	200	Feeble.
11	Shillong	Z	eP	01 00 49		Slight.
11	Shillong	Z	Pg	01 16 18	90	Very slight.
			Sg	16 28		
11	Shillong	Z	e	01 19 41		Slight.
11	Shillong	Z	e	06 38 41		Slight.
11	Shillong	Z	e	09 37 28		Slight.
11	Chatra	Z	iP	13 40 01	200	Feeble.
			iS	40 25		
11	Shillong	Z	eP	16 30 31		Slight.
11	Shillong	Z	eP	16 36 28		Slight.
11	Shillong	Z	e	18 08 33		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.		REMARKS
				h. m.	km.	
<u>Apr</u>						
1955						
12	Shillong	Z	iP iS	00 51 47 52 20	300	Slight.
	Chatra	Z	eP iS	00 52 52 54 12	770	Feeble.
12	Shillong	Z	iP	05 41 28		Tremor.
12	Dehra Dun	N,E	e	07 08 28		Tremor.
12	Shillong	Z	eP	13 42 03		Moderate distant. Phases doubtful.
	Madras	E	iP e	13 43 15 49 30		Probably distant.
12	Shillong	Z	eP	18 13 48		Slight. Distant.
12	Shillong	Z	eP	23 07 53		Slight. Distant. Phases unidentified.
13	Shillong	Z	eP i i	09 52 18 54 24 55 00		Moderate. Distant.
13	Shillong	Z	e	10 26 23		Tremor.
13	Shillong	Z,E E	iP i i iS?	11 46 01 46 21 46 52 50 41	3050	Moderate. Distant.
13	Shillong	Z,E	iP Pg iSg SS SSS	14 52 02 52 06 52 27 52 41 52 48	180	Slight. Local.
	Chatra	Z	eP iS	14 52 50 54 08	750	Feeble.
13	Epc: $37\frac{1}{2}^{\circ}$ N, $22^{\circ}$ E. In Greece. - H = 20h 45m 45s (U.S.C.G.S) $37\frac{1}{4}^{\circ}$ N, $22\frac{1}{4}^{\circ}$ E. - H = 20h 45m 45s (B.C.I.S) Magnitude = 6.3 (Jerusalem), $6\frac{1}{4}$ (Uppsala, Kiruna), $5\frac{3}{4}$ (Athens), $5\frac{1}{4}$ (Praha).					
	Poona	Z	iP	20 54 33		Tremor.
	Shillong	Z	iP	20 55 47		Moderate. Distant.
14	Epc: $32.4^{\circ}$ N, $76.1^{\circ}$ E. In Northern India. - H = 01h 00m 40s (Shillong) - H = 01h 00m 46s (USCGS).					

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
<hr/>							
Apr. 1955							
14 Contd.	Dehra Dun	N, E N	eP	01	01	26	300 Moderate.
			P*		01	30	
			PP		01	33	
			Pg		01	35	
			PPP		01	40	
			Lq		01	48	
			Lr		01	55	
			iS		01	59	
			S*		02	03	
			Sg		02	07	
			SS		02	10	
SSS		02	23				
New Delhi	N	iP	01	01	47	4110 Slight.	
		Pg		02	00		
		i		02	09		
		Lq		02	22		
		iS		02	32		
		Sg		02	49		
Ghatra	Z, E	eP	01	03	25	1250 Slight.	
		iS		05	33		
Poona	Z E	iP	01	04	04	1600 Moderate.	
		PP		04	11		
		PPP		04	17		
		Lq		06	38		
		iS		06	46		
		SS		07	00		
		SSS		07	11		
		M		08	36		
PcP		09	07				
Bombay	N	e	01	04	14	Feeble.	
		e		06	44		
Shillong	Z, E E	iP	01	04	18	1700 Slight.	
		PP		04	30		
		PPP		04	38		
		eS		07	12		
		SS		07	24		
		SSS		07	41		
		Lr		08	22		
		M		09	27		
Madras	E	iP	01	05	21	2120 Slight.	
		PP		05	48		
		iS		08	51		
		SS		09	17		
		SSS		09	30		
		M		11	05		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
Apr. 1955						
14	Bokaro	N, E	eP	01 05 40	890	Moderate.
Contd.			Lq	07 03		
			eS	07 12		
			SS	07 23		
			SSS	07 34		
			M	08 04		
	Hyderabad	E	e	01 06 18		
			e	07 57		
	Kodaikanal	E	e?	01 09 46		Moderate.
14	Epc: $30.4^{\circ}$ N, $102.4^{\circ}$ E. In Sinkiang Province, China.					
	- H = 01h 28m 54s (Shillong).					
	$30^{\circ}$ N, $101\frac{1}{2}^{\circ}$ E; - H = 01h 28m 58s (U.S.C.G.S).					
	Magnitude = 8.2 (Praha), $7\frac{5}{4}$ (De Bilt), 7.7 (Hurbanovo),					
	$7\frac{1}{4}$ (Pasadena), $7-7\frac{1}{4}$ (Uppsala, Kiruna) 7 (Berkeley, Lwiro),					
	$6\frac{5}{4}-7$ (Jerusalem).					
	Shillong	Z, N, E	iP	01 31 22	1110	Great.
		N	PP	31 33		
			PPF	31 48		
			Lq	33 04		
			iS	33 16		
			SS/Lr	33 30		
			SSS	33 41		
			M	34 41		
	Chatra	Z, E	eP	01 32 09	1500	Feeble.
			iS	34 41		
	Bokaro	N, E	iP	01 32 40	1860	Great.
			iS	35 46		
			SS	36 05		
			SSS	36 18		
			M	37 54		
	Dehra Dun	N, E	eP	01 33 43	2350	Moderate.
		N	PP	37 03		
			PPP	34 12		
			iS	37 34		
			Lq	37 46		
			SS	38 06		
			SSS	38 22		
			Lr	38 42		
			M	40 28		
	New Delhi	N, E	iP	01 33 51	2280	Slight.
		N	PP	34 15		
			PPP	34 25		
			iS	37 36		
			Lq	37 47		
			Lr	38 58		
			M	39 58		

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Apr.</u> 1955						
14	Hyderabad	E	iP	01 33 55	2850	
Contd.			PcP	37 36		
			iS	38 21		
			L	40 03		
			M	45 39		Per. = 22 Secs. $\mu = 466$
	Madras	E	iP	01 34 40		Great. Other phases lost due to large movement of light spot.
	Poona	Z N	eP PP PPP PcP iS SS SSS M	01 34 51 35 32 35 49 38 03 39 37 40 51 41 16 44 00	3140	Very great.
	Bombay	N,E N	iP iS Lq SS? SSS Lr M	01 35 02 39 53 41 24 41 31 41 50 42 42 44 46	3220	Great.
	Kodaikanal	E	P PP PPP S SS SSS Lr M	01 35 17 36 35 36 56  42 53 43 22 44 37 47 23		Moderate. 'S' lost in record.
	Colombo	E	P	01 46 --		'P' approx. Trace very faint.
14	Shillong	Z	iP	02 04 13		Moderate. Phases doubtful.
14	Shillong	Z	iP	04 19 06		Slight. Distant.
14	Shillong	Z	i	06 15 59		Tremor.
14	Shillong	Z	i	06 31 16		Tremor.
14	Shillong	Z	e	10 23 43		Tremor.
15	Dehra Dun	N,E	e	17 31 19		Tremor.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
						km.	
<u>Apr.</u>							
1955							
15	Epc: 39.5°N, 76.5°E. In Kirghiz of U.S.S.R						
							- H = 03h 41m 05s (Shillong).
							40°N, 74½°E; - H = 03h 40m 52s (U.S.C.G.S). Felt at Rawalpindi.
							Magnitude = 7.5 (Praha, De Bilt), 7¼ (Jppsala, Lwiro), 7.1 (Hurbanovo), 7 (Pasadena, Kiruna, Jerusalem), 6.8 (Shillong).
	Dehra Dun	N,E	eP	03	43	18	1050 Moderate.
		N	PP		43	25	
			PPP		43	32	
			Lq		44	55	
			iS		45	06	
			SS		45	19	
			Lr		45	26	
			SSS		45	32	
			S*		45	43	
			Sg/M		46	13	
	New Delhi	N	iP	03	43	40	1170 Moderate. First ground motion.
			PP		43	48	
			iS		45	40	
			SSS		46	04	
			M		46	52	
	Bokaro	N,E	iP	03	45	10	1940 Great.
			iS/Lq		48	23	
			SS		48	42	
			SSS		48	45	
			M		50	40	
	Shillong	Z,N,E	iP	03	45	32	2110 Great.
		N	PP		45	51	
			PPP		46	02	
			iS		49	00	
			Lq?		49	07	
			SS		49	28	
			SSS		49	58	
			Lr		50	06	
			M		51	28	
	Poona	Z	iP	03	45	42	2410 Great.
		N	PP		46	08	
			PPP		46	25	
			iS		49	38	
			SS		50	20	
			SSS		50	38	
			Lr		50	59	
			M		53	13	
	Bombay	N,E	iP	03	45	42	2330 Moderate to great.
			PP		46	13	
			iS		49	32	
		E	M		53	--	
		N	M		54	55	
							Per. = 13 Secs. /u = 272.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
<u>Apr.</u>							
1955							
15 Contd.	Hyderabad	N,E	iP	03	45	54	2560
		N	ScS		49	32	
		N,E	iS		50	02	
Madras	E	eP		03	46	39	2900 Great.
		PPP			47	42	
		PcP			49	50	
		iS			51	09	
Kodaikanal	E	P		03	47	11	3120 Great.
		PP			48	06	
		PPP			48	32	
		S			52	01	
		Lq			53	11	
		SS			53	36	
		SSS			53	51	
		Lr			54	45	
		M		57	09	Per.= 9Secs. /u=101.1	
Colombo	E	P		03	47	--	
		M		04	32	--	Amp.= 22mm.
15	Epc: 40°N, 75°E. In Kirghiz of U.S.S.R. - H = 04h 13m 23s (U.S.C.G.S) Felt at Rawalpindi. Magnitude = 7.4 (Praha), 7 (Kiruna, Uppsala), 6½ (Jerusalem).						
Dehra Dun	N,E N	eP		04	13	35	1320 Moderate.
		PP			13	44	
		PPP			13	50	
		Lq			15	40	
		iS			15	50	
		SS			16	02	
		Lr/SSS			16	14	
		Sg/M			17	12	
Bokaro	N,E	iP		04	17	48	1980 Great.
		iS			21	05	
		SSS			21	39	
		M			23	24	
Shillong	Z,N,E	iP		04	17	53	2220 Moderate.
		PP			18	12	
		PPP			18	23	
		iS			21	33	
		Lq			21	37	
		SS			21	55	
		SSS			22	17	
		Lr			22	39	
		M		24	31		
Poona	Z	eP		04	18	13	Moderate.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
<u>1955</u>								
15 Contd.	Bombay	N,E	eP	04	18	18	2430	Moderate. After shock of the great previous shock.
		E	iS M		22 25	16 00		
	Hyderabad	N	iP	04	18	35	2450	Per. = 8 Secs./u = 7.3 Per. = 8 Secs./u = 68
		N,E	iS		22	35		
		N	L		24	16		
			M		2	12		
		E	M		26	12		
	Shillong	Z	iP	06	17	03	50	Slight. Local.
			Pg		17	04		
			e?		17	06		
			Sg		17	09		
			PPP		17	20		
			SSS		17	37		
16	Chatra	Z	eP	07	18	08	750	Feeble.
16	Shillong	Z	iP	07	24	17		Tremor.
16	Shillong	Z	iP	07	33	53	50	Slight. Local.
			e?		33	55		
			Sg		33	58		
16	Shillong	Z	eP	12	37	38		Moderate. Distant. Phases doubtful.
16	Shillong	Z	eP	21	50	28		Slight. Distant.
16	Dehra Dun	N,E	e	22	13	11		Tremor.
17	Epc: 26.7°N, 90.7°E. - H = 03h 49m 32s (Shillong)							
	26½°N, 90°E. - H = 03h 49m 32s (U.S.C.G.S). Magnitude = 4½ (Shillong).							
	Shillong	Z,N,E	iP	03	50	00	170	Slight. Local.
			iPg		50	02		
			PP		50	07		
			PPP		50	13		
			iSg		50	21		
			SS		50	31		
			SSS		50	42		
	Chatra	Z,E	eP	03	50	30	400	Slight.
			iS		51	14		
	Bokaro	N,E	eP	03	51	02	460	Slight.
			PP		51	08		
			PPP		51	17		
			eS		51	51		
			M		52	21		



DATE	STATION	COMPT.	PHASE	G. M. T.			△	RE MARKS				
				h.	m.	s.			km.			
<u>Apr.</u>												
1955												
17 Contd.	Dehra Dun	N,E N	eP	03	52	28	1190	Moderate.				
			PP		52	36						
			PPP		52	42						
			Lq		54	17						
			iS		54	30						
			SS		54	42						
			Lr		54	50						
			Sg/M		55	39						
	New Delhi	N	eP	03	52	29	1250	Slight.				
			eS		54	37						
			Lr		54	57						
			M		55	57						
	Hyderabad	E	eP	03	53	05		Per. = 4 Secs./u = 2.				
			iS		55	27						
			M		57	23						
	Madras	E	iP	03	53	26	1770	Slight.				
			PP		53	35						
			PPP		53	44						
			i		53	57						
			iS		56	23						
			SS		56	48						
			SSS		57	00						
			Lr		57	13						
			M		58	54						
	Poona	Z	eP	03	53	39	1920	Slight.				
			PP		53	49						
			PPP		54	03						
			eS		56	51						
			SS		57	11						
			Lr		57	37						
			M		58	37						
	Bombay	N	e	03	57	13		Near and feeble.				
			e		58	16						
			e		59	00						
17	Shillong	Z	iP	15	43	25		Moderate. Distant. Phases doubtful.				
17	Epc: 54°N, 163°E. Off South coast of Kamchatka.											
	- H = 18h 35m 16s (Shillong).											
	52°N, 159½°E. - H = 18h 35m 27s (U.S.C.G.S). - h = 60 km.											
	Magnitude = 7.1 (Praha), 7 (De Bilt, Lwiro), 6¾-7 (Roma),											
	6¾ (Pasadena, Kiruna), 6¼-6½ (Uppsala),											
	7 (Shillong).											
	Shillong	Z,N,E N	iP	18	45	11	6450	Moderate.				
			PP		47	22						
			PPP		48	44						
			iS		53	11						
			PS		53	22						

140

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS			
				h.	m.	s.			km.		
<u>Apr.</u>											
1955											
17 Contd.	Shillong Contd.	N	SS	18	57	00					
			Lq		59	22					
			SSS		59	44					
			Lr	19	02	14					
			M		07	07					
	Bokaro	N,E	iP	18	45	43	6950	Moderate.			
			PcP		46	13					
			PP		48	05					
			PPP		49	35					
			iS		54	10					
			PS		54	21					
			PPS		54	36					
			SS		58	21					
			SSS	19	00	58					
			Lq		01	47					
			Lr		04	39					
			M		07	35					
				Dehra Dun	N,E N	eP	18	45	45	6980	Moderate.
PP		48				04					
PPP		49				30					
iS		54				14					
PS		54				31					
PPS		54				54					
SS		58				39					
SSS	19	01				30					
Lq		02				06					
Lr		04				12					
M		09				14					
								Per. = 14 Secs. / u = 56.			
	New Delhi	N				iP	18	45	54	7040	Moderate.
			PcP		46	28					
			PP		48	15					
			PPP		49	45					
			PcS		50	34					
			eS		54	26					
			PS		54	45					
			SKS		55	42					
			SS		58	40					
			Lq	19	01	40					
			Lr		04	17					
			M		09	37					
				Hyderabad	E	iP	18	46	43	7850	
PcP		47				04					
PP		49				24					
iS		55				57					
PS		56				33					
SS	19	00				58					
Lq		05				11					
Lr		09				24					
M		14				07					
								Per. = 19 Secs. / u = 39			

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
1955								
17 Contd.	Poona	Z	iP	18	46	55	8180	Moderate.
		E	PcP	47	07			
			PP	49	50			
			eS	56	25			
			SKS <sub>1</sub>	56	41			
			ScS <sub>1</sub>	56	49			
			PS	56	59			
			PPS	57	18			
	M	19	16	41				
	Madras	E	iP	18	46	57	8280	Moderate.
			PcP	47	08			
			PP	49	49			
			iS	56	32			
			ScS	56	56			
			PS	57	17			
			PPS	57	33			
			SS	19	01	09		
			SSS	04	10			
			Lq	05	59			
			Lr	10	31			
			M	16	18			
	Bombay	N,E	eP	18	46	58	8160	Moderate.
		N	PcP	47	13			
			e	48	19			
			PPP	51	20			
		N,E	eS	56	27			
		N	PPS	57	07			
			M	19	17	56		
		E	M	23	00			
						Per. = 18 Secs., $\mu = 40$ .		
	Kodaikanal	E	e(?)	18	47	14		Tremor.
17	Poona	Z	i	22	55	47		Tremor.
17	Shillong	Z	eP	22	56	10		Tremor.
17	Shillong	Z	iP	23	28	01		Moderate. Distant. Phases doubtful.
18	Shillong	Z	iP	00	13	00		Slight. Distant.
18	Epc: $25\frac{1}{4}^{\circ}$ N, $124^{\circ}$ E. - H = 08h 47m 57s (B.C.I.S) - H = 08h 47m 58s (U.S.C.G.S).							
	Shillong	Z,E	iP	08	53	59	4230	Slight. Distant. Phases not clearly developed.
			iS	59	27			
			ScP	19	00	07		
			SS/Lq	01	46			
			Lr	03	30			
			M	06	28			
	Poona	Z	iP	08	56	31		
18	Shillong	Z	iP	14	14	53		Tremor. Phases not clear.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
1955								
18	Shillong	Z	eP	16	27	32		Slight. Distant.
18	Epc: 28°N, 52½°E. Southern Iran. -H= 19h 16m 07s (U.S.C.G.S).							
	Poona	Z,E	iP	19	21	02		Feeble shock. Phases not clear.
	New Delhi	N,E N	eP	19	21	02	2440	Slight.
			eS		25	00		
			Lq		25	31		
			M		28	16		
	Dehra Dun	N,E	eP eS	19	21	32 25 11	2210	Slight. Phases not clear.
	Shillong	Z	iP	19	23	02		Slight. Distant.
18	Shillong	Z	eP	20	31	50		Tremor.
18	Shillong	Z	iP	20	39	44		Moderate. Distant shock. Phases doubtful and also not well developed.
18	Shillong	Z	e	20	47	22		Slight.
18	Chakra	Z	iP iS	22	10	35 10 51	120	Slight.
18	Shillong	Z	e	22	11	16		Moderate. Distant. Phases doubtful and not well developed.
19	Shillong	Z	e	04	32	19		Slight.
9	Shillong	Z	e	07	03	57		Slight.
19	Shillong	Z E	iP	07	35	30	3980	Slight.
			eP					
			PP		36	58		
			eS		41	27		
			Lr		45	55		
			M		49	21		
19	Shillong	Z	i	11	35	20		Slight. Near.
19	Shillong	Z	i	13	05	53		Slight.
	Shillong	Z	i	14	00	29		Slight.
19	Shillong	Z	e	14	11	06		Slight.
19	Shillong	Z	i	14	48	15		Slight. Distant.
19	Shillong	Z	i	15	05	08		Slight.
19	Shillong	Z	i	16	42	33		Slight. Near.
		N	e		43	16		

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
				h.	m.	s.	km.
<u>Apr.</u>							
1955							
19	Epc: $39\frac{1}{2}^{\circ}\text{N}$ , $23^{\circ}\text{E}$ . Near East coast of Greece.						
	- H = 16h 47m 17s (U.S.C.G.S).						
	$39\frac{1}{4}^{\circ}\text{N}$ , $23^{\circ}\text{E}$ . - H = 16h 47m 19s (B.C.I.S).						
	Magnitude = $6\frac{1}{4}$ (Uppsala, Praha, Hurbanovo), 6 (Kiruna),						
	An earthquake of destructive nature took the toll of 27 human lives including complete damage of 3800 houses (Press).						
	Dehra Dun	N,E	eP	16	55	30	Moderate.
		N	e		58	31	
			e		59	55	
			e	17	05	30	
			e		06	05	
			e		10	34	
			M		26	28	
	New Delhi	N,E	iP	16	55	42	5040 Moderate. Direction
		N	PP		57	28	of first movement
			PPP		58	07	south.
			PcS	17	01	11	
			iS		02	23	
			SS		05	15	
			L		06	06	
			Lr		08	21	
			M		12	14	
	Bombay	N,E	eP	16	55	57	5490 Slight.
		E	iP				
		N,E	PP		57	50	
		E	PP		57	55	
		N,E	eS	17	03	04	
		E	iS				
	Poona	Z	iP	16	56		Slight.
			e		56	11	
			e		56	17	
			PP		57	55	
	Bokaro	N,E	iP	16	56	53	6060 Moderate.
			PcP		57	42	
			PP		59	01	
			PPP	17	00	19	
			PcS		01	31	
			PS		04	39	
			PPS		04	50	
			SS		08	27	
			SSS		11	01	
			L		11	05	
			Lr		13	42	
			M		18	31	
	Madras	E	iP	16	57	05	Moderate.
			i	17	02	41	
			e		05	23	

DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Apr.</u>						
1955						
19 Contd.	Shillong	Z,N	iP	16 57 1	6470	Slight.
			PP	59 28		
		N	iS	17 05 15		
			PS	05 26		
			PPS	05 46		
			Lq	11 54		
M	19 36					
19	Shillong	Z	e	20 01 12		Slight.
			i	01 32		
19	Epc: 30°S, 72°W. Near coast of central Chile. - H = 20h 24m 05s (U.S.C.GS).					
Poona	Z,N	N	PKP <sub>1</sub>	20 43 47	14420	Moderate.
			PKP <sub>2</sub>	44 00		
			PP	47 05		
			PPP	50 16		
			PKKP <sub>1</sub>	52 46		
			PKKS <sub>1</sub>	56 05		
			SKKS <sub>1</sub>	58 56		
			SS <sub>1</sub>	21 06 24		
			SSP	06 53		
			SSS	11 54		
			Lq	25 48		
			Lr	32 35		
			M	44 47		
			Bombay	E		
ePKP <sub>1</sub>	43 56					
e	45 26					
i	45 46					
e	21 06 19					
e	06 22					
Kodaikanal	E		e	20 43 50		Tremor.
Hyderabad	E	N,E	PP	20 43 58	14980	
			SKS <sub>2</sub>	47 46		
			PKKP <sub>1</sub>	50 04		
			SKKKS	50 57		
			PS	54 24		
			SKKS <sub>2</sub>	57 32		
			SS	21 01 05		
			SSS	06 57		
			Lq	18 23		
			Lr	24 57		
			M	34 17		
						Per. = 20 Secs./u = 26
New Delhi	N,E	N,E	ePKP <sub>1</sub>	20 44 01	17350	Moderate.
			PKP <sub>2</sub>	44 27		
			i	45 01		
			SKKS	54 44		
			i	59 16		

DATE	STATION	COMPT.	PHASE	G. M. T.	△	REMARKS
				h. m. s.	km.	
<u>Apr.</u> 1955						
19 Contd.	New Delhi Contd.	N,E	PPS i SS SS	21 01 16 04 57 07 57 08 48		
	Madras	E	iPKP PP	20 44 01 47 27	16390	Moderate.
	Shillong	Z,N N Z,N N	ePKP <sub>1</sub> PKP PKS <sub>2</sub> PP PPP SKKS PPS SS SSP SSS Lq Lr M	20 44 06 45 03 47 35 49 02 53 02 55 47 21 02 38 08 53 10 01 16 03 34 19 42 35 53 52	18450	Moderate.
	Dehra Dun	N,E N	ePKP e e e e e e e e	20 44 08 49 13 51 09 56 12 58 11 21 03 25 08 02 15 20 20 31 28 07		Moderate.
	Bokaro	N,E	iP i i i	20 44 21 48 26 49 25 55 13		Slight.
19	Shillong	Z	e	22 49 24		Slight.
20	Shillong	Z	e e	00 51 35 52 09		Slight Local.
20	Shillong	Z	eP	01 25 23		Slight.
20	Poona	Z	iP	02 32 13		Feeble shock. Phases not clear.
	Bombay	N,E E	i e	02 32 18 36 01		Feeble.
	Madras	E	iP	02 32 24		Slight. Other phases not clear.
	Shillong	Z	e	02 32 33		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.		△	REMARKS
				h.	m.	s.	km.
<u>Apr.</u>							
1955							
20	Shillong		eP	06	08	09	Slight.
Contd.			e		33	50	
	Poona	Z	iP	06	08	15	Feeble shock. Phases not clear.
	Madras	E	eP	06	08	19	6240 Moderate.
			PcP		09	14	
			PP		10	24	
			PPP		11	41	
			iS		16	08	
			ScS		18	03	
			SS		19	50	
			SSS		22	12	
			Lq		22	22	
			Lr		25	38	
			M		30	22	
	Hyderabad	E	e	06	08	37	
			M	07	08	49	Per. = 18 Secs./Δ = 5
	Dehra Dun	N,E	e	06	08	48	Slight. Phases not clear.
			i		12	43	
			i		15	22	
			i		17	35	
			e		20	30	
			i		32	05	
	Bokaro	N,E	e	06	08	50	Slight.
			i?		12	52	
			i		13	16	
			i		19	09	
20	Epc: $44\frac{1}{2}^{\circ}$ N, $83\frac{1}{2}^{\circ}$ E. In Sinkiang Province, China.						
	- H = 08h 13m 35s (U.S.C.G.S).						
	Dehra Dun	N,E	e	08	17	04	Slight. Phases not clear.
		N	e		19	33	
			i		22	19	
			i		23	13	
	Shillong	Z	iP	08	18	04	Slight.
		N	iP		18	05	
	Poona	Z	iP	08	19	23	Tremor.
	Bokaro	N,E	e	08	21	54	Feeble.
			i		22	09	
20	Epc: $1^{\circ}$ N, $126^{\circ}$ E. - H = 09h 44m 07s (U.S.C.G.S).						
	Shillong	Z	iP	09	51	53	Slight.
		N	e		58	00	
	Bokaro	N,E	e	09	52	30	Feeble.
			i		54	24	



DATE	STATION	COMPT.	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km.	
<u>Apr.</u>						
1955						
20	Madras	E	eP	09 52 45	2100	Slight.
Contd.			S	56 13		
	Poona	Z	eP	09 53 38		Tremor.
	Bombay	E	e	09 56 17		Feeble.
			e	10 01 25		
			e	09 51		
20	Hyderabad	E	M	10 11 35		Per. = 21 Secs./ $\mu$ = 6
21	Shillong	Z	eP/P*	04 18 40	150	Slight.
			Pg	18 42		
		Z,N,E	eSg	18 58		
21	Poona	Z	iP	06 57 05		Feeble. Phases not clear.
			i	59 00		
			i	59 10		
21	Epc: $39\frac{1}{2}^{\circ}$ N, $23^{\circ}$ E. - H = 07h 18m 17s (U.S.C.G.S). - H = 07h 18m 18s (B.C.I.S).					
	Dehra Dun	N,E	e	07 26 41		Feeble. Phases not clear.
		N	i	33 18		
			i	36 20		
	Bombay	N,E	eP	07 26 54	5570	Slight. Probably deep.
			PP	28 48		
		E	eS	34 06		
	Shillong	Z,E	eP	07 28 18		Slight.
	Madras	E	eP	07 28 38	6000	Slight.
			eP	29 30		
			eS	36 13		
			PS	36 24		
			ScS	37 54		
			SS	39 47		
			SSS	42 03		
			Lq	42 12		
			Lr	44 38		
			M	51 31		
21	Shillong	Z,N,E	iPg	08 33 01	40	Moderate.
		N,E	iSg	33 05		
	Chatra	Z	iP	08 33 58	450	Slight.
			iS	34 46		
21	Dehra Dun	N,E	e	08 38 04		Tremor.
21	Shillong	Z	iP	09 51 53		Slight
		N	e	58 00		
21	Shillong	Z	eP	14 13 47		Slight.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u> 1955								
21	Poona	Z	eP	14	18	30		Feeble. Phase not clear.
21	Shillong	Z	e	18	06	09		Slight.
21	Shillong	Z	eP P* S eSg	21	18	53 55 18 20	200	Slight.
22	Shillong	Z	eP	01	22	59		Slight.
22	Shillong	Z	iP	02	55	20		Slight. Compression.
22	Shillong	Z,E N,E E	eP eS SS SSS Lr M	04	13	33 22 42 52 06 06	1680	Slight.
22	Shillong	Z	eP	10	12	18		Slight.
22	Shillong	Z	e i	11	41	53 31		Slight.
22	Shillong	Z	iP	13	39	40		Slight. Rarefaction.
22	Shillong	Z	e i	15	09	06 13		Slight.
22	Shillong	Z	e	16	19	02		Slight.
22	Shillong	Z	iP	16	36	23		Slight. Compression.
22	Dehra Dun	N,E	e	16	37	16		Feeble. Phases not clear.
22	New Delhi	N,E	iP eS	16	37	26 20	6330	Moderate.
22	Poona	Z	iP	16	58	23		Tremor.
22	Shillong	Z	ePg Sg	19	08	40 49	80	Slight.
22	Shillong	Z	ePg eSg	21	34	50 58	80	Slight.
23	Shillong	Z	e	00	26	52		Feeble.
23	Shillong	Z	e	00	36	58		Slight.
23	Dehra Dun	N,E	e i	01	05	13 39		Feeble- Phases not clear.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u> 1955								
23	Shillong	Z	eP	01	07	41		Slight.
23	Shillong	Z	e	02	38	40		Slight.
23	Bombay	E	e	04	17	44		Slight.
			e		24	12		
23	Poona	Z	eP	04	18	47		Tremor.
23	Shillong	Z	eP	04	44	40		Slight.
23	Shillong	Z	e	08	52	05		Feeble.
23	Bokaro	N,E	ePg	13	33	40	50	Slight. Local.
23	Epc: $27\frac{1}{2}^{\circ}$ N, $139\frac{1}{2}^{\circ}$ E. - h = 500 km Ca. - H = 16h 39m 04s (U.S.C.G.S). Magnitude = $6\frac{1}{4}$ (Uppsala).							
	Shillong	Z	iP	16	46	20		Slight. Distant.
		N	eP					
	Bokaro	N,E	iP	16	47	06	2770	Slight.
			iS		51	23		
			e		52	23		
			i		53	31		
	Madras	E	iP	16	48	09		Slight. Probably deep.
			SS?		55	29		
	Poona	Z	eP	16	48	33		Slight. Phases not clear.
		E	i		56	10		
	Bombay	E	iP	16	48	37	6170	Slight. Probably deep.
			e		50	57		
			iS		56	22		
23	Shillong	Z	i	16	51	06		
		N	e		54	45		
23	Epc: $24\frac{1}{2}^{\circ}$ S, $113^{\circ}$ W. - H = 18h 28m 47s (U.S.C.G.S). Magnitude = $6\frac{3}{4}$ (Pasadena, Uppsala), $6\frac{1}{4}$ (Kiruna, Praha), $6-6\frac{1}{4}$ (Iwiro).							
	Shillong	Z,N	eP	18	48	45		Slight. Distant.
		Z	e		52	55		
	Bokaro	N,E	e	18	48	55		Slight.
			e		49	40		
			i		53	09		
	Poona	Z	iP	18	49	00		Slight shock. Phases not clear.
			i		50	19		
			i		54	04		
			i		58	13		

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS	
				h.	m.	s.			km.
<u>Apr.</u>									
1955									
23 Contd.	Madras	E	iPKP	18	49	01		Distant. Phases not clear.	
			i		50	08			
			i		52	34			
			i		53	29			
			i		58	35			
		i	19	04	33				
	Dehra Dun	N,E	e	18	49	01		Slight. Phases not clear.	
			i		53	45			
	Bombay	N,E	i	18	49	02		Distant. Moderate.	
			E	i		50	24		
			e		19	06	24		
23	Shillong	Z	e	19	56	16		Slight.	
23	Poona	Z	iP	20	01	04		Tremor.	
23	Shillong	Z	e	22	11	22		Slight.	
24	Epc: 46°N, 86°E. In the Sinkiang Province, China.								
	- H = 12h 58m 55s (Shillong).								
	45°N, 86°E. - H = 12h 59m 00s (U.S.C.G.S).								
	Magnitude = 6 $\frac{3}{4}$ (Praha), 6 $\frac{1}{2}$ (Kiruna), 5 $\frac{3}{4}$ (Rooma).								
	New Delhi	N,E	iP	13	02	57	1800	Moderate.	
			PP		03	13			
			eS		05	59			
			i		06	07			
			N	M		08	13		
	Shillong	Z	iP	13	03	37	2270	Moderate.	
			N	iP		03	38		
			E	eP		03	38		
			N	iS		07	21		
			M			10	15		
		i		11	52				
	Bokaro	N,E	eP	13	03	51	2250	Moderate.	
			PP		04	08			
			PPP		04	21			
			iS		07	34			
			Lq		07	41			
			SS		08	11			
			SSS		08	22			
			Lr		08	41			
			M		10	20			
	Poona	Z	iP	13	04	54	3150	Moderate.	
			E	PP		05	48		
			PPP		08	05			
			PcP		07	56			
			eS		09	40			
			Lq		10	51			
			SS		11	08			
			SSS		11	17			
			Lr		14	06			
	M		16	42					

DATE	STATION	COMPT.	PHASE	G. M. T.		△	REMARKS	
				h. m. s.	km.			
<u>Apr.</u>								
1955								
24 Contd.	Hyderabad	E	iP	13	04	56	3140	
			PP		06	09		
			iS		09	42		
			L		13	54		
			M		16	18		
							Per = 12 Secs. /u = 38.	
	Bombay	E	eP	13	04	57	3190	
			N,E	eP		05	01	
		E	PP		06	02		
			PPP		06	15		
			e		06	51		
		N	eS		09	50		
			E	iS		10	03	
				SSS		12	29	
				Lr		13	20	
				N	M		17	04
	Madras	E	iP	13	05	35	3550	
			PP		06	40		
			PPP		07	00		
			i		09	21		
			S		10	47		
			ScP?		11	45		
			SS		13	07		
			SSS		13	30		
			Lr		14	55		
			M		17	58		
	Kodaikanal	E	P	13	06	06		
			e		07	07		
			e		07	29		
			e		11	02		
			e		12	31		
			e		12	46		
			e		13	04		
			e		14	05		
e		16	32					
	Colombo	E	P	13	06	21	4220	
			S		12	14		
			L		19	37		
			M		23	19		
							Amp. = 3.0mm	
24	Epc: 44°N, 83½°E. In Sinkiang Province, China.							
							- H = 14h 11m 42s (U. S. C. G. S).	
	New Delhi	N	eP	14	15	33	3780	
			eS		20	58		
	Shillong	Z	iP	14	16	13		
	Poona	Z	eP	14	17	29		
							Feeble shock. Phases not clear.	

DATE	STATION	COMPT.	PHASE	G. M. T.		△	REMARKS
				h. m. s.	km.		
<u>Apr.</u>							
1955							
24 Contd.	Madras	E	eP	14	18	55	3380 Slight.
			eS		23	56	
			SS		26	21	
			SSS		26	39	
			Lr		28	04	
			M		30	35	
24	Bombay	E	e	14	26	21	Feeble.
			e		27	47	
25	Shillong	Z	ePg/P*	02	48	52	110 Slight.
			P		48	53	
			PP		48	59	
			eSg		49	05	
			S		49	08	
			.SS		49	15	
25	Shillong	Z	eP	04	30	15	Slight.
25	Shillong	Z	e	07	13	37	Slight.
25	Madras	E	eP	08	44	00	Slight. Other phases not clear.
25	Shillong	Z	eP	08	58	46	Slight.
25	Shillong	Z	e	12	52	43	Slight.
25	Shillong	Z	e	16	42	38	Slight.
25	Shillong	Z	eP	17	54	12	Slight.
25	Shillong	Z	eP	20	03	48	Slight.
26	Shillong	Z	e	00	18	52	Slight.
26	Shillong	Z	e	01	24	26	Feeble.
26	Bombay	N,E	e	01	41	08	Slight.
			e		44	24	
	Poona	Z	eP	01	41	21	Tremor.
	Shillong	Z	e	01	44	11	Slight.
26	Poona	Z	iP	03	23	07	Tremor.
	Shillong	Z	i	03	23	09	Tremor.
26	Shillong	Z	e	08	46	36	Tremor.
26	Shillong	Z	iP	16	21	54	Compression. Feeble.
27	Bokaro	N	e	06	28	23	Feeble.

DATE	STATION	COMPT.	PHASE	G. M. T.			REMARKS
				h.	m.	s.	
<u>Apr.</u>							
<u>1955</u>							
27	Dehra Dun	N,E N	eP	11	52	27	1070 Slight.
			PP		52	32	
			eS		54	16	
			SS		54	30	
			SSS		54	39	
			Sg/M		55	24	
	Poona	Z	eP	11	54	39	Feeble. Phases not clear.
27	Bombay	E	e	12	00	44	Feeble.
	Madras	E	iP	12	01	23	1490 Slight.
			S		03	54	
27	Shillong	Z	e	12	54	45	Slight. Other phases not clear.
			i		54	49	
27	Dehra Dun	N,E N	eP	13	31	13	670 Slight.
			PP		31	20	
			PPP		31	26	
			Lq		32	08	
			iS		32	23	
			Lr		32	30	
			SS		32	34	
			S*		32	43	
			SSS		32	50	
			Sg		32	59	
				New Delhi	N,E	eP	
P*		31				52	
Pg		32				06	
eS		32				49	
E		33				08	
N,E		33				23	
	Shillong	Z	iP	13	33	30	Slight.
27	Poona	Z Z,E E	eP	13	33	58	1680 Slight.
			eS		36	47	
			SS		37	08	
			SSS		37	15	
			Lr		37	27	
			PcP		38	33	
			M		38	48	
27	Bombay	E	e	13	36	19	Feeble.
			e		37	33	
			e		38	00	
27	Bokaro	N,E	e	13	36	22	Feeble.
			e		37	26	
			e		38	29	

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS		
				h.	m.	s.			km.	
<u>Apr.</u>										
1955										
27 Contd.	Madras	E	iP	13	38	55	1460	Slight.		
			Lq			41			17	
			iS			41			23	
			SS			41			35	
			SSS/Lr			41			48	
		M						43	52	
	Hyderabad	E	iP	13	39	18				
			M			41		17	Per. = 8 Secs./u = 2.	
27	Shillong	Z	iP	15	50	56		Rarefaction. Slight.		
27	Shillong	Z	e	21	43	53		Feeble. Tremor.		
27	Epc: 44°N, 83½°E. In the Sinkiang Province, China. - H = 22h 42m 00s (U.S.C.G.S).									
	Dehra Dun	N,E	e	22	45	30		Slight. Phases not clear.		
			e			45	39			
			i			48	10			
			i			48	34			
	New Delhi	N,E	eP	22	45	58	1900	Slight.		
			N	eS					49	08
				M					51	35
	Shillong	Z	iP	22	46	33		Compression. Slight.		
	Poona	Z	eP	22	47	47		Compression. Slight.		
	Hyderabad	E	M	22	57	30		Per. = 10 Secs./u = 2.		
28	Shillong	Z	iP	00	55	50		Feeble.		
28	Shillong	Z	e	05	59	21		Tremor.		
28	Shillong	Z	i	10	21	42		Tremor.		
28	Epc: 50°N, 178°W. In Andreanov Island Region in Alentians. - H = 19h 05m 03s G.M.T. (Shillong). 51°N, 178½°W. -H = 19h 04m 59s (U.S.C.G.S). 52°N, 178½°W. -H = 19h 05m 03s (B.C.I.S).									
	Shillong	Z	iP	19	16	16	7780	Slight. Compression. First movement west.		
			PcP			16			36	
			eS			25			24	
			PS			25			40	
			SKS			25			47	
			PPS			25			54	
	Dehra Dun	N,E	eP	19	16	46	8250	Moderate.		
			N	PP					19	42
				PPP					21	26
				iS					26	20
				PS					27	06
				PPS					27	27



DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.		
<u>Apr.</u>								
1955								
28 Contd.	Dehra Dun Contd.	N	SS	19	31	16		
			SSS		34	07		
			Lq		36	32		
			M		47	25		
	Bokaro	N,E	iP	19	16	49	8310	Moderate.
			PcP		16	56		
			PP		19	47		
			PPP		21	32		
			iS		26	26		
			SKS <sub>1</sub>		26	37		
			ScS <sub>1</sub>		26	54		
			PS		27	13		
			PPS		27	47		
			SS		31	09		
			SSS		34	28		
			Lq		36	58		
			Lr		40	56		
			M		47	25		
	New Delhi	N,E N	eP	19	16	53	8490	Moderate.
			PF		19	58		
			iS		26	38		
			PS		27	13		
			SS		31	57		
	Hyderabad	E	iP	19	17	35	9460	
			PP		20	48		
			SKS		27	58		
			iS		28	05		
			PS		28	56		
			SS		33	51		
			Lq		41	03		
			Lr		45	54		
			M		52	54		
			M		53	03		
	Bombay	E N E N	eP	19	17	45	9550	Slight.
			eP		17	48		
			eS		28	19		
			eS		28	21		
	Poona	Z E N,E E	iP	19	17	47	9450	Moderate.
			PP		21	14		
			SKS <sub>1</sub>		27	53		
			eS		28	16		
			PS		29	28		
			PPS		30	03		
			SS		33	46		
			SSS		37	11		
			M		51	50		

Per. = 18 Secs./u = 12.  
Per. = 19 Secs./u = 13.

DATE	STATION	COMPT.	PHASE	G. M. T.			△	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
1955								
28	Madras	E	iP	19	17	49	9750	Moderate.
Contd.			PP		21	30		
			SKKS		28	16		
			iS		28	31		
			ScS		28	55		
			PS		29	49		
			PPS		30	20		
			SS		34	59		
			SSS		38	42		
			Lq		41	59		
			M		51	38		
	Colombo	E	eP	19	18	05	9820	
			S		28	50		
			L		51	00		
			M	20	00	38		Amp. = 0.6mm.
28	Shillong	Z	e	20	51	24		Tremor.
28	Shillong	Z	iP	21	59	23		Slight. Rarefaction.
29	Shillong	Z	e	01	14	32		Slight. Near.
			i		14	55		
29	Dehra Dun	N,E	e	07	37	05		Tremor.
29	Epc: In Pamir Region.			- H = 11h 53m 01s (B.C.I.S).				
				- H = 11h 53m 09s (Quetta).				
	Dehra Dun	N,E	eP	11	55	32	990	Slight.
		N	PP		55	37		
			eS		57	14		
			SS		57	25		
			SSS		57	38		
			S*		57	46		
			Sg/M		58	09		
	New Delhi	N,E	eP	11	55	48	1090	Slight.
		E	eS		57	40		
		N,E	SS		57	54		
			Lr		57	58		
		E	SSS		58	06		
		N,E	Sg		58	52		
	Poona	Z	eP	11	57	41		Feeble shock. Phases
		Z,E	i	12	03	25		not developed.
	Shillong	Z	iP	11	57	55	2460	Slight. Compression.
		E	iP		57	57		
			PP		58	22		
			iS	12	01	55		
			SSS		02	51		
			Lr		03	13		
			M		05	02		
	Madras	E	eP	12	04	43		Slight.
			e		07	06		

DATE	STATION	COMP.	PHASE	G. M. T.			$\Delta$	REMARKS
				h.	m.	s.	km.	
<u>Apr.</u>								
<u>1955</u>								
29	Dehra Dun	N, E N	eP PP P* Lq iS SS/Lr SSS S Sg/M	23	27	41	860	Slight.
	New Delhi	N, E	eP eS S*	23	27	58	990	Slight.
	Shillong	Z	e	23	29	58		Slight.
30	Chatra	Z	iP iS	00	41	18	190	Feeble.
30	Shillong	Z	i	04	52	31		Slight. Local.
30	Shillong	Z	i	10	25	29		Slight. Near. Other phases not clear.
30	Shillong	Z	iP	11	28	14		
30	Epc: $40\frac{1}{2}^{\circ}\text{N}$ , $143^{\circ}\text{E}$ . Honshu (Japan). Foreshock. - H = 14h 05m 10s (U.S.C.G.S) $39.7^{\circ}\text{N}$ , $143.9^{\circ}\text{E}$ . -H = 14h 05m 07s (C.M.C.O. Japan). Magnitude = $5\frac{1}{2}$ - $5\frac{3}{4}$ (Kiruna).							
	Shillong	E Z E	iP eP PcP eS PS PPS SS Lq SSS M	14	13	27	5040	Slight. First motion west.
	Poona	Z	eP	14	15	38		Tremor.
	Dehra Dun	N	e	14	21	40		Feeble. Phases not clear.
30	Shillong	Z	e	19	53	00		Slight. Near.

Earthquake Reports  
(Non Instrumental Reports)

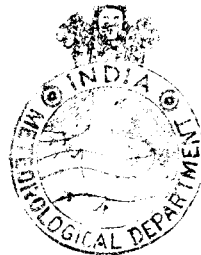
The following table contains list of earthquakes that were reported by Voluntary Observers from various stations during the month of April 1955.

Place	Date in Time in			Duration of shocks in Secs.	Number of shocks	Intensi- ty in R.F scale	Remarks
	G. M. T.	G.M.T.	h. m.				
Gauhati	05	07	12	8	1	IV	-
Simla	14	30	04	4	1	IV	-
Lower Mant (Kangra)	14	06	27	4	3	VI	-
Srinagar	14	06	25	2	1	III	
Srinagar	15	09	08	4	2	III	
Srinagar	15	09	41	6	3	IV	
Shillong	17	09	21	3	1	V	
Gauhati	17	09	20	5	1	V	Directi- on NE.
Tangla (Durrang)	17	09	22	10	1	V	
Tura	21	14	00	2	1	III	
Gauhati	21	09	49	3	1	III	
Gauhati	21	14	04	10	1	V	Directi- on NE.
Leh	27	18	55	2	3	IV	



GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
Shri S. Basu, M.Sc., F.W.I.,  
Director General of Observatories

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Calcutta	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.0$	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Dhara	Benioff	Z	$T_0=0.72$ $T_g=0.45$	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dhara Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.2$	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	$T_0=1.5$ $T_g=1.5$	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	$T_0=1.0$ $T_g=0.18$	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km.	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km.	REMARKS
May 1955							May 1955						
01	SHILLONG	Z	i	05 37 57		Slight, near.	01	BOKARO	N.E	iS?	10 11 38		Other phases not identifiable
			i	38 11			Contd.						
01	SHILLONG	Z	a	05 42 04		Tremor	01	Epc:	39°N, 143°E;	H = 13h 58m 44s (U.S.C.G.S)			
01	Epc: 37°N, 144.7°E; H = 09h 55m 17s (Shillong) Off coast of Northern Island, Honshu, 39°N, 143°E; H = 09h 55m 16s (U.S.C.G.S) 39°N, 143°E; h = 60 km Ca. 39°N, 143°E; H = 09h 55m 19s (CMO Japan) Magnitudes 6.9 (Roma), 6% (Pasadena, DeBait, Kiruna, Praha, Hurbanovo) 6% (Uppsala)												
SHILLONG	Z, N, E	iP	10 03 36	4920	Moderate.		SHILLONG	Z, E	eP	14 07 03	4750	Compression	
E	PcP	05 06	Compression				E	PcP	08 32				
	ScP	08 41	First movement					PPP	09 30				
	iS	10 11	" west "					eS	13 33				
	PS	10 15						PS	13 41				
	PPS	10 23						SS	16 51				
	SS	13 13						Lq	17 30				
	SSS	14 24						SSS	18 00				
	Lr	16 29						Lr	19 57				
	M	20 15						M	23 57				
DEHRA DUN	N, E	eP	10 04 41	5950	Moderate		BOKARO	N, E	iP	14 07 43	5700	Moderate, distant	
N	PP	06 44					E	PP	09 43				
	PPP	07 44						FPP	10 46				
	iS	12 13						iS	15 02				
	PS	12 24						SS	18 26				
	PPS	12 38						Lr/SSS	20 04				
	SS	15 43						Lr	22 20				
	SSS	17 41						M	26 35				
	Lr	20 07					DEHRA DUN	N, E	eP	14 08 07	5950	Moderate	
	M	24 43					N	PP	10 09				
NEW DELHI	N, E	eP	10 04 51	6050	Moderate			iS	15 39				
N	PP	06 54						PS	15 49				
	PPP	08 10						PPS	18 55				
	eS	12 29						SS	19 14				
	SS	16 02						SSS	21 07				
	SSS	18 00						Lr	23 27				
	Lr	20 50						M	27 34				
	M	24 38					NEW DELHI	N, E	eP	14 08 17	6080	Moderate	
HYDERABAD	E	iP	10 05 24	6680			N	PP	10 24				
N	P	05 27						PPP	11 38				
E	PP	07 36						iS	15 56				
N, E	iS	13 37						i	17 34				
E	ScS	15 12						i	19 26				
	SS	17 48						M	28 08				
N	SS	17 56					HYDERABAD	N, E	iP	14 08 52	6690		
	L	26 18					E	PP	11 04				
	M	28 51						iS	17 06				
E	M	29 30				Per. = 15 secs /u ± 8		SS	21 12				
MADRAS	E	iP	10 05 25	6950	Moderate			L	29 18				
	PcP	05 57						M	32 19				
	PP	07 50						E	M	33 04			Per. = 15 secs /u ± 6
	eS	13 52					MADRAS	E	iP	14 09 01	6920	Moderate	
	PS	14 09						PcP	09 35				
	PPS	14 18						PP	11 16				
	ScS	15 00						PPP	12 46				
	SS	18 02						PcS	13 33				
	SSS	20 37						eS	17 27				
	M	32 26						PS	17 45				
COLOMBO	E	P	10 05 34	7880				PPS	17 53				
	S	14 49						SS	21 41				
	L	28 34						SSS	24 29				
	M	35 14				Amp. = 0.5 mm		Lq	24 59				
POONA	Z	iP	10 05 48	7000	Moderate			Lr	27 52				
E	PcP	06 14					POONA	Z	iP	14 09 13	7000	Moderate	
N, E	iS	14 18					E	PcP	09 43				
E	PS	14 29						PP	11 35				
	PPS	14 50						iS	17 43				
	SS	18 14						PS	18 06				
N	SSS	21 38						PPS	18 13				
	Lq	22 29						ScS	18 54				
	M	30 33						SS	21 51				
BOMBAY	N, E	eP	10 05 52	7130	Slight			Lr	28 26				
N	PcP	06 29						M	33 51				
	PP	08 39					BOMBAY	N, E	eP	14 09 18	7110	Slight	
N, E	eS	14 23					N	PP	11 41				
	PS	14 54						eS	17 54				
N	PPS	15 00					E	PS	18 12				
	M	38 29					N	PPS	18 19				
							COLOMBO	E	P	14 09 29			
								S	18 39				
								L	33 00				
								M	40 04				Amp. = 0.5 mm.





DATE	STATION	COMPT PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT PHASE	G. M. T.	Δ	REMARKS
			h. m. s.	km.					h. m. s.	km.	
May 1955						May 1955					
05	CHATRA	Z	iP 08 48 58 iS 49 17	150	Feeble	11	SHILLONG	Z N	e 15 56 57 e(M?) 16 11 26		Slight, distant
05	SHILLONG	Z	e 08 58 39		Slight		POONA	Z	iP 15 59 12		Tremor
05	SHILLONG	Z	e 18 28 10		Slight	11	SHILLONG	Z, E N, E N	eP 16 42 58 iS 47 41 M 52 55	3100	Slight, distant
05	SHILLONG	Z	e 19 34 54		Slight	11	DEHRA DUN	N, E	e 19 02 08		Tremor
05	SHILLONG	Z	Pg 20 30 23		Slight, local	11	SHILLONG	Z	i 19 31 17		Slight
	CHATRA	Z	eP 20 31 05 iS 31 46	370	Feeble	11	SHILLONG	Z	i 19 32 44 i 37 04		Slight, distant
05	DEHRA DUN	N, E	i 23 13 53 i 14 01		Feeble. Phases not clear		DEHRA DUN	N, E	e 19 32 59		Tremor
06	SHILLONG	Z	eP 00 11 50		Slight	11	SHILLONG	Z	e 21 34 23		Slight
06	POONA	Z	iP 00 15 02		Tremor	12	SHILLONG	Z	e 07 20 32 e 20 53		Slight, local
06	SHILLONG	Z	ePg 02 36 22		Very slight, Local	12	SHILLONG	Z	e 09 20 08		Slight
06	DEHRA DUN	N, E	e 08 04 41 i 05 46 i 06 44 i 07 12		Feeble. Phases not clear	12	SHILLONG	Z	iPg 10 50 27 eSg 50 30	30	Slight
06	SHILLONG	Z	e 16 46 59		Slight	12	SHILLONG	Z	iPg 10 57 14 eSg 57 17	30	Slight
07	SHILLONG	Z	e 01 26 28		Slight	12	SHILLONG	Z	e 15 34 37		Slight
07	SHILLONG	N, E	e 03 23 39 i 25 15		Feeble. Phases not clear	12	SHILLONG	Z	e 17 05 42 e 06 08		Slight
07	SHILLONG	Z	e 06 23 40		Slight, Local	12	SHILLONG	Z	e 20 00 43		Slight
07	SHILLONG	Z	i 06 24 54		Slight, Local	12	SHILLONG	Z	e 21 18 27		Slight
07	CHATRA	Z	iP 06 51 56 iS 52 12	120	Feeble	12	SHILLONG	Z	i 23 04 05		Slight, local
07	SHILLONG	Z	i 07 09 40		Slight, Local	13	SHILLONG	Z	i 01 13 05		Slight
07	SHILLONG	Z	iP 13 05 59 S 06 19	170	Slight, Local	13	SHILLONG	Z	e 02 18 03		Slight, local
07	SHILLONG	Z	Pg 17 52 09		Slight, Local	13	SHILLONG	Z	e 03 49 08		Slight, distant
08	SHILLONG	Z	e 01 16 35		Slight	13	SHILLONG	Z	e 07 44 15		Slight
08	SHILLONG	Z	e 01 51 57		Slight	13	SHILLONG	Z	e 08 05 55		Feeble. Beginning doubtful
08	SHILLONG	Z	e 02 22 37		Slight	13	SHILLONG	Z Z, N	ePg 09 57 52 eSg 58 00	70	Slight
08	SHILLONG	Z	e 05 54 52		Slight	13	SHILLONG	Z	iP 13 22 51		Slight
08	DEHRA DUN	N, E	e 07 49 48		Tremor	13	SHILLONG	Z	e 14 39 26		Slight
08	SHILLONG	Z	e 12 59 01		Slight	13	CHATRA	Z	iPg 21 25 31 iSg 25 42	80	Feeble
08	SHILLONG	Z	e 13 41 56		Slight	13	SHILLONG	Z	e 23 14 08		Slight
08	SHILLONG	Z	e 14 29 58		Slight	14	SHILLONG	Z	e 03 56 25 e 57 11		Slight
08	POONA	Z	iP 18 42 51		Tremor	14	Epc: 28°N, 139°E; Bonin Islands Region. h = 500 km. H = 06h 04m 14s (U.S.C.G.S) 27.8°N, 140.2°E; H = 06h 04m 17s (CNO Japan) Magnitude: 6% (Pasadena), 6% (Uppsala).				
	SHILLONG	Z	e 18 43 46		Slight		SHILLONG	Z, E N E Z, E E Z, E E	iP 06 11 29 ePg PP pP e i i ScP iSg SS SS SS SS	4730	Moderate
08	SHILLONG	Z	e 21 50 45		Slight						
09	SHILLONG	Z	Pg 05 48 16 Sg 48 20	30	Very slight, Local						
09	SHILLONG	Z	e 20 23 39		Slight						
11	SHILLONG	Z	e 06 10 19		Feeble						
11	POONA	Z	eP 11 23 45		Feeble						
	SHILLONG	Z	e 11 23 53 e 24 55 N c 34 34		Slight, Distant						
11	COLOMBO	E	P 11 43 31 L 12 30 00 N 36 27								

h. 500 km approx.

DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS
				h. m. s.	km.						h. m. s.	km.	
May 1955							May 1955						
14	BOKARO Contd.	N,E	iP e e e e M	06 12 17 12 49 16 33 17 02 17 28 18 06 20 10		Moderate shock	14	HYDERABAD Contd.	N E N,E E	P iS S SS M	13 40 00 43 29 43 32 44 34 48 44	2110	
	DEHRA DUN	N,E N	eP PPP eS PPS SS Lq Lr M	06 12 51 15 41 19 47 20 07 22 50 24 10 26 11 30 05	5290	Moderate		SHILLONG	Z,E N E N,E	iP eP PP pP LP iS i SS PcP Lr ScP	13 40 06 40 28 40 47 41 13 43 46 44 00 44 14 44 41 44 57 47 35	2440	Slight
	HYDERABAD	N,E E N	iP iS SS	06 13 14 20 32 23 19	5680			MADRAS	Z	eP PP PPP PcP iS SS SSS Lr ScP M	13 40 46 41 18 41 28 44 20 44 54 45 40 46 00 46 27 47 53 48 19	2570	Slight
	MADRAS	E	eP i i i M	06 13 17 13 33 15 20 15 34 20 39		Slight							
	POONA	Z E	iP i	06 13 43 21 22		Very distant. Feeble shock Phases not clear							
	BOMBAY	N,E E N,E	iP e iS	06 13 48 14 16 21 33	6930	Slight. No sur- face waves. Deep focus.	14	SHILLONG	Z,N,E N N,E	iP P Pg iSg	19 07 34 07 35 07 39 08 03	210	Slight
14	Epc: 37°N, 72.5°E; Hindukush - H = 13h 35m 29s (Shillong) - H = 13h 35m 42s (Quatra) 37°N, 71°E; - h = 200 km Ca; - H = 13h 35m 38s (U.S.C.G.S) Felt at Kawalpindi and Peshawar.							CHATRA	Z	eP iS	19 08 35 34 31	740	Feeble
	DEHRA DUN	N,E N	eP PP PPP Lq iS SS/Lr SSS Sg/M	13 37 41 37 48 37 55 39 00 39 12 39 24 39 36 40 03	880	Moderate	14	SHILLONG	Z N N,E	e e i	22 54 57 55 31 55 33		Slight, local
	NEW DELHI	N,E E N,E	iP PP PPP i i i iS SS SSS S Sg	13 37 55 38 03 38 10 38 28 38 31 38 56 39 34 39 46 39 58 40 08 40 33	960	Slight. Direction of first motion south and east.	15	SHILLONG	Z Z,N,E	i e eSg	00 20 26 20 36 20 42 01 32 47 33 46 07 47 26 07 52 12 52 44	230	Slight
	BOMBAY	N,E E N E	eP e eSg iSg	13 39 37 40 30 42 51	2070	Slight		DEHRA DUN	N,E	e e	07 54 05 55 04		Feeble. Phases not clear.
	BOKARO	N,E	eP PP PPP iS/Lq SS SSS Lr M	13 39 39 39 50 41 05 42 54 43 01 43 18 43 29 44 50	1960	Moderate	15	DEHRA DUN	N,E	e	08 06 08		Tremor
	POONA	Z E	iP PP PPP Lq eS SS SSS Lr PcP M	13 39 42 39 54 40 01 42 42 56 43 01 43 16 43 35 43 49 43 58 45 19	2000	Slight	15	DEHRA DUN	N,E	e	08 19 09 20 25		Tremor. Phases not clear
							15	SHILLONG	Z	e	11 16 19		Slight
							15	SHILLONG	Z	e	18 17 14		Slight
							15	SHILLONG	Z	e	21 00 00		Slight. Near.
							15	SHILLONG	Z	i	21 41 56		Slight, local.
							16	SHILLONG	Z	e	00 44 16		Slight
							16	SHILLONG	Z E	eP Lq eS SS SSS M	01 56 50 58 14 58 21 58 35 58 47 59 08	880	Slight
							16	SHILLONG	Z	eP eSg	02 47 13 47 44	220	Slight
							16	SHILLONG	Z	e	03 42 46		Slight, distant.
							16	SHILLONG	Z	e	06 12 05		Slight
							16	SHILLONG	Z	e	09 48 11		Slight.
							16	SHILLONG	Z	i	21 08 10		Slight

DATE	STATION	COMPT	PHASE	G.	M.	T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G.	M.	T.	Δ	REMARKS
May 1955				h	m.	s.	km		May 1955				h	m.	s.	km	
17	SHILLONG	Z	e	00	25	33		Slight	17	SHILLONG	Z	iP	16	12	35		Slight
17	SHILLONG	Z	e	05	27	22		Tremor	17	SHILLONG	Z	i	17	31	46		Slight.Near
17	SHILLONG	Z	iP	09	17	13		Slight				i		32	24		
17	SHILLONG	Z	iPg	09	32	14		Slight.local	17	SHILLONG	Z	i	19	03	25		Tremor
17	SHILLONG	Z	iP	14	19	58		Slight.Rarefaction	17	SHILLONG	Z	iP	21	30	23		Slight.Rarefaction.
17	Epc: 6°N, 93.4°E; - H = 14h 49m 45s (Shillong) Iles Nicobar, 7°N, 94°E; - H = 14h 49m 47s (U.S.C.G.S.) 6.6°N, 94°E; - H = 14h 49m 49s (B.C.I.S.) Magnitude = 7.7% (Shillong), 7% (DeBilt), 7% (Kiruna), 7.7% (Uppsala), 7 (Pasadena, Praha).								18	SHILLONG	Z	i	04	46	39		Tremor
	BOKARO	N,E	eP	14	51	54	2150	Moderate shock	18	SHILLONG	Z,E	eP	05	32	00	3190	Slight
			PP		52	10					E	PP		32	56		
			PPP		52	19						PPP		33	06		
			Lq		55	25						PcP		34	56		
			iS		55	27						eS		36	49		
			SS		55	47						SS		38	16		
			SSS		55	59						SSS		38	42		
			Lr		56	25						M		42	06		
			M		57	50											
	POONA	Z	eP	05	34	26		Tremor									
		N	eP	07	28	47		Slight	18	SHILLONG	Z	eP	07	31	13		Tremor
		N,E	eP	07	58	22		Slight	18	SHILLONG	Z	eP	07	58	22		Slight
		N	i	09	12	01		Tremor	18	SHILLONG	Z	i	09	30	30		Tremor
		N	i	09	30	30		Tremor	18	MADRAS	E	iP	14	53	21	1680	Great
		N	eS	14	53	21		Great				eS		56	10		
		N	iP	15	56	42		Slight.Compression.	18	SHILLONG	Z	iP	15	56	42		Slight.Compression.
		N	iP	16	05	03		Feeble	18	SHILLONG	Z	iP	16	05	03		Feeble
		N	i	17	34	51		Slight	18	SHILLONG	Z	i	17	34	51		Slight
		N	i	22	56	35		Tremor	18	SHILLONG	Z	i	22	56	35		Tremor
		N	eP	03	40	50		890 Slight.Other phases not clear	19	DEHRA DUN	N,E	eP	03	40	50	890	Slight.Other phases not clear
		N	iS		42	22						iS		42	22		
		N	eP	03	41	03		940 Slight				SS		42	55		
		N	iS		42	40						SSS		43	07		
		N	SS		42	55											
		N	SSS		43	07											
		N	iP	03	43	12											
		N	iP	07	26	43		Tremor	19	POONA	Z	iP	07	26	43		Tremor
		N	e	07	26	59		Tremor									
		N	e	07	27	04		Tremor									
		N	i	09	43	08		Slight	19	SHILLONG	Z	i	09	43	08		Slight
		N	i		43	26											
		N	e	18	18	46		Tremor	19	SHILLONG	Z	e	18	18	46		Tremor
		N	e	19	34	29		Tremor	19	DEHRA DUN	N,E	e	19	34	29		Tremor
		N	e	19	35	17		Tremor									
		N	i	07	59	25		Tremor	20	SHILLONG	Z	i	07	59	25		Tremor
		N	iPg	09	49	11		70 Feeble	20	CHATRA	Z	iPg	09	49	11	70	Feeble
		N	iSg		49	20						iSg		49	20		
		N	iP	12	18	45		Slight.Compression	20	SHILLONG	Z	iP	12	18	45		Slight.Compression
		N	iP	14	32	49		Slight.Compression	20	SHILLONG	Z	iP	14	32	49		Slight.Compression
		N	e	17	38	12		Slight.Near	20	SHILLONG	Z	e	17	38	12		Slight.Near
		N	e	20	49	52		Tremor	20	SHILLONG	Z	e	20	49	52		Tremor
		N	e	21	43	00		Tremor	20	SHILLONG	Z	e	21	43	00		Tremor
		N	iP	00	46	20		Slight Rarefaction.	21	SHILLONG	Z	iP	00	46	20		Slight Rarefaction.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS
May 1955													
21	SHILLONG	Z	eP	01 38 16	4740	Slight. First movement uncertain.	24	SHILLONG	Z	ePg	18 57 37	40	Slight, local.
		E	PP	39 56						eSg	57 42		
			ScP	43 34			24	SHILLONG	Z	e	22 13 47		Slight
			eS	44 40			25	SHILLONG	Z	e	03 28 21		Slight
			PS	45 44				POONA	Z	iPg	03 28 37		Tremor
			SS	47 43			25	SHILLONG	Z	e	04 10 28		Slight.
			Lq	48 24			25	SHILLONG	Z	i/Pg	11 23 49	90	Slight, local.
21	SHILLONG	Z	eP	03 38 06	4750	Slight				iSg	23 59		
		E	iP	38 11			25	DEHRA DUN	N,E	eP	12 31 06	1010	Moderate
			PP	39 52					N	PP	31 12		
			iS	44 31						Lq	32 36		
			PS	44 39						iS	32 49		
			PPS	44 50						SS	33 00		
			i	47 02						Lr	33 05		
			ScS	47 50						SSS	33 13		
			SSS	48 56						Sg/M	33 47		
			Lr	50 36									
			M	53 56									
	DEHRA DUN	N,E	eP	03 39 31	4890	Slight. Phases not clear		SHILLONG	Z	eP	12 32 59		Slight
			iS	46 04					E	i	36 09		
										e	40 49		
	POONA	Z	iP	03 40 26		Tremor		POONA	Z	iP	12 33 39		Feeble. Phases not clear
21	SHILLONG	Z	eP	04 14 46		Slight			E	i	37 46		
21	BOKARO	E	e	04 38 55		Distant. Phases not clear				i	40 19		
			i	46 02			25	DEHRA DUN	N,E	eP	14 00 43	490	Slight
21	SHILLONG	Z	iP	10 47 45		Slight. Rarefaction			N	iS	01 35		
21	SHILLONG	Z	iP	15 35 17		Slight				SS	01 45		
21	SHILLONG	Z	iP	15 44 13		Slight. Near				SSS/Sg	01 56		
	CHATRA	Z	iP	15 44 56	940	Slight		NEW DELHI	E	eP	14 00 45	430	Slight
			iS	46 33						Lq	01 20		
22	SHILLONG	Z	iP	01 48 07		Slight, local.			N,E	eS	01 32		
22	CHATRA	Z	iP	06 45 18	230	Feeble				SS	01 43		
			iS	45 45						SSS	01 55		
22	SHILLONG	Z	i	09 32 19		Tremor	25	DEHRA DUN	N,E	e	15 37 48		Tremor
22	SHILLONG	Z	iP	14 14 46		Slight	25	SHILLONG	Z	iPg/P*	18 03 41	70	Slight, local
22	SHILLONG	Z	e	15 02 31		Feeble				iSg	03 49		
23	SHILLONG	Z	eP	00 05 11		Feeble	25	DEHRA DUN	N,E	e	18 31 18		Tremor
23	SHILLONG	Z,N,E	iPg	03 39 39	60	Slight. Felt.	25	POONA	Z	eP	18 32 22		Tremor
		N	P	39 41			26	SHILLONG	Z	e	02 57 51		Slight
			PP	39 47			26	CHATRA	Z	iPg	03 50 03		Feeble. Very near.
		E	Sg	39 50			26 Epc: Nicobar Isles Region						
			S/PPP	39 55			7°N, 93°E; H = 13h 15m 12s (U.S.C.G.S)						
							H = 13h 15m 03s (B.C.I.S)						
23	SHILLONG	Z	e	06 07 20		Tremor	MADRAS	E	eP	13 19 04	1930	Slight	
23	SHILLONG	Z	iP	08 22 45		Slight. Rarefaction.			PP	19 21			
									PPP	19 34			
									Lq/eS	22 17			
23	CHATRA	Z	iP	08 23 40	800	Feeble			SS	22 38			
			iS	25 03					SSS	22 49			
23	SHILLONG	Z	e	11 53 29		Tremor			Lr	23 06			
23	SHILLONG	Z	e	16 38 27		Tremor			M	24 04			
23	DEHRA DUN	N,E	e	17 31 45		Tremor	SHILLONG	Z	eP	13 19 43		Slight. Distant.	
23	COLOMBO	E	P	17 58 21	7180			E	eP	23 43			
			S	18 07 00									
			L	28 00									
			M	35 29		Amp. = 0.4 mm							
24	SHILLONG	Z	iP	01 21 32		Slight. Rarefaction	BOKARO	E	eP	13 20 17	2040	Slight. Other phases not developed.	
24	SHILLONG	Z	e	06 52 38		Slight			iS	23 40			
24	SHILLONG	Z	Pg	13 04 51	100	Slight, local.	POONA	Z	eP	13 20 29		Feeble shock Phases not clear	
			Sg	05 03									
24	SHILLONG	Z	e	16 15 13		Slight	26	POONA	Z	eP	13 30 02		Tremor
24	SHILLONG	Z	ePg	17 16 15	40	Very slight. Local	26	DEHRA DUN	N,E	e	14 21 29		Feeble. Phases not clear
			eSg	16 20			26 Epc: Solomon Isles						
							10°S, 161°E; H = 16h 23m 10s (U.S.C.G.S)						
							9°S, 160°E; H = 16h 23m 14s (B.C.I.S)						
							Magnitude = 7 (Pasadena), 6% (Roma, Praha)						
							6% (Uppsala).						
24	SHILLONG	Z	e	17 55 48		Slight.							

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km.	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km.	REMARKS	
May 1955							May 1955							
26	SHILLONG Contd.	Z	eP	16 34 59	8330	Slight	28	DEHRA DUN	N, E	e	09 57 23		Feeble. Phases not clear.	
		E	PP	37 40						i	58 27			
			PPP	39 23			28	SHILLONG	Z	e	15 17 09		Slight	
			iS	44 37										
			PS	45 13										
	MADRAS	E	i	16 35 00			28	DEHRA DUN	N, E	e	17 04 50		Tremor	
	COLOMBO	E	i	16 35 29			28	DEHRA DUN	N, E	e	18 20 43		Tremor	
			i	45 51										
			L	17 02 24			28	DEHRA DUN	N, E	e	19 32 20		Feeble. Phases not clear	
			M	09 34		Amp. $\approx$ 0.6 mm								
	BOKARO	E	e	16 35 32		Distant. Phases not identifiable.	29	SHILLONG	Z	i	02 40 02		Slight	
	POONA	Z	eP	16 36 12		Feeble. Phases not clear	29	SHILLONG	Z	e	11 15 28		Slight	
							29	SHILLONG	Z	i	12 38 59		Slight	
							29	SHILLONG	Z	i	13 43 46		Slight	
	DEHRA DUN	N, E	eP	16 36 27	9360	Moderate	29	Epc: 10.4°S, 112.8°E; - H $\approx$ 15h 33m 58s (Shillong)						
			PP	39 44				10.1°S, 110.6°E; - H $\approx$ 15h 34m 04s (M.C.I.S)						
			PPP	41 32				10.4°S, 110.4°E; - H $\approx$ 15h 34m 00s (U.S.C.G.S)						
			iS	46 52				Magnitude $\approx$ 6% (Pasadena), 6% (Lwiro), 6% (Praha)						
			PS	47 43				COLOMBO	E	P	15 41 02			
			SS	52 34						S	46 50			
			SSS	55 32						M	57 22		Amp. $\approx$ 3.5. Several maxima follow.	
			Lq	59 48										
			Lr	17 03 41										
			M	11 00										
	HYDERABAD	N	S(?)	16 46 21				MADRAS	E	eP	15 41 27	4320	Moderate	
			M	17 19 58		Per. $\approx$ 18 secs $\gamma$ $\approx$ 5				PP	43 02			
										PcP	43 17			
26	SHILLONG	Z	e	20 20 14		Slight				PPP	43 32			
26	SHILLONG	Z	eP	21 20 47		Slight				ScP	46 53			
		E	i	23 33						iS	47 26			
			i	25 15						SS	50 12			
			e	26 37						Lq	50 30			
										SSS	50 48			
26	DEHRA DUN	N, E	e	21 23 21		Slight. Phases not clear				ScS	51 03			
			i	27 27						Lr	52 12			
26	SHILLONG	Z	e	21 32 44		Slight				M	54 38			
27	DEHRA DUN	N, E	eP	05 34 44	970	Slight. Other phases not clear.		SHILLONG	Z	iP	15 41 39	4470	Slight.	
		N	iS	36 23					E	PP	42 13			
			SS	36 33						iS	47 47			
			SSS	36 43						SS	50 33			
			Sg/M	37 16						SSS	51 09			
	NEW DELHI	E	eP	05 35 02	930	Slight		BOKARO	N, E	iP	15 41 55	4690	Moderate	
		N, E	iS	36 38					N	PP	43 32			
			SS	36 50						PPP	44 08			
		E	S*	37 05						iS	48 16			
		N, E	i	37 17						SS	51 14			
			Sg	37 32						Lq	51 28			
										SSS	51 47			
	SHILLONG	Z	e	05 37 13		Slight				Lr	53 46			
										M	57 10			
27	SHILLONG	Z	e	12 38 27		Slight		KODAIKANAL	E	P	15 42 00	4390	Slight	
27	SHILLONG	Z	ePg	14 06 09	50	Slight, local.				PP	43 36			
			eSg	06 15						PPP	44 09			
27	CHATRA	Z	iP	17 06 25	170	Feeble				eS	48 12			
			iS	06 46						SS	51 00			
										SSS	51 45			
										Lq	51 24			
27	SHILLONG	Z	i	19 14 11		Slight				Lr	53 21			
28	SHILLONG	Z	e	06 23 19		Slight				M	56 39			
28	POONA	Z	iP	06 39 47		Very feeble Phases not clear		POONA	Z	eP	15 42 32	5210	Moderate	
			i	40 40					N	PcP	43 57			
		E	i	43 30					E	PP	44 25			
										PPP	45 18			
										PcS	47 24			
										eS	49 23			
										ScS	51 39			
										SS	52 41			
										Lq	54 02			
										SSS	54 12			
										Lr	56 21			
										M	16 00 57			
	NEW DELHI	N, E	iP	06 40 05	90	Slight		BOMBAY	N, E	eP	15 42 43	5240	Slight	
			iS	40 16						eS	49 36			
		N	i	40 29										
	DEHRA DUN	N, E	i	08 49 07		Slight. Phases not clear								
			i	50 12										
	BOKARO	Z	e	06 40 14		Tremor								
	SHILLONG	E	i	06 40 19		Slight								



DATE	STATION	COMPT	PHASE	G. M. T. h. m. s	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s	$\Delta$ km	REMARKS
May 1955	30 POONA Contd.	N, E N	eP PP PPP iS PS PPS SS SSS Lq Li M	23 37 38 40 14 41 32 46 18 46 38 46 56 50 35 52 54 54 43 57 50 00 03 12	7200	Moderate	31 SHILLONG	Z	e		10 26 14		Slight, near.
							31 SHILLONG	Z	i		11 48 52		Slight, local.
							31 SHILLONG	Z, E N Z N, E	iP eP e eS		14 52 10 57 38 59 16	3400	Slight
	30 POONA	Z E	iP PeP PP PPP PeS eS PS ScS SS SSS M	23 37 39 38 04 40 03 41 41 42 14 46 21 46 41 47 31 50 33 53 23 00 02 58	7220	Slight	DEHRA DUN	N, E	e		14 53 08		Feeble. Phases not clear.
							POONA	Z	iP		14 54 19		Tremor
	31 DEHRA DUN	N, E	e	01 13 57		Tremor	31 SHILLONG	Z	e		16 40 00		Slight
	31 SHILLONG	Z	e	07 30 26		Slight	31 DEHRA DUN	N, E	e		18 16 59		Tremor
	31 SHILLONG	Z	i	07 33 55		Slight, local	31 SHILLONG	Z, N, E	e		18 17 07		Slight
	31 SHILLONG	Z	e	09 44 30		Slight, distant	31 SHILLONG	Z	iP iSg		18 48 30 48 42	100	
		Z, E N, E	e e	47 35 54 56									
	31 COLOMBO	E	i i L M	09 55 18 10 03 50 20 00 26 48		Amp. = 0.1							

.....

*Earthquake Reports  
(Non Instrumental Reports)*

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of May 1955

Place at which felt	Date in G. M. T.	Time in G. M. T. h. m.	Duration in secs	Intensity in R.F. scale	No. of shocks	Remarks
SHILLONG	05	15 45	4	III	1	
SHILLONG	05	15 45	30	IV	1	
SHILLONG	05	15 45	5	IV	1	
GAUHATI	05	15 50	10	V	2	Direction NE
SRINAGAR	14	19 07	20	V	2	
TANGLA (Durang)	23	09 10	40	V	1	
TEZPUR	23	09 11	10	V	1	

.....



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	To = Tg = 7.0	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omeri-Ewing	N-S	18.0	32	-	25
	Omeri-Ewing	E-W	19.0	30	-	25
Chatra	Benioff	Z	To=0.72 Tg=0.45	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	To = Tg = 7.2	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omeri-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	To=1.5 Tg=1.5	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	To=1.0 Tg=0.18	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	
June 1955							June 1955							
01	SHILLONG	Z	e	01 01 01		Slight	02	NEW DELHI	N <sub>0</sub> E	PcP	00 31 14	7780	Moderate. Beginning lost in hour mark.	
01	KODAIKANAL	E	e	01 06 10		Tremor	Contd.		N	PP	33 33			
01	SHILLONG	Z	e	01 37 53		Slight				PP	35 29			
01	SHILLONG	Z	e	03 09 47		Slight				iS	40 07			
01	SHILLONG	Z	e	07 23 23		Slight, local	BOMBAY	N <sub>0</sub> E	eP	00 31 38			Slight	
01	SHILLONG	Z	e	07 24 00		Slight		E	e	42 14				
01	SHILLONG	Z	e	07 50 23		Slight		N <sub>0</sub> E	i	42 28				
01	SHILLONG	Z	e	07 58 19		Slight, local	POONA	Z	iP	00 31 39	9420		Moderate. First movement south and west.	
01	SHILLONG	Z	i	07 58 33		Slight, local		N <sub>0</sub> E	PP	34 57				
01	SHILLONG	Z	e	09 25 18		Slight, local			PPP	36 56				
01	SHILLONG	Z	i	09 25 19		Slight, local			eS	42 07				
01	SHILLONG	Z	e	09 25 46		Slight, local			ScS	42 23				
01	SHILLONG	Z	e	11 14 40		Slight			PS	42 58				
01	SHILLONG	Z	e	11 14 54		Slight			PPS	43 22				
01	SHILLONG	Z	e	15 31 21		Slight			PKKP1	49 05				
01	SHILLONG	Z	e	15 31 21		Slight			Lq	54 39				
01	SHILLONG	Z	e	15 31 21		Slight			M	01 05 37			Per. = 17.3 $\mu$ = 32.7	
01	Epc: 14°N, 128°E. Haimshera; h = 100 km; H = 16h 10m 32s (U.S.C.G.S) Magnitude = 5% (Kiruna).						HYDERABAD	N	P	00 31 56	9450		Time marks absent. Clock Stopped.	
	SHILLONG	Z, E	iP	16 18 25	4510	Slight			PP	35 11				
		N	eP	18 49		Slight			S	42 25				
		E	PP	18 49		Slight	COLOMBO	E	P	00 32 05	10130		L trace partially lost.	
			PcS	24 04		Slight			S	43 02				
		N, E	iS	24 35		Slight			L	01 08 --			Amp. = 1.1 mm	
		E	eS	25 17		Slight			M	15 00				
			Lq	27 52		Slight	02	SHILLONG	Z	i	00 34 04			Slight
		N, E	ScS	28 13		Slight	02	SHILLONG	Z	e	00 58 10			Slight
			Lr	30 02		Slight	02	SHILLONG	Z	i	02 13 22			Slight
	BOKARO	E	eP	16 19 04	4920	Slight. Probably distant.	POONA	Z	eP	02 14 52			Feeble. Phases not clear	
			e	20 47		Slight								
			i(S)	25 40		Slight	HYDERABAD	N	M	02 48 45			Per. = 17 secs $\mu$ = 10	
			i	29 21		Slight								
	MADRAS	E	iP	15 19 15	5310	Probably distant. First movement west.	02	SHILLONG	Z	e	07 45 14			Slight, distant.
			e(S)	26 11		Slight	02	SHILLONG	Z	e	11 35 40			Slight
	DEHRA DUN	N, E	e	16 20 06		Feeble. Phases not clear.	02	SHILLONG	Z	e	13 52 02			Slight
	HYDERABAD	N	e	16 27 06		Slight	02	SHILLONG	Z	e	16 06 19			Slight
01	SHILLONG	Z	iP	16 23 57		Slight	02	SHILLONG	Z	e	20 33 26			Slight
02	Epc: 51°N, 177°W. In Andreanov Island Region in the Aleutians. 51°N, 180°W. H = 00h 18m 56s (U.S.C.G.S) 51°N, 179°W. H = 00h 18m 54s (E.C.I.S) Magnitude = 7 (Lwiro), 6% (Pasadena, Roma, Skalnate Pleso), 6% (Hurbanovo), 6% (Uppsala, Kiruna, Praha).						02	SHILLONG	Z	e	23 44 08			Slight, distant
	SHILLONG	Z, N, E	iP	00 30 08	7690	Moderate.	03	SHILLONG	Z	e	01 43 08			Slight
			PcP	30 22		Moderate.	03	SHILLONG	Z	i	03 12 42			Slight, local
		N, E	PP	32 46		Moderate.				e	13 06			
		E	PPP	34 25		Moderate.	03	SHILLONG	Z	i	05 27 58			Slight
		N, E	iS	39 14		Moderate.	03	DEHRA DUN	N, E	e	10 23 47			Tremor
			PS	39 32		Moderate.	03	SHILLONG	Z	e	17 37 26			Slight
		E	PPS/ScS	39 54		Moderate.	04	SHILLONG	Z	e	03 34 37			Slight
		N	e	43 00		Moderate.	04	SHILLONG	Z	e	05 26 21			Slight, near.
		E	SS	43 42		Moderate.				i	27 01			
		N	SSS	47 05		Moderate.	04	SHILLONG	Z	e	12 55 10			Slight
		N, E	Lq	48 02		Moderate.	04	DEHRA DUN	N, E	e	16 45 40			Tremor
			Lr	52 10		Moderate.	04	Epc: 40°N, 142°E; h = 60 km; 40.2°N, 143°E; h = 40 km H = 16h 51m 22s (U.S.C.G.S) H = 16h 51m 21s (CMO Japan) Magnitude = 6% (Roma), 6-6% (Praha) 5% (Uppsala).						
			M	56 20		Moderate.	SHILLONG	Z, E	iP	16 59 32	4840		Slight	
	DEHRA DUN	N, E	eP	00 30 33	8150	Moderate		N	eP					
		N	PP	33 28		Moderate		E	PcP	17 01 04				
			PPP	35 08		Moderate			PP	01 14				
			iS	40 02		Moderate			PPP	01 38				
			PS	40 53		Moderate								
			SS	44 56		Moderate								
			SSS	48 15		Moderate								
			Lq	50 19		Moderate								
			Lr	53 23		Moderate								
			M	01 00 24		Moderate								
	BOKARO	E	iP	00 30 39		Moderate								
			i	31 09		Moderate								
			i	33 24		Moderate								

DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS
June				h. m. s.	km		June				h. m. s.	km	
1955							1955						
04	SHILLONG	E	iSg	17 06 01			05	DEHRA DUN	N,E	eP	06 18 52	4340	Moderate
	Contd	N	eSg					Contd	N	PP	20 23		
		E	PS	06 06						PPP	21 01		
		N,E	SS	09 16						iS	24 52		
		E	SSS	10 14						SS	27 08		
		N,E	Lr	12 26						SSS	27 59		
			M	15 58						Lr	29 28		
										M	32 51		
	DEHRA DUN	N,E	e	17 00 08		Slight Phases not clear		NEW DELHI	N,E	eP	06 18 57	4410	Moderate
			i	02 31					N	iS	25 01		
			i	08 07						i	25 37		
										Lq	28 05		
										M	32 43		
	BOKARO	E	eP	17 00 16		Slight, distant		HYDERABAD	N	S	06 25 17		P masked by microseisms
			e	07 46									
	POONA	Z	iP	17 01 43		Feeble Phases not clear		POONA	Z	eP	06 19 38	4970	Slight
		E	i	10 12					N	PP	21 23		
										PPP	22 07		
										i	26 11		
										eS	26 15		
										SSS	29 48		
										M	36 30		
04	Epc: 40°N, 142½°E. Off coast of northern Honshu Japan. - H = 60 km. - H = 17h 22m 31s (U.S.C.G.S)						05	SHILLONG	Z	e	06 24 45		Slight
	SHILLONG	Z,E	eP	17 30 42	4840	Slight							
		N	IP	30 44									
		E	PP	32 26									
			eS	37 12									
			SS	40 29									
			Lq	41 24									
		N,E	M	48 06									
	DEHRA DUN	N,E	a	17 31 50		Tremor	05	SHILLONG	Z,E	iPq	08 02 32	310	Slight
04	SHILLONG	Z	e	19 02 13		Slight, local			N,E	ePq			
04	SHILLONG	Z	e	19 55 26		Slight				eS	03 07		
										Sg	03 27		
05	Epc: 51½°N, 180° In the Andreanov Island Region in Aleutians. - H = 01h 53m 16s (U.S.C.G.S) Magnitude = 6¼-6½ (Pasadena), 6¼ (Praha), 5½-6 (Kiruna)							DEHRA DUN	N,E	e	08 08 04		Tremor
	SHILLONG	Z,N,E	iP	02 04 28		Slight. Record lost.							
	BOKARO	N,E	eP	02 05 00		Slight		CHATRA	Z	iP	08 18 30	770	Feeble
			e	07 51						iS	19 50		
			e	09 40									
	POONA	Z	eP	02 06 00		Very feeble Phases not clear							
		N	i	16 25									
	HYDERABAD	N	S	02 16 10		Per. = 18 secs $\mu = 10$							
			M	43 25									
	SHILLONG	Z	i	02 12 07		Slight							
	BOKARO	N,E	iP	02 14 35		Slight							
	SHILLONG	Z	i	02 24 56		Slight, distant.							
	SHILLONG	Z	i	05 46 29		Slight, local	05	Epc: 40°N, 76°E. Sinkiang Province in China; - H = 15h 43m 08s (Shillong) 40°N, 75½°E. - H = 15h 43m 07s (U.S.C.G.S) Magnitude = 5½ (Kiruna).					
			e	46 59									
05	Epc: 25°N, 122°E. Near North East Coast of Formosa; - H = 06h 11m 18s (Shillong) 24½°N, 122°E. - H = 06h 11m 18s (U.S.C.G.S)							DEHRA DUN	N,E	eP	15 45 31	1060	Moderate
	SHILLONG	Z,E	iPq	06 17 07	3040	Moderate			N	PP	45 36		
		N	ePq							PPP	45 44		
		N,E	PP	17 58						Lq	47 09		
		E	PPP	18 10						iS	47 19		
			iSg	21 47						SS	47 31		
		N	eSg							Lr	47 37		
		N,E	Lq	22 49						SSS	47 42		
			SS	23 09						Sg/M	48 19		
			SSS	23 25									
			Lr	24 27									
		N	e	24 45									
		E	M	26 28									
	BOKARO	N,E	iP	06 17 56	3790	Moderate		SHILLONG	Z,N,E	eP	15 47 38	2210	Slight
			PP	19 03					Z	i	47 41		
			PPP	19 27					E	PP	47 56		
			iS	23 22					N,E	PPP	48 05		
			SS/Lq	25 45						eS	51 17		
			SSS	26 04						Lq	51 26		
			Lr	27 19						SS	51 43		
			M	30 34						SSS	51 58		
									E	Lr	52 30		
									N,E	M	53 32		



DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	
June 1955				h. m. s.	km.		June 1955				h. m. s.	km.		
07	Epc: 27°N, 100°E. Sinkiang Province in China; H = 15h 30m 15s (U.S.C.G.S.)							09	CHATRA	Z	iP iS	20 34 08 34 33	250	Feeble
	SHILLONG	Z, E E	iP PP Pg Lq iS SS/Lr SSS M	15 32 17 32 35 32 55 33 33 33 45 33 52 34 07 34 32	860	Slight Compression. First movement east.		09	SHILLONG	Z	iP	23 17 00		Slight
	BOKARO	E	eP	15 33 22		Slight		10	SHILLONG	Z	i i	12 12 58 13 22		Slight, near
	HYDERABAD	N	e	15 33 35				11	SHILLONG	Z	i	11 03 07		Slight
	DEHRA DUN	N, E N	eP PP PPP iS Lq SS SSS Lr M	15 34 54 35 16 35 27 38 38 38 55 39 13 39 33 39 45 41 38	2250	Slight		11	SHILLONG	Z	iP	13 52 26		Slight
	NEW DELHI	N, E N	eP PP PPP iS SS M	15 35 02 35 24 35 36 38 52 39 24 41 54	2330	Slight		Epc: 27°S, 63°W. Santiago del Estero Province, Argentina. h = 600 km. H = 22h 19m 40s (U.S.C.G.S.) Magnitude = 6 (Takubaya).						
	POONA	Z E	eP i i	15 35 03 40 22 44 38		Very feeble shock. Phases not clear		POONA	Z	eP	22 37 59		Tremor	
07	SHILLONG	Z	iP	18 27 01		Slight. Rarefaction.		NEW DELHI	N, E	iP i i	22 38 15 38 38 38 40		Slight	
07	SHILLONG	Z	iP	19 04 17		Slight. Rarefaction.		DEHRA DUN	N, E	e i	22 38 15 38 30		Feeble. Phases not clear	
07	SHILLONG	Z	iP	22 17 59		Slight. Compression.		SHILLONG	Z	iP	22 38 32		Slight. Rarefaction.	
08	SHILLONG	Z	iP	02 49 02		Slight. Compression.		11	SHILLONG	Z	iP	23 12 58		Slight. Rarefaction.
08	SHILLONG	Z	iP	04 33 53		Slight. Compression.		12	SHILLONG	Z	i i	15 31 13 31 21		Slight, near.
08	SHILLONG	Z	iP Pg S Sg	12 54 25 54 29 54 50 54 55		Slight, near.		Epc: 49°N, 155°E. (Xurile Islands) H = 20h 35m 45s (U.S.C.G.S. & B.C.I.S.) 50°N, 157°E. H = 20h 30m 18s (CNO Japan) Magnitude = 6% (Skalnate Pleso), 6% (Hurbanovo) 6% (Praha, Roms), 5% (Uppsala), 5% (Kisuna).						
08	SHILLONG	Z	iP	13 58 15		Slight. Compression.		SHILLONG	Z, E E	iP i PP eS PS PPS M	20 40 09 40 55 42 09 47 26 47 46 47 54 59 21	5670	Slight. Compression	
08	SHILLONG	Z	Pg Sg	19 18 15 18 16		Slight, local		DEHRA DUN	N, E	e	20 41 51		Tremor	
08	SHILLONG	Z	iP	22 28 10		Slight. Compression.		POONA	Z N	eP PcP eS PS PPS SKS SSS M	20 42 04 42 26 51 15 51 35 51 47 52 05 58 51 21 08 54	7800	Slight	
08	SHILLONG	Z	i i i	22 31 43 31 53 32 01		Slight, near.		BOMBAY	N	eP eS	20 42 06 51 24	7930	Slight	
09	SHILLONG	Z	i	03 15 06		Slight		COLOMBO	E	P L M	20 52 08 21 12 50 19 48		Amp. = 0.6 mm	
09	POONA	Z	eP	03 59 43		Tremor.		12	POONA	Z	e	22 36 42		Very feeble shock Phases not clear.
09	SHILLONG	Z	i i	09 16 16 17 10		Slight.		13	SHILLONG	Z	iP Sg	09 16 11 16 58	320	Slight. Rarefact- ion. First motion East.
09	SHILLONG	Z	iP	10 15 54		Slight		DEHRA DUN	N, E	e	09 22 57		Feeble. Phases not clear	
09	SHILLONG	Z, N	iP Sg	12 17 27 17 59		Slight		13	SHILLONG	Z	iP	14 02 22		Slight. Rarefaction.
09	CHATRA	Z	iP iS	14 18 16 19 14	250	Slight		13	SHILLONG	Z	e	19 23 13		Tremor
09	DEHRA DUN	N, E	e	14 23 02		Tremor		13	SHILLONG	Z	eP iP	19 36 42 56 43		Compression. Slight.
09	CHATRA	Z	eP iS	16 59 07 59 35	240	Feeble		DEHRA DUN	N, E	e	19 39 41		Feeble. Phases not clear	
								13	SHILLONG	Z	iP	20 02 15		Rarefaction. Slight.

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km.	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km.	REMARKS
June 1955							June 1955						
13	POONA	Z	eP	20 42 05	7800	Slight	16	CHATRA	Z	iPg iSg	22 34 40 34 47		50 Feeble.
		N	PcP	42 06									
			eS	51 16									
			PS	51 32									
			PPS	51 48									
			SKS <sub>1</sub>	52 06									
			SSS	59 45									
			M	21 08 58									
14	SHILLONG	Z	e	03 10 20		Slight	17	Epc: 22°N, 122°E. Near East Coast of Formosa; H ≈ 08h 06m 31s (U.S.C.G.S) Magnitude ≈ 6 (Uppsala), 5½-6 (Kiruna), 5.8 (Roma).					
14	SHILLONG	Z	e	06 30 38		Slight. Probably very distant.		SHILLONG	Z	iP	08 12 19	3970	
	POONA	Z	e	06 30 58		Feeble, distant shock. Phases not clear			E	PPP S	13 18 17 56		
	COLOMBO	E	P	06 33 --		P approximate. Trace over lapping.		DEHRA DUN	N, E	eR	08 14 14	4180	Slight
			L	07 20 49		Amp. ≈ 1.0 mm				PP	15 36		
			M <sub>1</sub>	32 06						iS	20 04		
			M <sub>2</sub>	43 29						SS	22 22		
14	CHATRA	Z	iPg	07 13 13	90	Feeble		POONA	Z	iP	08 14 53		Feeble shock, phases not clear.
			iSg	13 25						M	27 30		
14	CHATRA	Z	iPg	12 57 08	90	Feeble		HYDERABAD	N	eS	08 20 28		Per. ≈ 15 secs μ ≈ 6
			iSg	57 20						M	30 53		
14	SHILLONG	Z	e	15 20 32		Slight.	17	COLOMBO	E	P	08 20 --		Strong microseisms. Amp. ≈ 0.6 mm
14	SHILLONG	Z	e	15 48 30		Slight				L	31 20		
14	SHILLONG	Z	e	16 05 52		Slight				M	35 10		
14	SHILLONG	Z	e	16 43 02		Slight	17	SHILLONG	Z	e	08 57 44		Slight
14	SHILLONG	Z	eP	17 30 03		Slight	17	SHILLONG	Z	e	11 15 03		Slight
		E	eS	36 38			17	SHILLONG	Z	e	13 29 28		Slight
	POONA	Z	eP	17 32 34		Feeble shock. Phases not clear.		CHATRA	Z	eP	13 29 49	330	Feeble
14	COLOMBO	E	P	17 41 05		Amp. ≈ 0.4 mm				iS	30 26		
			M	18 07 33									
15	SHILLONG	Z	e	00 09 08		Slight	17	SHILLONG	Z	e	16 26 33		Slight
15	DEHRA DUN	N, E	e	01 08 07		Slight. Phases not clear.		CHATRA	Z	eP	16 27 17	770	Feeble
			i	10 02						iS	28 37		
	POONA	Z	eP	01 08 30		Slight shock. Phases not clear	18	SHILLONG	Z	e	00 41 04		Slight
		E	i	12 39									
			i	13 30									
			i	14 33									
15	SHILLONG	Z	i	03 14 02		Slight, distant	18	SHILLONG	Z	e	00 46 30		Slight
15	SHILLONG	Z	i	03 38 20		Slight							
15	SHILLONG	Z	i	05 41 40		Slight	18	NEW DELHI	N, E	iP	12 19 14	8300	Moderate
15	SHILLONG	Z(?)	i	12 39 39		Slight				PcP	19 29		
15	SHILLONG	Z	iP	15 31 37		Slight				PP	22 11		
15	POONA	Z	eP	15 48 35		Tremor.				iS	28 50		
15	DEHRA DUN	N	e	15 48 43		Tremor				PS	29 23		
15	DEHRA DUN	N	i	20 32 51		Tremor				PPS	29 41		
16	CHATRA	Z	eP	01 01 16	140	Feeble.				Lq	38 48		
			iS	01 34						M	48 48		
16	CHATRA	Z	iPg	02 14 16	70	Feeble	18	DEHRA DUN	N, E	e	13 34 56		Feeble, phases not clear
			iSg	14 26						i	36 09		
16	SHILLONG	Z	e	03 50 08		Slight	18	DEHRA DUN	N	eP	15 21 03	6140	Slight
16	SHILLONG	Z	e	05 02 25		Slight				PP	23 07		
16	SHILLONG	Z	e	06 13 40		Slight				PPP	24 14		
16	SHILLONG	Z	e	08 23 31		Slight				iS	28 46		
16	SHILLONG	Z	e	08 33 05		Slight				PS	28 53		
16	SHILLONG	Z	e	16 44 44		Slight				PPS	29 07		
										SS	32 31		
										M	41 13		
							18	SHILLONG	Z	iP	16 13 08		Moderate.
										E	PPP	14 15	
											S	17 46	
											Lr	20 09	
											M	22 17	
							18	DEHRA DUN	N	e	19 30 16		Slight, phases not clear.
										i	32 01		
							19	CHATRA	Z	eP	01 45 28	450	Feeble
										iS	46 16		
							19	DEHRA DUN	N	e	21 37 31		Tremor
							20	Epc: 50°N, 179.7°E. Andreanov Islands in Aleutians. - H ≈ 12h 07m 27s (Shillong) 51½°N, 180° - H ≈ 12h 07m 25s (U.S.C.G.S) Magnitude ≈ 7½ (Berkeley), 6½ (Uppsala), 6½-7 (Skalnate Pleso).					



DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km						h. m. s.	km	
June 1955							June 1955						
20	SHILLONG	Z	iP	12 18 36	7670	Moderate	22	SHILLONG	Z	e	07 48 53		Slight
Contd.			S	27 40			22	MADRAS	E	iPP	11 36 30		
	DEHRA DUN	N, E	eP	12 19 06	8130	Moderate		DEHRA DUN	N, E	e	15 52 49		Feeble. Phases not clear
		N	PP	21 47						i	54 37		
			PPP	23 57			22	SHILLONG	Z	e	15 54 56		Slight
			IS	28 34			22	SHILLONG	Z	e	17 57 16		Slight, local.
			PS	29 14			22	CHATRA	Z	iP	18 29 44	540	Feeble
			PPS	29 23						iS	30 41		
			SS	33 12			22	SHILLONG	Z	i	18 30 22		Slight
			SSS	36 09			22	DEHRA DUN	N, E	e	18 31 34		Tremor
			Lq	37 59			22	SHILLONG	Z	i	18 31 46		Slight
			Lr	42 08			22	SHILLONG	Z	e	21 32 08		Slight
			M	47 32			23	SHILLONG	Z	e	05 27 29		Slight
	BOKARO	N, E	iP	12 19 09	8060	Moderate, distant.	23	SHILLONG	Z, E	e	08 43 39		Slight, near.
			PcP	19 22					N	e	52 59		
			PP	22 09			23	SHILLONG	Z	e	08 47 43		Slight
			PPP	-- 56									
			IS	28 35			<p style="text-align: center;">Epc: 42°N, 71°E. Kirghiz U.S.S.R.                      - H <math>\approx</math> 11h 19m 18s (U.S.C.G.S)                      44°N, 70½°E. - H <math>\approx</math> 11h 19m 26s (B.C.I.S)                      Magnitude <math>\approx</math> 5½ (Kiruna).</p>						
			SKS <sub>1</sub>	28 54									
			PS	29 13									
			SS	30 28									
			SSS	34 09									
			Lq	36 39									
			Lr	40 24									
			M	47 09									
	HYDERABAD	N	eP	12 19 55	9280								
			IS	30 17									
			SS	36 17									
			M	51 45									
						Per. $\approx$ 15 secs $\mu$ $\approx$ 25							
	POONA	Z	iP	12 20 08	9470	Moderate		DEHRA DUN	N, E	eP	11 22 24	1350	Moderate
		E	PP	23 12					N	PP	22 34		
			PPP	25 33						Lq	24 33		
			SKKS <sub>1</sub>	30 22						IS	24 41		
			IS	30 38						SS	24 54		
			PS	31 35						SSS/Lr	25 08		
			PPS	32 20						Sg/M	26 04		
			SS	36 22				NEW DELHI	N, E	eP	11 22 41	1660	Slight
			SSS	39 46					N	PP	22 52		
			Lq	44 06					N, E	PPP	23 04		
			M	54 51						Lq	25 07		
		N	Mn	13 09 24		Per. $\approx$ 20.3 $\mu$ $\approx$ 37.9				IS	25 16		
										SS	25 30		
										SSS	25 42		
	BOMBAY	N, E	iP	12 20 10	9490	Moderate		SHILLONG	Z, E	i	11 24 32		Slight, near.
		N	PP	23 31					E	i	28 50		
			PPP	25 28					N	e			
		N, E	iS	30 41			23	SHILLONG	Z	e	14 03 37		Slight
			i	30 56			23	SHILLONG	Z	e	15 34 49		Slight, local
		N	PS	31 27			23	SHILLONG	Z	i	16 36 01		Slight, near.
			PPS	32 04			23	SHILLONG	Z	e	21 02 17		Slight.
		E	M	13 00 12			23	SHILLONG	Z	e	21 49 04		Slight
			M	00 25			23	SHILLONG	Z, E	i	22 22 17		Slight, distant
	MADRAS	E	iP	12 20 11	9450	Moderate. Initial ground movement towards 'West'			N	e	29 28		
			SKS	30 31						e	32 59		
			iS	30 40						e	42 03		
			i	30 56			23	DEHRA DUN	N, E	e	22 23 10		Feeble
	COLOMBO	E	e	12 20 49		Strong microseisms	23	SHILLONG	Z	i	22 25 57		Slight
			e	31 19			23	SHILLONG	Z	e	22 36 38		Feeble
			e	53 03			23	SHILLONG	Z	i	23 08 59		Slight
			e	13 02 16			24	SHILLONG	Z	e	03 17 16		Slight, local.
	KODAIKANAL	E	iP	12 30 52		Earthquake of slight intensity, Phases not clear.	24	SHILLONG	Z	i	03 41 54		Slight
			e	37 58			24	SHILLONG	Z	e	03 55 20		Slight
			e	42 04			24	SHILLONG	Z	i	04 42 36		Slight
			e	44 16			24	SHILLONG	Z	i	06 21 22		Slight
			e	46 40			24	SHILLONG	Z	e	09 18 14		Feeble
			e	51 10			24	SHILLONG	Z	e	10 39 33		Feeble
21	CHATRA	Z	eP	09 23 11	190	Feeble.							
			iS	23 34									
21	SHILLONG	Z	iP	11 00 57	6450	Slight, distant							
			S	08 57									
	DEHRA DUN	N, E	e	11 01 36		Tremor							
21	SHILLONG	Z	e	12 47 55									
	CHATRA	Z	iP	12 48 26	830	Feeble							
			iS	49 57									
22	SHILLONG	Z	e	05 31 13		Slight							

DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km						h. m. s.	km	
June 1955							June 1955						
24	SHILLONG	Z	e	10 50 32		Feeble	27	Epc:					India Tibet Frontier.
24	SHILLONG	Z	e	10 58 58		Feeble							H = 10h 14m 33s (Shillong)
24	SHILLONG	Z	i	11 13 53		Slight, local							32°N, 78°E. - H = 10h 14m 06s (U.S.C.G.S)
24	SHILLONG	Z	e	11 14 48		Slight							32°N, 78°E. - H = 10h 14m 10s (B.C.I.S)
24	SHILLONG	Z	i	11 46 30		Slight							Magnitude = 6.3 (Roma), 6-6% (Kiruna), 6 (Uppsala), 5% (Lwiro), 5% (Shillong).
24	SHILLONG	Z	e	15 15 10		Slight, local.	DEHRA DUN	N, E	eP	10 14 49		110	Slight.
24	SHILLONG	Z	e	18 03 56		Slight		N	PP	14 56			
24	SHILLONG	Z	i	21 15 01		Slight, local.			S*	15 01			
24	SHILLONG	Z	i	21 15 39		Slight, local			Sg	15 02			
25	SHILLONG	Z	i	01 11 21		Slight, near.			iS	15 03			
		N, E	e	13 02					SS	15 13			
									SSS	15 25			
25	CHATRA	Z	ePg	04 52 59	100	Feeble	NEW DELHI	N, E	iP	10 15 13		480	Moderate
			iSg	53 12				N	Pg	15 31			
25	SHILLONG	Z	e	05 01 40		Slight			iS	16 04			
25	SHILLONG	Z	i	05 14 30		Slight	BOKARO	N, E	eP	10 16 44		1120	Moderate
25	SHILLONG	Z	e	06 28 20		Slight, local			PP	16 51			
			e	28 22					PPP	17 03			
25	SHILLONG	Z	e	08 12 22		Slight, near.			Lq	18 32			
25	SHILLONG	Z	e	09 11 09		Slight, near.			iS	18 39			
25	SHILLONG	Z	e	10 52 29		Slight, local			SS/Lr	18 58			
25	SHILLONG	Z	i	12 22 33		Slight	SHILLONG	Z, E	iP	10 17 17		1390	Moderate
25	SHILLONG	Z	e	13 37 29		Slight.		N	eP	17 26			
25	CHATRA	Z	iP	14 54 45	160	Feeble		Z, N	PP	17 33			
			iS	55 05				Z, N, E	PPP	17 33			
25	SHILLONG	Z	e	14 55 09		Slight, local		N, E	Lq	19 20			
25	SHILLONG	Z	e	17 48 03		Slight		E	eS	19 38			
25	DEHRA DUN	N, E	e	18 08 56		Slight. Phases not clear		E	iS	20 02			
			i	10 25				N, E	SSS/Lr	20 02			
25	SHILLONG	Z	i	18 11 21		Slight	POONA	Z	eP	10 17 34		1400	Slight. First ground movement towards 'South'
25	SHILLONG	Z	iPg	18 32 00	100	Slight		E	PP	17 39			
			eSg	32 12					PPP	17 47			
26	SHILLONG	Z	e	06 52 57		Slight, local.		N, E	Lq	19 41			
			i	53 08				E	eS	19 56			
			i	53 09				E	SS	20 07			
26	SHILLONG	Z	i	10 42 21		Slight		N	Lr	20 20			
26	SHILLONG	Z	i	14 05 40		Slight		N	M	21 38			
			i	06 56					Mn	22 55			Per. = 10.5 secs $\mu$ = 67.5
26	SHILLONG	Z	e	15 15 21		Feeble	HYDERABAD	N	iP	10 17 37		1500	
26	SHILLONG	Z	i	15 39 23		Slight		E	iS	20 09			Per. = 15 secs. $\mu$ = 104
26	SHILLONG	Z	e	15 53 13		Slight		N	M	21 59			Per. = 15 secs. $\mu$ = 100
			i	53 17			BOMBAY	N, E	eP	10 18 07		1810	Moderate
			i	54 30				N	PP	18 19			
26	SHILLONG	Z	e	19 18 09		Feeble		E	e	20 04			
26	SHILLONG	Z	e	22 18 29		Slight, local		N	i	20 15			
			i	18 31				E	i	21 08			
			i	18 39				N, E	iS	21 34			
26	SHILLONG	Z	i	22 49 18		Slight		N	SS	21 46			
26	SHILLONG	Z	e	22 56 40		Slight, local.			SSS	21 59			
			i	56 53				E	Lr	22 00			Per. = 11 secs. $\mu$ = 60
			i	59 02			MADRAS	E	eP	10 18 43		1960	Slight, other phases not clear.
			i	59 12					iS	21 58			
			i	59 22									
26	SHILLONG	Z	e	23 05 56		Slight.	KODAIKANAL	E	iP	10 19 20		2330	Probably of slight intensity
									iS	23 10			
									Lr	24 10			
									M	25 46			Per. = 15 secs. $\mu$ = 93
							COLOMBO	E	P	10 19 41		2880	
									S	24 09			
									L	26 39			
									M	28 06			Amp. = 4.5 mm
							27 DEHRA DUN	N, E	eP	10 29 46		220	Slight
								N	PP	29 52			
									iS	30 12			
									S*	30 13			
									Sg	30 16			
									SS	30 22			
									SSS	31 32			

DATE	STATION	COMPT	PHASE	G. h.	M. m.	T. s.	$\Delta$ km	REMARKS
June 1955								
27	DEHRA DUN	N,E	eP	10	31	33	260	Slight
		N	PP		31	42		
			PPP		31	51		
			iS		32	02		
			S*		32	05		
			Sg		32	08		
			SS		32	13		
			SSS		32	24		
27	DEHRA DUN	N,E	eP	10	43	09	240	Slight
		N	P*		43	12		
			Pg		43	15		
			PP		43	17		
			PPP		43	21		
			iS		43	37		
			S*		43	43		
			Sg		43	46		
			SS		43	46		
			SSS		44	01		
	NEW DELHI	N,E	eP	10	43	33	520	Slight
			PP		43	40		
			PPP		43	47		
			Pg		43	52		
		N	Lq		44	18		
		N,E	iS		44	29		
		E	i		44	35		
		N	SS		44	39		
			Sg		44	55		
27	DEHRA DUN	N,E	e	11	31	11		Feeble, phases not clear.
27	DEHRA DUN	N,E	eP	12	12	01	240	Slight
			Pg		12	07		
			PP		12	10		
			PPP		12	14		
			iS		12	29		
			S*		12	32		
			Sg		12	35		
			SS		12	41		
			SSS		12	55		
	NEW DELHI	N,E	P	12	12	32	510	Slight
			PP		12	37		
		N	PPP		12	46		
		N,E	eS		13	27		
			i		13	33		
		N	S*		13	39		
		N,E	Sg		13	53		
27	CHATRA	Z	ePg	12	47	13	90	Feeble
			iSg		47	25		
27	DEHRA DUN	N,E	e	13	11	35		Tremor
27	DEHRA DUN	N,E	e	13	25	22		Tremor
27	DEHRA DUN	N,E	e	13	42	00		Tremor
27	Epc: 31 $\frac{1}{2}$ $^{\circ}$ N, 78 $\frac{1}{2}$ $^{\circ}$ E. - H = 13h 46m 10s (U.S.C.G.S)							
	DEHRA DUN	N,E	eP	13	46	52	230	Slight
		N	P*		46	55		
			Pg		46	58		
			PP		47	00		
			PPP		47	04		
			iS		47	19		
			S*		47	23		
			Sg		47	26		
			SS		47	31		
			SSS		47	43		
	NEW DELHI	N	eP	13	47	22	510	Slight
			P*		47	31		
			PPP		47	37		
			iS		48	17		
		N,E	SS		48	27		
		N	S*		48	30		
		N,E	SSS		48	37		
			Sg		48	42		
	SHILLONG	Z	e	13	49	21		Slight, near
27	DEHRA DUN	N,E	e	15	24	44		Tremor
27	SHILLONG	Z	i	16	19	44		Slight, distant.
June 1955								
27	DEHRA DUN	N,E	eP	16	21	30	260	Slight
		N	PP		21	40		
			PPP		21	44		
			iS		21	59		
			Sg		22	05		
			SS		22	09		
			SSS		22	23		
27	DEHRA DUN	N,E	e	16	30	01		Feeble, phases not clear
			i		30	28		
27	CHATRA	Z	iP	20	47	23	170	Feeble
			iS		47	44		
27	DEHRA DUN	N,E	e	22	45	44		Tremor
27	SHILLONG	Z	e	23	42	57		Slight, local
			i		42	58		
			i		43	05		
28	SHILLONG	Z	i	00	22	40		Slight
28	CHATRA	Z	eP	00	23	27	590	Feeble
			iS		24	29		
28	DEHRA DUN	N,E	e	01	21	22		Tremor
28	SHILLONG	Z	iP	04	38	23	2910	Compression, slight.
		N	eP		38	24		
			PP		40	38		
			PPP		42	12		
			iS		46	48		
			M		05	02	36	
28	COLOMBO	E	e	05	13	49		
			e		19	39		
28	SHILLONG	Z	iP	05	34	41		Slight, Rarefaction
28	SHILLONG	Z	Sg?	06	24	00		Slight
28	SHILLONG	Z,E	iP	22	03	48		Slight, near. Phases not clear
28	CHATRA	Z	iP	22	04	39	940	Slight
			iS		06	16		
	DEHRA DUN	N,E	e	22	09	07		Tremor
	SHILLONG	Z	iP	22	10	50		Slight, near.
			Pg		10	52		
			Sg		11	15		
29	DEHRA DUN	E	e	00	16	51		Tremor
29	SHILLONG	Z	iP	03	31	10		Slight, Rarefaction
29	COLOMBO	E	P	03	32	20		
			M		04	04	48	Amp. $\approx$ 0.3 mm
29	SHILLONG	Z	iP	03	41	28		Slight, rarefaction
29	SHILLONG	Z	iP	04	56	28		Slight
29	SHILLONG	Z	iP	05	01	43		Slight, rarefaction
29	HYDERABAD	E	M	05	28	32		Per. $\approx$ 15 secs $\mu$ $\approx$ 4
29	DEHRA DUN	N,E	e	06	10	17		Tremor
29	DEHRA DUN	N,E	e	06	51	20		
29	SHILLONG	Z	iP	10	04	08		Slight, compression
29	SHILLONG	Z	iP	15	47	22		Slight Rarefaction
29	CHATRA	Z	eP	17	03	32	400	Feeble
			iS		04	16		
29	SHILLONG	Z	e	17	20	25		Slight.
29	DEHRA DUN	N,E	e	17	25	53		Tremor

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS
June 1955							June 1955						
30	DEHRA DUN	N,E	eP	01 54 28	290	Slight	30	SHILLONG	Z	iP	02 42 51		Slight. Rarefaction
		N	P*	54 34									
			PP/Pg	54 38									
			Lq	54 50			30	SHILLONG	Z	iP	06 39 30		Slight. Compression
			iS	55 00									
			S*	55 05			30	CHATRA	Z	eP	10 07 14	670	Slight
			Sg	55 09									
			SS	55 12			30	DEHRA DUN	N,E	e	12 08 18		Tremor
			SSS	55 25									
	NEW DELHI	N,E	eP	01 54 47	600	Slight	30	DEHRA DUN	N,E	eP	13 28 21	230	Slight
			P*	54 58					N	PPP	27 34		
			PPP	55 03						iS	28 48		
			Lq	55 40						Lr	28 53		
			iS	55 51						S*	28 56		
		N	S*	56 02						SS	29 00		
		N,E	SSS	56 12						SSS	29 09		
30	CHATRA	Z	eP	01 56 22	1150	Slight	30	SHILLONG	Z	iP	19 28 11		Slight. compression
			iS	58 20									
							30	SHILLONG	Z	iP	22 09 02		Slight, compression.

\*\*\*\*\*

### Earthquake Reports (Non Instrumental Reports).

The following table contains a list of earthquakes that were reported by voluntary observers from various stations during the month of June 1955.

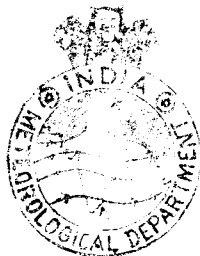
Place at which felt	Date in G.M.T.	Time in G.M.T. h. m.	Duration in secs.	Intensity in R.F. Scale	No. of Shocks	Remarks
SIMLA	27	10 15	3	V	3	
AMBALA	27	10 15	2	III	2	

~~~~~



GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

Instruments and their constants

| Station    | Instrument                            | Compt. | Period<br>in<br>secs     | Static<br>Magnifi-<br>cation | Damping<br>ratio | Paper<br>Speed<br>mm/min |
|------------|---------------------------------------|--------|--------------------------|------------------------------|------------------|--------------------------|
| Bombay     | Milne-Shaw                            | N-S    | 12.0                     | 350                          | 18:1             | 16                       |
|            | Milne-Shaw                            | E-W    | 12.0                     | 350                          | 9:1              | 8                        |
|            | Sprengnether<br>Microseismo-<br>graph | E-W    | $T_0 = T_g$<br>$= 7.0$   | -                            | -                | 30                       |
| Calcutta   | Milne-Shaw                            | E-W    | 10.0                     | 150                          | 20:1             | 8                        |
|            | Wood-Anderson                         | N-S    | 2.0                      | 870                          | Critical         | 30                       |
|            | Omori-Ewing                           | N-S    | 18.0                     | 32                           | -                | 25                       |
|            | Omori-Ewing                           | E-W    | 19.0                     | 30                           | -                | 25                       |
| Chatra     | Benioff                               | Z      | $T_0=0.72$<br>$T_g=0.45$ | -                            | Critical         | 60                       |
|            | Wood-Anderson                         | N      | 1.0                      | 1000                         | 30:1             | 60                       |
|            | Wood-Anderson                         | E      | 1.0                      | 1000                         | 40:1             | 60                       |
|            | Milne-Shaw                            | E      | 12.0                     | 250                          | 20:1             | 16                       |
| Colombo    | Milne-Shaw                            | E-W    | 12.0                     | 250                          | 20:1             | -                        |
| Dehra Dun  | Milne-Shaw                            | N-S    | 12.0                     | 250                          | 20:1             | 16                       |
|            | Milne-Shaw                            | E-W    | 12.0                     | 250                          | 20:1             | 16                       |
|            | Wood-Anderson                         | N-S    | 0.8                      | 800                          | 60:1             | 60                       |
|            | Wood-Anderson                         | E-W    | 0.8                      | 950                          | 60:1             | 60                       |
| Hyderabad  | Milne-Shaw                            | N-S    | 12.0                     | 252                          | 20:1             | 8                        |
|            | Milne-Shaw                            | E-W    | 12.0                     | 253                          | 20:1             | 8                        |
| Kodaikanal | Milne-Shaw                            | E-W    | 10.0                     | 250                          | 20:1             | 8                        |
| Madras     | Sprengnether<br>Microseismograph      | E-W    | $T_0 = T_g$<br>$= 7.2$   | -                            | -                | 30                       |
| New Delhi  | Milne-Shaw                            | N-S    | 12.0                     | 288                          | 20:1             | 8                        |
|            | Wood-Anderson                         | N-S    | 4.0                      | 1070                         | 20:1             | 16                       |
|            | Wood-Anderson                         | E-W    | 2.0                      | 1841                         | 30:1             | 60                       |
|            | Omori-Ewing                           | E-W    | 28.0                     | 30                           | 1                | 12                       |
| Poona      | Sprengnether<br>Microseismograph      | Z      | $T_0=1.5$<br>$T_g=1.5$   | -                            | -                | 30                       |
|            | Wood-Anderson                         | E-W    | 4.0                      | 1100                         | 20:1             | 16                       |
|            | Milne-Shaw                            | N-S    | 12.0                     | 250                          | 20:1             | 8                        |
| Shillong   | Milne-Shaw                            | N-S    | 12.0                     | 250                          | 20:1             | 8                        |
|            | Benioff Short<br>Period               | Z      | $T_0=1.0$<br>$T_g=0.18$  | -                            | -                | 60                       |
|            | Wood-Anderson                         | E-W    | 0.8                      | 1000                         | -                | 30                       |
|            | Wood-Anderson                         | N-S    | 0.8                      | 1000                         | -                | 30                       |
|            | Wood-Anderson                         | N-S    | 4.0                      | 1120                         | -                | 30                       |





| DATE      | STATION                                    | COMPT | PHASE | G. M. T. | Δ    | REMARKS                                         | DATE      | STATION                       | COMPT                                         | PHASE | G. M. T. | Δ        | REMARKS                         |                           |
|-----------|--------------------------------------------|-------|-------|----------|------|-------------------------------------------------|-----------|-------------------------------|-----------------------------------------------|-------|----------|----------|---------------------------------|---------------------------|
|           |                                            |       |       | h. m. s. | km   |                                                 |           |                               |                                               |       | h. m. s. | km       |                                 |                           |
| July 1955 |                                            |       |       |          |      |                                                 | July 1955 |                               |                                               |       |          |          |                                 |                           |
| 04        | HYDERABAD                                  | E     | e     | 14 42 19 |      |                                                 | 06        | KODAIKANAL                    | E                                             | e?    | 02 14 20 |          | Tremor                          |                           |
| Contd.    |                                            |       | M     | 15 03 16 |      | Amp. = 15 sec<br>L = 6                          | 06        | SHILLONG                      | Z                                             | e     | 08 16 49 |          | Very slight, local              |                           |
| 04        | DEHRA DUN                                  | N,E   | e     | 17 00 10 |      | Tremor                                          | 06        | SHILLONG                      | Z                                             | e     | 09 15 20 |          | Very slight, local              |                           |
| 04        | DEHRA DUN                                  | N,E   | e     | 22 36 50 |      | Tremor                                          | 06        | SHILLONG                      | Z                                             | e     | 10 41 39 |          | Slight                          |                           |
| 04        | COLOMBO                                    | E     | P     | 23 04 11 | 7610 |                                                 | 06        | CHATRA                        | Z                                             | IP    | 15 06 39 | 70       | Slight                          |                           |
|           |                                            |       | S     | 13 13    |      |                                                 |           |                               | E                                             | IS    | 06 48    |          |                                 |                           |
|           |                                            |       | L     | 21 21    |      |                                                 | 06        | DEHRA DUN                     | N,E                                           | e     | 17 30 35 |          | Tremor                          |                           |
|           |                                            |       | M     | 25 41    |      | Amp. = 0.5 mm                                   | 06        | DEHRA DUN                     | N,E                                           | eP    | 18 35 58 | 230      | Slight                          |                           |
| 04        | DEHRA DUN                                  | N,E   | e     | 23 25 17 |      | Tremor                                          |           |                               | N                                             | PP    | 36 04    |          |                                 |                           |
|           | SHILLONG                                   | Z     | e     | 23 35 28 |      | Tremor                                          |           |                               |                                               | PPP   | 36 09    |          |                                 |                           |
| 03        | SHILLONG                                   | Z     | e     | 04 13 23 |      | Slight                                          |           |                               |                                               | IS    | 36 25    |          |                                 |                           |
| 05        | DEHRA DUN                                  | N,E   | e     | 07 54 14 |      | Tremor                                          |           | DEHRA DUN                     | N                                             | S°    | 18 36 26 |          |                                 |                           |
| 05        | SHILLONG                                   | Z     | IP    | 08 35 05 |      | Slight                                          |           |                               |                                               | Sg    | 36 30    |          |                                 |                           |
| 05        | CHATRA                                     | Z     | eP    | 08 36 04 | 1080 | Feeble                                          |           |                               |                                               | SS    | 36 34    |          |                                 |                           |
|           |                                            |       | IS    | 37 55    |      |                                                 |           |                               |                                               | SSS   | 36 46    |          |                                 |                           |
| 05        | SHILLONG                                   | Z     | e     | 12 37 17 |      | Slight                                          |           | NEW DELHI                     | E                                             | eP    | 18 36 26 | 520      | Slight                          |                           |
| 05        | CHATRA                                     | Z     | eP    | 20 16 55 | 70   | Feeble                                          |           |                               | N                                             | PP    | 36 33    |          |                                 |                           |
|           |                                            |       | IS    | 17 54    |      |                                                 |           |                               |                                               | PPP   | 36 39    |          |                                 |                           |
| 05        | SHILLONG                                   | Z     | e     | 20 17 27 |      | Slight                                          |           |                               |                                               | IS    | 37 21    |          |                                 |                           |
| 06        | SHILLONG                                   | Z     | e     | 00 22 33 |      | Very slight, local                              |           |                               |                                               | SS    | 37 31    |          |                                 |                           |
| 06        | SHILLONG                                   | Z     | e     | 00 23 16 |      | Very slight, local                              |           |                               |                                               | SSS   | 37 42    |          |                                 |                           |
| 06        | Epc: 51°N, 156°E. In Kamchatka.            |       |       |          |      |                                                 | 06        | SHILLONG                      | Z                                             | e     | 23 58 28 |          | Slight                          |                           |
|           | H = 01h 54m 17s (U.S.C.G.S)                |       |       |          |      |                                                 | 07        | Epc: 1°N, 66°E. Indian Ocean. |                                               |       |          |          |                                 |                           |
|           | Magnitude = 6% (Skainate Pleso, Takubaya), |       |       |          |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | 6% (Pasadena), 6.5 (Roma),                 |       |       |          |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | 6% (Hurbanovo), 6% (Kiruna).               |       |       |          |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           | MADRAS                        | E                                             | eP    | 09 04 54 | 1250     | Feeble                          |                           |
|           |                                            |       |       |          |      |                                                 |           |                               |                                               | IS?   | 07 02    |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           | POONA                         | Z,N                                           | e     | 09 05 08 |          | Feeble shock, Phases not clear. |                           |
|           |                                            |       |       |          |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | SHILLONG                                   | Z     | eP    | 02 03 54 | 7580 | Slight                                          |           | HYDERABAD                     | E                                             | e     | 09 05 18 |          |                                 |                           |
|           | DEHRA DUN                                  | N     | eP    | 02 04 30 | 6620 | Slight                                          |           |                               |                                               | e     | 07 15    |          |                                 |                           |
|           |                                            |       | PP    | 06 15    |      |                                                 |           | KODAIKANAL                    | E                                             | IP    | 09 06 04 | 1270     | Slight, First movement East.    |                           |
|           |                                            |       | IS    | 12 40    |      |                                                 |           |                               |                                               | PPP   | 06 25    |          |                                 |                           |
|           |                                            |       | PPS   | 13 02    |      |                                                 |           |                               |                                               | Lq    | 08 04    |          |                                 |                           |
|           |                                            |       | SS    | 16 20    |      |                                                 |           |                               |                                               | IS    | 08 13    |          |                                 |                           |
|           |                                            |       | SSS   | 18 57    |      |                                                 |           |                               |                                               | SSS   | 08 37    |          |                                 |                           |
|           |                                            |       | Lq    | 20 03    |      |                                                 |           |                               |                                               | Lr    | 08 37    |          |                                 |                           |
|           |                                            |       | Lr    | 22 24    |      |                                                 |           |                               |                                               | M     | 09 31    |          | Per. = 13 sec<br>L = 11.5       |                           |
|           |                                            |       | M     | 27 04    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | NEW DELHI                                  | N,E   | eP?   | 02 04 42 | 6800 | Moderate                                        |           | COLOMBO                       | E                                             | L     | 09 08 40 |          | Amp. = 2.0 mm                   |                           |
|           |                                            | N     | i     | 08 54    |      |                                                 |           |                               |                                               | M     | 11 00    |          |                                 |                           |
|           |                                            |       | IS    | 13 01    |      |                                                 |           | BOMBAY                        | N                                             | e     | 09 06 57 |          | Surface waves.                  |                           |
|           |                                            |       | PPS   | 13 26    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | ScS   | 14 26    |      |                                                 |           | SHILLONG                      | Z                                             | e     | 09 07 37 |          | Slight                          |                           |
|           |                                            |       | Lq    | 20 41    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | HYDERABAD                                  | E     | IP    | 02 05 28 | 7600 |                                                 |           | BOKARO                        | N                                             | e     | 09 08 54 |          | Slight, distant                 |                           |
|           |                                            |       | PP    | 08 18    |      |                                                 |           |                               |                                               | i     | 13 48    |          |                                 |                           |
|           |                                            |       | IS    | 14 30    |      |                                                 |           |                               |                                               | i     | 18 48    |          |                                 |                           |
|           |                                            |       | SS    | 19 23    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | L     | 26 28    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | M     | 32 15    |      | Per. = 16 sec<br>L = 10                         |           | 07                            | SHILLONG                                      | Z     | eP       | 09 52 47 |                                 | Slight                    |
|           | POONA                                      | Z,N   | eP    | 02 05 44 | 7850 | Moderate, Initial ground movement towards South |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            | N     | PcP   | 06 03    |      |                                                 |           | CHATRA                        | Z                                             | eP    | 09 53 08 | 790      | Feeble                          |                           |
|           |                                            |       | PPP   | 10 11    |      |                                                 |           |                               |                                               | IS    | 54 30    |          |                                 |                           |
|           |                                            | N,E   | eS    | 14 58    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            | N     | PS    | 15 23    |      |                                                 |           | 07                            | CHATRA                                        | Z     | IP       | 16 14 54 | 210                             | Feeble                    |
|           |                                            |       | PPS   | 15 43    |      |                                                 |           |                               |                                               | IS    | 15 21    |          |                                 |                           |
|           |                                            |       | SS    | 19 40    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | M     | 32 19    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | MADRAS                                     | E     | IP?   | 02 05 45 |      | Slight, tremor.                                 |           | 07                            | DEHRA DUN                                     | N,E   | e        | 17 09 00 |                                 | Tremor                    |
|           | BOMBAY                                     | N,E   | e     | 02 05 45 |      | Slight, Phases lost in microseisms.             |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | e     | 15 02    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           | COLOMBO                                    | E     | P     | 02 06 10 |      |                                                 |           | 07                            | SHILLONG                                      | Z     | e        | 18 21 03 |                                 | Slight                    |
|           |                                            |       | S     | 15 52    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | L     | 32 22    |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       | M     | 37 12    |      | Amp. = 0.4 mm                                   |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           | 07                            | DEHRA DUN                                     | E     | e        | 23 33 23 |                                 | Feeble, phases not clear. |
|           |                                            |       |       |          |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           | 08                            | SHILLONG                                      | Z     | e        | 06 25 01 |                                 | Slight                    |
|           |                                            |       |       |          |      |                                                 |           |                               |                                               |       |          |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           | 08                            | CHATRA                                        | Z     | eP       | 13 04 18 | 470                             | Feeble                    |
|           |                                            |       |       |          |      |                                                 |           |                               |                                               | IS    | 05 02    |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           | 08                            | Epc: 29H°N, 97°E. Sinkiang Province in China. |       |          |          |                                 |                           |
|           |                                            |       |       |          |      |                                                 |           |                               |                                               |       |          |          | H = 14h 12m 52s (U.S.C.G.S).    |                           |

| DATE      | STATION                                                                | COMPT PHASE | G. M. T.<br>h. m. s.                                                                                       | Δ<br>km | REMARKS                                  | DATE      | STATION   | COMPT PHASE | G. M. T.<br>h. m. s.                                                                                  | Δ<br>km | REMARKS                                 |
|-----------|------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------|---------|------------------------------------------|-----------|-----------|-------------|-------------------------------------------------------------------------------------------------------|---------|-----------------------------------------|
| July 1955 |                                                                        |             |                                                                                                            |         |                                          | July 1955 |           |             |                                                                                                       |         |                                         |
| 08        | CHATRA                                                                 | Z           | e 14 14 05                                                                                                 |         | Slight                                   | 10        | SHILLONG  | Z           | e 00 03 43                                                                                            |         | Slight                                  |
| Contd     |                                                                        |             | e 15 45                                                                                                    |         |                                          | 10        | COLOMBO   | E           | P 14 48 --<br>L 15 20 21<br>M 36 51                                                                   |         | Amp. = 0.3 mm                           |
|           | SHILLONG                                                               | Z           | eP 14 14 25                                                                                                | 540     | Moderate                                 | 10        | CHATRA    | Z           | eP 17 03 17<br>iS 05 05                                                                               | 1050    | Feeble                                  |
|           | DEHRA DUN                                                              | N,E         | e 14 16 41                                                                                                 |         | Feeble, phases not clear                 | 10        | DEHRA DUN | N,E         | e 19 48 57                                                                                            |         | Slight Tremor.                          |
| 08        | DEHRA DUN                                                              | N,E         | e 16 10 55                                                                                                 |         | Tremor                                   | 10        | SHILLONG  | Z           | e 19 49 56                                                                                            |         | Slight                                  |
| 08        | CHATRA                                                                 | Z           | eP 17 24 42<br>iS 25 04                                                                                    | 180     | Feeble                                   | 11        | SHILLONG  | Z           | e 05 14 12                                                                                            |         | Slight                                  |
| 08        | SHILLONG                                                               | Z           | eP 18 51 50                                                                                                |         | Slight, deep                             | 11        | SHILLONG  | Z           | e 12 20 04                                                                                            |         | Slight                                  |
|           |                                                                        | E           | i 56 03<br>i 19 01 33                                                                                      |         |                                          | 11        | SHILLONG  | Z           | e 17 23 39                                                                                            |         | Slight                                  |
| 08        | BOKARO                                                                 | N,E         | eP 19 01 56                                                                                                |         | Slight                                   | 11        | SHILLONG  | Z           | e 18 07 32                                                                                            |         | Slight                                  |
| 08        | Epc: 3°S, 110°E. Java Sea. h = 600 Km<br>- H = 19h 03m 00s (U.S.C.G.S) |             |                                                                                                            |         |                                          | 11        | POONA     | Z           | eP 20 34 18                                                                                           |         | Tremor                                  |
|           | COLOMBO                                                                | E           | i 19 08 57<br>e 13 29                                                                                      |         |                                          | 11        | COLOMBO   | E           | P 20 45 38<br>L 21 07 50<br>M 18 50                                                                   |         | Amp. = 0.3 mm                           |
|           |                                                                        |             | e 16 31<br>e 22 23<br>e 25 36                                                                              |         |                                          | 11        | SHILLONG  | Z           | e 22 46 08                                                                                            |         | Slight                                  |
|           | MADRAS                                                                 | E           | iP 10 09 18                                                                                                |         | Slight, near                             | 12        | DEHRA DUN | N,E         | e 00 35 31                                                                                            |         | Tremor                                  |
|           | SHILLONG                                                               | Z           | iP 19 09 23                                                                                                | 3310    | Moderate                                 | 12        | DEHRA DUN | N,E         | e 03 05 43                                                                                            |         | Tremor                                  |
|           |                                                                        | E           | i 11 13<br>iS 14 20<br>i 18 27                                                                             |         |                                          | 12        | SHILLONG  | Z           | e 15 05 34                                                                                            |         | Tremor                                  |
|           | KODAIKANAL                                                             | E           | e 19 09 40                                                                                                 |         | Tremor                                   | 12        | SHILLONG  | Z           | i 15 53 14                                                                                            |         | Slight, local                           |
|           | BOKARO                                                                 | N,E         | i 19 09 42                                                                                                 | 3420    | Slight                                   | 12        | CHATRA    | Z           | eP 15 54 07<br>iS 54 43                                                                               | 320     | Feeble                                  |
|           |                                                                        |             | iS 14 46<br>i 18 12                                                                                        |         |                                          | 12        | CHATRA    | Z           | iP 15 54 51<br>iS 55 25                                                                               | 300     | Feeble                                  |
|           | HYDERABAD                                                              | E           | P 19 09 50                                                                                                 | 3510    |                                          | 12        | SHILLONG  | Z           | i 18 18 12                                                                                            |         | Tremor                                  |
|           |                                                                        |             | S 14 59<br>L 18 16                                                                                         |         |                                          | 12        | SHILLONG  | Z           | i 18 59 15<br>i 59 53                                                                                 |         | Slight, near                            |
|           | POONA                                                                  | Z           | iP 19 10 22                                                                                                | 4000    | Slight, first movement South             | 12        | SHILLONG  | Z           | iP 21 24 10                                                                                           |         | Slight                                  |
|           |                                                                        | N,E         | eS 16 01                                                                                                   |         |                                          | 12        | SHILLONG  | Z           | eP 22 22 25                                                                                           |         | Slight, compression                     |
|           |                                                                        | N           | Lq/SS 18 07<br>SSS 18 48<br>i 19 09<br>MP 23 57                                                            |         |                                          | 13        | SHILLONG  | Z           | e 02 56 31                                                                                            |         | Tremor                                  |
|           | BOMBAY                                                                 | E           | eP 19 10 31                                                                                                | 4190    | Slight                                   | 13        | SHILLONG  | Z           | i 05 55 59                                                                                            |         | Tremor                                  |
|           |                                                                        | N           | eP 10 33<br>e 11 08                                                                                        |         |                                          | 13        | SHILLONG  | Z           | i 16 01 48                                                                                            |         | Slight                                  |
|           |                                                                        | E           | iS 16 20                                                                                                   |         |                                          | 13        | SHILLONG  | Z           | i 17 58 03                                                                                            |         | Slight                                  |
|           |                                                                        | N           | eS 16 24<br>e 18 40<br>i 19 19                                                                             |         |                                          | 13        | POONA     | Z           | eP 18 33 03                                                                                           |         | Tremor                                  |
| 16        | NEW DELHI                                                              | N,E         | iP 19 10 47                                                                                                | 4300    | Moderate. First movement South and East. | 13        | SHILLONG  | Z           | i 18 47 18<br>i 47 30                                                                                 |         | Slight, near                            |
|           |                                                                        |             | iS 16 45<br>SS 19 30<br>Lq 20 03<br>Lr 21 24                                                               |         |                                          | 13        | SHILLONG  | Z,E         | iP 18 51 39<br>PcP 51 58<br>PP 53 52<br>PPP 55 24<br>iS 19 00 40<br>PS 01 14<br>SS 05 02<br>SSS 07 36 | 7390    | Slight. Compression First movement West |
|           | DEHRA DUN                                                              | N,E         | eP 19 10 52                                                                                                | 4400    | Moderate                                 | 13        | SHILLONG  | Z           | iP 20 35 28                                                                                           |         | Slight, rarefaction                     |
|           |                                                                        | N           | PPP 13 05<br>iS 16 56<br>PS 17 05<br>PPS 17 18<br>SS 19 39<br>Lq 19 56<br>SSS 20 18<br>Lr 21 51<br>M 24 51 |         |                                          | 13        | CHATRA    | Z           | iP 21 31 03<br>iS 31 22                                                                               | 150     | Feeble                                  |
| 09        | SHILLONG                                                               | Z           | e 00 40 13                                                                                                 |         | Very slight, local                       | 13        | SHILLONG  | Z           | iP 21 31 45                                                                                           |         | Slight, compression                     |
| 09        | CHATRA                                                                 | Z           | ePg 03 08 51<br>iSg 09 02                                                                                  | 80      | Feeble                                   | 13        | SHILLONG  | Z           | iP 22 31 24                                                                                           |         | Slight, rare compression                |
| 09        | SHILLONG                                                               | Z           | e 20 20 06                                                                                                 |         | Very slight, local                       | 14        | SHILLONG  | Z           | iP 04 05 08                                                                                           |         | Slight. Compression                     |
| 09        | DEHRA DUN                                                              | N,E         | e 21 57 05                                                                                                 |         | Tremor                                   |           |           |             |                                                                                                       |         |                                         |



| July 1955    |                     |             |          |                            |                                             | July 1955        |                     |                  |          |          |                         |                     |
|--------------|---------------------|-------------|----------|----------------------------|---------------------------------------------|------------------|---------------------|------------------|----------|----------|-------------------------|---------------------|
| DATE         | STATION             | COMPT PHASE | G. M. T. | Δ km                       | REMARKS                                     | DATE             | STATION             | COMPT PHASE      | G. M. T. | Δ km     | REMARKS                 |                     |
|              |                     |             | h. m. s. |                            |                                             |                  |                     |                  | h. m. s. |          |                         |                     |
| 16 July 1955 | MADRAS              | E           | eP       | 07 16 30                   | 6060                                        | Moderate         | 18 DEHRA DUN        | N <sub>o</sub> E | e        | 10 43 14 |                         | Tremor              |
|              |                     |             | PP       | 18 33                      |                                             |                  | 18 SHILLONG         | Z                | iP       | 10 45 14 |                         | Slight, compression |
|              |                     |             | PPP      | 19 53                      |                                             |                  | 18 SHILLONG         | Z                | iP       | 10 49 48 |                         | Slight, compression |
|              |                     |             | IS       | 24 08                      |                                             |                  | 18 DEHRA DUN        | N <sub>o</sub> E | e        | 10 53 32 |                         | Tremor              |
|              |                     |             | PS       | 24 24                      |                                             |                  | 18 SHILLONG         | Z                | iP       | 11 42 13 |                         | Slight compression  |
|              | ScS?                | 26 24       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
| BOKARO       | N <sub>o</sub> E    | iP          | 07 16 18 | 5730                       | Moderate                                    | 18 POONA         | Z                   | eP               | 11 44 11 |          | Tremor                  |                     |
|              |                     | PP          | 18 11    |                            |                                             | 18 SHILLONG      | Z                   | eP               | 11 52 14 |          | Slight, Doubtful phases |                     |
|              |                     | IS          | 23 39    |                            |                                             | 18 SHILLONG      | Z                   | eP               | 14 20 56 |          | Tremor                  |                     |
|              |                     | PS          | 23 47    |                            |                                             | 18 SHILLONG      | Z                   | iP               | 16 16 55 |          | Slight, rarefaction     |                     |
|              |                     | PPS         | 23 58    |                            |                                             | 18 CHATRA        | Z                   | eP               | 23 15 37 | 170      | Feeble                  |                     |
|              |                     | SSS         | 28 58    |                            |                                             | 19 SHILLONG      | Z                   | iP               | 00 45 39 |          | Slight, compression     |                     |
|              |                     | M           | 36 28    |                            |                                             | 19 SHILLONG      | Z                   | i                | 03 30 48 |          | Slight                  |                     |
|              |                     |             |          | Per. 22.5 secs<br>L = 19.8 |                                             |                  | i                   | 31 47            |          |          |                         |                     |
| SHILLONG     | Z, N <sub>o</sub> E | iP          | 07 16 46 | 6140                       | Moderate                                    | 19 CHATRA        | Z                   | iP               | 03 31 14 | 150      | Feeble                  |                     |
|              |                     | N           | PcP      | 17 46                      |                                             | 19 SHILLONG      | Z                   | i                | 04 41 49 |          | Slight, distant         |                     |
|              |                     | PP          | 18 53    |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              |                     | PPP         | 20 00    |                            | Per. 15 secs<br>L = 14                      |                  |                     |                  |          |          |                         |                     |
|              | N <sub>o</sub> E    | iS          | 24 30    |                            | 19 DEHRA DUN                                | N <sub>o</sub> E | eP                  | 08 50 36         | 1320     | Moderate |                         |                     |
|              | N                   | PS          | 24 35    |                            |                                             | N                | PP                  | 50 45            |          |          |                         |                     |
|              |                     | PPS         | 24 49    |                            |                                             |                  | PPP                 | 50 53            |          |          |                         |                     |
|              |                     | ScS         | 26 43    |                            |                                             |                  | Lq                  | 52 41            |          |          |                         |                     |
|              |                     | SS          | 27 50    |                            |                                             |                  | iS                  | 52 49            |          |          |                         |                     |
|              |                     | Lq          | 30 09    |                            |                                             |                  | SS                  | 53 02            |          |          |                         |                     |
|              | Lr                  | 32 54       |          |                            |                                             | SSS/Lr           | 53 13               |                  |          |          |                         |                     |
|              | M                   | 37 57       |          |                            |                                             | Sg/M             | 54 10               |                  |          |          |                         |                     |
| KODAIKANAL   | E                   | iP          | 07 16 51 | 5970                       | Slight, First movement East                 | NEW DELHI        | N                   | eP               | 08 50 49 | 1390     | Slight                  |                     |
|              |                     | PP          | 18 54    |                            |                                             | E                | PP                  | 50 58            |          |          |                         |                     |
|              |                     | PPP         | 20 04    |                            |                                             | N                | PPP                 | 51 03            |          |          |                         |                     |
|              |                     | iS          | 24 24    |                            |                                             |                  | i                   | 51 24            |          |          |                         |                     |
|              |                     | SS          | 28 29    |                            |                                             | N <sub>o</sub> E | iS                  | 53 11            |          |          |                         |                     |
| Lq           | 29 58               |             |          |                            | SS                                          | 53 23            |                     |                  |          |          |                         |                     |
| SSS          | 29 59               |             |          |                            | SSS                                         | 53 35            |                     |                  |          |          |                         |                     |
|              | Lr                  | 32 29       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              | Mp                  | 34 53       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
| SHILLONG     | Z                   | Pg          | 08 50 55 |                            | Slight, local felt.                         | BOKARO           | N <sub>o</sub> E    | eP               | 08 52 24 | 2700     | Slight                  |                     |
|              |                     | Sg          | 51 03    |                            |                                             |                  | iS                  | 56 41            |          |          |                         |                     |
| 16 SHILLONG  | Z                   | i           | 09 17 24 |                            | Slight                                      |                  | Lq                  | 57 42            |          |          |                         |                     |
| 16 SHILLONG  | Z                   | iP          | 09 18 57 |                            | Slight, rarefaction                         |                  | SS                  | 58 06            |          |          |                         |                     |
| 16 SHILLONG  | Z                   | i           | 11 36 57 |                            | Slight, local                               |                  | SSS                 | 58 25            |          |          |                         |                     |
| 17 SHILLONG  | Z                   | iP          | 08 03 17 |                            | Slight, compression                         |                  | Lr                  | 59 14            |          |          |                         |                     |
| 17 DEHRA DUN | N <sub>o</sub> E    | e           | 08 04 07 |                            | Tremor                                      |                  | M                   | 09 00 03         |          |          |                         |                     |
| NEW DELHI    | N <sub>o</sub> E    | eP          | 08 22 10 | 1000                       | Slight, first motion towards South and West | POONA            | Z                   | iP               | 09 52 24 | 930      | Slight                  |                     |
|              |                     | Lq          | 23 43    |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              |                     | iS          | 23 53    |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              |                     | SS          | 24 05    |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              | Lr                  | 24 09       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              | SSS                 | 24 17       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              | S*                  | 24 26       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              | Sg                  | 24 52       |          |                            |                                             |                  |                     |                  |          |          |                         |                     |
| SHILLONG     | Z                   | e           | 08 24 24 |                            | Tremor                                      | SHILLONG         | Z, N <sub>o</sub> E | iP               | 09 52 59 | 2710     | Moderate                |                     |
| 17 DEHRA DUN | N <sub>o</sub> E    | eP          | 09 22 00 | 930                        | Slight                                      |                  | E                   | PP               | 53 21    |          |                         |                     |
|              | N                   | PP          | 22 06    |                            |                                             |                  |                     | PPP              | 53 34    |          |                         |                     |
|              |                     | PPP         | 22 14    |                            |                                             |                  |                     | iS               | 57 17    |          |                         |                     |
|              |                     | Lq          | 23 25    |                            |                                             |                  |                     | Lq               | 57 49    |          |                         |                     |
|              |                     | iS          | 23 33    |                            |                                             |                  |                     | SS               | 58 08    |          |                         |                     |
|              |                     | SS          | 23 47    |                            |                                             |                  |                     | Lr               | 58 56    |          |                         |                     |
|              |                     | Lr          | 23 50    |                            |                                             |                  |                     | M                | 09 00 49 |          |                         |                     |
|              |                     | SSS         | 23 55    |                            |                                             |                  |                     |                  |          |          |                         |                     |
|              |                     | Sg/M        | 24 29    |                            |                                             |                  |                     |                  |          |          |                         |                     |
| 17 SHILLONG  | Z                   | iP          | 12 35 21 |                            | Compression slight.                         | MADRAS           | E                   | e                | 08 55 28 |          | Slight                  |                     |
| 17 DEHRA DUN | N <sub>o</sub> E    | e           | 14 31 08 |                            | Feeble, phases not clear                    | KODAIKANAL       | E                   | e                | 08 01 31 |          | Tremor                  |                     |
| 17 MADRAS    | E                   | e           | 15 15 34 |                            | Slight                                      | 19 SHILLONG      | Z                   | eP               | 16 02 52 | 200      | Slight, near            |                     |
| 17 CHATRA    | Z                   | iPg         | 18 25 43 | 40                         | Feeble                                      |                  |                     | ePg              | 02 30    |          |                         |                     |
|              |                     | iSg         | 28 49    |                            |                                             |                  |                     | eSg              | 02 36    |          |                         |                     |
| 18 SHILLONG  | Z                   | iP          | 00 23 29 |                            | Slight, near                                |                  |                     | SSS              | 02 45    |          |                         |                     |
| 18 SHILLONG  | Z                   | i           | 07 45 22 |                            | Tremor                                      |                  |                     |                  |          |          |                         |                     |
| 18 DEHRA DUN | N <sub>o</sub> E    | e           | 09 50 41 |                            | Tremor                                      |                  |                     |                  |          |          |                         |                     |
| 18 SHILLONG  | Z                   | e           | 10 34 59 |                            | Tremor                                      |                  |                     |                  |          |          |                         |                     |

| DATE      | STATION                                                              | COMPT    | PHASE                                            | G. M. T.                                                                | $\Delta$ | REMARKS                        | DATE      | STATION                                                                            | COMPT                                  | PHASE                                                                                              | G. M. T.                                                                                     | $\Delta$                               | REMARKS                        |
|-----------|----------------------------------------------------------------------|----------|--------------------------------------------------|-------------------------------------------------------------------------|----------|--------------------------------|-----------|------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------|
| July 1955 |                                                                      |          |                                                  | h. m. s.                                                                | km       |                                | July 1955 |                                                                                    |                                        |                                                                                                    | h. m. s.                                                                                     | km                                     |                                |
| 19        | CHATRA                                                               | Z        | eP<br>iS                                         | 10 03 30<br>04 53                                                       | 800      | Feeble                         | 23        | BOKARO                                                                             | N,E                                    | eP<br>PP<br>PPP<br>eS<br>PS<br>PPS<br>SS<br>Lq/SSS<br>Lr<br>M                                      | 12 57 41<br>59 45<br>13 00 49<br>05 00<br>05 11<br>05 19<br>08 43<br>10 15<br>13 49<br>17 19 | 5700                                   | Slight                         |
| 19        | DEHRA DUN                                                            | N,E<br>N | eP<br>PP<br>PPP<br>iS<br>Lr<br>SS<br>SSS<br>Sg/M | 15 16 15<br>16 21<br>16 30<br>17 43<br>17 53<br>17 55<br>18 06<br>18 29 | 860      | Slight                         | 19        | SHILLONG                                                                           | Z                                      | iP                                                                                                 | 16 00 01                                                                                     |                                        | Slight, phases not developed   |
| 19        | SHILLONG                                                             | Z        | i                                                | 16 56 46                                                                |          | Tremor                         | 19        | SHILLONG                                                                           | Z                                      | i                                                                                                  | 16 56 46                                                                                     |                                        | Tremor                         |
| 19        | COLOMBO                                                              | E        | eP<br>M                                          | 19 01 21<br>01 39                                                       |          | Amp. $\approx$ 0.4 mm          | 19        | SHILLONG                                                                           | Z                                      | iP                                                                                                 | 20 03 14                                                                                     |                                        | Slight, phases not clear.      |
| 19        | SHILLONG                                                             | Z        | iP                                               | 20 03 14                                                                |          | Slight, phases not clear.      | 19        | DEHRA DUN                                                                          | N,E                                    | eP                                                                                                 | 20 03 41                                                                                     |                                        | Tremor                         |
| 19        | DEHRA DUN                                                            | N,E      | e                                                | 23 13 10                                                                |          | Feeble, phases not clear       | 19        | DEHRA DUN                                                                          | N,E                                    | e                                                                                                  | 23 13 10                                                                                     |                                        | Feeble, phases not clear       |
| 20        | DEHRA DUN                                                            | N,E      | e                                                | 20 00 10                                                                |          | Tremor                         | 20        | SHILLONG                                                                           | Z                                      | eP                                                                                                 | 21 20 35                                                                                     |                                        | Slight                         |
| 20        | SHILLONG                                                             | Z        | eP                                               | 21 20 35                                                                |          | Slight                         | 21        | CHATRA                                                                             | Z                                      | iP<br>iS                                                                                           | 12 01 07<br>01 28                                                                            | 170                                    | Feeble                         |
| 21        | CHATRA                                                               | Z        | iP<br>iS                                         | 12 01 07<br>01 28                                                       | 170      | Feeble                         | 21        | COLOMBO                                                                            | E                                      | P<br>S<br>L                                                                                        | 12 05 10<br>14 52<br>23 --                                                                   | 8420                                   |                                |
| 21        | COLOMBO                                                              | E        | P<br>S<br>L                                      | 12 05 10<br>14 52<br>23 --                                              | 8420     |                                | POONA     | Z                                                                                  | iP<br>i<br>i                           | 12 05 21<br>05 50<br>06 48                                                                         |                                                                                              | Slight, phases not clear               |                                |
| 21        | DEHRA DUN                                                            | N,E      | e<br>i                                           | 12 05 22<br>06 02                                                       |          | Feeble, phases not clear       | 21        | SHILLONG                                                                           | Z,N,E                                  | iPKP<br>i<br>e<br>iS(?)<br>i                                                                       | 12 05 36<br>06 08<br>07 12<br>10 14<br>17 38                                                 | 3010                                   | Slight, phases not clear       |
| 21        | SHILLONG                                                             | Z,N,E    | iPKP<br>i<br>e<br>iS(?)<br>i                     | 12 05 36<br>06 08<br>07 12<br>10 14<br>17 38                            | 3010     | Slight, phases not clear       | 22        | CHATRA                                                                             | Z                                      | iPg<br>iSg                                                                                         | 08 32 15<br>32 29                                                                            | 100                                    | Feeble                         |
| 22        | CHATRA                                                               | Z        | iPg<br>iSg                                       | 08 32 15<br>32 29                                                       | 100      | Feeble                         | 22        | CHATRA                                                                             | Z                                      | iPg                                                                                                | 08 36 10                                                                                     |                                        | Feeble, very near.             |
| 22        | SHILLONG                                                             | Z,N,E    | iP                                               | 15 43 28                                                                |          | Slight, local Phases not clear | 22        | SHILLONG                                                                           | Z,N,E                                  | iP                                                                                                 | 15 43 28                                                                                     |                                        | Slight, local Phases not clear |
| 22        | CHATRA                                                               | Z        | eP<br>iS                                         | 15 44 13<br>45 23                                                       | 670      | Slight                         | 23        | SHILLONG                                                                           | Z                                      | eP                                                                                                 | 12 48 55                                                                                     |                                        | Slight, local                  |
| 22        | SHILLONG                                                             | Z        | iP                                               | 22 08 19                                                                |          | Slight, local                  | 23        | CHATRA                                                                             | Z                                      | iP<br>iS                                                                                           | 12 49 49<br>51 09                                                                            | 770                                    | Feeble                         |
| 23        | SHILLONG                                                             | Z        | eP                                               | 12 48 55                                                                |          | Slight, local                  | 23        | Epc: 7°S, 128°E. Banda Sea.<br>- H $\approx$ 12h 48m 25s (U.S.C.G.S)               |                                        |                                                                                                    |                                                                                              |                                        |                                |
| 23        | CHATRA                                                               | Z        | iP<br>iS                                         | 12 49 49<br>51 09                                                       | 770      | Feeble                         | COLOMBO   | E                                                                                  | P<br>e<br>L<br>M                       | 12 53 49<br>13 08 49<br>17 29<br>21 34                                                             |                                                                                              | Amp. $\approx$ 0.5 mm                  |                                |
| 23        | Epc: 7°S, 128°E. Banda Sea.<br>- H $\approx$ 12h 48m 25s (U.S.C.G.S) |          |                                                  |                                                                         |          |                                | SHILLONG  | Z,N,E                                                                              | iP<br>E                                | 12 57 13<br>57 34<br>57 58<br>58 34<br>59 13                                                       |                                                                                              | Slight, phases not clear               |                                |
| 23        | COLOMBO                                                              | E        | P<br>e<br>L<br>M                                 | 12 53 49<br>13 08 49<br>17 29<br>21 34                                  |          | Amp. $\approx$ 0.5 mm          | MADRAS    | E                                                                                  | iP                                     | 12 57 41                                                                                           |                                                                                              | Slight, other phases not clear         |                                |
| 23        | SHILLONG                                                             | Z,N,E    | iP<br>E                                          | 12 57 13<br>57 34<br>57 58<br>58 34<br>59 13                            |          | Slight, phases not clear       | POONA     | Z,E                                                                                | iP                                     | 11 12 20                                                                                           |                                                                                              | Tremor                                 |                                |
| 23        | MADRAS                                                               | E        | iP                                               | 12 57 41                                                                |          | Slight, other phases not clear | 23        | Epc: 36°N, 140°E. Southern Honshu, Japan.<br>- H $\approx$ 11h 02m 14s (U.S.C.G.S) |                                        |                                                                                                    |                                                                                              |                                        |                                |
| 23        | MADRAS                                                               | E        | iP                                               | 12 57 41                                                                |          | Slight, other phases not clear | SHILLONG  | Z,N,E                                                                              | iP<br>E                                | 11 10 04<br>11 51<br>12 33<br>16 34<br>16 39<br>16 46<br>19 35<br>20 29<br>20 36<br>22 29<br>25 12 | 4850                                                                                         | Moderate                               |                                |
| 23        | POONA                                                                | Z,E      | iP                                               | 11 12 20                                                                |          | Tremor                         | DEHRA DUN | N,E<br>N                                                                           | eP<br>PP<br>iS<br>PS<br>PPS<br>SS<br>M | 11 11 19<br>13 23<br>18 33<br>18 39<br>18 56<br>21 52<br>29 27                                     | 5610                                                                                         | Slight                                 |                                |
| 23        | POONA                                                                | Z,E      | iP                                               | 11 12 20                                                                |          | Tremor                         | NEW DELHI | N,E<br>N                                                                           | eP<br>i<br>e                           | 11 11 25<br>11 45<br>18 53                                                                         |                                                                                              | Moderate, distant First motion 'West'. |                                |
| 23        | POONA                                                                | Z,E      | iP                                               | 11 12 20                                                                |          | Tremor                         | COLOMBO   | E                                                                                  | P<br>S<br>M                            | 11 11 34<br>20 49<br>40 39                                                                         | 7870                                                                                         | Amp. 0.4 mm                            |                                |

| DATE      | STATION                                                                     | COMPT | PHASE | G. M. T.<br>h. m. s. | $\Delta$<br>km | REMARKS                                        | DATE      | STATION                                                                                                                                                                                                                 | COMPT | PHASE    | G. M. T.<br>h. m. s. | $\Delta$<br>km | REMARKS                                      |                          |
|-----------|-----------------------------------------------------------------------------|-------|-------|----------------------|----------------|------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|----------------------|----------------|----------------------------------------------|--------------------------|
| July 1955 |                                                                             |       |       |                      |                |                                                | July 1955 |                                                                                                                                                                                                                         |       |          |                      |                |                                              |                          |
| 24        | BOKARO                                                                      | E     | i     | 14 48 51             |                | Slight                                         | 27        | POONA                                                                                                                                                                                                                   | Z     | eP       | 01 30 28             |                | Very feeble                                  |                          |
| Contd.    |                                                                             |       | e     | 49 42                |                |                                                | Contd.    |                                                                                                                                                                                                                         |       |          |                      |                |                                              |                          |
|           |                                                                             |       | e     | 50 50                |                |                                                | BOKARO    | N,E                                                                                                                                                                                                                     | e     | 01 35 33 |                      |                | Slight                                       |                          |
| 24        | Epc: 24°N, 122°E. Near East Coast of Formosa<br>H = 16h 20m 03s (U.S.C.G.S) |       |       |                      |                |                                                |           |                                                                                                                                                                                                                         |       | i        | 38 47                |                |                                              |                          |
|           |                                                                             |       | i     | 44 58                |                |                                                |           |                                                                                                                                                                                                                         | i     | 44 58    |                      |                |                                              |                          |
|           | SHILLONG                                                                    | Z,N,E | iP    | 16 25 52             | 3045           | Moderate                                       | COLOMBO   | E                                                                                                                                                                                                                       | P     | 01 38 42 |                      |                | 'L'doubtful                                  |                          |
|           |                                                                             |       | PP    | 26 32                |                |                                                |           |                                                                                                                                                                                                                         | L     | 50 20    |                      |                | Amp. $\approx$ 0.5 mm                        |                          |
|           |                                                                             |       | PPP   | 26 50                |                |                                                |           |                                                                                                                                                                                                                         | M     | 58 22    |                      |                |                                              |                          |
|           |                                                                             |       | iS    | 30 32                |                |                                                | 27        | DEHRA DUN                                                                                                                                                                                                               | N,E   | e        | 01 45 24             |                |                                              | Feeble, Phases not clear |
|           |                                                                             |       | Lq    | 31 36                |                |                                                |           |                                                                                                                                                                                                                         | i     | 45 52    |                      |                |                                              |                          |
|           |                                                                             |       | SS    | 32 01                |                |                                                | 27        | SHILLONG                                                                                                                                                                                                                | Z     | e        | 05 10 15             |                |                                              | Slight                   |
|           |                                                                             |       | SSS   | 32 17                |                |                                                | 27        | DEHRA DUN                                                                                                                                                                                                               | N,E   | e        | 05 28 57             |                |                                              | Tremor                   |
|           |                                                                             |       | Lr    | 32 51                |                |                                                |           |                                                                                                                                                                                                                         |       |          |                      |                |                                              |                          |
|           |                                                                             |       | M     | 35 10                |                |                                                | 27        | SHILLONG                                                                                                                                                                                                                | Z     | eP       | 07 42 47             |                |                                              | Slight, local            |
|           | BOKARO                                                                      | N,E   | iP    | 16 26 44             | 3580           | Slight                                         | CHATRA    | Z                                                                                                                                                                                                                       | iP    | 07 43 25 | 550                  |                | Feeble                                       |                          |
|           |                                                                             |       | PP    | 26 59                |                |                                                |           |                                                                                                                                                                                                                         | iS    | 44 23    |                      |                |                                              |                          |
|           |                                                                             |       | eS    | 31 57                |                |                                                | 27        | SHILLONG                                                                                                                                                                                                                | Z     | eP       | 08 54 49             |                |                                              | Slight, local            |
|           | COLOMBO                                                                     | E     | P     | 16 27 09             |                |                                                | CHATRA    | Z                                                                                                                                                                                                                       | eP    | 08 55 10 | 430                  |                | Feeble                                       |                          |
|           |                                                                             |       | S     | 34 39                |                |                                                |           |                                                                                                                                                                                                                         | iS    | 55 56    |                      |                |                                              |                          |
|           |                                                                             |       | L     | 41 49                |                |                                                | 27        | SHILLONG                                                                                                                                                                                                                | Z     | eP       | 09 35 19             |                |                                              | Slight, local            |
|           |                                                                             |       | M     | 45 54                |                | Amp. $\approx$ 0.6                             | 27        | SHILLONG                                                                                                                                                                                                                | Z     | eP       | 13 11 47             |                |                                              | Slight, local            |
|           | DEHRA DUN                                                                   | N,E   | eP    | 16 27 38             | 4290           | Slight                                         | CHATRA    | Z                                                                                                                                                                                                                       | iP    | 13 12 40 | 670                  |                | Feeble                                       |                          |
|           |                                                                             | N     | PP    | 29 09                |                |                                                |           |                                                                                                                                                                                                                         | iS    | 13 50    |                      |                |                                              |                          |
|           |                                                                             |       | PPP   | 29 43                |                |                                                | 27        | CHATRA                                                                                                                                                                                                                  | Z     | iPg      | 16 23 33             | 130            |                                              | Feeble                   |
|           |                                                                             |       | iS    | 33 36                |                |                                                |           |                                                                                                                                                                                                                         | iSg   | 23 48    |                      |                |                                              |                          |
|           |                                                                             |       | PPS   | 34 00                |                |                                                | 27        | BOKARO                                                                                                                                                                                                                  | E     | i        | 17 17 07             |                |                                              | Slight                   |
|           |                                                                             |       | SS    | 36 24                |                |                                                | 27        | BOKARO                                                                                                                                                                                                                  | E     | i        | 17 45 57             |                |                                              | Feeble                   |
|           |                                                                             |       | Lq    | 36 39                |                |                                                |           |                                                                                                                                                                                                                         | i     | 53 36    |                      |                |                                              |                          |
|           |                                                                             |       | SSS   | 37 15                |                |                                                | 27        | Epc: 56°N, 153°W. Near South Coast of Kodiak Island.<br>H = 18h 19m 08s (U.S.C.G.S)<br>Magnitude = 6.5 (Takubaya), 6 $\frac{1}{2}$ -6 $\frac{1}{2}$ (DeBilt),<br>6 $\frac{1}{2}$ (Pasadena, Kiruna, Roma), 6 (Uppsala). |       |          |                      |                |                                              |                          |
|           |                                                                             |       | Lr    | 38 37                |                |                                                | SHILLONG  | Z                                                                                                                                                                                                                       | eP    | 18 31 29 |                      |                | Slight                                       |                          |
|           |                                                                             |       | M     | 41 58                |                |                                                | DEHRA DUN | N,E                                                                                                                                                                                                                     | eP    | 18 31 42 | 9440                 |                | Moderate, distant.                           |                          |
|           | NEW DELHI                                                                   | N,E   | P     | 16 27 44             | 4370           | Moderate                                       |           | N                                                                                                                                                                                                                       | PP    | 35 19    |                      |                |                                              |                          |
|           |                                                                             | N     | iS    | 33 44                |                |                                                |           |                                                                                                                                                                                                                         | iS    | 42 11    |                      |                |                                              |                          |
|           |                                                                             |       | SS    | 36 28                |                |                                                |           |                                                                                                                                                                                                                         | PS    | 43 29    |                      |                |                                              |                          |
|           |                                                                             |       | Lq    | 36 44                |                |                                                |           |                                                                                                                                                                                                                         | PPS   | 43 48    |                      |                |                                              |                          |
|           |                                                                             |       | Lr    | 37 59                |                |                                                |           |                                                                                                                                                                                                                         | SS    | 47 35    |                      |                |                                              |                          |
|           | MADRAS                                                                      | E     | iP    | 16 27 49             |                | Slight, other phases not clear                 |           |                                                                                                                                                                                                                         | SSS   | 52 08    |                      |                |                                              |                          |
|           |                                                                             |       |       |                      |                |                                                |           |                                                                                                                                                                                                                         | Lq    | 55 49    |                      |                |                                              |                          |
|           | POONA                                                                       | Z,E   | iP    | 16 29 19             | 4840           | Slight                                         |           |                                                                                                                                                                                                                         | Lr    | 19 00 33 |                      |                |                                              |                          |
|           |                                                                             | E     | PP    | 30 49                |                |                                                |           |                                                                                                                                                                                                                         | M     | 08 36    |                      |                |                                              |                          |
|           |                                                                             |       | i     | 31 05                |                |                                                | NEW DELHI | N,E                                                                                                                                                                                                                     | eP    | 18 31 46 | 9510                 |                | Moderate.                                    |                          |
|           |                                                                             |       | PPP   | 31 28                |                |                                                |           | N                                                                                                                                                                                                                       | i     | 34 05    |                      |                |                                              |                          |
|           |                                                                             |       | eS    | 35 49                |                |                                                |           |                                                                                                                                                                                                                         | PP    | 35 11    |                      |                |                                              |                          |
|           |                                                                             |       | i     | 39 27                |                |                                                |           |                                                                                                                                                                                                                         | PPP   | 37 04    |                      |                |                                              |                          |
|           |                                                                             |       | M(?)  | 45 56                |                |                                                |           |                                                                                                                                                                                                                         | iS    | 40 12    |                      |                |                                              |                          |
| 25        | DEHRA DUN                                                                   | N,E   | e     | 01 33 51             |                | Feeble, phases not clear                       |           |                                                                                                                                                                                                                         | PPS   | 43 42    |                      |                |                                              |                          |
|           |                                                                             |       | i     | 34 28                |                |                                                |           |                                                                                                                                                                                                                         | SS    | 47 55    |                      |                |                                              |                          |
|           |                                                                             |       | i     | 35 15                |                |                                                |           |                                                                                                                                                                                                                         | SSS   | 51 07    |                      |                |                                              |                          |
| 25        | SHILLONG                                                                    | Z     | e     | 05 41 24             |                | Slight, Beginning doubtful.                    |           |                                                                                                                                                                                                                         | M     | 19 05 54 |                      |                |                                              |                          |
| 25        | SHILLONG                                                                    | Z     | e     | 05 58 13             |                | Slight, Beginning doubtful due to microseisms. | HYDERABAD | E                                                                                                                                                                                                                       | M     | 19 09 22 |                      |                | Per. $\approx$ 21 secs<br>$\mu$ $\approx$ 16 |                          |
| 25        | POONA                                                                       | Z     | eP    | 11 42 14             |                | Tremor                                         | MADRAS    | E                                                                                                                                                                                                                       | M     | 19 11 21 |                      |                | Other phases not clear.                      |                          |
|           | DEHRA DUN                                                                   | N,E   | e     | 11 42 25             |                | Tremor                                         | POONA     | Z                                                                                                                                                                                                                       | eP    | 18 32 45 |                      |                | Very feeble distant shock. Phases not clear  |                          |
| 25        | DEHRA DUN                                                                   | N,E   | e     | 14 41 23             |                | Tremor                                         |           | N                                                                                                                                                                                                                       | e     | 45 06    |                      |                |                                              |                          |
| 26        | HYDERABAD                                                                   | E     | M     | 04 57 23             |                | Per. $\approx$ 15 secs<br>$\mu$ $\approx$ 4    |           |                                                                                                                                                                                                                         | e     | 45 44    |                      |                |                                              |                          |
| 26        | SHILLONG                                                                    | Z     | e     | 19 02 45             |                | Slight, near                                   |           |                                                                                                                                                                                                                         | e     | 47 00    |                      |                |                                              |                          |
| 26        | DEHRA DUN                                                                   | N,E   | e     | 22 12 48             |                | Feeble, phases not clear                       |           |                                                                                                                                                                                                                         | e     | 50 19    |                      |                |                                              |                          |
|           |                                                                             |       | i     | 14 41                |                |                                                |           |                                                                                                                                                                                                                         | e     | 19 13 19 |                      |                |                                              |                          |
|           | NEW DELHI                                                                   | N     | eP    | 22 13 05             | 1180           | Slight                                         | BOKARO    | N,E                                                                                                                                                                                                                     | eP    | 18 34 11 |                      |                | Slight                                       |                          |
|           |                                                                             | E     | i     | 13 35                |                |                                                |           |                                                                                                                                                                                                                         | e     | 42 11    |                      |                |                                              |                          |
|           |                                                                             | N,E   | iS    | 15 06                |                |                                                | COLOMBO   | E                                                                                                                                                                                                                       | e     | 18 47 20 |                      |                |                                              |                          |
|           |                                                                             |       | SS    | 15 17                |                |                                                |           |                                                                                                                                                                                                                         | L     | 19 12 30 |                      |                |                                              |                          |
|           |                                                                             |       | SSS   | 15 27                |                |                                                |           |                                                                                                                                                                                                                         | M     | 19 36    |                      |                | Amp. $\approx$ 1.1                           |                          |
|           |                                                                             |       | S*    | 15 45                |                |                                                |           |                                                                                                                                                                                                                         |       |          |                      |                |                                              |                          |
| 27        | SHILLONG                                                                    | Z,N,E | iP    | 00 28 17             |                | Moderate shock Phases not clear                |           |                                                                                                                                                                                                                         |       |          |                      |                |                                              |                          |
|           | DEHRA DUN                                                                   | N,E   | e     | 01 29 26             |                | Feeble, phases not clear.                      |           |                                                                                                                                                                                                                         |       |          |                      |                |                                              |                          |

| DATE      | STATION    | COMPT | PHASE       | G. M. T.<br>h. m. s. | $\Delta$<br>km | REMARKS                     | DATE      | STATION   | COMPT | PHASE    | G. M. T.<br>h. m. s. | $\Delta$<br>km | REMARKS                     |
|-----------|------------|-------|-------------|----------------------|----------------|-----------------------------|-----------|-----------|-------|----------|----------------------|----------------|-----------------------------|
| July 1955 |            |       |             |                      |                |                             | July 1955 |           |       |          |                      |                |                             |
| 27        | KODAIKANAL | E     | e           | 19 08 32             |                |                             | 29        | SHILLONG  | Z     | e        | 21 24 09             |                | Slight                      |
| 27        | SHILLONG   | Z     | eP          | 19 40 52             |                | Slight                      | 29        | SHILLONG  | Z     | e        | 22 10 38             |                | Slight                      |
| 28        | SHILLONG   | Z     | eP          | 03 11 26             |                | Slight.<br>Compression.     | 29        | CHATRA    | Z     | iP<br>iS | 22 58 35<br>58 53    | 140            | Feeble                      |
| 28        | SHILLONG   | Z     | e           | 05 17 43             |                | Slight.<br>Compression      | 29        | SHILLONG  | Z     | e        | 23 02 58             |                | Compression.<br>Slight.     |
| 28        | SHILLONG   | Z     | e           | 12 09 07             |                | Slight                      | 30        | DEHRA DUN | N,E   | e        | 08 58 11             |                | Feeble. Phases<br>not clear |
| 28        | DEHRA DUN  | N,E   | e           | 21 05 50             |                | Tremor                      | 30        | SHILLONG  | Z     | e        | 23 12 00             |                | Slight, local.              |
| 29        | CHATRA     | Z     | iP<br>iS    | 01 35 48<br>36 06    | 140            | Feeble                      | 31        | SHILLONG  | Z     | e        | 07 46 13             |                | Slight, local               |
| 29        | CHATRA     | Z     | iP<br>iS    | 05 59 47<br>06 00 06 | 150            | Feeble                      |           | CHATRA    | Z     | iP<br>iS | 07 47 09<br>48 30    | 780            | Feeble                      |
| 29        | SHILLONG   | Z     | eP          | 08 01 05             |                | Slight, local               | 31        | CHATRA    | Z     | eP<br>iS | 13 08 24<br>09 00    | 320            | Feeble                      |
| 29        | DEHRA DUN  | N,E   | e<br>i      | 13 57 26<br>57 56    |                | Feeble. Phases<br>not clear | 31        | SHILLONG  | Z     | e        | 17 45 55             |                | Slight, local.              |
| 29        | CHATRA     | Z     | iPg<br>iSg. | 16 00 54<br>01 03    | 70             | Feeble                      |           | CHATRA    | Z     | iP<br>iS | 17 46 57<br>48 10    | 700            | Feeble                      |

.....

### Earthquake Reports (Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of July 1955.

| PLACE AT WHICH FELT | DATE IN G.M.T. | TIME IN G.M.T. h. m. | DURATION IN secs | INTENSITY IN R.F. SCALE | NUMBER OF SHOCKS. | REMARKS |
|---------------------|----------------|----------------------|------------------|-------------------------|-------------------|---------|
| SRINAGAR            | 03             | 13 59                | 15               | IV                      | 2                 |         |
| SHILLONG            | 16             | 08 52                | 2                | IV                      | 1                 |         |
| GAUHATI             | 22             | 15 43                | 3                | IV                      | 2                 |         |
| SHILLONG            | 22             | 15 43                | 4                | IV                      | 1                 |         |
| GAUHATI AIRPORT     | 22             | 15 42                | 4                | IV                      | 1                 |         |

~~~~~

2-14-61  
JWC

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Oct  
1955

Published under the direction of  
Shri S. Basu, M.Sc., F.N.I.,  
Director General of Observatories

FEB 14 1961



- 2 -

Instruments and their constants

Station	Instrument	Compt.	Period in secs	Static Magnifi- cation	Damping ratio	Paper Speed mm/min
Bombay	Milne-Shaw	N-S	12.0	350	18:1	16
	Milne-Shaw	E-W	12.0	350	9:1	8
	Sprengnether Microseismo- graph	E-W	$T_0 = T_g$ $= 7.0$	-	-	30
Calcutta	Milne-Shaw	E-W	10.0	150	20:1	8
	Wood-Anderson	N-S	2.0	870	Critical	30
	Omori-Ewing	N-S	18.0	32	-	25
	Omori-Ewing	E-W	19.0	30	-	25
Dhatra	Benioff	Z	$T_0=0.72$ $T_g=0.45$	-	Critical	60
	Wood-Anderson	N	1.0	1000	30:1	60
	Wood-Anderson	E	1.0	1000	40:1	60
	Milne-Shaw	E	12.0	250	20:1	16
Colombo	Milne-Shaw	E-W	12.0	250	20:1	-
Dehra Dun	Milne-Shaw	N-S	12.0	250	20:1	16
	Milne-Shaw	E-W	12.0	250	20:1	16
	Wood-Anderson	N-S	0.8	800	60:1	60
	Wood-Anderson	E-W	0.8	950	60:1	60
Hyderabad	Milne-Shaw	N-S	12.0	252	20:1	8
	Milne-Shaw	E-W	12.0	253	20:1	8
Kodaikanal	Milne-Shaw	E-W	10.0	250	20:1	8
Madras	Sprengnether Microseismograph	E-W	$T_0 = T_g$ $= 7.2$	-	-	30
New Delhi	Milne-Shaw	N-S	12.0	288	20:1	8
	Wood-Anderson	N-S	4.0	1070	20:1	16
	Wood-Anderson	E-W	2.0	1841	30:1	60
	Omori-Ewing	E-W	28.0	30	1	12
Poona	Sprengnether Microseismograph	Z	$T_0=1.5$ $T_g=1.5$	-	-	30
	Wood-Anderson	E-W	4.0	1100	20:1	16
	Milne-Shaw	N-S	12.0	250	20:1	8
Shillong	Milne-Shaw	N-S	12.0	250	20:1	8
	Benioff Short Period	Z	$T_0=1.0$ $T_g=0.18$	-	-	60
	Wood-Anderson	E-W	0.8	1000	-	30
	Wood-Anderson	N-S	0.8	1000	-	30
	Wood-Anderson	N-S	4.0	1120	-	30

DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	
				h. m. s.	km						h. m. s.	km		
August 1955							August 1955							
01	NEW DELHI	N,E	iPg iSg	08 06 07 06 13	40	Slight. First ground movement East.	03	BOKARO	N,E	eP e e e i e e e	17 12 36 12 43 12 51 15 08 15 21 15 32 15 47 16 32 16 45		Slight	
	DEHRA DUN	N,E	e	08 06 39		Tremor								
02	Epc: 9°N, 94°E. Nicobar Islands Region - H = 06h 50m 28s (Shillong) 9½°N, 94½°E. - H = 06h 50m 20s (B.C.I.S)													
	MADRAS	E	iP Lq iS SS Lr	06 53 46 56 09 56 10 56 33 56 52	1410	Moderate. First ground movement West		DEHRA DUN	N,E	e i i i i	17 13 05 16 24 16 49 17 13 19 06		Slight. Phases not clear	
	SHILLONG	Z,E E	iP i PP PPP iS SS SSS Lr PcP M(?)	06 54 13 54 20 54 27 54 34 57 11 57 33 57 46 57 36 58 57 07 00 16	1780	Slight. Rarefaction First movement East.  M. Suppressed		NEW DELHI	E N,E E N	eP PPP Lq iS SS SSS M	17 13 11 13 29 15 24 15 31 15 45 15 57 17 01	1380	Slight	
	BOKARO	N,E	iP iS	06 54 15 57 16	1810	Slight. First ground movement South and West.		POONA	N	eP eS Lr M	17 14 57 18 45 20 01 21 32	2320	Slight	
	POONA	E	eP PP PPP eS Lq SS Lr	06 55 09 55 39 55 46 59 05 59 27 59 49 07 00 29	2410	Very slight Other phases not clear		BOMBAY	N,E	e	17 21 34		Surface waves of near shock of slight intensity	
	NEW DELHI	N,E	eP PP PPP iS Lq SS Lr	06 55 45 56 12 56 21 59 54 07 00 26 00 41 01 22	2580	Slight	03	DEHRA DUN	N,E	e i	18 19 39 21 13		Feeble	
	DEHRA DUN	N,E N	eP PP PPP iS Lq SS SSS Lr M	06 55 51 56 23 56 33 07 00 06 00 37 00 54 01 08 01 44 03 34	2660	Slight	03	DEHRA DUN	N,E	e i i	22 46 51 50 41 53 32		Feeble. Phases not clear	
	BOMBAY	N	e M	06 59 22 07 00 32		Near, feeble shock.		NEW DELHI	N,E N	eP eS M	22 47 00 57 00 54 11	2450	Slight	
02	DEHRA DUN	N,E	e	13 02 52		Tremor		POONA	N	e e	22 53 06 57 21		Feeble shock. Phases not clear.	
02	CHATRA	Z	eP iS	18 22 28 22 47	150	Feeble		SHILLONG	Z	eP	22 56 27		Slight. Compression.	
02	SHILLONG	Z	e	22 30 52	830	Tremor	04	Epc: Bay of Bengal. - H = 00h 00m 00s (U.S.C.G.S)						
	CHATRA	Z	iP iS	22 31 43 33 09				BOKARO	N,E	eP PPP eS Lq SS S* SSS Sg/M	00 01 48 02 01 02 52 02 56 03 04 03 09 03 16 03 24	610	Slight. First ground movement West.	
03	CHATRA	Z	iP iS	03 30 15 30 33	140	Feeble		SHILLONG	Z	e i	00 02 12 03 42		Slight, near.	
03	CHATRA	Z	iPg iSg	13 49 24 49 34	70	Feeble		CHATRA	Z	eP eS	00 02 35 03 59	510	Slight	
03	CHATRA	Z	iPg iSg	15 55 51 55 54	20	Feeble		NEW DELHI	N,E E N,E	eP PP iS SS SSS Lr S*	00 03 37 03 47 06 10 06 26 06 36 06 42 07 06	1510	Slight	
03	Epc: Eastern Tibet. - H = 17h 10m 15s (U.S.C.G.S) 32°N, 91½°E. - H = 17h 10m 15s (B.C.I.S)							DEHRA DUN	N,E	e i	00 03 53 06 29		Feeble. Phases not clear	
	CHATRA	Z	eP i	17 11 50 13 03		Slight	04	Epc: 29°N, 86.5°E. In Tibet. - H = 06h 40m 49s (Shillong) 30½°N, 86½°E. - H = 06h 40m 48s (U.S.C.G.S & BCIS)						
	SHILLONG	Z,E E	iP PP i Lq eS Lr SSS M	17 11 51 12 01 12 31 12 51 12 59 13 07 13 23 13 32	640	Slight. compression		CHATRA	Z	iP iS	06 41 53 42 40	430	Slight	



DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	
1955				h. m. s.	km		1955				h. m. s.	km		
05	SHILLONG	Z, E	eP	19 32 02	870	Slight.	11	DEHRA DUN	N, E	e	19 51 57		Tremor	
		E	PP	32 11		Compression.	11	SHILLONG	Z, E	eP	22 48 30	1070	Moderate. Other phases not clear	
			Lq	33 19		Initial ground movement towards East.			E	i	49 36			
			eS	33 31						iS(?)	50 19			
			Lr/SS	33 40				CHATRA	Z	eP	22 49 11	950	Slight	
			SSS	33 53		Per 7.5 secs				iS	50 49			
			M	34 16		μ = 30								
06	DEHRA DUN	N, E	e	19 37 54		Tremor	11	SHILLONG	Z	iP	23 36 40		Slight, compression.	
07	SHILLONG	Z	iP	12 44 45		Slight. Rarefaction	12	DEHRA DUN	N, E	e	05 28 57		Tremor	
07	CHATRA	Z	eP	23 21 28	140	Feeble	12	CHATRA	Z	ePg	06 16 59	10	Feeble	
			iS	21 46						iSg	17 01			
08	SHILLONG	Z	i	06 15 14		Slight, local	12	SHILLONG	Z	e	08 02 30		Slight, compression	
08	CHATRA	Z	iPg	15 33 21	50	Feeble	12	CHATRA	Z	iP	10 47 45	280	Feeble	
			iSg	33 28						iS	48 17			
08	CHATRA	Z	iP	17 31 02	170	Slight	13	CHATRA	Z	ePg	08 38 44	10	Feeble	
			iS	31 23						iSg	38 46			
08	SHILLONG	Z	i	17 31 29		Tremor	13	DEHRA DUN	N, E	e	15 37 04		Feeble. Phases not clear	
08	CHATRA	Z	i	17 43 57		Tremor				i	37 20			
08	CHATRA	Z	iP	17 44 22	450	Slight	13	CHATRA	Z	eP	16 51 54	130	Feeble	
			iS	45 11						iS	52 11			
08	CHATRA	Z	eP	22 54 55	170	Feeble	13	SHILLONG	Z	e	17 18 40		Slight. Compression.	
			iS	55 16										
09	SHILLONG	Z	iP	00 31 32		Slight. Rarefaction. Other phases not clear.	14	SHILLONG	Z	i	12 22 40		Slight. Rarefaction	
09	CHATRA	Z	iP	00 40 53	440	Slight	14	SHILLONG	Z	e	12 38 36		Slight. Compression	
			iS	41 41										
	DEHRA DUN	N, E	e	00 41 44		Feeble, phases not clear	14	CHATRA	Z	iPg	13 24 11	10	Feeble, very near.	
			i	43 02						iSg	24 12			
			i	43 49			14	COLOMBO	E	P	17 01 45	7880		
09	CHATRA	Z	iPg	09 11 53	40	Feeble				S	11 00			
			iSg	11 56						L	33 55			
09	CHATRA	Z	iPg	14 17 33	60	Feeble	14	MADRAS	E	eP	17 11 11		Tremor	
			iSg	17 41										
09	DEHRA DUN	N, E	e	15 13 58		Tremor		KODAIKANAL	E	e	17 11 26		Tremor	
09	SHILLONG	Z	eP	21 06 20	130	Slight, near.		DEHRA DUN	N, E	i	17 12 53		Slight, phases not clear	
			PP	06 28										
			S*	00 33			14	SHILLONG	Z	e	21 07 41		Slight. Compression	
			Sg	00 37										
			SSS	01 00			14	SHILLONG	Z	i	22 38 19		Compression	
10	BOKARO	E	e	02 14 33		Feeble	15	CHATRA	Z	iPg	05 01 42	20	Feeble	
			e	21 09						iSg	01 45			
10	BOKARO	E	e	04 41 36		Feeble	15	SHILLONG	Z	e	11 21 29		Slight, local	
10	BOKARO	E	e	09 03 53		Feeble		CHATRA	Z	iP	11 21 47	390	Feeble	
10	BOKARO	E	e	09 20 12		Feeble				iS	22 30			
10	BOKARO	E	e	10 29 05		Feeble	15	SHILLONG	Z	i	16 38 05		Slight, local. Rarefaction	
10	SHILLONG	Z	e	16 07 39		Slight. Distant Phases not clear	15	Epc: 25.3°N, 95.4°E. Assam Burma Border. - H = 16h 43m 43s (Shillong) 24°N, 95°E. - H = 16h 43m 52s (B.C.I.S)						
10	DEHRA DUN	N, E	e	16 08 40		Tremor		SHILLONG	Z, N, E	iP	16 44 57	440	Moderate	
10	DEHRA DUN	N, E	e	16 54 53		Tremor			N	PPP	45 12			
10	CHATRA	Z	eP	18 46 48	140	Feeble				iS	45 45			
			iS	47 06						SS	45 57			
10	MADRAS	E	eP	22 06 55		Tremor				SS/M	46 12		Per 7.5 μ = 15	
11	CHATRA	Z	iPg	14 27 12	70	Slight Feeble		CHATRA	Z	eP	16 45 59		Slight	
			iSg	27 21						i	47 42			
11	SHILLONG	Z	eP	17 44 30		Slight, phases not clear.		BOKARO	N, E	eP	16 46 35	780	Slight. Initial ground movement North	
										PP	46 39			
										PP	46 43			
										Lq	47 43			
										iS	47 56			
										M	48 43			
11	DEHRA DUN	N, E	e	17 55 43		Tremor								
11	SHILLONG	Z	e	19 33 22		Tremor								

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	Δ km	REMARKS			
August 1955							August 1955									
15	NEW DELHI	N	eP	16 47 49	1910	Slight	16	NEW DELHI	N,E	eP	11 59 04	8800	Moderate			
	Contd.		eS	51 00				Contd.		iS	12 09 04		Deep focus			
			SS	51 19					N	i	10 13					
			SSS	51 29						SS	13 56					
			Lr	57 40												
			M	53 05												
	DEHRA DUN	N,E	eP	16 47 56	1990	Moderate		DEHRA DUN	N,E	eP	11 59 05	8710	Moderate			
		N	iS	51 14					N	PP	12 01 48					
			SS	51 43						PPP	03 18					
			SSS	51 53						iS	09 01					
			M	53 35						PS	09 43					
	MADRAS	E	iP	16 48 11	2150	Moderate shock				PPS	10 11					
			PP	48 30						SSS	17 34					
			PPP	48 39		Initial ground movement West.				Lq	20 27					
			iS	51 44						Lr	24 31					
			Lq	51 54						M	30 31					
			Lr	52 43												
			PcP	55 59												
	POONA	Z	eP	16 48 43	2450	Slight		POONA	Z	iP	11 59 12	8910	Moderate.			
		E	PcP	51 53					E	PcP	59 17		Initial ground			
		N	eS	52 42						PP	12 02 09		movement towards			
		E	SS	53 42						PPP	04 04		West.			
			PcS	55 29						iS	09 17					
			M	56 27					E	ScS	09 30					
										PS	10 03					
	KODAIKANAL	E	e	16 49 36		Tremor. Phases not clear				PPS	10 26					
										SS	14 51					
									N	SSS	17 40					
										Lr	24 49					
	BOMBAY	N	e	16 49 43		Slight		BOMBAY	E	iP	11 59 17	8930	Moderate			
		N,E	i	52 58					N	eP	59 23					
									E	pP	12 00 03					
15	CHATRA	Z	iPg	19 01 03	70	Feeble				PP	02 46					
			iSg	01 12						i	03 27					
15	CHATRA	Z	iPg	22 30 01	70	Feeble				PPP	04 12					
			iSg	30 11						i	04 49					
16	CHATRA	Z	iP	11 30 33	130	Feeble				eS <sub>1</sub>	09 23					
			iS	30 50					E	iS <sub>0</sub>						
									E	PS	10 21					
									N	PPS	10 27					
									E	i	11 58					
										SS	15 13					
16	Epc: 64°S, 155°E. Solomon Island. - h ≈ 200 km - H ≈ 11h 47m 04s (B.C.I.S) 68S, 155°E. - h ≈ 200 km - H ≈ 11h 46m 58s (U.S.C.G.S) 8°S, 157°E. - h ≈ 200 Km Ca. - H ≈ 11h 47m 00s (Shillong) Magnitude: 7% (Wellington), 7% (Pasadena), 6% (Uppsala).							16	CHATRA	Z	eP	20 58 08	190	Feeble		
										iS	58 31					
	COLOMBO	E	P	11 57 30		Times approximate.		17	DEHRA DUN	N,E	e	03 54 25		Feeble. Phases not clear		
			e	12 07 --						i	55 49					
	SHILLONG	Z,E	eP	11 57 48	7850	Slight. Deep focus.		17	SHILLONG	Z	e	10 43 13		Very slight		
		E	pP	58 38						iP	21 22 18	150	Feeble			
			iS	12 06 41						iS	22 37					
			sS	08 11						e	00 08 23		Very slight			
	BOKARO	N,E	eP	11 58 27	7800	Slight		18	DEHRA DUN	N,E	e	09 54 59		Tremor		
			PcP	58 40					18	DEHRA DUN	N,E	e	12 11 09		Tremor	
			PP	12 01 02					18	CHATRA	Z	eP	19 19 20	170	Feeble	
			PPP	02 49						iS	19 41					
			iS	07 38						e	01 12 04		Tremor			
			SKS <sub>1</sub>	07 53					19	SHILLONG	Z	e	03 12 49		Slight	
			PS	08 16						CHATRA	Z	eP	05 15 35	760	Slight	
			PPS	08 36							iS	14 54				
			SS	12 21						19	BOKARO	N,E	eP	05 15 21	510	Slight
			SSS	15 38								PP	15 27			
			Lq	18 06								Lq	16 07			
			Lr	21 27								eS	16 15			
			M	28 19								M	16 49			
	MADRAS	E	iP	11 58 37	8580	Deep shock of moderate intensity		19	DEHRA DUN	N,E	e	05 45 00		Tremor		
			pP?	59 22					19	DEHRA DUN	N,E	e	06 00 12		Tremor	
			iS	12 08 08					20	POONA	Z	e	00 47 30		Slight. Probably distant. Phases not clear.	
			sS	08 48							Z,E	e	53 50			
	KODAIKANAL	E	iP	11 58 52	8490	Moderate. Initial ground movement towards East.		20	MADRAS	E	e	00 56 51		Tremor		
			PP	12 01 52					20	DEHRA DUN	N,E	e	10 40 59		Tremor	
			PPP	03 37					20	CHATRA	Z	iP	18 38 46	220	Slight	
			S	08 37							iS	39 12				
			PS	09 19												
			PPS	09 37												
			SS	13 37												
			SSS	16 58												
			Lq	19 16												
			Lr	22 54												
			M	29 16												

Per. = 15 secs  
L = 4.7



DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	
				h. m. s.	km						h. m. s.	km		
August 1955							August 1955							
22	CHATRA	Z	iPg iSg	22 33 32 33 33	10	Feeble	23	SHILLONG	Z	i	18 00 37 00 56		Tremor, near	
23	CHATRA	Z	eP iS	02 07 43 08 48	620	Feeble	23	SHILLONG	Z	i	19 25 04 25 37		Slight, near	
23	DEHRA DUN	N,E	e i	06 35 42 37 13		Feeble, phases not clear	23	DEHRA DUN	N,E	e	21 01 50		Tremor	
23	SHILLONG	Z	iP	10 00 38		Slight	23	DEHRA DUN	N,E	e	22 51 14		Tremor	
23	Epc: 31°N, 71°E. Central Pakistan. - H = 14h 09m 26s (Shillong) 31°N, 71°E. - h = 60 KmCa. - H = 14h 09m 17s (USCGS) Magnitude = 6½ (Shillong). Felt at Leh, Multan, Bahawalpur and Montgomery.							24	SHILLONG	Z	iP	22 23 33		Slight. Compression.
	NEW DELHI	N,E	iP P* PPP Pg iS Sg	14 10 46 10 56 11 00 11 09 11 46 12 14	570	Slight. Initial ground movement towards North and West	24	SHILLONG	Z	i	22 42 03		Slight, near. Phases not clear	
	DEHRA DUN	N,E N	eP PP PPP Lq iS Lr SS SSS Sg	14 10 51 11 04 11 17 11 47 11 58 12 04 12 10 12 24 12 35	640	Slight	25	SHILLONG	Z	i	04 15 11 15 24		Slight, local	
	HYDERABAD	E	e eP iS M	14 11 30 12 18 14 45 17 21	1440	Moderate Per. = 6 secs $\mu = 22$	26	DEHRA DUN	N,E	e i	00 02 46 03 15		Feeble, phases not clear.	
	BOMBAY	E	eP i Lq eS SS SSS M	14 12 12 13 22 14 10 14 18 14 32 14 42 16 20	1230	Slight	26	DEHRA DUN	N,E	e	11 21 59		Tremor	
	POONA	Z E	eP PP Lq eS SS Lr M	14 12 33 12 42 14 46 14 57 15 04 15 20 16 22	1410	Slight Per. = 9.7 secs $\mu = 17.7$	26	DEHRA DUN	N,E	e	17 09 22		Tremor	
	BOKARO	N,E	eP Lq eS SS SSS M	14 12 49 15 35 15 46 16 23 16 33 17 46	1770	Slight. Initial ground movement towards North and West	26	SHILLONG	Z	i	21 08 24 08 48		Slight, near	
	SHILLONG	Z E	eP iP i e iS Lq SS SSS Lr/PcP M	14 13 38 13 39 13 42 14 09 16 59 17 05 17 27 17 38 18 00 19 28	2020	Moderate. Initial ground movement towards East.	26	SHILLONG	Z	iP	23 00 46 01 05 01 09 02 13		Slight. Rarefaction. Phases not clear	
	KODAIKANAL	E	S	14 18 14		Slight. Phases not clear.	CHATRA	Z	eP iS	23 01 32 03 05	900	Feeble		
	MADRAS	E	eP PcP iS Lq SS SSS Lr	14 15 13 18 31 19 41 20 39 20 58 21 13 21 52	2960	Moderate	27	SHILLONG	Z	iP	07 01 06		Slight. Compression.	
	COLOMBO	E	e e e e	14 20 31 22 36 25 23 26 51			27	SHILLONG	Z	iP	09 01 23		Slight, near.	
23	DEHRA DUN	N,E	e	17 49 37		Tremor	CHATRA	Z	eP iS	09 02 17 03 48	880	Feeble		
							27	DEHRA DUN	N,E	e	10 22 08		Tremor	
							27	DEHRA DUN	N,E	e	16 49 27		Tremor	
							27	DEHRA DUN	N,E	e	17 01 02		Tremor	
							28	SHILLONG	Z	i	06 41 15		Slight, local. Compression	
							28	SHILLONG	Z	Pg Sg	06 51 14 51 24	90	Slight, near	
							28	SHILLONG	Z	iP	13 48 57		Slight. Rarefaction	
							28	DEHRA DUN	N,E	e i	19 46 48 47 26		Feeble. Phases not clear	
							28	Epc: 14°N, 91°W. Near Coast of Guatemala. - h = 60 KmCa. - H = 20h 13m 30s (U.S.C.G.S) 13.8°N, 91.8°W. - h = 70 Km to 100 Km - H = 20h 13m 00s (Takubaya) Magnitude = 7.7M (Dabilt), 6.7 (Kiruna), 6.8 (Takubaya), 6M (Pasadena, Berkeley)						
							SHILLONG	Z	PKP PcP PP PKS PPP SKKS PS PPS SKKS <sub>1</sub> SSP SSS Lr M	20 32 51 32 54 35 59 38 37 38 56 42 46 45 50 47 54 48 39 54 46 59 28 31 18 35 30 28	15770	Moderate. Initial ground movement towards North		
							DEHRA DUN	N,E	ePKP N i e e e e	20 32 51 36 25 36 32 36 49 37 12 39 02		Per. = 23 secs $\mu = 250$ Slight		

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	
AUGUST 1955							AUGUST 1955							
28	NEW DELHI	N	ePKP	20 32 52			29	SHILLONG	Z	iPg	16 05 18	120	Slight. Felt.	
	Contd.		i	36 28		Moderate, distant.		Contd.		Sg	05 32		Rarefaction.	
			e	42 21									Initial ground movement towards South & West.	
	BOKARO	N	ePKP	20 33 02	15670	Slight		CHATRA	Z	iP	16 05 52	410	Slight	
			PPP	36 11						iS	06 37			
			PKS <sub>1</sub>	36 43				BOKARO	E	eP	16 06 15	530	Slight	
			SKS <sub>1</sub>	39 39						eS	07 11			
			SKKS <sub>1</sub>	40 22				NEW DELHI	E	eP	16 07 50	1310	Slight	
			SKKKS <sub>1</sub>	40 33					N,E	PP	08 01			
			PS	43 00					E	PPP	08 10			
			PPS	44 02					N,E	iS	10 04			
			SS	48 47					N,E	SS	10 17			
	POONA	Z	ePKP	20 33 06	16000	Slight, distant Phases not clear.			E	SSS	10 28			
									E	M	11 26			
	COLOMBO	E	ePKP	20 33 15				POONA	Z	eP	16 08 52	1700	Feeble. Phases mixed up with microseisms	
			e	46 18						e	09 05			
			e	21 40 20		Amp. $\approx$ 1.0 mm				eS	11 44			
			e	48 30						e	12 23			
	HYDERABAD	E	ePKP	20 33 17		Moderate. Initial ground movement towards West. Per. $\approx$ 24 secs $\mu$ $\approx$ 16		BOMBAY	N	e	16 12 50		Feeble	
			e	45 17						M	16 24 11		Slight. Per. $\approx$ 15 secs $\mu$ $\approx$ 4	
			e	21 28 49				HYDERABAD	E	M	16 24 11			
	MADRAS	E	ePKP	20 33 43		Moderate								
28	NEW DELHI	N,E	eP	23 54 42	1040	Slight	29	CHATRA	Z	ePg	16 32 55	10	Feeble	
		E	P*	55 02						iSg	32 57			
			Pg	55 28				29	CHATRA	Z	iPg	19 21 59	10	Feeble
		N,E	eS	56 29						iSg	22 01			
			SS	56 42				30	DEHRA DUN	N,E	e	07 16 20		Tremor
		E	Lr	56 49				30	SHILLONG	Z	iP	17 42 34		Slight. Compression. Other phases not clear.
			SSS	56 55						i	47 18			
29	DEHRA DUN	N,E	e	00 54 36		Feeble. Phases not clear.		DEHRA DUN	N,E	e	17 44 00		Feeble. Phases not clear.	
			i	56 14						e	50 44			
29	Epc: 51°N, 178°W. H. $\approx$ 15h 33m 56s. (U.S.C.G.S) Magnitude $\approx$ 5M (Uppsala).													
	SHILLONG	Z	iP	15 45 18	7910	Slight.		POONA	Z	eP	17 44 48		Very feeble. Phases not clear.	
		N	iP	45 19		Compression.			Z,N	e	52 22			
			PP	46 57		Initial ground movement South		BOMBAY	N	(S?)i	17 52 34		Probably deep focus.	
			iS	54 35				30	DEHRA DUN	N,E	e	22 33 15		Tremor
			PS	54 46				31	CHATRA	Z	eP	03 01 28	410	Feeble
			SS	57 57				31	CHATRA	Z	iP	09 36 44	430	Feeble
			M	16 12 04						iS	37 30			
	BOKARO	N	eP	15 45 53		Slight		31	CHATRA	Z	iP	09 37 06	430	Feeble
			i	55 28						iS	37 52			
	POONA	Z	iP	15 46 46		Tremor								
29	Epc: 25.2°N, 90.8°E. Assam-East Pakistan Border. H. $\approx$ 16h 04m 57s (Shillong) H. $\approx$ 16h 04m 54s (U.S.C.G.S) Magnitude $\approx$ 4M (Shillong). Felt at Shillong, Dhubri, Goalpara, Mymensing and Sylhet.													
	DEHRA DUN	N,E	e	16 04 55		Slight. Phases not clear								
			i	07 05										

### Earthquake Reports

(Voluntary Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of August 1955.

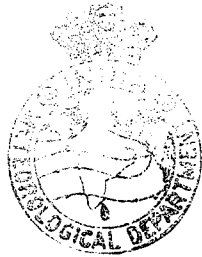
Place at which felt	Date in G. M. T.	Time in G. M. T.	Duration in secs.	Intensity in R.F. scale	No. of shocks	Remarks
GANGTOK	02	18 30	1	V	1	
GANGTOK	08	17 30	1	V	1	
UPPER SHILLONG	15	16 45	35	V	1	
TOMOLA (DORRANG)	19	05 15	10	V	1	
UPPER SHILLONG	29	16 05	30	III	2	





GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
*Shri S. Basu, M.Sc., F.N.I.,*  
Director General of Observatories

FEB 14 1964

Instruments and their constants

STATION	INSTRUMENTS	COMPONENT	PERIOD IN SECOND	STATIC MAGNIFICA- TION	DAMPING RATIO	PAPER SPEED IN mm/min.
BOKARO	Wood-Anderson	E	0.8	960	0.8	
	Wood-Anderson	N	0.8	1000	0.8	
	Milne-Shaw	N	12.0	250	20:1	16.0
	Milne-Shaw	E	12.0	250	20:1	16.0
BOMBAY	Milne-Shaw	N	12.0	350	30:1	16.0
	Milne-Shaw	E	12.0	350	3:1	8.0
	Sprengnather Microseismograph	E	7.0			30.0
CHAITRA	Milne-Shaw	E	12.0	250	20:1	16
	Benioff Vertical	Z	To=0.72 Tg=0.45		Critical	60
	Wood-Anderson	E	1.0	1000	30:1	60
COLOMBO	Milne-Shaw	E	12.0	250	20:1	8.0
DEHRA DUN	Wood-Anderson	N	0.8	800	60:1	60
	Wood-Anderson	E	0.8	950	60:1	60
	Milne-Shaw	N	12.0	250	20:1	8
HYDERABAD	Milne-Shaw	E	12	250	20:1	8
	Milne-Shaw	N	12	250	20:1	8
KODAIKANAL	Milne-Shaw	E	10	250	20:1	8
MADRAS	Sprengnather	E	To=Tg=7.3			30
NEW DELHI	Milne-Shaw	N	12	320	20:1	8
	Wood-Anderson	N	4	900	20:1	16
	Wood-Anderson	E	2	1770	30:1	60
	Omari-Ewing	E	30	30	1	12
POONA	Sprengnather Vertical	Z	To=Tg=1.5			30
	Milne-Shaw	N	12.0	250	20:1	8
SHILLONG	Wood-Anderson	E	To=1.0	1100	20:1	16
	Benioff Vertical	Z	Tg=0.18			60
	Sprengnather	E	To=Tg=7.6			30
	Milne-Shaw	N	12	250	20:1	8
	Wood-Anderson	E	0.8	1000	Critical	30
	Wood-Anderson	N	0.8	1000	Critical	30

DATE	STATION	COMPT	PHASE	G. h.	M. m.	T. s.	$\Delta$ km	REMARKS
September 1955								
01	CHATRA	E	iP iS	08 28	06 29		800	Feeble
01	DEHRA DUN	N,E	e	12 32	45			Tremor
01	SHILLONG	E	iP iS	13 27	03 27		280	Slight
01	CHATRA	Z	iP iS	16 00	16 00		240	Feeble
01	CHATRA	Z	iP iS	16 06	17 06		150	Feeble
01	CHATRA	Z	eP iS	16 11	13 11		160	Feeble
02	SHILLONG	Z	iP	07 58	08			Slight, compression
02	CHATRA	Z	iPg	18 36	42		100	Slight
02	SHILLONG	Z	i	19 52	30			Slight, compression
02	SHILLONG	Z	iP	20 53	17			Slight, compression
02	SHILLONG	Z	iP	21 21	11			Slight, compression
02	DEHRA DUN	N,E	e	21 22	44			Tremor
02	SHILLONG	Z	e	23 21	48			Tremor
03	CHATRA	Z	iP iS	05 05	24 06		750	Slight
03	SHILLONG	Z	iPg P eSg eS SSS	09 02 02 57 03 05 03 10 03 27	54		90	Slight
03	CHATRA	Z	eP iS	09 20	22 21		450	Feeble
	DEHRA DUN	N,E N	eP PPP iS Lq SS SSS Lr M	12 55 55 53 59 09 59 21 59 40 59 55 13 00 01 44	26		2250	Slight
03	SHILLONG	Z,N,E N	iP PP PPP iS/Lq SS SSS Lr M	12 55 56 08 56 27 59 22 59 37 13 00 00 25 01 53	39		2250	Slight, Compression
	POONA	Z	eP	12 55	52			Slight, distant shock. Phases not clear.
	HYDERABAD	E	e M	12 56 13 50	01 18			Per. $\approx$ 18 secs $\mu = 7$
	COLOMBO	E	e	12 56 13 09 14 02 14 10	06 11 01 01			
	MADRAS	E	e	12 56	29			Tremor
	KODAIKANAL	E	e	12 58	08			Slight
	BOKARO	N	i i	12 59 59 43	28			Slight

DATE	STATION	COMPT	PHASE	G. h.	M. m.	T. s.	$\Delta$ km	REMARKS
September 1955								
03	CHATRA	Z	iP iS	14 09	38 09		150	Feeble
03	DEHRA DUN	N,E	e	14 12	20			Tremor
03	Epc: Celebes Islands $1^{\circ}$ N, $120^{\circ}$ E. - H $\approx$ 16h 23m 22s (Shillong). $1^{\circ}$ N, $123^{\circ}$ E. - H $\approx$ 16h 22m 52s (U.S.C.G.S). Magnitude $\approx$ 6 $\frac{1}{2}$ -6 $\frac{1}{2}$ (Uppsala).							
	SHILLONG	Z,N,E N	iP PP PPP iS SS/Lq SSS Lr M	16 30 31 36 31 58 35 57 38 02 38 43 39 50 42 54	22		4310	Rarefaction
	COLOMBO	E	P iS L M	16 30 36 46 46 31 52 36	51		4250	Amp. $\approx$ 0.5 mm
	BOKARO	N,E	eP PP PPP iS PS PPS SS Lq SSS Lr M	16 30 32 25 32 51 36 53 37 02 37 17 39 40 40 14 40 33 41 55 46 29	53		4330	Ground movement North and West
	MADRAS	E	iP PP PcP PPP ScP iS SSS ScS M	16 31 32 36 32 56 33 09 36 33 37 02 40 33 40 41 45 32	01		4360	Per. $\approx$ 15 sec <sup>2</sup> $\mu = 7.14$
	HYDERABAD	E	iP PP iS SS L M	16 31 32 22 37 40 41 20 45 28 48 22	20		4660	Ground movement East. Per. $\approx$ 18 secs $\mu = 6$
	POONA	Z E	iP i PcS iS PPS i ScS SSS Lr	16 31 32 59 36 54 38 47 38 56 40 41 41 14 43 22 45 25	57		5190	Rarefaction. Ground movement towards East.
	DEHRA DUN	N,E	e i	16 32 32 46	04			Slight. Phases not clear
	KODAIKANAL	E	eP iS SS SSS Lq M	16 32 37 28 38 11 39 41 40 46 17 34	14		3590	Per. $\approx$ 15 secs $\mu = 14.4$
03	SHILLONG	Z	eP	19 31	15			Slight, near. Compression.
03	CHATRA	Z	eP iS	19 32 33 04	32		250	Slight
03	DEHRA DUN	N,E	e i	22 53 55 34	46			Feeble. Phases not clear
04	POONA	Z	iP	11 49	14			Very feeble. Phases not clear.

DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	
				h. m. s.	km						h. m. s.	km		
September 1955							September 1955							
04	DEHRA DUN	N,E	e	11 49 23		Feeble. Phases not clear	07 NEW DELHI Contd.	E N	eP i eS Lq iSS Lr M	03 25 36 25 47 30 40 31 55 32 22 33 12 35 22	3430	Slight		
04	SHILLONG	Z	e	11 49 42		Tremor								
04	SHILLONG	Z	e	17 01 33		Slight, near								
04	SHILLONG	Z	eP	19 17 58		Compression. Phases not clear	BOKARO	N,E	eP e iS Lq SSS Lr M	03 25 45 26 38 31 07 32 58 33 28 34 51 36 54	3700	Slight. Ground movement South and West		
04	DEHRA DUN	N,E	e	19 18 57		Feeble, phases not clear								
04	SHILLONG	Z	eP	22 22 30		Rarefaction								
05	CHATRA	Z	iP iS	00 08 05 08.34	250	Slight	DEHRA DUN	N,E N	eP PP PPP iS Lq/SS SSS Lr M	03 26 03 27 15 27 37 31 32 33 36 34 19 35 28 38 33	3840	Moderate		
05	SHILLONG	Z	eP	00 08 53		Rarefaction								
05	DEHRA DUN	N,E	e i	00 09 23 10 49		Feeble. Phases not clear								
05	SHILLONG	Z	e	04 25 33		Slight. Compression	SHILLONG	Z	P PP S	03 26 25 27 51 32 07	4040	Moderate. Rarefaction.		
05	SHILLONG	Z	e	11 49 02		Rarefaction	07 SHILLONG	Z	e	06 03 18			Local	
05	SHILLONG	Z	e	16 44 57		Compression	07 DEHRA DUN	N,E	e	07 56 29			Tremor	
05	SHILLONG	Z	i	17 20 34		Rarefaction	07 CHATRA	Z	ePg eSg	08 15 05 15 17	90		Feeble	
05	CHATRA	Z	eP iS	20 05 07 05.30	190	Feeble.	07 CHATRA	Z	iPg iSg	08 37 09 37 22	100		Feeble	
05	SHILLONG	Z	i	20 06 09		Compression	07 CHATRA	Z	iS iP	10 17 45 18 14	250		Feeble	
06	DEHRA DUN	N,E	e	03 06 54		Feeble. Phases not clear	07 SHILLONG	Z	e	10 18 32			Local	
06	CHATRA	Z	eP iS	11 01 41 02.27	430	Feeble	07 CHATRA	Z	iP iS	14 25 44 26 02	140		Feeble	
07	COLOMBO	E	P	03 22 48			07 DEHRA DUN	N,E	e	15 21 32			Tremor	
07	Epc: 3°S, 67°E. Chagos Islands Region - H = 03h 19m 16s. (Shillong) 2°S, 68°E. - H = 03h 19m 21s. (U.S.C.G.S) 1½°S, 68°E. - H = 03h 19m. 23s. (B.C.I.S)							07 MADRAS	E	e	17 51 42			Tremor
	KODAIKANAL	E	iP PP PPP iS Lq SS SSS Lr M	03 22 57 23 20 23 36 26 48 27 11 28 19 29 10 30 03	2350	Ground movement East	07 SHILLONG	Z	e	18 12 26				Local
						Per. = 17 secs $\mu = 47$	07 DEHRA DUN	N,E	e i	19 16 50 17 49				Feeble. Phases not clear
	MADRAS	E	iP PP PPP iS Lq SS SSS Lr M ScP ScS	03 23 47 24 12 24 24 27 42 28 02 28 20 28 34 29 10 31 07 31 21 34 59	2400	Moderate shock Ground movement East	08 COLOMBO	E	P S L M	02 28 57 35 58 40 31 45 30	5390		Amp. = 1.1 mm	
							KODAIKANAL	E	e	02 29 05				Slight
							HYDERABAD	E	e L M	02 37 26 48 21 58 03				Per. = 16 secs $\mu = 6$
	POONA	Z N	iP PP PPP eS Lq SS SSS Lr M	03 24 14 24 33 24 49 28 13 28 34 28 57 29 18 29 48 03 31 40	2450	Moderate. Ground movement North	08 Epc: Solomon Islands. 7°S, 155½°E - H = 03h 27m 14s. (U.S.C.G.S) Magnitude = 6½. (Pasadena).	SHILLONG	Z E	iP i PcP eS	03 38 29 38 36 38 51 47 38			Moderate. Compression
						Per. = 19.5 secs $\mu = 38.3$	BOKARO	N,E	eP PcP iS SKS i ScS PS PPS SS SSS M	03 39 06 39 21 48 34 48 57 49 06 49 15 49 41 53 28 56 25 04 07 47	8130		Slight	
	BOMBAY	N,E N N,E N	iP PP iS Lq SSS	03 24 16 24 41 28 15 28 54 29 28	2440	Slight. 'M' not well developed	COLOMBO	E	P S L M	03 39 21 48 53 04 05 -- 12 06	8220		Amp. = 0.4 mm	
	HYDERABAD	E	iP PP iS SS Lr M	03 24 17 24 43 28 23 29 12 29 48 31 01	2540	Moderate. Ground movement East.								
						Per. = 16 secs $\mu = 28$								

DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	
				h. m. s.	km						h. m. s.	km		
September 1955														
08	NEW DELHI	N, E	eP	03 39 43	9150	Moderate	09	KODAIKANAL	E	e	04 20 44		Slight	
	Contd	N	iS	49 57						e	05 15 04			
			i	50 20										
			PS	50 56										
			PPS	51 16										
	DEHRA DUN	N, E	eP	03 39 44	9090	Slight								
		N	PP	42 43										
			iS	49 57										
			PS	50 54										
			PPS	51 17										
			SSS	58 43										
			Lq	04 01 55										
			M	03 24										
	POONA	Z, E	eP	03 39 48	9310	Slight. Ground movement West. Compression		COLOMBO	E	P	09 47 04	2460		
			PcP	39 52						S	51 04			
			PPP	45 00						L	54 09			
			eS	50 11						M	57 21		Amp. $\approx$ 2.1 mm	
			ScS	50 22										
			PPS	51 11										
	BOMBAY	N	e	03 39 59		Phases lost in microseisms.		MADRAS	E	iP	09 47 24	2750	Ground movement West	
			i	50 18						PPP	48 17			
			e	50 24						iS	51 44			
	MADRAS	E	iP	03 49 37	2070	Slight. Ground movement East				Lq	52 20			
			S	53 02						SS	52 41			
			Lq	53 05						Lr	53 44			
			SSS	53 43						ScP	54 27			
			Lr	54 00						M	55 33			
													Per. $\approx$ 16 secs $\mu$ $\approx$ 18.6	
08	Epc: 24°N, 95°E. H $\approx$ 04h 45m 29s. 25°N, 95°E. h $\approx$ 150 kmCa. H $\approx$ 04h 45m 26s (U.S.C.G.S) Magnitude $\approx$ 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Shillong).													
	SHILLONG	Z	iP	04 46 13	290			KODAIKANAL	E	iP	09 47 38	2790	Ground movement West	
		E	Sg	46 46						PP(?)	48 07			
	CHATRA	Z	iP	04 47 13	770					PPP	48 18			
			iS	48 33						iS	51 59			
	BOKARO	N, E	eP	04 47 29	880					SS	52 59			
			PP	47 38						SSS	53 11			
			PPP	47 48						Lq	53 38			
			Lq	48 51						Lr	53 54			
			iS	48 59						M	55 48			
			SSS	49 22									Per. $\approx$ 18 secs $\mu$ $\approx$ 10	
			M	49 59										
	NEW DELHI	N, E	eP	04 49 10	1690			SHILLONG	Z	iP	09 47 56	3130		
			PP	49 21						PP	48 48			
			i	49 42						iS	52 41			
			iS	52 00						i?	52 59			
			i	52 10						Lq	54 07		Per. $\approx$ 24 secs $\mu$ $\approx$ 0.34	
			SS	52 16										
			Lr	52 39										
			M	53 53										
	DEHRA DUN	N, E	eP	04 49 09	1690			HYDERABAD	E	iP	09 47 56	3170	Ground movement West	
		N	PP	49 22						PP	47 51			
			Lq	51 52						PcP	50 53			
			iS	51 59						iS	52 44			
			SS	52 17						SS	53 49			
			SSS	52 29						L	55 41			
			Lr	52 37						M	59 16			
			M	53 51									Per. $\approx$ 18 secs $\mu$ $\approx$ 10	
	POONA	Z, E	eP	04 50 03	2210			POONA	Z	eP	09 48 36	3650	Ground movement North & West. Compression	
		E	PP	50 24						PP	49 47			
			iS	53 42						PPP	50 03			
			Lq	53 55						PcP	50 53			
			SS	54 13						iS	53 53			
			SSS	54 25						ScS	54 19			
			Lr	54 40						N	SS	55 34		
			M	56 24						E	SSS	56 20		
			PcS	57 23						N	Lr	56 56		
										E	M	10 00 28		
	BOMBAY	E	eP	04 50 11	2350			BOMBAY	E	eP	09 48 52	4000		
			iS	54 03						PP	50 17			
										PPP	50 39			
										i	54 06			
										iS	54 31			
										SS	56 57			
										Lq	57 05			
										SSS	57 34			
	NEW DELHI	N, E	eP	09 49 13	4070			NEW DELHI	N, E	eP	09 49 13	4070		
		N	i	49 51						i	49 51			
			PPP	50 48						PPP	50 48			
			iS	54 56						iS	54 56			
			SS	57 18						SS	57 18			
	DEHRA DUN	N, E	eP	09 49 22	4170			DEHRA DUN	N, E	eP	09 49 22	4170		
		N	PPP	50 58						PPP	50 58			
			iS	55 12						iS	55 12			
			SS	57 24						SS	57 24			
			SSS	57 58						SSS	57 58			
			Lr	59 28						Lr	59 28			
			M	10 02 16						M	10 02 16			
08	KODAIKANAL	E	e	05 00 05				09	Epc: Solomon Islands. 7°S, 155°E. H $\approx$ 16h 21m 12s (U.S.C.G.S)					
08	SHILLONG	Z	e	07 01 20		Local								
08	SHILLONG	Z	eP	11 00 25		Local		SHILLONG	Z	eP	16 32 25	7540		
		E	i	01 03					N	eS	41 23			
08	DEHRA DUN	N, E	e	11 06 20		Slight								

DATE	STATION	COMPT	PHASE	U. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	U. M. T.	Δ	REMARKS		
				h. m. s.	km						h. m. s.	km			
September 1955															
09	DEHRA DUN	N, E	eP	16 33 43	9040	Slight	11	BOMBAY	F	iP	18 07 09	9400			
Contd.		N	iS	43 54			Contd.			PP	10 10				
			PS	44 39						PPP	12 34				
			SS	48 57						SKSP	16 56				
			Lq	55 51						iS	17 31				
			M	17 05 36						F. I.	PS	18 34			
										F	PPS	19 02			
	POONA	Z	eP	16 33 49	9270	Slight				e	20 14				
			SS	44 10						SSS	27 19				
			PS	44 44						SSS	27 23				
			PPS	45 10											
09	DEHRA DUN	N, E	e	21 48 53		Feeble. Phases not clear	11	SHILLONG	Z	iP	18 14 28		Feeble, distant Phases not clear		
			i	50 49											
09	CHATRA	Z	iP	22 06 39	690	Feeble	11	SHILLONG	Z	iP	20 25 22	220	Feeble		
			iS	07 51						iS	26 01				
10	DEHRA DUN	N, E	e	04 39 47		Tremor	11	SHILLONG	Z	e	23 30 15				
10	CHATRA	Z	i	12 01 38		Feeble. Very near	12	Epc:	33°N, 32°E. - H = 06h 09m 39s (Shillong)						
10	CHATRA	Z	i	12 01 53		Feeble. Very near			32°N, 30°E. - H = 06h 09m 20s (U.S.C.G.S)						
10	DEHRA DUN	N, E	e	16 17 36		Tremor			32.0°N, 29.8°E. H = 06h 09m 29s (P.C.I.S)						
10	COLOMBO	E	P	21 10 20					Felt at Egypt, Palestine, Cyprus etc.						
			S	19 56		Amp. ≈ 0.2 mm			Magnitude = 6% (Pasadena, Kiruna, Athens, Jerusalem)						
			M	30 30					6.6 (Takubaya), 6% (Strasbourg).						
10	DEHRA DUN	N, E	e	22 13 12		Tremor		NEW DELHI	N, E	eP	06 17 04	4450			
10	DEHRA DUN	N, E	e	22 28 58		Tremor			N	PP	18 44				
11	DEHRA DUN	N, E	e	16 21 01		Feeble.				iS	23 11				
			i	22 39		Phases not clear				SS	26 02				
										i	27 00				
										Lr	28 24				
11	Epc:	7°S, 155°E. Solomon Island Region.						DEHRA DUN	N, E	eP	06 17 04	4280	Moderate		
		- H = 17h 54m 28s (U.S.C.G.S)							N	PP	18 43				
		Magnitude = 6 (Pasadena).								PPP	19 15				
										iS	23 01				
										SS	25 42				
										Lq	26 01				
										SSS	26 22				
										Lr	27 46				
										M	30 59				
	SHILLONG	Z	eP	18 05 43	7750										
			iS	14 49											
	BOKARO	N, E	eP	18 06 11	8220	Ground movement South and East.		BOMBAY	N, E	eP	06 17 06	4450	'M' not well developed.		
			PcP	06 21						PP	18 44				
		N	PP	09 43						PPP	19 07				
		N, E	PPP	10 47						iS	23 12				
			iS	15 43						Lq	26 07				
			SS	15 50						SSS	26 29				
			SKS <sub>1</sub>	16 09											
			PS	16 24						POONA	Z, N, E	iP	06 17 13	4570	Ground movement South and East. Compression.
			PPS	16 35							N	PP	18 53		
			SSS	20 21								PcP	19 07		
		N	SSS	23 28								PPP	19 29		
		N, E	Lq	25 34								PcS	23 01		
		N	Lr	28 41								iS	23 27		
			M	35 28								PPS	23 49		
	COLOMBO	E	P	18 06 22	8510							Lq	26 35		
			S	16 08								SSS	27 03		
			L	32 52								Lr	28 31		
			M	40 05		Amp. ≈ 0.6 mm						M	31 52		
	MADRAS	E	iP	18 06 28	9020			KODAIKANAL	E	iP	06 18 08	5480			
			iS	16 17						PP	20 04				
			Lq	26 00						PPP	20 48				
										iS	25 11				
										SS	28 46				
										SSS	29 45				
										Lq	29 51				
	NEW DELHI	N, E	eP	18 06 56	9120					Lr	35 36				
		N	iS	17 11						M	36 03				
			PPS	18 29									Per. ≈ 19 secs Δ ≈ 23.9		
	DEHRA DUN	N, E	eP	18 06 59	9040			MADRAS	E	iP	06 18 16	5310			
			PP	10 18						PcP	19 30				
			iS	17 10						PP	20 03				
			PS	17 59						iS	25 13				
			PPS	18 29						PPS	25 30				
			SS	22 27						ScS	27 49				
			SSS	26 58						SS	28 40				
			Lr	33 19						Lr	30 04				
			M	40 14						SSS	30 14				
	POONA	Z	iP	18 07 05	9210	Ground movement towards East		BOKARO	N, E	iP	06 18 16	5330	Ground movement North and West		
		E	PP	10 24						PcP	19 20				
			eS	17 24						PP	20 11				
			PS	18 23						PPP	21 11				
			PPS	18 47						iS	25 14				
			SS	22 58						PS	25 21				
			i	27 10						PPS	25 29				





DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS
				h. m. s.	km						h. m. s.	km	
September 1955							September 1955						
17	NEW-DELHI	N	eP	05 48 17	820	Slight	20	SHILLONG	Z	iPg	00 27 52	130	Slight
			i	48 44						i	27 58		
			Lq	49 31						iSg	28 07		
			eS	49 42			20	CHATRA	Z	eP	04 49 45	130	Feeble
			SSS	50 02						iS	50 03		
		N,E	S*	50 05			20	SHILLONG	Z,N,E	eP	13 38 02	5910	Moderate
			Sg	50 25					N	iS	45 27		
17	DEHRA-DUN	N,E	e	05 48 32		Slight. Phases not clear	BOMBAY	E	eP	13 38 48			Moderate. Very distant shock
		N	i	50 26					e	40 11			
			i	50 37					e	45 59			
			i	50 49					s	49 56			
17	SHILLONG	Z	e	05 54 35		Slight			e	57 00			
17	SHILLONG	Z	e	06 48 54		Slight			M	14 30 --			
17	SHILLONG	Z	i	07 38 35		Slight. Rarefaction	COLOMBO	E	P	13 38 52			
17	SHILLONG	Z	e	12 08 09		Slight			e	53 30			
17	DEHRA-DUN	N,E	e	13 48 11		Tremor			e	14 14 55			Amp. 2.2 mm
17	SHILLONG	Z	e	14 50 51		Slight, near	MADRAS	E	iP	13 38 55			Distant
			e	51 19			POONA	Z	e	13 39 04			Slight. Probably very distant. Phases not clear
17	SHILLONG	Z	i	15 02 22		Slight. Compression	KODAIKANAL	E	e	13 39 19			Tremor
17	SHILLONG	Z	i	18 40 15		Slight. Compression	HYDERABAD	E	e	13 39 31			
17	SHILLONG	Z	i	18 29 18		Slight. Rarefaction			e	49 03			
17	SHILLONG	Z	e	21 21 52		Slight. Local			e	14 27 54			
			i	22 01			DEHRA-DUN	N	eP	13 40 16	7380	Moderate	
17	SHILLONG	Z	e	23 46 38		Slight			PPP	44 43			
18	SHILLONG	Z	i	01 18 05		Slight, near.			iS	49 05			
		E	e	18 17					PS	49 37			
18	SHILLONG	Z	e	01 28 25		Slight			SS	53 59			
18	SHILLONG	Z	i	06 34 58		Slight. Local			SSS	56 45			
			i	35 31					Lr	14 04 07			
18	SHILLONG	Z	i	06 49 40		Slight. Compression			M	10 01			
18	SHILLONG	Z	e	09 22 36		Slight	20 Epc: 26°N, 89.6°E. In Bhutan (India). H = 20h 21m 19s (Shillong) Epic at shillong, Kalimpong, Goalpara, Gauhati and Jangia. 27°N, 90°E. H = 20h 21m 13s (U.S.C.G.S.)						
18	SHILLONG	Z	i	11 38 34		Slight. Rarefaction	SHILLONG	Z,N,E	iP	20 21 55	150	Moderate, near	Mag. 5%-5%.
18	DEHRA-DUN	N,E	e	11 45 22		Tremor		E	PP	22 05			
18	SHILLONG	Z	e	16 09 41		Slight. Local			PPP	22 11			
			i	09 55					iS	22 22			
19	SHILLONG	Z	iP	04 17 42		Slight. Compression			SS	22 31			
		N	eL	30 --					SSS	22 46			
19	CHATRA	Z	ePg	06 27 25	100	Feeble	CHATRA	Z	eP	20 21 57	340	Slight	
			iSg	27 37				E,Z	iS	22 35			
19	SHILLONG	Z	iP	10 41 38	230	Slight	BOKARO	N,E	eP	20 22 38	620	Slight	
			iSg	42 10					PP	22 45			
19	SHILLONG	Z	ePg	12 22 49	120	Slight			PPP	22 51			
			iSg	23 03					Pg	23 03			
19	SHILLONG	Z	iP	17 05 08	200	Slight			Lq	23 33			
			iSg	05 36					iS	23 45			
19	SHILLONG	Z	iP	17 50 44		Slight. Compression			Lr	23 49			
									SS	23 56			
19	CHATRA	Z	iP	19 36 59	150	Feeble			SSS	24 09			
			iS	37 18					Sg/M	24 16			
19	SHILLONG	Z	eP	19 37 30	310	Slight	DEHRA-DUN	N,E	eP	20 23 52	1120	Slight	
			iSg	38 16				N	PP	24 00			
19	SHILLONG	Z	e	22 40 58		Slight			PPP	24 10			
									iS	25 47			
19	SHILLONG	Z	iPg	23 27 01	30	Slight			SS	25 58			
			iSg	27 05					Lr	26 05			
									S	26 09			
									S*	26 24			
									Sg/M	26 51			



DATE	STATION	COMPT	PHASE	G.	M.	T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G.	M.	T.	Δ	REMARKS	
				h	m	s	km					h	m	s	km			
September 1955									September 1955									
23	CHATRA	Z	iP iS	10	45	26	800	Feeble	23	KODAIKANAL	E	iP PP iS SS SSS? Lq Lr M	15	12	15	3220	Ground movement towards West	
23	DEHRA DUN	N,E	e	10	50	05		Tremor	Contd.									
23	Epc: 26.5°N, 101.7°E. Yunnan Province of China; - H = 15h 06m 24s (Shillong) 27°N, 101°E. - H = 15h 06m 19s (U.S.C.G.S) Magnitude = 7% (De Bilt), 7% (Strasbourg, Kiruna), 6% (Uppsala), 6% (Shillong).																	
	SHILLONG	Z,N,E N	iP PP PPP Lq iS SS SSS M	15	08	30	930			COLOMBO	E	P S	15	12	19	3210	'L' and 'M' trace very faint.	
								Per: 15 secs μ = 600		23	SHILLONG	Z	e	17	18	18		Tremor
										23	CHATRA	Z	iP iS	17	27	58	210	Feeble
										23	SHILLONG	Z	e	17	53	19		Rerefraction
	BOKARO	N,E	iP PP PPP Lq iS SS SSS Lr M PcP PcS ScS	15	09	47	1550	Ground movement South and West		23	SHILLONG	Z	e	20	26	00		Compression
								Per: 15 secs μ = 285.7		24	KODAIKANAL	E	e?	02	25	52		Slight tremor.
										24	COLOMBO	E	eP	02	25	--		
										24	CHATRA	E	eP iS	03	25	30	160	Feeble
										24	Epc: 22°N, 122°E. Off East Coast of Formosa. - H = 10h 21m 31s (Shillong) - H = 10h 21m 29s (U.S.C.G.S) 22°N, 121°E. H = 10h 21m 27s (B.C.I.S) Magnitude = 6% (Strasbourg), 6%-6% (Kiruna), 6% (Uppsala), 6-6% (Hurbanovo), 6 (Roma).							
	DEHRA DUN	N,E N	eP PP PPP iS Lq SS SSS Lr M	15	11	08	2360			SHILLONG	Z,N,E N	iP PP PPP iS Lq SS SSS Lr M	10	27	15	3000		
																		Per: 13.5 secs μ = 6
	NEW DELHI	N,E N	iP PP PPP iS SS Lr M Mn	15	11	13	2420	Ground motion South - East.		BOKARO	N,E	eP PP PPP iS PcS/Lq SS SSS Lr M	10	28	36	3110		
								Per: 16 secs μ = 419										
	HYDERABAD	E	iP PP PcP iS SS L M	15	11	32	2650	Ground movement West		DEHRA DUN	N,E N	eP PPP iS SS Lq SSS Lr M	10	29	05	4310		
								Per: 15 secs μ = 96										
	MADRAS	E	iP PP PPP PcP iS SS SSS Lr ScP M ScS	15	11	37	2630	Ground movement West.		NEW DELHI	E N	eP iS Lq ScS Lr M	10	29	07	4430	Superimposed by another shock at 10h 37m 48s.	
	POONA	Z,E E	iP PP PPP PcP iS Lq SS PcS Lr M Mn	15	12	01	3210	Ground movement South and West. Compression.		MADRAS	E	iP PP PcP PPP iS PPS? SS Lq SSS M	10	29	10	4550	Ground movement West.	
								Per: 11.3 secs μ = 143.1										Per: 15 secs. μ = 2
	BOMBAY	E N E	eP iS i i M	15	12	09	3210	Moderate		**** COLOMBO	E	P S L M	10	29	31	4770		
								Per: 14 secs μ = 113										Amp. = 1.2 mm
										**** KODAIKANAL	E	e	10	29	41			
										**** HYDERABAD	E	P PP S M	10	29	11	4450		
																		Per: 15 secs. μ = 2



DATE	STATION	COMPT	PHASE	G. M. T.	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	REMARKS	
				h. m. s.	km.					h. m. s.	km.	
September 1955												
26	BOMBAY	N,E	e	08 47 35		28	BOMBAY	E	eP	01 52 37		
Contd.		E	e	09 10 07		Contd.			eS	57 16		
			i	10 45					i	58 06		
	POONA	Z	iP	08 47 37	Phases not clear	28	SHILLONG	Z	eP	04 28 55	Very feeble, other phases not clear.	
	HYDERABAD	E	e	08 47 47		28	SHILLONG	Z	i	08 17 02	Tremor	
			e	09 09 47		29	SHILLONG	Z	i	10 03 19	Tremor, local.	
			e	38 07		29	SHILLONG	Z	Pg	10 37 42	90 Slight, local	
	MADRAS	E	eP	08 47 51	Ground movement East.	29	SHILLONG	Z	eS	57 52		
	COLOMBO	E	e	08 48 04		29	SHILLONG	Z	iP	11 41 58	Slight, Compression	
			e	09 05 29		29	SHILLONG	Z	iP	13 00 36	Slight, Other phases doubtful.	
			e	47 34								
	KODAIKANAL	E	e	08 48 11								
26	SHILLONG	Z	e	23 59 57	Slight, Compression	29	DEHRA DUN	N,E	eP	13 03 13	2350 Slight	
27	CHATRA	Z	iP	05 03 31	250 Slight				iS	07 04		
			iS	03 55					Lq	07 19		
27	SHILLONG	Z	iP	05 04 36	Slight, distant. Rarefaction				SS	07 46		
27	CHATRA	Z	iP	05 17 40	210 Slight		NEW DELHI	E	eP	13 03 23	2370 Slight	
27	SHILLONG	Z	e	05 18 36	Slight, distant, rarefaction				eS	07 16		
27	SHILLONG	Z	eP	08 50 41	Slight, local. Rarefaction				SS	07 53		
									M	10 11		
28	Epc: Yunan Province China. 27°N, 101½°E. - H ± 01h 46m 36s (U.S.C.G.E.) 25°N, 102°E. - H ± 01h 46m 42s (Shillong). Magnitude ± 5% (Shillong).											
	SHILLONG	Z,N,E	iP	01 48 48	940	29	BOMBAY	E	e	13 10 00	Near shock.	
		N	PP	48 53					e	14 03		
			PPP	49 02		29	DEHRA DUN	N,E	e	15 08 07	Tremor	
			Lq	50 16		29	SHILLONG	Z	iP	20 06 17	Slight, rarefaction.	
			iS	50 25		29	DEHRA DUN	N,E	e	20 07 24	Feeble. Phases not clear	
			SS	50 34					i	07 46		
			SSS	50 49					i	14 34		
			M	51 23	Per. ± 13.5 secs	29	POONA	Z	iP	20 08 31	Tremor	
	BOKARO	N,E	eP	01 50 02	1610	30	SHILLONG	Z	eP	03 15 59	Slight. Beginning uncertain.	
			FP	50 09		30	SHILLONG	Z	eP	03 44 27	Slight, rarefaction	
			PPP	50 17		30	COLOMBO	E	eP	06 11 25		
			Lq	52 38					L	25 30		
			eS	52 35					M	32 00	Amp. ± 0.4 mm	
			SS	53 06		30	SHILLONG	Z	iP	07 08 36	4170 Slight, Compression	
			SSS	53 07					iP	08 37	First movement East.	
			Lr	53 23					PP	10 09		
			Sg/M	54 30					FPP	10 27		
			PcP	54 56					PcP	10 55		
			PcS	58 26					iS	14 25		
			ScS	02 02 01					SS	16 43		
	DEHRA DUN	N,E	eP	01 51 27	2350		DEHRA DUN	N,E	e	07 10 29	Slight. Phases not clear	
		N	PPP	51 57					i	17 33		
			iS	55 18					i	22 22		
			Lq	55 37			POONA	Z	eP	07 10 36	Tremor	
			SS	55 56			BOKARO	N,E	i	07 15 32	Slight	
			SSS	56 11					i	21 32		
			Lr	56 31		30	SHILLONG	Z	e	13 26 22	Slight. Phases not clear. Probably near.	
			M	58 28					i	26 31		
	NEW DELHI	E	iP	01 51 31	2410 First movement West.	30	POONA	Z	eP	15 07 53	Tremor	
		N,E	PP	51 55		30	SHILLONG	Z	eP	19 25 45	Slight, Compression	
		N	iS	55 27					i	25 46		
			SS	56 11					i	35 03		
			Lr	56 50		30	DEHRA DUN	N,E	e	19 26 15	Tremor	
			M	58 44		30	POONA	Z	iP	19 27 15	Tremor	
	HYDERABAD	E	eP	01 51 47	Other phases lost	30	SHILLONG	Z	iP	20 08 13	Slight, rarefaction.	
	MADRAS	E	iP	01 51 58	2730 Ground movement East.							
			PP	52 29								
			PPP	52 45								
			PcP	55 26								
			eS	56 17								
			Lq	56 55								
			ScS	02 02 34								
	POONA	Z	eP	01 52 21	2960							
		N	eS	56 55								
			PcS	59 15								
			M	02 01 07								

13

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS
September 1955						
30	SHILLONG	Z	iP	20 19 29		Slight, rarefaction.
30	SHILLONG	Z	iP	20 32 38		Slight, rarefaction.
30	DEHRA DUN	N,E	e	22 38 24		Feeble. Phases not clear.

.....

### Earthquake Reports (Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of September 1955.

PLACE AT WHICH FELT	DATE IN G. M. T.	TIME IN G. M. T. h. m.	DURATION IN SECS.	INTENSITY IN R.F. SCALE	NO. OF SHOCKS	REMARKS
SRINAGAR	07	19 00	5	V	1	
SHILLONG	08	04 47	3	III	1	
NORTH LAKHIMPUR	08	04 50	3	IV	2	
PORT BLAIR	10	09 20	5	V	2	
SRINAGAR	13	02 36	40	V	4	
SRINAGAR	20	20 30	-	-	-	
SHILLONG	21	20 29	5	IV	1	
GAUHATI	21	20 24	25	V	1	Direction Northeast.
TANGLA (Durrang)	21	20 15	10	IV	1	
KOLI (N.E.F.A)	22	17 05	-	-	-	No damage reported.
GOAL PARA	23	05 25	2	IV	1	

~~~~~



GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
Shri S. Basu, M. Sc., F. N. I.,  
Director General of Observatories



## Instruments and their constants

| STATION    | INSTRUMENTS              | COMPONENT | PERIOD<br>IN<br>SECOND   | STATIC<br>MAGNIFICA-<br>TION | DAMPING RATIO | PAPER SPEED<br>IN<br>mm/min. |
|------------|--------------------------|-----------|--------------------------|------------------------------|---------------|------------------------------|
| BOKARO     | Wood-Anderson            | E         | 0.8                      | 960                          | 0.8           |                              |
|            | Wood-Anderson            | N         | 0.8                      | 1000                         | 0.8           |                              |
|            | Milne-Shaw               | N         | 12.0                     | 250                          | 20:1          | 16.0                         |
|            | Milne-Shaw               | E         | 12.0                     | 250                          | 20:1          | 16.0                         |
| BOMBAY     | Milne-Shaw               | N         | 12.0                     | 350                          | 30:1          | 16.0                         |
|            | Milne-Shaw               | E         | 12.0                     | 350                          | 3:1           | 8.0                          |
|            | Sprengnether             |           |                          |                              |               |                              |
|            | Microseismograph         | E         | 7.0                      |                              |               | 30.0                         |
| CHATRA     | Milne-Shaw               | E         | 12.0                     | 250                          | 20:1          | 16                           |
|            | Benioff Vertical         | Z         | $T_0=0.72$<br>$T_g=0.45$ |                              | Critical      | 60                           |
|            | Wood-Anderson            | E         | 1.0                      | 1000                         | 30:1          | 60                           |
| COLOMBO    | Milne-Shaw               | E         | 12.0                     | 250                          | 20:1          | 8.0                          |
| DEHKA DUN  | Wood-Anderson            | N         | 0.8                      | 800                          | 60:1          | 50                           |
|            | Wood-Anderson            | E         | 0.8                      | 950                          | 60:1          | 60                           |
|            | Milne-Shaw               | N         | 12.0                     | 250                          | 20:1          | 8                            |
| HYDERABAD  | Milne-Shaw               | E         | 12                       | 250                          | 20:1          | 8                            |
|            | Milne-Shaw               | N         | 12                       | 250                          | 20:1          | 8                            |
| KODAIKANAL | Milne-Shaw               | E         | 10                       | 250                          | 20:1          | 8                            |
| MADRAS     | Sprengnether             | E         | $T_0=T_g=7.3$            |                              |               | 30                           |
| NEW DELHI  | Milne-Shaw               | N         | 12                       | 320                          | 20:1          | 8                            |
|            | Wood-Anderson            | N         | 4                        | 900                          | 20:1          | 16                           |
|            | Wood-Anderson            | E         | 2                        | 1770                         | 30:1          | 60                           |
|            | Omari-Ewing              | E         | 30                       | 30                           | 1             | 12                           |
| POONA      | Sprengnether<br>Vertical | Z         | $T_0=T_g=1.5$            |                              |               | 30                           |
| SHILLONG   | Milne-Shaw               | N         | 12.0                     | 250                          | 20:1          | 8                            |
|            | Wood-Anderson            | E         | $T_0=1.0$                | 1100                         | 20:1          | 16                           |
|            | Benioff Vertical         | Z         | $T_g=0.18$               |                              |               | 60                           |
|            | Sprengnether             | E         | $T_0=T_g=7.6$            |                              |               | 30                           |
|            | Milne-Shaw               | N         | 12                       | 250                          | 20:1          | 8                            |
|            | Wood-Anderson            | E         | 0.8                      | 1000                         | Critical      | 30                           |
|            | Wood-Anderson            | N         | 0.8                      | 1000                         | Critical      | 30                           |

| DATE                                                                                                       | STATION   | COMPT | PHASE      | G. M. T.<br>h. m. s. | Δ<br>km | REMARKS                                               | DATE                             | STATION                                                                                                                         | COMPT | PHASE                      | G. M. T.<br>h. m. s.                                  | Δ<br>km                 | REMARKS                      |
|------------------------------------------------------------------------------------------------------------|-----------|-------|------------|----------------------|---------|-------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------|-------------------------------------------------------|-------------------------|------------------------------|
| October 1955                                                                                               |           |       |            |                      |         |                                                       | October 1955                     |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | iP         | 00 22 52             |         | Slight.<br>Compression.                               | 02                               | SHILLONG                                                                                                                        | Z     | iP                         | 14 52 57                                              |                         | Slight.<br>Compression.      |
| 01                                                                                                         | POONA     | Z     | eP         | 05 35 42             |         | Feeble. Phases<br>not clear                           | 04                               | CHATRA                                                                                                                          | Z     | eP<br>iS                   | 00 55 09<br>55 27                                     | 140                     | Feeble                       |
| 01 Epc: 30°N, 101°E. Sinkiang Province, China.<br>- H = 06h 29m 54s (U.S.C.G.S)<br>Magnitude = 6 (Kiruna). |           |       |            |                      |         |                                                       | 04 SHILLONG Z iP 06 13 29 Slight |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            | SHILLONG  | Z,E   | iP         | 06 32 13             | 1040    | Compression.<br>Ground movement<br>West.              |                                  | SHILLONG                                                                                                                        | Z     | eP<br>P*<br>Pg<br>iSg      | 06 47 18<br>47 20<br>47 23<br>47 48                   | 220                     | Slight                       |
|                                                                                                            |           | E     | PPP        | 32 29                |         |                                                       |                                  | SHILLONG                                                                                                                        | Z     | iPg/P*<br>eSg              | 08 54 25<br>54 36                                     | 90                      | Slight                       |
|                                                                                                            |           |       | Lq         | 33 49                |         |                                                       |                                  | SHILLONG                                                                                                                        | Z     | iP                         | 12 48 01                                              |                         | Slight                       |
|                                                                                                            |           |       | iS         | 34 00                |         |                                                       |                                  | SHILLONG                                                                                                                        | Z     | eP                         | 14 54 09                                              |                         | Slight                       |
|                                                                                                            |           |       | SS         | 34 14                |         |                                                       |                                  | DEHRA DUN                                                                                                                       | N,E   | e                          | 14 58 35                                              |                         | Tremor                       |
|                                                                                                            |           |       | Lr         | 34 19                |         |                                                       |                                  | SHILLONG                                                                                                                        | Z     | iP<br>P*<br>Pg<br>Sg       | 16 49 59<br>50 02<br>50 06<br>50 37                   | 270                     |                              |
|                                                                                                            |           |       | SSS        | 34 28                |         |                                                       |                                  | CHATRA                                                                                                                          | Z     | eP<br>iS                   | 17 50 56<br>52 01                                     | 140                     | Feeble                       |
|                                                                                                            |           |       | M          | 35 01                |         |                                                       |                                  | SHILLONG                                                                                                                        | Z     | eP<br>Pg<br>Lq<br>iS<br>Sg | 04 29 41<br>29 56<br>30 13<br>30 26<br>30 42          | 410                     | Slight                       |
|                                                                                                            | BOKARO    | N,E   | i          | 06 38 19             |         | Other phases<br>not clear                             |                                  | CHATRA                                                                                                                          | Z     | eP<br>iS                   | 04 30 24<br>32 02                                     | 950                     | Slight                       |
|                                                                                                            | DEHRA DUN | N,E   | eP         | 06 34 32             | 2320    |                                                       |                                  | SHILLONG                                                                                                                        | Z     | iP<br>eS                   | 09 07 45<br>15 35                                     | 6260                    | Slight                       |
|                                                                                                            |           | N     | PP         | 34 45                |         |                                                       |                                  | POONA                                                                                                                           | Z     | iP                         | 09 09 31                                              |                         | Tremor                       |
|                                                                                                            |           |       | iS         | 38 21                |         |                                                       |                                  | DEHRA DUN                                                                                                                       | N,E   | e                          | 20 12 10                                              |                         | Feeble. Phases<br>not clear. |
|                                                                                                            |           |       | Lq         | 38 35                |         |                                                       |                                  | 06 Epc: 30°S, 70°W. Mendoza Province, Argentina.<br>- H = 11h 03m 16s (U.S.C.G.S)<br>Magnitude = 6½ (Pasadena), 6.4 (Takubaya). |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | SS         | 38 56                |         |                                                       |                                  | MADRAS                                                                                                                          | E     | ePKP<br>i<br>i<br>i        | 11 22 23<br>25 50<br>32 25<br>44 19                   |                         |                              |
|                                                                                                            |           |       | SSS        | 39 14                |         |                                                       |                                  | POONA                                                                                                                           | Z     | iP<br>e                    | 11 22 29<br>25 49                                     |                         | Tremor                       |
|                                                                                                            |           |       | Lr         | 39 34                |         |                                                       |                                  | HYDERABAD                                                                                                                       | E     | e<br>i                     | 11 22 38<br>32 33                                     |                         |                              |
|                                                                                                            |           |       | M          | 41 07                |         |                                                       |                                  | DEHRA DUN                                                                                                                       | N,E   | ePKP<br>e<br>e<br>e<br>e   | 11 22 48<br>33 14<br>34 38<br>42 47<br>46 07<br>57 26 |                         |                              |
|                                                                                                            | NEW DELHI | N     | eP         | 06 34 42             | 2110    |                                                       |                                  | SHILLONG                                                                                                                        | Z     | ePKP<br>i<br>e<br>i        | 11 22 57<br>23 40<br>27 17<br>33 55                   |                         |                              |
|                                                                                                            |           |       | PP         | 34 52                |         |                                                       |                                  | COLOMBO                                                                                                                         | E     | e<br>e<br>e                | 11 25 21<br>31 56<br>42 56                            |                         |                              |
|                                                                                                            |           |       | PPP        | 35 07                |         |                                                       |                                  | BOMBAY                                                                                                                          | E     | e<br>e                     | 11 25 47<br>32 20                                     |                         |                              |
|                                                                                                            |           |       | iS         | 38 11                |         |                                                       |                                  | BOKARO                                                                                                                          | N,E   | e<br>e<br>e<br>e           | 11 27 00<br>33 26<br>37 07<br>37 18<br>43 03          |                         |                              |
|                                                                                                            |           |       | SS         | 38 35                |         |                                                       |                                  | 06 SHILLONG Z iP 21 20 23 270 Slight                                                                                            |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | Lr         | 39 07                |         |                                                       |                                  |                                                                                                                                 |       |                            | P*<br>Pg<br>eSg                                       | 20 26<br>20 30<br>20 54 |                              |
|                                                                                                            |           |       | M          | 41 01                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            | BOMBAY    | E     | eP         | 06 35 52             | 3170    |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | e          | 36 22                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | PcP        | 38 48                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | eS         | 40 40                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           | N,E   | i          | 41 02                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           | E     | Lq         | 41 56                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | SSS        | 42 28                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | Lr         | 43 10                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           | N     | M          | 45 27                |         | Per. = 7 secs.<br>Δ = 2                               |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            | COLOMBO   | E     | M          | 06 54 29             |         | Trace overlapping<br>Amp. = 0.6 mm                    |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | iP         | 08 51 14             | 340     | Slight.<br>Rarefaction                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | iSg        | 52 04                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | e          | 10 31 09             |         | Tremor                                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | i          | 18 34 02             |         | Slight, local                                         |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            |           |       | i          | 34 07                |         |                                                       |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | iP         | 19 02 32             |         | Slight.<br>Rarefaction                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | i          | 19 21 53             |         | Slight.<br>Probably near.                             |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | CHATRA    | Z     | ePg<br>iSg | 19 27 05<br>27 17    | 100     | Feeble                                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | iPg<br>iSg | 20 03 50<br>03 55    | 40      | Slight                                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 01                                                                                                         | SHILLONG  | Z     | iP         | 23 14 32             |         | Slight.<br>Compression                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 02                                                                                                         | SHILLONG  | Z     | iPg<br>iSg | 04 34 46<br>34 51    | 40      | Slight                                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 02                                                                                                         | SHILLONG  | Z     | i          | 07 35 39             |         | Slight, near.                                         |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 02                                                                                                         | SHILLONG  | Z     | i          | 12 20 19             |         | Slight.<br>Compression.<br>Local. Phases<br>not clear |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
|                                                                                                            | CHATRA    | Z     | iP<br>iS   | 12 21 15<br>21 58    | 390     | Feeble                                                |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |
| 02                                                                                                         | SHILLONG  | Z     | iP         | 12 45 36             |         | Compression.<br>Feeble.                               |                                  |                                                                                                                                 |       |                            |                                                       |                         |                              |

| DATE         | STATION                                                                                                                                                                                                     | COMPT    | PHASE                                                                          | G. M. T.<br>h. m. s.                                                                                                 | Δ<br>km | REMARKS                                     | DATE         | STATION   | COMPT                          | PHASE                                                            | G. M. T.<br>h. m. s.                                                                               | Δ<br>km | REMARKS                                                         |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------|--------------|-----------|--------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------|
| October 1955 |                                                                                                                                                                                                             |          |                                                                                |                                                                                                                      |         |                                             | October 1955 |           |                                |                                                                  |                                                                                                    |         |                                                                 |
| 07           | SHILLONG                                                                                                                                                                                                    | Z        | iP<br>eSg                                                                      | 07 29 54<br>30 27                                                                                                    | 280     | Slight                                      | 10           | COLOMBO   | E                              | P<br>S<br>L<br>M                                                 | 09 09 20<br>19 08<br>35 20<br>39 20                                                                | 8550    |                                                                 |
|              | CHATRA                                                                                                                                                                                                      | Z        | eP<br>iS                                                                       | 07 30 53<br>32 14                                                                                                    | 780     | Slight                                      |              |           |                                |                                                                  |                                                                                                    |         | Amp. $\approx$ 3.5 mm                                           |
|              | DEHRA DUN                                                                                                                                                                                                   | N,E      | e                                                                              | 07 35 38                                                                                                             |         | Tremor                                      |              | MADRAS    | E                              | iP<br>PcP<br>PP<br>PPF<br>iS<br>PS<br>PPS<br>SS<br>Lq            | 09 09 27<br>09 43<br>12 00<br>13 49<br>18 37<br>18 59<br>19 13<br>22 45<br>27 48                   | 7780    | Ground movement West                                            |
| 07           | SHILLONG                                                                                                                                                                                                    | Z        | eP                                                                             | 07 59 45                                                                                                             |         | Slight                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
| 07           | SHILLONG                                                                                                                                                                                                    | Z        | eP                                                                             | 11 45 15                                                                                                             |         | Slight                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
|              | DEHRA DUN                                                                                                                                                                                                   | N,E<br>N | eP<br>PPP<br>Lr<br>iS<br>S*<br>SS<br>SSS                                       | 11 57 34<br>57 46<br>58 06<br>58 10<br>58 15<br>58 21<br>58 31                                                       | 330     | Slight                                      |              | HYDERABAD | F                              | iP<br>iS<br>PS<br>SS<br>L<br>M                                   | 09 09 40<br>19 38<br>20 41<br>24 32<br>35 23<br>43 41                                              | 8750    | Ground movement West<br>Per. $\approx$ 15 secs<br>D $\approx$ 7 |
|              | NEW DELHI                                                                                                                                                                                                   | N,E      | eP<br>P*<br>Pg<br>i<br>Lq<br>iS<br>S*<br>Sg                                    | 11 57 59<br>58 08<br>58 18<br>58 28<br>58 39<br>58 52<br>59 04<br>59 14                                              | 490     | Slight                                      |              | NEW DELHI | N,E<br>N                       | iP<br>iS<br>PPS<br>SS<br>SSS<br>Lq<br>Lr                         | 09 09 57<br>19 52<br>20 51<br>25 28<br>28 54<br>32 00<br>34 19                                     | 8690    |                                                                 |
|              | POONA                                                                                                                                                                                                       | Z        | e                                                                              | 12 00 03                                                                                                             |         | Very feeble.<br>Phases not clear            |              | DEHRA DUN | N,E<br>N                       | eP<br>PP<br>PPP<br>iS<br>PS<br>PPS<br>SS<br>SSS<br>Lq<br>Lr<br>M | 09 09 58<br>13 25<br>14 44<br>19 52<br>20 32<br>20 50<br>24 54<br>27 51<br>30 27<br>34 45<br>41 01 | 8560    |                                                                 |
| 08           | DEHRA DUN                                                                                                                                                                                                   | N,E      | e                                                                              | 00 47 19                                                                                                             |         | Tremor                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
| 08           | SHILLONG                                                                                                                                                                                                    | Z        | iP                                                                             | 22 12 25                                                                                                             |         | Slight                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
| 09           | DEHRA DUN                                                                                                                                                                                                   | N,E      | e                                                                              | 05 09 09                                                                                                             |         | Tremor                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
| 09           | SHILLONG                                                                                                                                                                                                    | Z        | iP                                                                             | 17 50 53                                                                                                             |         | Slight                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
|              | DEHRA DUN                                                                                                                                                                                                   | N,E<br>N | e<br>i                                                                         | 17 52 23<br>18 02 47                                                                                                 |         | Slight. Phases not clear                    |              | POONA     | Z,N<br>N                       | eP<br>eS<br>PPS<br>SS<br>Lr<br>M                                 | 09 10 06<br>20 03<br>21 03<br>25 05<br>34 03<br>41 14                                              | 8730    |                                                                 |
|              | POONA                                                                                                                                                                                                       | Z        | e                                                                              | 17 52 29                                                                                                             |         | Tremor                                      |              | BOMBAY    | N,E<br>E<br>E<br>N,E<br>E<br>E | eP<br>iP<br>i<br>PP<br>eS<br>iS<br>i<br>PS<br>SS                 | 09 10 10<br>11 50<br>13 21<br>20 20<br>20 20<br>20 35<br>21 16<br>26 05                            | 9020    |                                                                 |
|              | BOKARO                                                                                                                                                                                                      | N,E      | e                                                                              | 18 00 50<br>01 46                                                                                                    |         | Slight                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
|              | COLOMBO                                                                                                                                                                                                     | E        | P<br>L<br>M                                                                    | 18 01 22<br>18 55<br>24 00                                                                                           |         | Amp. $\approx$ 0.6 mm                       |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
|              | BOMBAY                                                                                                                                                                                                      | E        | e                                                                              | 18 02 45                                                                                                             |         |                                             |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
| 09           | DEHRA DUN                                                                                                                                                                                                   | N,E      | e<br>i                                                                         | 23 25 11<br>26 01                                                                                                    |         | Slight. Phases not clear                    |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
|              | POONA                                                                                                                                                                                                       | Z        | e                                                                              | 23 26 13                                                                                                             |         | Tremor                                      |              |           |                                |                                                                  |                                                                                                    |         |                                                                 |
|              | BOMBAY                                                                                                                                                                                                      | N<br>N,E | eP<br>eS                                                                       | 23 26 18<br>36 48                                                                                                    | 9470    | Slight                                      | 10           | SHILLONG  | Z                              | P<br>Lq<br>iSg                                                   | 22 02 33<br>02 43<br>03 02                                                                         | 210     | Slight                                                          |
|              | BOKARO                                                                                                                                                                                                      | N,E      | e                                                                              | 23 34 43                                                                                                             |         | Slight                                      |              | CHATRA    | Z                              | iP<br>iS                                                         | 22 03 21<br>04 34                                                                                  | 700     | Slight                                                          |
|              | COLOMBO                                                                                                                                                                                                     | E        | eP                                                                             | 23 37 --                                                                                                             |         |                                             |              | DEHRA DUN | N,E                            | e                                                                | 22 07 58                                                                                           |         | Tremor                                                          |
| 10           | DEHRA DUN                                                                                                                                                                                                   | N,E      | e<br>i                                                                         | 04 46 39<br>48 05                                                                                                    |         | Feeble. Phases not clear.                   | 10           | SHILLONG  | Z                              | eP                                                               | 23 11 34                                                                                           |         | Slight                                                          |
| 10           | Epc: 5°S, 153°E. New Britain. H = 08h 57m 44s (USCGS)<br>5 1/2°S, 153°E. H = 08h 57m 44s (B.C.I.S)<br>Magnitude $\approx$ 7 1/2 (Skalnate Pleso), 7.7 (Hurbanovo), 7.5 (Wellington, Kiruna), 7 1/2 (Praha). |          |                                                                                |                                                                                                                      |         |                                             | 10           | SHILLONG  | Z                              | eP<br>Pg<br>iSg                                                  | 23 49 46<br>49 49<br>50 09                                                                         | 180     | Slight                                                          |
|              | SHILLONG                                                                                                                                                                                                    | Z        | eP<br>iS                                                                       | 09 08 36<br>17 25                                                                                                    | 7380    |                                             | 11           | SHILLONG  | Z                              | eP                                                               | 01 22 08                                                                                           |         | Slight                                                          |
|              | BOKARO                                                                                                                                                                                                      | N,E      | iP<br>PcP<br>PP<br>PPP<br>iS<br>SKS<br>PS<br>PPS<br>SS<br>SSS<br>Lq<br>Lr<br>M | 09 09 07<br>09 18<br>11 54<br>13 39<br>18 27<br>18 53<br>19 12<br>19 23<br>23 04<br>25 58<br>27 58<br>31 35<br>35 35 | 7980    |                                             | 11           | POONA     | Z                              | e                                                                | 03 01 54                                                                                           |         |                                                                 |
|              |                                                                                                                                                                                                             |          |                                                                                |                                                                                                                      |         | Per. $\approx$ 30 secs<br>D $\approx$ 137.5 | 11           | COLOMBO   | E                              | e                                                                | 04 23 20                                                                                           |         |                                                                 |
|              |                                                                                                                                                                                                             |          |                                                                                |                                                                                                                      |         |                                             | 11           | BOMBAY    | N                              | e                                                                | 04 23 50                                                                                           |         |                                                                 |
|              |                                                                                                                                                                                                             |          |                                                                                |                                                                                                                      |         |                                             | 11           | SHILLONG  | Z                              | iP                                                               | 05 22 11                                                                                           |         | Slight.<br>Compression.                                         |
|              |                                                                                                                                                                                                             |          |                                                                                |                                                                                                                      |         |                                             | 11           | POONA     | Z,N                            | e                                                                | 14 59 17                                                                                           |         | Phases not clear                                                |

| DATE         | STATION                                                                                                                                                                                                                     | COMPT | PHASE            | G. M. T.<br>h. m. s. | $\Delta$<br>km | REMARKS                                 | DATE         | STATION                                                   | COMPT                           | PHASE | G. M. T.<br>h. m. s. | $\Delta$<br>km | REMARKS                     |                          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------|----------------------|----------------|-----------------------------------------|--------------|-----------------------------------------------------------|---------------------------------|-------|----------------------|----------------|-----------------------------|--------------------------|
| October 1955 |                                                                                                                                                                                                                             |       |                  |                      |                |                                         | October 1955 |                                                           |                                 |       |                      |                |                             |                          |
| 11           | SHILLONG                                                                                                                                                                                                                    | Z,N,E | AP               | 15 53 40             | 1020           | Slight                                  | 13           | Epc: 24°N, 121°E. Formosa.<br>H = 17h 50m 16s (U.S.C.G.S) |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | e                | 55 44                |                |                                         |              |                                                           |                                 |       |                      |                | Felt at Taipei.             |                          |
|              |                                                                                                                                                                                                                             |       | PP               | 55 49                |                |                                         |              | SHILLONG                                                  | Z,N,E                           | eP    | 17 35 58             | 3180           | Moderate. Phases not clear. |                          |
|              |                                                                                                                                                                                                                             |       | Lq               | 57 25                |                |                                         |              |                                                           |                                 | eS    | 18 00 46             |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | IS               | 57 30                |                |                                         |              | POONA                                                     | Z                               | eP    | 17 59 32             |                | Tremor                      |                          |
|              |                                                                                                                                                                                                                             |       | SS               | 57 38                |                |                                         |              | 14                                                        | DEHRA DUN                       | N,E   | e                    | 06 03 34       |                             | Slight. Phases not clear |
|              |                                                                                                                                                                                                                             |       | Lr               | 57 44                |                |                                         |              |                                                           |                                 | i     | 04 18                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SSS              | 57 50                |                |                                         |              |                                                           |                                 | i     | 05 10                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | M                | 58 40                |                |                                         |              | 14                                                        | SHILLONG                        | Z     | AP                   | 06 06 09       |                             | Slight. Compression.     |
|              |                                                                                                                                                                                                                             |       |                  |                      |                | Per. $\approx$ 15 secs<br>$\Delta$ = 18 |              | 14                                                        | DEHRA DUN                       | N,E   | i                    | 06 27 41       |                             | Tremor                   |
|              | BOKARO                                                                                                                                                                                                                      | N     | AP               | 15 54 25             | 1520           | Slight                                  |              | 14                                                        | SHILLONG                        | Z     | e                    | 09 02 56       |                             | Rarefaction.             |
|              |                                                                                                                                                                                                                             |       | Lq               | 16 00 42             |                |                                         |              |                                                           |                                 | e     | 10 07 00             |                | Other phases overlapping    |                          |
|              |                                                                                                                                                                                                                             |       | IS               | 06 49                |                |                                         |              |                                                           |                                 | e     | 19 05                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SS               | 06 18                |                |                                         |              | 14                                                        | SHILLONG                        | Z     | AP                   | 14 00 49       |                             | Slight. Compression      |
|              |                                                                                                                                                                                                                             |       | SSS              | 01 31                |                |                                         |              |                                                           |                                 | e     | 17 35 25             |                | Slight. Rarefaction         |                          |
|              |                                                                                                                                                                                                                             |       | M                | 02 46                |                |                                         |              | 15                                                        | SHILLONG                        | Z     | e                    | 05 50 59       |                             | Compression              |
|              | BOMBAY                                                                                                                                                                                                                      | N     | e                | 16 03 32             |                |                                         |              | 15                                                        | SHILLONG                        | Z     | AP                   | 21 37 50       |                             | Rarefaction              |
| 12           | SHILLONG                                                                                                                                                                                                                    | Z     | e                | 06 22 52             |                | Slight. Compression                     |              | 15                                                        | SHILLONG                        | Z     | e                    | 22 20 02       |                             | Compression              |
|              | BOKARO                                                                                                                                                                                                                      | N     | e                | 06 27 42             |                | Feeble                                  |              | 16                                                        | KODAIKANAL                      | E     | e                    | 03 53 40       |                             | Tremor                   |
| 13           | Epc: 9°S, 161°E. Solomon Islands<br>H = 09h 26m 44s (U.S.C.G.S)<br>9.7°S, 161°E. H = 09h 26m 43s (B.C.I.S)<br>Magnitude: 7 (Pasadena), 6.7 (Kiruna)<br>6% (Roma, Skalnaté Pleso, Hurbanovo),<br>6% (Prahá), 6 (Wellington). |       |                  |                      |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              | SHILLONG                                                                                                                                                                                                                    | Z,N,E | AP               | 09 38 34             | 8230           |                                         |              | 16                                                        | CHATRA                          | Z     | ePg                  | 04 43 39       | 20                          | Feeble                   |
|              |                                                                                                                                                                                                                             |       | PcP              | 38 38                |                |                                         |              |                                                           |                                 | ISg   | 44 02                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PP               | 41 15                |                |                                         |              | 16                                                        | SHILLONG                        | Z     | i                    | 07 01 47       |                             | Slight. Compression      |
|              |                                                                                                                                                                                                                             |       | PPP              | 43 02                |                |                                         |              | 16                                                        | CHATRA                          | Z     | ePg                  | 07 23 29       | 70                          | Feeble                   |
|              |                                                                                                                                                                                                                             |       | IS               | 45 15                |                |                                         |              |                                                           |                                 | ISg   | 23 38                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SKS              | 48 18                |                |                                         |              | 16                                                        | CHATRA                          | Z     | AP                   | 07 44 59       | 170                         | Feeble                   |
|              |                                                                                                                                                                                                                             |       | ScS              | 48 24                |                |                                         |              |                                                           |                                 | IS    | 45 20                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PS               | 48 34                |                |                                         |              | 16                                                        | DEHRA DUN                       | N,E   | e                    | 21 45 24       |                             | Tremor                   |
|              |                                                                                                                                                                                                                             |       | PPS              | 48 53                |                |                                         |              | 16                                                        | SHILLONG                        | Z     | iPg                  | 23 21 31       | 50                          | Slight. Rarefaction      |
|              |                                                                                                                                                                                                                             |       | SS               | 52 50                |                |                                         |              |                                                           |                                 | Sg    | 21 37                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SSS              | 55 04                |                |                                         |              | 17                                                        | SHILLONG                        | Z     | AP                   | 01 19 08       |                             | Slight. Compression      |
|              |                                                                                                                                                                                                                             |       | Lq               | 58 24                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | Lr               | 10 02 24             |                |                                         |              | POONA                                                     | Z                               | eP    | 01 20 37             |                | Tremor                      |                          |
|              |                                                                                                                                                                                                                             |       | M                | 06 03                |                |                                         |              | 17                                                        | POONA                           | Z     | eP                   | 02 04 53       |                             | Tremor                   |
|              | BOKARO                                                                                                                                                                                                                      | N     | eP               | 09 39 00             | 8960           |                                         |              | 17                                                        | CHATRA                          | Z     | AP                   | 06 34 17       | 240                         | Feeble                   |
|              |                                                                                                                                                                                                                             |       | SKS <sub>1</sub> | 49 03                |                |                                         |              |                                                           |                                 | IS    | 34 45                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | eS               | 49 07                |                |                                         |              | 17                                                        | DEHRA DUN                       | N,E   | e                    | 19 26 37       |                             | Tremor                   |
|              |                                                                                                                                                                                                                             |       | PS               | 49 52                |                |                                         |              | 17                                                        | DEHRA DUN                       | N,E   | e                    | 20 30 03       |                             | Tremor                   |
|              |                                                                                                                                                                                                                             |       | PPS              | 50 22                |                |                                         |              | 18                                                        | CHATRA                          | Z     | eP                   | 05 13 23       | 150                         | Feeble                   |
|              |                                                                                                                                                                                                                             |       | SS               | 54 33                |                |                                         |              |                                                           |                                 | IS    | 13 42                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SSS              | 58 15                |                |                                         |              | 18                                                        | DEHRA DUN                       | N,E   | e                    | 14 05 57       |                             | Tremor                   |
|              |                                                                                                                                                                                                                             |       | Lq               | 10 02 11             |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | Lr               | 05 20                |                |                                         |              | 18                                                        | Epc: Eastern Tibet. (U.S.C.G.S) |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | M                | 12 20                |                |                                         |              |                                                           | BOKARO                          | N     | eP                   | 15 34 30       | 610                         | Slight                   |
|              | COLOMBO                                                                                                                                                                                                                     | E     | P                | 09 39 05             | 9020           |                                         |              |                                                           |                                 | IS    | 35 35                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | S                | 49 16                |                |                                         |              |                                                           |                                 | Sg/M  | 36 30                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | L                | 10 03 52             |                |                                         |              |                                                           | DEHRA DUN                       | N,E   | e                    | 15 36 21       |                             | Feeble. Phases not clear |
|              |                                                                                                                                                                                                                             |       | M                | 12 57                |                | Amp. $\approx$ 0.9 mm                   |              |                                                           |                                 | i     | 38 42                |                |                             |                          |
|              | MADRAS                                                                                                                                                                                                                      | E     | AP               | 09 39 11             | 9330           |                                         |              | POONA                                                     | Z                               | e     | 15 36 57             |                | Slight. Phases not clear    |                          |
|              |                                                                                                                                                                                                                             |       | PP               | 43 12                |                |                                         |              |                                                           |                                 | e     | 37 13                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PPP              | 45 11                |                |                                         |              |                                                           |                                 | i     | 40 17                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SKS              | 49 32                |                |                                         |              |                                                           |                                 | e     | 42 31                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SKKS             | 49 54                |                |                                         |              | 18                                                        | CHATRA                          | Z     | AP                   | 19 34 08       | 700                         | Slight                   |
|              |                                                                                                                                                                                                                             |       | ScS              | 50 10                |                |                                         |              |                                                           |                                 | IS    | 35 22                |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SS               | 57 06                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SSP              | 57 15                |                |                                         |              | 19                                                        | CHATRA                          | Z     | AP                   | 02 59 57       | 320                         | Feeble                   |
|              |                                                                                                                                                                                                                             |       | SSS              | 10 00 47             |                |                                         |              |                                                           |                                 | IS    | 03 00 33             |                |                             |                          |
|              | KODAIKANAL                                                                                                                                                                                                                  | E     | AP               | 09 39 28             | 9370           |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PP               | 42 33                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PPP              | 44 33                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | S                | 49 53                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SS               | 55 23                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | Lq               | 10 02 23             |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | Lr               | 06 20                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | M?               | 13 20                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              | DEHRA DUN                                                                                                                                                                                                                   | N,E   | e                | 09 39 41             |                | Phases not clear.                       |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | i                | 43 32                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | i                | 50 38                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              | BOMBAY                                                                                                                                                                                                                      | N,E   | eP               | 09 39 53             | 9950           |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PP               | 43 46                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | PPP              | 45 36                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SKS              | 50 15                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             | N,E   | eS               | 50 43                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             | N     | e                | 51 00                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             | E     | i                | 51 10                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | i                | 51 32                |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             |       | SSS              | 10 01 14             |                |                                         |              |                                                           |                                 |       |                      |                |                             |                          |
|              |                                                                                                                                                                                                                             | N     | M                | 35 36                |                | Per. $\approx$ 17 secs.<br>$\Delta$ = 3 |              |                                                           |                                 |       |                      |                |                             |                          |



DATE STATION COMPT PHASE G. M. T.  $\Delta$  REMARKS  
h. m. s. km

October 1955

21 Epc: 21°S, 179°W. Fiji Island - h. s. 650 KmCa,  
H. s. 19h 02m 40s (U.S.C.G.S)  
Magnitude: 6.6 (Takubaya), 6.3 (Rona),  
6M (Pasadena), 5M (Wellington).

SHILLONG Z IP 19 15 12 Rarefaction.  
Other phases doubtful

POONA Z eP 19 20 09 Phases not clear

MADRAS E ePKP 19 20 14  
e 21 57  
e 22 37  
e 25 29  
i 26 46  
e 26 52  
e 27 06  
e 29 44  
e 29 52

BOKARO N,E e 19 20 16  
e 29 20  
i 29 39  
i 33 41

DEHRA DUN N e 19 20 50 Phases not clear  
i 35 41

BOMBAY E e 19 21 10  
e 27 59  
i 33 49  
e 36 10

21 Epc: Lat. 0°, Long. 122.5°E. Northern Celebes  
H. s. 23h 09m 57s (Shillong)  
M°S. 123M°E. H. s. 23h 09m 38s (U.S.C.G.S).  
M°S. 123M°E. H. s. 23h 09m 43s (B.C.I.S.)  
Magnitude: 6M (Uppsala), 6-6M (Wellington)

SHILLONG Z,E eP 23 17 18 4660 Beginning very feeble  
PP 18 58  
PcP 19 05  
PPP 19 35  
ScP 23 04  
IS 23 38  
Lq/ScS 26 59  
SSS 27 20  
M 32 35  
Per. 22 secs  
 $\mu$  20

BOKARO N,E eP 23 17 55 4780  
PcP 19 22  
PP 19 35  
PPP 20 13  
PcS 23 13  
IS 24 21  
PS 24 28  
PPS 24 43  
SS 27 32  
ScS 27 47  
Lq 28 06  
SSS 28 29  
Lr 30 14  
M 33 51  
Per. 18 secs  
 $\mu$  24.5

MADRAS E IP 23 18 04 4890 Ground movement West  
PcP 19 37  
PP 19 49  
ScP 23 25  
IS 24 34  
PS 24 39  
PPS 24 45  
Lq 28 25  
M 34 34

KODAIKANAL E IP 23 18 16 5690  
PP 19 16  
PPP 20 16  
S 25 34

HYDERABAD E eP 23 18 31 5170 Ground movement East  
PP 20 33  
IS 25 20  
SS 29 08  
M 35 44  
Per. 18 secs  
 $\mu$  9

DATE STATION COMPT PHASE G. M. T.  $\Delta$  REMARKS  
h. m. s. km

October 1955

21 POONA Z eP 23 18 55 5550  
Contd N eS 26 06  
i 27 25  
SS 29 02  
SSS 30 44  
Lr 33 02  
i 34 25  
M 37 10

NEW DELHI N eP 23 19 01 5570  
PcP 20 19  
PcS 24 12  
IS 26 13  
PPS 26 27  
SS 29 40  
Lq 30 46  
M 37 32

DEHRA DUN N,E eP 23 10 01 5800  
N PP 20 49  
PPP 22 08  
IS 26 25  
PS 26 37  
SS 30 09  
SSS 31 54  
M 38 35

BOMBAY E eP 23 19 06 6030  
PP 21 15  
PPP 22 23  
eS 26 43  
PPS 27 00

22 SHILLONG Z IPg 05 10 49 130 Slight  
ISg 11 04

22 SHILLONG Z IP 10 18 20 Slight  
Compression

22 SHILLONG Z i 11 26 00 Slight

22 SHILLONG Z IP 12 51 10 Slight  
i 56 58

22 SHILLONG Z IP 22 17 28 Slight  
Compression

23 SHILLONG Z IP 06 06 06 Slight  
Rarefaction

23 SHILLONG Z i 11 08 38 Slight, near.

23 SHILLONG Z i 11 23 52 Slight, near.

23 SHILLONG Z eP 17 16 03 Slight  
i 16 04

23 SHILLONG Z i 18 53 03 Slight, near  
i 53 20

23 SHILLONG Z e 21 38 37 Slight, near

24 SHILLONG Z IP 00 29 53 Slight  
Rarefraction

24 SHILLONG Z P 00 30 28 Slight

24 DEHRA DUN N,E e 11 36 51 Feeble. Phases  
not clear  
i 37 18

24 DEHRA DUN N,E e 23 19 44 Tremor

25 DEHRA DUN N,E e 09 09 43 Tremor

26 DEHRA DUN N,E e 04 36 49 Feeble. Phases  
not clear.  
i 37 16

26 DEHRA DUN N,E e 08 36 24 Tremor

26 SHILLONG Z P 11 18 32 Slight

26 COLOMBO E e 21 07 59  
e 11 29

27 SHILLONG Z P 00 15 15 Slight

27 SHILLONG Z IP 03 43 54 Slight

| DATE         | STATION   | COMPT | PHASE      | G. M. T.<br>h. m. s. | Δ<br>km | REMARKS       | DATE         | STATION                                                                                                                               | COMPT     | PHASE      | G. M. T.<br>h. m. s.    | Δ<br>km | REMARKS          |
|--------------|-----------|-------|------------|----------------------|---------|---------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|-------------------------|---------|------------------|
| October 1955 |           |       |            |                      |         |               | October 1955 |                                                                                                                                       |           |            |                         |         |                  |
| 27           | SHILLONG  | Z     | iP         | 04 08 59             |         | Slight        | 30           | SHILLONG                                                                                                                              | Z         | e          | 17 36 41                |         | Slight           |
| 27           | SHILLONG  | Z     | eP<br>i    | 05 05 18<br>06 02    |         | Slight, local | 30           | SHILLONG                                                                                                                              | Z         | ePg<br>iSg | 23 15 35<br>15 47       | 110     | Slight, local    |
| 27           | SHILLONG  | Z     | e          | 07 32 37             |         | Slight        | 31           | Epc: 52°N, 175°W. Andreevof Islands, Aleutian Islands.<br>H = 01h 05m 53s (U.S.C.G.S)<br>Magnitude = 5M (Kiruna, Uppsala), 5.6(Roma). |           |            |                         |         |                  |
| 27           | SHILLONG  | Z     | iPg        | 11 16 08             |         | Slight, local |              | SHILLONG                                                                                                                              | Z, E<br>N | iP<br>eP   | 01 17 19<br>17 20       | 7890    |                  |
| 27           | SHILLONG  | Z     | iP         | 12 00 29             |         | Slight        |              |                                                                                                                                       | E<br>N    | eS<br>M    | 26 35<br>26 40<br>40 -- |         |                  |
| 27           | SHILLONG  | Z     | eP         | 13 43 35             |         | Slight        |              | DEHRA DUN                                                                                                                             | N, E      | eP         | 01 17 50<br>27 29       |         | Phases not clear |
| 27           | SHILLONG  | Z     | e          | 14 32 12             |         | Slight        |              | POONA                                                                                                                                 | Z         | iP         | 01 18 45                |         | Tremor           |
| 27           | SHILLONG  | Z     | e          | 20 12 53             |         | Slight, local | 31           | SHILLONG                                                                                                                              | Z         | i<br>i     | 03 03 32<br>03 36       |         | Slight           |
| 28           | SHILLONG  | Z     | iPg        | 11 08 18             |         | Slight, local | 31           | SHILLONG                                                                                                                              | Z         | e          | 08 08 04                |         | Slight           |
| 28           | SHILLONG  | Z     | e          | 12 37 22             |         | Slight        | 31           | BOMBAY                                                                                                                                | E         | e<br>e     | 09 05 17<br>08 46       |         | Slight           |
| 28           | SHILLONG  | Z     | iPg<br>iSg | 13 21 43<br>21 52    | 80      | Slight        | 31           | SHILLONG                                                                                                                              | Z         | iP         | 09 08 13                |         | Slight           |
| 29           | SHILLONG  | Z     | iP<br>iSg  | 01 10 30<br>11 05    | 250     | Slight        | 31           | SHILLONG                                                                                                                              | Z         | e          | 09 11 18                |         | Slight           |
| 29           | SHILLONG  | Z     | eP         | 02 29 50             |         | Slight        | 31           | DEHRA DUN                                                                                                                             | N, E      | e          | 14 19 31                |         | Tremor           |
| 29           | SHILLONG  | Z     | eP<br>Sg   | 05 30 05<br>30 22    | 150     | Slight, local | 31           | DEHRA DUN                                                                                                                             | N, E      | e          | 14 52 00                |         | Tremor           |
| 29           | SHILLONG  | Z     | iP         | 13 16 17             |         | Slight        | 31           | DEHRA DUN                                                                                                                             | N, E      | e          | 16 40 36                |         | Tremor           |
| 29           | DEHRA DUN | N, E  | e          | 18 35 41             |         | Tremor        | 31           | DEHRA DUN                                                                                                                             | N, E      | e          | 17 06 24                |         | Tremor           |
| 30           | SHILLONG  | Z     | iP         | 07 28 13             |         | Slight, near  | 31           | SHILLONG                                                                                                                              | N, E      | e          | 21 09 24                |         | Tremor           |
| 30           | SHILLONG  | Z     | iP<br>e    | 11 42 18<br>48 06    |         | Slight        |              |                                                                                                                                       |           |            |                         |         |                  |

.....

### Earthquake Reports (Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of October 1955.

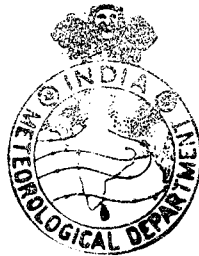
| Place at which felt | Date     | Time     | Duration | Intensity   | No. of shocks | Remarks |
|---------------------|----------|----------|----------|-------------|---------------|---------|
|                     | G. M. T. | G. M. T. | in secs. | R. F. scale |               |         |

|          |    |       |   |    |   |   |
|----------|----|-------|---|----|---|---|
| SHILLONG | 18 | 15 34 | 5 | IV | 2 | - |
| SHILLONG | 20 | 16 58 | 3 | IV | 1 | - |

~~~~~

GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
*Shri S. Basu, M.Sc., F.N.I.,*  
Director General of Observatories



Instruments and their constants

STATION	INSTRUMENTS	COMPONENT	PERIOD IN SECOND	STATIC MAGNIFICA- TION	DAMPING RATIO	PAPER SPEED IN mm/min.
BOKARO	Wood-Anderson	E	0.8	960	0.8	
	Wood-Anderson	N	0.8	1000	0.8	
	Milne-Shaw	N	12.0	250	20:1	16.0
	Milne-Shaw	E	12.0	250	20:1	16.0
BOMBAY	Milne-Shaw	N	12.0	350	30:1	16.0
	Milne-Shaw	E	12.0	350	3:1	8.0
	Sprengnether					
	Microseismograph	E	7.0			30.0
CHATRA	Milne-Shaw	E	12.0	250	20:1	16
	Benioff Vertical	Z	$T_0=0.72$ $T_g=0.45$		Critical	60
	Wood-Anderson	E	1.0	1000	30:1	60
COLOMBO	Milne-Shaw	E	12.0	250	20:1	8.0
DEHRA DUN	Wood-Anderson	N	0.8	800	60:1	60
	Wood-Anderson	E	0.8	950	60:1	60
	Milne-Shaw	N	12.0	250	20:1	8
HYDERABAD	Milne-Shaw	E	12	250	20:1	8
	Milne-Shaw	N	12	250	20:1	8
KODAIKANAL	Milne-Shaw	E	10	250	20:1	8
MADRAS	Sprengnether	E	$T_0=T_g=7.3$			30
NEW DELHI	Milne-Shaw	N	12	320	20:1	8
	Wood-Anderson	N	4	900	20:1	16
	Wood-Anderson	E	2	1770	30:1	60
	Omari-Ewing	E	30	30	1	12
POONA	Sprengnether Vertical	Z	$T_0=T_g=1.5$			30
SHILLONG	Milne-Shaw	N	12.0	250	20:1	8
	Wood-Anderson	E	$T_0=1.0$	1100	20:1	16
	Benioff Vertical	Z	$T_g=0.18$			60
	Sprengnether	E	$T_0=T_g=7.6$			30
	Milne-Shaw	N	12	250	20:1	8
	Wood-Anderson	E	0.8	1000	Critical	30
	Wood-Anderson	N	0.8	1000	Critical	30







DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS
				h. m. s.	km						h. m. s.	km	
November 1955							November 1955						
15	DEHRA DUN	N, E	eP	22 14 28	1860	Slight. Phases not clear	18	SHILLONG	Z	iP iSg	15 05 20 05 52	240	Slight
Contd.		N	iS	17 35									
			i	18 52				BOKARO	N, E	eP iS M	15 07 52 08 27 08 48	330	Slight
	CHATRA	E	eP iS	22 14 59 17 11	1290	Slight		DEHRA DUN	N, E	e	15 09 23 09 57 11 51		Feeble. Phases not clear
	SHILLONG	Z	iP eS	22 15 12 18 34	2070	Slight		18 BOMBAY	E	e	17 55 --		
	BOKARO	N, E	iP iS Lq M	22 15 29 19 23 19 34 22 45	2390	Slight		19 DEHRA DUN	N, E	e	08 06 02		Tremor
	POONA	Z	eP	22 16 41		Very feeble shock. Phases not clear		19 DEHRA DUN	N, E	e	11 21 11		Tremor
	BOMBAY	E	eS	22 21 30		P <sup>o</sup> phases lost		19 DEHRA DUN	N, E	e	12 19 55		Tremor
		N	e	21 40		Slight.		19 CHATRA	E	iP iS	18 55 42 55 52	70	Slight
		E	e	25 58				19 DEHRA DUN	N, E	e	22 50 47		Tremor
16	SHILLONG	Z	eP	05 26 57		Slight		20 DEHRA DUN	N, E	e	06 13 55 14 23		Feeble. Phases not clear.
16	SHILLONG	Z	eP	06 47 08		Slight		21 SHILLONG	Z	eP	16 47 32		Slight
16	SHILLONG	Z	eP	09 24 58		Slight		22 SHILLONG	Z	eP PP Pg Sg	00 03 21 03 26 03 32 04 04	300	Slight
16	SHILLONG	Z	iP	14 45 04		Slight		22 SHILLONG	Z	eP	00 21 25		Slight
18	SHILLONG	Z	iP P <sup>o</sup> Pg S <sup>o</sup> Sg	15 21 46 21 48 21 54 22 11 22 12	190	Slight		22 POONA	N, E	eP	02 44 11		Slight. Phases not clear
16	SHILLONG	Z	eP	20 22 31		Slight		22 DEHRA DUN	N, E	e	03 06 01 06 30		Feeble. Phases not clear
	DEHRA DUN	N, E	e	20 25 17		Tremor		22 SHILLONG	Z	eP iP	03 43 51 43 54		Slight Compression
17	SHILLONG	Z	eP	00 04 41		Slight		CHATRA	E	i	03 44 00		Slight
17	CHATRA	E	e	01 34 37		Surface waves		BOMBAY	E	e	03 44 09 48 47 58 05 04 06 03		Moderate, distant Phases not clear
17	SHILLONG	Z	eP	03 55 03		Slight		KODAIKANAL	E	e	03 44 36		Slight, tremor Phases not clear
17	SHILLONG	Z	iPg iSg	04 12 49 12 52	20	Slight		22 SHILLONG	Z	iP i	05 12 25 12 44		Slight, near Compression.
17	Epc: 26°S, 69°W. Northern Chile - H = 06h 53m 27s (U.S.C.G.S) Magnitude = 6.4 (Pasadena), 6.5 (Takubaya).							22 SHILLONG	Z	e	07 38 09		Tremor
	COLOMBO	E	PKP M	07 13 08 08 11 20		Amp. = 0.7 mm		22 SHILLONG	Z	i	15 17 11		Slight, local.
	POONA	Z, N	ePKP	07 13 09		Phases not clear		22 SHILLONG	Z	iP	17 16 17		Slight. Rarefaction
	BOMBAY	N	ePKP1	07 13 09	16310			22 SHILLONG	Z	iP	17 59 49		Slight. Compression
		E	iPKP1	16 28				22 SHILLONG	Z	i	18 45 06 45 51		Slight, near. Compression
		E	eSS	35 35				22 SHILLONG	Z	iP	20 59 11		Slight. Rarefaction
		M	M	08 13 --		Per. = 21 secs Δ = 7		23 SHILLONG	Z	e	02 17 52 17 54		Slight. Probably near.
		N	M	14 29				23	Epc: 27°N, 91°E. In Bhutan. - H = 02h 33m 30s (Shillong) 26°N, 90°E. H = 02h 33m 47s (U.S.C.G.S) Magnitude = 5.1 (Shillong).				
	KODAIKANAL	E	e	07 13 20				SHILLONG	Z, E	iP E Pg PP i S/Sg/P <sup>o</sup>	02 34 15 34 17 34 22 34 32 34 37	160	Compression Ground movement East
	HYDERABAD	E	e	07 13 23				CHATRA	E	eP iS	02 34 44 35 30	430	
		M	M	08 13 36		Per. = 20 Secs Δ = 7							Per. = 1.5 secs Δ = 55
	DEHRA DUN	N, E	e	07 13 24		Phases not clear							
			i	14 45									
			i	18 48									
	SHILLONG	Z	ePKP	07 13 30									
		E	i	14 22									
			e	18 00									
			e	23 50									
	CHATRA	E	e	07 13 37									
17	SHILLONG	Z	eP	22 53 57		Slight							
17	SHILLONG	Z	eP	22 03 12		Slight							
18	DEHRA DUN	N, E	e	07 12 41		Tremor							

DATE	STATION	COMPT	PHASE	G.	M.	T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G.	M.	T.	$\Delta$	REMARKS	
				h.	m.	s.	km						h.	m.	s.	km		
November 1955									November 1955									
23	BOKARO	N <sub>0</sub> E	eP PF PPP Pg Lq IS Lr SS SSS Sg/M	02	35	00	670		23	POONA	Z,N N	iP PcP PP iS PPS SS Lq M	06	40	49	7860	Ground movement South & West. Compression  Per.: 24 secs $\mu$ : 74.2	
	DEHRA DUN	N <sub>0</sub> E	eP i iS	02	36	41	1380	Phases not clear		MADRAS	E	iP PcP PP (iP)? iS PS SKS ScS PPS i SS SSS Lq?	06	40	51	7810	Ground movement West.	
	MADRAS	E	e	02	39	39		Tremor		BOMBAY	N <sub>0</sub> E E N N <sub>0</sub> E N	eP iP PP PPP iS PS PPS SS M	06	40	52	7870	Two groups of maxima recorded.  Per.: 25 secs $\mu$ : 89 Per.: 15 secs $\mu$ : 17	
	POONA	Z	eP PP PPP i eS SS SSS Lr	02	37	51	2060			KODAIKANAL	E	iP PP PPP iS PS PPS SS SSS Lq Lr M	06	41	15	8130	Ground movement West  Per.: 21 secs $\mu$ : 37	
	BOMBAY	E N <sub>0</sub> E E	eS e e	02	41	12				COLOMBO	E	P S L M	06	41	20	8330	Amp.: 2.0 mm	
23	Epc: 52°N, 156.5°E. Near South Coast of Kamchatka. H.: 06h 29m 32s (Shillong) 50°N, 157°E. H.: 06h 29m 29s (U.S.C.G.S) 51°N, 158°E. H.: 06h 29m --s (C.M.O. Japan) Magnitude: 7.3 (Skainate Pleso), 7¼ (Hurbanovo), 7.2 (Takubays), 7.1 (Pasadena), 7 (Uppsala), 6¾-7 (Kiruna).																	
	SHILLONG	E	iP i i PP PPP iS PS PPS ScS M	06	39	00	6000	Compression Ground movement West.  Per.: 19 secs $\mu$ : 6		23	SHILLONG	Z	E	06	38	20		Feeble
	CHATRA	E	iP i	06	39	15				23	SHILLONG	E	iP	09	47	35		Slight, near Rarefaction. Ground movement West.
	BOKARO	N <sub>0</sub> E	iP PcP PP PPP iS PS PPS i SS SSS Lq Lr M	06	39	35	6700	Ground movement South & West  Per.: 22.5 secs $\mu$ : 39.6		23	CHATRA	E	e	09	50	09		Feeble
	DEHRA DUN	N <sub>0</sub> E N	eP PP PPP iS PS PPS SS SSS Lq Lr M	06	39	39	6540			23	SHILLONG	E	i i i	10	52	31		Slight, Probably near.
	HYDERABAD	E	iP PP PPP iS PS ScS SS Lq Lr M	06	40	37	7580	Ground movement West.  Per.: 17 secs $\mu$ : 56		23	CHATRA	E	iP iS	10	53	36	960	Feeble
									24	Epc: 19°N, 120°E. Near North Coast of Luzon, Philippines. H.: 04h 51m 20s (U.S.C.G.S).								
										SHILLONG	Z,E E	iP PP PPP PcP eS Lq SS SSS M	04	57	15	2920	Slight, Rarefaction. Ground movement West  Per.: 13 secs $\mu$ : 4	
										CHATRA	E	e	04	57	54		Feeble, near.	
										DEHRA DUN	N <sub>0</sub> E	eP iS	04	59	10	4320	Slight, phases not clear	
										POONA	Z	eP	04	59	37		Tremor	

DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	
				h. m. s.	km						h. m. s.	km		
November 1955														
24	BOMBAY	N	eP	05 00 14		Slight. Phases not very clear	26	SHILLONG	Z	i	19 08 36		Slight, local Rarefaction.	
Contd.		E	e	01 45						i	08 45			
			e	10 02										
	COLOMBO	E	e	05 12 00			26	SHILLONG	Z	iP	21 34 04		Slight. Compression	
			e	17 20			27	SHILLONG	Z	i	10 04 41		Slight	
24	SHILLONG	E	iP	05 07 57		Slight. Ground movement West	27	SHILLONG	Z	e	11 15 05		Slight	
24	SHILLONG	Z	P	06 31 10	220	Slight. Rarefaction	27	SHILLONG	Z	iP	11 55 04		Slight. Compression	
			P <sub>e</sub>	31 12				27	SHILLONG	Z	iP	17 25 26		Slight. Rarefaction
			P <sub>g</sub>	31 15										
			PP	31 18										
			S	31 38										
			S <sub>e</sub>	31 41										
			S <sub>g</sub>	31 44										
24	SHILLONG	Z	iP	11 20 05		Slight. Rarefaction								
	POONA	Z	iP	11 21 55		Tremor								
24	DEHRA DUN	N, E	e	22 24 34		Feeble. Phases not clear.								
			i	26 01										
24	SHILLONG	Z	iP	22 26 54		Slight. Compression								
25	DEHRA DUN	N, E	e	02 59 08		Tremor								
25	SHILLONG	Z	iP	08 41 29		Slight. Compression								
	POONA	Z	e	08 43 38		Tremor								
25	BOKARO	N	i	10 02 57		Feeble								
25	SHILLONG	Z	i	10 26 58		Slight, local								
			i	26 59										
			i	27 12										
25	BOKARO	N	i	10 30 27		Feeble	27	SHILLONG	Z	e	21 36 27		Slight	
25	BOKARO	N	e	10 36 21		Feeble								
25	BOKARO	N	e	10 39 27		Feeble	29	SHILLONG	Z	e	04 03 46		Slight	
25	BOKARO	N	e	10 46 25		Feeble	29	SHILLONG	Z	e	05 39 02		Slight	
25	SHILLONG	Z	e	11 32 05		Slight, near	29	SHILLONG	Z	iP	09 42 12		Slight. Compression	
			i	32 40				29	SHILLONG	Z	e	10 53 13		Slight
25	BOKARO	N	i	11 59 33		Feeble	29	SHILLONG	Z	i	11 17 55		Slight. Rarefaction	
			e	12 01 18			29	SHILLONG	Z	e	16 26 20		Slight	
			e	04 25			29	SHILLONG	Z	iP <sub>g</sub>	17 10 23		10 Slight	
25	BOKARO	N	e	12 17 02		Feeble								
25	SHILLONG	Z	iP	15 29 10		Slight. Compression	29	SHILLONG	Z	i	17 29 33		Slight, near.	
26	SHILLONG	Z	e	06 14 31		Tremor. Beginning uncertain.								
26	DEHRA DUN	N, E	e	08 00 59		Slight. Phases not clear	29	SHILLONG	Z	iP	20 25 45		Slight. Rarefaction	
		N	i	02 38				29	SHILLONG	Z	i	20 34 28		Slight. Near. Rarefaction
			i	02 59										
			i	04 03										
			i	05 52										
			i	06 38										
	CHATRA	E	iP	08 01 03	3920	Slight	30	SHILLONG	Z	e	00 23 10		Slight	
			iS	06 37			30	DEHRA DUN	N, E	e	00 43 57		Tremor	
	POONA	Z	eP	08 01 19		Very feeble. Phases not clear	30	SHILLONG	Z	e	03 53 27		Slight, near	
		Z, E	e	03 43				30	SHILLONG	Z	e	05 41 40		Slight. Rarefaction
	BOMBAY	E	e	08 01 28		May be artificial disturbance	30	SHILLONG	Z	e	05 56 47		Slight	
			e	03 51				30	SHILLONG	Z	iP	07 55 52		190 Slight
	SHILLONG	Z	iP	08 03 26		Slight. Rarefaction								
26	BOKARO	N	e	09 04 46		Slight								
			i	08 22										
26	SHILLONG	Z	iP	10 01 36		Slight. compression. Probably near.	30	BOKARO	N	i	08 52 45		Slight	
26	SHILLONG	Z	iP	13 37 04		Slight. Compression	30	SHILLONG	Z	e	10 43 04		Slight, near	
	DEHRA DUN	N, E	e	13 37 34		Tremor	30	BOKARO	N	i	10 59 17		Feeble	
26	SHILLONG	Z	e	17 58 51		Tremor. Beginning uncertain.	30	BOKARO	N	e	11 03 21		Feeble	

9

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS
November 1955						
30	BOKARO	N	e	11 05 32		Feeble
30	BOKARO	N	i	11 12 23		Feeble
30	BOKARO	N	i	11 16 27		Feeble
30	BOKARO	N	i	11 19 27		Feeble
			e	19 42		
			i	20 46		
30	BOKARO	N	i	11 23 39		Feeble
30	BOKARO	N	i	11 25 32		Feeble
30	BOKARO	N	i	11 31 55		Feeble
30	BOKARO	N	i	11 58 34		Feeble
30	BOKARO	N	i	12 26 09		Feeble
30	BOKARO	N	i	12 30 18		Feeble
30	SHILLONG	Z	i	15 02 40		Slight, near. Compression
30	SHILLONG	Z	iP	15 06 18		Slight, near. Compression.
30	SHILLONG	Z	e	17 11 40		Feeble
30	SHILLONG	Z	iP	17 26 54		Slight, distant. Compression
30	SHILLONG	Z	e	21 15 46		Feeble
30	SHILLONG	Z	e	22 05 24		Slight, near.
			i	06 22		

### Earthquake Reports (Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by voluntary observers from various stations during the month of November 1955.

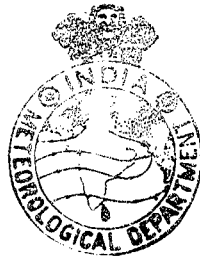
PLACE AT WHICH FELT	DATE IN G. M. T	TIME IN G. M. T h. m.	DURATION IN SECS.	INTENSITY IN R.F. SCALE	NO. OF SHOCKS	REMARKS
SHILLONG	06	12 15	5	III	2	-
SHILLONG	10	15 04	2	IV	1	-
SHILLONG	17	04 12	3	V	1	-
NORTH LAKHIMPUR	18	15 06	3	IV	1	-
SHILLONG	23	02 34	3	IV	1	-
BARJHAR (GAUHATI)	23	02 35	3	V	1	-





GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT

SEISMOLOGICAL BULLETIN



Published under the direction of  
*Shri S. Basu, M.Sc., F.N.I.,*  
Director General of Observatories

## Instruments and their constants

STATION	INSTRUMENTS	COMPONENT	PERIOD IN SECOND	STATIC MAGNIFICA- TION	DAMPING RATIO	PAPER SPEED IN mm/min.
BOKARO	Wood-Anderson	E	0.8	960	0.8	
	Wood-Anderson	N	0.8	1000	0.8	
	Milne-Shaw	N	12.0	250	20:1	16.0
	Milne-Shaw	E	12.0	250	20:1	16.0
BOMBAY	Milne-Shaw	N	12.0	350	30:1	16.0
	Milne-Shaw	E	12.0	350	3:1	8.0
	Sprengnether Microseismograph	E	7.0			30.0
CHATRA	Milne-Shaw	E	12.0	250	20:1	16
	Benioff Vertical	Z	To=0.72 Tg=0.45		Critical	60
	Wood-Anderson	E	1.0	1000	30:1	60
COLOMBO	Milne-Shaw	E	12.0	250	20:1	8.0
DEHKA DUN	Wood-Anderson	N	0.8	800	60:1	60
	Wood-Anderson	E	0.8	950	60:1	60
	Milne-Shaw	N	12.0	250	20:1	8
HYDERABAD	Milne-Shaw	E	12	250	20:1	8
	Milne-Shaw	N	12	250	20:1	8
KODAIKANAL	Milne-Shaw	E	10	250	20:1	8
MADRAS	Sprengnether	E	To=Tg=7.3			30
NEW DELHI	Milne-Shaw	N	12	320	20:1	8
	Wood-Anderson	N	4	900	20:1	16
	Wood-Anderson	E	2	1770	30:1	60
	Omari-Ewing	E	30	30	1	12
POONA	Sprengnether Vertical	Z	To=Tg=1.5			30
SHILLONG	Milne-Shaw	N	12.0	250	20:1	8
	Wood-Anderson	E	To = 1.0	1100	20:1	16
	Benioff Vertical	Z	Tg = 0.18			60
	Sprengnether	E	To = Tg = 7.6			30
	Milne-Shaw	N	12	250	20:1	8
	Wood-Anderson	E	0.8	1000	Critical	30
	Wood-Anderson	N	0.8	1000	Critical	30

DATE	STATION	COMP	PHASE	G.	H.	T.	Δ	REMARKS	DATE	STATION	COMP	PHASE	G.	H.	T.	Δ	REMARKS
December 1955								December 1955									
								Epc: 29°N, 99°E. Southern Tibet. H = 07h 27m 50s (Shillong) 30°N, 89°E. H = 07h 27m 24s (U.S.C.G.S.) 30°N, 91°E. H = 07h 27m 25s (Quetta) Magnitude = 4.8 (Shillong)									
01	SHILLONG	Z	iPg iSg	03	46	57	20	Slight	01	SHILLONG	Z						Slight
01	SHILLONG	Z	iP i	06	46	43		Slight Compression	01	SHILLONG	Z	e	14	37	02		Slight, distant
01	SHILLONG	Z	e	15	37	52		Feeble	01	SHILLONG	Z	e	18	50	29		Slight, near
01	SHILLONG	Z	e	51	19				01	SHILLONG	Z	iP	21	51	14		Slight, Rarefaction
01	SHILLONG	Z	iP	22	13	00		Slight. Compression	01	SHILLONG	Z	iP	22	13	00		Slight. Compression
02	SHILLONG	Z	e	01	01	21		Slight	02	SHILLONG	Z	e	01	01	21		Slight
02	SHILLONG	Z	e	05	14	54		Slight	02	SHILLONG	Z	e	05	14	54		Slight
02	SHILLONG	Z	iP	07	02	19		Slight, near Compression	02	SHILLONG	Z	e	07	55	59		Slight
02	SHILLONG	Z	e	07	55	59		Slight	02	SHILLONG	Z	eP P* Pg eSg	11	34	11	190	Slight
02	SHILLONG	Z	iP	13	31	46		Slight, Rarefaction	02	SHILLONG	Z	iP	13	31	46		Slight, Rarefaction
03	DEHRA DUN	N,E	e	03	06	12		Tremor	03	DEHRA DUN	N,E	e	03	06	12		Tremor
03	SHILLONG	Z,N,E	eP iS iSg e	03	15	18	470	Slight	03	SHILLONG	Z,N,E	eP iS iSg e	03	15	18	470	Slight
03	DEHRA DUN	N,E	e	03	16	44		Feeble, Phases not clear	03	DEHRA DUN	N,E	e	03	16	44		Feeble, Phases not clear
03	BOMBAY	E	e e e	03	21	15		Surface waves.	03	BOMBAY	E	e e e	03	21	15		Surface waves.
03	SHILLONG	Z	iP	04	13	45		Slight, near Compression	03	SHILLONG	Z	iP	04	13	45		Slight, near Compression
03	SHILLONG	Z	iP Pg iS eSg	06	02	27	230	Slight	03	SHILLONG	Z	iP Pg iS eSg	06	02	27	230	Slight
03	DEHRA DUN	N,E	e	17	10	12		Feeble, Phases not clear	03	DEHRA DUN	N,E	e	17	10	12		Feeble, Phases not clear
04	SHILLONG	Z	ePg iSg	08	02	55	20	Slight	04	SHILLONG	Z	ePg iSg	08	02	55	20	Slight
04	SHILLONG	Z	e	11	02	18		Slight	04	SHILLONG	Z	e	11	02	18		Slight
04	SHILLONG	Z	e	13	30	10		Slight	04	SHILLONG	Z	e	13	30	10		Slight
04	Epc: 39°N, 49°E. Central Iran. H = 14h 02m 08s (U.S.C.G.S.) Magnitude = 6 (Kiruna, Uppsala), 5½ (Roma).								04	DEHRA DUN	N,E	eP eS Lq SSS M	14	07	38	2790	
04	DEHRA DUN	N,E	eP eS Lq SSS M	14	07	38	2790		04	DEHRA DUN	N,E	eP eS Lq SSS M	14	07	38	2790	
04	BOMBAY	E	eP e e eS i SS	14	07	42	3210		04	BOMBAY	E	eP e e eS i SS	14	07	42	3210	
04	POONA	Z	eP	14	07	49		Tremor	04	POONA	Z	eP	14	07	49		Tremor
04	SHILLONG	Z,E	eP PP eS SS M	14	09	26	4130		04	SHILLONG	Z,E	eP PP eS SS M	14	09	26	4130	
05	SHILLONG	Z		07	47	59		Slight	05	SHILLONG	Z		07	47	59		Slight
05	SHILLONG	Z	iP eP Pg Lq iS Sg	07	28	39	480	Rarefaction	05	SHILLONG	Z	iP eP Pg Lq iS Sg	07	28	39	480	Rarefaction
05	SHILLONG	Z	eP iS SS Sg/M	07	30	02	1160	Other phases not clear	05	SHILLONG	Z	eP iS SS Sg/M	07	30	02	1160	Other phases not clear
05	BOKARO	E	eP Lq iS SSS M	07	30	16	770		05	BOKARO	E	eP Lq iS SSS M	07	30	16	770	
05	BOMBAY	E	eP eS e e	07	31	26	2550		05	BOMBAY	E	eP eS e e	07	31	26	2550	
05	POONA	Z	eP eS SSS M PcP	07	31	56	2120		05	POONA	Z	eP eS SSS M PcP	07	31	56	2120	
05	HYDERABAD	E	eS M	07	34	14		Per. = 6 secs. [12]	05	HYDERABAD	E	eS M	07	34	14		Per. = 6 secs. [12]
05	Epc: Southern Tibet. - H = 12h 07m 01s (Shillong) - H = 12h 06m 55s (U.S.C.G.S.)								05	SHILLONG	Z	iP eP Pg Lq iS Sg	12	08	08	470	Slight Compression
05	SHILLONG	Z	iP eP Pg Lq iS Sg	12	08	08	470	Slight Compression	05	SHILLONG	Z	iP eP Pg Lq iS Sg	12	08	08	470	Slight Compression
05	DEHRA DUN	N,E	e e i	12	09	33		Feeble, Phases not clear	05	DEHRA DUN	N,E	e e i	12	09	33		Feeble, Phases not clear
05	BOKARO	N,E	eP PPF Lq iS Lr SSS M	12	10	07	590	Slight	05	BOKARO	N,E	eP PPF Lq iS Lr SSS M	12	10	07	590	Slight
05	BOMBAY	E	e e e	12	14	29		Slight	05	BOMBAY	E	e e e	12	14	29		Slight
05	POONA	Z,E	e	12	14	40		Tremor	05	POONA	Z,E	e	12	14	40		Tremor
05	SHILLONG	Z	e	12	45	45		Slight	05	SHILLONG	Z	e	12	45	45		Slight
05	SHILLONG	Z	e	14	46	37		Slight	05	SHILLONG	Z	e	14	46	37		Slight
05	SHILLONG	Z	iP i	15	48	29		Slight Rarefaction	05	SHILLONG	Z	iP i	15	48	29		Slight Rarefaction
05	SHILLONG	Z	e	16	23	00		Slight	05	SHILLONG	Z	e	16	23	00		Slight
05	Epc: 24°N, 122½°E. Off East Coast of Formosa H = 20h 14m 18s (U.S.C.G.S.)								05	SHILLONG	Z,E	eP PP eS SS M	20	20	11	3420	Slight
05	SHILLONG	Z,E	eP PP eS SS M	20	20	11	3420	Slight	05	SHILLONG	Z,E	eP PP eS SS M	20	20	11	3420	Slight

DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km	
December 1955						
05	SHILLONG	Z	e	21 48 45		Slight
06	Epc: 20°S, 70°W. Northern Chile					
	H = 04h 31m 00s (U.S.C.G.S)					
	Magnitude: 6% (Pasadena), 6.5 (Takubaya), 6.3 (Roma).					
	BOMBAY	E	iPKP	04 50 39	16770	
			e	54 13		
			e	57 23		
			e	05 04 23		
			eSS	13 47		
			M	51 --		
	POONA	Z	ePKP	04 50 52		Phases not clear
	HYDERABAD	E	iPKP	04 50 52	15870	Ground movement East
			PKS	54 19		
			PS	05 04 49		
			Lq	31 25		
			Lr	32 10		
			M	53 38		
						Per.: 15 secs $\mu = 5$
	DEHRA DUN	N,E	e	04 50 57		Phases not clear
	SHILLONG	Z	e	04 51 04		Rarefaction
06	SHILLONG	Z	iP	06 10 50		Slight Compression
06	SHILLONG	Z	e	10 39 28		Slight Compression
06	SHILLONG	Z	iP	13 30 28		Slight (weak) Compression
06	POONA	Z	iP	18 27 29		Slight Phases not clear
			e	30 47		
			i	31 50		
	BOMBAY	E	eP	18 27 41	2170	Slight
			eS	31 15		
			Lq	31 27		
			SSS	31 57		
06	SHILLONG	Z	iP	19 28 27		Slight Rarefaction
07	SHILLONG	Z,E	iP	06 28 29	110	Slight Compression
		Z	iPg	28 31		
			PP	28 36		
			PPP	28 41		
			iSg	28 45		
			SS	28 51		
			SSS	29 08		
07	SHILLONG	Z	e	08 15 01		Slight Compression
07	Epc: 27.5°N, 143°E. Bonin Islands					
	H = 15h 03m 14s (Shillong)					
	26°N, 142°E. H = 15h 03m 11s (U.S.C.G.S & BCIS)					
	26°N, 143°E. H = 15h 03m 10s (CWO Japan)					
	Magnitude: 7 (Uppsala), 6% (Kiruna, Pasadena).					
	SHILLONG	Z,N,E	iP	15 11 32	4920	Compression
		N,E	PP	13 32		
			PPP	13 59		
			iS	18 07		
			PS	18 25		
			SS	20 58		
			Lq	21 51		
			SSS	22 06		
			Lr	23 51		
			M	27 27		
						Per.: 22.5 secs $\mu = 44$
	BOKARO	N,E	iP	15 12 14	5660	Ground movement West
			PP	14 10		
			PPP	15 21		
			iS	19 31		
			PS	19 35		
			PPS	19 44		
			SS	23 23		
			Lq	24 34		
			SSS	25 04		
			Lr	27 19		
			M	29 36		

DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km	
December 1955						
07	DEHRA DUN	N,E	eP	15 12 55	6210	
	Contd.	N	PP	14 56		
			PPP	16 06		
			iS	20 42		
			PS	20 53		
			PPS	21 01		
			SS	24 48		
			SSS	26 23		
			Lq	26 27		
			Lr	29 12		
			M	33 28		
	NEW DELHI	N	eP	15 13 01	6310	
			iS	20 54		
			iScS	22 44		
			SS	24 22		
			L	30 05		
			M	35 02		
	HYDERABAD	E	iP	15 13 19	6790	Ground movement West
			PP	15 34		
			PPP	17 17		
			S	21 36		
			SS	25 51		
			L	33 09		
			M	38 18		
						Per.: 20 secs $\mu = 11$
	COCHIN	E	iP	15 13 50	6830	
			PcP	13 54		
			PP	17 08		
			PcS	17 55		
			iS	21 41		
			PS	21 58		
			PPS	22 08		
			ScS	22 55		
			Lq	28 50		
			Lr	31 37		
			M	36 51		
	KOLONBO	E	P	15 13 37	7190	
			S	22 17		
			L	35 --		
			M	43 39		
						Amp.: 1.1 mm
	POONA	Z	iP	15 13 43	7020	Ground movement West & South. Compression
		E	PcP	14 04		
			PP	16 07		
			PPP	17 41		
		N,E	iS	22 14		
		E	PPS	22 37		
		N	ScS	23 31		
			SSS	29 02		
			Lq	29 52		
			Lr	33 11		
			M	38 41		
	KODAIKANAL	E	eP	15 13 48	7190	Ground movement West
			PP	16 07		
			PPP	17 45		
			S	22 28		
			SS	26 41		
			SSS	29 31		
			Lq	30 39		
			Lr	33 30		
			M	38 57		
						Per.: 22 secs $\mu = 13.2$
	BOMBAY	E	iP	15 13 49	7150	
			PcP	14 23		
		N	e	14 55		
			PP	16 08		
			PPP	17 51		
		N,E	iS	22 27		
		E	PPS	23 05		
		N,E	i	26 03		
		E	SS	26 32		
		N	M	42 38		
						Per.: 19 secs $\mu = 11$
		E	M	43 32		Per.: 21 secs $\mu = 8$
07	SHILLONG	Z	eP	16 41 23		Slight Compression
			i	42 17		
07	SHILLONG	Z	e	19 15 19		Slight Compression

DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T. h. m. s.	$\Delta$ km	REMARKS	
December 1955							December 1955							
07	SHILLONG	Z	iP i	20 59 11 21 00 00		Slight Rarefaction	09	SHILLONG	Z	iP Pg PP Sg/S* SS SSS	23 06 35 06 36 06 40 06 56 07 05 07 15	180	Slight Compression	
07	SHILLONG	Z	iP ePg iSg	21 45 29 45 30 45 44	110	Slight Rarefaction	10	DEHRA DUN	N, E	e	01 14 51		Tremor	
07	SHILLONG	Z	e	22 25 38		Slight Rarefaction	10	POONA	Z	e	04 01 10		Tremor	
07	SHILLONG	Z	i	23 00 06		Slight Rarefaction	10	SHILLONG	Z	e	12 35 28		Slight Rarefaction	
08	DEHRA DUN	N, E	e	00 27 29		Tremor	10	SHILLONG	Z	i i i	13 56 01 56 19 56 25		Slight Compression	
08	SHILLONG	Z	iP	02 14 32		Slight Compression	10	SHILLONG	Z	e	19 01 57		Slight Rarefaction	
08	SHILLONG	Z	i	02 43 14		Slight Compression	10	SHILLONG	Z	iP P* Pg PPP S* Sg	20 59 50 59 51 59 56 59 56 59 56 59 56 06 05	220	Slight Rarefaction	
08	SHILLONG	Z	iP P Pg PPP S* Sg	09 05 45 05 46 05 48 05 58 06 06 06 05	180	Slight Rarefaction	10	SHILLONG	Z	e	19 01 57		Slight Rarefaction	
08	SHILLONG	Z	iP	14 27 15		Slight Compression	10	SHILLONG	Z	iP P* Pg PPP S* Sg	20 59 50 59 51 59 56 59 56 59 56 06 05	220	Slight Rarefaction	
08	SHILLONG	Z	eP	16 14 49		Slight Compression	10	SHILLONG	Z	e	21 07 46		Slight Compression	
08	Epc: 4°S, 152°E, New Britain Region - H = 17h 35m 00s (U.S.C.G.S.) - H = 500 KmCe Magnitude = 6¼ Ca (Wellington).							11	SHILLONG	Z	i	03 45 13		Slight Compression
	SHILLONG	Z, N, E	iP i PP PPP iS PS PPS ScS	17 45 17 46 27 48 21 49 22 54 05 54 18 54 28 55 04	5590	Compression	11	Epc: 37¼°N, 71¼°E, Gladokush - H = 05h 42m 38s (U.S.C.G.S. & C.I.S.) 37°N, 71.7°E - H = 05h 42m 32s (Shillong)						
	DEHRA DUN	N, E N	eP PP Lq iS SS SSS Sg/M	17 47 16 50 00 56 29 57 20	7830	Other phases not clear		DEHRA DUN	N, E N	eP PP Lq iS SS SSS Sg/M	05 44 41 44 48 45 54 46 09 46 18 46 26 46 53	650	Slight	
	POONA	Z N	iP e e	17 47 23 49 00 56 53		Phases not clear		NEW DELHI	N	eP iS	05 44 53 46 37	1010	Slight	
	BOMBAY	E	i i	17 47 30 57 01				BOMBAY	N, E E	eP eS e e	05 46 45 50 09 50 45 51 03	2050	Slight	
08	SHILLONG	Z	eP Pg Sg	18 45 11 45 12 45 23	100	Rarefaction		POONA	Z N	eP eS Lq SSS Lr M	05 46 48 50 13 50 19 50 50 51 09 52 40	2070	Slight	
08	SHILLONG	Z	i	19 52 34		Slight Compression		SHILLONG	Z, E E	iP PP PPP iS i Lq SS SSS Lr	05 47 14 47 32 47 50 50 59 51 05 51 21 51 26 51 36 52 00	2280	Slight Compression	
08	SHILLONG	Z	iP	22 02 42		Slight Rarefaction	11	SHILLONG	Z	e ii	09 04 58 05 07		Slight Rarefaction	
08	SHILLONG	Z	eP	22 53 17		Slight Compression	11	SHILLONG	Z	iP	12 38 34		Slight Rarefaction	
09	SHILLONG	Z	i	04 10 34		Slight Rarefaction	11	DEHRA DUN	N, E	e	13 27 50		Tremor	
09	SHILLONG	Z, N, E	iP PP PPP Lq iS Lr SS/M	08 32 55 33 02 33 11 33 19 33 29 33 33 33 43	310	Slight, local Rarefaction	11	SHILLONG	Z	e	13 28 22		Slight Compression	
09	DEHRA DUN	N, E	e	08 38 34		Tremor	11	DEHRA DUN	N, E	e	15 08 31		Feeble Phases not clear	
09	SHILLONG	Z	e	11 02 23		Slight Compression	11	SHILLONG	Z	e	15 10 32		Slight Rarefaction	
09	SHILLONG	Z	e	11 06 56		Slight Rarefaction								
09	SHILLONG	Z	iP	17 39 00		Slight Compression								



DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS
				h. m. s.	km						h. m. s.	km	
December 1955							December 1955						
15 BOKARO	N,E	iS		19 22 39		Slight	18 Epc: 1 1/2°N, 67 1/2°E. Indian Ocean.						
Contd.		e		23 09		Slight	- H = 08h 53m 11s (B.C.I.S)						
		e		25 35									
DEHRA DUN	N,E	e		19 24 14		Feeble Phases not clear	KODAIKANAL	E	iP	08 56 30	2350	Slight	Ground movement West
15 SHILLONG	Z	iP		21 44 04		Slight			PP	56 58			
16 DEHRA DUN	N,E	e		05 57 32		Tremor			PPP	57 08			
16 SHILLONG	Z	eP		13 29 12		Slight			iS	09 00 22			
16 SHILLONG	Z	e		15 39 07		Slight			SS	00 56			
16 SHILLONG	Z	e		15 46 54		Slight	MADRAS	E	SSS	01 12			
16 SHILLONG	Z	e		16 31 24		Slight			Lq	01 39			
16 SHILLONG	Z	e		22 24 31		Slight			Lr	01 52			
17 SHILLONG	Z	eP		02 53 23		Slight			M	03 32			
17 SHILLONG	Z	eP		04 34 35		Slight			iP	08 57 20	2270	Moderate	
17 Epc: 33 1/2°N, 49°E. Western Iran									PP	57 43			
- H = 08h 06m 42s (U.S.C.G.S)									PPP	57 51			
33.7°N, 48.8°E. H = 08h 06m 44s (B.C.I.S)									iS	09 01 04			
Magnitude = 5 (Kiruna)									PcP	01 12			
POONA	Z	iP		08 11 27		Feeble Phases not clear			Lq	01 24			
DEHRA DUN	N,E	e		08 12 16		Phases not clear			SS	01 33			
BOMBAY	N,E	eP		08 12 20	2935	"M" not developed			Lr	02 22			
		e		12 39			POONA	Z	M	04 05			
		e		12 50					eP	08 57 35	2230	Slight	
	N,E	PP		13 05					PP	57 57			
	N,E	e		14 03					iS	09 01 16			
	N,E	eS		16 52					Lq	01 31			
	E	i		17 17					SS	01 54			
	N	Lq		17 50					Lr	02 22			
		SS		18 13					M	04 05			
SHILLONG	Z	eP		08 14 03	4190				ScP	04 49			
		eS		19 54					ScS	08 24			
17 Epc: 37°N, 70°E. Hindukush. - h = 200 Km;													
- H = 08h 16m 37s (U.S.C.G.S)													
DEHRA DUN	N,E	eP		08 18 46	910	Slight	BOMBAY	N	eP	08 57 36	2370	Moderate	
	N	PP		18 51					eP	57 44			"M" not well developed
		PPP		18 58					PPP	58 20			
		Lq		20 07					PPP	58 20			
		iS		20 20					i	09 01 18			
		SS		20 31					eS	01 29			
		Lr		20 35					iS	01 38			
		SSS		20 43					N	Lq	01 40		
		Sg/M		21 14					E	Lq	01 53		
BOMBAY	E	eP		08 20 22	1850	Slight			N	SSS	02 26		
	N	e		20 35		Superposed on the earlier shock.	SHILLONG	Z	eP	09 00 01			Slight
	E	e		20 52			18 SHILLONG	Z	eP	15 41 29			Slight
		eS		23 27			18 DEHRA DUN	N,E	e	19 00 27			Feeble Phases not clear
		e		23 43					i	00 34			
POONA	Z	iP		08 20 42		Phases not clear Superposed on record of earlier shock	18 BOKARO	N,E	eP	21 00 36	680		Slight
		e		23 51					Lq	01 40			
		e		09 00 40					iS	01 47			
SHILLONG	Z	iP		08 21 13		Slight			Lr	02 02			
MADRAS	E	eP		08 26 30		Tremor			SSS	02 17			
HYDERABAD	E	M		08 28 25		Per. = 7 secs U = 2			M	02 36			
17 SHILLONG	Z	eP		15 58 31		Slight	SHILLONG	Z	eP	21 05 19			Slight
17 DEHRA DUN	N,E	e		17 25 19		Tremor	18 BOKARO	N,E	eP	21 39 42	810		Slight
17 SHILLONG	Z	eP		23 46 07		Slight			iS	41 06			
18 SHILLONG	Z	eP		00 02 28		Slight	18 Epc: 30°N, 90°E. Eastern Tibet						
18 SHILLONG	Z	eP		02 29 49	4450	Slight	- H = 21h 57m 30s (U.S.C.G.S)						
	E	eS		35 55									
18 BOMBAY	N,E	e		02 44 03			SHILLONG	Z	eP	21 58 43			Slight
	E	e		45 26			DEHRA DUN	N,E	eP	22 00 09	1960		Slight
	N,E	e		59 04					iS	03 25			
18 SHILLONG	Z	eP		07 22 37		Slight			SSS	03 58			
									Lr	04 20			
									M	05 43			
							BOMBAY	E	eP	22 01 32	2410		Slight
									eS	05 28			
									e	05 40			
									e	05 43			
									e	08 23			
									e	09 33			
									M	11 --			
							POONA	Z	e	22 05 13			Very feeble. Phases not clear
							MADRAS	E	e	22 05 35			Tremor
							SHILLONG	Z	eP	22 05 55			Slight
							18 Epc: 30°N, 90°E. Eastern Tibet.						
							- H = 22h 37m 45s (U.S.C.G.S)						
							31.6°N, 88.5°E. H = 22h 37m 13s (Shillong)						
							SHILLONG	Z	P	22 38 59	770		Slight
									S	40 19			



DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	$\Delta$	REMARKS
				h. m. s.	km						h. m. s.	km	
December 1955													
18	DEHRA DUN	N,E	eP	22 40 23	1990	Slight.	20	BOMBAY	N	e	20 06 04		Feeble
Contd.		N	iS	43 41		Phases not clear				e	09 10		
			SS	44 08			20	DEHRA DUN	N,E	e	22 35 16		Feeble. Phases not clear
			Lr	44 30						i	35 49		
			M	46 00			21	CHATRA	Z	eP	01 12 53	130	Feeble
	POONA	Z	eP	22 42 12	2130	Slight				iS	13 10		
		E	eS	45 43			21	CHATRA	Z	iP	11 42 14	500	Feeble
			SSS	46 20						iS	43 08		
			Lr	46 47			21	CHATRA	Z	ePg	12 52 01	70	Feeble
			M	48 20						iSg	52 11		
			PcS	49 40			22	CHATRA	Z	iP	03 43 30	780	Slight
	MADRAS	E	e	22 42 20		Tremor				iS	44 51		
	BOMBAY	N,E	eP	22 42 24	2170	Slight		SHILLONG	Z	eP	03 43 51		Slight
		N	eS	45 58					E	iP	43 54		Compression
		E	iS										
	KODAIKANAL	E	e	23 47 02		Tremor		POONA	Z	e	03 49 13		Very feeble Phases not clear
19 Epc: 8 1/2° N, 127° E. Near East Coast of Midnao Island Philippines. - H = 03h 13m 46s (U.S.C.G.S)													
8.5° N, 127° E. H = 03h 13m 48s (B.C.I.S)													
Magnitude = 6 1/2 (Kiruna), 6 (Uppsala), 5.9 (Rome).													
	SHILLONG	Z	eP	03 21 01	4220			BOMBAY	E	eP	03 50 00	1950	Slight
		E	eS	26 54					N	eP	50 04		
	BOKARO	E	eP	03 21 34	4740				E	PP	50 26		
			eS	27 58						e	51 44		
	MADRAS	E	iP	03 22 18	5150				N	e	52 19		
			PcP	23 36					E	eS	53 14		
			PP	24 04					N	eS	53 19		
			PPP	24 58					E	Lq	53 22		
			ScP	27 28					N,E	SSS	53 50		
			iS	29 06					N	Lr	54 08		
			SS	32 16					E	Lr	54 15		Per. = 9 secs
			Lq	33 36					N	M	55 40		$\mu = 1$
			SSS	33 47				22	SHILLONG	Z	iP	05 12 25	Slight, near.
			Lr	36.02						i	12 44		Compression
	KODAIKANAL	E	e	03 22 29		Tremor		22	SHILLONG	Z	e	07 38 09	Tremor
	POONA	Z	eP	03 23 01	5950			22	SHILLONG	Z	i	15 17 11	Slight, local
		E	PcP	24 00				22	SHILLONG	Z	i	17 16 17	Slight, Rarefaction
			PP	25 10				22	SHILLONG	Z	iP	17 59 49	Slight, Compression
		N	PcS	28 18				22	SHILLONG	Z	i	18 45 06	Slight, near
			eS	30 33						i	45 51		Compression
			ScS	32 52				22	SHILLONG	Z	iP	20 59 11	Slight, Rarefaction
			Lr	38 17									
			M	42 31				23	DEHRA DUN	N,E	e	00 57 07	Tremor
	BOMBAY	E	iP	03 23 12	6250	Moderate		23	SHILLONG	Z	e	02 17 52	Slight, near.
		N	eP	23 14						i	17 54		probably near.
		E	PcP	23 40				23	SHILLONG	Z,E	iP	02 54 15	160 Moderate.
		N	PcP	23 43						E	Pg	34 17	Compression
		E	PP	25 18							PP	34 22	
		N	PPP	26 84							i	34 32	
			e	30 10							S/Sg/S*	34 37	
		E	iS	31 02				23	CHATRA	Z	iP	04 07 45	270 Feeble
		N	eS	31 06						iS	08 16		
		E	PPS	31 32				23	SHILLONG	Z	eP	06 38 20	Feeble
		N	PPS	31 34									
			SS	34 55				23	SHILLONG	E	iP	06 39 00	6000 Moderate
			SSS	37 22							i	39 23	Compression
			M	49 40		Per. = 7 secs					i	40 06	Ground movement
						$\mu = 1$					PP	41 02	West
	SHILLONG	Z	e	03 54 40		Slight					PPP	42 11	
	SHILLONG	Z	eP	07 31 21		Slight					iS	46 35	
	SHILLONG	Z	eP	11 11 00		Slight					PPS	46 58	
	DEHRA DUN	N,E	e	11 28 50		Feeble. Phases not clear					ScS	48 48	
			i	29 40							M	59 50	
													Per. = 19 secs
													$\mu = 6$
	SHILLONG	Z	eP	14 50 28		Slight		23	SHILLONG	Z	iP	09 47 35	Slight, near
	SHILLONG	Z	e	16 43 37		Slight							Rarefaction
	SHILLONG	Z	e	19 43 09		Slight							Ground movement
	SHILLONG	Z	e	19 43 09		Slight							West
	SHILLONG	N,E	e	22 56 55		Tremor		23	SHILLONG	E	i	10 52 31	Slight
	SHILLONG	Z	ePg	01 26 09	90	Slight					i	53 01	Probably near
			PP	26 11							i	53 36	
			Sg	26 19				24	SHILLONG	Z,E	iP	04 57 15	2920 Slight
	DEHRA DUN	N,E	e	01 39 31		Tremor				E	PP	57 57	Rarefaction.
											PPP	58 04	Ground movement
											PcP	59 29	West



DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	DATE	STATION	COMPT	PHASE	G. M. T.	Δ	REMARKS	
				h. m. s.	km						h. m. s.	km		
December 1955														
29	DEHRA DUN	N, E	eP	08 28 10	1120		29	SHILLONG	Z	eP	16 25 57		Slight	
Contd.		N	PP	28 16			29	SHILLONG	Z	eP	17 02 31			
			PPP	28 29			29	SHILLONG	Z	eP	17 12 24		Slight	
			Lq	29 49			29	SHILLONG	Z	iP	18 29 19		Slight	
			iS	30 05						i	29 22		Compression	
			SS	30 17					E	e	30 22			
			Lr	30 31			29	SHILLONG	Z	eP	21 53 17		Slight, near	
			SSS	30 40					Z, E	i	53 20			
	NEW DELHI	N	M	31 15						i	54 31			
			eP	08 28 18	1200		29	SHILLONG	Z	e	23 39 55		Slight	
			iS	30 21			30	SHILLONG	Z	iP	07 05 43		Slight. Rarefaction	
			SSS	30 50				DEHRA DUN	N, E	e	07 07 27		Feeble. Phases not clear	
			M	32 01										
	HYDERABAD	E	eP	08 29 26	1720		30	SHILLONG	Z	iP	07 11 16		Slight. Compression	
			iS	32 19		Per. ± 8 secs Δ = 6		30	DEHRA DUN	N, E	e	08 01 27		Tremor
			M	34 54			30	SHILLONG	Z	eP	12 13 03		Slight	
	POONA	Z	eP	08 29 55	1990	Compression Ground movement West	30	SHILLONG	Z	iP	13 30 55	130	Feeble	
		E	PP	30 07			30	SHILLONG	Z	e	13 37 26		Slight, near.	
			PPP	30 15			30	SHILLONG	Z	e	16 09 36		Slight	
		N, E	iS	33 13			30	SHILLONG	Z	e	16 34 58		Slight	
		N	SS	33 35			30	SHILLONG	Z	e	16 44 02		Slight	
			Lr	34 08			30	SHILLONG	Z	e	18 56 23		Slight	
		E	M	35 25			30	SHILLONG	Z	e	20 02 59		Slight	
			PcS	37 46			30	SHILLONG	Z	iPg	21 06 44	120	Slight	
	BOMBAY	N, E	eP	08 30 02	2050					iSg	06 58		Rarefaction	
		N	PP	30 17			30	SHILLONG	Z	e	21 13 34		Slight	
		E	PP	30 22			31	SHILLONG	Z	e	06 06 16		Slight	
		N	e	31 15			31	DEHRA DUN	N, E	e	06 38 46		Tremor	
		N, E	eS	33 25		Per. ± 12 secs Δ = 16	31	SHILLONG	Z	e	10 00 29		Slight	
			SS	33 46		Per. ± 12 secs Δ = 15	31	CHATRA	Z	eP	12 48 35	470	Feeble	
			Lr	34 18						iS	49 25			
		N	M	37 52			31	DEHRA DUN	N, E	e	20 37 26		Feeble. Phases not clear	
		E	M	37 53			31	DEHRA DUN	N, E	e	21 23 09		Tremor	
	MADRAS	E	eP	08 30 03	2090									
			PP	30 17										
			PPP	30 30										
			iS	33 30										
			Lq	33 47										
			SS	33 57										
			SSS	34 19										
			Lr	34 41										
			M	36 13										
			ScP	37 34										
	KODAIKANAL	E	eP	08 30 37	2590									
			iS	34 46										
			SS	35 54										
			SSS	36 31										
			Lq	36 32										
			Lr	37 08										
			M	39 09		Per. ± 11 secs Δ = 6.2								
	COLOMBO	E	P	08 35 31	2890	'S' uncertain								
			S	40 --										
			L	43 51										
			M	48 23		Amp. ± 0.4 mm								
29	SHILLONG	Z, E	eP	10 24 46		Slight								
29	SHILLONG	Z	eP	10 47 47		Slight								
29	SHILLONG	Z, E	e	10 49 51		Slight, near								
			i	51 07										
29	SHILLONG	Z	eP	11 00 34	500	Slight								
		Z, E	iSg	01 52										
29	SHILLONG	ZZ	iP	11 31 56		Slight. Compression								
29	CHATRA	Z	eP	11 49 27	590	Feeble								
			iS	50 29										
	SHILLONG	Z	iP	11 49 29	490	Slight								
		E	iS	50 22		Rarefaction								
		Z, N, E	iSg	50 43										
	DEHRA DUN	N, E	e	11 50 56		Feeble. Phases not clear								
			e	52 52										
29	BOMBAY	N, E	e	11 59 11										
29	SHILLONG	Z	eP	13 48 30		Slight								
29	SHILLONG	Z	eP	14 39 33		Slight								
29	SHILLONG	Z	iP	16 16 43		Slight. Compression								

*Earthquake Reports*  
(Non Instrumental Reports)

The following table contains a list of earthquakes that were reported by Voluntary Observers from various stations during the month of December 1955.

PLACE AT WHICH FELT	DATE IN G.M.T.	TIME IN G.M.T. h. m.	DURATION IN SECS.	INTENSITY IN R.F. SCALE	NO. OF SHOCKS	REMARKS
SHILLONG	04	02 34	2	IV	1	-
SHILLONG	07	06 29	6	IV	2	-
SHILLONG	14	10 52	2	V to VI	1	-
SHILLONG	22	16 07	1	V	1	-
SHILLONG	28	15 38	40	IV	2	-



